

’734 Patent – Claim 7	Douglis
<p>application data requests after the applications are allowed transmission of additional outgoing application data requests.</p>	<p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
’734 Patent – Claim 8	Douglis
<p>[8] The mobile device of claim 1, wherein the outgoing data requests and the additional data requests are for a same application.</p>	<p>Douglis discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
’734 Patent – Claim 9	Douglis
<p>[9pre] A method comprising:</p>	<p>To the extent the preamble is limiting, Douglis discloses this claim limitation. For example, see the following passages and/or figures, as well as all related</p>

'734 Patent – Claim 9	Douglis
	disclosures: <i>See [1pre], above.</i>
[9a] receiving instructions, at a mobile device, from a user to enter a power save mode;	Douglis discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1d], above.</i>
[9b] while in the power save mode, blocking transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application;	Douglis discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1e], above.</i>
[9c] while in the power save mode, allowing transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity and user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests,	Douglis discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1f], above.</i>
[9d] wherein the remote entity is an intermediary server that provides connectivity between an application server and the mobile device,	Douglis discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1g], above.</i>
[9e] exiting the power save mode based on received instructions from the user to exit the power save mode,	Douglis discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:

'734 Patent – Claim 9	Douglis
	<i>See [1h], above.</i>
[9f] wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.	Douglis discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1i], above.</i>
'734 Patent – Claim 10	Douglis
[10] The method of claim 9, wherein the mobile device is configured to maintain a connection to receive data from the remote entity while in the power save mode.	Douglis discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [2], above.</i>
'734 Patent – Claim 11	Douglis
[11] The method of claim 9, wherein the data transfer is a notification of new data at the application server.	Douglis discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [3], above.</i>
'734 Patent – Claim 12	Douglis
[12] The method of claim 9, wherein entrance into the power save mode is further based on	Douglis discloses this claim limitation. For example, see the following

'734 Patent – Claim 12	Douglis
battery level.	passages and/or figures, as well as all related disclosures: <i>See [4], above.</i>

'734 Patent – Claim 13	Douglis
[13] The mobile device of claim 1, wherein the intermediary server provides connectivity between another application server and the mobile device.	Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.

'734 Patent – Claim 14	Douglis
[14] The method of claim 9, wherein the intermediary server provides connectivity between another application server and the mobile device.	<i>See [13], above.</i>

EXHIBIT 734-A07

Invalidity Contentions for U.S. Patent No. 10,091,734 (“the ’734 patent”)

Based on: U.S. Published Patent Application No. 2010/0088387 to Pablo Calamera (“Calamera”)

Based on SEVEN’s apparent positions as to the scope of the patent’s claims, as best they can be deciphered, the reference(s) charted below anticipate(s) or at least render(s) obvious the identified claims. The portions of the prior art reference cited below are not exhaustive but are exemplary in nature. Where Apple identifies a portion of the prior art reference’s text, the identification should be understood as referencing any corresponding figure or diagram, and vice versa.

This disclosure is not an admission that Apple concedes any claim construction implied or suggested by SEVEN’s apparent positions as to the scope of the patent’s claims, nor is it an admission by Apple that any of its products are covered by or infringe the patent’s claims, particularly when they are properly construed and applied. Apple is not taking any claim construction positions through this disclosure, including whether the preamble is a limitation.

Apple reserves the right to rely on additional citations or sources of evidence that also may be applicable, or that may become applicable in light of claim construction, changes in SEVEN’s infringement contentions, and/or information obtained during discovery as the case progresses. Apple further reserves the right to amend or supplement this claim chart at a later date as more fully set forth in the Invalidity Contentions.

Calamera qualifies as prior art under at least pre-AIA 35 U.S.C. §§ 102(a), (e). Calamera is a U.S. Published Patent Application that was filed on October 3, 2008 and published on April 8, 2010.

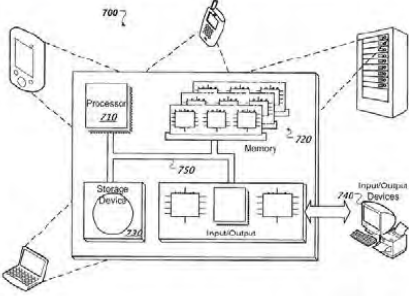
’734 Patent – Claim 1	Calamera
[1pre] A mobile device which improves network resource utilization in a wireless network, the mobile device, comprising:	To the extent the preamble is limiting, Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: “Among other things, techniques and systems are disclosed for exchanging notifications and data between a client device and a server. A system includes a server configured to maintain a first persistent connection to a mobile electronic device. The first persistent connection is configured to push at least service specific data to the mobile electronic device. The server is further

’734 Patent – Claim 1	Calamera
	<p>configured to maintain a second persistent connection to a third party server. The second persistent connection is configured to monitor for availability, at the third party server, of new data associated with the mobile electronic device. The server is also configured to notify the mobile electronic device via the first persistent connection when new data becomes available at the third party server.” Calamera at Abstract.</p> <p>“This application relates to an email notification proxy that can be used, e.g., to deliver email messages from email servers to mobile electronic devices.</p> <p>Electronic mail, or email, is relied upon heavily for communications among people, both for business and personal purposes. Readily available access to new email messages has temporal and spatial aspects. From a temporal standpoint, readily available access refers to immediate, or nearly so, retrieval of new email messages by a recipient that retrieves correspondence using a computerized electronic device connected to the internet via the network infrastructure of an office or a home. From a location standpoint, readily available access refers to retrieval of new email messages when the recipient is remote from home or office and the recipient retrieves new email messages via a mobile electronic device. Furthermore, in order for access to be readily available according to the combination of temporal and spatial aspects, the recipient can immediately retrieve new email messages to remotely located mobile electronic devices.” <i>Id.</i> at [0002].</p> <p>“Maintaining an active IMAP IDLE connection 220 with one or more IMAP servers 120 can be burdensome on the operational resources available to the mobile electronic device 110. Specifically, the power consumption to actively maintain such connections 220 can be significant, and can lead to rapid battery drain. At the same time, the bandwidth necessary to actively maintain the connections 220 can hinder bandwidth utilization for other active connections of the mobile electronic device 110, for example the communication channel 210 to the internet-based service 300. The techniques and systems disclosed in</p>

’734 Patent – Claim 1	Calamera
	<p>this document offload the task of maintaining active connections 220 from the mobile electronic device 110 to the main server 300.” <i>Id.</i> at [0026].</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
[1a] a memory;	<p>Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“The subject matter described in this specification can be implemented as a method or as a system or using computer program products, tangibly embodied in information carriers, such as a CD-ROM, a DVD-ROM, a HD-DVD-ROM, a Blue-Ray drive, a semiconductor memory, and a hard disk. Such computer program products may cause a data processing apparatus to conduct one or more operations described in this specification.</p> <p>In addition, the subject matter described in this specification can also be implemented as a system including a processor and a memory coupled to the processor. The memory may encode one or more programs that cause the processor to perform one or more of the method acts described in this specification. Further the subject matter described in this specification can be implemented using various data processing machines.” Calamera at [0009]-[0010].</p> <p>“The mobile electronic device 10 can be a smart phone, such as the Iphone, or any other mobile phone, a digital music player, for example Ipod, a personal digital assistant (PDA), a laptop or any other computerized electronic device</p>

’734 Patent – Claim 1	Calamera
	<p>that can be connected to a mobile network. The mobile electronic device can connect to the internet-based service provider 300 via a communication channel 210, and one or more internet-based email providers 120 via communication channels 220. The communication channels 210 and 220 can transmit voice or data, as described above.” <i>Id.</i> at [0022].</p> <p>“Maintaining an active IMAP IDLE connection 220 with one or more IMAP servers 120 can be burdensome on the operational resources available to the mobile electronic device 110. Specifically, the power consumption to actively maintain such connections 220 can be significant, and can lead to rapid battery drain. At the same time, the bandwidth necessary to actively maintain the connections 220 can hinder bandwidth utilization for other active connections of the mobile electronic device 110, for example the communication channel 210 to the internet-based service 300. The techniques and systems disclosed in this document offload the task of maintaining active connections 220 from the mobile electronic device 110 to the main server 300.” <i>Id.</i> at [0026].</p> <p>“FIG. 7 is a schematic diagram of a computer system 700 representing the main server 300. Also the computer system 700 can represent the email server 120. Further, the computer system 700 can represent the portable electronic device 110. The system 700 can be used for the operations described in association with any of the computer-implement methods described previously, according to one implementation. The system 700 is intended to include various forms of digital computers, such as laptops, desktops, workstations, servers, blade servers, mainframes, and other appropriate computers. The system 700 can also include mobile devices, such as personal digital assistants, cellular telephones, smartphones, and other similar computing devices. Additionally the system can include portable storage media, such as, Universal Serial Bus (USB) flash drives. For example, the USB flash drives may store operating systems and other applications. The USB flash drives can include input/output components, such as a wireless transmitter or USB connector that may be inserted into a</p>

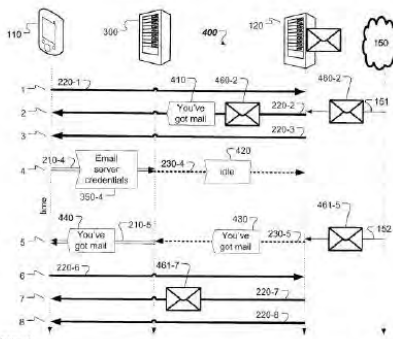
'734 Patent – Claim 1	Calamera
	<p>USB port of another computing device.</p> <p>The system 700 includes a processor 710, a memory 720, a storage device 730, and an input/output device 740. Each of the components 710, 720, 730, and 740 are interconnected using a system bus 750. The processor 710 is capable of processing instructions for execution within the system 700. In one implementation, the processor 710 is a single-threaded processor. In another implementation, the processor 710 is a multi-threaded processor. The processor 710 is capable of processing instructions stored in the memory 720 or on the storage device 730 to display graphical information for a user interface on the input/output device 740.</p> <p>The memory 720 stores information within the system 700. In one implementation, the memory 720 is a computer-readable medium. In one implementation, the memory 720 is a volatile memory unit. In another implementation, the memory 720 is a non-volatile memory unit.” <i>Id.</i> at [0057]-[0059].</p> <p>“Processors suitable for the execution of a computer program include, by way of example, both general and special purpose microprocessors, and any one or more processors of any kind of digital computer. Generally, a processor will receive instructions and data from a read only memory or a random access memory or both. The essential elements of a computer are a processor for performing instructions and one or more memory devices for storing instructions and data. Generally, a computer will also include, or be operatively coupled to receive data from or transfer data to, or both, one or more mass storage devices for storing data, e.g., magnetic, magneto optical disks, or optical disks. However, a computer need not have such devices. Moreover, a computer can be embedded in another device.” <i>Id.</i> at [0066].</p>

'734 Patent – Claim 1	Calamera
	 <p>FIG. 7</p> <p>See [1pre], above.</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
[1b] a radio; and	<p>Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“A communication system 100 as depicted in FIG. 1 refers to a mobile electronic device in communication with an internet-based service provider and an internet-based email provider. A mobile electronic device 10 may be connected to the internet 150 via a mobile communication network. Throughout this document, the mobile communication network is assumed to</p>

’734 Patent – Claim 1	Calamera
	<p>be wireless. Furthermore, the mobile communication network can allow for voice and data communications. Voice communications, for example using the GSM protocol, can include SMS messaging. The data communication bandwidth can be, for example, 2.5 G or 3 G, WiMax and Wi-Fi. Thus, a multitude of information can be exchanged over the data channel, such as text, pictures, music, video, live TV, and multimedia.” Calamera at [0021].</p> <p>“Aspects of the subject matter described in this specification can be implemented in a computing system that includes a back end component, e.g., as a data server, or that includes a middleware component, e.g., an application server, or that includes a front end component, e.g., a client computer having a graphical user interface or a Web browser through which a user can interact with an implementation of the subject matter described in this specification, or any combination of one or more such back end, middleware, or front end components. The components of the system can be interconnected by any form or medium of digital data communication, e.g., a communication network. Examples of communication networks include a local area network (“LAN”) and a wide area network (“WAN”), e.g., the Internet.” Calamera at [0069].</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
[1c] a processor coupled to the memory and configured to:	<p>Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Computer readable media suitable for storing computer program instructions and data include all forms of non volatile memory, media and memory devices,</p>

'734 Patent – Claim 1	Calamera
	<p>including by way of example semiconductor memory devices, e.g., EPROM, EEPROM, and flash memory devices; magnetic disks, e.g., internal hard disks or removable disks; magneto optical disks; and CD ROM and DVD-ROM disks. The processor and the memory can be supplemented by, or incorporated in, special purpose logic circuitry.” Calamera at [0067].</p> <p><i>See [1pre]-[1a], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1d] receive instructions from a user to enter a power save mode;</p>	<p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
<p>[1e] while in the power save mode, block transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application;</p>	<p>Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Returning to FIG. 1, the internet-based email provider includes an email server 120. Throughout this document, the email server 120 is also referred to as the third party server, or simply the email provider. The email provider can be, for example, GMAIL, Yahoo! Mail, AOL, Cyrus MAIL, or many other</p>

’734 Patent – Claim 1	Calamera
	<p>commercial or open source internet-based email providers. The third party server 120 can also be part of a corporate mail system. Subscribers have email accounts with the internet-based email provider. An email account is accessible from a browser-based interface on a computerized electronic device, such as a mobile electronic device 110. The mobile electronic device 110 associated with the email account connects to the email server 120 through the communication channel 220.</p> <p>In one implementation, the internet-based email provider is configured according to the Internet Message Access Protocol (IMAP4), based on standards developed by the Internet Engineering Task Force (IETF). In the IMAP implementation, the email server 120 is also referred to, interchangeably, as the IMAP server. If the email server 120 is configured according to IMAP4, the IDLE extension (or command) is applicable to the communication channel 220. IMAP4 IDLE allows the mobile electronic device 110 to maintain a connection with the IMAP server 120 without having to poll for availability of new email messages at the IMAP server 120. In fact, once a new email message arrives at the IMAP server 120, it is the IMAP server 120 which transmits a new-email notification 410 to the mobile electronic device 110 through the IMAP4 IDLE enabled connection 220. Then, the mobile electronic device 110 can issue a FETCH command to retrieve the newly available email message 460. In another implementation, the email server may be configured according to the post office protocol (POP3).” Calamera at [0024]-[0025].</p> <p>“The third party server 120 is part of an internet-based email provider and is configured with IMAP4, including the IDLE extension. As shown in FIG. 2(a), the main server 300 maintains an active connection 230 with the IMAP server 120. Based on previously transferred email account credentials associated with the mobile electronic device 110, the main server 300 monitors the IMAP4 IDLE enabled communication channel 230 for new-email notifications. Extrapolating the first persistent connection terminology introduced above to</p>

'734 Patent – Claim 1	Calamera
	<p>describe connection 210 between the main server 300 and the mobile electronic device 110, the communication channel 230 between the main server 300 and the third-party server 120 is referred to as the second persistent connection 230.” <i>Id.</i> at [0028].</p> <p>“The swim-lane diagram 400 in FIG. 4 illustrates the IMAP proxy technique as a time sequence from time 1 (at the top of diagram 400) to time 8 (at the bottom of diagram 400). The first or left-most (vertical) lane signifies the time sequence corresponding to the mobile electronic device 110. The second lane corresponds to the time sequence of the main server 300. The third lane depicts the time sequence of the IMAP server 120. Finally, the fourth (right-most) lane corresponds to the internet 150 (as a whole). The fourth lane represents an input for diagram 400, i.e., email messages arrive into diagram 400 from the internet 150.” <i>Id.</i> at [0038].</p>  <p>FIG. 4</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person</p>

’734 Patent – Claim 1	Calamera
	<p>of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1f] while in the power save mode, allow transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity, user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests,</p>	<p>Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“The internet-based service provider includes a main server 300. Throughout this document, the main server 300 is also referred to as the in-service server or the internet based service. The internet-based service, also known as cloud-service, can be, for example, Apple's Mobile Me. The internet-based service allows subscribers to associate one or more mobile electronic devices 110 with a service account. The internet-based service is configured, among other things, to synchronize the multiple mobile electronic devices 110 (associated with the service account) with respect to changes of calendar or contacts information related to the service account. Other aspects of the service account are described later, with respect to FIG. 3. The main server 300 pushes to the mobile electronic device 110, through the communication channel 210, notifications of calendar and contacts changes associated with the service account.” Calamera at [0023].</p> <p>“The communication system 200 as depicted in FIGS. 2(a-c) refers to a main server 300 in communication with a mobile electronic device 110 and a third party server 120. The main server 300 communicates with the mobile electronic device 110 via the communication channel 210 as described above. From the perspective of the internet-based service provider, the communication channel 210 is also referred to as the first persistent connection 210.” <i>Id.</i> at [0027].</p> <p>“Note that because the main server 300 acts as a proxy for the mobile electronic device 110, the direct connection 220 from the mobile electronic device 110 to the IMAP server 120 can be dropped. By not having to maintain</p>

'734 Patent – Claim 1

Calamera

direct connections to one or more email servers 120, the mobile electronic device 110 benefits from longer battery life and communication bandwidth efficiency.

FIG. 2(b) shows an instance when the main server 300 receives a new-email notification 430 from the IMAP server 120 through the IMAP4 IDLE enabled communication channel 230. Upon receipt of the new-email notification 430, the main server 300 multiplexes, alongside with other data types exchanged via the data pipe 210, a new-email notification 440 for transmission to the mobile electronic device 110. Once the mobile electronic device 110 receives the new-email notification 440 transmitted through the active connection 210 from the main server 300, the mobile electronic device 110 can connect directly to the mail server 120 to retrieve the newly received email. Note that the mobile electronic device 110 has received notification of newly received email without maintaining an active connection 220 directly with the IMAP server 120.” *Id.* at [0029]-[0030].

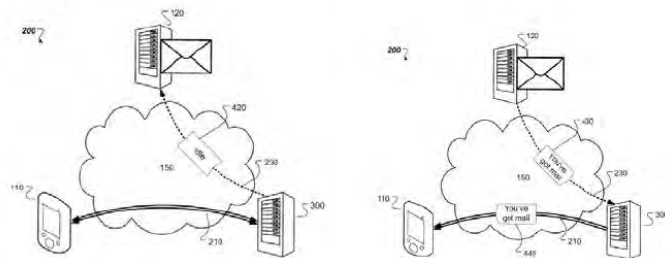


FIG. 2(a)

FIG. 2(b)

“The main server 300 includes, among other things, a data repository 340 to store service specific data 355. The service specific data 355 includes contacts 356, calendar 357 and other service data 358. The other service data 358 may include, in one implementation, a picture gallery, backup data, etc.” *Id.* at

[0033].

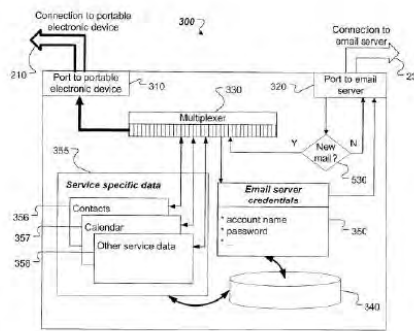


FIG. 3

“In another aspect, the technique 500 can be implemented at the main server to broadcast the new-email notification from the IMAP email server to one or more mobile electronic devices associated with the service account. For example, step 510 can be modified to indicate that the main server maintains one or more first persistent connections to respectively one or more mobile electronic devices. Then, step 540 can be modified to indicate that, upon receipt of a new email notification from the email server, the main server broadcasts a notification to one or more mobile electronic device via the respectively one or more active first persistent connections.” *Id.* at [0054].

“Additionally, the technique 500 can be implemented at the main server to monitor one or more IMAP email servers and to broadcast a new-email message notification to at least one mobile electronic device. For example, step 520 can be modified to indicate that the main server maintains one or more second persistent connections to respectively one or more IMAP email servers. Then, step 530 can be modified to indicate that the main server monitors the one or more second persistent connections for a new-email notification

’734 Patent – Claim 1	Calamera
	<p>associated with the at least one mobile electronic device from the respectively one or more email servers. Next, step 540 can be modified to indicate that, upon receipt of a new email notification from any of the one or more email servers, the main server broadcasts a notification to the at least one mobile electronic device via the respectively one or more active first persistent connections.” <i>Id.</i> at [0056].</p> <p><i>See</i> [1e], <i>above</i>.</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1g] wherein the remote entity is an intermediary server that provides connectivity between an application server for the application and the mobile device;</p>	<p>Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See</i> [1e]-[1f], <i>above</i>.</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1h] exit the power save mode based on received</p>	<p>Furthermore, this claim element is obvious in light of this reference itself, when</p>

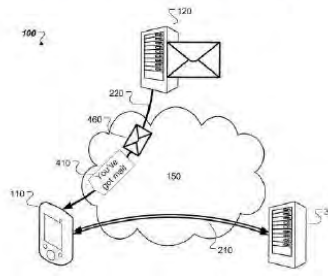
’734 Patent – Claim 1	Calamera
instructions from the user to exit the power save mode,	combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.
[1i] wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.	<p>Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 2	Calamera
[2] The mobile device of claim 1, wherein the processor is configured to maintain a connection to receive data from the remote entity while in the power save mode.	<p>Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1f], above</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in</p>

’734 Patent – Claim 2	Calamera
	Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B

’734 Patent – Claim 3	Calamera
[3] The mobile device of claim 1, wherein the data transfer is a notification of new data at the application server.	<p>Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>In one aspect, a system includes a main server configured to maintain a first persistent connection to a mobile electronic device. The first persistent connection is configured to push at least service specific data from the main server to the mobile electronic device. The main server is further configured to maintain a second persistent connection to a third party server. The second persistent connection is configured to monitor for availability, at the third party server, of new data associated with (e.g., for delivery to) the mobile electronic device. The main server also is configured to notify the mobile electronic device via the first persistent connection when new data becomes available at the third party server. In response, the mobile electronic device can then establish a temporary connection with the third party server to retrieve the associated data (e.g., an email message). The temporary connection is maintained only as long as needed to retrieve the data and then is terminated. In an implementation, the main server can be regarded as an “in-service” server and the third party server can be regarded as an “outside-service” server.</p> <p>In another aspect, a method implemented as an internet-based service, includes maintaining a first persistent connection from a main server to a mobile</p>

’734 Patent – Claim 3	Calamera
	<p>electronic device. The first persistent connection is configured to push at least service specific data to the mobile electronic device. The method further contains maintaining a second persistent connection from the main server to a third party server. The second persistent connection is configured to monitor for availability, at the third party server, of new data associated with the mobile electronic device. Another aspect of the method includes notifying the mobile electronic device via the first persistent connection when new data becomes available at the third party server.</p> <p>In yet another aspect, a system includes an internet-based server. The internet-based server is communicatively coupled with one or more portable electronic devices via a notification push channel, configured to push notifications related to a service account associated with the one or more portable electronic devices. The internet-based server is further communicatively coupled with an IMAP email provider via a communication channel based on IMAP idle, configured to monitor an email account associated with the one or more portable electronic devices, for new email notifications. The internet-based server is also configured to relay the new email notifications to the one or more portable electronic device via the notification push channel upon receipt of a new-email notification from the internet-based server. The new-email notification triggers any of the one or more portable electronic devices to connect to the IMAP email provider via the communication channel based on IMAP idle to retrieve new email messages.</p> <p>In another aspect, a method implemented at an internet-based server, includes monitoring, via a communication channel based on IMAP idle, new email notifications from an IMAP email provider. The email messages are associated with one or more portable electronic devices. The method also includes broadcasting to the one or more portable electronic devices, via a notification push channel, a new email notification received from the IMAP email provider. The broadcasting prompts any one of the plurality of portable electronic devices to connect to the IMAP email provider and retrieve new email</p>

'734 Patent – Claim 3	Calamera
	<p>messages.” Calamera at [0004]-[0007].</p>  <p>FIG. 1</p> <p>See [1f], above</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

'734 Patent – Claim 4	Calamera
<p>[4] The mobile device of claim 1, wherein entry into the power save mode is further based on battery level.</p>	<p>Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Certain implementations may provide various advantages. For example, battery lifetime and network efficiency are particularly important to mobile</p>

’734 Patent – Claim 4	Calamera
	<p>electronic devices, for example, cell phones. The email notification proxy described in this specification enables users of mobile electronic devices to offload the task of monitoring for availability of new-email messages at email servers, thus minimizing battery and communication bandwidth consumption of mobile electronic devices. The email notification proxy also facilitates persistent connections effectively between a mobile electronic device and one or more third party email services. Other features, objects, and potential advantages of the subject matter of this specification will be apparent from the description and drawings, and from the claims.” Calamera at [0011].</p> <p>“Maintaining an active IMAP IDLE connection 220 with one or more IMAP servers 120 can be burdensome on the operational resources available to the mobile electronic device 110. Specifically, the power consumption to actively maintain such connections 220 can be significant, and can lead to rapid battery drain. At the same time, the bandwidth necessary to actively maintain the connections 220 can hinder bandwidth utilization for other active connections of the mobile electronic device 110, for example the communication channel 210 to the internet-based service 300. The techniques and systems disclosed in this document offload the task of maintaining active connections 220 from the mobile electronic device 110 to the main server 300.” <i>Id.</i> at [0026].</p> <p>“Note that because the main server 300 acts as a proxy for the mobile electronic device 110, the direct connection 220 from the mobile electronic device 110 to the IMAP server 120 can be dropped. By not having to maintain direct connections to one or more email servers 120, the mobile electronic device 110 benefits from longer battery life and communication bandwidth efficiency.” <i>Id.</i> at [0029].</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person</p>

'734 Patent – Claim 4	Calamera
	of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.
'734 Patent – Claim 5	Calamera
[5] The mobile device of claim 1, wherein the processor is configured to receive data in response to the allowed additional outgoing application data requests.	<p>Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
'734 Patent – Claim 6	Calamera
[6] The mobile device of claim 1, wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests while the applications are not allowed transmission of the additional outgoing data requests.	<p>Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill</p>

’734 Patent – Claim 6	Calamera
	<p>in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
’734 Patent – Claim 7	Calamera
<p>[7] The mobile device of claim 1, wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests after the applications are allowed transmission of additional outgoing application data requests.</p>	<p>Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
’734 Patent – Claim 8	Calamera
<p>[8] The mobile device of claim 1, wherein the outgoing data requests and the additional data requests are for a same application.</p>	<p>Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in</p>

’734 Patent – Claim 8	Calamera
	Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B

’734 Patent – Claim 9	Calamera
[9pre] A method comprising:	To the extent the preamble is limiting, Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1pre], above.</i>
[9a] receiving instructions, at a mobile device, from a user to enter a power save mode;	Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1d], above.</i>
[9a] while in the power save mode, blocking transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application;	Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1e], above.</i>
[9c] while in the power save mode, allowing transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity and user input in response to a prompt displayed to the user, and a change in a background status of	Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1f], above.</i>

’734 Patent – Claim 9	Calamera
an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests,	
[9d] wherein the remote entity is an intermediary server that provides connectivity between an application server and the mobile device,	Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1g], above.</i>
[9e] exiting the power save mode based on received instructions from the user to exit the power save mode,	Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1h], above.</i>
[9f] wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.	Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1i], above.</i>
’734 Patent – Claim 10	Calamera
[10] The method of claim 9, wherein the mobile device is configured to maintain a connection to receive data from the remote entity while in the power save mode.	Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [2], above.</i>

'734 Patent – Claim 11	Calamera
[11] The method of claim 9, wherein the data transfer is a notification of new data at the application server.	Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [3], above.</i>
'734 Patent – Claim 12	Calamera
[12] The method of claim 9, wherein entrance into the power save mode is further based on battery level.	Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [4], above.</i>
'734 Patent – Claim 13	Calamera
[13] The mobile device of claim 1, wherein the intermediary server provides connectivity between another application server and the mobile device.	Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1f], [3], above.</i> Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B

'734 Patent – Claim 14	Calamera
[14] The method of claim 9, wherein the intermediary server provides connectivity between another application server and the mobile device.	Calamera discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [13], above.</i>

EXHIBIT 734-A08

Invalidity Contentions for U.S. Patent No. 10,091,734 (“the ’734 patent”)

Based on: U.S. Patent No. 8,904,206 to Gregory R. Black et al. (“Black 206”)

Based on SEVEN’s apparent positions as to the scope of the patent’s claims, as best they can be deciphered, the reference(s) charted below anticipate(s) or at least render(s) obvious the identified claims. The portions of the prior art reference cited below are not exhaustive but are exemplary in nature. Where Apple identifies a portion of the prior art reference’s text, the identification should be understood as referencing any corresponding figure or diagram, and vice versa.

This disclosure is not an admission that Apple concedes any claim construction implied or suggested by SEVEN’s apparent positions as to the scope of the patent’s claims, nor is it an admission by Apple that any of its products are covered by or infringe the patent’s claims, particularly when they are properly construed and applied. Apple is not taking any claim construction positions through this disclosure, including whether the preamble is a limitation.

Apple reserves the right to rely on additional citations or sources of evidence that also may be applicable, or that may become applicable in light of claim construction, changes in SEVEN’s infringement contentions, and/or information obtained during discovery as the case progresses. Apple further reserves the right to amend or supplement this claim chart at a later date as more fully set forth in the Invalidity Contentions.

Black 206 qualifies as prior art under at least pre-AIA 35 U.S.C. §§ 102(a), (e). Black 206 is a U.S. Patent that was filed on January 26, 2010, published on July 28, 2011, and issued on December 2, 2014.

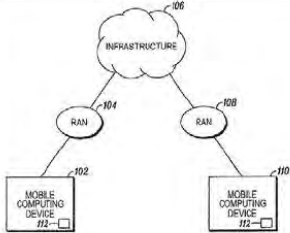
’734 Patent – Claim 1	Black 206
[1pre] A mobile device which improves network resource utilization in a wireless network, the mobile device, comprising:	To the extent the preamble is limiting, Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: “A method of maintaining application continuity (900) and mobile computing device (200) are described. The method involves a mobile device running an application in synchronous communication with an application server. The application has a threshold communication null period for maintaining application continuity. The method (900) can include the steps of: operating

’734 Patent – Claim 1	Black 206
	<p>(910) the application in synchronous communication with an application server, defining an active mode, wherein the synchronous communication is automatically enabled; providing (920) a dormant mode wherein the synchronous communication is automatically disabled in the mobile device for a predetermined duration; and interrupting (930) the dormant mode by momentarily communicating with the application server prior to a threshold communication null period, for maintaining application continuity. Advantageously, prior to a threshold period of communication inactivity, the dormant mode can be interrupted to maintain application connectivity, so the server will not stop the application and data will not be lost.” Black 206 at Abstract.</p> <p>“When operating a mobile device in synchronous communication with an application server, there is a tradeoff between good application performance which requires more frequent data exchanges, for example, a short synchronization interval, and good battery life which requires less frequent data exchanges, for example, a long synchronization interval.</p> <p>The problem being addressed in this patent application, is that after a certain threshold period of time of communication inactivity between a server and a mobile computing device, the server will terminate the application, which can result in loss of desired data. It would be an improvement in the art, if prior to the threshold period, a method could be devised to maintain the application.</p> <p>Mobile computing devices, such as mobile or wireless stations, cellphones, radios, laptops, wireless communication devices and the like, operate with a power storage device with a limited energy supply, such as a battery, fuel cell or the like. A mobile computing device needs a power source and, in many cases, this power source is a battery. For instance, cellular phones use various types of batteries to operate. The amount of time a mobile station can typically operate before the energy of the battery is consumed (which is often referred to as “battery life”), is often an important criteria that consumers use in choosing</p>

’734 Patent – Claim 1	Black 206
	<p>one brand or type of mobile computing device over another brand. The terms battery, energy storage device and power storage device are used interchangeably herein.</p> <p>While the power storage device is generally rechargeable, it may not be convenient or even possible for a user to recharge. Accordingly, there is a need to maximize the useful operational time of a wireless computing device.</p> <p>Additionally, different operating environments can cause the user to be surprised and/or frustrated when the battery runs out much more quickly than would typically be expected by the user. Thus, a variation or unexpected short battery life is very undesirable from a user perspective.</p> <p>This is a particularly relevant problem for mobile computing devices running applications supported by an applications server because of the power drain due to the wireless data exchange between the mobile device and the server, since each upload or download causes the consumption of energy in the mobile device and server. The problem is especially acute in the mobile device, which is typically battery powered and has finite energy available. For example, a mobile device may employ an email server for uploading and downloading email in support of an email application, a contact server for uploading and downloading contact status in support of a social networking application, an information server for downloading movies, news, music, etc. in support of a media playing application, and a back-up/storage server for uploading mobile device data in support of a data back-up application. Typically, the mobile device and application server synchronize on a regular or periodic basis, i.e. they communicate, upload, download or exchange information at essentially regular or fixed time intervals, and in this document, the exchange of data between and mobile device running an application and an application server is referred to as “synchronization”, and the amount of time between data exchanges is referred to as the “synchronization interval” or “sync interval”, for a given application and application server. Thus, there is a need for increasing a</p>

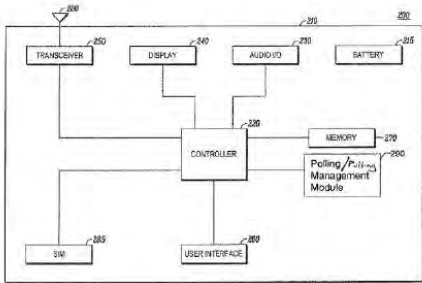
’734 Patent – Claim 1	Black 206
	<p>length of a synchronization interval, in order to conserve energy in a power storage device of a wireless computing device, such as a mobile station, in order to prolong useful power storage device or battery life.</p> <p>Generally, there is a tradeoff between good application performance which requires more frequent data exchanges, i.e. a short synchronization interval, and good battery life which requires less frequent data exchanges, i.e. a long synchronization interval. For example, performance of an email application may be determined by the amount of time it takes to receive an email, and performance of a social networking application may be determined by the delay in receiving a change in a social contact's status.” <i>Id.</i> at 1:22-2:28.</p> <p>“When operating a mobile device in synchronous communication with an application server, there is a tradeoff between good application performance which requires more frequent data exchanges, i.e. a short synchronization interval, and good battery life which requires less frequent data exchanges, i.e. a long synchronization interval” <i>Id.</i> at 3:3-8.</p> <p>“A system and method is described that controls the length of the synchronization interval associated with a mobile computing device (or mobile station, wireless communication device, wireless computing device, mobile or wireless station, cellphone, radio, laptop and the like, such terms used interchangeably herein) running an application in periodic or synchronous communication with an application server, in order to conserve and improve the life of an energy storage device in connection with a mobile computing device. The approaches described herein allow a mobile computing device to operate in a variety of conditions and provide a variety of bandwidth intensive services without substantially compromising the energy storage device in association with the mobile station.” <i>Id.</i> at 4:37-50.</p> <p>“Referring to FIG. 1, one example of a system with enhanced poling management for increasing the battery life of a mobile computing device, is described. The system includes a first mobile computing device 102 that is</p>

’734 Patent – Claim 1	Black 206
	<p>coupled to a first Radio Access Network (RAN) 104. The first RAN 104 is coupled to a communication infrastructure 106. The infrastructure can include a plurality of application servers, for running various applications, as detailed below. A second mobile computing device 110 is coupled to a second RAN 108. The second RAN 108 is also coupled to the infrastructure 106. The principles described herein may be applied to a variety of wide area network systems, such as long-term evolution (LTE), ultra mobile wideband (UMB), 802.16e & m, High Rate Packet Data (HRPD) systems, or systems such as the Universal Mobile Telecommunication System (UMTS), as well as wireless local area networks, personal area networks, and wired networks.</p> <p>The mobile computing devices 102 and 110 may be any type of mobile wireless device. The mobile computing devices 102 and 110 each include a polling management module 112 for coordinating synchronous communications between application server polling applications, as detailed below. For example, the mobile computing devices 102 and 110 may be cellular telephones, pagers, radios, mobile stations, personal computers, or personal digital assistants. As should be understood by those skilled in the art, other examples of mobile computing devices are possible.” <i>Id.</i> at 5:26-52.</p> <p>“The communication infrastructure 106 preferably includes devices and/or networks that allow communications to be made between mobile stations. For example, the infrastructure 106 may include switches, servers, storage devices, and networks (e.g., wireless networks, the Internet, landline telephone networks) that facilitate communications between the mobile computing devices 102 and 110.” <i>Id.</i> at 5:59-65.</p>

’734 Patent – Claim 1	Black 206
	 <p style="text-align: center;">FIG. 1</p> <p>“The mobile computing devices 810 and 812 may be any type of mobile wireless device. The mobile computing devices 810 and 812 each include an intelligent pushing management module 112 or 290 for coordinating synchronous communications between application server poling applications, as detailed below. For example, the mobile computing devices 810 and 812 may be cellular telephones, pagers, radios, mobile stations, personal computers, or personal digital assistants. As should be understood by those skilled in the art, other examples of mobile computing devices are possible.” <i>Id.</i> at 18:46-53</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
[1a] a memory;	Black 206 discloses this claim limitation. For example, see the following

’734 Patent – Claim 1	Black 206
	<p>passages and/or figures, as well as all related disclosures:</p> <p>“Referring now to FIG. 5, there is shown an exemplary block diagram of a mobile computing device 200, such as the mobile computing devices 102 or 110, according to one embodiment. The mobile computing device 200 can include a housing 210, an energy storage device 215, a controller 220 coupled to the housing 210, audio input and output circuitry 230 coupled to the housing 210, a display 240 coupled to the housing 210, one or more transceivers 250 coupled to the housing 210, a user interface 260 coupled to the housing 210, a memory 270 coupled to the housing 210, an antenna 280 coupled to the housing 210, and a removable subscriber identity module (SIM) 285 coupled to the controller 220. The mobile computing device 200 employs the controller 220 and memory 270 to run applications in synchronous communication with and application server via transceiver 250. The mobile computing device 200 further includes a poling manager 290, coupled to the controller 220. In more detail, the poling manager 290 can reside within the controller 220, can reside within the memory 270, can be an autonomous module, can be an application, can be software, can be hardware, or can be in any other format useful for a module on a wireless communication device 200. In one embodiment, the poling manager 290 can be defined as a controller for coordinating application server communication, based on nominal poling intervals and tolerances for each application.</p> <p>The display 240 can be a liquid crystal display (LCD), a light emitting diode (LED) display, a plasma display, or any other means for displaying information. The transceiver 250 may include a transmitter and/or a receiver. The audio input and output circuitry 230 can include a microphone, a speaker, a transducer, or any other audio input and output circuitry. The user interface 260 can include a keypad, buttons, a touch pad, a joystick, an additional display, or any other device useful for providing an interface between a user and an electronic device. The memory 270 may include a random access memory, a read only memory, an optical memory or any other memory that can be</p>

’734 Patent – Claim 1	Black 206
	<p>coupled to a wireless communication device.</p> <p>In more detail, in one embodiment, the mobile computing device 200 with an energy storage device in FIG. 5, includes: a housing 210; a controller 220 coupled to the housing 210, the controller 220 configured to applications in synchronous communication from one or more application servers; memory 270 coupled to the controller 220; a wireless transceiver 250 coupled to the controller 220 for synchronizing application data between the mobile computing device 200 and the one or more application servers (which could reside in infrastructure 106 in FIG. 1); and an a poling management module 290, the poling management module configured to: receive for each of the plurality of applications a predetermined poling interval and tolerance window; monitor data communication activity of the mobile computing device; determine, for each of the plurality of running applications, the time elapsed since the previous synchronization; and synchronize the application if at least one of the following conditions occurs: the time elapsed since the previous synchronization is substantially equal to the predetermined poling interval for the application, and communication activity is detected, and the time elapsed since the previous synchronization is within the tolerance window for the application. Advantageously, the poling management module 290 can allow the mobile computing device 200 to dynamically manage communication with running applications. This arrangement can provide a longer useful life for mobile computing devices before having to recharge a user's power storage device 215. Beneficially, the poling management module 290 can serve to coordinate communication activity and thereby reduce unnecessary starting and stopping of communication circuits, such as the transceiver 250, thereby extending the useful life of the energy storage device in mobile computing device applications.</p> <p>In one embodiment, the poling management module 290 includes: a processor configured to pole and synchronize applications; and an adjustment module configured to advance or delay the predetermined poling interval of a second</p>

'734 Patent – Claim 1	Black 206
	<p>application within the window of tolerance, to synchronize substantially immediately after a first application, for improved power savings.” <i>Id.</i> at 12:55-13:63.</p>  <p style="text-align: center;">FIG. 5</p> <p><i>See [1pre], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
[1b] a radio; and	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1pre], [1a], above.</i></p>

’734 Patent – Claim 1	Black 206
	<p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1c] a processor coupled to the memory and configured to:</p>	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“In one embodiment, the instant invention is incorporated into the communication infrastructure and in another it can be incorporated into a wireless communication device. More specifically, the polling management module 290 may be incorporated into a mobile computing device 200 or alternatively into the infrastructure 106. Other placements are possible, such as including being in both.</p> <p>In more detail, controller 220 comprises an application processor for running application programs. The application programs may be stand-alone programs or programs running in communication with an application service, in which case the application program is referred to as an application service daemon. Each application running in synchronous communication with an application server may have a corresponding application service daemon running on controller 220. Alternatively the application service daemon may run on any component of the mobile device 200 having application processing capability including display 240 which may comprise an intelligent display controller, transceiver 250, memory 270, SIM 285, or polling management module 290.</p> <p>In another embodiment, the polling management module 290 provides an autonomous pushing management function, for adjusting the rate at which the mobile device receives data “pushed” from an application server. In a preferred</p>

’734 Patent – Claim 1	Black 206
	<p>embodiment, the communications from an application service are interrupted during dormancy periods. More specifically module 290 can be further configured to provide a scheduler (not shown) for providing, setting or determining dormancy periods. Synchronous communications which are normally ‘pushed’ by the application server to the mobile device may be suspended during the scheduled dormancy periods, thereby reducing power drain by idling the transceiver 250 during these periods. Power drain may be reduced further by idling the application service daemon during these periods.” <i>Id.</i> at 14:1-32.</p> <p><i>See</i> [1pre], [1a], <i>above</i>.</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1d] receive instructions from a user to enter a power save mode;</p>	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Referring to FIG. 7, an embodiment of a method 700 of saving energy in a mobile device running an application in synchronous communication with an application server, is shown. In its simplest form, it includes the steps of operating 710 an application in synchronous communication with an application server via a persistent internet protocol (IP) session, defining an active mode, wherein the synchronous communication is automatically enabled by establishing a persistent IP session according to a prearranged schedule; and providing 720 a dormant mode wherein the synchronous communication is automatically disabled in the mobile device by closing the persistent IP session</p>

’734 Patent – Claim 1	Black 206
	<p>according to the prearranged schedule. In an alternative embodiment, the method 700 includes the step of programming 730 a user programmable dormancy mode scheduler for scheduling the dormant mode period. Advantageously, a user can provide off-peak or quiet times (dormant mode) and/or on-peak or active times (active mode) by using a programmable scheduler.” Black 206 at 15:43-61.</p> <p>“In another embodiment, the method 700 can include the steps of operating 710 an application in synchronous communication with an application server via a persistent IP session, defining an active mode; providing 720 a dormant mode wherein the synchronous communication is disabled in the mobile device; and programming 730 a user programmable dormancy mode scheduler for Scheduling the dormant mode period. Advantageously, a user can provide quiet times (dormant mode) and/or active times (active mode) by using a programmable scheduler. This allows a mobile device to be operated in a customized fashion, based on a various users preferences, personalities and schedules.” <i>Id.</i> at 20:20-31.</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1e] while in the power save mode, block transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application;</p>	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“This is a particularly relevant problem for mobile computing devices running applications supported by an applications server because of the power drain due to the wireless data exchange between the mobile device and the server, since</p>

’734 Patent – Claim 1	Black 206
	<p>each upload or download causes the consumption of energy in the mobile device and server. The problem is especially acute in the mobile device, which is typically battery powered and has finite energy available. For example, a mobile device may employ an email server for uploading and downloading email in support of an email application, a contact server for uploading and downloading contact status in support of a social networking application, an information server for downloading movies, news, music, etc. in support of a media playing application, and a back-up/storage server for uploading mobile device data in support of a data back-up application. Typically, the mobile device and application server synchronize on a regular or periodic basis, i.e. they communicate, upload, download or exchange information at essentially regular or fixed time intervals, and in this document, the exchange of data between and mobile device running an application and an application server is referred to as “synchronization”, and the amount of time between data exchanges is referred to as the “synchronization interval” or “sync interval”, for a given application and application server. Thus, there is a need for increasing a length of a synchronization interval, in order to conserve energy in a power storage device of a wireless computing device, such as a mobile station, in order to prolong useful power storage device or battery life.” Black 206 at 1:58-2:19.</p> <p>“Synchronization of an application with an application server involves the uploading or downloading of application data between the mobile device and the application server over the communication infrastructure. Before the application data is exchanged with the application server there is a need to execute certain starting activities, such as powering-up the communication circuits, and establishment of a data communications session with the communication infrastructure. Similarly after the data is exchanged with the application server there is a need to execute certain ending activities, such as terminating the data communication session with the communication infrastructure and powering-down the data communication circuits. These starting and ending activities cause power drain in the mobile device. Thus</p>

’734 Patent – Claim 1	Black 206
	<p>there is a tendency for uncoordinated synchronization which causes power drain due to the stopping and starting activities associated with each data exchange. Thus, there is a need to minimize the starting and stopping activities by coordinating the synchronization times for multiple applications.” <i>Id.</i> at 2:51-3:2.</p> <p>“Coordinating the synchronization interval of the periodic or synchronous communication between the mobile computing device running multiple applications with respective application servers may be made in a variety of different ways. In one example, the mobile device is equipped with a poling manager, which: receives for each application an ideal poling interval and tolerance window; monitors communication activity of the mobile computing device; determines the time elapsed since the previous synchronization for each application; and synchronizes the application if the time elapsed since the previous synchronization is substantially equal to the ideal poling interval for the application, or communication activity is detected and the time elapsed since the previous synchronization is within the tolerance window for the application.</p> <p>In another example, the poling manager: receives for each application an ideal poling interval and tolerance window; monitors communication activity of the mobile computing device; determines the time elapsed since the previous synchronization for each application; selects a preferred synchronization interval between the time elapsed since the previous synchronization and a future synchronization interval, and synchronizes the application if the time elapsed since the previous synchronization is substantially equal to the ideal poling interval for the application, or communication activity is detected, the time elapsed since the previous synchronization is within the tolerance window for the application and is the preferred synchronization interval. The length of the synchronization interval may be dynamically decreased or increased from the ideal interval, depending on the monitored communication activity and the</p>

’734 Patent – Claim 1	Black 206
	<p>determined preference.” <i>Id.</i> at 4:51-5:14.</p> <p>“Referring now to FIG. 2, an exemplary method of enhancing poling management for extending the useful life of an energy storage device in a mobile computing device, is shown. The method 150 is configured to help lengthen the battery life of a mobile computing device running a plurality of applications in synchronous or asynchronous, data communication with an application server. The method 150 includes the steps of: providing 155 a poling manager configured to receive for each of the plurality of applications a predetermined poling interval and tolerance window; monitoring 160 data communication activity of the mobile computing device; determining 165, for each of the plurality of running applications, the time elapsed since the previous synchronization; and synchronizing 170 the application if at least one of the following conditions occurs: the time elapsed since the previous synchronization is substantially equal to the predetermined poling interval for the application; and communication activity is detected, and the time elapsed since the previous synchronization is within the tolerance window for the application.</p> <p>Advantageously, this method can provide substantial energy savings in an energy storage device in mobile computing device applications, for example, by synchronizing and running multiple applications together, which saves energy storage device or battery life by turning on the transceiver circuitry when necessary and minimizing or eliminating unnecessary or redundant synchronization, by the use of dynamic and smart poling management techniques, as detailed herein. This can be accomplished by providing a poling interval for each application that is within its window of tolerance, for example.” <i>Id.</i> at 5:66-6:29.</p>

’734 Patent – Claim 1	Black 206
	<p style="text-align: right;">150</p> <p style="text-align: center;"><i>FIG. 2</i></p> <p>“Referring to FIG. 3, four synchronizations are shown moving from the top to the bottom of the figure, at time zero, six, twelve and eighteen, respectively. Application 1 has a synchronization interval of 24 units and window of tolerance of 11 units. The units can be in milliseconds. Application 2 has a synchronization interval of 21 units and window of tolerance of 6 units. Application 3 has a synchronization interval of 8 units and window of tolerance of 3 units. Application 4 has a synchronization interval of 6 units and window of tolerance of 2 units. Referring to FIG. 3 a, at time 0, a sync occurs for applications 1, 2, 3, and 4. At time 6, a synch occurs, triggered by the amount of time passing since the previous synchronization being equal to the synchronization interval for application 4. Applications 3 and 4 are synchronized because these are the applications for which the window of tolerance includes time 6. Referring now to FIG. 3 b, the window of tolerance is shifted from FIG. 3 a for applications 3 and 4, to account for the time of the previous synchronization having changed from time 0 to time 6. At time 12, a synch occurs, triggered by the amount of time passing since the previous synchronization being equal to the synchronization interval for application 4.</p>

’734 Patent – Claim 1	Black 206
	<p>Applications 3 and 4 are again synchronized because these are the applications for which the window of tolerance includes time 12. Referring now to FIG. 3 c, the window of tolerance is shifted from FIG. 3 b for applications 3 and 4, to account for the time of the previous synchronization having changed from time 6 to time 12. At time 18, a sync occurs, whereby applications 1, 2, 3 and 4 are synchronized because these are the applications for which the window of tolerance includes time 18. Thus it is the synchronization of the four applications is coordinated thereby reducing power drain in the data communication device.</p> <p>By the use of smart poling management techniques, as detailed herein, synchronizing and running multiple applications together, can provide substantial energy savings. For example, the transceiver circuitry is turned on at times 0, 6, 12 and 18, as necessary to obtain a down load, etc. Referring again to FIG. 3 a, unnecessary or redundant synchronizations do not occur, as would happen at time 8, for example, if the synchronization for application 3 were not advanced from time 8 to time 6.: <i>Id.</i> at 6:40-7:13.</p>

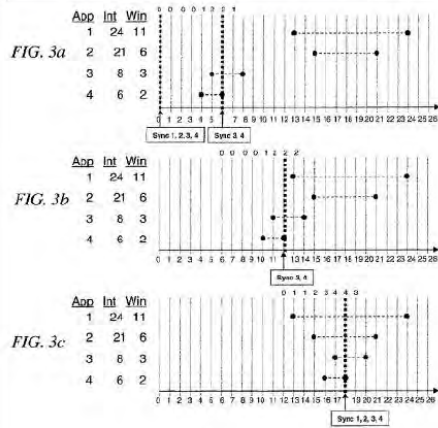


FIG. 3

“Advantageously, these features allow the mobile computing device to upload application data in coordination with other communication for other applications. For example, a first application could be a social network application such as face-book or twitter, and a second could be a data back-up application. The social network applications, which include real-time communication of personal messages, status and other personal data, is the higher priority application requiring periodic or synchronous server communications with a period or a synchronization interval on the order of 10 minutes. The data back-up application is the lower priority application requiring a synchronization interval on the order of 12 hours. Typically the window of tolerance for the data back-up application is much larger than 10 minutes, the ideal poling interval for the social networking application. Thus the data back-up synchronization occurs immediately after the social networking application synchronization, after the window of tolerance is

’734 Patent – Claim 1	Black 206
	<p>opened for the data back-up application, for example. This is an opportune time from the standpoint of power drain, as the unnecessary stopping and starting of the communication circuits is avoided.</p> <p>Refer again in more detail to FIG. 3, where there is shown a first series of timing diagrams corresponding to an exemplary device running four applications in synchronous communication with an application server. Each timing diagram depicts increasing time on the horizontal axis with a grid interval from 1 to 26. So, for a grid interval of 30 minutes the 26 intervals on the horizontal axis represent 13 hours of operation. For each application there is a corresponding predetermined synchronization interval and a predetermined synchronization interval window of tolerance. The first application has a predetermined synchronization interval of 24 grid intervals (e.g. 12 hours) and a window of tolerance of 11. The second application has a predetermined interval of 21 grid intervals (e.g. 10.5 hours) and a window of tolerance of 6. The third application has a predetermined interval of 8 grid intervals (e.g. 4 hours) and a window of tolerance of 3. And, the fourth application has a predetermined interval of 6 grid intervals (e.g. 3 hours) and a window of tolerance of 2. For each application the window of tolerance is defined having a maximum time determined by the previous synchronization time plus the predetermined interval, and a minimum time determined by the maximum time minus the window of tolerance. Referring now to timing diagram 3 a, start-up occurs with synchronization of the four applications at grid time T=0. Thus, after synchronization at T=0, the first application has a maximum time of 24 and minimum time of 13, the second application has a maximum time of 21 and a minimum time of 15, the third application has a maximum time of 8 and minimum time of 5, and the fourth application has a maximum time of 6 and a minimum time of 4. At grid interval=6 (e.g. 3 hours), the time reaches the predetermined interval for the fourth application, which triggers data synchronization. At this time each application is checked to determine if the time is between the minimum and maximum time, or in other words whether the window of tolerance is open. In this example, it is determined that the</p>

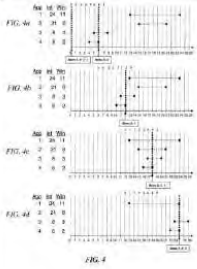
’734 Patent – Claim 1	Black 206
	<p>window of tolerance is open for applications 3 and 4, and therefore applications 3 and 4 are synchronized with their respective application servers at time T=6.</p> <p>Referring now to diagram 3 b, the windows of tolerance have been redrawn for applications 3 and 4, taking into account the previous synchronization at time T=6. At grid interval=12 (e.g. 6 hours), the time reaches the predetermined interval for the fourth application, which triggers data synchronization, and each application is checked to determine if the window of tolerance is open. It is determined that the window of tolerance is open for applications 3 and 4, and therefore applications 3 and 4 are synchronized with their respective application servers at time T=12.</p> <p>Referring now to diagram 3 c, the windows of tolerance have been redrawn for applications 3 and 4, taking into account the previous synchronization at time T=12. At grid interval=18 (e.g. 9 hours), the time reaches the predetermined interval for the fourth application, which triggers data synchronization, and each application is checked to determine if the window of tolerance is open. It is determined that the window of tolerance is open for applications 1, 2, 3, and 4, and therefore applications 1, 2, 3 and 4 are synchronized with their respective application servers at time T=18. Thus the synchronization times of four applications are grouped together such that the number of synchronization occurrences is minimized to 3 times in 18 grid intervals, whereas in the uncoordinated cases the number of synchronization occurrences could be as many as 9.</p> <p>In another arrangement, the method 150 can include reducing the window of tolerance of a first application when the predetermined polling interval for a second application, is below a threshold. In the above first example, the data back-up application may have a window of tolerance on the order of 2 hours. The synchronization for the data back-up application is triggered by the communication activity of the social networking application, which occurs every 10 minutes. Therefore the synchronization of the data back-up</p>

’734 Patent – Claim 1	Black 206
	<p>application occurs within the first 10 minutes of the opening of its window of tolerance, thereby reducing the synchronization interval for the data back-up application by an amount nearly equal to the window of tolerance. In situations such as this, it is advantageous to reduce the window of tolerance for the lower priority application to an amount on the order of ideal synchronization interval of the highest priority applications.</p> <p>In more detail, the reducing step can comprise providing a tolerance window for the second application, reduced from a predetermined tolerance window, when a predetermined polling interval received from the first application, is below a threshold. In the earlier example, the window of tolerance of the data back-up application may be reduced from 2 hours to 10 or 20 minutes, which is one or two times the 10 minute ideal interval for the social networking application. In more detail, the threshold can be proportional to the tolerance window received from the second application. For example, the threshold may be a fraction, such as $\frac{3}{4}$, of the predetermined tolerance window of the second application. Thus if the polling manager receives a tolerance window of two hours from the second application, and the ideal synchronization interval is less than $\frac{3}{4} * 2$ hours, or 1.5 hours, then the window of tolerance for the second application can be reduced to one to two times the ideal interval for the first application, or 10 to 20 minutes.” <i>Id.</i> at 8:7-9:59.</p> <p>“In an alternative embodiment, the method 150 for lengthening the battery life of a mobile computing device running a plurality of applications in synchronous data communication with an application server, comprises the steps of: providing a polling manager having, for each application, a predetermined polling interval and tolerance window; monitoring data communication activity of the mobile computing device; determining, for each applications, the time elapsed since the previous synchronization; selecting a preferred synchronization interval, from among at least the time elapsed since the previous synchronization and a future synchronization interval; and synchronizing the application if at least one of the following conditions occurs:</p>

’734 Patent – Claim 1	Black 206
	<p>a) the time elapsed since the previous synchronization is substantially equal to the predetermined polling interval for the application; and b) communication activity is detected, the time elapsed since the previous synchronization is within the tolerance window for the application and is the preferred synchronization interval. Thus, for a lower priority application having a longer predetermined or ideal interval, synchronization may occur immediately after data communication for a higher priority application, or it may be postponed to a later time within the window of tolerance, thereby selecting a synchronization interval which is closer to the predetermined, or ideal, synchronization interval. The preferred synchronization interval may be the time which is closer to the predetermined polling interval. It is noteworthy that in this embodiment the window of tolerance may be a two sided window, whereby a selected synchronization interval for the lower priority application may be less than or larger than the predetermined synchronization interval. In this case the predetermined interval may be an ideal interval, and synchronization may occur either before, or after the predetermined interval. Alternatively, the window of tolerance may be one sided and the predetermined interval is a maximum interval, in which case the synchronization interval is always advanced from the predetermined interval. Alternatively, the window of tolerance may be one sided and the synchronization interval is a minimum interval, in which case the synchronization is always delayed from the predetermined interval.</p> <p>For an alternate embodiment of the second example, refer to FIG. 4, where there is shown a first series of timing diagrams corresponding to an exemplary device running four applications in synchronous communication with an application server. Each of the applications has the same predetermined interval and window of tolerance as detailed in FIG. 3, and the maximum and minimum synchronization times are similarly calculated.</p> <p>Referring to timing diagram 4 a, start-up occurs with synchronization of the four applications at grid time T=0. At grid interval=6 (e.g. 3 hours) the time reaches the predetermined interval for the fourth application, which triggers</p>

’734 Patent – Claim 1	Black 206
	<p>data synchronization. At this time, each application is checked to determine if the window of tolerance is open. Unlike in the example of FIG. 3, if the window is open, a preferred synchronization time is chosen from between the present time or the next anticipated synchronization, which is the present time plus the minimum predetermined interval. In this example, it is determined that the window of tolerance is open for applications 3 and 4, and for both applications, the present time (T=6) is preferred over the anticipated next synchronization time (T=12) because the present time is closer to the predetermined time. Therefore applications 3 and 4 are synchronized with their respective application servers at time T=6.</p> <p>Referring to diagram 4 b, the windows of tolerance have been redrawn for applications 3 and 4, taking into account the previous synchronization at time T=6. At grid interval=12 (e.g. 6 hours) the time reaches the predetermined interval for the fourth application, which triggers data synchronization, and each application is checked to determine if the window of tolerance is open. In this example, it is determined that the window of tolerance is open for applications 3 and 4, and for both applications, the present time (T=12) is preferred over the anticipated next synchronization time (T=18) because the present time is closer to the predetermined time. Therefore, applications 3 and 4 are synchronized with their respective application servers at time T=12.</p> <p>Referring now to diagram 4 c, the windows of tolerance has been redrawn for applications 3 and 4, taking into account the previous synchronization at time T=12. At grid interval=18 (e.g. 9 hours), the time reaches the predetermined interval for the fourth application, which triggers data synchronization, and each application is checked to determine if the window of tolerance is open. It is determined that the window of tolerance is open for applications 1, 2, 3, and 4, and for applications 2, 3 and 4, the present time (T=18) is preferred over the anticipated next synchronization time (T=24) because the present time is closer to the predetermined time. For application 1 the present time (T=18) is not preferred because the anticipated next synchronization time (T=24) is closer to</p>

’734 Patent – Claim 1	Black 206
	<p>the predetermined time. Therefore applications 2, 3 and 4 are synchronized with their respective application servers at time T=18.</p> <p>Referring now to diagram 4 d, at grid interval=24 (e.g. 12 hours) the time reaches the predetermined interval for the fourth application, which triggers data synchronization, and each application is checked to determine if the window of tolerance is open. It is determined that the window of tolerance is open for applications 1, 3, and 4, and for applications 1, 3 and 4, the present time (T=24) is preferred over the anticipated next synchronization time (T=30) because the present time is closer to the predetermined time. Therefore applications 1, 3 and 4 are synchronized with their respective application servers at time T=24. Thus, like in the example of FIG. 3, the synchronization times of four applications are grouped together such that the number of synchronization occurrences is minimized, and in this example for the applications having large tolerance windows and longer predetermined intervals, synchronization occurs closer to the predetermined interval, which reduces the synchronization frequency for that application, and thereby reduces energy drain.</p> <p>In one embodiment, the synchronization interval comprises an interval for which the number of applications having overlapping tolerance windows is a local maximum. In this way synchronization may be simply determined. This involves counting the number of application for which the time is within the window of tolerance, refraining from triggering synchronization when the count is increasing or steady, and triggering synchronization when the count is reduced, as would happen when the time exceeds a window of tolerance for an application. Referring again to the examples of FIG. 3 and FIG. 4, the number of overlapping windows is shown as a series of numbers above each timing diagram, and synchronization occurs at the grid interval where the series is a maximum.” <i>Id.</i> at 9:60-11:38.</p>

'734 Patent – Claim 1	Black 206
	 <p>“The term application, as used herein, can include at least one of email, instant messaging, social networking, news feeding, gaming, media uploading (e.g. photo uploading), media downloading (e.g. music downloading), and data back-up, or any other application requiring data synchronization or otherwise having regular communication with an application server.</p> <p>In another embodiment, the method 150 can include providing a mobile computing device in synchronous application server communication for a first application in a first synchronous communication interval, and in synchronous application server communication for a second, lower priority application on a second nominal synchronous communication interval, equal to the first synchronous communication interval times a nominal integer number, wherein the nominal integer is the integer part of a predetermined interval for the second application divided by the predetermined interval for the first application.” <i>Id.</i> at 12:8-25.</p> <p>“Referring to FIG. 7, an embodiment of a method 700 of saving energy in a mobile device running an application in synchronous communication with an application server, is shown. In its simplest form, it includes the steps of: operating 710 an application in synchronous communication with an application server via a persistent internet protocol (IP) session, defining an active mode, wherein the synchronous communication is automatically enabled</p>

’734 Patent – Claim 1	Black 206
	<p>by establishing a persistent IP session according to a prearranged schedule; and providing 720 a dormant mode wherein the synchronous communication is automatically disabled in the mobile device by closing the persistent IP session according to the prearranged schedule. In an alternative embodiment, the method 700 includes the step of programming 730 a user programmable dormancy mode scheduler for scheduling the dormant mode period. Advantageously, a user can provide off-peak or quiet times (dormant mode) and/or on-peak or active times (active mode) by using a programmable scheduler.” <i>Id.</i> at 15:43-61.</p> <p>“Examples of active user detection are detecting an active user interface such as a display, touch-screen, keypad or backlight; detecting motion of or in proximity to the device, such as motion or acceleration of the device itself, or of an object near to the device; and detecting a wireless connection to the device such as a wireless headset activation.” <i>Id.</i> at 17:49-54.</p> <p>“Referring to FIG. 8, a system 800 with intelligent pushing management for increasing the battery life of a mobile computing device, is described and shown. The system 800 can include mobile computing devices 810 and 812 that are coupled to a wireless communication infrastructure 820. The wireless infrastructure includes a packet data switching connection 822, such as a subscriber gateway service node (SGSN) found in a general packet radio service (GPRS) infrastructure. The wireless infrastructure 820 can also include a circuit connection 822 for connecting voice applications as well as connecting legacy data applications such as short message services (SMS). The mobile devices 810 and 812 are configurable to connect via the internet gateway 822 in the wireless infrastructure 820, to a front end 832 of application service aggregation servers 830, and to stand-alone application server 840 via the internet. The application service back end 836 of the aggregation server 830 connects via the internet to stand-alone application servers 850 and 860. The application aggregation server 830 comprises a data cache 834 for storing</p>

’734 Patent – Claim 1	Black 206
	<p>application data to and from application servers 850 via the back-end 836, for eventual transmission via the front end 832 and the wireless infrastructure 820 to and from the mobile clients 810, 812. The mobile devices 810 and 812 are also configurable to communicate over the wireless infrastructure 820 via a circuit switching infrastructure 824. Circuit switching infrastructure is used for legacy communication services such as voice calling, short message services (SMS) and circuit switched data services. The principles described herein may be applied to a variety of wide area network systems, such as long-term evolution (LTE), ultra mobile wideband (UMB), 802.16e & m, High Rate Packet Data (HRPD) systems, or systems such as the Universal Mobile Telecommunication System (UMTS), as well as wireless local area networks, personal area networks, and wired networks.” <i>Id.</i> at 18:1-35.</p> <p>“In one embodiment, the method 700 can include the operating step 710 including operating an application processor on the mobile device, and suspending operation of the application processor. Similarly, in another arrangement, the operating step 710 can include operating an application service daemon on an application processor on the mobile device, and suspending operation of the application service daemon. Advantageously these provide a power drain reductions due to the disabling, idling or reducing of the applications processor operations.” <i>Id.</i> at 20:10-19.</p> <p><i>See [1pre], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and</p>

’734 Patent – Claim 1	Black 206
	Exhibit 734-B
<p>[1f] while in the power save mode, allow transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity, user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests,</p>	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“In a preferred embodiment, the method 700 can further include maintaining other communications between the mobile and other communication entities in the active and in the dormant mode. Advantageously, this feature allows certain communications, such as Social network applications, to be turned off, while other application servers to be turned on. For example, the method 700 can further include maintaining other communications between the mobile and other communication entities, while in the dormant mode, the other communications comprising at least one of Voice communications, short message service communications, and data communications, employing an IP session different from the persistent IP session with the application server.” Black 206 at 17:55-67.</p> <p>“The mobile devices 810 and 812 are configurable to connect simultaneously to multiple data servers and the methods described herein include maintaining communications between a mobile device and a first application server, while in a dormant or quite mode with a second application server. For example, mobile devices 810 and 812 can connect via the internet gateway 822 in the wireless infrastructure 820, to a service aggregation server 830, and can also connect to a stand-alone application server(s) 840, bypassing the application service aggregation server 830. The stand-alone application server may be an email application Such as Gmail, for example.” <i>Id.</i> at 19:7-18.</p> <p><i>See [1g], below.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person</p>

’734 Patent – Claim 1	Black 206
	<p>of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1g] wherein the remote entity is an intermediary server that provides connectivity between an application server for the application and the mobile device;</p>	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“The exchange of data with an application server may be initiated by the server, i.e. a ‘push’ data service, or by the mobile, i.e. a ‘pull’ data service. In the case of a ‘pull’ data service the mobile device typically provides a timer operable to trigger the expiration of the synchronization interval at which time the mobile device may pole the application for the availability of new application data. Thus with a ‘pull’ data service the mobile device is in control of the synchronization interval, also known as the pulling or poling interval. Conversely, in the case of a ‘push’ data service the mobile device responds to the synchronization requests from the server which may or may not be periodic.” Black 206 at 2:29-40.</p> <p>“Thus, approaches are described whereby the power storage device of the mobile computing device is improved even under less than ideal operating conditions and different modes of operation, such as multiple applications running in synchronous communication with an application server. Consequently, the mobile computing device can operate under a variety of operating conditions” <i>Id.</i> at 5:19-25.</p> <p>“In another embodiment, the synchronizing step 170 can be advanced or adjusted from its predetermined or ideal poling interval in the event that synchronization activity is detected within the tolerance window. This allows an application to synchronize immediately after communication operations which are not necessarily for application server poling operations, such as a synchronization initiated by the application server, i.e. a “push” synchronization, or other asynchronous communications such as that which is</p>

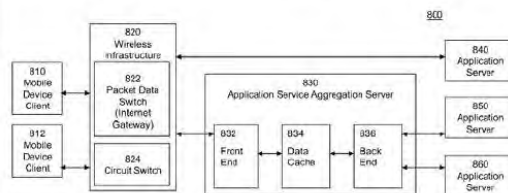
’734 Patent – Claim 1	Black 206
	<p>triggered by a high priority application event or by the user.” <i>Id.</i> at 7:21-30.</p> <p>“The mobile computing devices 810 and 812 may be any type of mobile wireless device. The mobile computing devices 810 and 812 each include an intelligent pushing management module 112 or 290 for coordinating synchronous communications between application server polling applications, as detailed below. For example, the mobile computing devices 810 and 812 may be cellular telephones, pagers, radios, mobile stations, personal computers, or personal digital assistants. As should be understood by those skilled in the art, other examples of mobile computing devices are possible.</p> <p>Mobile devices 810 and 812 may connect to the wireless infrastructure 820 via radio access networks (RANs), as shown in FIG. 1. The RANs may be any device or combination of devices that allow the mobile computing devices 810 and 812 to have access to the communication infrastructure 820. For example, the RANs may include access points, base stations, base station controllers, antennas, and other types of devices that facilitate these communications.</p> <p>The communication infrastructure 820 preferably includes devices and/or networks that allow communications to be made between mobile stations. For example, the infrastructure 106 may include switches, servers, storage devices, and networks (e.g., wireless networks, the Internet, landline telephone networks) that facilitate communications between the mobile computing devices 810 and 812 and internet devices such as application servers 830 and 840.</p> <p>The application service aggregation server 830 provides the function of periodically polling application servers 850 and 860 for new data, and then providing the application data to the mobile devices 810 and 812 via the packet data switch 822 in the wireless infrastructure 820. For example, application servers 850 and 860 may be conventional social networking applications, such as Facebook, Twitter, etc. The aggregation server 830 may poll for status notifications from social contacts on the Facebook service, and for new</p>

'734 Patent – Claim 1

Black 206

messages on the Twitter service. It stores the new data in a memory and makes it available to the mobile device via wireless infrastructure by pushing or pulling methods, as detailed herein.

The mobile devices 810 and 812 are configurable to connect simultaneously to multiple data servers and the methods described herein include maintaining communications between a mobile device and a first application server, while in a dormant or quite mode with a second application server. For example, mobile devices 810 and 812 can connect via the internet gateway 822 in the wireless infrastructure 820, to a service aggregation server 830, and can also connect to a stand-alone application server(s) 840, bypassing the application service aggregation server 830. The stand-alone application server may be an email application such as Gmail, for example.” *Id.* at 18:36-19:18.



Id. at Fig. 8.

See [1f], above.

Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine

’734 Patent – Claim 1	Black 206
	<p>references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1h] exit the power save mode based on received instructions from the user to exit the power save mode,</p>	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Examples of active user detection are detecting an active user interface such as a display, touch-screen, keypad or backlight; detecting motion of or in proximity to the device. Such as motion or acceleration of the device itself, or of an object near to the device; and detecting a wireless connection to the device such as a wireless headset activation.” Black 206 at 17:49-54.</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1i] wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.</p>	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“In a preferred embodiment, the method 700 can further include maintaining other communications between the mobile and other communication entities in the active and in the dormant mode. Advantageously, this feature allows certain communications, such as Social network applications, to be turned off, while other application servers to be turned on. For example, the method 700 can further include maintaining other communications between the mobile and other communication entities, while in the dormant mode, the other communications comprising at least one of Voice communications, short message service communications, and data communications, employing an IP</p>

’734 Patent – Claim 1	Black 206
	<p>session different from the persistent IP session with the application server.” Black 206 at 17:55-67.</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 2	Black 206
<p>[2] The mobile device of claim 1, wherein the processor is configured to maintain a connection to receive data from the remote entity while in the power save mode.</p>	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“In a preferred embodiment, a PDP context is needed when operating in an on-peak period. Thus, particular focus is given to the always-on user experience, and the PDP context is maintained, and as long as there is at least one active TCP or UDP session. On the other hand, the PDP context is not needed when operating in an off-peak or dormant period, when application currency can be sacrificed in favor of reduced power drain. In this case, the PDP context is released, unless there is some user activity detected. For example, when the user has an application active (either in foreground or background) that maintains a persistent TCP socket, then the PDP context would be needed.” Black 206 at 17:6-17.</p> <p><i>See [1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when</p>

’734 Patent – Claim 2	Black 206
	<p>combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
’734 Patent – Claim 3	Black 206
<p>[3] The mobile device of claim 1, wherein the data transfer is a notification of new data at the application server.</p>	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1g], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
’734 Patent – Claim 4	Black 206
<p>[4] The mobile device of claim 1, wherein entry into the power save mode is further based on battery level.</p>	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Mobile computing devices, such as mobile or wireless stations, cellphones, radios, laptops, wireless communication devices and the like, operate with a</p>

’734 Patent – Claim 4	Black 206
	<p>power storage device with a limited energy supply, such as a battery, fuel cell or the like. A mobile computing device needs a power source and, in many cases, this power source is a battery. For instance, cellular phones use various types of batteries to operate. The amount of time a mobile station can typically operate before the energy of the battery is consumed (which is often referred to as “battery life”), is often an important criteria that consumers use in choosing one brand or type of mobile computing device over another brand. The terms battery, energy storage device and power storage device are used interchangeably herein.” Black 206 at 1:35-48.</p> <p>“In more detail, a preferred PDP context management strategy can include the following: 1. When the mobile device is connected to a power supply, the PDP context shall always remain active. A power supply might be a battery charger, or AC power adapter, or a host device such as a personal computer which provides power via a connection, Such as a universal serial bus (USB) connection.” Black 206 at 17:18-24.</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 5	Black 206
[5] The mobile device of claim 1, wherein the processor is configured to receive data in response to the allowed additional outgoing	Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:

’734 Patent – Claim 5	Black 206
application data requests.	<p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 6	Black 206
[6] The mobile device of claim 1, wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests while the applications are not allowed transmission of the additional outgoing data requests.	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 7	Black 206
[7] The mobile device of claim 1, wherein the processor is configured to receive data directed	Black 206 discloses this claim limitation. For example, see the following

’734 Patent – Claim 7	Black 206
<p>towards applications having blocked outgoing application data requests after the applications are allowed transmission of additional outgoing application data requests.</p>	<p>passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 8	Black 206
<p>[8] The mobile device of claim 1, wherein the outgoing data requests and the additional data requests are for a same application.</p>	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 9	Black 206
[9pre] A method comprising:	To the extent the preamble is limiting, Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1pre], above.</i>
[9a] receiving instructions, at a mobile device, from a user to enter a power save mode;	Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1d], above.</i>
[9b] while in the power save mode, blocking transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application;	Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1e], above.</i>
[9c] while in the power save mode, allowing transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity and user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests,	Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1f], above.</i>
[9d] wherein the remote entity is an intermediary server that provides connectivity between an application server and the mobile device,	Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1g], above.</i>

'734 Patent – Claim 9	Black 206
[9e] exiting the power save mode based on received instructions from the user to exit the power save mode,	Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1h], above.</i>
[9f] wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.	Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1i], above.</i>

'734 Patent – Claim 10	Black 206
[10] The method of claim 9, wherein the mobile device is configured to maintain a connection to receive data from the remote entity while in the power save mode.	Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [2], above.</i>

'734 Patent – Claim 11	Black 206
[11] The method of claim 9, wherein the data transfer is a notification of new data at the application server.	Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [3], above.</i>

’734 Patent – Claim 12	Black 206
[12] The method of claim 9, wherein entrance into the power save mode is further based on battery level.	Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [4], above.</i>

’734 Patent – Claim 13	Black 206
[13] The mobile device of claim 1, wherein the intermediary server provides connectivity between another application server and the mobile device.	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Coordinating the synchronization interval of the periodic or synchronous communication between the mobile computing device running multiple applications with respective application servers may be made in a variety of different ways. In one example, the mobile device is equipped with a poling manager, which: receives for each application an ideal poling interval and tolerance window; monitors communication activity of the mobile computing device; determines the time elapsed since the previous synchronization for each application; and synchronizes the application if the time elapsed since the previous synchronization is substantially equal to the ideal poling interval for the application, or communication activity is detected and the time elapsed since the previous synchronization is within the tolerance window for the application.” Black 206 at 4:51-65.</p> <p><i>See [1f]-[1g], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and</p>

'734 Patent – Claim 13	Black 206
	Exhibit 734-B

'734 Patent – Claim 14	Black 206
[14] The method of claim 9, wherein the intermediary server provides connectivity between another application server and the mobile device.	<p>Black 206 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [13], above.</i></p>

EXHIBIT 734-A09

Invalidity Contentions for U.S. Patent No. 10,091,734 (“the ’734 patent”)

Based on: U.S. Published Patent Application No. 2009/0307696 to Angelo Vals et al. (“Vals”)

Based on SEVEN’s apparent positions as to the scope of the patent’s claims, as best they can be deciphered, the reference(s) charted below anticipate(s) or at least render(s) obvious the identified claims. The portions of the prior art reference cited below are not exhaustive but are exemplary in nature. Where Apple identifies a portion of the prior art reference’s text, the identification should be understood as referencing any corresponding figure or diagram, and vice versa.

This disclosure is not an admission that Apple concedes any claim construction implied or suggested by SEVEN’s apparent positions as to the scope of the patent’s claims, nor is it an admission by Apple that any of its products are covered by or infringe the patent’s claims, particularly when they are properly construed and applied. Apple is not taking any claim construction positions through this disclosure, including whether the preamble is a limitation.

Apple reserves the right to rely on additional citations or sources of evidence that also may be applicable, or that may become applicable in light of claim construction, changes in SEVEN’s infringement contentions, and/or information obtained during discovery as the case progresses. Apple further reserves the right to amend or supplement this claim chart at a later date as more fully set forth in the Invalidity Contentions.

Vals qualifies as prior art under at least pre-AIA 35 U.S.C. §§ 102(a), (e). Vals is a U.S. Published Patent Application that was filed on June 9, 2008, published on December 10, 2009, and issued on May 5, 2015.

’734 Patent – Claim 1	Vals
[1pre] A mobile device which improves network resource utilization in a wireless network, the mobile device, comprising:	To the extent the preamble is limiting, Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: “Managing threads for executing on a computing device based on a power state of the computing device. A power priority value corresponding to each of the threads is compared to a threshold value associated with the power state. The threads having an assigned power priority value that violates the threshold value are suspended from executing, while the remaining threads are scheduled

’734 Patent – Claim 1	Vals
	<p>for execution. When the power state of the computing device changes, the threads are re-evaluated for suspension or execution. In an embodiment, the threads on a mobile computing device are managed to maintain the processor in a low power state to reduce power consumption.” Vals at Abstract.</p> <p>“While some embodiments of the invention are illustrated and described herein with reference to a mobile computing device 402 (e.g., see FIG. 4) or other power constrained device such as a telephone, a personal digital assistant, or a gaming console, aspects of the invention are operable with any device that performs the functionality illustrated and described herein, or its equivalent. For example, embodiments of the invention are operable with a desktop computing device, a laptop computer, and other computing devices to reduce the power draw of the device thereby reducing infrastructure power costs, among other benefits. Further, aspects of the invention are operable with any system including systems that idle the processor 106 by placing the processor 106 into a halt state when no threads are being executed (e.g., hibernate and suspend are system states).” Vals at [0018].</p> <p>“Embodiments of the invention may be described in the general context of computer-executable instructions, such as program modules, executed by one or more computers or other devices. The computer-executable instructions may be organized into one or more computer-executable components or modules. Generally, program modules include, but are not limited to, routines, programs, objects, components, and data structures that perform particular tasks or implement particular abstract data types. Aspects of the invention may be implemented with any number and organization of such components or modules. For example, aspects of the invention are not limited to the specific computer-executable instructions or the specific components or modules illustrated in the figures and described herein. Other embodiments of the invention may include different computer-executable instructions or components having more or less functionality than illustrated and described herein. Aspects of the invention may also be practiced in distributed computing</p>

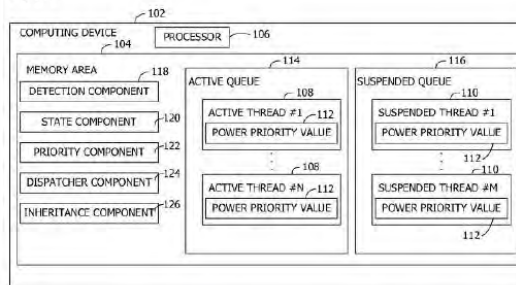
’734 Patent – Claim 1	Vals
	<p>environments where tasks are performed by remote processing devices that are linked through a communications network. In a distributed computing environment, program modules may be located in both local and remote computer storage media including memory storage devices.” <i>Id.</i> at [0053].</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
[1a] a memory;	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Referring again to FIG. 1, an exemplary block diagram illustrates the computing device 102 managing threads. The computing device 102 includes a memory area 104 and at least one processor 106. The memory area 104, or other computer-readable medium, stores a list of active threads 108 such as active thread #1 through active thread #N, where N is a positive integer value. The memory area 104 further stores a list of suspended threads 110 such as suspended thread #1 through suspended thread #M, where M is a positive integer value. Each of the active threads 108 and the suspended threads 110 has a power priority value 112. The power priority values 112 are assigned to each of the active threads 108 and the suspended threads 110 by, for example, an application program developer or by a user of the computing device 102. In the embodiment of FIG. 1 as illustrated, the list of active threads 108 is stored in an active queue 114 and the list of suspended threads 110 is stored in a suspended queue 116.” Vals at [0019].</p> <p>“A computer or the computing device 102 such as described herein has one or</p>

'734 Patent – Claim 1

Vals

more processors or processing units, system memory, and some form of computer readable media. By way of example and not limitation, computer readable media comprise computer storage media and communication media. Computer storage media include volatile and nonvolatile, removable and non-removable media implemented in any method or technology for storage of information such as computer readable instructions, data structures, program modules or other data. Communication media typically embody computer readable instructions, data structures, program modules, or other data in a modulated data signal such as a carrier wave or other transport mechanism and include any information delivery media. Combinations of any of the above are also included within the scope of computer readable media.” *Id.* at [0051].

FIG. 1



Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and

’734 Patent – Claim 1	Vals
	Exhibit 734-B
[1b] a radio; and	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“The computer may operate in a networked environment using logical connections to one or more remote computers, such as a remote computer. Although described in connection with an exemplary computing system environment, embodiments of the invention are operational with numerous other general purpose or special purpose computing system environments or configurations. The computing system environment is not intended to suggest any limitation as to the scope of use or functionality of any aspect of the invention. Moreover, the computing system environment should not be interpreted as having any dependency or requirement relating to any one or combination of components illustrated in the exemplary operating environment. Examples of well known computing systems, environments, and/or configurations that may be suitable for use with aspects of the invention include, but are not limited to, personal computers, server computers, hand-held or laptop devices, multiprocessor systems, microprocessor-based systems, set top boxes, programmable consumer electronics, mobile telephones, network PCs, minicomputers, mainframe computers, distributed computing environments that include any of the above systems or devices, and the like.” Vals at [0052].</p> <p><i>See [1a], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and</p>

’734 Patent – Claim 1	Vals
	Exhibit 734-B
<p>[1c] a processor coupled to the memory and configured to:</p>	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“In an embodiment, the processor 106 is transformed into a special purpose microprocessor by executing computer-executable instructions or by otherwise being programmed. For example, the memory area 104 stores computer-executable components for scheduling threads based on the power state of the computing device 102. Exemplary components include a detection component 118, a state component 120, a priority component 122, a dispatcher component 124, and an inheritance component 126. The detection component 118 receives a request for execution of a thread (e.g., at thread creation) and determines the power priority value 112 associated with the thread. For example, the detection component 118 determines the power priority value 112 by querying a database via an application programming interface (API).” Vals at [0020].</p> <p><i>See [1a], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1d] receive instructions from a user to enter a power save mode;</p>	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Traditional power management methods modify a power state of a processor based on a system load, an estimated trend in processor usage, or other</p>

’734 Patent – Claim 1	Vals
	<p>heuristic to achieve better performance. For example, the clock speed of the processor may be increased to handle an increase in the system load. On a mobile computing device, the processor typically executes infinite loops for animation, background services, or implementing parallelism. To allow these processes to execute continuously, the traditional power management methods limit, or entirely prevent, the processor from entering an idle state or other low power state even when the device is in standby mode (e.g., the display is off). Thus, the processes rapidly drain the battery while providing little value to a user of the mobile device.</p> <p>Embodiments of the invention control thread or process execution to manage a power state of a computing device. In some embodiments, a scheduler filters access to a processor in the computing device based on a power priority value assigned to each thread. A threshold value for the computing device changes as the power state of the computing device changes. The scheduler analyzes the power priority value of each thread relative to the threshold value to determine whether to suspend the thread. Execution of the suspended threads may resume upon another change in the power state of the computing device.” Vals at [0001]-[0002].</p> <p>“The state component 120 determines a power state of the computing device 102 and a corresponding threshold value. For example, the state component 120 accesses a lookup table or other mapping between power state and threshold value. Alternatively or in addition, the power state corresponds to a power state associated with the processor 106. The state component 120 determines the power state, for example, upon detection or notification of a change in the power state (e.g., when the computing device 102 becomes idle). Exemplary power states include, but are not limited to, one or more of the following: ON, IDLE, and BACKLIGHT OFF. In another embodiment, the power states correspond to a battery power level and/or state. For example, the power states include, but are not limited to, one or more of the following:</p>

’734 Patent – Claim 1	Vals
	<p>RECHARGING, 100%, 75%, 50%, 25%, and LOW.” Vals at [0021].</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1e] while in the power save mode, block transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application;</p>	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Traditional power management methods modify a power state of a processor based on a system load, an estimated trend in processor usage, or other heuristic to achieve better performance. For example, the clock speed of the processor may be increased to handle an increase in the system load. On a mobile computing device, the processor typically executes infinite loops for animation, background services, or implementing parallelism. To allow these processes to execute continuously, the traditional power management methods limit, or entirely prevent, the processor from entering an idle state or other low power state even when the device is in standby mode (e.g., the display is off). Thus, the processes rapidly drain the battery while providing little value to a user of the mobile device.” Vals at [0001].</p> <p>“Embodiments of the invention control thread or process execution to manage a power state of a computing device. In some embodiments, a scheduler filters access to a processor in the computing device based on a power priority value assigned to each thread. A threshold value for the computing device changes as the power state of the computing device changes. The scheduler analyzes the power priority value of each thread relative to the threshold value to determine whether to suspend the thread. Execution of the suspended threads may resume</p>

’734 Patent – Claim 1	Vals
	<p>upon another change in the power state of the computing device.” <i>Id.</i> at [0002].</p> <p>“Embodiment of the invention manage a load on a computing device 102 such as shown in FIG. 1 based on a power state of the computing device 102. For example, the load is limited to maintain the computing device 102 in a low power state by restricting execution of threads. In some embodiments, a power priority value 112 or other indicator of priority is assigned to each of the threads. The threads are filtered by comparing each power priority value 112 to a threshold value associated with the power state of the computing device 102. Those threads with power priority values 112 violating the threshold value are suspended from execution, while the other threads are allowed to execute. In this way, threads with a higher priority are allowed to execute.</p> <p>While the power priority value 112 is described in some embodiments as being separate and distinct from a process priority value traditionally used for managing the power state of a processor 106 such as shown in FIG. 1, other embodiments are operable with using the process priority as the power priority value 112 to manage the threads based on the power state.” <i>Id.</i> at [0016]-[0017].</p> <p>“In an embodiment, the processor 106 is transformed into a special purpose microprocessor by executing computer-executable instructions or by otherwise being programmed. For example, the memory area 104 stores computer-executable components for scheduling threads based on the power state of the computing device 102. Exemplary components include a detection component 118, a state component 120, a priority component 122, a dispatcher component 124, and an inheritance component 126. The detection component 118 receives a request for execution of a thread (e.g., at thread creation) and determines the power priority value 112 associated with the thread. For example, the detection component 118 determines the power priority value 112 by querying a database via an application programming interface (API).</p> <p>The state component 120 determines a power state of the computing device 102</p>

'734 Patent – Claim 1	Vals
	<p>and a corresponding threshold value. For example, the state component 120 accesses a lookup table or other mapping between power state and threshold value. Alternatively or in addition, the power state corresponds to a power state associated with the processor 106. The state component 120 determines the power state, for example, upon detection or notification of a change in the power state (e.g., when the computing device 102 becomes idle). Exemplary power states include, but are not limited to, one or more of the following: ON, IDLE, and BACKLIGHT OFF. In another embodiment, the power states correspond to a battery power level and/or state. For example, the power states include, but are not limited to, one or more of the following: RECHARGING, 100%, 75%, 50%, 25%, and LOW.</p> <p>The priority component 122 compares the power priority value 112 determined by the detection component 118 with the threshold value determined by the state component 120. The dispatcher component 124 alters the contents of the active queue 114 and the suspended queue 116 based on the comparison performed by the priority component 122. For example, the dispatcher component 124 schedules the thread for execution if the power priority value 112 determined by the detection component 118 violates the threshold value determined by the state component 120. Otherwise, the dispatcher component 124 suspends execution of the thread. In an embodiment, the dispatcher component 124 schedules the thread for execution if the power priority value 112 exceeds the threshold value.” Vals at [0020]-[0022].</p> <p>“In an example, two threads are being executed by the processor 106: one thread in the foreground (e.g., a high priority electronic mail application) and one thread in the background (e.g., a low priority synchronization application). When the power state of the computing device 102 changes to standby mode (e.g., display turns off), the synchronization application will continue to run while the electronic mail application will be suspended.” <i>Id.</i> at [0023].</p> <p>“At 202, a plurality of the threads for execution is identified. At 204, the power</p>

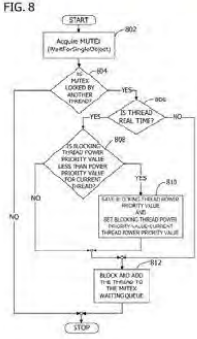
’734 Patent – Claim 1	Vals
	<p>priority value 112 is determined for each of the identified threads. In an embodiment, the scheduler assigns the power priority value 112 based on factors such as a recommendation from the application developer (e.g., a power profile as illustrated in FIG. 3), rules or guidelines established by an original equipment manufacturer of the computing device 102 or the processor 106, or the like. In the absence of any provided basis for assigning the power priority value 112 for each of the threads, a default power priority value is assigned to each of the threads. For example, the default power priority value is a value that prevents the threads from running in any power state other than ACTIVE.</p> <p>At 206, the current power state of the computing device 102 or processor 106 is determined. In another example, element 206 occurs when the power state of the computing device 102 or processor 106 changes. A threshold value corresponding to the power state is identified at 208. For example, the relationship between the threshold value and the power state is defined in a lookup table or other data structure. At 210, the threshold value is compared to the power priority value 112 for each of the threads. The list of active threads 108 and the list of suspended threads 110 are altered at 212 as a function of the comparison. In general, one or more of the threads are selected based on the comparison, and the execution status of the selected threads is adjusted. For example, if the power state changes to a more restrictive state (e.g., from ACTIVE to IDLE), the threads with a power priority value 112 less than the threshold value are selected and moved from the list of active threads 108 to the list of suspended threads 110 (e.g., for suspension). In another example, if the power state changes to a less restrictive state (e.g., from IDLE to ACTIVE), the threads with a power priority value 112 greater than or equal to the threshold value are selected and moved from the list of suspended threads 110 to the list of active threads 108 (e.g., for execution). Aspects of the invention are not limited to the specific examples described herein. That is, aspects of the invention are operable with any form of comparison between the threshold value and the power priority value 112 for each of the threads.” <i>Id.</i> at [0028]-</p>

'734 Patent – Claim 1	Vals										
	<p>[0029].</p> <p>“Referring next to FIG. 7, an exemplary block diagram 702 illustrates the scheduling of threads based on a threshold value associated with a power state of the mobile computing device, such as the mobile computing device 402 shown in FIG. 4. In the example of FIG. 7, three power states and corresponding threshold values are defined as shown in Table 1 below for the mobile computing device 402. The priority levels range from zero (highest priority) to 255 (lowest priority). Priorities below 248 are considered real time priorities and are not available to normal applications, in an embodiment. In the example of FIG. 7, power priority filtering is used only for non-real-time threads.</p> <p style="text-align: center;">TABLE 1</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" style="text-align: center;"><u>Exemplary Power States and Corresponding Threshold Values.</u></th> </tr> <tr> <th style="text-align: center;">Power State</th> <th style="text-align: center;">Threshold Value</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">ON</td> <td style="text-align: center;">NORMAL = 255</td> </tr> <tr> <td style="text-align: center;">BACKLIGHT OFF</td> <td style="text-align: center;">BACKGROUND = 100</td> </tr> <tr> <td style="text-align: center;">SYSTEM IDLE</td> <td style="text-align: center;">SYSTEM = 99</td> </tr> </tbody> </table> <p>In the example of FIG. 7, six non-real-time threads belong to the Home Screen, Telephone Application, Synchronization Application, Cool Game, and Anti-Malware Application. Table 2 below lists exemplary power priority values for the applications.</p>	<u>Exemplary Power States and Corresponding Threshold Values.</u>		Power State	Threshold Value	ON	NORMAL = 255	BACKLIGHT OFF	BACKGROUND = 100	SYSTEM IDLE	SYSTEM = 99
<u>Exemplary Power States and Corresponding Threshold Values.</u>											
Power State	Threshold Value										
ON	NORMAL = 255										
BACKLIGHT OFF	BACKGROUND = 100										
SYSTEM IDLE	SYSTEM = 99										

’734 Patent – Claim 1	Vals																					
	<p style="text-align: center;">TABLE 2</p> <hr/> <p style="text-align: center;"><u>Exemplary Power Priority Values for the Mobile Device Applications.</u></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Thread</th> <th style="text-align: center;">Power Priority</th> <th style="text-align: center;">Application</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">T1</td> <td style="text-align: center;">240</td> <td style="text-align: center;">Cool Game</td> </tr> <tr> <td style="text-align: center;">T2</td> <td style="text-align: center;">99</td> <td style="text-align: center;">Anti Malware</td> </tr> <tr> <td style="text-align: center;">T3</td> <td style="text-align: center;">240</td> <td style="text-align: center;">Cool Game</td> </tr> <tr> <td style="text-align: center;">T4</td> <td style="text-align: center;">49</td> <td style="text-align: center;">Sync</td> </tr> <tr> <td style="text-align: center;">T5</td> <td style="text-align: center;">240</td> <td style="text-align: center;">Home</td> </tr> <tr> <td style="text-align: center;">T6</td> <td style="text-align: center;">49</td> <td style="text-align: center;">Phone</td> </tr> </tbody> </table> <hr/> <p>As shown in FIG. 7, the Cool Game and the Home app do not use a processor in the mobile computing device 402 when the screen is off. Further, the anti malware application does not waste resources when the system is IDLE. In an embodiment, the dispatcher ready list is a weighted round-robin data structure used by a kernel to make scheduling decisions.</p> <p>In one scenario, the mobile computing device 402 is in an ACTIVE power state. The scheduler manages the processor in the exemplary order shown in Table 3 below.</p>	Thread	Power Priority	Application	T1	240	Cool Game	T2	99	Anti Malware	T3	240	Cool Game	T4	49	Sync	T5	240	Home	T6	49	Phone
Thread	Power Priority	Application																				
T1	240	Cool Game																				
T2	99	Anti Malware																				
T3	240	Cool Game																				
T4	49	Sync																				
T5	240	Home																				
T6	49	Phone																				

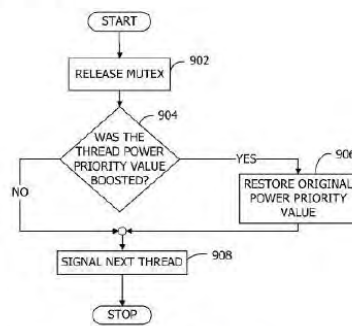
'734 Patent – Claim 1	Vals																						
	<p style="text-align: center;">TABLE 3</p> <hr/> <p style="text-align: center;">Exemplary Thread Management when the Mobile Computing Device is ACTIVE.</p> <hr/> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Thread</th> <th style="text-align: left;">Status</th> </tr> </thead> <tbody> <tr> <td>T6</td> <td>runs continually until it blocks waiting for a resource</td> </tr> <tr> <td>T3</td> <td>runs for a quantum</td> </tr> <tr> <td>T4</td> <td>runs for a quantum</td> </tr> <tr> <td>T5</td> <td>runs for a quantum and loops back until all the threads block or T6 wakes</td> </tr> <tr> <td>T1</td> <td>runs in sequence for a quantum until it blocks or a higher priority thread resumes</td> </tr> <tr> <td>T2</td> <td>runs in sequence for a quantum until it blocks or a higher priority thread resumes</td> </tr> </tbody> </table> <hr/> <p>In another scenario, the mobile computing device 402 is in a BACKLIGHT OFF power state. The scheduler manages the processor in the exemplary order shown in Table 4 below.</p> <p style="text-align: center;">TABLE 4</p> <hr/> <p style="text-align: center;">Exemplary Thread Management when the Mobile Computing Device is in a BACKLIGHT OFF State.</p> <hr/> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Thread</th> <th style="text-align: left;">Status</th> </tr> </thead> <tbody> <tr> <td>T6</td> <td>runs continually until it blocks waiting for a resource</td> </tr> <tr> <td>T4</td> <td>runs until all the threads block or T6 awakes</td> </tr> <tr> <td>T2</td> <td>runs until it blocks or a higher priority thread resumes.</td> </tr> </tbody> </table> <hr/> <p>In another scenario, the mobile computing device 402 is in a SYSTEM IDLE power state. The scheduler manages the processor in the exemplary order shown in Table 5 below.</p>	Thread	Status	T6	runs continually until it blocks waiting for a resource	T3	runs for a quantum	T4	runs for a quantum	T5	runs for a quantum and loops back until all the threads block or T6 wakes	T1	runs in sequence for a quantum until it blocks or a higher priority thread resumes	T2	runs in sequence for a quantum until it blocks or a higher priority thread resumes	Thread	Status	T6	runs continually until it blocks waiting for a resource	T4	runs until all the threads block or T6 awakes	T2	runs until it blocks or a higher priority thread resumes.
Thread	Status																						
T6	runs continually until it blocks waiting for a resource																						
T3	runs for a quantum																						
T4	runs for a quantum																						
T5	runs for a quantum and loops back until all the threads block or T6 wakes																						
T1	runs in sequence for a quantum until it blocks or a higher priority thread resumes																						
T2	runs in sequence for a quantum until it blocks or a higher priority thread resumes																						
Thread	Status																						
T6	runs continually until it blocks waiting for a resource																						
T4	runs until all the threads block or T6 awakes																						
T2	runs until it blocks or a higher priority thread resumes.																						

'734 Patent – Claim 1	Vals						
	<p>[0041] In another scenario, the mobile computing device 402 is in a SYSTEM IDLE power state. The scheduler manages the processor in the exemplary order shown in Table 5 below.</p> <p style="text-align: center;">TABLE 5</p> <hr/> <p style="text-align: center;">Exemplary Thread Management when the Mobile Computing Device is in a SYSTEM IDLE State.</p> <hr/> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Thread</th> <th style="text-align: left;">Status</th> </tr> </thead> <tbody> <tr> <td>T6</td> <td>runs continually until it blocks waiting for a resource</td> </tr> <tr> <td>T4</td> <td>runs until all the threads block or T6 awakes</td> </tr> </tbody> </table> <hr/> <p>” <i>Id.</i> at [0036]-[0038].</p> <p><i>See</i> [1d], <i>above</i>.</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>	Thread	Status	T6	runs continually until it blocks waiting for a resource	T4	runs until all the threads block or T6 awakes
Thread	Status						
T6	runs continually until it blocks waiting for a resource						
T4	runs until all the threads block or T6 awakes						
<p>[1f] while in the power save mode, allow transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity, user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device,</p>	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Referring next to FIG. 8, an exemplary flow chart illustrates inheritance of the power priority value 112 to avoid thread blocking. In this example, a lower priority thread (e.g., a blocking thread) holds a resource, and delays the execution of a higher priority thread (e.g., a current thread) when both threads</p>						

'734 Patent – Claim 1	Vals
<p>wherein the additional outgoing application data requests are foreground application requests,</p>	<p>are contending for the same resource.” Vals at [0042].</p> <p>FIG. 8</p>  <pre> graph TD Start([START]) --> AcquireMutex[Acquire MUTEX (Thread or Single Object)] AcquireMutex --> Filtered{FILTERED BY MUTEX?} Filtered -- YES --> IsThreadReady{IS THREAD READY?} IsThreadReady -- NO --> AcquireMutex IsThreadReady -- YES --> IsBlockingThreadPriorityValueLess{IS BLOCKING THREAD PRIORITY VALUE LESS THAN POWER PRIORITY VALUE? IF NOT, THEN "LOCK CLEARLY" READY?} IsBlockingThreadPriorityValueLess -- NO --> BlockAndGo[Block and go the thread to the mutex waiting queue] IsBlockingThreadPriorityValueLess -- YES --> SetBlockingThreadPriorityValue[SET BLOCKING THREAD PRIORITY VALUE TO CURRENT BLOCKING PRIORITY VALUE] SetBlockingThreadPriorityValue --> IsThreadReady BlockAndGo --> Stop([STOP]) </pre> <p>“If the computing device 102 transitions to a new power state having a lower power priority value 112 (e.g., less permissive), one or both of the blocking thread and the current thread may block. For example, if the new power state of the computing device 102 permits or allows execution of threads with the power priority value 112 of the current thread, the blocking thread executes until the resource is released. If the new power state of the computing device 102 does not permit or allow execution of threads with the power priority value 112 of the current thread, both the current thread and the blocking thread block or are filtered out until the power state of the computing device 102 transitions to a more permissive state. Alternatively or in addition, the power priority value 112 of the blocking thread may be increased again to enable the blocking thread to execute in the new power state to allow the resource to be released.</p> <p>In an example, the power priority value 112 is adjusted by updating a database via an application programming interface (API). In an embodiment, the power priority value 112 for the blocking thread is set to the maximum power priority</p>

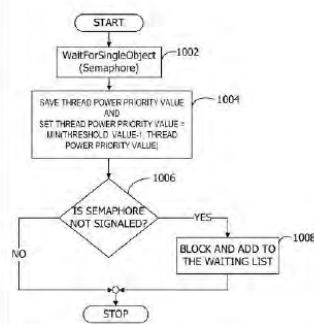
'734 Patent – Claim 1	Vals
	<p>value 112 among the threads waiting for the resource. Additionally, a flag, bit, or other indicator is created to reflect that the power priority value 112 of the blocking thread was adjusted, and the original power priority value is stored or otherwise preserved for eventual restoration in a data structure (see FIG. 9). Element 810 reflects inheritance, priority borrowing, priority inversion, or other adjustment of the power priority value 112 to enable the resource to be eventually released.” Vals at [0045]-[0046].</p> <p>“Referring next to FIG. 9, an exemplary flow chart illustrates restoration of an inherited power priority value after thread completion and release of a resource. At 902, the blocking thread from FIG. 8 releases the MUTEX. At 904, the scheduler determines whether the power priority value 112 of the blocking thread was inherited from another thread, boosted, or otherwise adjusted. For example, the scheduler accesses a data structure used to indicate whether the power priority value 112 had been adjusted (e.g., as described in FIG. 8). If so, the original power priority value is restored from the data structure or other data structure (e.g., a thread data structure) at 906. A next thread in the MUTEX waiting queue is signaled at 908 that the resource is available for use by the next thread.” <i>Id.</i> at [0048].</p>

FIG. 9



“Referring next to FIG. 10, an exemplary flow chart illustrates adjustment of the power priority value 112 for a thread contending for a semaphore. In an embodiment, the semaphore is not owned by a thread. At 1002, a WaitForSingleObject function is called for the semaphore. This function returns when the semaphore has been signaled. When the semaphore is available, the power priority value 112 of the blocking thread inherits the threshold value to ensure that the blocking thread will run. For example, at 1004, the power priority value 112 of the blocking thread is saved, and then set to be the lesser of the power priority value 112 of the blocking thread and the threshold value minus one. Additionally, a flag, bit, or other indicator is created to reflect that the power priority value 112 of the blocking thread was adjusted, and the original power priority value is stored or otherwise preserved for eventual restoration in a data structure (see FIG. 11). The current thread then contends for the semaphore. If the semaphore has not signaled at 1006, the current thread blocks and is added to a waiting list for the semaphore at 1008. Release of the semaphore is next described in FIG. 11.” *Id.* at [0049].

FIG. 10



“Referring next to FIG. 11, an exemplary flow chart illustrates release of the semaphore and restoration of the power priority value 112. At 1102, the semaphore is released by the blocking thread. At 1104, the scheduler determines whether the power priority value 112 of the blocking thread was inherited from another thread, boosted, or otherwise adjusted. For example, the scheduler accesses a data structure used to indicate whether the power priority value 112 had been adjusted (e.g., as described in FIG. 10). If so, the original power priority value is restored at 1106. A next thread in the waiting queue is signaled at 1108 that the semaphore is available for use by the next thread (e.g., the current thread from FIG. 10).” *Id.* at [0050].

'734 Patent – Claim 1	Vals
	<p>FIG. 11</p> <pre> graph TD START([START]) --> 1102[RELEASE SEMAPHORE] 1102 --> 1104{WAS THE THREAD POWER PRIORITY VALUE BOOSTED?} 1104 -- NO --> 1108[SIGNAL NEXT THREAD] 1104 -- YES --> 1106[RESTORE ORIGINAL POWER PRIORITY VALUE] 1106 --> 1108 1108 --> STOP([STOP]) </pre> <p>See [1d]-[1e], above.</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1g] wherein the remote entity is an intermediary server that provides connectivity between an application server for the application and the mobile device;</p>	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“The computer may operate in a networked environment using logical connections to one or more remote computers, such as a remote computer. Although described in connection with an exemplary computing system environment, embodiments of the invention are operational with numerous other general purpose or special purpose computing system environments or configurations. The computing system environment is not intended to suggest</p>

'734 Patent – Claim 1	Vals
	<p>any limitation as to the scope of use or functionality of any aspect of the invention. Moreover, the computing system environment should not be interpreted as having any dependency or requirement relating to any one or combination of components illustrated in the exemplary operating environment. Examples of well known computing systems, environments, and/or configurations that may be suitable for use with aspects of the invention include, but are not limited to, personal computers, server computers, hand-held or laptop devices, multiprocessor systems, microprocessor-based systems, set top boxes, programmable consumer electronics, mobile telephones, network PCs, minicomputers, mainframe computers, distributed computing environments that include any of the above systems or devices, and the like.” Vals at [0052].</p> <p><i>See [1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1h] exit the power save mode based on received instructions from the user to exit the power save mode,</p>	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1d], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person</p>

’734 Patent – Claim 1	Vals
	of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B
<p>[1i] wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.</p>	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“At 202, a plurality of the threads for execution is identified. At 204, the power priority value 112 is determined for each of the identified threads. In an embodiment, the scheduler assigns the power priority value 112 based on factors such as a recommendation from the application developer (e.g., a power profile as illustrated in FIG. 3), rules or guidelines established by an original equipment manufacturer of the computing device 102 or the processor 106, or the like. In the absence of any provided basis for assigning the power priority value 112 for each of the threads, a default power priority value is assigned to each of the threads. For example, the default power priority value is a value that prevents the threads from running in any power state other than ACTIVE.” <i>Id.</i> at [0028].</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 2	Vals
<p>[2] The mobile device of claim 1, wherein the processor is configured to maintain a connection to receive data from the remote entity while in the power save mode.</p>	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 3	Vals
<p>[3] The mobile device of claim 1, wherein the data transfer is a notification of new data at the application server.</p>	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1f]-[1g], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 4	Vals
<p>[4] The mobile device of claim 1, wherein entry into the power save mode is further based on battery level.</p>	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“The state component 120 determines a power state of the computing device 102 and a corresponding threshold value. For example, the state component 120 accesses a lookup table or other mapping between power state and threshold value. Alternatively or in addition, the power state corresponds to a power state associated with the processor 106. The state component 120 determines the power state, for example, upon detection or notification of a change in the power state (e.g., when the computing device 102 becomes idle). Exemplary power states include, but are not limited to, one or more of the following: ON, IDLE, and BACKLIGHT OFF. In another embodiment, the power states correspond to a battery power level and/or state. For example, the power states include, but are not limited to, one or more of the following: RECHARGING, 100%, 75%, 50%, 25%, and LOW.” Vals at [0021].</p> <p><i>See [1f]-[1g], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 5	Vals
<p>[5] The mobile device of claim 1, wherein the processor is configured to receive data in</p>	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p>

’734 Patent – Claim 5	Vals
<p>response to the allowed additional outgoing application data requests.</p>	<p><i>See [1f]-[1g], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 6	Vals
<p>[6] The mobile device of claim 1, wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests while the applications are not allowed transmission of the additional outgoing data requests.</p>	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1f]-[1g], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 7	Vals
<p>[7] The mobile device of claim 1, wherein the processor is configured to receive data directed</p>	<p>Vals discloses this claim limitation. For example, see the following passages</p>

’734 Patent – Claim 7	Vals
<p>towards applications having blocked outgoing application data requests after the applications are allowed transmission of additional outgoing application data requests.</p>	<p>and/or figures, as well as all related disclosures:</p> <p><i>See [1f]-[1g], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 8	Vals
<p>[8] The mobile device of claim 1, wherein the outgoing data requests and the additional data requests are for a same application.</p>	<p>Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1f]-[1g], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 9	Vals
[9pre] A method comprising:	To the extent the preamble is limiting, Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1pre], above.</i>
[9a] receiving instructions, at a mobile device, from a user to enter a power save mode;	Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1d], above.</i>
[9b] while in the power save mode, blocking transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application;	Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1e], above.</i>
[9c] while in the power save mode, allowing transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity and user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests,	Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1f], above.</i>
[9d] wherein the remote entity is an intermediary server that provides connectivity between an application server and the mobile device,	Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1g], above.</i>

'734 Patent – Claim 9	Vals
[9e] exiting the power save mode based on received instructions from the user to exit the power save mode,	Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1h], above.</i>
[9f] wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.	Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1i], above.</i>

'734 Patent – Claim 10	Vals
[10] The method of claim 9, wherein the mobile device is configured to maintain a connection to receive data from the remote entity while in the power save mode.	Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [2], above.</i>

'734 Patent – Claim 11	Vals
[11] The method of claim 9, wherein the data transfer is a notification of new data at the application server.	Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [3], above.</i>

'734 Patent – Claim 12	Vals
[12] The method of claim 9, wherein entrance into the power save mode is further based on battery level.	Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [4], above.</i>
'734 Patent – Claim 13	Vals
[13] The mobile device of claim 1, wherein the intermediary server provides connectivity between another application server and the mobile device.	Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1g], above.</i> Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B
'734 Patent – Claim 14	Vals
[14] The method of claim 9, wherein the intermediary server provides connectivity between another application server and the mobile device.	Vals discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [13], above.</i>

EXHIBIT 734-A10

Invalidity Contentions for U.S. Patent No. 10,091,734 (“the ’734 patent”)

Based on: U.S. Published Patent Application No. 2009/0217065 to Nelson S. Araujo (“Araujo”)

Based on SEVEN’s apparent positions as to the scope of the patent’s claims, as best they can be deciphered, the reference(s) charted below anticipate(s) or at least render(s) obvious the identified claims. The portions of the prior art reference cited below are not exhaustive but are exemplary in nature. Where Apple identifies a portion of the prior art reference’s text, the identification should be understood as referencing any corresponding figure or diagram, and vice versa.

This disclosure is not an admission that Apple concedes any claim construction implied or suggested by SEVEN’s apparent positions as to the scope of the patent’s claims, nor is it an admission by Apple that any of its products are covered by or infringe the patent’s claims, particularly when they are properly construed and applied. Apple is not taking any claim construction positions through this disclosure, including whether the preamble is a limitation.

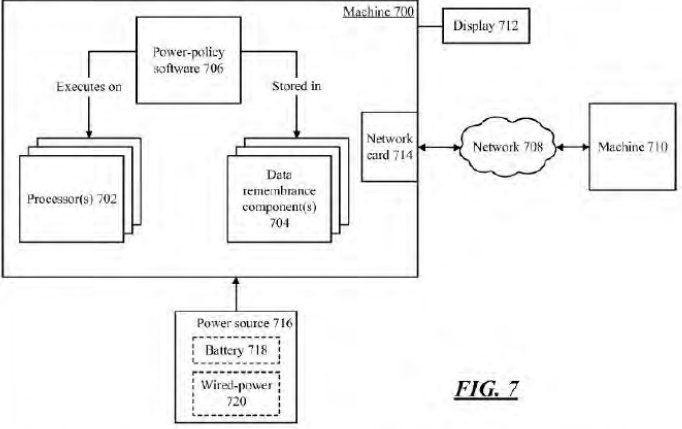
Apple reserves the right to rely on additional citations or sources of evidence that also may be applicable, or that may become applicable in light of claim construction, changes in SEVEN’s infringement contentions, and/or information obtained during discovery as the case progresses. Apple further reserves the right to amend or supplement this claim chart at a later date as more fully set forth in the Invalidity Contentions.

Araujo qualifies as prior art under at least pre-AIA 35 U.S.C. §§ 102(a), (b), (e). Araujo is a U.S. Published Patent Application that was filed on February 26, 2008, published on August 27, 2009, and issued on December 20, 2011.

’734 Patent – Claim 1	Araujo
[1pre] A mobile device which improves network resource utilization in a wireless network, the mobile device, comprising:	To the extent the preamble is limiting, Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: “Machines such as computers, telephones, audio/visual equipment, etc., employ power management schemes to govern the use of energy. Battery-powered machines have a finite amount of energy stored between charges, and these machines generally attempt to use the energy in a way that strikes a balance between providing functionality and maintaining longevity of the charge.

'734 Patent – Claim 1	Araujo
	<p>Electricity is expensive, so even machines that are connected to power sources manage their use of energy in order to reduce the cost of operation. A large server farm may draw several megawatts of power, so managing energy consumption may become an increasingly prominent issue, as the cost of producing electricity increases.</p> <p>A machine may include various devices that draw power, such as a disk, network card, processor, monitor, etc. Power management is normally based on figuring out when each of these devices is to be turned on or off. For example, a power management rule for a computer might state that the monitor is turned off if the keyboard has not been used for ten continuous minutes, since ten minutes of keyboard inactivity suggest that there may be no one present at the machine to look at the monitor. Similar rules may govern disk drives or network cards. If a device has been powered off and then a program makes a request that involves the device, the device is generally powered back on to service the request. This power management technique does not take into account factors, such as whether the program merits the use of the power that would be involved in servicing the program's request. Moreover, when a machine is being powered by a battery, this technique tends to reward early requests for power at the expense of requests that might arise later, even if the later requests would be more meritorious uses of energy than the earlier requests. Power management schemes generally lack the infrastructure to make determinations about power usage based on a rich or complex set of factors.” Araujo at [0001]-[0002].</p> <p>“Power management for a machine may be based on rich policies. These policies may take into account a variety of factors when determining whether to change the power state of a device. A power management runtime may enforce the policy, and may determine whether a particular change of power state for a device is allowed under a policy.” <i>Id.</i> at [0003].</p> <p>“Electronic devices (e.g., computers, wireless telephones, audio/video</p>

’734 Patent – Claim 1	Araujo
	<p>equipment, etc.) normally employ some type of power management framework. For example, a desktop or notebook computer may determine, after some period of inactivity, to enter sleep mode, turn off the monitor, turn off the hard disk, etc. Similarly, a wireless telephone may turn off its display after some period of inactivity. Certain devices may use variable amounts of power, such as a processor that runs at different speeds (lower clock speeds generally consume less power) or a monitor that displays variable levels of brightness (less brightness generally consumes less energy). Thus, a power management scheme may run a device in a lower-power-consumption mode, such as when a computer turns down the monitor brightness and processor speed when its remaining battery power drops below a certain threshold.” <i>Id.</i> at [0014].</p> <p>“FIG. 7 shows an example environment in which aspects of the subject matter described herein may be deployed.</p> <p>Machine 700 (which is an example of an apparatus) includes one or more processors 702 and one or more data remembrance components 704. Processor(s) 702 are typically microprocessors, such as those found in a personal desktop or laptop computer, a server, a handheld computer, or another kind of computing device. Data remembrance component(s) 704 are components that are capable of storing data for either the short or long term. Examples of data remembrance component(s) 704 include hard disks, removable disks (including optical and magnetic disks), volatile and non-volatile random-access memory (RAM), read-only memory (ROM), flash memory, magnetic tape, etc. Data remembrance component(s) are examples of computer-readable storage media. Machine 700 may comprise, or be associated with, display 712, which may be a cathode ray tube (CRT) monitor, a liquid crystal display (LCD) monitor, or any other type of monitor.” <i>Id.</i> at [0052]-[0053].</p>

'734 Patent – Claim 1	Araujo
	 <p style="text-align: center;">FIG. 7</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
[1a] a memory;	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1pre], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in</p>

’734 Patent – Claim 1	Araujo
	<p>Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1b] a radio; and</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1pre], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1c] a processor coupled to the memory and configured to:</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1pre], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and</p>

’734 Patent – Claim 1	Araujo
	Exhibit 734-B
<p>[1d] receive instructions from a user to enter a power save mode;</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Electronic devices (e.g., computers, wireless telephones, audio/video equipment, etc.) normally employ some type of power management framework. For example, a desktop or notebook computer may determine, after some period of inactivity, to enter sleep mode, turn off the monitor, turn off the hard disk, etc. Similarly, a wireless telephone may turn off its display after some period of inactivity. Certain devices may use variable amounts of power, such as a processor that runs at different speeds (lower clock speeds generally consume less power) or a monitor that displays variable levels of brightness (less brightness generally consumes less energy). Thus, a power management scheme may run a device in a lower-power-consumption mode, such as when a computer turns down the monitor brightness and processor speed when its remaining battery power drops below a certain threshold.</p> <p>Power management schemes are normally based on simple rules for deciding when to turn power on or off. An example of such a rule is a timeout, where a device (e.g., disk, monitor, etc.) is turned off after some continuous amount of inactivity. Another example of such a rule is that any request to use the device may cause the device to be turned on if the device is off at the time of the request. These rules may not strike the right balance between power conservation and performance. For example, a device (e.g., a hard disk) might use the same amount of power to start up as it does to run for 15 seconds. If the disk has been inactive for some number of minutes and then shuts down, there is an initial saving in power. But if the disk starts up one second after it has been stopped, then net power usage is greater than if the disk had not been stopped. Existing power management schemes encourage this type of behavior, since they tend to start a device whenever any program requests usage.” Araujo at [0014]-[0015].</p>

’734 Patent – Claim 1	Araujo
	<p>“Power manager 110 is a component that controls the use of power by devices 104-108. Power manager 110 turns devices 104-108 on or off, or otherwise affects their power state. Some devices may be able to assume an intermediate power usage between fully-on and fully-off, in which case power manager 110 may place a device in one of several states (or, in the case of analog variability, could also act as a rheostat). For example, a monitor may operate at different levels of brightness, or a processor may operate at different clock speeds. These brightness levels and clock speeds may be associated with different levels of power consumption. Power manager 110 may set the level of power consumption for a given device 104-108. On and off are examples of power states, as are any kind of discrete or continuous intermediate states.” <i>Id.</i> at [0019].</p> <p>“Power manager 110 controls the respective power states of devices 104-108. Power manager 110 could be implemented as a kernel/system software component, a user-level software component, hardware, or as any other kind of component. Under a normal power management scheme, power manager 110 may cause devices to be turned off, or into a lower power state, based on factors such as timers, the amount of battery power remaining, or any other factor. For example, a monitor may be turned off after n minutes of keyboard inactivity on the theory that the lack of keyboard activity indicates the user is not present to view the monitor. As another example, a processor may be turned down from, say, 2.0 GHz to 600 MHz when fifty percent of the energy in the battery has been depleted, in order to lengthen the remaining time left on the battery when the supply of stored energy is low. However, these are relatively simple power management considerations. If a device is off, it may make sense to service some requests but not others, depending on circumstances. As noted above, an on-line software update may be valuable, but—depending on circumstances—may or may not be worth expenditure of battery power to run the disk, network card, etc., involved in the update. Power management runtime 120 may implement policies that determine when, and under what circumstances, power manager 110 is to turn devices 104-108 on or</p>

’734 Patent – Claim 1	Araujo
	<p>off, or is to place those devices in a different power state.” <i>Id.</i> at [0022].</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1e] while in the power save mode, block transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application;</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Some programs merit the use of power to service any request. Other programs do not. For example, after fifteen minutes of inactivity, the power manager may turn the disk off. Ten seconds later, a scheduled software update may run and may request use of the disk. Under normal power management schemes, the software update program’s request for the disk will cause the disk to be restarted, regardless of the power cost, and regardless of the relative value of running the update at that moment in time. The software update program performs a valuable function. However, if the system is, say, running on battery power, it may be possible to wait for the update until the system is plugged in so that energy can be saved to allow the user to work longer before running out of battery power. Or, security conditions may be such that there is a reason to perform the software update at that moment regardless of the power expenditure—e.g., if there is known to be a zero-day attack propagating through the Internet, in which case delaying the update might expose the computer to an attack. Existing power management schemes generally do not take these considerations into account when evaluating requests to power a device. Rather, any request for a resource may result in the resource being powered to service the request, regardless of why the resource is being</p>

’734 Patent – Claim 1	Araujo
	<p>requested, and without weighing those reasons against the relatively complex set of conditions that may exist at a machine. The reason these considerations are not taken into account is generally that power management schemes generally support simple rules (e.g., turn the disk off after fifteen minutes, but turn it back on as soon as any program requests to use the disk), and not rich policies.” Araujo at [0016].</p> <p>“Program 112 is software that runs on machine 102, or hardware that implements some process on machine 102. Program 112 may be application software, system software, or any other type of software or hardware. Program 112 may make a request 114 to perform an action that involves a device, such as device 104. For example, device 104 could be a hard disk, and request 114 may be a request to read data from the hard disk. As another example, device 104 may be machine 102’s wireless network card, and request 114 may be a request to send data over a wireless network. Request 114 is normally issued through driver 116, which is a software driver appropriate for a particular device 104.</p> <p>Driver 116 may process request 114 by causing (or attempting to cause) device 104 to perform the action sought in the request. As part of processing the request, driver 116 may attempt to determine if device 104 is on or off. If device 104 is on, then driver 116 may (or may not) direct that device 104 perform the requested action. (Request 114 could be denied or delayed for various reasons, such as that device 104 may be busy servicing a different request. Moreover, device 104 might not be directed to carry out the request even if device 104 is on—for example, since a network card may use more power when transmitting than when idle, a network card that might be directed not to carry out a request in order to conserve power, even if the network card is on.) However, if device 104 is off, then driver 116 may communicate with power manager 110 (as indicated by arrow 118) to request that power manager 110 turn on device 104. Or, request 114 may go unfulfilled due to the off state of device 104, and driver 116 may inform program 112 that request 114 has</p>

’734 Patent – Claim 1	Araujo
	<p>been denied, delayed, etc., because device 104 is off. (As discussed below in connection with FIG. 6, a component situated between program 112 and driver 116 may deny a request based on power usage considerations before the request reaches driver 116.)” Araujo at [0020]-[0021].</p> <p>“FIG. 2 shows an example process in which a program's request to use a power-consuming device may be decided. The flow diagram of FIG. 2 (as well as that of FIG. 5, discussed below) are described with reference to components discussed herein. For example, the following description of FIG. 2 makes reference to components shown in FIG. 1. However, the processes shown in the flow diagrams may be carried out in any system and are not limited to the scenarios discussed herein. Additionally, each of the flow diagrams in FIGS. 2 and 5 shows an example in which stages of a process are carried out in a particular order, as indicated by the lines connecting the blocks, but the various stages shown in these diagrams can be performed in any order, or in any combination or sub-combination.</p> <p>At 202, a request to perform an action using a particular device is detected. For example a request to write data to a disk may be received, in which case the device that would be involved in servicing the request is the disk drive. If the disk drive is, e.g., device 104 (shown in FIG. 1), then the request may be received by driver 116 (also shown in FIG. 1). However, the request could be received by any component. One example of such other component is shown in FIG. 6 and discussed below, in which a deflector component receives or intercepts requests and responds to the requests based on power management considerations before the request reach a device driver.</p> <p>At 204, it is determined whether servicing of the request involves a change in the device's power state, such as a change from off to on, a change from one intermediate power state to another, or a change between an extreme power state (on or off) and an intermediate power state. If servicing the request does not involve such a change, then the request may processed (at 206)—e.g., if the</p>

'734 Patent – Claim 1	Araujo
	<p>request is to write data to a disk and the disk drive is already on, then the write request may be proceed as normal. If servicing the request does involve a change in the device's power state, then it may be determined (at 208) whether a policy (e.g., a power management policy) allows the device's power state to be changed to service the request. This determination may be made, for example, by power management runtime 120, and may involve various considerations. Typically, a device's power state is changed based on the mere fact that a request to use the device is being made (e.g., a request to use a disk that is off typically results in the disk being turned on). However, in an example implementation of the subject matter herein, a justification to change a device from one power state to another may be based on at least one factor other than the mere fact that a request to use the device has been made.” <i>Id.</i> at [0023]-[0025].</p> <p>“FIG. 4 represents example actions that may take place if a power state change is not allowable under the policy at the time that the change is sought (block 402). For example, the power state change may be sought in order to turn on a device, or to raise the power state of a device, in order to allow the device to</p>

'734 Patent – Claim 1	Araujo
	<p>service a request from an application. (However, a power state change could arise for any reason; a program's request to use a device is only one example of such a reason.) Blocks 404-414 represent various example actions that may be performed if the power state change is not allowable under the policy.</p> <p>One such action is to queue a program's request to be processed at some later time (block 404). For example, if a program requests to use a device that is turned off (e.g., a disk, a network card, etc.), and the power management policy does not allow the device to be turned on at the time of the request, the request may be queued so that it can be serviced at some later. For example, if at some later time the power management policy allows the device to be turned on, then the program's request may be dequeued and processed (although a request could stay in a queue indefinitely while waiting to be processed, or could be denied asynchronously at a later time).</p> <p>Another such action is to block the request (block 406). In this case, the program making a request to use the device may be notified that the request will not be processed. The program may also be notified that the reason for the request is that the device is off. For example, the program may receive an error code or result code indicating that the request calls for a device that is not turned on. Dropping the request (block 408) is similar to blocking the request, except that when the request is dropped, the request may simply not be carried out without the requesting program's being notified of that fact." <i>Id.</i> at [0038]-[0040].</p> <p>“Another option is to impose a delay on carrying out the request (block 414). A delayed request may be attempted later at a particular time. For example, a computer could be operating in a “batch” mode that conserves power by allowing network transmissions to happen in bursts rather than at the time the time that the outbound network traffic is generated. The power management policy for such a mode might call for the network card to be turned on at specific intervals (e.g., every fifteen minutes). If a request to transmit data over</p>

a network is made between these intervals, the request may be delayed until the next time that the network card is scheduled to be powered on, at which time the request could be allowed.” Araujo at [0043].

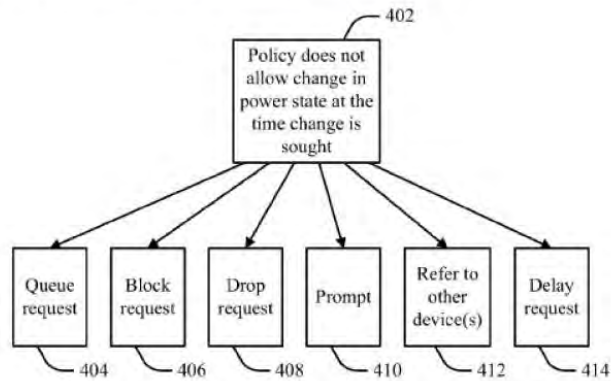


FIG. 4

“When the circumstance arises to consider a power-state change, it may be determined under the power management policy (at 504) whether to change the power state of a device. If the policy does not call for a power state change, then no changes are made to the device's power state (at 506). Otherwise, the power state is changed in the manner called for by the policy (at 508). The change in power state may take various forms. One example of a power state change is to turn the device from off to on (at 510). Another example of a power state change is to change the device from one intermediate power state to another (at 512), such as changing the processor speed, monitor brightness, etc.” *Id.* at [0047].

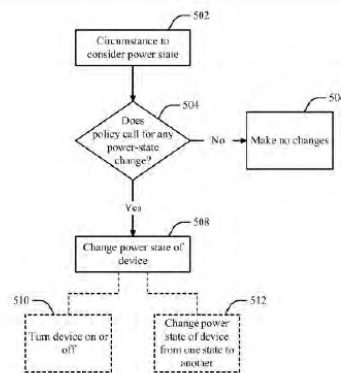
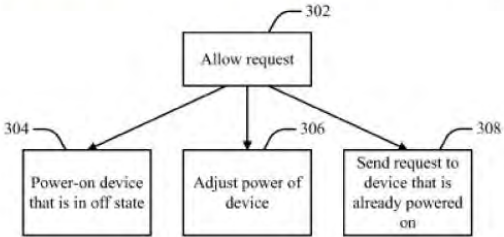


FIG. 5

“As described above in connection with FIG. 1, a program normally makes a request to use a device through the device's driver. If the device is powered off, the program may learn that the device is off from the driver. However, a component may be interposed between the program and the device driver to deflect requests based on power management policy. The driver is able to inform a program that use of a device is denied because the device is off. However, the existence of a rich power management policy means that a program might be denied use of a device for power-related reasons that are separate from the question of whether the device is powered on or off at the time of the request. The existence of a component between the program and the driver helps to decouple the question of whether a device is on or off from the question of whether a program is allowed to use the device under the ambient power management policy. FIG. 6 shows the use of a component that is interposed between a program and driver, and that may help to enforce a power management policy.” *Id.* at [0048].

’734 Patent – Claim 1	Araujo
	<p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1f] while in the power save mode, allow transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity, user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests,</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“The following are some example considerations that power management runtime 120 may use to determine whether the device's power state may be changed:</p> <p>Status of program (block 252). For the purpose of power management, a program may have a status that reflects its worthiness to consume power. For example, some programs may have a “VIP” status that allows them to consume power in situations where other programs would not be permitted to consume power. (“VIP” typically stands for “very important person”, but in this context may be applied to a program in this sense of denoting one program's relative merit or justification to consume energy.) Programs could be assigned binary VIP/non-VIP status, or their status could be indicated on a scale (e.g., a scale of 1-10, indicating a given program's relative worthiness to receive a power allocation). Whether a program is permitted to consume power could be based on a finding as to whether the program's status justifies the consumption of power under the circumstances that are present.” Araujo at [0026]-[0027].</p> <p>“Externally-received information (block 262). In determining whether to allow a device to change its power state, information may be considered from outside the machine on which the power is to be consumed. This information may take any form, and may have any type of content. For example, a software update</p>

’734 Patent – Claim 1	Araujo
	<p>service may not normally merit the use of power when a computer is running on battery power. (E.g., the software update program's status, as represented in block 252, may not normally be high enough to justify using battery power to run devices used by the update program.) However, information may be received from external sources indicating that a zero-day attack is spreading. Such information could be received, in the form of a Really Simple Syndication (RSS) feed that contains security alerts, or could be received in any other form. Such information may be considered in order to determine whether the update program justifies consumption of battery power, even if consumption of battery power to service the program would normally be denied. As another example, an instant messaging program might not normally have sufficient status (see block 252) to justify powering on the monitor, but if the content of the instant message is reporting, say, a change of more than 3% in the price of a particular stock, then this fact may be used to determine that the monitor is to be turned on so that the user is able to see the alert. These are specific examples of how information received from external sources could be used to affect power usage decisions, although any other type of information from external sources could be used.” <i>Id.</i> at [0032].</p> <p>“FIG. 3 represents example actions that may take place if a power state change is allowable (block 302). If a program requests to use a device that is not powered on, and applying power to the device is allowable under the power management policy, then the device may be powered on in order to allow the device to service the request (block 304). Similarly, if the device may be in one of several power states and servicing a program's request involves placing the device in a different power state (e.g., changing the brightness of a monitor, changing the clock speed of a processor, etc.), then the device may be placed in a different power state to service the request (block 306). Of course, when a program requests to use a device, that device may already be powered on and/or in an appropriate power state. In that case, the program's use of the device does not affect power management, so the already-powered device may</p>

'734 Patent – Claim 1	Araujo
	<p>be permitted to service the program's request (at 308)." <i>Id.</i> at [0037].</p>  <pre> graph TD 302[Allow request] --> 304[Power-on device that is in off state] 302 --> 306[Adjust power of device] 302 --> 308[Send request to device that is already powered on] </pre> <p style="text-align: center;"><i>FIG. 3</i></p> <p><i>See [1e], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1g] wherein the remote entity is an intermediary server that provides connectivity between an application server for the application and the mobile device;</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill</p>

’734 Patent – Claim 1	Araujo
	<p>in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1h] exit the power save mode based on received instructions from the user to exit the power save mode,</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1d], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
<p>[1i] wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Some programs merit the use of power to service any request. Other programs do not. For example, after fifteen minutes of inactivity, the power manager may turn the disk off. Ten seconds later, a scheduled software update may run and may request use of the disk. Under normal power management schemes, the software update program’s request for the disk will cause the disk to be restarted, regardless of the power cost, and regardless of the relative value of running the update at that moment in time. The software update program performs a valuable function. However, if the system is, say, running on battery power, it may be possible to wait for the update until the system is plugged in so that energy can be saved to allow the user to work longer before running out</p>

’734 Patent – Claim 1	Araujo
	<p>of battery power. Or, security conditions may be such that there is a reason to perform the software update at that moment regardless of the power expenditure—e.g., if there is known to be a zero-day attack propagating through the Internet, in which case delaying the update might expose the computer to an attack. Existing power management schemes generally do not take these considerations into account when evaluating requests to power a device. Rather, any request for a resource may result in the resource being powered to service the request, regardless of why the resource is being requested, and without weighing those reasons against the relatively complex set of conditions that may exist at a machine. The reason these considerations are not taken into account is generally that power management schemes generally support simple rules (e.g., turn the disk off after fifteen minutes, but turn it back on as soon as any program requests to use the disk), and not rich policies.” Araujo at [0016].</p> <p>“The following are some example considerations that power management runtime 120 may use to determine whether the device’s power state may be changed:</p> <p>Status of program (block 252). For the purpose of power management, a program may have a status that reflects its worthiness to consume power. For example, some programs may have a “VIP” status that allows them to consume power in situations where other programs would not be permitted to consume power. (“VIP” typically stands for “very important person”, but in this context may be applied to a program in this sense of denoting one program’s relative merit or justification to consume energy.) Programs could be assigned binary VIP/non-VIP status, or their status could be indicated on a scale (e.g., a scale of 1-10, indicating a given program’s relative worthiness to receive a power allocation). Whether a program is permitted to consume power could be based on a finding as to whether the program’s status justifies the consumption of power under the circumstances that are present.” Araujo at [0026]-[0027].</p>

’734 Patent – Claim 1	Araujo
	<p>“Externally-received information (block 262). In determining whether to allow a device to change its power state, information may be considered from outside the machine on which the power is to be consumed. This information may take any form, and may have any type of content. For example, a software update service may not normally merit the use of power when a computer is running on battery power. (E.g., the software update program's status, as represented in block 252, may not normally be high enough to justify using battery power to run devices used by the update program.) However, information may be received from external sources indicating that a zero-day attack is spreading. Such information could be received, in the form of a Really Simple Syndication (RSS) feed that contains security alerts, or could be received in any other form. Such information may be considered in order to determine whether the update program justifies consumption of battery power, even if consumption of battery power to service the program would normally be denied. As another example, an instant messaging program might not normally have sufficient status (see block 252) to justify powering on the monitor, but if the content of the instant message is reporting, say, a change of more than 3% in the price of a particular stock, then this fact may be used to determine that the monitor is to be turned on so that the user is able to see the alert. These are specific examples of how information received from external sources could be used to affect power usage decisions, although any other type of information from external sources could be used.” <i>Id.</i> at [0032].</p> <p>“Prompting a user (or other person) for input (block 410) is another action that may be performed when a power state change is not allowable. For example, if a program requests to send data over a network card that has been turned off, a dialog box may be generated on a display that informs the person in front of the display that the card is off. The dialog box may also inform the person of the request's energy-consumption effect, and of whether the requested consumption of energy is permitted under the policy. For example, the dialog box could say, “To preserve battery power, power-use policy blocks this action while the system is unplugged.” The dialog box may also solicit input from the person</p>

'734 Patent – Claim 1	Araujo
	<p>(e.g., “Would you like to proceed anyway?”), or may simply inform the person that the card is off and suggest that the user try again later.” <i>Id.</i> at [0041].</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

'734 Patent – Claim 2	Araujo
<p>[2] The mobile device of claim 1, wherein the processor is configured to maintain a connection to receive data from the remote entity while in the power save mode.</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 3	Araujo
<p>[3] The mobile device of claim 1, wherein the data transfer is a notification of new data at the application server.</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>

’734 Patent – Claim 4	Araujo
<p>[4] The mobile device of claim 1, wherein entry into the power save mode is further based on battery level.</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Electronic devices (e.g., computers, wireless telephones, audio/video equipment, etc.) normally employ some type of power management framework. For example, a desktop or notebook computer may determine, after some period of inactivity, to enter sleep mode, turn off the monitor, turn off the hard disk, etc. Similarly, a wireless telephone may turn off its display after some period of inactivity. Certain devices may use variable amounts of power, such as a processor that runs at different speeds (lower clock speeds generally consume less power) or a monitor that displays variable levels of brightness (less brightness generally consumes less energy). Thus, a power management scheme may run a device in a lower-power-consumption mode, such as when a computer turns down the monitor brightness and processor speed when its remaining battery power drops below a certain threshold.</p>

’734 Patent – Claim 4	Araujo
	<p>Power management schemes are normally based on simple rules for deciding when to turn power on or off. An example of such a rule is a timeout, where a device (e.g., disk, monitor, etc.) is turned off after some continuous amount of inactivity. Another example of such a rule is that any request to use the device may cause the device to be turned on if the device is off at the time of the request. These rules may not strike the right balance between power conservation and performance. For example, a device (e.g., a hard disk) might use the same amount of power to start up as it does to run for 15 seconds. If the disk has been inactive for some number of minutes and then shuts down, there is an initial saving in power. But if the disk starts up one second after it has been stopped, then net power usage is greater than if the disk had not been stopped. Existing power management schemes encourage this type of behavior, since they tend to start a device whenever any program requests usage.” Araujo at [0014]-[0015].</p> <p>“The current amount of energy remaining (block 258). The amount of energy remaining in a battery may be considered in determining whether to change a device's power state. For example, the decision as to whether to power a device may be different depending on whether a battery has already discharged 25% (or 75%, or n %) of its energy.</p> <p>Present use of power (block 260). The amount of power that is presently being drawn may be a consideration in deciding whether to change the power state for a device. For example, a policy may set a target of maintaining power consumption below n watts, or within a range of m to n watts. Thus, the present amount of power consumption may be considered to determine whether a proposed power state change would cause power consumption to fall outside of the target.” <i>Id.</i> at [0030]-[0031].</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill</p>

’734 Patent – Claim 4	Araujo
	<p>in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
’734 Patent – Claim 5	Araujo
<p>[5] The mobile device of claim 1, wherein the processor is configured to receive data in response to the allowed additional outgoing application data requests.</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
’734 Patent – Claim 6	Araujo
<p>[6] The mobile device of claim 1, wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests while the applications are not allowed transmission of the additional outgoing data requests.</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in</p>

’734 Patent – Claim 6	Araujo
	Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B

’734 Patent – Claim 7	Araujo
<p>[7] The mobile device of claim 1, wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests after the applications are allowed transmission of additional outgoing application data requests.</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Another option is to impose a delay on carrying out the request (block 414). A delayed request may be attempted later at a particular time. For example, a computer could be operating in a “batch” mode that conserves power by allowing network transmissions to happen in bursts rather than at the time the time that the outbound network traffic is generated. The power management policy for such a mode might call for the network card to be turned on at specific intervals (e.g., every fifteen minutes). If a request to transmit data over a network is made between these intervals, the request may be delayed until the next time that the network card is scheduled to be powered on, at which time the request could be allowed.” Araujo at [0043].</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine</p>

’734 Patent – Claim 7	Araujo
	references and additional details may be found in the Cover Pleading and Exhibit 734-B
’734 Patent – Claim 8	Araujo
[8] The mobile device of claim 1, wherein the outgoing data requests and the additional data requests are for a same application.	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
’734 Patent – Claim 9	Araujo
[9pre] A method comprising:	<p>To the extent the preamble is limiting, Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1pre], above.</i></p>
[9a] receiving instructions, at a mobile device, from a user to enter a power save mode;	Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:

’734 Patent – Claim 9	Araujo
	<i>See [1d], above.</i>
[9b] while in the power save mode, blocking transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application;	Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1e], above.</i>
[9c] while in the power save mode, allowing transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity and user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests,	Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1f], above.</i>
[9d] wherein the remote entity is an intermediary server that provides connectivity between an application server and the mobile device,	Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1g], above.</i>
[9e] exiting the power save mode based on received instructions from the user to exit the power save mode,	Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1h], above.</i>
[9f] wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein	Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1i], above.</i>

'734 Patent – Claim 9	Araujo
the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.	
'734 Patent – Claim 10	Araujo
[10] The method of claim 9, wherein the mobile device is configured to maintain a connection to receive data from the remote entity while in the power save mode.	Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [2], above.</i>
'734 Patent – Claim 11	Araujo
[11] The method of claim 9, wherein the data transfer is a notification of new data at the application server.	Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [3], above.</i>
'734 Patent – Claim 12	Araujo
[12] The method of claim 9, wherein entrance into the power save mode is further based on battery level.	Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [4], above.</i>

’734 Patent – Claim 13	Araujo
<p>[13] The mobile device of claim 1, wherein the intermediary server provides connectivity between another application server and the mobile device.</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1g], [3], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B</p>
’734 Patent – Claim 14	Araujo
<p>[14] The method of claim 9, wherein the intermediary server provides connectivity between another application server and the mobile device.</p>	<p>Araujo discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [13], above.</i></p>

EXHIBIT 734-A11

Invalidity Contentions for U.S. Patent No. 10,091,734 (“the ’734 patent”)

Based on: U.S. Published Patent Application No. 2015/0241941 to Michael Luna et al. (“Luna 941”)

Based on SEVEN’s apparent positions as to the scope of the patent’s claims, as best they can be deciphered, the reference(s) charted below anticipate(s) or at least render(s) obvious the identified claims. The portions of the prior art reference cited below are not exhaustive but are exemplary in nature. Where Apple identifies a portion of the prior art reference’s text, the identification should be understood as referencing any corresponding figure or diagram, and vice versa.

This disclosure is not an admission that Apple concedes any claim construction implied or suggested by SEVEN’s apparent positions as to the scope of the patent’s claims, nor is it an admission by Apple that any of its products are covered by or infringe the patent’s claims, particularly when they are properly construed and applied. Apple is not taking any claim construction positions through this disclosure, including whether the preamble is a limitation.

Apple reserves the right to rely on additional citations or sources of evidence that also may be applicable, or that may become applicable in light of claim construction, changes in SEVEN’s infringement contentions, and/or information obtained during discovery as the case progresses. Apple further reserves the right to amend or supplement this claim chart at a later date as more fully set forth in the Invalidity Contentions.

Luna 941 is a U.S. Published Patent Application that was filed on May 12, 2015, published on August 27, 2015, and issued on June 6, 2017. Apple disputes that the ’734 Patent is entitled to SEVEN’s alleged priority date at least because the provisional applications do not provide support for the asserted claims. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). To the extent the ’029 Patent is not entitled to SEVEN’s alleged priority date, Luna 941 qualifies as prior art under at least pre-AIA 35 U.S.C. §§ 102(b). Apple also disputes that the ’734 Patent specification’s disclosures (which include much of Luna 941’s disclosures) provide written description support for the limitations of the asserted claims. However, to the extent the ’734 Patent provides this support, Luna 941 at least renders the ’734 Patent obvious.

’734 Patent – Claim 1	Luna 941
<p>[1pre] A mobile device which improves network resource utilization in a wireless network, the mobile device, comprising:</p>	<p>To the extent the preamble is limiting, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“The host server 100 can use, for example, contextual information obtained for client devices 102, networks 106/108, applications (e.g., mobile applications), application server/provider 110, or any combination of the above, to manage the traffic in the system to satisfy data needs of the client devices 102 (e.g., to satisfy application or any other request including HTTP request). In one embodiment, the traffic is managed by the host server 100 to satisfy data requests made in response to explicit or non-explicit user 103 requests and/or device/application maintenance tasks. The traffic can be managed such that network consumption, for example, use of the cellular network is conserved for effective and efficient bandwidth utilization. In addition, the host server 100 can manage and coordinate such traffic in the system such that use of device 102 side resources (e.g., including but not limited to battery power consumption, radio use, processor/memory use) are optimized with a general philosophy for resource conservation while still optimizing performance and user experience.” Luna 941 at [0092].</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
<p>[1a] a memory;</p>	<p>Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“As used herein, a “module,” “a manager,” a “handler,” a “detector,” an</p>

’734 Patent – Claim 1	Luna 941
	<p>“interface,” or an “engine” includes a general purpose, dedicated or shared processor and, typically, firmware or software modules that are executed by the processor. Depending upon implementation-specific or other considerations, the module, manager, handler, or engine can be centralized or its functionality distributed. The module, manager, handler, or engine can include general or special purpose hardware, firmware, or software embodied in a computer-readable (storage) medium for execution by the processor. As used herein, a computer-readable medium or computer-readable storage medium is intended to include all mediums that are statutory (e.g., in the United States, under 35 U.S.C. 101), and to specifically exclude all mediums that are non-statutory in nature to the extent that the exclusion is necessary for a claim that includes the computer-readable (storage) medium to be valid. Known statutory computer-readable mediums include hardware (e.g., registers, random access memory (RAM), non-volatile (NV) storage, to name a few), but may or may not be limited to hardware.” Luna 941 at [0117].</p> <p><i>See [1pre], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
[1b] a radio; and	<p>Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1pre]-[1a], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when</p>

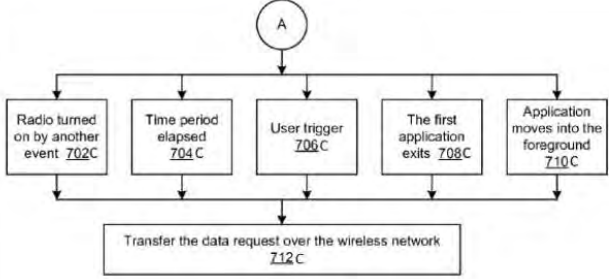
’734 Patent – Claim 1	Luna 941
	<p>combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
<p>[1c] a processor coupled to the memory and configured to:</p>	<p>Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1pre]-[1a], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
<p>[1d] receive instructions from a user to enter a power save mode;</p>	<p>To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“In one embodiment, power save mode is not applied when the device 550 is plugged into a charger. This setting can be reconfigured or adjusted by the user or another party. In general, the power save mode can be turned on and off, for example, by the user via a user interface on device 550. In general, timing of power events to receive data can be synced with any power save calls to optimize radio use.” Luna 941 at [0245].</p>

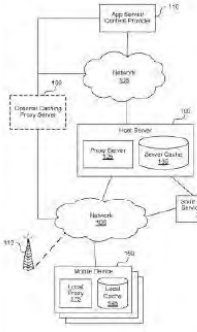
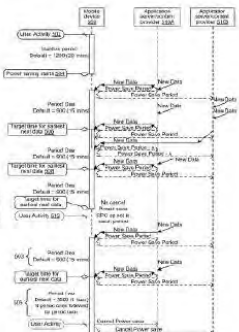
’734 Patent – Claim 1	Luna 941
	<p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
[1e(a)] while in the power save mode,	<p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
[1e(b)] block transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application;	<p>To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“In some embodiments, in order to optimize (e.g., typically to minimize) the number of times that a device (e.g., a mobile device or smart phone) radio is turned on to decrease the consumption of power (and hence conserve its battery or other power source), a distributed proxy system including a local proxy and/or proxy server can operate to intercept the events or transactions (or requests for transfer) of information. When intercepted, the local proxy and/or the proxy server can delay (or expedite) the time at which one or more of these transfers would normally occur in order to perform multiple transfers together as part of a single transfer operation (i.e., instead of performing multiple, individual transfers). Alternatively, the local and/or proxy server can pre-</p>

’734 Patent – Claim 1	Luna 941
	<p>retrieve data for a non-priority application or less important/time sensitive application whose polls are typically expected to happen before another application having higher priority, for example. In other words, a delay could be negative resulting in content pre-retrieval for alignment with an anticipated data request which typically happens before the request of the lesser priority application” Luna 941 at [0060].</p> <p>“Device 250 can further include, client-side components of the distributed proxy and cache system which can include, a local proxy 275 (e.g., a mobile client of a mobile device) and a cache 285. In one embodiment, the local proxy 275 includes a user activity module 215, a proxy API 225, a request/transaction manager 235, a caching policy manager 245, a traffic shaping engine 255, and/or a connection manager 265. The traffic shaping engine 255 may further include an alignment module 256 and/or a batching module 257, the connection manager 265 may further include a radio controller 266. The request/transaction manager 235 can further include an application behavior detector 236 and/or a prioritization engine 241, the application behavior detector 236 may further include a pattern detector 237 and/or an application profile generator 239. Additional or less components/modules/engines can be included in the local proxy 275 and each illustrated component.” Luna 941 at [0116].</p> <p>“One embodiment of the local proxy 275 further includes a request/transaction manager 235, which can detect, identify, intercept, process, manage, data requests initiated on the device 250, for example, by applications 210 and/or 220, and/or directly/indirectly by a user request. The request/transaction manager 235 can determine how and when to process a given request or transaction, or a set of requests/transactions, based on transaction characteristics.” <i>Id.</i> at [0130].</p> <p>“Inbox pruning events (e.g., email, or any other types of messages), are</p>

’734 Patent – Claim 1	Luna 941
	<p>generally considered low priority and absent other impending events, generally will not trigger use of the radio on the device 250. Specifically, pruning events to remove old email or other content can be ‘piggy backed’ with other communications if the radio is not otherwise on, at the time of a scheduled pruning event. For example, if the user has preferences set to ‘keep messages for 7 days old,’ then instead of powering on the device radio to initiate a message delete from the device 250 the moment that the message has exceeded 7 days old, the message is deleted when the radio is powered on next. If the radio is already on, then pruning may occur as regularly scheduled.</p> <p>The request/transaction manager 235, can use the priorities for requests (e.g., by the prioritization engine 241) to manage outgoing traffic from the device 250 for resource optimization (e.g., to utilize the device radio more efficiently for battery conservation). For example, transactions/requests below a certain priority ranking may not trigger use of the radio on the device 250 if the radio is not already switched on, as controlled by the connection manager 265. In contrast, the radio controller 266 can turn on the radio such a request can be sent when a request for a transaction is detected to be over a certain priority level.” <i>Id.</i> at [0140]-[0141].</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
[1f(a)] while in the power save mode, allow transmission of additional outgoing application data requests in response to occurrence of	To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:

’734 Patent – Claim 1	Luna 941
receipt of data transfer from a remote entity,	<p>“In process 504, after the user has been detected to be inactive or idle over a period of time (e.g., the example is shown for a period of inactivity of 20 min.), the local proxy can adjust the device to go into the power saving mode. In the power saving mode, when the local proxy receives a message or a correspondence from a remote proxy (e.g., the server proxy 135 in the example of FIG. 1B) on the server-side of the distributed proxy and cache system, the local proxy can respond with a call indicating that the device 550 is currently in power save mode (e.g., via a power save remote procedure call). In some instances, the local proxy take the opportunity to notify multiple accounts or providers (e.g., 510A, and 510B) of the current power save status (e.g., timed to use the same radio power-on event).” Luna 941 at [0240].</p> <p>“FIG. 7C depicts an example of triggering events that would cause a data request to be transferred without alignment with another data request.</p> <p>The events shown in processes 702C-710C can occur independently or in conjunction with one another and cause the data request to be transferred over the wireless network without or with minimal delay upon occurrences of these events. For example, in process 702C, the mobile device radio is turned on due to another event. In process 704C, a certain time period has elapsed, in process 706C, a user trigger is detected, and/or the first application exits in process 708C and/or moves into the background in process 710C. When any of the above conditions are detected, n process 721C, the data request is transferred over the wireless (cellular or others) network.” <i>Id.</i> at [0297]-[0298].</p>

'734 Patent – Claim 1	Luna 941
	 <p style="text-align: center;">FIG. 7C</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
<p>[1f(b)] user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests,</p>	<p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>

’734 Patent – Claim 1	Luna 941
<p>[1g] wherein the remote entity is an intermediary server that provides connectivity between an application server for the application and the mobile device;</p>	<p>To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“In context aware traffic management and optimization for resource conservation in a network (e.g., cellular or other wireless networks), characteristics of user activity/behavior and/or application behavior at a mobile device 150 can be tracked by the local proxy 175 and communicated, over the network 106 to the proxy server 125 component in the host server 100, for example, as connection metadata. The proxy server 125 which in turn is coupled to the application server/provider 110 provides content and data to satisfy requests made at the device 150.” Luna 941 at [0105].</p> <div style="display: flex; justify-content: space-around;">   </div> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine</p>

’734 Patent – Claim 1	Luna 941
	<p>references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
<p>[1h] exit the power save mode based on received instructions from the user to exit the power save mode,</p>	<p>To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1d], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
<p>[1i(a)] wherein, when the power save mode is exited,</p>	<p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine</p>

’734 Patent – Claim 1	Luna 941
	<p>references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
<p>[1i(b)] the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.</p>	<p>To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“Table I above shows, for illustration purposes, some examples of transactions with examples of assigned priorities in a binary representation scheme. Additional assignments are possible for additional types of events, requests, transactions, and as previously described, priority assignments can be made at more or less granular levels, e.g., at the session level or at the application level, etc.” Luna 941 at [0138].</p> <p>“In general, the batching capability can be disabled or enabled at the event/transaction level, application level, or session level, based on any one or combination of the following: user configuration, device limitations/settings, manufacturer specification, network provider parameters/limitations, platform specific limitations/settings, device OS settings, etc. In one embodiment, batch transfer can be initiated when an application/window/file is closed out, exited, or moved into the background; users can optionally be prompted before initiating a batch transfer; users can also manually trigger batch transfers” <i>id.</i> at [0145].</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>

'734 Patent – Claim 2

Luna 941

[2] The mobile device of claim 1, wherein the processor is configured to maintain a connection to receive data from the remote entity while in the power save mode.

To the extent the '734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:

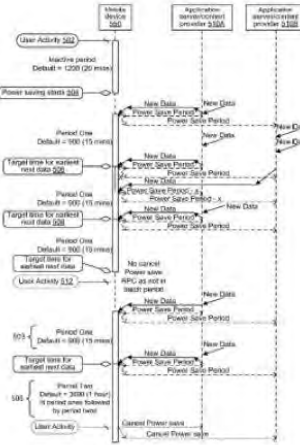


FIG. 5

Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.

’734 Patent – Claim 3	Luna 941
<p>[3] The mobile device of claim 1, wherein the data transfer is a notification of new data at the application server.</p>	<p>To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“The manager 245 can request that the remote proxy monitor responses for the data request, and the remote proxy can notify the device 250 when an unexpected response to the data request is detected. In such an event, the cache policy manager 245 can erase or replace the locally stored response(s) on the device 250 when notified of the unexpected response (e.g., new data, changed data, additional data, different response, etc.) to the data request. In one embodiment, the caching policy manager 245 is able to detect or identify the protocol used for a specific request, including but not limited to HTTP, HTTPS, IMAP, POP, SMTP and/or ActiveSync. In one embodiment, application specific handlers (e.g., via the application protocol module 246 of the manager 245) on the local proxy 275 allows for optimization of any protocol that can be port mapped to a handler in the distributed proxy (e.g., port mapped on the proxy server 325 in the example of FIG. 3A).” Luna 941 at [0150].</p> <p>“As a result of the offloading of the polling, locally cached content stored in the local cache 285 can be provided to satisfy data requests at the device 250, when content change is not detected in the polling of the content sources. As such, when data has not changed, application data needs can be satisfied without needing to enable radio use or occupying cellular bandwidth in a wireless network. When data has changed, or when data is different, and/or new data has been received, the remote entity to which polling is offloaded, can notify the device 250. The remote entity may be the host server 300 as shown in the example of FIG. 3A.” <i>Id.</i> at [0156].</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when</p>

'734 Patent – Claim 3	Luna 941
	<p>combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
'734 Patent – Claim 4	Luna 941
<p>[4] The mobile device of claim 1, wherein entry into the power save mode is further based on battery level.</p>	<p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
'734 Patent – Claim 5	Luna 941
<p>[5] The mobile device of claim 1, wherein the processor is configured to receive data in response to the allowed additional outgoing application data requests.</p>	<p>To the extent the '734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill</p>

’734 Patent – Claim 5	Luna 941
	<p>in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
’734 Patent – Claim 6	Luna 941
<p>[6] The mobile device of claim 1, wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests while the applications are not allowed transmission of the additional outgoing data requests.</p>	<p>To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
’734 Patent – Claim 7	Luna 941
<p>[7] The mobile device of claim 1, wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests after the applications are allowed transmission of additional outgoing</p>	<p>To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p>“In some instances the content requests (made by the same application or different applications) are aligned by delaying or expediting a time at which</p>

’734 Patent – Claim 7	Luna 941
<p>application data requests.</p>	<p>some of the content requests would occur without alignment and the traffic shaping engine 256 can transfer the content requests that are delayed or expedited in a single transfer operation over the network (cellular or other wireless network). The amount of time that a request can be delayed (time ‘D’) is generally determined (e.g., by the delay module 258) to optimize a number of content requests able to be aligned in the single transfer operation. Hence delay module 258 can utilize the correlations in event/transaction occurrences within an application or across multiple applications as identified by the correlation detector 238 in determining delay time for aligning multiple requests.” Luna 941 at [0171].</p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>
’734 Patent – Claim 8	Luna 941
<p>[8] The mobile device of claim 1, wherein the outgoing data requests and the additional data requests are for a same application.</p>	<p>To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1e]-[1f], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill</p>

’734 Patent – Claim 8	Luna 941
	in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.

’734 Patent – Claim 9	Luna 941
[9pre] A method comprising:	To the extent the preamble is limiting, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1pre], above.</i>
[9a] receiving instructions, at a mobile device, from a user to enter a power save mode;	To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1d], above.</i>
[9b(a)] while in the power save mode,	<i>See [1e], above.</i>
[9b(b)] blocking transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application;	To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1e], above.</i>
[9c(a)] while in the power save mode, allowing transmission of additional outgoing application	To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages

’734 Patent – Claim 9	Luna 941
data requests in response to occurrence of receipt of data transfer from a remote entity and	and/or figures, as well as all related disclosures: <i>See [1f], above.</i>
[9c(b)] user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests,	<i>See [1f], above.</i>
[9d] wherein the remote entity is an intermediary server that provides connectivity between an application server and the mobile device,	To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1g], above.</i>
[9e] exiting the power save mode based on received instructions from the user to exit the power save mode,	To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [1h], above.</i>
[9f(a)] wherein, when the power save mode is exited,	<i>See [1i], above.</i>
[9f(b)] the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device	To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:

’734 Patent – Claim 9	Luna 941
whether to block the outgoing application data requests for each application that is selected by the user for blocking.	<i>See [1i], above.</i>
’734 Patent – Claim 10	Luna 941
[10] The method of claim 9, wherein the mobile device is configured to maintain a connection to receive data from the remote entity while in the power save mode.	To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [2], above.</i>
’734 Patent – Claim 11	Luna 941
[11] The method of claim 9, wherein the data transfer is a notification of new data at the application server.	To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures: <i>See [3], above.</i>
’734 Patent – Claim 12	Luna 941
[12] The method of claim 9, wherein entrance into the power save mode is further based on battery level.	<i>See [4], above.</i>

’734 Patent – Claim 13	Luna 941
<p>[13] The mobile device of claim 1, wherein the intermediary server provides connectivity between another application server and the mobile device.</p>	<p>To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [1g], above.</i></p> <p>Furthermore, this claim element is obvious in light of this reference itself, when combined with any of the other references as charted for this claim element in Exhibit A, and/or when combined with the knowledge of one of ordinary skill in the art. Motivations to combine may come from the knowledge of the person of ordinary skill themselves, or from the known problems and predictable solutions as embodied in these references. Further motivations to combine references and additional details may be found in the Cover Pleading and Exhibit 734-B.</p>

’734 Patent – Claim 14	Luna 941
<p>[14] The method of claim 9, wherein the intermediary server provides connectivity between another application server and the mobile device.</p>	<p>To the extent the ’734 patent provides support for this claim limitation, Luna 941 discloses this claim limitation. For example, see the following passages and/or figures, as well as all related disclosures:</p> <p><i>See [13], above.</i></p>

EXHIBIT 734-B

EXHIBIT 734-B

TABLE OF CONTENTS

	<u>Page</u>
Motivation to Combine References	1
Table 1: “[receive] / [receiving] instructions from a user to enter a power save mode”	4
Table 2: “while in the power save mode, block[ing] transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application”	6
Table 3: “while in the power save mode, allow[ing] transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity [and] user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests”	9
Table 4: “wherein the remote entity is an intermediary server that provides connectivity between an application server for the application and the mobile device”	12
Table 5: “exit[ing] the power save mode based on received instructions from the user to exit the power save mode”	15
Table 6: “wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking”	17
Table 7: “wherein the [processor] / [mobile device] is configured to maintain a connection to receive data from the remote entity while in the power save mode”	19
Table 8: “wherein the data transfer is a notification of new data at the application server.”	22
Table 9: “wherein [entry] / [entrance] into the power save mode is further based on battery level”	24
Table 10: “wherein the processor is configured to receive data in response to the allowed additional outgoing application data requests”	26

Table 11:	wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests while the applications are not allowed transmission of the additional outgoing data requests”	28
Table 12:	“wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests after the applications are allowed transmission of additional outgoing application data requests”	31
Table 13:	“wherein the outgoing data requests and the additional data requests are for a same application”	34
Table 14:	“wherein the intermediary server provides connectivity between another application server and the mobile device”	36

Motivation to Combine References

Where obviousness is asserted, an explanation of why the prior art renders the asserted claim obvious, including examples of combinations of prior art showing obviousness, is set forth in the claim charts included in Exhibit 0734-A, which identify specific examples of where each limitation of the asserted claims is found in the prior art references, or herein.

Apple notes that in *KSR Int'l Co. v. Teleflex Inc.*, the Supreme Court held that “[i]n determining whether the subject matter of a patent claim is obvious, neither the particular motivation nor the avowed purpose of the patentee controls. What matters is the objective reach of the claim. If the claim extends to what is obvious, it is invalid under § 103.” 550 U.S. 398, 127 S.Ct. 1727, 1742 (2007).

KSR further illustrated several ways in which the subject matter of a patent claim may be shown to be obvious. For instance, “[o]ne of the ways in which a patent’s subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent’s claims.” *KSR*, 127 S.Ct. 1727, 1742. The Supreme Court held that it was error to “look only to the problem the patentee was trying to solve.” *Id.* Rather, “[t]he question is not whether the combination was obvious to the patentee but whether the combination was obvious to a person with ordinary skill in the art. Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *Id.* Further, “[c]ommon sense teaches ... that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *Id.* Further, a showing that a combination of elements was “obvious to try” may show that it was obvious

under § 103. *Id.* For instance, the Supreme Court held that “predictable solutions” using a combination of “known options” may render the subject matter of a patent claim obvious:

When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.

Id.

The ways in which the subject matter of a patent claim may be shown to be obvious, identified by *KSR*, are merely illustrative. The main thrust of *KSR* was that “[r]igid preventative rules that deny factfinders recourse to common sense”—such as the overturned “teaching, suggestion, or motivation” test—are neither necessary under our case law nor consistent with it.” *KSR*, 127 S.Ct. 1727, 1742-43; citing with approval, e.g., *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F. 3d 1356, 1367 (2006) (“Our suggestion test is in actuality quite flexible and not only permits, but requires, consideration of common knowledge and common sense”); *Alza Corp. v. Mylan Labs., Inc.*, 464 F. 3d 1286, 1291 (2006) (“There is flexibility in our obviousness jurisprudence because a motivation may be found implicitly in the prior art. We do not have a rigid test that requires an actual teaching to combine . . .”).

Although Apple notes that there is no longer a rigid requirement regarding motivation to combine under *KSR*, Apple provides the following statements regarding motivation to combine to comply with Patent L.R. 3-3(b). Multiple teachings, suggestions, and/or reasons to modify any of the references and/or to combine any two or more of the references in Exhibit A come from many sources, including the prior art (specific and as a whole), common knowledge, common sense, predictability, expectations, industry trends, design incentives or need, market demand or pressure, market forces, obvious to try, the nature of the problem faced, and/or knowledge possessed by one of ordinary skill. In addition, it would have been obvious to try

combining the prior art references identified above because there were only a finite number of predictable solutions and/or because known work in one field or endeavor prompted variations based on predictable design incentives and/or market forces either in the same field or a different one. The combination of prior art references identified in these contentions would have been obvious because the combination represents the known potential options with a reasonable expectation of success. Additionally, one of ordinary skill in the art would have been motivated to create combinations identified in these contentions using: known methods to yield predictable results; known techniques in the same way; a simple substitution of one known, equivalent element for another to obtain predictable results; and/or teaching, suggestion, or motivation in the prior art generally. Also, market forces in the industry, and the desire to improve features and performance, would motivate the addition of features to systems as they become available, become less expensive, become more commonly used, provide better performance, reduce costs, size or weight, or predictably achieve other clearly desirable results.

Additional motivations to combine exist for particular combinations of references. For example, several of the references are directed at improving a particular mobile device operating system or a particular family of mobile devices. It was well known that many Nokia phones, including the Nokia E72 described in the Nokia E72 User Guide, ran on the SymbianOS mobile operating system. Several of these references, including Oestvall U.S. Published Patent Application No. 2007/0038763, expressly contemplate improvements to mobile devices running the SymbianOS operating system.

Moreover, the various Nokia E72 System documentation associated with the Nokia E72 System appears to describe a single system and adds further clarification to what is inherently being taught by the Nokia E72 User Manual. For this reason, the references described with

respect to the Nokia E72 System should be treated as a single reference—not just independent references that can be combined.

Because discovery is ongoing and Apple has not yet completed their investigation, discovery, or analysis of the issues raised by SEVEN’s claims, Apple reserves the right to supplement and amend their explanation of why the prior art renders the asserted claims obvious, including an identification of any combinations of prior art showing obviousness, as they receive additional information either through their own investigations or from SEVEN or third parties. In particular, Apple’s investigation and analysis is significantly impeded by the insufficiency and incompleteness of SEVEN’s infringement contentions.

Table 1: “[receive] / [receiving] instructions from a user to enter a power save mode”

Each independent claim of the ’734 patent recites “[receive] / [receiving] instructions from a user to enter a power save mode.” To the extent SEVEN alleges this limitation is missing in any of the references charted in Exhibit 734-A, such a limitation would have been obvious to a person of ordinary skill in the art at the time of the alleged invention. Market forces and other consumer trends to smaller, more portable devices with a finite battery life would have motivated a person of ordinary skill to provide power management and battery savings features and functionalities on a mobile platform to increase user convenience, enhance user experience with the mobile device, and reduce battery drain by reducing or optimizing network traffic. As the use of mobile devices with limited battery life proliferated, one of ordinary skill in the art would have been motivated to include these power management and battery savings features and functionalities on a mobile platform. It was known that a mobile device could include functionality that allows a user to manually direct the device to enter into a power save mode, advantageously providing the user with control over the system. *See, e.g.,* Bear at 7:27-8:10 (“[T]he user may generate a standby event by turning off the system through the user interface,

such as clicking the Turn Off Computer option in the Start menu of the Windows® XP operating system.”); Araujo at [0022] (“Power manager 110 controls the respective power states of devices 104-108. Power manager 110 could be implemented as . . . a user-level software component.”). Because little or no complexity was involved in including these features and functionalities on a mobile platform, one of ordinary skill in the art would have found the “[receive] / [receiving] instructions from a user to enter a power save mode” obvious as shown below.

As of the alleged ’734 patent priority date, entering into a power save mode based on user instructions was well known and commonplace in the art. Numerous systems and publications, including those described in Exhibit 734-A, disclosed “[receive] / [receiving] instructions from a user to enter a power save mode.”

For these reasons, the “[receive] / [receiving] instructions from a user to enter a power save mode” limitation is anticipated by the references listed in Exhibit 734-A or, to the extent not anticipated, obvious to one of ordinary skill in the art at the time the invention described in the ’734 patent was made. To the extent a primary or obviousness reference does not disclose this limitation, one of ordinary skill in the art would be motivated to combine the primary or obviousness references with any one or more of the Table 1 references listed below because: all the references relate to computing devices or mobile devices; using the techniques of the Table 1 references would have improved the primary or obviousness references in the same way (for example, by reducing the number of times that a radio is used); and applying the techniques of the Table 1 references to improve primary or obviousness references would have yielded predictable results.

Reference	Disclosure
U.S. Patent No. 7,240,228 to Bear et al. (“Bear”)	<i>See, e.g.</i> , Bear at 7:27-8:10, 8:22-34, 9:33-40, 11:33-12:3, Fig. 4.

Reference	Disclosure
U.S. Patent No. 8,620,344 to Huang et al. (“Huang”)	<i>See, e.g.</i> , Huang at 8:4-9:6, 9:11-28, 9:41-54, 11:11-30, Fig. 5.
Nokia E72 System	<i>See, e.g.</i> , Nokia E72 System at http://nds1.webapps.microsoft.com/files/support/nam/phones/guides/Nokia_E72_UG_en-US.pdf
U.S. Published Patent Application No. 2006/0200849 to Prabakar Sundarrajan et al. (“Sundarrajan”)	<i>See, e.g.</i> , Sundarrajan at [0053], [0057]-[0060], [0092], [0095], [0099]-[0100], [0102], Fig. 2D.
U.S. Patent No. 8,904,206 to Gregory R. Black et al. (“Black 206”)	<i>See, e.g.</i> Black 206 at 15:43-61, 20:20-31.
U.S. Published Patent Application No. 2009/0307696 to Angelo Vals et al. (“Vals”)	<i>See, e.g.</i> , Vals at [0001]-[0002], [0021].
U.S. Published Patent Application No. 2009/0217065 to Nelson S. Araujo (“Araujo”)	<i>See, e.g.</i> , Araujo at [0014]-[0015], [0019], [0022].
U.S. Published Patent Application No. 2015/0241941 to Michael Luna et al. (“Luna 941”)	<i>See, e.g.</i> , Luna 941 at [0245].

Table 2: “while in the power save mode, block[ing] transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application”

Each independent claim of the ’734 patent recites “while in the power save mode, block[ing] transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application.” To the extent SEVEN alleges this limitation is missing in any of the references charted in Exhibit 734-A, such

a limitation would have been obvious to a person of ordinary skill in the art at the time of the alleged invention. As the '734 Patent acknowledges it was known in art that a mobile device's use of a radio "drains battery" and that this problem could be ameliorated by "configuring networks to go to stay on high-power radio mode as short as possible and making periodic keep alive messages . . . as infrequent as possible." '734 Patent at 2:11-25. It was also commonly known that mobile devices at the time could, in general, feature applications (or "apps") that exchange data with application servers using a radio. Persons of ordinary skill in the art were well aware that occasionally, or under certain conditions, "block[ing] transmission" of outgoing data requests from background applications prior to transmission would prevent a mobile device's radio from transmitting too often and draining battery. *See, e.g.*, Araujo at Abstract ("When a program makes a request that involves use of one of the machine's power-consuming devices, the policy may take into account factors such as the program's status, where the status indicates the program's relative level of justification to consume power."); *id.* at [0040] ("Another such action is to block the request (block 406)."). Because of little or no complexity was involved in including these features and functionalities on computing devices, one of ordinary skill in the art would have found blocking outgoing background application requests obvious as shown below.

As of the alleged '734 patent priority date, blocking outgoing background application requests was well known and commonplace in the art. Numerous systems and publications, including those described in Exhibit 734-A, disclosed "while in the power save mode, block[ing] transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application."

For these reasons, the “while in the power save mode, block[ing] transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application” limitation is anticipated by the references listed in Exhibit 734-A or, to the extent not anticipated, obvious to one of ordinary skill in the art at the time the invention described in the ’734 patent was made. To the extent a primary or obviousness reference does not disclose this limitation, one of ordinary skill in the art would be motivated to combine the primary or obviousness references with any one or more of the Table 2 references listed below because: all the references relate to reducing battery consumption in mobile devices; using the techniques of the Table 2 references would have improved the primary or obviousness references in the same way (for example, by reducing the number of times that a radio is used); and applying the techniques of the Table 2 references to improve primary or obviousness references would have yielded predictable results.

Reference	Disclosure
Bear	<i>See, e.g.</i> , Bear at 2:15-36, 7:2-26, 8:35-64, 12:17-23
Huang	<i>See, e.g.</i> , Huang at 3:16-28, 5:23-37, 5:52-6:6
Nokia E72 System	<i>See, e.g.</i> , Nokia E72 System at http://nds1.webapps.microsoft.com/files/support/nam/phones/guides/Nokia_E72_UG_en-US.pdf
U.S. Patent App. No. US2007003876 3A1 to Oestvall (“Oestvall”)	<i>See, e.g.</i> , Oestvall at [0005]-[0006], [0008], [0010]-[0015], [0016]-[0017].
Sundarrajan	<i>See, e.g.</i> , Sundarrajan at [0009], [0014], [0063], [0065], [0073]-[0074], [0105], [0106]-[0108], [0120]-[0121], [0123], [0130], [0134], [0141], [0144], [0146]-[0149], [0149], [0162], [0165], [0168]-[0169], [0175]-[0177], [0180], [0189], [0196], [0201]-[0203], [0213], Fig. 3A, Fig. 3B, Fig. 4B, Fig. 5, Fig. 6, Fig. 8.

Reference	Disclosure
U.S. Published Patent Application No. 2005/0108075 to Fredrick Douglis et al. (“Douglis”)	<i>See, e.g.</i> , Douglis at [0010], [0032]-[0034].
U.S. Published Patent Application No. 2010/0088387 to Pablo Calamera (“Calamera”)	<i>See, e.g.</i> , Calamera at [0024]-[0025], [0028], [0038], Fig. 4.
Black 206	<i>See, e.g.</i> , Black 206 at 1:58-2:19, 2:51-3:2, 4:51-5:14, 5:66-6:29, 6:40-7:13, 8:7-11:38, 12:8-25, 15:43-61, 17:49-54, 18:1-35, 20:10-19, Figs. 2-4, 7.
Vals	<i>See, e.g.</i> , Vals at [0001]-[0002], [0016]-[0017], [0020]-[0022], [0028]-[0029], [0036]-[0038].
Araujo	<i>See, e.g.</i> , Araujo at [0016], [0020]-[0021], [0023]-[0025], [0038]-[0040], [0043], [0047]-[0048], Fig. 2, Figs. 4-5.
Luna 941	<i>See, e.g.</i> , Luna 941 at [0060], [0116], [0130], [0140]-[0141].

Table 3: “while in the power save mode, allow[ing] transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity [and] user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests”

Each independent claim of the ’734 patent recites “while in the power save mode, allow[ing] transmission of additional outgoing application data requests in response to

occurrence of receipt of data transfer from a remote entity [and] user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests.” To the extent SEVEN alleges this limitation is missing in any of the references charted in Exhibit 734-A, such a limitation would have been obvious to a person of ordinary skill in the art at the time of the alleged invention. As the ’734 Patent acknowledges it was known in art that a mobile device’s use of a radio “drains battery” and that this problem could be ameliorated by “configuring networks to go to stay on high-power radio mode as short as possible and making periodic keep alive messages . . . as infrequent as possible.” ’734 Patent at 2:11-25. It was also commonly known that mobile devices at the time could, in general, feature applications (or “apps”) that exchange data with application servers using a radio. Persons of ordinary skill in the art were well aware that occasionally, or under certain conditions, “block[ing] transmission” of outgoing data requests from background applications prior to transmission would prevent a mobile device’s radio from transmitting too often and draining battery. Persons of ordinary skill in the art were also aware that a mobile device could be configured such that some—but not all—outgoing data requests are blocked. *See, e.g.*, Black 206 at 17:55-67 (“For example, the method 700 can further include maintaining other communications between the mobile and other communication entities, while in the dormant mode, the other communications comprising at least one of Voice communications, short message service communications, and data communications, employing an IP session different from the persistent IP session with the application server.”) Thus, persons of skill in the art understood that it would be desirable to allow applications to transmit in response to at least under certain conditions (e.g., the application moves to the foreground, user input to a prompt,

receipt of data from a remote entity). Because of little or no complexity was involved in including these features and functionalities on computing devices, one of ordinary skill in the art would have found allowing transmission of additional outgoing foregoing application data requests in response to certain conditions (e.g., receipt of data transfer from a remote entity, user input in response to a prompt, and a change in background status) obvious as shown below.

As of the alleged '734 patent priority date, allowing transmission of additional outgoing foregoing application data requests in response to certain conditions was well known and commonplace in the art. Numerous systems and publications, including those described in Exhibit 734-A, disclosed “while in the power save mode, allow[ing] transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity [and] user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application request.”

For these reasons, the “while in the power save mode, allow[ing] transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity [and] user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application request” limitation is anticipated by the references listed in Exhibit 734-A or, to the extent not anticipated, obvious to one of ordinary skill in the art at the time the invention described in the '734 patent was made. To the extent a primary or obviousness reference does not disclose this limitation, one of ordinary skill in the art would be motivated to combine the primary or obviousness references with any one or more of the Table 3 references listed below because: all the references relate to reducing battery

consumption in mobile devices; using the techniques of the Table 3 references would have improved the primary or obviousness references in the same way (for example, by reducing the number of times that a radio is used); and applying the techniques of the Table 3 references to improve primary or obviousness references would have yielded predictable results.

Reference	Disclosure
Bear	<i>See, e.g.</i> , Bear at 8:35-64, 11:33-12:3, 14:4-31, 15:21-38, Fig. 7, Fig. 10.
Huang	<i>See, e.g.</i> , Huang at 3:29-47, 3:48-4:13, 4:61-5:4, 5:5-22, 5:38-51, 6:7-24, 9:41-54, 11:31-42.
Nokia E72 System	<i>See, e.g.</i> , Nokia E72 System at http://nds1.webapps.microsoft.com/files/support/nam/phones/guides/Nokia_E72_UG_en-US.pdf
Oestvall	<i>See, e.g.</i> , Oestvall at [0010]-[0015], [0021], [0022], [0023]-[0025], [0020]
Sundarrajan	<i>See, e.g.</i> , Sundarrajan at [0162], [0163], [0164], [0165], [0166], [0158]-[0166].
Douglis	<i>See, e.g.</i> , Douglis at [0010], [0032]-[0034].
Calamera	<i>See, e.g.</i> , Calamera at [0023], [0027], [0029]-[0030], [0033], [0054], [0056]Fig. 2(a), Fig. 2(b), Fig. 3.
Black 206	<i>See, e.g.</i> , Black 206 at 2:29-40, 5:19-25, 7:21-30, 17:55-67, 18:36-19:18, 19:7-18.
Vals	<i>See, e.g.</i> , Vals at [0042], [0045]-[0046], [0048]-[0050], Figs. 8-11.
Araujo	<i>See, e.g.</i> , Araujo at [0026]-[0027], [0032], [0037], Fig. 3.
Luna 941	<i>See, e.g.</i> , Luna 941 at [0240], [0297]-[0298], Fig. 7C.

Table 4: “wherein the remote entity is an intermediary server that provides connectivity between an application server for the application and the mobile device”

Each independent claim of the ’734 patent recites “wherein the remote entity is an intermediary server that provides connectivity between an application server for the application and the mobile device.” To the extent SEVEN alleges this limitation is missing in any of the references charted in Exhibit 734-A, such a limitation would have been obvious to a person of ordinary skill in the art at the time of the alleged invention. It was well-known in the art that applications running on mobile devices could work in conjunction with corresponding application servers located on a network such as the Internet to provide useful information and features to clients, such as instant messaging, email, etc. It was further known that in a network

such as the Internet, these mobile device applications could be connected to their corresponding application servers via one or more intermediary servers. *See, e.g.*, Calamera at [0030] (“FIG. 2(b) shows an instance when the main server 300 receives a new-email notification 430 from the IMAP server 120 through the IMAP4 IDLE enabled communication channel 230. Upon receipt of the new-email notification 430, the main server 300 multiplexes, alongside with other data types exchanged via the data pipe 210, a new-email notification 440 for transmission to the mobile electronic device 110. . . . Note that the mobile electronic device 110 has received notification of newly received email without maintaining an active connection 220 directly with the IMAP server 120.”). Because of little or no complexity was involved in including these features and functionalities on computing devices, one of ordinary skill in the art would have found the receipt of data from a remote entity that is an intermediary server that connects the mobile device to an application server obvious as shown below.

As of the alleged ’734 patent priority date, the receipt of data from a remote entity that is an intermediary server that connects the mobile device to an application server was well known and commonplace in the art. Numerous systems and publications, including those described in Exhibit 734-A, disclosed “wherein the remote entity is an intermediary server that provides connectivity between an application server for the application and the mobile device.”

For these reasons, the “wherein the remote entity is an intermediary server that provides connectivity between an application server for the application and the mobile device” limitation is anticipated by the references listed in Exhibit 734-A or, to the extent not anticipated, obvious to one of ordinary skill in the art at the time the invention described in the ’734 patent was made. To the extent a primary or obviousness reference does not disclose this limitation, one of ordinary skill in the art would be motivated to combine the primary or obviousness references

with any one or more of the Table 4 references listed below because: all the references relate to reducing battery consumption in mobile devices; using the techniques of the Table 4 references would have improved the primary or obviousness references in the same way (for example, by reducing the number of times that a radio is used); and applying the techniques of the Table 4 references to improve primary or obviousness references would have yielded predictable results.

Reference	Disclosure
Bear	<i>See, e.g.</i> , Bear at 8:35-64, 11:33-12:3, 14:4-31, 15:21-38, Fig. 7, Fig. 10.
Huang	<i>See, e.g.</i> , Huang at 3:29-47, 3:48-4:13, 4:61-5:4, 5:5-22, 5:38-51, 6:7-24, 9:41-54, 11:31-42, Fig. 10.
Nokia E72 System	<i>See, e.g.</i> , Nokia E72 System at http://nds1.webapps.microsoft.com/files/support/nam/phones/guides/Nokia_E72_UG_en-US.pdf https://answers.microsoft.com/en-us/mobiledevices/forum/all/e72-power-saving-mode/ed379c00-1bc5-458d-aa43-7c1daee33e97 https://digitizer.com/nokia-e72-push-email-india/ https://gizmodo.com/giz-explains-how-push-works-5331151 https://www.theregister.co.uk/2009/11/25/review_phone_nokia_e72_smartphone/?page=2
Sundarrajan	<i>See, e.g.</i> , Sundarrajan at [0080], [0158]-[0166], [0202], Fig. 2C, Fig. 5.
Calamera	<i>See, e.g.</i> , Calamera at [0023]-[0025], [0027]-[0030], [0033], [0038], [0054], [0056], Fig. 2(a), Fig. 2(b), Fig. 3, Fig. 4.
Black 206	<i>See, e.g.</i> , Black 206 at 2:29-40, 5:19-25, 7:21-30, 17:55-67, 18:36-19:18.
Vals	<i>See, e.g.</i> , Vals at [0052].
Araujo	<i>See, e.g.</i> , Araujo at [0026]-[0027], [0032], [0037], Fig. 3.
Luna 941	<i>See, e.g.</i> , Luna 941 at [0105], Fig. 1B, Fig. 5.

Table 5: “exit[ing] the power save mode based on received instructions from the user to exit the power save mode”

Each independent claim of the '734 patent recites “exit[ing] the power save mode based on received instructions from the user to exit the power save mode.” To the extent SEVEN alleges this limitation is missing in any of the references charted in Exhibit 734-A, such a limitation would have been obvious to a person of ordinary skill in the art at the time of the alleged invention. Market forces and other consumer trends to smaller, more portable devices with a finite battery life would have motivated a person of ordinary skill to provide power management and battery savings features and functionalities on a mobile platform to increase user convenience, enhance user experience with the mobile device, and reduce battery drain by reducing or optimizing network traffic. As the use of mobile devices with limited battery life proliferated, one of ordinary skill in the art would have been motivated to include these power management and battery savings features and functionalities on a mobile platform. One of ordinary skill in the art would have understood that a power save mode on a device might reduce the quantity or quality of features normally available to the user. One of ordinary skill in the art would have further understood that if a mobile device included a power save mode, it would be beneficial to allow that mobile device to exit that power save mode under certain conditions (e.g., upon express instructions from a user) to allow those features to resume normal operation. It was also known that a mobile device could include functionality that allows a user to manually direct the device to exit the power save mode, advantageously providing the user with control over the system. *See, e.g.,* Bear at 8:65-9:12 (“For example, a resume event occurs whenever the user signifies the intention to return to the user session, such as by pressing the power button while in the Standby state 406.”). Because little or no complexity was involved in including

these features and functionalities on a mobile platform, one of ordinary skill in the art would have found exiting a power save mode based on user instructions obvious as shown below.

As of the alleged '734 patent priority date, exiting a power save mode based on user instructions was well known and commonplace in the art. Numerous systems and publications, including those described in Exhibit 734-A, disclosed “exit[ing] the power save mode based on received instructions from the user to exit the power save mode.”

For these reasons, the “exit[ing] the power save mode based on received instructions from the user to exit the power save mode” limitation is anticipated by the references listed in Exhibit 734-A or, to the extent not anticipated, obvious to one of ordinary skill in the art at the time the invention described in the '734 patent was made. To the extent a primary or obviousness reference does not disclose this limitation, one of ordinary skill in the art would be motivated to combine the primary or obviousness references with any one or more of the Table 5 references listed below because: all the references relate to reducing battery consumption in mobile devices; using the techniques of the Table 5 references would have improved the primary or obviousness references in the same way (for example, by reducing the number of times that a radio is used); and applying the techniques of the Table 5 references to improve primary or obviousness references would have yielded predictable results.

Reference	Disclosure
Bear	<i>See, e.g.</i> , Bear at 8:65-9:12.
Huang	<i>See, e.g.</i> , Huang at 8:4-9:6, 9:11-28, 9:41-54, 11:11-30, Fig. 5.
Nokia E72 System	<i>See, e.g.</i> , Nokia E72 System at http://nds1.webapps.microsoft.com/files/support/nam/phones/guides/Nokia_E72_UG_en-US.pdf https://answers.microsoft.com/en-us/mobiledevices/forum/all/e72-power-saving-mode/ed379c00-1bc5-458d-aa43-7c1daee33e97
Oestvall	<i>See, e.g.</i> , Oestvall at [0020], Fig. 2
Sundarrajan	<i>See, e.g.</i> , Sundarrajan at [0143], [0189]-[0191], [0195], [0197].

Reference	Disclosure
Black 206	<i>See, e.g.</i> , Black 206 at 17:49-54.
Vals	<i>See, e.g.</i> , Vals at [0001]-[0002], [0021].
Araujo	<i>See, e.g.</i> , Araujo at [0014]-[0015], [0019], [0022].
Luna 941	<i>See, e.g.</i> , Luna 941 at [0245].

Table 6: “wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking”

Each independent claim of the ’734 patent recites “wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.” To the extent SEVEN alleges this limitation is missing in any of the references charted in Exhibit 734-A, such a limitation would have been obvious to a person of ordinary skill in the art at the time of the alleged invention. Market forces and other consumer trends to smaller, more portable devices with a finite battery life would have motivated a person of ordinary skill to provide power management and battery savings features and functionalities on a mobile platform to increase user convenience, enhance user experience with the mobile device, and reduce battery drain by reducing or optimizing network traffic. As the use of mobile devices with limited battery life proliferated, one of ordinary skill in the art would have been motivated to include these power management and battery savings features and functionalities on a mobile platform. It was known that a mobile device could provide functionalities that enable users to determine whether application data requests are blocked on an application-specific basis. *See, e.g.*, Nokia E72 User Guide at 129 (instructing a user to “[s]elect an application from the list to adjust its settings”).

Because little or no complexity was involved in including these features and functionalities on a mobile platform, one of ordinary skill in the art would have found blocking outgoing application data requests by user selection on an application-by-application basis when the power save mode is exited obvious as shown below.

As of the alleged '734 patent priority date, blocking outgoing application data requests by user selection on an application-by-application basis when the power save mode is exited was well known and commonplace in the art. Numerous systems and publications, including those described in Exhibit 734-A, disclosed “wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.”

For these reasons, the “wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking” limitation is anticipated by the references listed in Exhibit 734-A or, to the extent not anticipated, obvious to one of ordinary skill in the art at the time the invention described in the '734 patent was made. To the extent a primary or obviousness reference does not disclose this limitation, one of ordinary skill in the art would be motivated to combine the primary or obviousness references with any one or more of the Table 6 references listed below because: all the references relate to reducing battery consumption in mobile devices; using the techniques of the Table 6 references would have improved the primary

or obviousness references in the same way (for example, by reducing the number of times that a radio is used); and applying the techniques of the Table 6 references to improve primary or obviousness references would have yielded predictable results.

Reference	Disclosure
Bear	<i>See, e.g.</i> , Bear at 8:35-64, 11:33-12:3, 14:4-31, 15:21-38, Fig. 7, Fig. 10.
Huang	<i>See, e.g.</i> , Huang at 3:16-28, 3:29-47, 3:48-4:13, 4:61-5:4, 5:5-22, 5:38-51, 6:7-24, 5:23-37, 5:52-6:6, 8:4-9:6, 9:11-28, 9:41-54, 11:11-30, 11:31-42, Fig. 5.
Nokia E72 System	<i>See, e.g.</i> , Nokia E72 System at http://nds1.webapps.microsoft.com/files/support/nam/phones/guides/Nokia_E72_UG_en-US.pdf
Sundarrajan	<i>See, e.g.</i> , Sundarrajan at [0009], [0014], [0063], [0065], [0073]-[0074], [0105], [0106]-[0108], [0120]-[0121], [0123], [0130], [0134], [0141], [0144], [0146]-[0149], [0149], [0162], [0165], [0168]-[0169], [0175]-[0177], [0180], [0189], [0196], [0201]-[0203], [0213], Fig. 3A, Fig. 3B, Fig. 4B, Fig. 5, Fig. 6, Fig. 8
Douglis	<i>See, e.g.</i> , Douglis at [0011], [0023], [0031]-[0032], [0034]-[0048], [0050], [0055]-[0058], [0067], Fig. 3, Fig. 4A, Fig. 4B, Fig. 5
Calamera	<i>See, e.g.</i> , Calamera at [0023]-[0025], [0027]-[0030], [0033], [0038], [0054], [0056], Fig. 2(a), Fig. 2(b), Fig. 3, Fig. 4.
Black 206	<i>See, e.g.</i> , Black 206 at 17:55-67.
Vals	<i>See, e.g.</i> , Vals at [0028].
Araujo	<i>See, e.g.</i> , Araujo at [0016], [0026]-[0027], [0032], [0041].
Luna 941	<i>See, e.g.</i> , Luna 941 at [0138], [0145].

Table 7: “wherein the [processor] / [mobile device] is configured to maintain a connection to receive data from the remote entity while in the power save mode”

Claims 2 and 10 of the '734 patent recites “wherein the [processor] / [mobile device] is configured to maintain a connection to receive data from the remote entity while in the power save mode.” To the extent SEVEN alleges this limitation is missing in any of the references

charted in Exhibit 734-A, such a limitation would have been obvious to a person of ordinary skill in the art at the time of the alleged invention. As the '734 Patent acknowledges it was known in art that a mobile device's use of a radio "drains battery" and that this problem could be ameliorated by "configuring networks to go to stay on high-power radio mode as short as possible and making periodic keep alive messages . . . as infrequent as possible." '734 Patent at 2:11-25. It was also commonly known that mobile devices at the time could, in general, feature applications (or "apps") that exchange data with application servers using a radio. Persons of ordinary skill in the art were well aware that occasionally, or under certain conditions, "block[ing] transmission" of outgoing data requests from background applications prior to transmission would prevent a mobile device's radio from transmitting too often and draining battery. Persons of ordinary skill in the art were also aware that totally blocking transmission of outgoing data requests, without exception, would deplete the usefulness of a mobile device. Thus, persons of skill in the art understood that it would be desirable to allow applications to transmit in response to at least under certain conditions (e.g., even when the device is in a power save mode). Because of little or no complexity was involved in including these features and functionalities on computing devices, one of ordinary skill in the art would have found the maintaining a connection to receive data from a remote entity while the device is in power save mode obvious as shown below.

As of the alleged '734 patent priority date, maintaining a connection to receive data from a remote entity while the device is in power save mode was well known and commonplace in the art. Numerous systems and publications, including those described in Exhibit 734-A, disclosed "wherein the [processor] / [mobile device] is configured to maintain a connection to receive data from the remote entity while in the power save mode."

For these reasons, the “wherein the [processor] / [mobile device] is configured to maintain a connection to receive data from the remote entity while in the power save mode” limitation is anticipated by the references listed in Exhibit 734-A or, to the extent not anticipated, obvious to one of ordinary skill in the art at the time the invention described in the ’734 patent was made. To the extent a primary or obviousness reference does not disclose this limitation, one of ordinary skill in the art would be motivated to combine the primary or obviousness references with any one or more of the Table 7 references listed below because: all the references relate to reducing battery consumption in mobile devices; using the techniques of the Table 7 references would have improved the primary or obviousness references in the same way (for example, by reducing the number of times that a radio is used); and applying the techniques of the Table 7 references to improve primary or obviousness references would have yielded predictable results.

Reference	Disclosure
Bear	<i>See, e.g.</i> , Bear at 8:35-64, 11:33-12:3, 14:4-31, 15:21-38, Fig. 7, Fig. 10.
Huang	<i>See, e.g.</i> , Huang at 3:16-28, 3:29-47, 3:48-4:13, 4:61-5:4, 5:5-22, 5:38-51, 6:7-24, 5:23-37, 5:52-6:6, 8:4-9:6, 9:11-28, 9:41-54, 11:11-30, 11:31-42, Fig. 5.
Nokia E72 System	<i>See, e.g.</i> , Nokia E72 System at https://www.gsmarena.com/nokia_e72-2831.php , http://nds1.webapps.microsoft.com/files/support/nam/phones/guides/Nokia_E72_UG_en-US.pdf , https://digitizor.com/nokia-e72-push-email-india/ , https://gizmodo.com/giz-explains-how-push-works-5331151 , https://www.theregister.co.uk/2009/11/25/review_phone_nokia_e72_smartphone/?page=2 , https://answers.microsoft.com/en-us/mobiledevices/forum/all/e72-power-saving-mode/ed379c00-1bc5-458d-aa43-7c1daee33e97
Sundarrajan	<i>See, e.g.</i> , Sundarrajan at [0080], [0158]-[0166], [0202], Fig. 2C, Fig. 5

Reference	Disclosure
Calamera	<i>See, e.g.</i> , Calamera at [0023]-[0025], [0027]-[0030], [0033], [0038], [0054], [0056], Fig. 2(a), Fig. 2(b), Fig. 3, Fig. 4.
Black 206	<i>See, e.g.</i> , Black 206 at 17:6-17.
Vals	<i>See, e.g.</i> , Vals at [0001]-[0002], [0016]-[0017], [0020]-[0022], [0028]-[0029], [0036]-[0038], [0042], [0045]-[0046], [0048]-[0050], Figs. 8-11.
Araujo	<i>See, e.g.</i> , Araujo at [0026]-[0027], [0032], [0037], Fig. 3.
Luna 941	<i>See, e.g.</i> , Luna 941 at Fig. 5.

Table 8: “wherein the data transfer is a notification of new data at the application server.”

Claims 3 and 11 of the '734 patent recites “wherein the data transfer is a notification of new data at the application server.” To the extent SEVEN alleges this limitation is missing in any of the references charted in Exhibit 734-A, such a limitation would have been obvious to a person of ordinary skill in the art at the time of the alleged invention. It was well-known in the art that applications running on mobile devices could work in conjunction with corresponding application servers located on a network such as the Internet to provide useful information and features to clients, such as instant messaging, email, etc. It was further known that application servers could notify a mobile device of the availability of new data (e.g., through a “push notification”). *See, e.g.*, Calamera at [0023] (“The main server 300 pushes to the mobile electronic device 110, through the communication channel 210, notifications of calendar and contacts changes associated with the service account.”). Because of little or no complexity was involved in including these features and functionalities on computing devices, one of ordinary skill in the art would have found providing a mobile device with a notification of new data at the application server obvious as shown below.

As of the alleged '734 patent priority date, providing a mobile device with a notification of new data at the application server was well known and commonplace in the art. Numerous

systems and publications, including those described in Exhibit 734-A, disclosed “wherein the data transfer is a notification of new data at the application server.”

For these reasons, the “wherein the data transfer is a notification of new data at the application server” limitation is anticipated by the references listed in Exhibit 734-A or, to the extent not anticipated, obvious to one of ordinary skill in the art at the time the invention described in the ’734 patent was made. To the extent a primary or obviousness reference does not disclose this limitation, one of ordinary skill in the art would be motivated to combine the primary or obviousness references with any one or more of the Table 8 references listed below because: all the references relate to reducing battery consumption in mobile devices; using the techniques of the Table 8 references would have improved the primary or obviousness references in the same way (for example, by reducing the number of times that a radio is used); and applying the techniques of the Table 8 references to improve primary or obviousness references would have yielded predictable results.

Reference	Disclosure
Bear	<i>See, e.g.</i> , Bear at 8:35-64, 11:33-12:3, 14:4-31, 15:21-38, Fig. 7, Fig. 10.
Huang	<i>See, e.g.</i> , Huang at 3:16-28, 3:29-47, 3:48-4:13, 4:61-5:4, 5:5-22, 5:38-51, 6:7-24, 5:23-37, 5:52-6:6, 8:4-9:6, 9:11-28, 9:41-54, 11:11-30, 11:31-42, Fig. 5.
Nokia E72 System	<i>See, e.g.</i> , Nokia E72 System at https://www.gsmarena.com/nokia_e72-2831.php , http://nds1.webapps.microsoft.com/files/support/nam/phones/guides/Nokia_E72_UG_en-US.pdf , https://digitizor.com/nokia-e72-push-email-india/ , https://gizmodo.com/giz-explains-how-push-works-5331151 , https://www.theregister.co.uk/2009/11/25/review_phone_nokia_e72_smartphone/?page=2 , https://answers.microsoft.com/en-us/mobiledevices/forum/all/e72-power-saving-mode/ed379c00-1bc5-458d-aa43-7c1daee33e97
Oestvall	<i>See, e.g.</i> , Oestvall at [0010]-[0015], [0020]-[0025], Fig. 1, Fig. 2.
Sundarrajan	<i>See, e.g.</i> , Sundarrajan at [0080], [0158]-[0166], [0202], Fig. 2C, Fig. 5.
Calamera	<i>See, e.g.</i> , Calamera at [0004]-[0007], Fig. 1.
Black 206	<i>See, e.g.</i> , Black 206 at 2:29-40, 5:19-25, 7:21-30, 17:55-67, 18:36-19:18, 19:7-18.

Reference	Disclosure
Vals	<i>See, e.g.</i> , Vals at [0001]-[0002], [0016]-[0017], [0020]-[0022], [0028]-[0029], [0036]-[0038], [0042], [0045]-[0046], [0048]-[0050], Figs. 8-11.
Araujo	<i>See, e.g.</i> , Araujo at [0026]-[0027], [0032], [0037], Fig. 3.
Luna 941	<i>See, e.g.</i> , Luna 941 at [0150], [0156].

Table 9: “wherein [entry] / [entrance] into the power save mode is further based on battery level”

Claims 4 and 12 of the '734 patent recites “wherein [entry] / [entrance] into the power save mode is further based on battery level.” To the extent SEVEN alleges this limitation is missing in any of the references charted in Exhibit 734-A, such a limitation would have been obvious to a person of ordinary skill in the art at the time of the alleged invention. Market forces and other consumer trends to smaller, more portable devices with a finite battery life would have motivated a person of ordinary skill to provide power management and battery savings features and functionalities on a mobile platform to increase user convenience, enhance user experience with the mobile device, and reduce battery drain by reducing or optimizing network traffic. As the use of mobile devices with limited battery life proliferated, one of ordinary skill in the art would have been motivated to include these power management and battery savings features and functionalities on a mobile platform. It was known that when the battery level of a mobile device was low, that it would be advantageous to cause the mobile device to enter into a power save mode to preserve the limited amount of battery life remaining. *See, e.g.*, Vals at [0021] (“In another embodiment, the power states correspond to a battery power level and/or state. For example, the power states include, but are not limited to, one or more of the following: RECHARGING, 100%, 75%, 50%, 25%, and LOW.”).

Because little or no complexity was involved in including these features and functionalities on a mobile platform, one of ordinary skill in the art would have found entering into a power save mode based on battery level obvious as shown below.

As of the alleged '734 patent priority date, entering into a power save mode based on battery level was well known and commonplace in the art. Numerous systems and publications, including those described in Exhibit 734-A, disclosed “wherein [entry] / [entrance] into the power save mode is further based on battery level.”

For these reasons, the “wherein [entry] / [entrance] into the power save mode is further based on battery level” limitation is anticipated by the references listed in Exhibit 734-A or, to the extent not anticipated, obvious to one of ordinary skill in the art at the time the invention described in the '734 patent was made. To the extent a primary or obviousness reference does not disclose this limitation, one of ordinary skill in the art would be motivated to combine the primary or obviousness references with any one or more of the Table 9 references listed below because: all the references relate to reducing battery consumption in mobile devices; using the techniques of the Table 9 references would have improved the primary or obviousness references in the same way (for example, by reducing the number of times that a radio is used); and applying the techniques of the Table 9 references to improve primary or obviousness references would have yielded predictable results.

Reference	Disclosure
Bear	<i>See, e.g.,</i> Bear at 8:22-34, 9:13-27.
Huang	<i>See, e.g.,</i> Huang at 11:11-18.
Nokia E72 System	<i>See, e.g.,</i> Nokia E72 System at https://www.gsmarena.com/nokia_e72-2831.php , http://nds1.webapps.microsoft.com/files/support/nam/phones/guides/Nokia_E72_UG_en-US.pdf , https://digitizor.com/nokia-e72-push-email-india/ , https://gizmodo.com/giz-explains-how-push-works-5331151 , https://www.theregister.co.uk/2009/11/25/review_phone_nokia_e72_smartphone/?page=2 ,

Reference	Disclosure
	https://answers.microsoft.com/en-us/mobiledevices/forum/all/e72-power-saving-mode/ed379c00-1bc5-458d-aa43-7c1daee33e97
Sundarrajan	<i>See, e.g.</i> , Sundarrajan at [0053], [0057]-[0060], [0092], [0095], [0099]-[0100], [0102], Fig. 2D.
Douglis	<i>See, e.g.</i> , Douglis at [0021]-[0022], [0034]-[0035].
Calamera	<i>See, e.g.</i> , Calamera at [0011], [0026], [0029].
Black 206	<i>See, e.g.</i> , Black 206 at 1:35-48, 17:18-24.
Vals	<i>See, e.g.</i> , Vals at [0021].
Araujo	<i>See, e.g.</i> , Araujo at [0014]-[0015], [0030]-[0031].

Table 10: “wherein the processor is configured to receive data in response to the allowed additional outgoing application data requests”

Claim 5 of the '734 patent recites “wherein the processor is configured to receive data in response to the allowed additional outgoing application data requests.” To the extent SEVEN alleges this limitation is missing in any of the references charted in Exhibit 734-A, such a limitation would have been obvious to a person of ordinary skill in the art at the time of the alleged invention. It was well-known in the art that applications running on mobile devices could work in conjunction with corresponding application servers located on a network such as the Internet to provide useful information and features to clients, such as instant messaging, email, etc. It would have been obvious to a person of skill in the art that if a mobile device’s data requests (i.e., a request for data) are allowed, then the mobile device’s processor should be able to receive data in response to those requests. *See, e.g.*, Black 206 at 17:55-67 (“For example, the method 700 can further include maintaining other communications between the mobile and other communication entities, while in the dormant mode, the other communications comprising at least one of Voice communications, short message service communications, and

data communications, employing an IP session different from the persistent IP session with the application server.”). Because of little or no complexity was involved in including these features and functionalities on computing devices, one of ordinary skill in the art would have found receiving data in response to allowed additional outgoing application data requests obvious as shown below.

As of the alleged '734 patent priority date, receiving data in response to allowed additional outgoing application data requests was well known and commonplace in the art. Numerous systems and publications, including those described in Exhibit 734-A, disclosed “wherein the processor is configured to receive data in response to the allowed additional outgoing application data requests.”

For these reasons, the “wherein the processor is configured to receive data in response to the allowed additional outgoing application data requests” limitation is anticipated by the references listed in Exhibit 734-A or, to the extent not anticipated, obvious to one of ordinary skill in the art at the time the invention described in the '734 patent was made. To the extent a primary or obviousness reference does not disclose this limitation, one of ordinary skill in the art would be motivated to combine the primary or obviousness references with any one or more of the Table 10 references listed below because: all the references relate to reducing battery consumption in mobile devices; using the techniques of the Table 10 references would have improved the primary or obviousness references in the same way (for example, by reducing the number of times that a radio is used); and applying the techniques of the Table 10 references to improve primary or obviousness references would have yielded predictable results.

Reference	Disclosure
Bear	<i>See, e.g.,</i> Bear at 8:35-64, 11:33-12:3, 14:4-31, 15:21-38, Fig. 7, Fig. 10.

Reference	Disclosure
Huang	<i>See, e.g.</i> , Huang at 6:25-35.
Nokia E72 System	<i>See, e.g.</i> , Nokia E72 System at https://www.gsmarena.com/nokia_e72-2831.php , http://nds1.webapps.microsoft.com/files/support/nam/phones/guides/Nokia_E72_UG_en-US.pdf , https://digitizor.com/nokia-e72-push-email-india/ , https://gizmodo.com/giz-explains-how-push-works-5331151 , https://www.theregister.co.uk/2009/11/25/review_phone_nokia_e72_smartphone/?page=2 , https://answers.microsoft.com/en-us/mobiledevices/forum/all/e72-power-saving-mode/ed379c00-1bc5-458d-aa43-7c1daee33e97
Oestvall	<i>See, e.g.</i> , Oestvall at [0010]-[0015], [0020]-[0022], [0023]-[0025], Fig. 1, Fig. 2.
Sundarrajan	<i>See, e.g.</i> , Sundarrajan at [0162], [0163], [0164], [0165], [0166], [0158]-[0166].
Douglis	<i>See, e.g.</i> , Douglis at [0010], [0032]-[0034].
Calamera	<i>See, e.g.</i> , Calamera at [0023]-[0025], [0027]-[0030], [0033], [0038], [0054], [0056], Fig. 2(a), Fig. 2(b), Fig. 3, Fig. 4.
Black 206	<i>See, e.g.</i> , Black 206 at 1:58-2:19, 2:29-40, 2:51-3:2, 4:51-5:14, 5:19-25, 5:66-6:29, 6:40-7:13, 8:7-11:38, 7:21-30, 12:8-25, 15:43-61, 17:49-54, 17:55-67, 18:1-35, 18:36-19:18, 19:7-18, 20:10-19, Figs. 2-4, 7.
Vals	<i>See, e.g.</i> , Vals at [0001]-[0002], [0016]-[0017], [0020]-[0022], [0028]-[0029], [0036]-[0038], [0042], [0045]-[0046], [0048]-[0050], Figs. 8-11.
Araujo	<i>See, e.g.</i> , Araujo at [0016], [0020]-[0021], [0023]-[0027], [0032], [0037]-[0040], [0043], [0047]-[0048], Fig. 2-5.
Luna 941	<i>See, e.g.</i> , Luna 941 at [0060], [0116], [0130], [0140]-[0141], [0240], [0297]-[0298], Fig. 7C.

Table 11: “wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests while the applications are not allowed transmission of the additional outgoing data requests”

Claim 6 of the '734 patent recites “wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests while the applications are not allowed transmission of the additional outgoing data requests.” To the extent SEVEN alleges this limitation is missing in any of the references charted in Exhibit 734-A, such a limitation would have been obvious to a person of ordinary skill in the art at the time

of the alleged invention. Market forces and other consumer trends to smaller, more portable devices with a finite battery life would have motivated a person of ordinary skill to provide power management and battery savings features and functionalities on a mobile platform to increase user convenience, enhance user experience with the mobile device, and reduce battery drain by reducing or optimizing network traffic. As the use of mobile devices with limited battery life proliferated, one of ordinary skill in the art would have been motivated to include these power management and battery savings features and functionalities on a mobile platform. A person of ordinary skill in the art would have understood that even if the outgoing data requests for a particular application were not allowed, in many scenarios, it would still be beneficial to the user for that application to still receive data. *See, e.g.,* Black 206 at 17:55-67 (“For example, the method 700 can further include maintaining other communications between the mobile and other communication entities, while in the dormant mode, the other communications comprising at least one of Voice communications, short message service communications, and data communications, employing an IP session different from the persistent IP session with the application server.”). Because little or no complexity was involved in including these features and functionalities on a mobile platform, one of ordinary skill in the art would have found receiving data directed towards applications that have blocked outgoing application data requests obvious as shown below.

As of the alleged '734 patent priority date, receiving data directed towards applications that have blocked outgoing application data requests was well known and commonplace in the art. Numerous systems and publications, including those described in Exhibit 734-A, disclosed “wherein the processor is configured to receive data directed towards applications having

blocked outgoing application data requests while the applications are not allowed transmission of the additional outgoing data requests.”

For these reasons, the “wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests while the applications are not allowed transmission of the additional outgoing data requests” limitation is anticipated by the references listed in Exhibit 734-A or, to the extent not anticipated, obvious to one of ordinary skill in the art at the time the invention described in the ’734 patent was made. To the extent a primary or obviousness reference does not disclose this limitation, one of ordinary skill in the art would be motivated to combine the primary or obviousness references with any one or more of the Table 11 references listed below because: all the references relate to reducing battery consumption in mobile devices; using the techniques of the Table 11 references would have improved the primary or obviousness references in the same way (for example, by reducing the number of times that a radio is used); and applying the techniques of the Table 11 references to improve primary or obviousness references would have yielded predictable results.

Reference	Disclosure
Bear	<i>See, e.g.</i> , Bear at 8:35-64, 11:33-12:3, 14:4-31, 15:21-38, Fig. 7, Fig. 10.
Huang	<i>See, e.g.</i> , Huang at 3:16-28, 3:29-47, 3:48-4:13, 4:61-5:4, 5:5-22, 5:38-51, 6:7-24, 5:23-37, 5:52-6:6, 8:4-9:6, 9:11-28, 9:41-54, 11:11-30, 11:31-42, Fig. 5.
Nokia E72 System	<i>See, e.g.</i> , Nokia E72 System at https://www.gsmarena.com/nokia_e72-2831.php , http://nds1.webapps.microsoft.com/files/support/nam/phones/guides/Nokia_E72_UG_en-US.pdf , https://digitizor.com/nokia-e72-push-email-india/ , https://gizmodo.com/giz-explains-how-push-works-5331151 , https://www.theregister.co.uk/2009/11/25/review_phone_nokia_e72_smartphone/?page=2 , https://answers.microsoft.com/en-us/mobiledevices/forum/all/e72-power-saving-mode/ed379c00-1bc5-458d-aa43-7c1daee33e97
Oestvall	<i>See, e.g.</i> , Oestvall at [0005]-[0006], [0008], [0010]-[0015], [0016]-[0017], [0021], [0022], [0023]-[0025], [0020], Fig. 1, Fig. 2.
Sundarrajan	<i>See, e.g.</i> , Sundarrajan at [0162], [0163], [0164], [0165], [0166], [0158]-[0166].

Reference	Disclosure
Douglis	<i>See, e.g.</i> , Douglis at [0010], [0032]-[0034].
Calamera	<i>See, e.g.</i> , Calamera at [0023]-[0025], [0027]-[0030], [0033], [0038], [0054], [0056], Fig. 2(a), Fig. 2(b), Fig. 3, Fig. 4.
Black 206	<i>See, e.g.</i> , Black 206 at 1:58-2:19, 2:29-40, 2:51-3:2, 4:51-5:14, 5:19-25, 5:66-6:29, 6:40-7:13, 8:7-11:38, 7:21-30, 12:8-25, 15:43-61, 17:49-67, 18:1-35, 18:36-19:18, 20:10-19, Figs. 2-4, 7.
Vals	<i>See, e.g.</i> , Vals at [0001]-[0002], [0016]-[0017], [0020]-[0022], [0028]-[0029], [0036]-[0038], [0042], [0045]-[0046], [0048]-[0050], Figs. 8-11.
Araujo	<i>See, e.g.</i> , Araujo at [0016], [0020]-[0021], [0023]-[0027], [0032], [0037]-[0040], [0043], [0047]-[0048], Fig. 2-5.
Luna 941	<i>See, e.g.</i> , Luna 941 at [0060], [0116], [0130], [0140]-[0141], [0240], [0297]-[0298], Fig. 7C.

Table 12: “wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests after the applications are allowed transmission of additional outgoing application data requests”

Claim 7 of the '734 patent recites “wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests after the applications are allowed transmission of additional outgoing application data requests.” To the extent SEVEN alleges this limitation is missing in any of the references charted in Exhibit 734-A, such a limitation would have been obvious to a person of ordinary skill in the art at the time of the alleged invention. Market forces and other consumer trends to smaller, more portable devices with a finite battery life would have motivated a person of ordinary skill to provide power management and battery savings features and functionalities on a mobile platform to increase user convenience, enhance user experience with the mobile device, and reduce battery drain by reducing or optimizing network traffic. As the use of mobile devices with limited battery life proliferated, one of ordinary skill in the art would have been motivated to include these power management and battery savings features and functionalities on a mobile platform.

A person of ordinary skill in the art would have understood that even if the outgoing data requests for a particular application were previously not allowed, in many scenarios, it would still be beneficial to the user for that application to still receive data. *See, e.g.*, Black 206 at 17:55-67 (“For example, the method 700 can further include maintaining other communications between the mobile and other communication entities, while in the dormant mode, the other communications comprising at least one of Voice communications, short message service communications, and data communications, employing an IP session different from the persistent IP session with the application server.”). Because little or no complexity was involved in including these features and functionalities on a mobile platform, one of ordinary skill in the art would have found receiving data directed towards applications that previously had blocked outgoing application data requests obvious as shown below.

As of the alleged ’734 patent priority date, receiving data directed towards applications that previously had blocked outgoing application data requests was well known and commonplace in the art. Numerous systems and publications, including those described in Exhibit 734-A, disclosed “wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests after the applications are allowed transmission of additional outgoing application data requests.”

For these reasons, the “wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests after the applications are allowed transmission of additional outgoing application data requests” limitation is anticipated by the references listed in Exhibit 734-A or, to the extent not anticipated, obvious to one of ordinary skill in the art at the time the invention described in the ’734 patent was made. To the extent a primary or obviousness reference does not disclose this limitation, one of ordinary skill

in the art would be motivated to combine the primary or obviousness references with any one or more of the Table 12 references listed below because: all the references relate to reducing battery consumption in mobile devices; using the techniques of the Table 12 references would have improved the primary or obviousness references in the same way (for example, by reducing the number of times that a radio is used); and applying the techniques of the Table 12 references to improve primary or obviousness references would have yielded predictable results.

Reference	Disclosure
Bear	<i>See, e.g.</i> , Bear at 8:35-64, 11:33-12:3, 14:4-31, 15:21-38, Fig. 7, Fig. 10.
Huang	<i>See, e.g.</i> , Huang at 3:16-28, 3:29-47, 3:48-4:13, 4:61-5:4, 5:5-22, 5:38-51, 6:7-24, 5:23-37, 5:52-6:6, 8:4-9:6, 9:11-28, 9:41-54, 11:11-30, 11:31-42, Fig. 5.
Nokia E72 System	<i>See, e.g.</i> , Nokia E72 System at https://www.gsmarena.com/nokia_e72-2831.php , http://nds1.webapps.microsoft.com/files/support/nam/phones/guides/Nokia_E72_UG_en-US.pdf , https://digitizor.com/nokia-e72-push-email-india/ , https://gizmodo.com/giz-explains-how-push-works-5331151 , https://www.theregister.co.uk/2009/11/25/review_phone_nokia_e72_smartphone/?page=2 , https://answers.microsoft.com/en-us/mobiledevices/forum/all/e72-power-saving-mode/ed379c00-1bc5-458d-aa43-7c1daee33e97
Oestvall	<i>See, e.g.</i> , Oestvall at [0005]-[0006], [0008], [0010]-[0015], [0016]-[0017], [0021], [0022], [0023]-[0025], [0020], Fig. 1, Fig. 2.
Sundarrajan	<i>See, e.g.</i> , Sundarrajan at [0162], [0163], [0164], [0165], [0166], [0158]-[0166].
Douglis	<i>See, e.g.</i> , Douglis at [0010], [0032]-[0034].
Calamera	<i>See, e.g.</i> , Calamera at [0023]-[0025], [0027]-[0030], [0033], [0038], [0054], [0056], Fig. 2(a), Fig. 2(b), Fig. 3, Fig. 4.
Black 206	<i>See, e.g.</i> , Black 206 at 1:58-2:19, 2:29-40, 2:51-3:2, 4:51-5:14, 5:19-25, 5:66-6:29, 6:40-7:13, 8:7-11:38, 7:21-30, 12:8-25, 15:43-61, 17:49-54, 17:55-67, 18:1-35, 18:36-19:18, 19:7-18, 20:10-19, Figs. 2-4, 7.
Vals	<i>See, e.g.</i> , Vals at [0001]-[0002], [0016]-[0017], [0020]-[0022], [0028]-[0029], [0036]-[0038], [0042], [0045]-[0046], [0048]-[0050], Figs. 8-11.
Araujo	<i>See, e.g.</i> , Araujo at [0016], [0020]-[0021], [0023]-[0027], [0032], [0037]-[0040], [0043], [0047]-[0048], Fig. 2-5.
Luna 941	<i>See, e.g.</i> , Luna 941 [0171].

Table 13: “wherein the outgoing data requests and the additional data requests are for a same application”

Claim 8 of the '734 patent recites “wherein the outgoing data requests and the additional data requests are for a same application.” To the extent SEVEN alleges this limitation is missing in any of the references charted in Exhibit 734-A, such a limitation would have been obvious to a person of ordinary skill in the art at the time of the alleged invention. Market forces and other consumer trends to smaller, more portable devices with a finite battery life would have motivated a person of ordinary skill to provide power management and battery savings features and functionalities on a mobile platform to increase user convenience, enhance user experience with the mobile device, and reduce battery drain by reducing or optimizing network traffic. As the use of mobile devices with limited battery life proliferated, one of ordinary skill in the art would have been motivated to include these power management and battery savings features and functionalities on a mobile platform. A person of ordinary skill in the art would have understood that it would be beneficial for a particular application to have its data requests blocked under some circumstances and allowed under a different set of circumstances. *See, e.g.*, Black 206 at 17:55-67 (“For example, the method 700 can further include maintaining other communications between the mobile and other communication entities, while in the dormant mode, the other communications comprising at least one of Voice communications, short message service communications, and data communications, employing an IP session different from the persistent IP session with the application server.”). Because little or no complexity was involved in including these features and functionalities on a mobile platform, one of ordinary skill in the art would have found the outgoing data requests and the additional data requests being for the same application obvious as shown below.

As of the alleged '734 patent priority date, the outgoing data requests and the additional data requests being for the same application was well known and commonplace in the art. Numerous systems and publications, including those described in Exhibit 734-A, disclosed “wherein the outgoing data requests and the additional data requests are for a same application.”

For these reasons, the “wherein the outgoing data requests and the additional data requests are for a same application” limitation is anticipated by the references listed in Exhibit 734-A or, to the extent not anticipated, obvious to one of ordinary skill in the art at the time the invention described in the '734 patent was made. To the extent a primary or obviousness reference does not disclose this limitation, one of ordinary skill in the art would be motivated to combine the primary or obviousness references with any one or more of the Table 13 references listed below because: all the references relate to reducing battery consumption in mobile devices; using the techniques of the Table 13 references would have improved the primary or obviousness references in the same way (for example, by reducing the number of times that a radio is used); and applying the techniques of the Table 13 references to improve primary or obviousness references would have yielded predictable results.

Reference	Disclosure
Bear	<i>See, e.g.</i> , Bear at 8:35-64, 11:33-12:3, 14:4-31, 15:21-38, Fig. 7, Fig. 10.
Huang	<i>See, e.g.</i> , Huang at 3:16-28, 3:29-47, 3:48-4:13, 4:61-5:4, 5:5-22, 5:38-51, 6:7-24, 5:23-37, 5:52-6:6, 8:4-9:6, 9:11-28, 9:41-54, 11:11-30, 11:31-42, Fig. 5.
Nokia E72 System	<i>See, e.g.</i> , Nokia E72 System at https://www.gsmarena.com/nokia_e72-2831.php , http://nds1.webapps.microsoft.com/files/support/nam/phones/guides/Nokia_E72_UG_en-US.pdf , https://digitizor.com/nokia-e72-push-email-india/ , https://gizmodo.com/giz-explains-how-push-works-5331151 , https://www.theregister.co.uk/2009/11/25/review_phone_nokia_e72_smartphone/?page=2 , https://answers.microsoft.com/en-us/mobiledevices/forum/all/e72-power-saving-mode/ed379c00-1bc5-458d-aa43-7c1daee33e97
Oestvall	<i>See, e.g.</i> , Oestvall at [0005]-[0006], [0008], [0010]-[0015], [0016]-[0017], [0021], [0022], [0023]-[0025], [0020], Fig. 1, Fig. 2.

Reference	Disclosure
Sundarrajan	<i>See, e.g.</i> , Sundarrajan at [0162], [0163], [0164], [0165], [0166], [0158]-[0166].
Douglis	<i>See, e.g.</i> , Douglis at [0010], [0032]-[0034].
Calamera	<i>See, e.g.</i> , Calamera at [0023]-[0025], [0027]-[0030], [0033], [0038], [0054], [0056], Fig. 2(a), Fig. 2(b), Fig. 3, Fig. 4.
Black 206	<i>See, e.g.</i> , Black 206 at 1:58-2:19, 2:29-40, 2:51-3:2, 4:51-5:14, 5:19-25, 5:66-6:29, 6:40-7:13, 8:7-11:38, 7:21-30, 12:8-25, 15:43-61, 17:49-54, 17:55-67, 18:1-35, 18:36-19:18, 19:7-18, 20:10-19, Figs. 2-4, 7.
Vals	<i>See, e.g.</i> , Vals at [0001]-[0002], [0016]-[0017], [0020]-[0022], [0028]-[0029], [0036]-[0038], [0042], [0045]-[0046], [0048]-[0050], Figs. 8-11.
Araujo	<i>See, e.g.</i> , Araujo at [0026]-[0027], [0032], [0037], [0043], Fig. 3.
Luna 941	<i>See, e.g.</i> , Luna 941 at [0060], [0116], [0130], [0140]-[0141], [0240], [0297]-[0298], Fig. 7C.

Table 14: “wherein the intermediary server provides connectivity between another application server and the mobile device”

Claims 13 and 14 of the '734 patent recites “wherein the intermediary server provides connectivity between another application server and the mobile device.” To the extent SEVEN alleges this limitation is missing in any of the references charted in Exhibit 734-A, such a limitation would have been obvious to a person of ordinary skill in the art at the time of the alleged invention. It was well-known in the art that applications running on mobile devices could work in conjunction with corresponding application servers located on a network such as the Internet to provide useful information and features to clients, such as instant messaging, email, etc. It was further known that in a network such as the Internet, these mobile device applications could be connected to their corresponding application servers, as well as other servers, vis a vis one or more intermediary servers. Because of little or no complexity was involved in including these features and functionalities on computing devices, one of ordinary

skill in the art would have found the intermediary server providing connectivity between another application server and the mobile device obvious as shown below.

As of the alleged '734 patent priority date, the intermediary server providing connectivity between another application server and the mobile device was well known and commonplace in the art. Numerous systems and publications, including those described in Exhibit 734-A, disclosed “wherein the intermediary server provides connectivity between another application server and the mobile device.”

For these reasons, the “wherein the intermediary server provides connectivity between another application server and the mobile device” limitation is anticipated by the references listed in Exhibit 734-A or, to the extent not anticipated, obvious to one of ordinary skill in the art at the time the invention described in the '734 patent was made. To the extent a primary or obviousness reference does not disclose this limitation, one of ordinary skill in the art would be motivated to combine the primary or obviousness references with any one or more of the Table 14 references listed below because: all the references relate to reducing battery consumption in mobile devices; using the techniques of the Table 14 references would have improved the primary or obviousness references in the same way (for example, by reducing the number of times that a radio is used); and applying the techniques of the Table 14 references to improve primary or obviousness references would have yielded predictable results.

Reference	Disclosure
Bear	<i>See, e.g.</i> , Bear at 8:35-64, 11:33-12:3, 14:4-31, 15:21-38, Fig. 7, Fig. 10.
Huang	<i>See, e.g.</i> , Huang at 3:29-47, 3:48-4:13, 4:61-5:4, 5:5-22, 5:38-51, 6:7-24, 9:41-54, 11:31-42, Fig. 10.
Nokia E72 System	<i>See, e.g.</i> , Nokia E72 System at https://www.gsmarena.com/nokia_e72-2831.php , http://nds1.webapps.microsoft.com/files/support/nam/phones/guides/Nokia_E72_UG_en-US.pdf , https://digitizor.com/nokia-e72-push-email-india/ , https://gizmodo.com/giz-explains-how-push-works-5331151 , https://www.theregister.co.uk/2009/11/25/review_phone_nokia_e72_smartphone/?page=2 ,

Reference	Disclosure
	https://answers.microsoft.com/en-us/mobiledevices/forum/all/e72-power-saving-mode/ed379c00-1bc5-458d-aa43-7c1daee33e97
Sundarrajan	<i>See, e.g.</i> , Sundarrajan at [0080], [0158]-[0166], [0202], Fig. 2C, Fig. 5.
Calamera	<i>See, e.g.</i> , Calamera at [0023]-[0025], [0027]-[0030], [0033], [0038], [0054], [0056], Fig. 2(a), Fig. 2(b), Fig. 3, Fig. 4.
Black 206	<i>See, e.g.</i> , Black 206 at 1:58-2:19, 2:29-40, 2:51-3:2, 4:51-5:14, 5:19-25, 5:66-6:29, 6:40-7:13, 8:7-11:38, 7:21-30, 12:8-25, 15:43-61, 17:49-67, 18:1-19:18, 20:10-19, Figs. 2-4, 7.
Vals	<i>See, e.g.</i> , Vals at [0052].
Araujo	<i>See, e.g.</i> , Araujo at [0026]-[0027], [0032], [0037], Fig. 3.
Luna 941	<i>See, e.g.</i> , Luna 941 at [0105], Fig. 1B, Fig. 5.

EXHIBIT 734-D

Preliminary Eligibility Contentions for U.S. Patent No. 10,091,734 (“the ’734 patent”)

Based on SEVEN’s apparent positions as to the scope of the patent’s claims, as best they can be deciphered, chart below provides Apple’s current contentions regarding the patent ineligibility of each of the Asserted Claims.

This disclosure is not an admission that Apple concedes any claim construction implied or suggested by SEVEN’s apparent positions as to the scope of the patent’s claims, nor is it an admission by Apple that any of its products are covered by or infringe the patent’s claims, particularly when they are properly construed and applied. Apple is not taking any claim construction positions through this disclosure, including whether the preamble is a limitation.

Apple reserves the right to rely on additional citations or sources of evidence that also may be applicable, or that may become applicable in light of claim construction, changes in SEVEN’s infringement contentions, and/or information obtained during discovery as the case progresses. Apple further reserves the right to amend or supplement this claim chart at a later date as more fully set forth in the Ineligibility Contentions.

’734 Patent – Claim 1	Bases for Ineligibility
[1pre] A mobile device which improves network resource utilization in a wireless network, the mobile device, comprising:	Claim 1 is directed to an abstract idea. The claims of the ’734 patent as whole relate to blocking some data requests for some applications while at the same time allowing that mobile device to receive data. At the most basic level, the claims of the ’734 patent are directed to transmitting and receiving data, which is a long prevalent human activity. Under Alice Step 1, those ideas are abstract, as they relate to a fundamental long prevalent practice. See <i>Intellectual Ventures I LLC v. Symantec Corp.</i> , 838 F.3d 1307, 1314 (Fed. Cir. 2016). A claim is drawn to an abstract idea when “humans have always performed [the claimed] functions.” <i>Content Extraction & Transmission LLC v. Wells Fargo Bank, NA</i> , 776 F.3d 1343, 1347 (Fed. Cir. 2014). Limiting the invention to a particular technological environment, e.g. generic computer hardware, “do[es] not render an otherwise abstract concept any less abstract.” <i>Intellectual Ventures I LLC v. Capital One Fin. Corp.</i> , 850 F.3d 1332, 1340 (Fed Cir. 2017). Furthermore, because the

'734 Patent – Claim 1	Bases for Ineligibility
	<p>patent relates to transmission of information, it is likewise abstract, as “information is . . . an intangible.” <i>Electric Power Group, LLC v. Alstom S.A.</i>, 830 F.3d 1350, 1353 (Fed. Cir. 2016).</p> <p>The asserted claims of the '734 patent do not contain any inventive concept. At the time of the alleged invention, the elements of the asserted claims were well understood, routine, and/or conventional in the mobile computing and/or computer networking industries. The '734 patent Asserted Claims employ well-known components or functionality, as shown in Apple's invalidity contentions involving anticipation and/or obviousness in this case, which is not enough to impart patent eligibility of an abstract idea.</p> <p><i>See Ex. 734-A at all disclosures for Element [1pre]; Ex. 734-B at all disclosures for Element [1pre].</i></p>
[1a] a memory;	<p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p><i>See Ex. 734-A at all disclosures for Element [1a]; Ex. 734-B at all disclosures for Element [1a].</i></p>
[1b] a radio; and	<p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p><i>See Ex. 734-A at all disclosures for Element [1b]; Ex. 734-B at all disclosures for Element [1b].</i></p>
[1c] a processor coupled to the memory and configured to:	<p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p><i>See Ex. 734-A at all disclosures for Element [1c]; Ex. 734-B at all disclosures for Element [1c].</i></p>
[1d] receive instructions from a user to enter a	<p>At the time of the alleged invention, this element was well understood, routine,</p>

’734 Patent – Claim 1	Bases for Ineligibility
power save mode;	and/or conventional. <i>See Ex. 734-A at all disclosures for Element [1d]; Ex. 734-B at all disclosures for Element [1d].</i>
[1e] while in the power save mode, block transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application;	At the time of the alleged invention, this element was well understood, routine, and/or conventional. <i>See Ex. 734-A at all disclosures for Element [1e]; Ex. 734-B at all disclosures for Element [1e].</i>
[1f] while in the power save mode, allow transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity, user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests,	At the time of the alleged invention, this element was well understood, routine, and/or conventional. <i>See Ex. 734-A at all disclosures for Element [1f]; Ex. 734-B at all disclosures for Element [1f].</i>
[1g] wherein the remote entity is an intermediary server that provides connectivity between an application server for the application and the mobile device;	At the time of the alleged invention, this element was well understood, routine, and/or conventional. <i>See Ex. 734-A at all disclosures for Element [1g]; Ex. 734-B at all disclosures for Element [1g].</i>
[1h] exit the power save mode based on received instructions from the user to exit the power save mode,	At the time of the alleged invention, this element was well understood, routine, and/or conventional. <i>See Ex. 734-A at all disclosures for Element [1h]; Ex. 734-B at all disclosures for Element [1h].</i>

’734 Patent – Claim 1	Bases for Ineligibility
<p>[1i] wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.</p>	<p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p><i>See Ex. 734-A at all disclosures for Element [1i]; Ex. 734-B at all disclosures for Element [1i].</i></p>

’734 Patent – Claim 2	Bases for Ineligibility
<p>[2] The mobile device of claim 1, wherein the processor is configured to maintain a connection to receive data from the remote entity while in the power save mode.</p>	<p>Claim 2 is directed to an abstract idea. See discussion as to claim 1, above.</p> <p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p><i>See Ex. 734-A at all disclosures for Claim [2]; Ex. 734-B at all disclosures for Claim [2].</i></p>

’734 Patent – Claim 3	Bases for Ineligibility
<p>[3] The mobile device of claim 1, wherein the data transfer is a notification of new data at the application server.</p>	<p>Claim 3 is directed to an abstract idea. See discussion as to claim 1, above.</p> <p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p><i>See Ex. 734-A at all disclosures for Claim [3]; Ex. 734-B at all disclosures for Claim [3].</i></p>

'734 Patent – Claim 4	Bases for Ineligibility
<p>[4] The mobile device of claim 1, wherein entry into the power save mode is further based on battery level.</p>	<p>Claim 4 is directed to an abstract idea. See discussion as to claim 1, above.</p> <p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p>See Ex. 734-A at all disclosures for Claim [4]; Ex. 734-B at all disclosures for Claim [4].</p>
'734 Patent – Claim 5	Bases for Ineligibility
<p>[5] The mobile device of claim 1, wherein the processor is configured to receive data in response to the allowed additional outgoing application data requests.</p>	<p>Claim 5 is directed to an abstract idea. See discussion as to claim 1, above.</p> <p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p>See Ex. 734-A at all disclosures for Claim [5]; Ex. 734-B at all disclosures for Claim [5].</p>
'734 Patent – Claim 6	Bases for Ineligibility
<p>[6] The mobile device of claim 1, wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests while the applications are not allowed transmission of the additional outgoing data requests.</p>	<p>Claim 6 is directed to an abstract idea. See discussion as to claim 1, above.</p> <p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p>See Ex. 734-A at all disclosures for Claim [6]; Ex. 734-B at all disclosures for Claim [6].</p>

’734 Patent – Claim 7	Bases for Ineligibility
<p>[7] The mobile device of claim 1, wherein the processor is configured to receive data directed towards applications having blocked outgoing application data requests after the applications are allowed transmission of additional outgoing application data requests.</p>	<p>Claim 7 is directed to an abstract idea. See discussion as to claim 1, above.</p> <p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p>See Ex. 734-A at all disclosures for Claim [7]; Ex. 734-B at all disclosures for Claim [7].</p>
’734 Patent – Claim 8	Bases for Ineligibility
<p>[8] The mobile device of claim 1, wherein the outgoing data requests and the additional data requests are for a same application.</p>	<p>Claim 8 is directed to an abstract idea. See discussion as to claim 1, above.</p> <p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p>See Ex. 734-A at all disclosures for Claim [8]; Ex. 734-B at all disclosures for Claim [8].</p>
’734 Patent – Claim 9	Bases for Ineligibility
<p>[9pre] A method comprising:</p>	<p>Claim 9 is directed to an abstract idea. See discussion as to claim 1, above.</p> <p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p>See Ex. 734-A at all disclosures for Element [9pre]; Ex. 734-B at all disclosures for Element [9pre].</p>
<p>[9a] receiving instructions, at a mobile device, from a user to enter a power save mode;</p>	<p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p>See Ex. 734-A at all disclosures for Element [9a]; Ex. 734-B at all disclosures</p>

’734 Patent – Claim 9	Bases for Ineligibility
	for Element [9a].
[9a] while in the power save mode, blocking transmission of outgoing application data requests, wherein the outgoing application data requests are background application requests for more than one application;	At the time of the alleged invention, this element was well understood, routine, and/or conventional. See Ex. 734-A at all disclosures for Element [9a]; Ex. 734-B at all disclosures for Element [9a].
[9b] while in the power save mode, allowing transmission of additional outgoing application data requests in response to occurrence of receipt of data transfer from a remote entity and user input in response to a prompt displayed to the user, and a change in a background status of an application executing on the mobile device, wherein the additional outgoing application data requests are foreground application requests,	At the time of the alleged invention, this element was well understood, routine, and/or conventional. See Ex. 734-A at all disclosures for Element [9b]; Ex. 734-B at all disclosures for Element [9b].
[9c] wherein the remote entity is an intermediary server that provides connectivity between an application server and the mobile device,	At the time of the alleged invention, this element was well understood, routine, and/or conventional. See Ex. 734-A at all disclosures for Element [9c]; Ex. 734-B at all disclosures for Element [9c].
[9d] exiting the power save mode based on received instructions from the user to exit the power save mode,	At the time of the alleged invention, this element was well understood, routine, and/or conventional. See Ex. 734-A at all disclosures for Element [9d]; Ex. 734-B at all disclosures for Element [9d].
[9e] wherein, when the power save mode is exited, the outgoing application data requests occurring while the mobile device is not in the	At the time of the alleged invention, this element was well understood, routine, and/or conventional.

’734 Patent – Claim 9	Bases for Ineligibility
power save mode are blocked by user selection on an application-by-application basis, wherein the user selection instructs the mobile device whether to block the outgoing application data requests for each application that is selected by the user for blocking.	See Ex. 734-A at all disclosures for Element [9e]; Ex. 734-B at all disclosures for Element [9e].

’734 Patent – Claim 10	Bases for Ineligibility
[10] The method of claim 9, wherein the mobile device is configured to maintain a connection to receive data from the remote entity while in the power save mode.	<p>Claim 10 is directed to an abstract idea. See discussion as to claim 1, above.</p> <p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p>See Ex. 734-A at all disclosures for Claim [10]; Ex. 734-B at all disclosures for Claim [10].</p>

’734 Patent – Claim 11	Bases for Ineligibility
[11] The method of claim 9, wherein the data transfer is a notification of new data at the application server.	<p>Claim 11 is directed to an abstract idea. See discussion as to claim 1, above.</p> <p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p>See Ex. 734-A at all disclosures for Claim [11]; Ex. 734-B at all disclosures for Claim [11].</p>

'734 Patent – Claim 12	Bases for Ineligibility
<p>[12] The method of claim 9, wherein entrance into the power save mode is further based on battery level.</p>	<p>Claim 12 is directed to an abstract idea. See discussion as to claim 1, above.</p> <p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p>See Ex. 734-A at all disclosures for Claim [12]; Ex. 734-B at all disclosures for Claim [12].</p>
'734 Patent – Claim 13	Bases for Ineligibility
<p>[13] The mobile device of claim 1, wherein the intermediary server provides connectivity between another application server and the mobile device.</p>	<p>Claim 13 is directed to an abstract idea. See discussion as to claim 1, above.</p> <p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p>See Ex. 734-A at all disclosures for Claim [13]; Ex. 734-B at all disclosures for Claim [13].</p>
'734 Patent – Claim 14	Bases for Ineligibility
<p>[14] The method of claim 9, wherein the intermediary server provides connectivity between another application server and the mobile device.</p>	<p>Claim 14 is directed to an abstract idea. See discussion as to claim 1, above.</p> <p>At the time of the alleged invention, this element was well understood, routine, and/or conventional.</p> <p>See Ex. 734-A at all disclosures for Claim [14]; Ex. 734-B at all disclosures for Claim [14].</p>