

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE INC., and LG ELECTRONICS, INC.,  
Petitioner,

v.

UNILOC 2017 LLC,  
Patent Owner.

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Case IPR2018-00361  
Patent 6,216,158 B1

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Before JENNIFER S. BISK, MIRIAM L. QUINN, and  
CHARLES J. BOUDREAU, *Administrative Patent Judges*.

QUINN, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
35 U.S.C. § 318

## I. INTRODUCTION

We instituted *inter partes* review pursuant to 35 U.S.C. § 314 to review claims 1, 2, 6–9, 12, 14, 15, and 20 of U.S. Patent No. 6,216,158 B1 (Ex. 1001, “the ’158 patent”), owned by Uniloc 2017 LLC. We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed below, Petitioner has shown by a preponderance of the evidence that claims 1, 2, 6–9, 12, 14, and 15 of the ’158 patent are unpatentable. Petitioner has not shown by a preponderance of the evidence that claim 20 of the ’158 patent is unpatentable.

## II. BACKGROUND

### A. *Related Matters*

The parties indicate that the ’158 patent is involved in *Uniloc USA, Inc. v. Apple Inc.*, Case No. 3-18-cv-00365 (N.D. Cal.) and other proceedings. Pet. 2; Paper 3.

### B. *The ’158 Patent*

The ’158 patent relates to controlling network devices using a palm-sized, or otherwise reduced functionality, computer. Ex. 1001, 1:8–10. According to the ’158 patent, a palm-sized computer has limited processing, display, and input capabilities, resulting in an inability to run the same applications as desktop or laptop computers. *Id.* at 1:22–27. Touting the desirability to access desktop functionality from palm-sized computers, the ’158 patent overcomes the palm-sized computer limitations by viewing a

network as “an extension of the palm sized computer’s resources.” *Id.* at 1:27–29, 2:10–13. “Functions can be downloaded into the device as needed, and overlaid after they have been used.” *Id.* at 2:14–15. Thus, when a palm-sized computer seeks to use services stored on a network, the palm-sized computer can access and control these services using a program (such as a middleware application) to access a registry of the network services. *Id.* at 1:36–39, 1:46–48, 2:15–23.

The ’158 patent explains that middleware “allows palm sized computers to discover network-based computing resources.” *Id.* at 2:29–30. Middleware includes a directory of resources (or services), a protocol for storing and receiving from the directory, and a mechanism to transfer software from the directory to a palm-sized computer. *Id.* at 2:32–36. The palm-sized computer also includes a control application to manipulate the computer services on the network. *Id.* at 2:37–40. In one embodiment, the middleware includes “Jini technology from Sun Microsystems.” *Id.* at 1:49–50, 1:62–67.

The ’158 patent describes running a PowerPoint slide presentation as an example of a service that can be invoked and controlled via a control device, which is a palm-sized computer. *Id.* at 3:4–10, 3:16–20. Figure 1 of the ’158 patent is reproduced below.

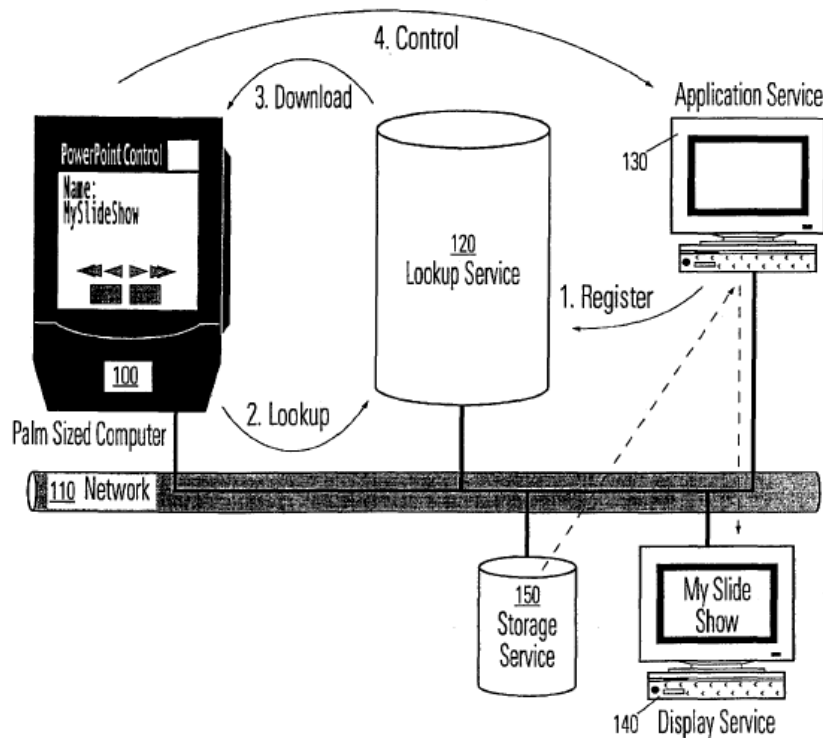


Figure 1 depicts a system having a palm-sized computer controlling operations of various network devices, such as application service 130 (to run the PowerPoint application), display service 140 (to display the presentation), and storage service 150 (to store the presentation). *Id.* at Fig. 1, 3:43–54. “None of these services are resident on the palm sized computer 100.” *Id.* at 3:60–61. After locating the necessary service (e.g., PowerPoint application) using lookup service 120, the palm-sized computer downloads the code required to control the located services. *Id.* at 3:45–49, 3:61–64, 6:1–3. The ’158 patent describes that the control device (i.e., palm-sized computer) uses a download interface to download “the application service descriptor.” *Id.* at 6:16–21 (referring also to “the GUI code for controlling a PowerPoint presentation”). The palm-sized computer

is then capable of directly controlling the service, such as by sending a “next slide” request to the application service running, for example, PowerPoint.

*Id.* at 3:66–67, 6:24–26.

### *C. Illustrative Claim*

Of the challenged claims, claims 1, 8, and 20 are independent. Each of claims 2, 6, 7, 9, 12, 14, and 15 depends directly from either claim 1 or claim 8.

Claim 1 is illustrative:

1. A method of controlling a service on a network using a palm sized computer, the palm sized computer being coupled in communications with the network, the method comprising:

accessing a description of the service from a directory of services, the description of the service including at least a reference to program code for controlling the service;

downloading the program code to the palm sized computer;

the palm sized computer executing at least a portion of the program code; and

sending control commands to the service from the palm sized computer in response to the executing, wherein the service controls an application that cannot be executed on the palm sized computer.

Ex. 1001, 12:13–28.

### *D. Procedural History*

Petitioner Apple Inc. filed a Petition for *inter partes* review challenging claims 1, 2, 6–9, 12, 14, 15, and 20 of the ’158 patent. Paper 1

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