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(54) Title: POINT OF SALE PLATFORM FOR CONSUMER MEDIA INTERACTION

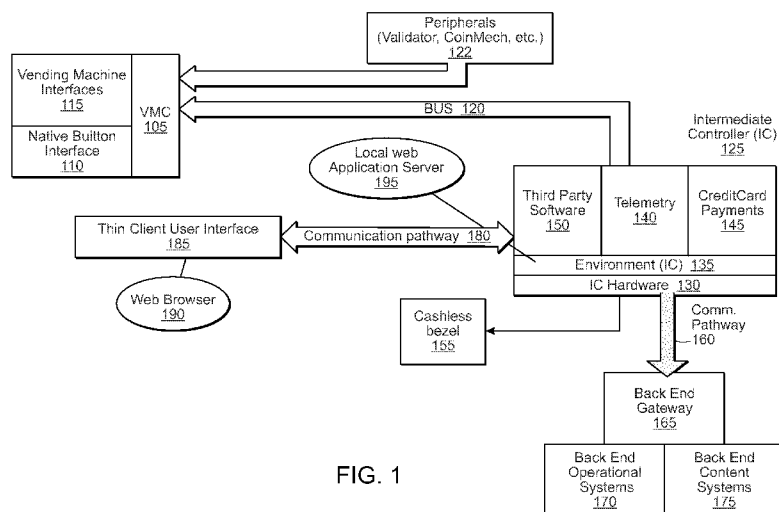


FIG. 1

(57) Abstract: A point of sale system includes a host, an intermediate controller, a user interface device, and one or more peripheral devices. The intermediate controller includes an operating environment and is in communication with the host. The user interface device is associated with and in communication with the intermediate controller. The user interface includes a web browser and the intermediate controller includes a webserver, the webserver hosting one or more applications for interaction with a customer. The one or more peripheral devices are coupled to at least the intermediate controller via a bus. Related apparatus, systems, techniques, and articles are also described.

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Point of Sale Platform for Consumer Media Interaction

RELATED APPLICATIONS

[0001] This application claims priority to U.S. Provisional Patent Application No. 61/737409 filed December 14, 2012, the entire contents of which are hereby incorporated by reference herein.

TECHNICAL FIELD

[0002] The subject matter described herein relates, in general, to electronic transaction systems and, in particular, to a dynamic consumer-interactive vending platform.

BACKGROUND

[0003] Electronic transaction systems, such as vending machines, typically utilize Digital Exchange (DEX) and Multi-Drop Bus (MDB) protocols. A DEX file is an electronic audit file having information such as sales, cash in bill validators, pricing, etc. A vending machine controller (VMC) generally stores the information on a timely basis and transmits it in DEX format as a DEX file as and when requested. MDB can provide an interface between the vending machine and different peripheral devices, such as coin acceptors, bill acceptors, credit-card acceptors, etc. Additionally, the VMC can recognize and enable the peripheral devices for operation, after which the device and the VMC can communicate. The communication enables components of the system to work in concert to perform the functions of the vending machine, such as accepting payment, vending product, logging transactions, and transmitting transactional information to an external server.

[0004] However, conventional vending machines pre-configure to work with a specific set of peripheral devices and require replacement to support additional devices. Thus,

the VMC is an integrated component that supports a specific set of functionalities and may require cost consuming replacements or extensions to offer additional functionalities. As an example, conventional VMC's only enable the following operations: receive a vending request; accept cash or credit to process the request; and process the vending request after receiving the intended amount. Furthermore, consumer interaction is limited to a static set of interface components, typically buttons. Prior attempts to expand vending machine functionality focuses on configuration changes with the VMC, thereby suggesting and requiring replacement of the VMC. However, replacing the VMC can be cost-prohibitive and undesirable.

SUMMARY

[0005] In one aspect, a point of sale system includes a host, an intermediate controller, a user interface device, and one or more peripheral devices. The intermediate controller includes an operating environment and is in communication with the host. The user interface device is associated with and in communication with the intermediate controller. The one or more peripheral devices are coupled to at least the intermediate controller via a bus.

[0006] The intermediate controller can be an embedded personal computer control board. The intermediate controller operating environment can include an operating system and file system. The intermediate controller can receive data from a remote server. The user interface device and intermediate controller can be coupled via an Ethernet communication connection.

[0007] The intermediate controller can further include a telemetry module to configure alarms and notifications for instances such as door open, jammed item, temperature control, etc. The intermediate controller can further include one or more application modules, for example third party software applications. Further, at least one application module can be

accessed by the user interface device. The application modules can support additional and enhanced functionalities. For example, the intermediate controller can include an application module, e.g. a web server module, to run a web browser on the user interface device. The user interface device thus hosts one or more applications for interaction with a customer. Furthermore, in one implementation, the web server module can be associated with a remoter server via a network (not shown). In this configuration, the web server module requests information pertaining to the customer, such as customer profiles, loyalty information, rewards, coupons, discounts, etc., and displays the information on the user interface device. The user can make further selections on the user interface module through the web browser, thus allowing the user to dynamically interact with the point of sale system. The web server can be HTTP compliant and the web server can be an HTTP application server.

[0008] In another example, the application module can include a multiple vend selection module, which supports the selections and vending of multiple items in a single transaction. In yet another example, the application module is a monitoring module configured to monitor and record details of the point of sale systems that request a specific application module. The application modules can also be associated with license numbers making it easier to track the updates and installations.

[0009] In one implementation, the application module can be a diet information module configured to store nutritional information for each of the vend items. Additionally or optionally, the diet information module may have access to the inventory and specific information on items. Further, the diet information module stores the selections made by the customer in each transaction with the nutritional information. The diet information module can provide suggestions and recommendations based on the customer purchasing history.

[0010] The point of sale system can further include a cashless bezel coupled to the intermediate controller. The intermediate controller can further include a cashless module for



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