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(54) **CONTROLLING MODES IN WAGERING GAME SYSTEMS**

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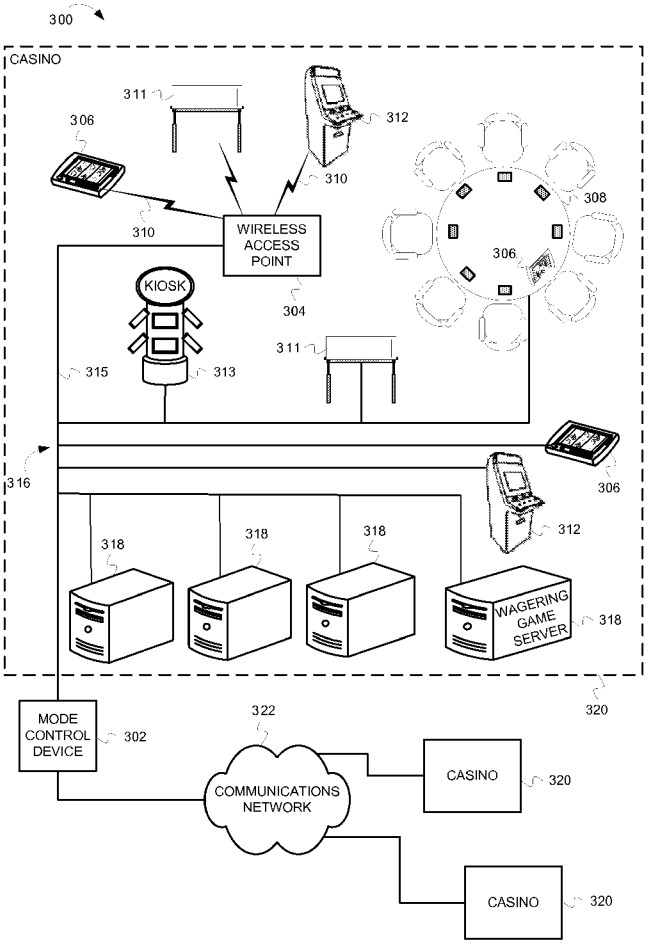
(52) **U.S. Cl.** **463/29**; 463/42

(57) **ABSTRACT**

A mode control device in a wagering game network is described herein. The mode control device can be used to control operational modes on a machine within the wagering game network. The mode control device can interface with the machine and gather criteria affecting which of the operational modes can be activated on the machine. Additionally, the mode control device can select, based on the criteria, allowable modes from the operational modes. Furthermore, the mode control device can notify the machine about the allowable modes. In addition, mode control device can select, activate, limit, enhance, or in any other way control the modes on the machine. In some embodiments, the mode control device can also control the modes on other devices associated with the machine in the wagering game network.



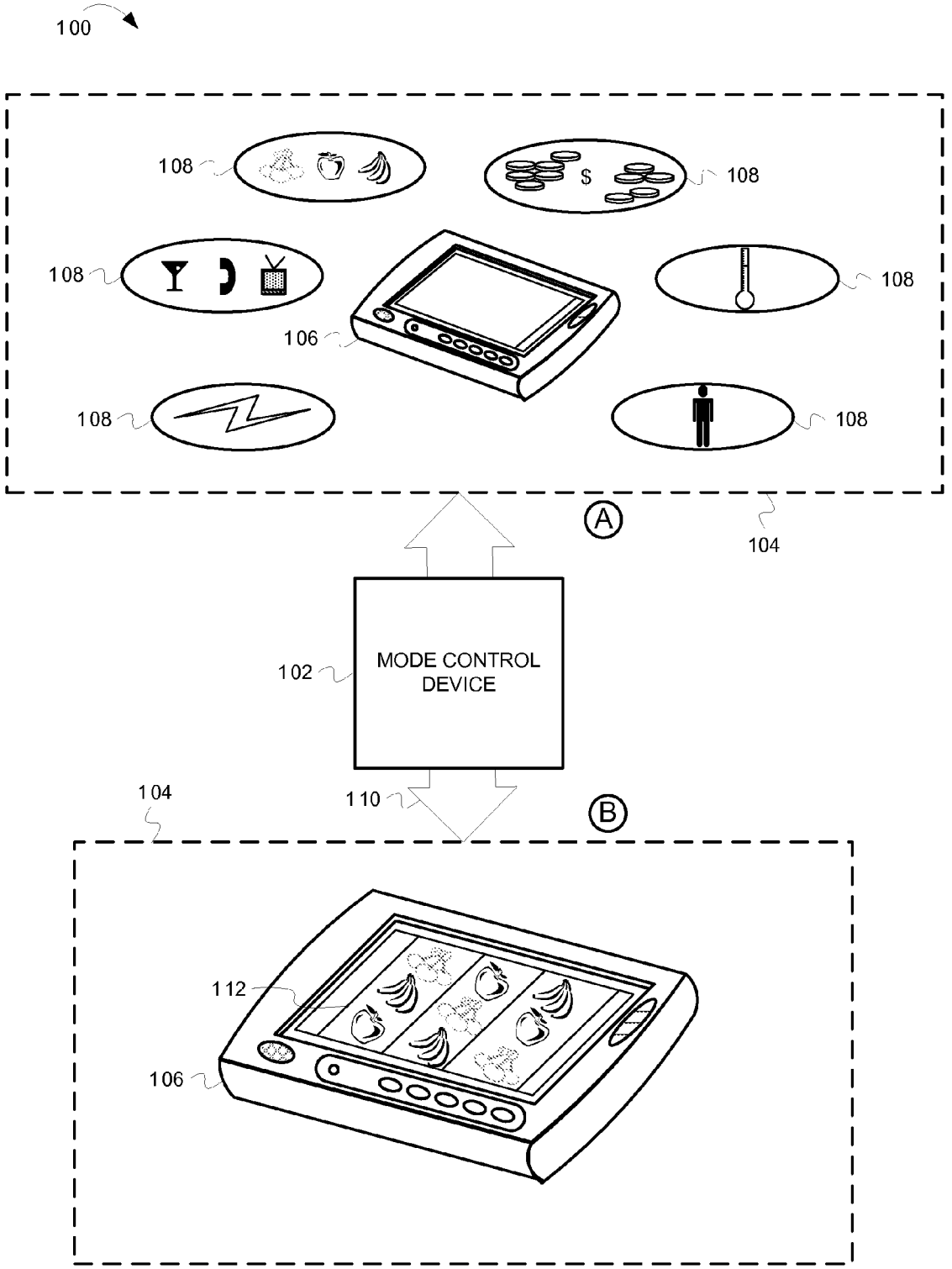

100
108
108
$
108
108
106
108
108
108
A
104
102
MODE CONTROL DEVICE
110
B
104
112
106

FIG. 1

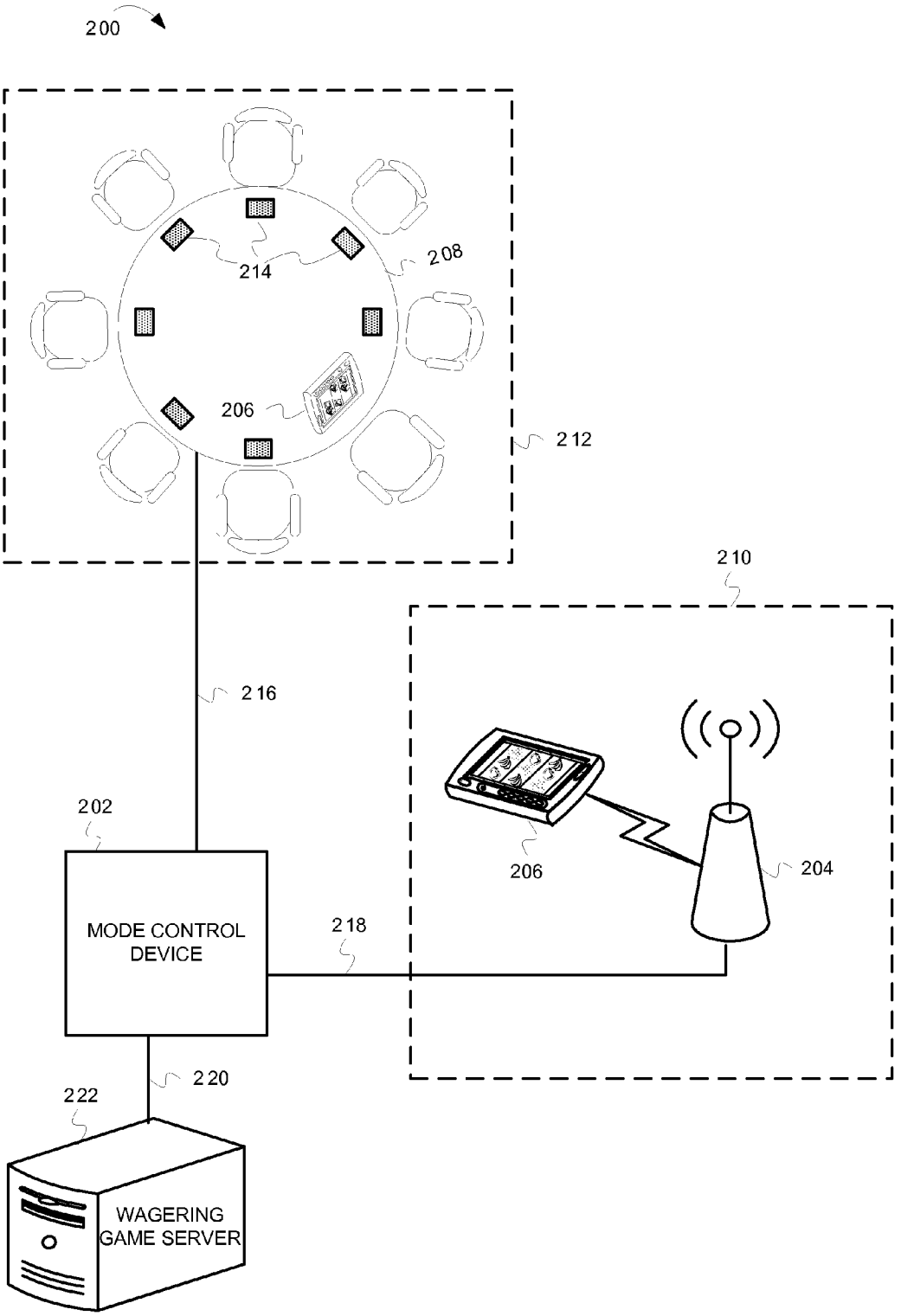

200
214
208
206
212
210
216
202
206
204
MODE CONTROL DEVICE
218
220
222
WAGERING GAME SERVER

FIG. 2

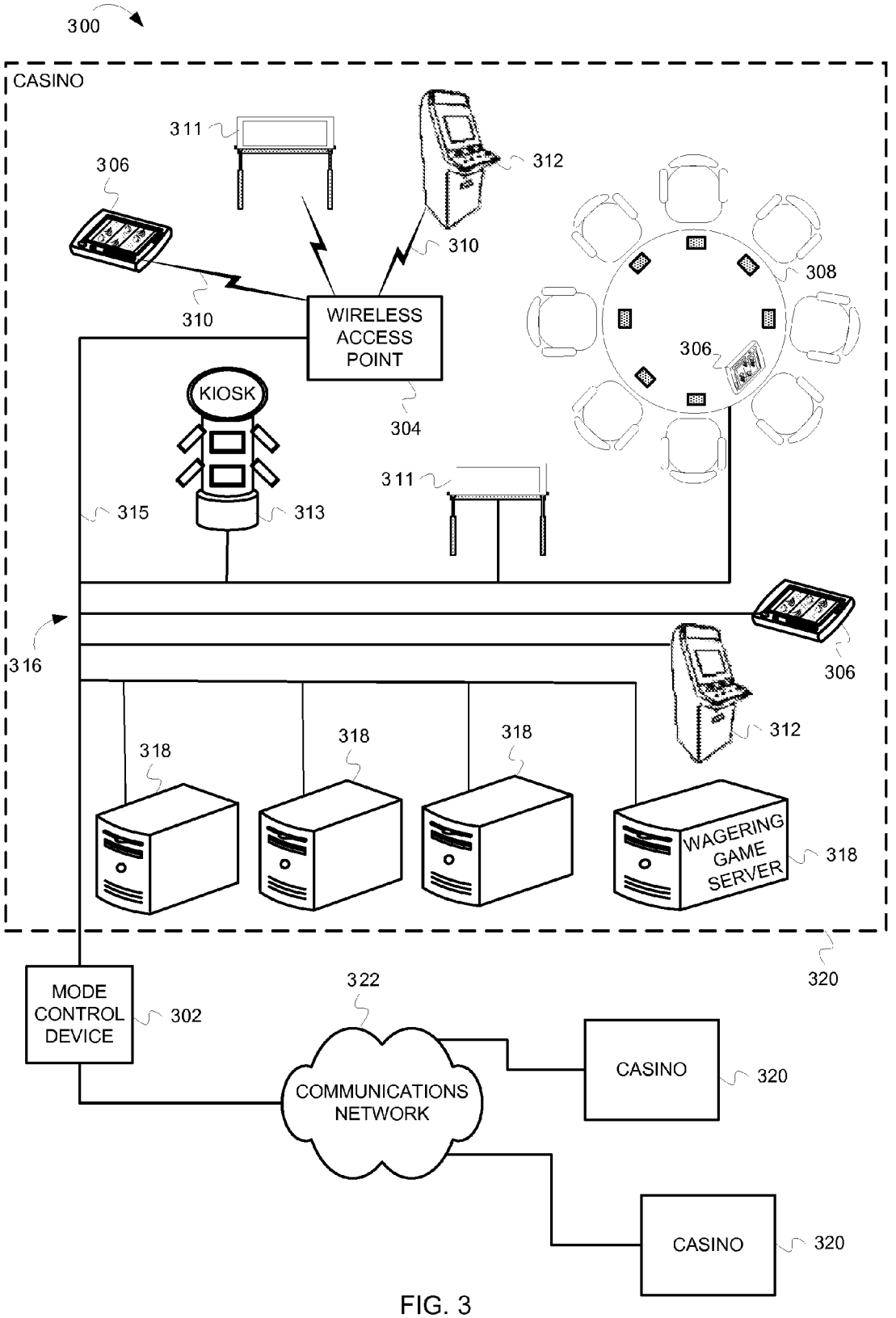

300
CASINO
311
306
312
310
310
WIRELESS ACCESS POINT
304
308
306
KIOSK
315
313
311
316
306
312
318
318
318
WAGERING GAME SERVER
318
320
MODE CONTROL DEVICE
302
322
COMMUNICATIONS NETWORK
CASINO
320
CASINO
320

FIG. 3

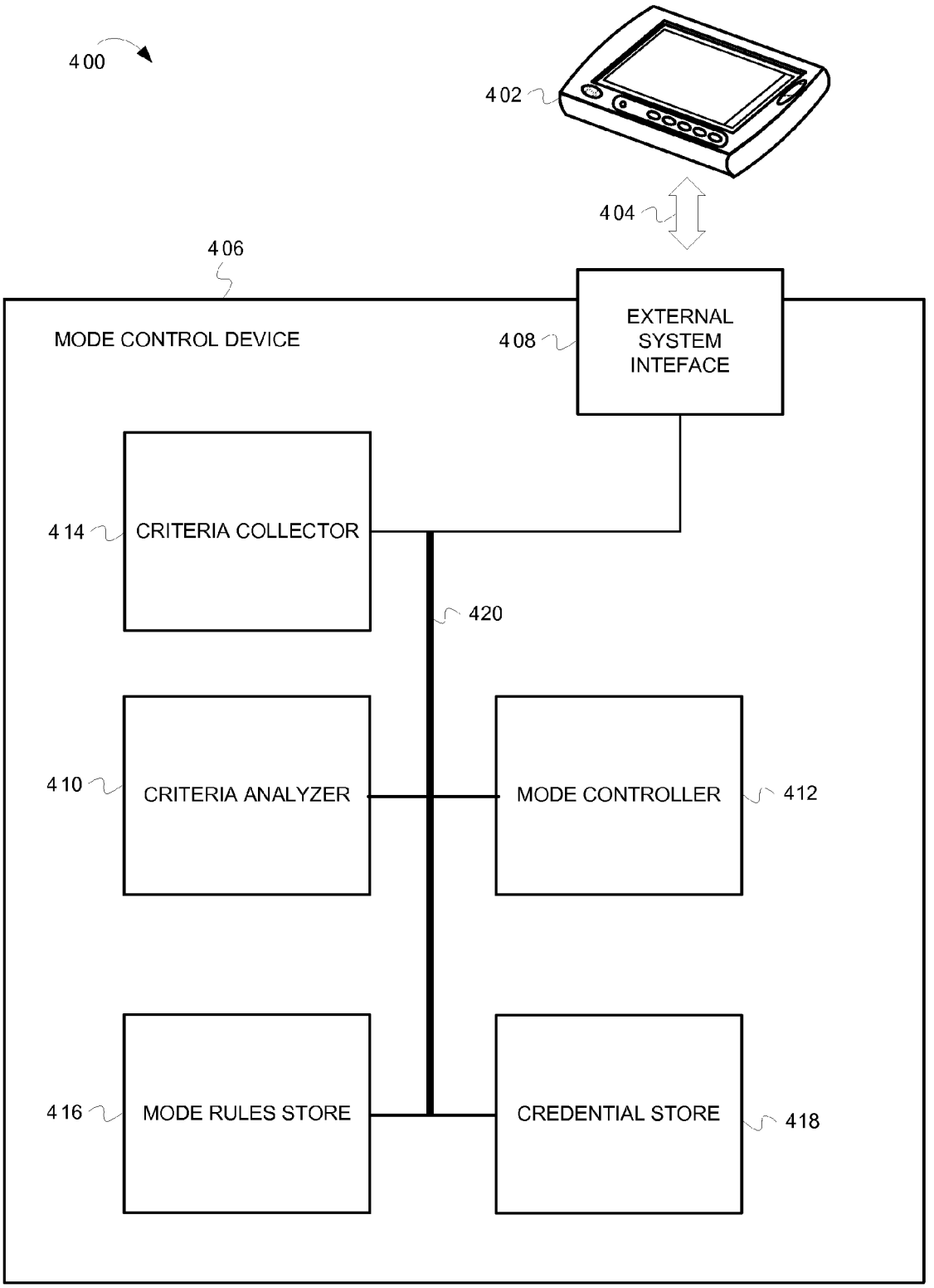

400
402
404
406
MODE CONTROL DEVICE
408
EXTERNAL SYSTEM INTEFACE
414
CRITERIA COLLECTOR
420
410
CRITERIA ANALYZER
MODE CONTROLLER
412
416
MODE RULES STORE
CREDENTIAL STORE
418

FIG. 4

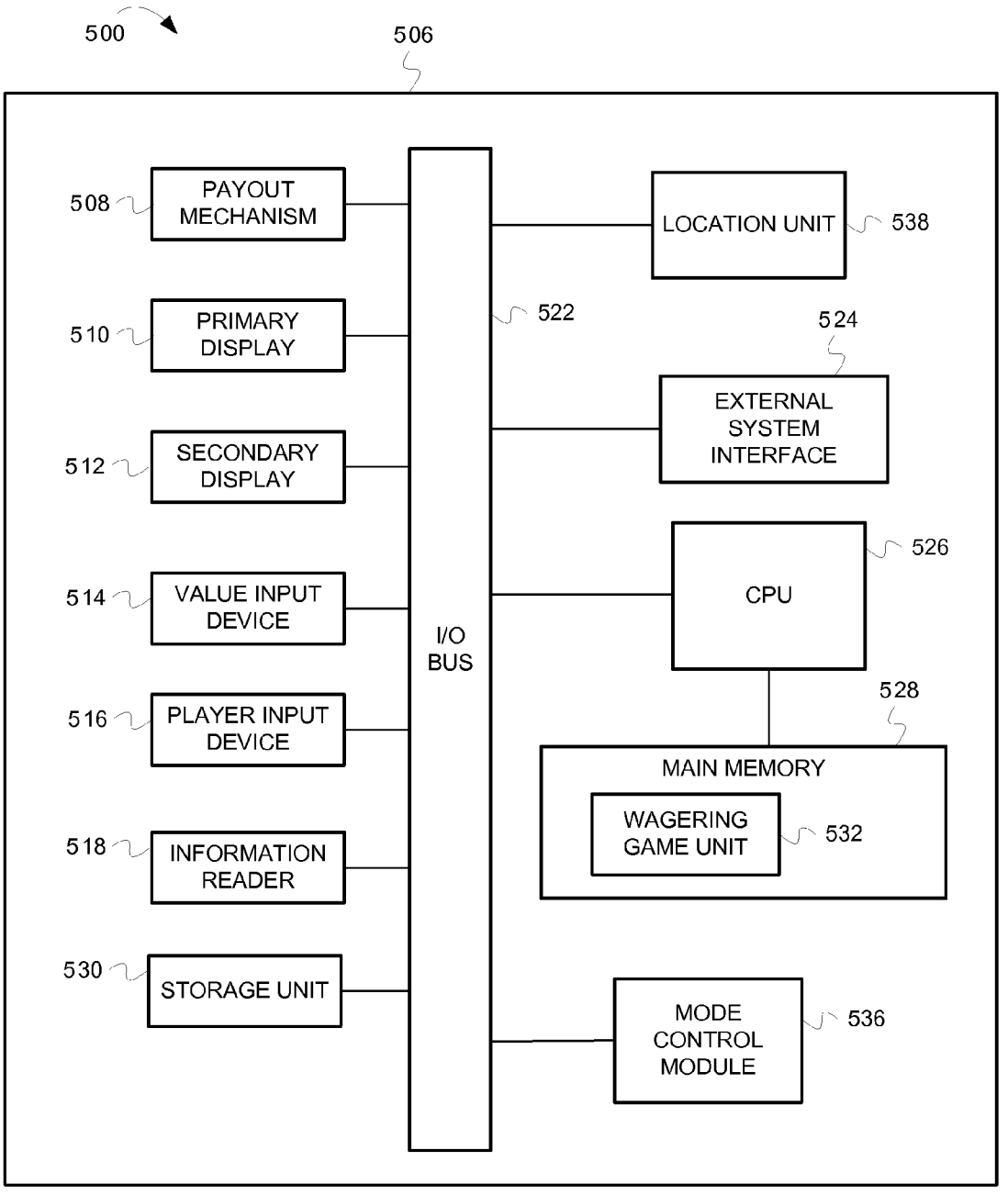

500
506
508
PAYOUT MECHANISM
510
PRIMARY DISPLAY
512
SECONDARY DISPLAY
514
VALUE INPUT DEVICE
516
PLAYER INPUT DEVICE
518
INFORMATION READER
530
STORAGE UNIT
I/O BUS
522
LOCATION UNIT
538
524
EXTERNAL SYSTEM INTERFACE
526
CPU
528
MAIN MEMORY
WAGERING GAME UNIT
532
MODE CONTROL MODULE
536

FIG. 5

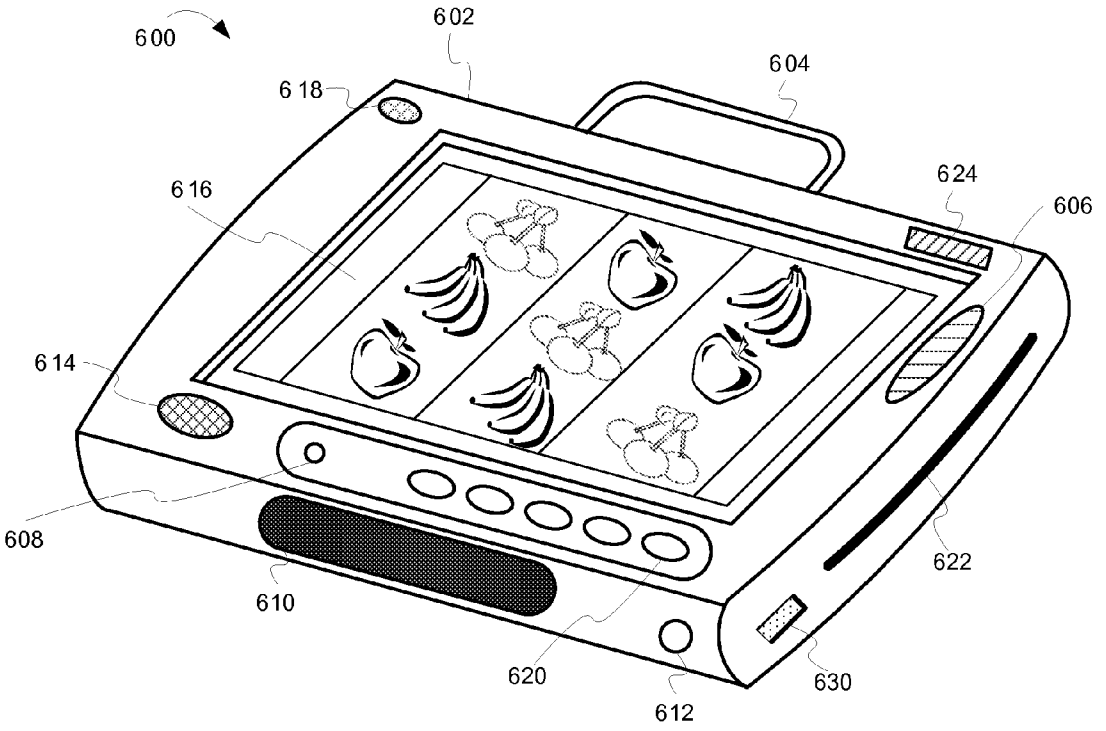


FIG. 6

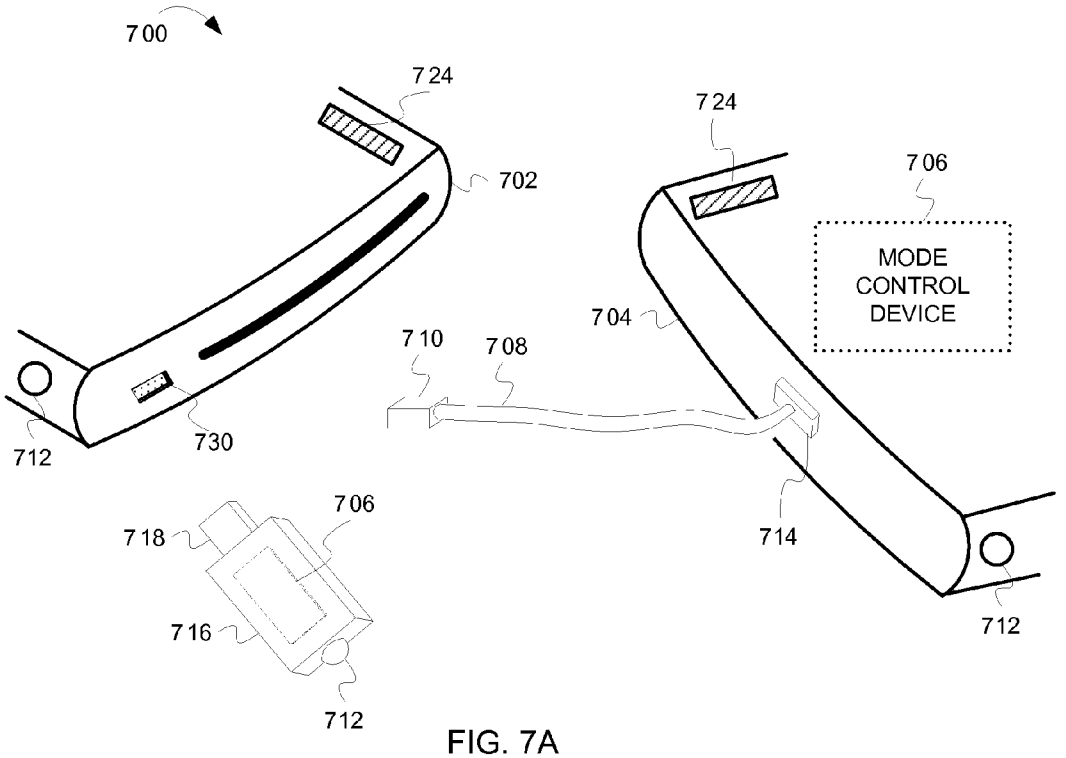

700
724
724
702
706
MODE CONTROL DEVICE
704
710
708
712
730
706
718
716
714
712
712

FIG. 7A

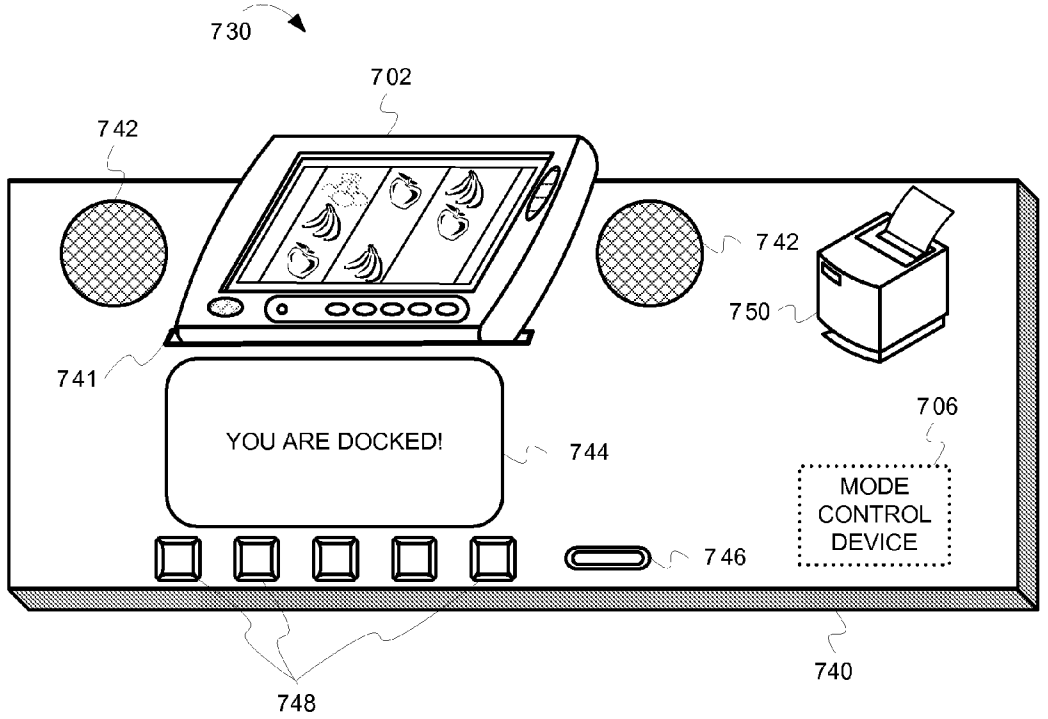

730
702
742
742
750
741
YOU ARE DOCKED!
744
706
MODE CONTROL DEVICE
746
748
740

FIG. 7B

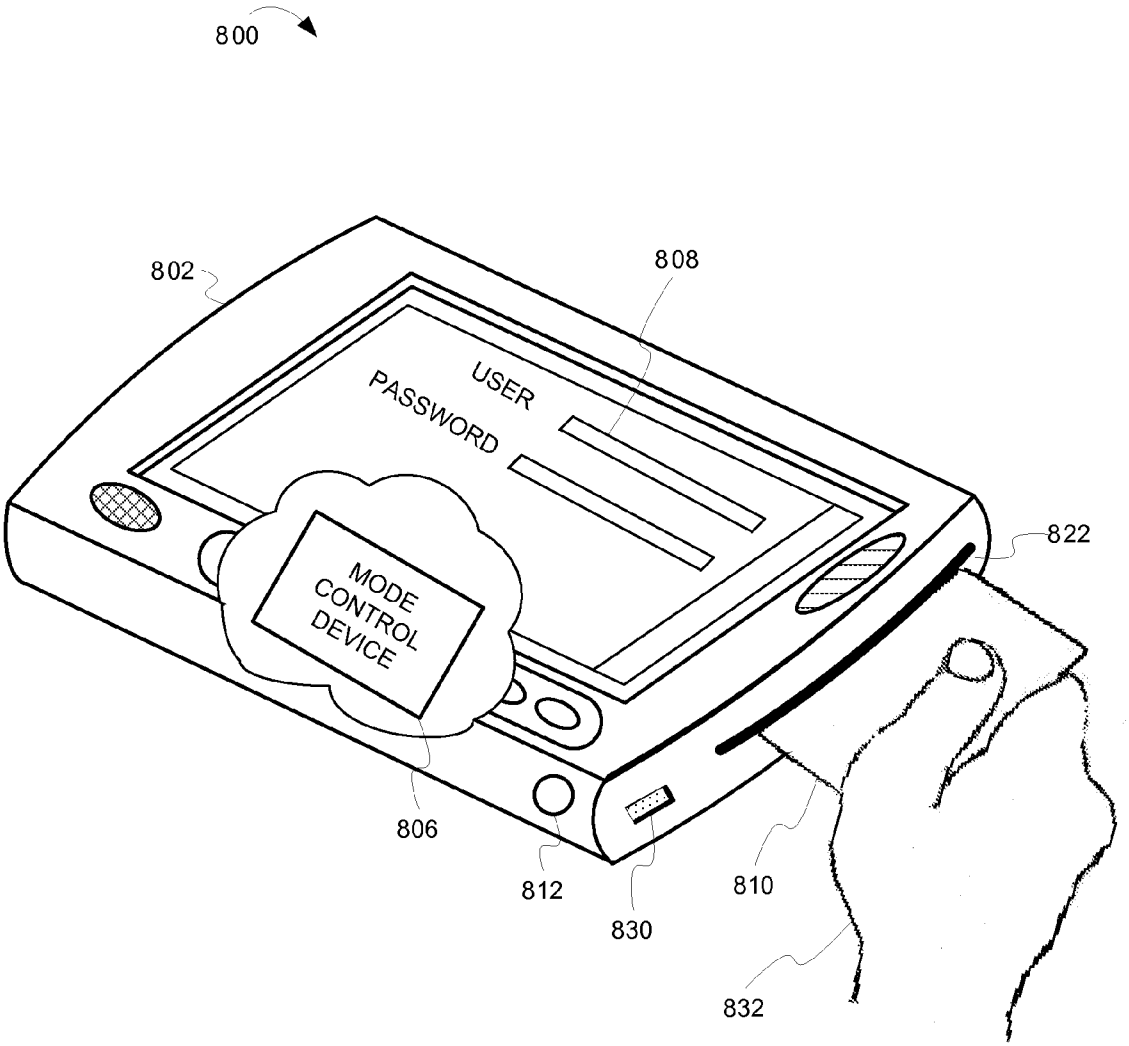

800
802
808
USER
PASSWORD
MODE
CONTROL
DEVICE
822
806
812
830
810
832

FIG. 8

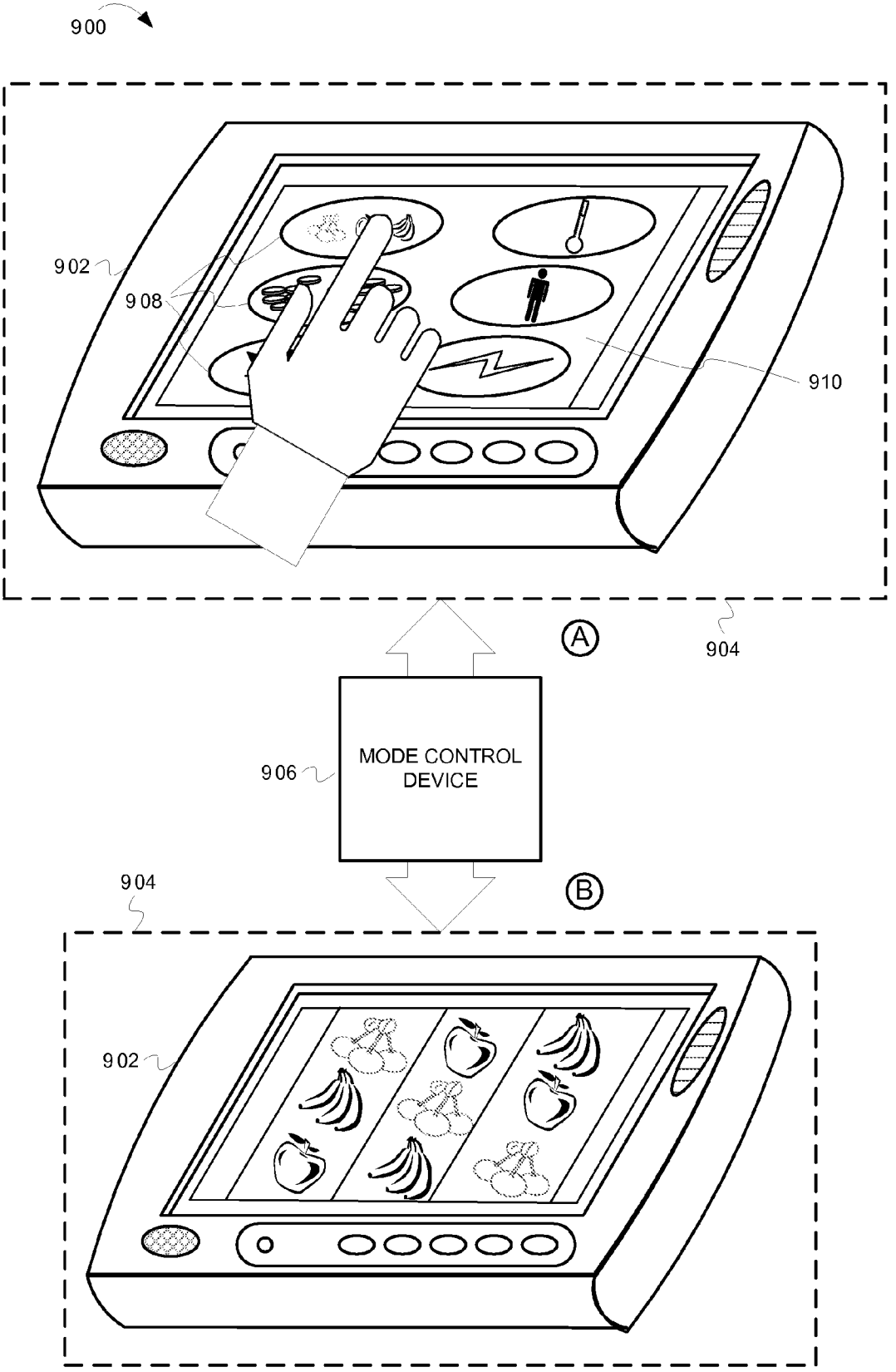


FIG. 9

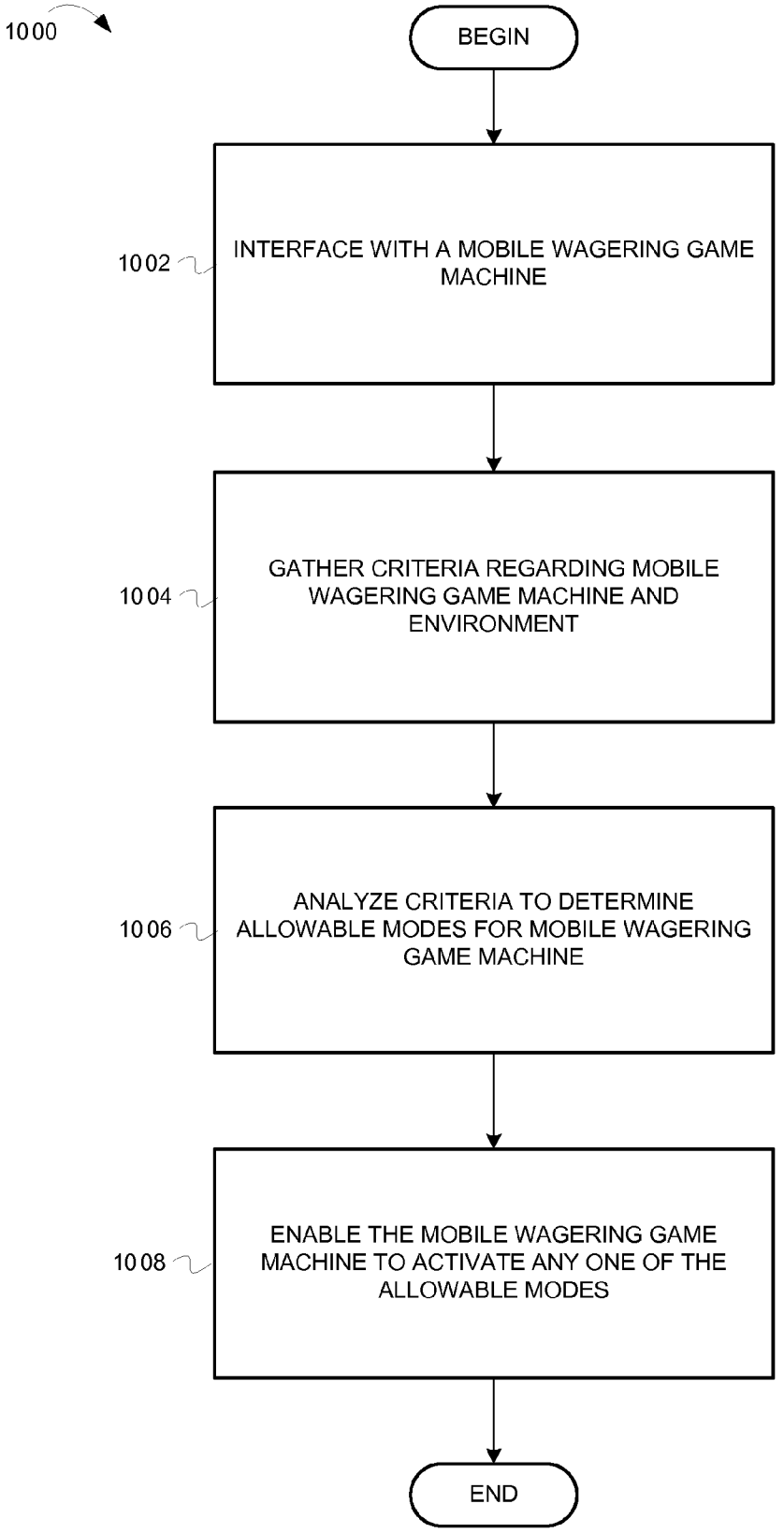

1000
BEGIN
1002
INTERFACE WITH A MOBILE WAGERING GAME MACHINE
1004
GATHER CRITERIA REGARDING MOBILE WAGERING GAME MACHINE AND ENVIRONMENT
1006
ANALYZE CRITERIA TO DETERMINE ALLOWABLE MODES FOR MOBILE WAGERING GAME MACHINE
1008
ENABLE THE MOBILE WAGERING GAME MACHINE TO ACTIVATE ANY ONE OF THE ALLOWABLE MODES
END

FIG. 10

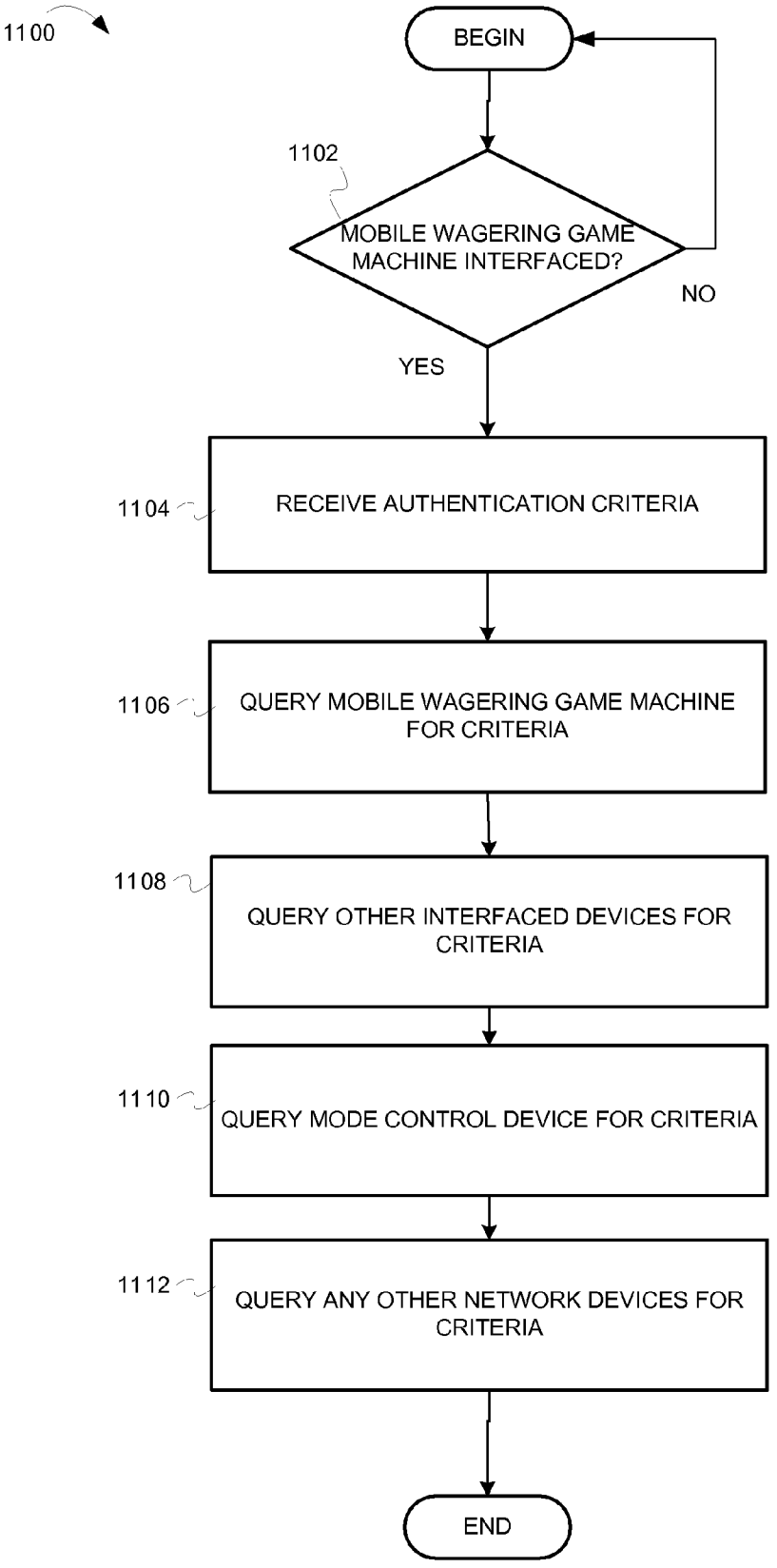

1100
BEGIN
1102
MOBILE WAGERING GAME MACHINE INTERFACED?
NO
YES
1104
RECEIVE AUTHENTICATION CRITERIA
1106
QUERY MOBILE WAGERING GAME MACHINE FOR CRITERIA
1108
QUERY OTHER INTERFACED DEVICES FOR CRITERIA
1110
QUERY MODE CONTROL DEVICE FOR CRITERIA
1112
QUERY ANY OTHER NETWORK DEVICES FOR CRITERIA
END

FIG. 11

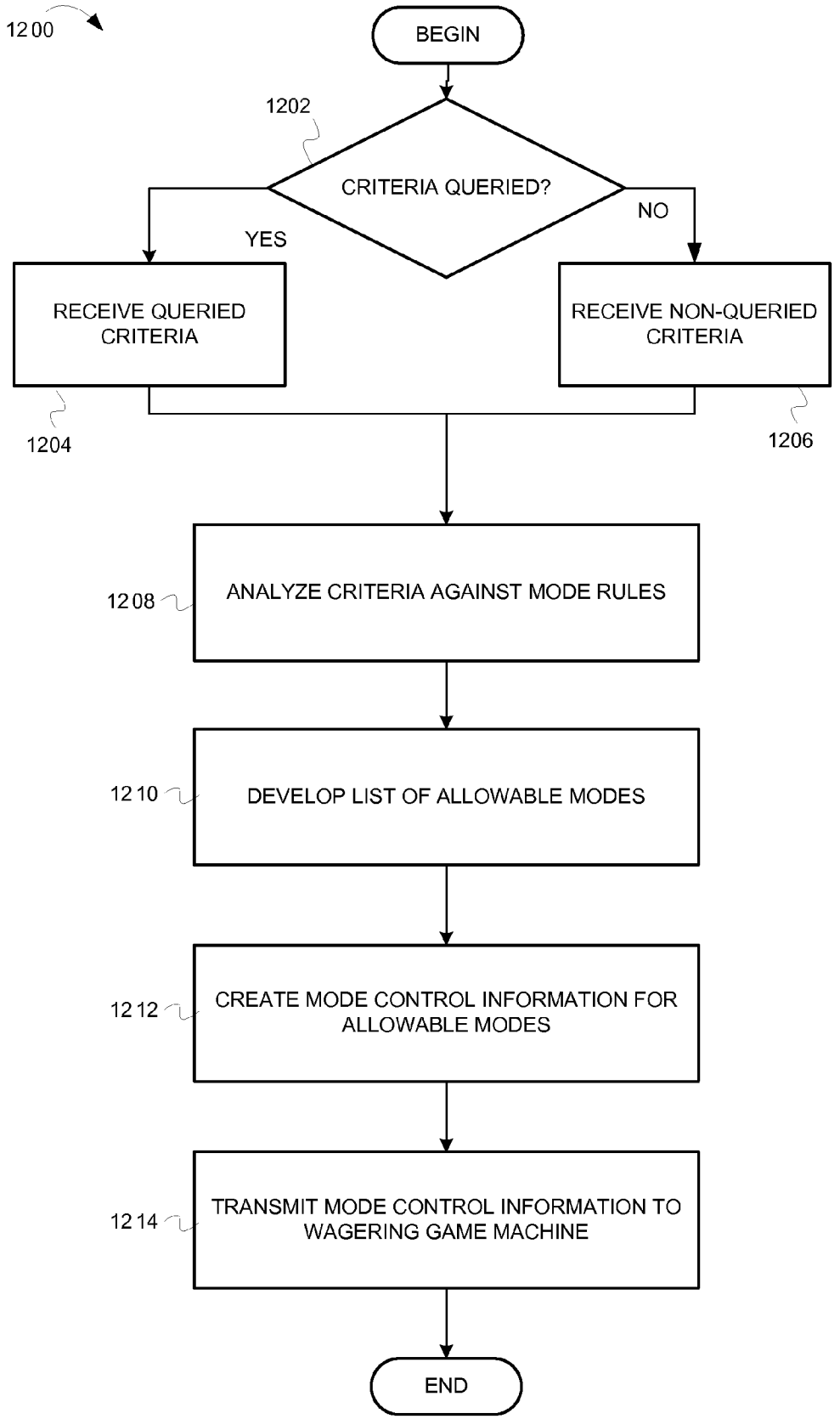

1200
BEGIN
1202
CRITERIA QUERIED?
YES
NO
RECEIVE QUERIED CRITERIA
RECEIVE NON-QUERIED CRITERIA
1204
1206
1208
ANALYZE CRITERIA AGAINST MODE RULES
1210
DEVELOP LIST OF ALLOWABLE MODES
1212
CREATE MODE CONTROL INFORMATION FOR ALLOWABLE MODES
1214
TRANSMIT MODE CONTROL INFORMATION TO WAGERING GAME MACHINE
END

FIG. 12

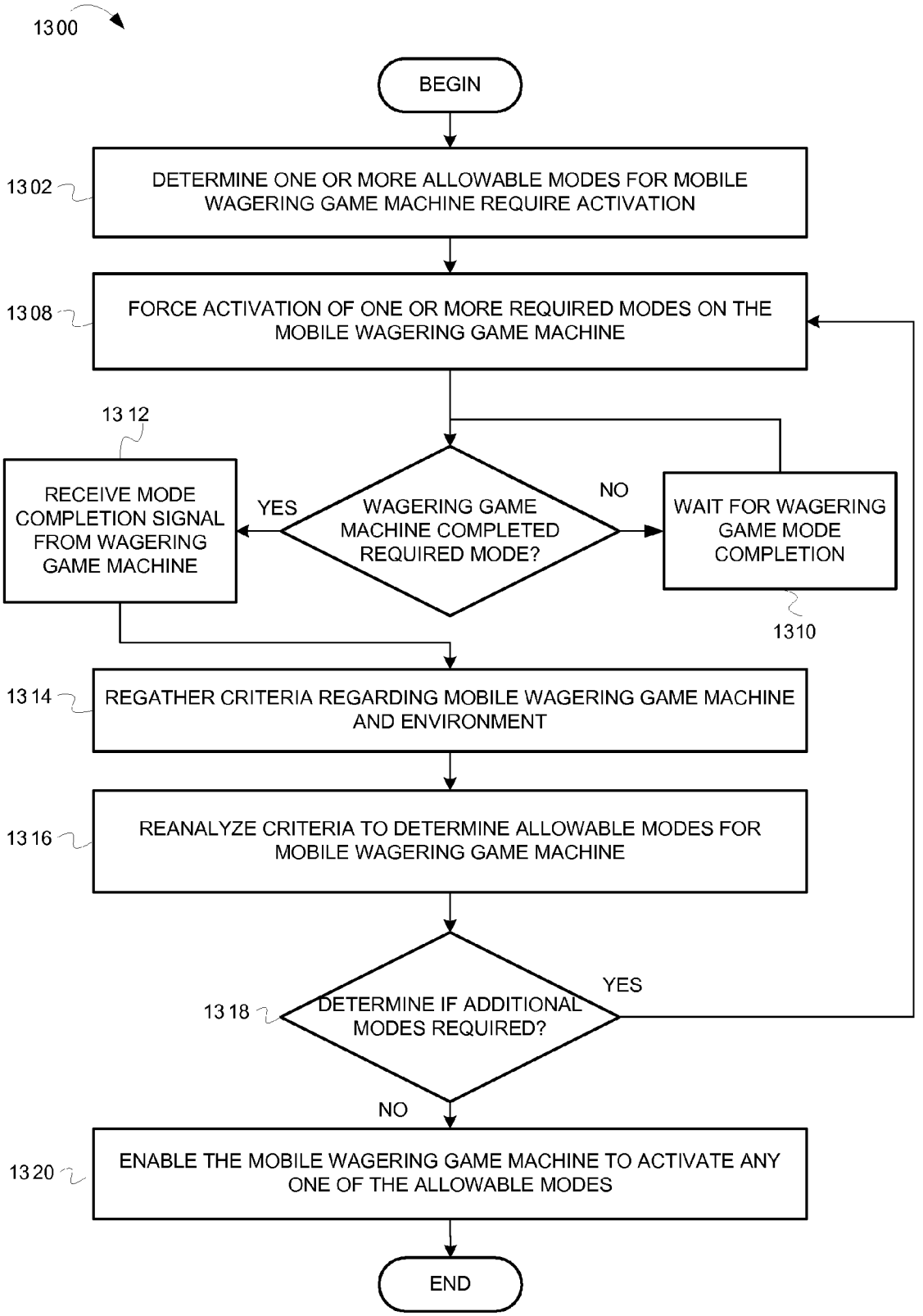

1300
BEGIN
1302
DETERMINE ONE OR MORE ALLOWABLE MODES FOR MOBILE WAGERING GAME MACHINE REQUIRE ACTIVATION
1308
FORCE ACTIVATION OF ONE OR MORE REQUIRED MODES ON THE MOBILE WAGERING GAME MACHINE
1312
RECEIVE MODE COMPLETION SIGNAL FROM WAGERING GAME MACHINE
YES
WAGERING GAME MACHINE COMPLETED REQUIRED MODE?
NO
WAIT FOR WAGERING GAME MODE COMPLETION
1310
1314
REGATHER CRITERIA REGARDING MOBILE WAGERING GAME MACHINE AND ENVIRONMENT
1316
REANALYZE CRITERIA TO DETERMINE ALLOWABLE MODES FOR MOBILE WAGERING GAME MACHINE
1318
DETERMINE IF ADDITIONAL MODES REQUIRED?
YES
NO
1320
ENABLE THE MOBILE WAGERING GAME MACHINE TO ACTIVATE ANY ONE OF THE ALLOWABLE MODES
END

FIG. 13

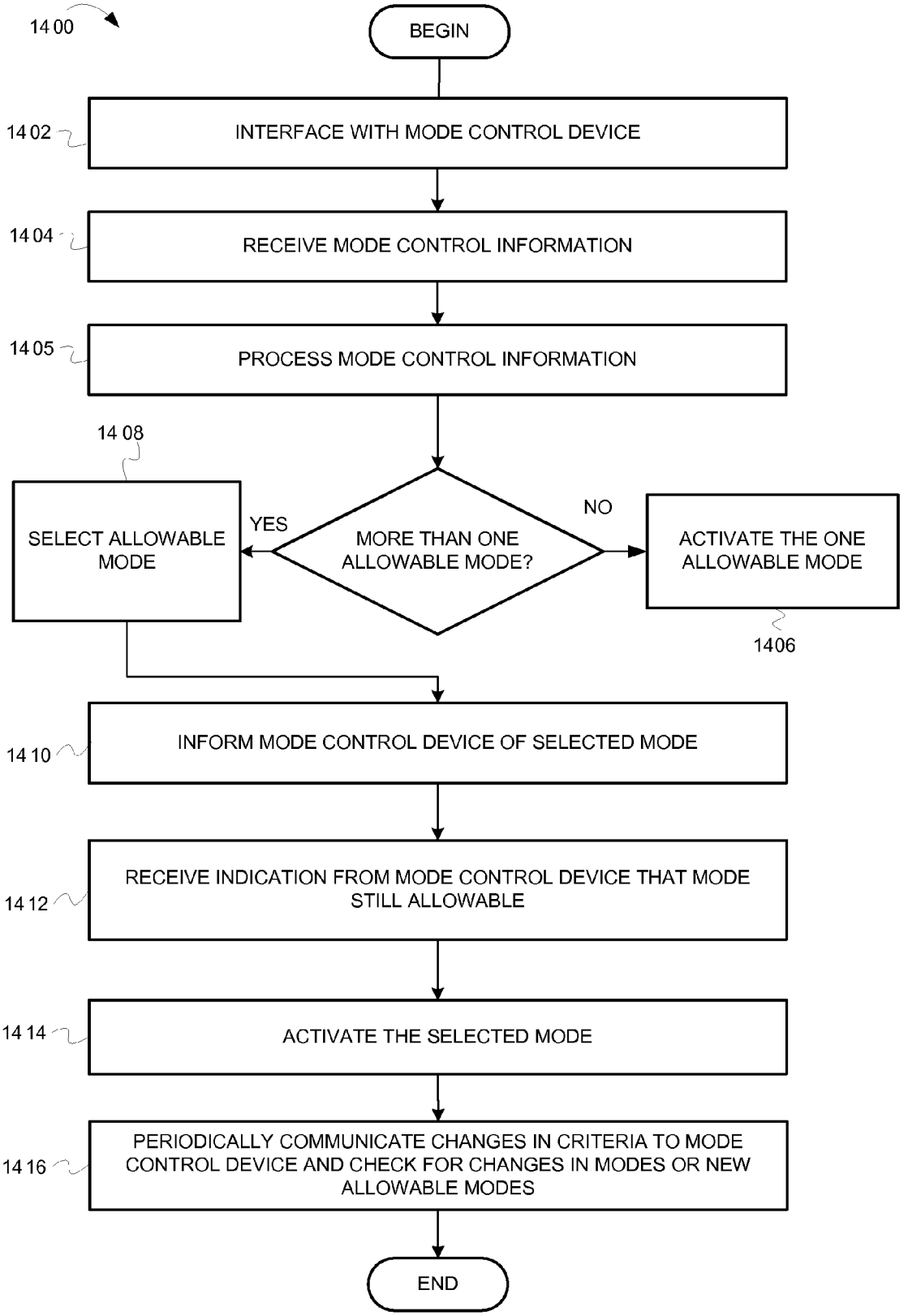

1400
BEGIN
1402
INTERFACE WITH MODE CONTROL DEVICE
1404
RECEIVE MODE CONTROL INFORMATION
1405
PROCESS MODE CONTROL INFORMATION
1408
SELECT ALLOWABLE MODE
YES
MORE THAN ONE ALLOWABLE MODE?
NO
ACTIVATE THE ONE ALLOWABLE MODE
1406
1410
INFORM MODE CONTROL DEVICE OF SELECTED MODE
1412
RECEIVE INDICATION FROM MODE CONTROL DEVICE THAT MODE STILL ALLOWABLE
1414
ACTIVATE THE SELECTED MODE
1416
PERIODICALLY COMMUNICATE CHANGES IN CRITERIA TO MODE CONTROL DEVICE AND CHECK FOR CHANGES IN MODES OR NEW ALLOWABLE MODES
END

FIG. 14

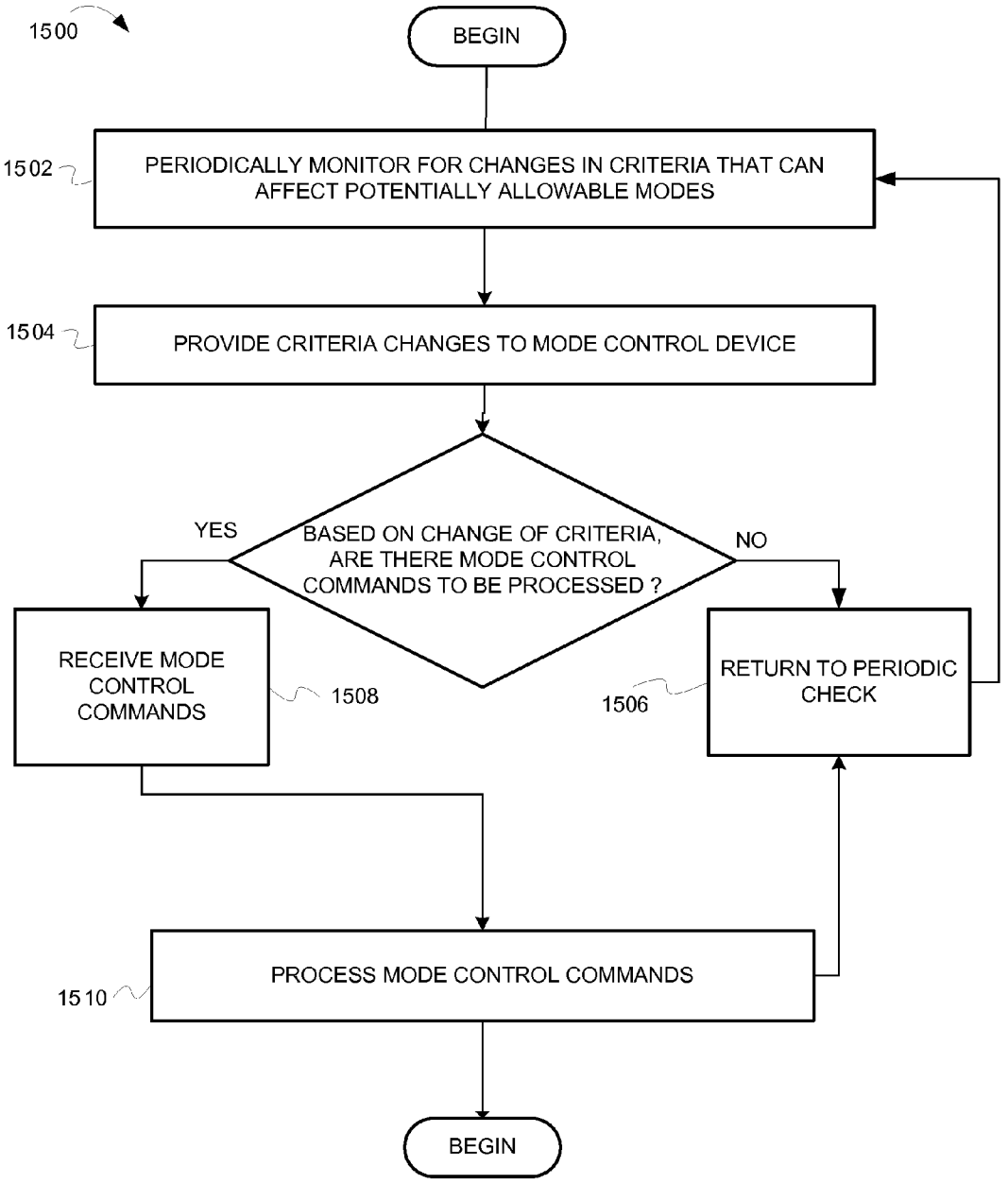

1500
BEGIN
1502
PERIODICALLY MONITOR FOR CHANGES IN CRITERIA THAT CAN AFFECT POTENTIALLY ALLOWABLE MODES
1504
PROVIDE CRITERIA CHANGES TO MODE CONTROL DEVICE
BASED ON CHANGE OF CRITERIA, ARE THERE MODE CONTROL COMMANDS TO BE PROCESSED ?
YES
NO
RECEIVE MODE CONTROL COMMANDS
1508
RETURN TO PERIODIC CHECK
1506
PROCESS MODE CONTROL COMMANDS
1510
BEGIN

FIG. 15

CONTROLLING MODES IN WAGERING GAME SYSTEMS

RELATED APPLICATIONS

[0001] This application claims the priority benefit of U.S. Provisional Application Ser. No. 60/947,401 filed Jun. 30, 2007.

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FIELD

[0003] Embodiments of the inventive subject matter relate generally to wagering game systems, and more particularly to devices that control operational modes of wagering game systems and networks.

BACKGROUND

[0004] Wagering game machines, such as slot machines, video poker machines and the like, have been a cornerstone of the gaming industry for several years. Generally, the popularity of such machines depends on the likelihood (or perceived likelihood) of winning money at the machine and the intrinsic entertainment value of the machine relative to other available gaming options. Where the available gaming options include a number of competing wagering game machines and the expectation of winning at each machine is roughly the same (or believed to be the same), players are likely to be attracted to the most entertaining and exciting machines. Shrewd operators consequently strive to employ the most entertaining and exciting machines, features, and enhancements available because such machines attract frequent play and hence increase profitability to the operator. Therefore, there is a continuing need for wagering game machine manufacturers to continuously develop new games and gaming enhancements that will attract frequent play.

SUMMARY

[0005] In some embodiments, a method comprises interfacing with a mobile wagering game machine, where the mobile wagering game machine is capable of a plurality of operational modes; gathering criteria affecting which of the operational modes can be activated on the mobile wagering game machine; selecting, based on the criteria, allowable modes from the operational modes; and notifying the mobile wagering game machine about the allowable modes.

[0006] In some embodiments, the method further comprises generating mode control information pertaining to the allowable modes; and conveying, to the mobile wagering game machine, the mode control information for use in selecting and activating the allowable modes.

[0007] In some embodiments, the method further comprises determining that one or more of the allowable modes are required modes, and activating the one or more required modes on the machine.

[0008] In some embodiments, the operational modes enable the mobile wagering game machine to perform one or more operations selected from the group consisting of operations for performing maintenance on the mobile wagering game machine, operations for presenting wagering games on the mobile machine, operations for diagnosing faults on the mobile wagering game machine.

[0009] In some embodiments, the mode control information contains mode control commands that instruct the mobile wagering game device to activate one of the allowable modes.

[0010] In some embodiments, the method further comprises displaying, for player selection, one or more of the allowable modes.

[0011] In some embodiments, the method further comprises periodically checking for changes in criteria; and reanalyzing the criteria to determine whether changes in the criteria change the allowable modes.

[0012] In some embodiments, the method further comprises querying devices on a wagering game network for criteria.

[0013] In some embodiments, a wagering game network comprises a machine on the wagering game network, the machine configured to operate in a plurality of operational modes; and a mode control device configured to interface with the machine, the mode control device comprising, a criteria collector configured to collect criteria associated with the operational modes of the machine; and a criteria analyzer configured to analyze the criteria and to determine which of the operational modes are allowable for activation on the machine.

[0014] In some embodiments, the machine is selected from the group consisting of a wagering game server, a wagering game docking station, a wagering game machine.

[0015] In some embodiments, the mode control device includes an external system interface configured to convey to the machine information indicating that certain of the operational modes are available for activation by the machine.

[0016] In some embodiments, the machine is a mobile wagering game machine.

[0017] In some embodiments, the criteria includes information selected from the group consisting of information about capabilities of the machine, information about the machine's environment, information about the machine's location, information about the machine's direction of motion, information about time of day, information about operator, information about the machine operator's user account and privileges,

[0018] In some embodiments, the criteria includes information selected from the group consisting of information about the machine operator's financial account balance, the machine operator's playing statistics, the machine operator's age, information about the machine operator's most recent use of the machine, information about devices connected to the machine, information about casino rules, and information about network statistics and conditions.

[0019] In some embodiments, the machine includes a mode control module configured to process the mode control commands and activate the operational modes.

[0020] In some embodiments, the mode control device includes one or more selected from the group consisting of a mode rules store and a credential store.

[0021] In some embodiments, the mode control device resides in more than one network device on the wagering game network, and wherein the more than one network

devices are configured to negotiate with each other about the operational modes to allow and activate.

[0022] In some embodiments, an apparatus comprises a criteria analyzer configured to analyze criteria that affects allowable operational modes on wagering game machine; a mode controller configured to create mode control information including commands that instruct the wagering game machine to activate one or more of the allowable modes; and an external systems interface configured to facilitate a connection through which to transmit the mode control information to the wagering game machine.

[0023] In some embodiments, the apparatus further comprises a criteria collector configured to collect the criteria; and a mode rules store configured to store mode rules.

[0024] In some embodiments, the criteria includes information selected from the group consisting of information about the wagering game machine's capabilities, information about the wagering game machine's environment, information about the location of the machine, information about the direction of motion of the wagering game machine, and information about the time of day, and information about the machine's operator.

[0025] In some embodiments, the criteria includes information selected from the group consisting of information about the machine operator's user-profile, of information about the machine operator's user account and privileges, of information about the machine operator's financial account balance, of information about the machine operator's playing statistics, of information about the machine operator's age, of information about the machine operator's most recent use of the wagering game machine, and information about devices connected to the wagering game machine.

[0026] In some embodiments, the apparatus further comprises an authentication store to store user credential information.

[0027] In some embodiments, the apparatus further comprises a mode control module configured to recognize the list of allowable modes and to determine that the mode control commands require automatic activation of one of the allowable modes.

[0028] In some embodiments, the wagering game machine is of a model selected from the group consisting of a floor standing model, a handheld mobile model, a bar-top model, a workstation-type console model, and a surface computing model.

BRIEF DESCRIPTION OF THE FIGURES

[0029] Embodiments of the invention are illustrated in the Figures of the accompanying drawings in which:

[0030] FIG. **1** is an illustration of a mode control device **102** in a system **100**, according to some embodiments of the invention;

[0031] FIG. **2** is an illustration of a wagering game network **200**, according to some embodiments of the invention;

[0032] FIG. **3** is an illustration of a wagering game network **300**, according to some embodiments of the invention;

[0033] FIG. **4** is an illustration of a mode control device architecture **400**, according to some embodiments of the invention;

[0034] FIG. **5** is an illustration of a wagering game machine architecture **500**, according to some embodiments of the invention;

[0035] FIG. **6** is an illustration of a mobile wagering game machine **600**, according to some embodiments of the invention;

[0036] FIGS. **7**A and **7**B are illustrations of a mode control device **706** in configuration with other machines and devices, according to some embodiments of the invention;

[0037] FIG. **8** is an illustration of a mode control device **806** in configuration with a mobile wagering game machine **802** in an operating environment **800**, according to some embodiments of the invention;

[0038] FIG. **9** is an illustration of a mode control device **906** in a system **900**, according to some embodiments of the invention;

[0039] FIG. **10** is a flow diagram illustrating operations for gathering and analyzing criteria to control modes, according to some embodiments of the invention;

[0040] FIG. **11** is a flow diagram illustrating operations for gathering criteria, according to some embodiments of the invention;

[0041] FIG. **12** is a flow diagram illustrating operations for analyzing criteria, according to some embodiments of the invention;

[0042] FIG. **13** is a flow diagram illustrating operations for controlling modes, according to some embodiments of the invention;

[0043] FIG. **14** is a flow diagram illustrating operations for receiving and utilizing mode control commands from a mode control device, according to some embodiments of the invention; and

[0044] FIG. **15** is a flow diagram illustrating operations for periodically monitoring criteria that may affect allowable modes, according to some embodiments of the invention.

DESCRIPTION OF THE EMBODIMENTS

[0045] This description of the embodiments is divided into six sections. The first section provides an introduction to embodiments of the invention, while the second section describes example operating environments and networks. The third section describes example embodiments of architectures and devices. The fourth section describes possible configurations of the devices in the operating environment. The fifth section describes example operations performed by some embodiments. The sixth section presents some general comments.

INTRODUCTION

[0046] This section provides an introduction to some embodiments of the invention.

[0047] In the gaming industry, it is desirable to keep the gaming patron engaged in entertaining activities by presenting the patron with interesting games to play or events to attend. It can be equally advantageous to provide the patron with a certain level of comfort while gaming. The patron and casino benefit from the patron having their wants and needs attended to in a timely fashion. Some casinos attend to the patron's needs by providing perks, relaxing activities, libation, etc., all of which assist the patron in spending more time with casino entertainment.

[0048] One device that has assisted casinos and patrons in this regard has been the mobile wagering game machine ("mobile machine"). The gaming patron can carry a mobile machine around a casino. Thus, the patron does not have to seek out a specific free-standing wagering game machine.

The patron can instead select and play the game on the mobile machine, anywhere on the casino floor. A mobile machine can also provide uses, other than game playing, that assist the gaming patron in their gaming experience. Some uses can include providing information, perks, assistance, and other services provided by the casino. Depending on the information, service, or entertainment provided via the mobile machine, the mobile machine's operation may vary. In other words, the mobile machine **402** can have numerous differing operational modes ("modes").

[0049] Mobile machines that provide numerous useful modes can be hard for players to use. For example, players could be unaware of or confused by certain modes. However, in some embodiments of the invention, mobile machines work in concert with devices that automate control and selection of the mobile machine's various modes. Mode control devices may be useful for other wagering game network devices, not just for mobile machines. Hence, in other embodiments, a mode control device may work to control modes on all kinds of wagering network devices. FIG. **1** shows how some mobile machines can work with mode control devices.

[0050] FIG. **1** illustrates operations of a mode control device **102**, according to some embodiments of the invention. In FIG. **1**, the operations occur in two stages. During stage one, the mode control device **102** detects and analyzes criteria related to a mobile wagering game machine **106** ("mobile machine") and its environment **104**. During stage two, the mode control device **102** uses the criteria to determine what modes **108** are available on the mobile machine **102**. In turn, the mode control device **102** conveys to the mobile machine the allowable modes and information pertaining to the allowable modes. As a result, any one of allowable modes may be selected or activated on the mobile machine **106**.

[0051] According to various embodiments of the invention, the mobile machine can operate in numerous different modes. The following non-exhaustive list enumerates some of the modes:

[0052] "Account Management" mode. In an Account Management mode, a user of the mobile machine may track his or her earnings and losses, transfer funds from account to account, set up and modify account preferences, profiles, passwords, spending limits, or any other related bit of information pertaining to financial accounts.

[0053] "Game-play" mode. In Game-play mode, a player may play games, either solitary games or group games. Game-play mode may vary depending on the location of a mobile machine. For example, when docked at a docking station, the mobile machine could function in an enhanced player mode, which could then show additional buttons on the docking station's large screen, add additional game features, etc.

[0054] "Guest Services" mode. In a Guest Services mode a user may operate applications that allow web browsing, person-to-person communications (chat, instant message, cell phone, etc.), or other access to other entertaining services that may be indirectly or non-related to game playing. Certain entertainment and hospitality services may be displayed or accessed, such as calling for a drink to be delivered, ordering tickets to a casino show, etc.

[0055] "Floor Attendant" mode. In a Floor attendant mode, a casino employee may access certain applications and utilities for fixing lock-ups on mobile machines, for locating devices that require help, or for performing other functions to assist casino patrons.

[0056] "Pit Boss" or "Supervisor" mode. In Pit Boss or Supervisor mode, a casino employee may look at a players account, transfer funds into a player's account, give players comps or perks, or perform many of the duties often associated with a Pit Boss or Supervisor.

[0057] "Diagnostic" mode. In Diagnostic mode, a mobile machine may look for dead spots in wi-fi coverage, service the mobile machine, perform software maintenance, download and install or remove games, reboot, or perform any function that will keep the mobile machine fully functional.

[0058] "Demonstration" or "Promotion" mode. In Demonstration or Promotion mode, a mobile machine may display a demo, such as of a new game, or a promotion, such as of a nearby or upcoming event, or some other thing that may interest the user/patron in any way. This mode may further be enhanced by knowledge possessed about the mobile machine's user, such as the user's playing statistics, user profile, etc.

[0059] "Charge and Maintenance" mode. In Charge and Maintenance mode a mobile machine may need to power down, or go into standby, so that certain maintenance operations can be performed.

[0060] "Manufacturing" mode. Manufacturing mode may be when a mobile machine is first setup for initialization, or the mode may be initiated for recovery purposes. Manufacturing mode may require a special id, key, workstation, user, etc.

[0061] "Default Security" mode. Default Security mode is a mode that may return a device to a secure state, such as a locked-state that may require user authentication to resume use. Default Security mode may be especially useful if the device has been inactive for a period of time or if the device has moved beyond certain boundaries.

[0062] "Mode Selection" mode. Sometime more than one mode may be selectable at any given time. Hence a Mode Selection mode may display allowable modes available to a user, to allow the user to choose a mode.

[0063] Depending on the criteria, not all modes of operation may be permissible or desirable. Some modes of operation may be more desirable at certain times, depending on the criteria, which criteria may be numerous and varied. The criteria may relate to the mobile machine **106** or its environment **104** and may include a host of factors, not all of which need to be listed herein, but are factors that may affect allowable or desirable modes. For example, criteria may include the locality of the mobile machine **106** (e.g., the current location or direction of motion of the mobile machine and its operator, etc.), the time of day, events related to the surroundings, etc. The criteria may also include information known about the mobile machine's operator, such as the operator's user-profile information, options, and preferences, current monetary balance, playing statistics, age, most recent usage, etc. In additional to some criteria described above, additional exemplary criteria may include:

[0064] Security authentication/identification credentials, which would determine if the mobile machine is a verified machine, or that the user is an authorized user, to connect to the mode control device or other computer systems or device on a network (e.g., verify against a MAC address list).

[0065] The mobile machine's capabilities—hardware, software, power capabilities of the device, etc.

[0066] Attached or available devices that are connected to the mobile machine that may enhance or restrict certain functionality of the mobile machine or that would allow the mobile machine to function in certain modes—peripherals, secondary display capabilities, etc.

[0067] The user credentials and privileges of who is logged in to the mobile machine (e.g., age, account limit, user profiles settings, type of user (is this a player or is this an administrator/technician), etc.

[0068] The context of the mobile machine such as the motion, direction of motion, location, last and upcoming locations, nature of the locations, other devices in those locations, environmental factors of the locations, ambulatory and non-ambulatory state of the user toward locations that have modes relevant to those locations, surrounding conditions and other relevant environmental criteria such as the date, time, temperature, etc. For example, if the mobile machine is in a location that is closed or in a location that should not function for the user at a certain time or place, for account, legal, or other reasons.

[0069] Information provided by other devices, such as from a docking stations or a server. A server may control and/or supplement the display or enhancement of a mode.

[0070] House rules and/or restrictions on a user's account.

[0071] Network statistics, limitations, or current conditions. For example, certain large files (e.g., game files) should not be downloaded to specific mobile machines or to certain locations of a casino if bandwidth is too low, either statistically or at any given point in time, given the location of the mobile machine.

[0072] Other hardware or software connecting with or interfacing with the device or docking station (such as a security key).

[0073] User interaction on the mobile machine at any given point.

[0074] Although FIG. **1** describes some embodiments, the following sections describe many other features and embodiments.

Example Operating Environments and Networks

[0075] This section describes example operating environments and networks and presents structural aspects of some embodiments. More specifically, this section includes discussion about wagering game machine architectures, wagering game networks, and architecture of a mode control device

[0076] FIG. **2** is an illustration of a wagering game network **200**, according to some embodiments of the invention. A mode control device **202** is shown in connection with other devices on the network **200**. Mode control device **202** connects to a wagering game server **222** via connection **220**. The mode control device **202** also connects to a wireless signal transmitter **204** via connection **218**. The transmitter **204** and connection **218** are to transmit wireless communication signals between the mobile machine **206** and the wagering game server **222**. Likewise, the mode control device **202** connects via connection **216** to a docking station **208** containing connection ports **214** where a mobile machine **206** can connect to the docking station **208**. The wagering game server **222** can assist in communication between the mode control device **202** and the mobile machines **206**. Furthermore, the wagering game server **222** can perform various other functions to serve and assist the network devices, such as the docking station **208**, the wireless transmitter **204**, or other related devices. The mode control device **202** can reside in full, or in part, in any one of the mobile machines **206**, in the docking port **208**, in the transmitter **204** or in the wagering game server **222**. The mode control device **202** can instead reside entirely outside of, though in connection to, the mobile machines **206**, the docking port **208**, the transmitter **204** or the wagering game server **222**. The mode control device **202** can also reside in more than one of the devices at once, in full or in part, and the components of the mode control device **202** residing in the various devices can negotiate with each other as to which modes should be allowable and activated.

[0077] The mode control device **202** can facilitate the gathering of criteria that can relate to the mobile machine **206** and the docking port **208** in environment **212** or the mobile machine **206** and the transmitter **204** in environment **210**. The mode control device **202** can also gather criteria from the wagering game server **222**. The mode control device **202** can then analyze the gathered criteria, and based on that analysis, determine what modes are allowable on the mobile machines **206**. The allowable modes can be transmitted to the mobile machines **206** via connections **216**, **218**.

[0078] FIG. **3** is an illustration of a wagering game network **300**, according to some embodiments of the invention. Shown in FIG. **3**, the wagering game network **300** includes a plurality of casinos **320** connected to a communications network **322**. Each casino **320** includes a local area network **316**, which includes an access point **304**, one or more servers **318**, and wagering game machines **306**, **311**, **312**. In one embodiment, the local area network **316** may also include specific types of servers **318**, such as a wagering game server, a promotions server, a player information server, a management server, or other servers not shown herein, such as social networking servers, progressive servers, player tracking servers, file servers, web servers, application servers, database servers, and casino and player account servers. There are many other devices, in other embodiments, that are not shown but that may exist in a wagering game network (e.g., routers, switches, monitoring equipment, etc.). The access point **304** provides wireless communication links **310** with wagering game machines **306**, **311**, **312**. The local area network **316** may also include wired communication links **315** to connect to servers **318**, wireless access point **304**, wagering game machines **306**, **311**, **312**, one or more docking stations **308** and one or more kiosks **313** for storing mobile machines. The wired and wireless communication links can employ any suitable connection technology, such as Bluetooth, 802.11, Ethernet, public switched telephone networks, SONET, etc. In some embodiments, the servers **318** can serve wagering games and distribute content to devices located in other casinos **320** or at other locations on the communications network **322**.

[0079] The wagering game machines **306**, **311**, **312** described herein can take any suitable form, such as floor standing models (e.g., **312**), handheld mobile units (e.g., **306**), bar-top models, workstation-type console models, surface computing machines (e.g., **311**), etc. Further, the wagering game machines **306**, **312** can be primarily dedicated for use in conducting wagering games, or can include non-dedicated devices, such as mobile phones, personal digital assistants, personal computers, etc.

[0080] In some embodiments, wagering game machines **306**, **311**, **312** and wagering game servers **318** work together such that wagering game machines **306**, **311**, **312** can be operated as a thin, thick, or intermediate client. For example, one or more elements of game play may be controlled by the wagering game machines **306**, **312** (client) or the wagering game servers **318** (server). Game play elements can include executable game code, lookup tables, configuration files, game outcome, audio or visual representations of the game, game assets or the like. In a thin-client example, the wagering game server **318** can perform functions such as determining game outcome or managing assets, while the wagering game machines **306**, **311**, **312** can present a graphical representation of such outcome or asset modification to the user (e.g., player). In a thick-client example, the wagering game machines **306**, **311**, **312** can determine game outcomes and communicate the outcomes to the wagering game server **318** for recording or managing a player's account.

[0081] In some embodiments, either the wagering game machines **306**, **311**, **312** (client) or the wagering game server (s) **318** can provide functionality that is not directly related to game play. For example, account transactions and account rules may be managed centrally (e.g., by the wagering game server(s) **318**) or locally (e.g., by the wagering game machines **306**, **311**, **312**). Other functionality not directly related to game play may include power management, presentation of advertising, software or firmware updates, system quality or security checks, etc.

[0082] The wagering game network **300** also includes a mode control devices **302**. The mode control device **302** can receive criteria, analyze the criteria, and determine allowable modes for wagering game machines **306**, **311**, **312** or any other network device. The mode control device **302** may be internal or external to a casino **320** (show here as external to casinos **320**) and may interact with any suitable wagering game network component to receive criteria, to communicate commands or information, and to facilitate the selection and activation of allowable modes.

[0083] Any of the wagering game network components (e.g., the wagering game machines **306**, **311**, **312**) can include hardware and machine-readable media including instructions for performing the operations described herein. Machine-readable media includes any mechanism that provides (i.e., stores and/or transmits) information in a form readable by a machine (e.g., a wagering game machine, computer, etc.). For example, tangible machine-readable media includes read only memory (ROM), random access memory (RAM), magnetic disk storage media, optical storage media, flash memory machines, etc. Machine-readable media also includes any media suitable for transmitting software over a network.

Example Architectures and Devices

Example Mode Control Device Architecture

[0084] FIG. **4** is an illustration of a mode control device architecture **400**, according to some embodiments of the invention. As shown in FIG. **4**, the mode control device architecture **400** includes a mode control device **406** that can contain any one or more of the following components: an external system interface **408**, a criteria collector **414**, a criteria analyzer **410**, a mode controller **412**, a mode rules store **416** and a credential store **418**. The mode control device's components can communicate with each other via the communication interface **420**, which can include buses, wires, software interfaces, and/or any other suitable interface technology. These elements will be described in further detail further below. However, in some embodiments, all of these components do not reside in a single device; rather they can be distributed throughout various devices in a wagering game system or network.

[0085] The external system interface **408** can establish an interface **404**, in some shape or form (e.g., unidirectional, bi-directional, wired, wireless, real-time, scheduled, etc.), with a wagering game system component, such as with a mobile machine **402** (as shown). The interface **404** can include a direct connection (e.g., pin connectors, wires, electrical coupling, ports, etc.), wireless connection (e.g., RF signals, IR communication, Bluetooth™ technology, Near Field Communication, or other wireless communication methods and protocols, or magnetic coupling, etc.), or a combination of wired and wireless connections. The interface **404** can also include a combination of connections, via a network of communication devices, between the mode control device **406** and the interfaced device.

[0086] The criteria collector **414** can collect, receive, and store criteria. The criteria analyzer **410** can analyze the criteria in the criteria collector **414**. In one embodiment, the criteria analyzer **410** observes a criteria element and compares it against a list of mode rules stored in a mode rules store **415**. The mode rules in the mode rules store **416** can contain rules explaining conditions whereby a mode can be allowable on the mobile machine **402** or other wagering game network device. Allowable modes can be modes that are advantageous, practical, potentially desirable, or necessary, all of which are allowed to be activated on the mobile machine **402**. The criteria analyzer **410** can interpret the mode rules and the various factors of criteria and generate a list of allowable modes. The mode controller **412** can take the list of allowable modes and generate mode control information, such as mode control commands, that can be communicated to the mobile machine **402** via external system interface **408**.

Example Mobile Wagering Game Machine Architecture

[0087] FIG. **5** is an illustration of a wagering game machine architecture **500**, according to some embodiments of the invention. As shown in FIG. **5**, the wagering game machine architecture **500** includes a wagering game machine **506**, which includes a central processing unit (CPU) **526** connected to main memory **528**. The CPU **526** can include any suitable processor, such as an Intel® Pentium processor, Intel® Core 2 Duo processor, AMD Opteron™processor, or UltraSPARC processor. The main memory **528** includes a wagering game unit **532**. In one embodiment, the wagering game unit **532** can present wagering games, such as video poker, video black jack, video slots, video lottery, reel slots, etc., in whole or part.

[0088] The CPU **526** is also connected to an input/output ("I/O") bus **522**, which can include any suitable bus technologies, such as an AGTL+ frontside bus and a PCI backside bus. The I/O bus **522** is connected to a payout mechanism **508**, primary display **510**, secondary display **512**, value input device **514**, player input device **516**, information reader **518**, and storage unit **530**. The player input device **516** can include the value input device **514** to the extent the player input device **516** is used to place wagers. The I/O bus **522** is also connected to an external system interface **524**, which is connected to external systems **504** (e.g., wagering game networks). The

external system interface **524** can include logic for exchanging information over wired and wireless networks (e.g., 802.11g transceiver, Bluetooth transceiver, Ethernet transceiver, etc.)

[0089] The I/O bus **522** is also connected to a location unit **538**. The location unit **538** can create player information that indicates the wagering game machine's location/movements in a casino. In some embodiments, the location unit **538** includes a global positioning system (GPS) receiver that can determine the wagering game machine's location using GPS satellites. In other embodiments, the location unit **538** can include a radio frequency identification (RFID) tag that can determine the wagering game machine's location using RFID readers positioned throughout a casino. Some embodiments can use GPS receiver and RFID tags in combination, while other embodiments can use other suitable methods for determining the wagering game machine's location. Although not shown in FIG. **5**, in some embodiments, the location unit **538** is not connected to the I/O bus **522**.

[0090] In one embodiment, the wagering game machine **506** can include additional peripheral devices and/or more than one of each component shown in FIG. **5**. For example, in one embodiment, the wagering game machine **506** can include multiple external system interfaces **524** and/or multiple CPUs **526**. In one embodiment, any of the components can be integrated or subdivided.

[0091] In one embodiment, the wagering game machine **506** includes a mode control module **536**. The mode control module **536** can process communications, commands, or other information received from a mode control device regarding the modes of the wagering game machine **506**. The mode control module **536** works as a companion (e.g., a client) module to a mode control device. In one embodiment, the mode control module **536** can be a part of, or contained within, a mode control device.

Example Mobile Wagering Game Machine

[0092] FIG. **6** is an illustration of a handheld wager gaming unit **600**, according to example embodiments of the invention. As shown in FIG. **6**, the handheld wager gaming unit **600** includes a housing **602** for containing internal hardware and/or software such as that described above vis-à-vis FIG. **5**. In one embodiment, the housing has a form factor similar to a tablet PC, while other embodiments have different form factors. For example, the handheld wager gaming unit **600** can exhibit smaller form factors, similar to those associated with personal digital assistants. In one embodiment, a handle **604** is attached to the housing **602**. Additionally, the housing can store a foldout stand **610**, which can hold the handheld wager gaming unit **600** upright or semi-upright on a table or other flat surface.

[0093] The handheld wager gaming unit **600** includes several input/output devices. In particular, the handheld wager gaming unit **600** includes buttons **620**, audio jack **608**, speaker **614**, display **616**, biometric device **606**, wireless transmission devices **612** and **624**, microphone **618**, and card reader **622**. Additionally, the handheld wager gaming unit can include tilt, orientation, ambient light, or other environmental sensors.

[0094] In one embodiment, the handheld wager gaming unit **600** uses the biometric device **606** for authenticating players, whereas it uses the display **616** and speakers **614** for presenting wagering game results and other information (e.g., credits, progressive jackpots, etc.). The handheld wager gaming unit **600** can also present audio through the audio jack **608** or through a wireless link such as Bluetooth.

[0095] In one embodiment, the wireless communication unit **612** can include infrared wireless communications technology for receiving wagering game content while docked in a wager gaming station. The wireless communication unit **624** can include an 802.11G transceiver for connecting to and exchanging information with wireless access points. The wireless communication unit **624** can include a Bluetooth transceiver for exchanging information with other Bluetooth enabled devices.

[0096] In one embodiment, the handheld wager gaming unit **600** is constructed from damage resistant materials, such as polymer plastics. Portions of the handheld wager gaming unit **600** can be constructed from non-porous plastics which exhibit antimicrobial qualities. Also, the wager gaming unit **600** can be liquid resistant for easy cleaning and sanitization.

[0097] In some embodiments, the wager gaming unit **600** can also include an input/output ("I/O") port **630** for connecting directly to another device, such as to a peripheral device, a secondary mobile machine, etc, as described in more detail in conjunction with the embodiments of FIG. **7**A. Furthermore, any component of the wager gaming unit **600** can include hardware, firmware, and/or machine-readable media including instructions for performing the operations described herein.

Example Configurations of Devices in the Operating Environment

[0098] FIGS. **7**A and **7**B are illustrations of a mode control device **706** in configuration with other machines and devices in a wagering game operating environment, according to some embodiments of the invention. As shown in FIG. **7**A, operating environment **700** contains a mode control device **706**, in full or in part. The mobile machine **704** can interface directly to mobile machine **702** via input/output ("I/O") port **730**, or wirelessly via wireless transmission devices **712** and **724**. Direct connection can be obtained via a cord **708** with a connector **710** configured to fit into I/O port **730**, at one end, attached by connector **714** at another end.

[0099] In one embodiment, a casino employee, such as a Floor Attendant or Pit Boss, can utilize the mobile machine **704** and a casino patron can utilize the mobile machine **702**. There are various reasons why a casino employee would want to interface the two mobile machines. For example, the casino employee may need to interface the mobile machine **704** with the mobile machine **702** to fix a problem, to upload files, to install/remove applications, or to perform other maintenance on the machine. The casino employee may also want to interface with the mobile machine **704** to update a user's financial account, to provide a perk, or perform any other applicable service.

[0100] In one embodiment, the mode control device **706** in mobile machine **704** gathers criteria upon interfacing with the mobile machine **702**. However, the mode control device **706** can also gather criteria from other sources prior to interfacing with the mobile machine **702**. For example, the mobile machine **702** might have communicated criteria to a server. The server can instead communicate criteria to the mode control device **706**. With criteria in hand, mode control device **706** analyzes the criteria and determines an appropriate allowable mode to suggest or activate upon mobile machine **702**. For example, if the mobile machine **702** needs maintenance because it is "hung-up," a floor attendant may receive at his mobile machine **704** a message indicating that mobile machine **702** requires assistance. Once the mobile machine **704** is in range of communication, such as for wireless communication, or once the mobile machine **704** had interfaced via I/O port **730**, then the mode control device **706** receives

additional criteria so the attendant can authenticate user credentials on the mobile machine **702**. The mobile machine **702**, or other peripheral devices, can communicate additional criteria to the mode control device **706** regarding the hang-up on the mobile machine **702**. As a result, the mode control device **706** determines that a "Maintenance" mode is allowable and necessary for the mobile machine **702** and that a corresponding "Floor Attendant" mode is needed on mobile machine **704**. After the needed modes are activated, the floor attendant can resolve the issue (i.e., the hang-up).

[0101] FIG. **7**A also shows a mobile service device **716** that can assist in communicating criteria and other functions of the mode control device **706**. The mobile service device **716** also includes a connector **718** to connect to the I/O port **730** on mobile machine **702**. The mobile service device **716** also includes a wireless communication device **712**. In one embodiment, the mobile service device **716** also includes a mode control device **706**, in full or in part, depending on the role of the mobile service device **716**.

[0102] FIG. **7**B is a block diagram illustrating a docking station **730** including input/output devices for use by a mobile machine, according to example embodiments of the invention. In FIG. **7**B, the docking station **730** includes a docking port **741** for docking with a mobile machine **702**. The docking port **741** can include components for providing power and communications to the mobile machine **702**.

[0103] The docking station **730** also includes a plurality of input/output devices. In particular, the docking station **730** includes speakers **742**, a display **744**, buttons **748**, a card reader **746**, and a voucher printer **750**. While some of the input/output devices are shown as being contained within the docking station **730**, they can be mounted on or about the docking station **730** at any suitable orientation.

[0104] When a mobile machine **702** is docked with the docking station **730** via the docking port **741**, the mobile machine **702** can use any of the docking station's input/output devices. For example, the mobile machine **702** can print tickets on the voucher printer **744**, present audio on the speakers **742**, and present video on the display **744**. The mobile machine **702** can also receive input through the buttons **748** and the card reader **746**. However, even though the mobile machine **702** is docked, in some embodiments, the mobile machine **702** can still receive input through its own input/output devices.

[0105] In one embodiment, the docking station **730** includes pressure sensors and video projectors (not shown) disposed inside the cabinet **740**. The pressure sensors can detect when objects touch the top surface of the cabinet **740**, while the video projectors can project content onto the top surface of the cabinet. In one embodiment, the docking station **730** projects content onto the top surface of the cabinet **740** in response to detecting objects touching the cabinet **740**.

[0106] In one embodiment, the docking station **730** includes a mode control device **706** to control modes on the mobile machine **702** and any other device in the docking station **730**. The mode control device **706** can control modes depending on criteria regarding the docking station **730**, the mobile machine **702**, the operators, etc. The docking station **730** may have numerous available modes because it includes additional devices that enhance the mobile machine's capabilities. By the same token, mode control may become more complex, and thus more mode control rules may apply. Consequently, the mode control device **706** can take any additional criteria (e.g., criteria specific to the docking station **730**) into consideration in its analysis, and can provide appropriate mode control responses.

[0107] FIG. **8** is an illustration of a mode control device **806** in configuration with a mobile machine **802** in an operating environment **800**, according to some embodiments of the invention. In FIG. **8**, the mode control device **806** is contained within the mobile machine **802**. The mobile machine **802** may include a device to allow a user to log-on to the machine. In FIG. **8**, one device is depicted as a magnetic card reader **822**, whereby a user **832** can swipe a card **810** that contains user credentials or other information. Another device is an I/O port **830**, whereby a user can connect with a secondary device (e.g., a biometric information device). In another embodiment, another device is a wireless communication device **812**. In yet another embodiment, the user may log on to the machine using a log-on console **808**, which may prompt the user credentials, such as a network ID and password. In other embodiments, any one of the magnetic card reader **822**, I/O port **730**, wireless communication device **812**, or log-on console **808** can function in concert. Other methods of user log-on and authentication may also be utilized, though not shown.

[0108] Once a user has logged on to the mobile machine **802**, the mode control device **806** can utilize that user's credentials as part of the criteria to determine allowable modes. The mode control device **806** can use logon credentials of a user to determine different or additional allowable modes, depending on who is operating the mobile machine **802**. Furthermore, because the mode control device **806** is contained within the mobile machine **802**, all mode control functionality of the mode control device **802** is available without connecting to another device or machine.

[0109] FIG. **9** is an illustration of a mode control device **902** in a system **900**, according to some embodiments of the invention. At state (A) of FIG. **9**, given the criteria in environment **904**, the mode control device **906** has determined that more than one mode is allowable and that no mode is more desirable than any other. Consequently, the mode control device **906** presents a "Mode Selection" mode. The modes may be depicted by mode selection buttons **908**, which can be represented as icons on a screen **910**. The screen **910** can have touch sensitivity so that an operator may simply touch the screen to select the desired mode.

[0110] In state (B), the mode control device **906** can determine whether the selected mode is still allowable. That is, the mode control device **906** can reevaluate criteria for changes arising after the allowable modes were presented in state (A). In some embodiments, that a mode may be allowable generally, but limited in some aspects, depending on the change in criteria. If the mode is still allowable, the mode control device **906** allows the mobile machine **902** to activate the mode, either in full, or in part. In some embodiments, a selected mode may not be allowable because the criteria changed from movement of the mobile machine **902**, loss of network connectivity, change in user status, maintenance issues, time of day, etc. When a mode is no longer allowable or has been limited in its operation, the mobile machine **902** may notify the user by showing warning screen, by re-presenting the mode selection options with only allowable modes, by modifying the mode to compensate for the changes in criteria, etc. In some embodiments, where no criteria is available, or where changes in criteria cannot be obtained or transmitted (e.g., if the device is out of range of the network), then the mobile machine **902** can enter a default security mode, such as wait or lock-down mode.

Example Operations

[0111] This section describes operations associated with some embodiments of the invention. In the discussion below,

the flow diagrams will be described with reference to the block diagrams presented above. However, in some embodiments, the operations can be performed by logic not described in the block diagrams.

[0112] In certain embodiments, the operations can be performed by executing instructions residing on machine-readable media (e.g., software), while in other embodiments, the operations can be performed by hardware and/or other logic (e.g., firmware). In some embodiments, the operations can be performed in series, while in other embodiments, one or more of the operations can be performed in parallel. Moreover, some embodiments can perform less than all the operations shown in any flow diagram.

[0113] FIG. **10** is a flow diagram illustrating operations for gathering and analyzing criteria to control modes of a mobile machine, according to some embodiments of the invention. The flow **1000** begins at processing block **1002**, where a mode control device interfaces with a machine on a wagering game network, such as, in one embodiment, a mobile machine.

[0114] The flow **1000** continues at block **1004**, where the mode control device gathers criteria. The type and degree of criteria that the mode control device gathers depends on the environment and other factors, described in detail herein.

[0115] The flow **1000** continues at block **1006**, where the mode control device analyzes the criteria to select or determine allowable modes for the mobile machine. Allowable modes are modes that the mobile machine may activate given the current criteria as compared to mode rules. Furthermore, based on the analysis, some allowable modes, though allowable, can be limited or restricted in the degree to which a mode can be activated. Furthermore, based on the degree of criteria provided, such as if criteria is limited or unavailable, a default mode may be the only allowable mode.

[0116] The flow **1000** continues at block **1008**, where the mode control device notifies the mobile machine of the allowable modes, and enables the mobile machine to activate any one of the allowable modes. This may be accomplished by conveying or communicating to the mobile machine any mode control information pertaining to the allowable modes, including a list of the allowable modes, so that any one of allowable modes may be selected or activated by the mobile machine.

[0117] FIG. **11** is a flow diagram illustrating operations for gathering criteria, according to some embodiments of the invention. The flow **1100** begins at block **1102**, where a mode control device detects that it has interfaced with a network device, such as a mobile machine.

[0118] The flow **1100** continues at block **1104** with the mode control device receiving authentication criteria from appropriate network devices, such as the mobile machine, a wagering game server, etc. In some embodiments, the authentication criteria may relate to a specific user account. In other embodiments, the authentication criteria may not pertain to a specific user account if the mobile machine (e.g., a bar-top model) does not employ user accounts. The mobile machine may be pre-authenticated. Furthermore, authentication criteria may pertain to anonymous user authentication, such as via bill validation.

[0119] The method continues with the mode control device querying wagering game network devices for criteria. This is demonstrated in the flow **1100** where the mode control device queries the following for criteria: (1) the mobile machine (shown in processing block **1106**), (2) other interfaced devices (shown in processing block **1108**), (3) the mode control device (shown in processing block **1110**, and (4) any other wagering game network device (shown in processing block **1112**). The gathering of criteria may be continuous, real-time, delayed, or according to any other schedule.

[0120] FIG. **12** is a flow diagram illustrating operations for analyzing criteria, according to some embodiments of the invention. The flow **1200** begins at block **1202**, where a mode control device determines whether criteria has been queried. If criteria has been queried, then the mode control device receives the queried criteria, as shown at processing block **1204**. If the criteria has not been queried, but rather was provided unsolicited, as shown in processing block **1206**, the mode control device receives the non-queried criteria. In some embodiments, the mode control device receives both queried and non-queried criteria.

[0121] The flow continues at processing block **1208**, where the mode control device analyzes the criteria. The mode control device can analyze the criteria by comparing the criteria against mode rules and developing a list of allowable modes, as shown in processing block **1210**.

[0122] The flow continues at processing block **1212**, where the mode control device creates mode control information (e.g., mode control commands that pertain to allowable modes) needed for activating the allowable modes.

[0123] At block **1214**, the mode control device transmits the mode control information to the mobile machine, which can use the mode control information to activate one or more allowable modes.

[0124] FIG. **13** is a flow diagram illustrating operations for controlling modes, according to some embodiments of the invention. The flow **1300** begins at block **1302** with the mode control device determining that one or more allowable modes require activation on a wagering game network device (e.g., a mobile machine). For example, if the mobile machine is critically low on power, then a mode control device determines that the mobile machine must activate a "power-save" mode to prevent a complete power loss. Hence, the mobile machine must dock at a power-up station to power up.

[0125] Consequently, flow **1300** continues at processing block **1308** with the mode control device forcing the mobile machine to activate one or more required modes. The mode control device may then wait for the mobile machine to complete the required mode or modes.

[0126] If the mobile machine does not indicate that the required mode is completed, then, as shown at processing block **1310**, the mode control device further waits. If however, the required mode has completed its operation, then the mobile machine, or other associated devices, conveys criteria (e.g., a mode completion signal) to indicate that the mobile machine has completed the required mode or modes.

[0127] Hence, flow **1300** continues at processing block **1312** with the mode control device receiving a mode completion signal from the mobile machine. The flow then continues, as shown in processing block **1314**, with the mode control device regathering criteria, especially if some amount of time may have elapsed that allowed for a change in criteria.

[0128] The flow **1300** then continues at processing block **1316** with the mode control device reanalyzing the criteria to determine allowable modes, and at processing/decisional block **1318**, determining if the mode control device needs to activate any other required modes on the mobile machine, similar to processing block **1302**. If additional modes are required, then the flow may loop back to processing block **1308**, with the mode control device forcing the mobile machine to activate the additional required modes. If not, then the flow may continue, at processing block **1320**, with the mode control device enabling the mobile machine to activate any non-required modes.

[0129] FIG. **14** is a flow diagram illustrating operations for a mobile machine, or any other wagering game network device, to receive and utilize mode control commands from a mode control device, according to some embodiments of the invention. The flow **1400** begins at block **1402**, with a mobile machine interfacing with a mode control device. The mobile machine can interface with the mode control device in ways already described herein.

[0130] The flow continues at processing block **1404** with the mobile machine receiving mode control information, such as mode control commands, regarding allowable modes. The mobile machine can receive mode control information, including mode control commands via wired or wireless communications, as described in detail herein.

[0131] The flow continues at processing block **1405** with the mobile machine processing the mode control information. In one example, the mobile machine can receive mode control commands and recognize or extract the list of allowable modes that the mode control device created. In addition, the mobile machine can further determine if the mode control commands require that the mobile machine should activate a mode automatically, or if the mode control commands allow the mobile machine to activate its own modes on its own accord. Also, the mobile machine can determine if any of the allowable modes can be processed in a normal manner, according to mode rules, or whether the allowable mode can only be processed in a limited manner. For example, if a mobile machine could activate a full-set of operations in a normal, non-limited mode, then the mobile machine could only activate a limited number of the full set of operations in a limited mode. Furthermore, the mobile machine can determine if the mode control commands pertain to connected devices, such as peripherals. As a result, the mobile machine could also determine that modes may be enhanced, meaning that if a mobile machine can activate a full-set of operations in a normal mode, the mobile machine, or other connected devices and peripherals, can activate additional operations beyond those available in a normal mode.

[0132] If more there is only one allowable mode, then, as shown at processing block **1406**, the flow continues with the mobile machine activating the one allowable mode. If, however, there are more than one allowable modes, then the mobile machine can enable the allowable modes. In one embodiment, the mobile machine may present allowable modes to the operator of the mobile machine. The operator can then select a particular mode (see FIG. **9** above). In other embodiments, the mobile machine or other interfaced network devices may select the mode.

[0133] Flow **1400**, therefore, continues at processing block **1408** with the mobile machine selecting an allowable mode, series of modes, or combination of modes. Because criteria may have changed from the time that a mode control device sends mode control information and the time that a selection occurs of an allowable mode, then the flow may then continue at processing block **1410** with the mobile machine informing the mode control device of the selected mode or modes. The mode control device then reanalyzes criteria to determine that the selected mode is still allowable.

[0134] The flow then continues, at processing block **1412**, with the mobile machine receiving an indication from the mode control device that the mode is still allowable. Then, as shown at processing block **1414**, the mobile machine selects and activates the mode.

[0135] Furthermore, as part of the processing flow, as shown at processing block **1416**, the device or devices performing the operations in flow **1400** may also periodically communicate changes in criteria, in real-time or based on a communication schedule, to the mode control device and also periodically check for changes in allowable modes or for new allowable modes.

[0136] FIG. **15** is a flow diagram illustrating operations for periodically monitoring criteria that may affect allowable modes, according to some embodiments of the invention. The flow **1500** begins at block **1502** with a mobile machine (or any other wagering game network device), periodically monitoring, such as through a "heart-beat" check, for changes in criteria that can affect potentially allowable modes.

[0137] Flow **1500** continues at processing block **1504** with the mobile machine providing criteria changes to a mode control device. Based on the change in criteria, the mode control device may provide additional mode control information, such as mode control commands.

[0138] If the mode control device provides no mode control commands, then the process returns to processing block **1506**, with the mobile machine performing a periodic check. If, however, a mode control device does provide mode control commands, then flow **1500** continues at block **1508** with the mobile machine receiving the mode control commands and, as shown at processing block **1510**, with the mobile machine processing the mode control commands. The process can continue to repeat by returning to processing block **1502**, as shown in processing loop **1506**.

General

[0139] This detailed description refers to specific examples in the drawings and illustrations. These examples are described in sufficient detail to enable those skilled in the art to practice the inventive subject matter. These examples also serve to illustrate how the inventive subject matter can be applied to various purposes or embodiments. Other embodiments are included within the inventive subject matter, as logical, mechanical, electrical, and other changes can be made to the example embodiments described herein. Features of various embodiments described herein, however essential to the example embodiments in which they are incorporated, do not limit the inventive subject matter as a whole, and any reference to the invention, its elements, operation, and application are not limiting as a whole, but serve only to define these example embodiments. This detailed description does not, therefore, limit embodiments of the invention, which are defined only by the appended claims. Each of the embodiments described herein are contemplated as falling within the inventive subject matter, which is set forth in the following claims.

1. A method comprising:

interfacing with a mobile wagering game machine, the mobile wagering game machine being capable of a plurality of operational modes;

gathering criteria affecting which of the operational modes can be activated on the mobile wagering game machine;

selecting, based on the criteria, allowable modes from the operational modes; and

notifying the mobile wagering game machine about the allowable modes.

2. The method of claim **1** further comprising:

generating mode control information pertaining to the allowable modes; and

conveying, to the mobile wagering game machine, the mode control information for use in selecting and activating the allowable modes.

3. The method of claim 1 further comprising:
determining that one or more of the allowable modes are required modes; and
activating the one or more required modes on the machine.

4. The method of claim 1, wherein the operational modes enable the mobile wagering game machine to perform one or more operations selected from the group consisting of operations for performing maintenance on the mobile wagering game machine, operations for presenting wagering games on the mobile machine, operations for diagnosing faults on the mobile wagering game machine.

5. The method of claim 1, wherein the mode control information contains mode control commands that instruct the mobile wagering game device to activate one of the allowable modes.

6. The method of claim 1, further comprising:
displaying, for player selection, one or more of the allowable modes.

7. The method of claim 1, further comprising:
periodically checking for changes in criteria; and
reanalyzing the criteria to determine whether changes in the criteria change the allowable modes.

8. The method of claim 1, further comprising:
querying devices on a wagering game network for criteria.

9. A wagering game network comprising:
a machine on the wagering game network, the machine configured to operate in a plurality of operational modes; and
a mode control device configured to interface with the machine, the mode control device comprising,
a criteria collector configured to collect criteria associated with the operational modes of the machine; and
a criteria analyzer configured to analyze the criteria and to determine which of the operational modes are allowable for activation on the machine.

10. The wagering game network of claim 9, wherein the machine is selected from the group consisting of a wagering game server, a wagering game docking station, a wagering game machine.

11. The wagering game network of claim 9, wherein the mode control device includes an external system interface configured to convey to the machine information indicating that certain of the operational modes are available for activation by the machine.

12. The wagering game network of claim 9 wherein the machine is a mobile wagering game machine.

13. The wagering game network of claim 9, wherein the criteria includes information selected from the group consisting of information about capabilities of the machine, information about the machine's environment, information about the machine's location, information about the machine's direction of motion, information about time of day, information about operator, information about the machine operator's user account and privileges,

14. The wagering game network of claim 9, wherein the criteria includes information selected from the group consisting of information about the machine operator's financial account balance, the machine operator's playing statistics, the machine operator's age, information about the machine operator's most recent use of the machine, information about devices connected to the machine, information about casino rules, and information about network statistics and conditions.

15. The wagering game network of claim 9, wherein the machine includes a mode control module configured to process the mode control commands and activate the operational modes.

16. The wagering game network of claim 9, wherein the mode control device includes one or more selected from the group consisting of a mode rules store and a credential store.

17. The wagering game network of claim 9, wherein the mode control device resides in more than one network device on the wagering game network, and wherein the more than one network devices are configured to negotiate with each other about the operational modes to allow and activate.

18. An apparatus comprising:
a criteria analyzer configured to analyze criteria that affects allowable operational modes on wagering game machine;
a mode controller configured to create mode control information including commands that instruct the wagering game machine to activate one or more of the allowable modes; and
an external systems interface configured to facilitate a connection through which to transmit the mode control information to the wagering game machine.

19. The apparatus of claim 18, further comprising:
a criteria collector configured to collect the criteria; and
a mode rules store configured to store mode rules.

20. The apparatus of claim 18, wherein the criteria includes information selected from the group consisting of information about the wagering game machine's capabilities, information about the wagering game machine's environment, information about the location of the machine, information about the direction of motion of the wagering game machine, and information about the time of day, and information about the machine's operator.

21. The apparatus of claim 18, wherein the criteria includes information selected from the group consisting of information about the machine operator's user-profile, of information about the machine operator's user account and privileges, of information about the machine operator's financial account balance, of information about the machine operator's playing statistics, of information about the machine operator's age, of information about the machine operator's most recent use of the wagering game machine, and information about devices connected to the wagering game machine.

22. The apparatus of claim 18, further comprising:
an authentication store to store user credential information.

23. The apparatus of claim 18, further comprising:
a mode control module configured to recognize the list of allowable modes and to determine that the mode control commands require automatic activation of one of the allowable modes.

24. The apparatus of claim 18, wherein the wagering game machine is of a model selected from the group consisting of a floor standing model, a handheld mobile model, a bar-top model, a workstation-type console model, and a surface computing model.

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