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### Harris et al.

#### (54) SYSTEM AND METHOD FOR IMPROVING PLAYER EXPERIENCE IN WIRELESS GAMING

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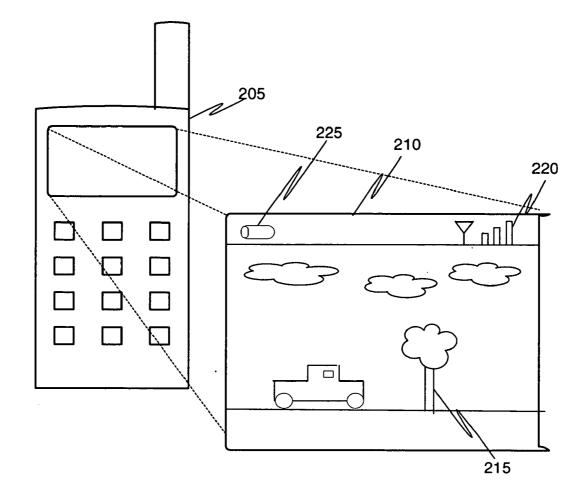
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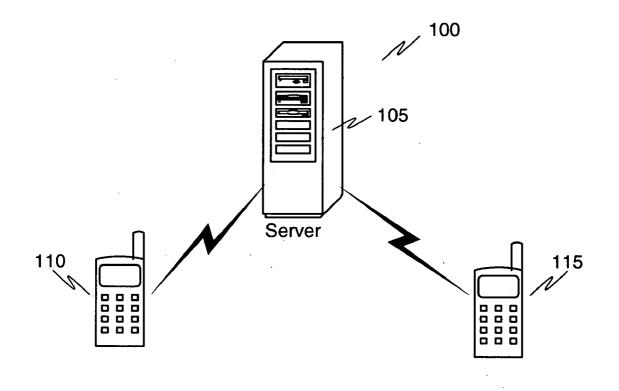
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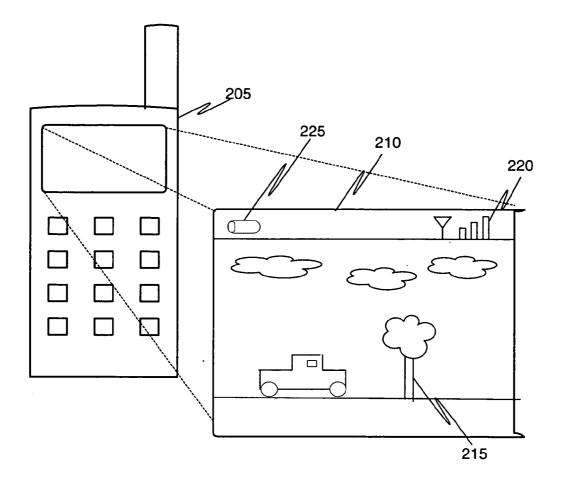
#### (57) **ABSTRACT**

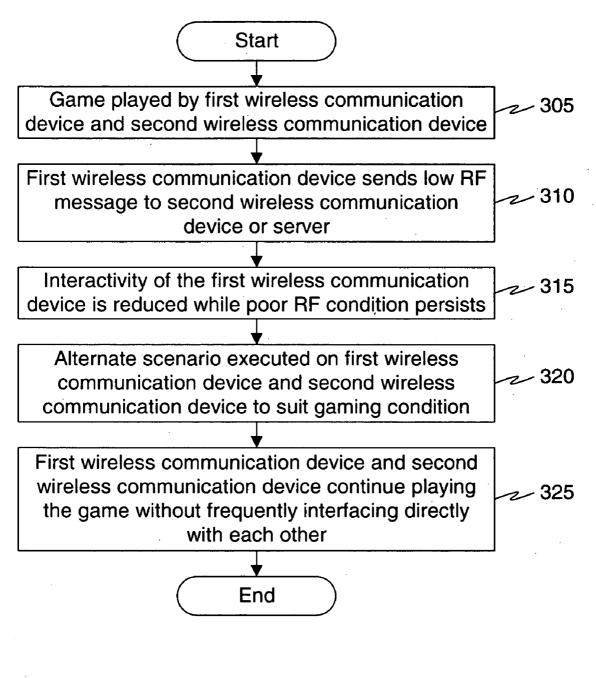
The present invention discloses a method and system for managing an interactivity of a game in at least one wireless communication device, by monitoring (705) at least one predetermined resource parameter associated with the wireless communication device, executing (710) at least one alternate scenario on at least one predetermined location within the game based on the predetermined resource parameter and changing dynamically (715) the interactivity of the wireless communication device with one of a wireless gaming server and at least one other wireless communication device by executing the alternate scenario.



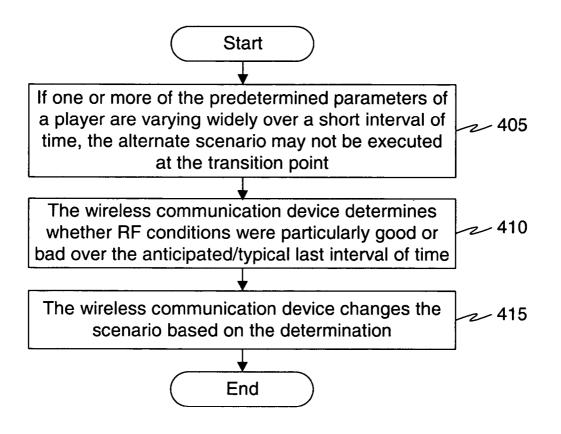


**FIG.** 1

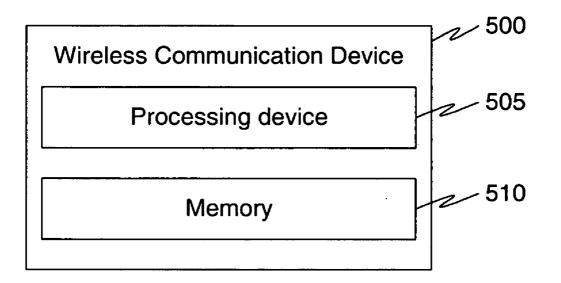




**FIG. 3** 



**FIG. 4** 



**FIG. 5** 

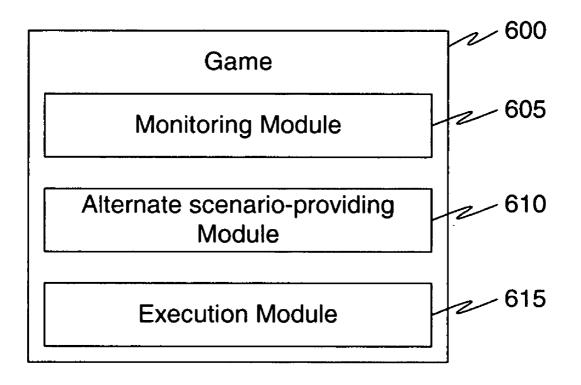
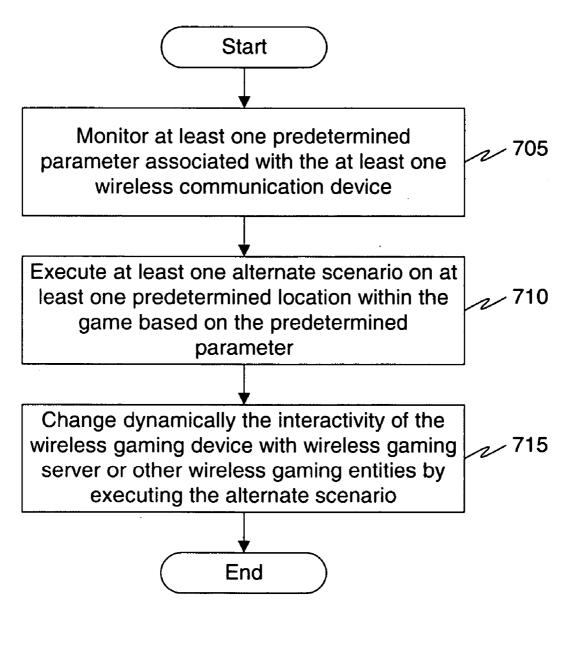


FIG. 6



**FIG. 7** 

#### SYSTEM AND METHOD FOR IMPROVING PLAYER EXPERIENCE IN WIRELESS GAMING

#### FIELD OF THE INVENTION

**[0001]** The invention relates generally to wireless gaming in wireless communication devices and specifically to a method and system for managing interactivity of a wireless gaming device with that of a wireless gaming server and/or other wireless gaming devices thereby improving the player gaming experience.

#### BACKGROUND OF THE INVENTION

**[0002]** Gaming applications have become increasingly common on wireless communication devices. Users of wireless communication devices often play games with other users within the communication network and hence, the level of interactivity among wireless gaming devices in the communication network and wireless gaming devices with the wireless gaming servers change at different levels. A user playing a game on the wireless communication device is generally referred to as a player within the game.

**[0003]** Further, if the game is a multiplayer game, other players may also be affected due to a single player's conditions, for instance RF conditions. Generally, the usage of highly interactive game scenarios by players and poor RF conditions also lowers the system capacity and battery life of the wireless communication devices.

**[0004]** Games usually comprise different scenarios that make the game more interactive, challenging and enjoyable for the players. For instance, some games may have several levels or stages, which the player completes, each level providing a different experience for the player. Some scenarios result in more interactivity across the wireless link of the wireless communication device, that may have differing resource costs depending on the current resource parameters associated with that device

**[0005]** Hence there is a need to optimize the interactivity and gaming experience provided to the players based on various parameters affecting the game.

#### BRIEF DESCRIPTION OF THE FIGURES

**[0006]** The accompanying figures, where like reference numerals refer to identical or functionally similar elements throughout the separate views and which together with the detailed description below are incorporated in and form part of the specification, serve to further illustrate various embodiments and to explain various principles and advantages all in accordance with the invention.

**[0007]** FIG. 1 illustrates a block diagram of an embodiment of a wireless communication system.

**[0008]** FIG. **2** is a flow diagram of a game played on a wireless communication device pursuant to an embodiment of the invention.

**[0009]** FIG. **3** is a flow diagram of a game played in a wireless communication system pursuant to an embodiment of the invention.

**[0010]** FIG. **4** is a flow diagram of a game played in a wireless communication system pursuant to another embodiment of the invention.

**[0011]** FIG. **5** illustrates a block diagram of a wireless communication device, pursuant to an embodiment of the invention.

**[0012]** FIG. **6** illustrates a block diagram of a game, pursuant to an embodiment of the invention.

**[0013]** FIG. **7** is a flow diagram of a method for managing an interactivity of a game in at least one wireless communication device, pursuant to an embodiment of the invention.

**[0014]** Skilled artisans will appreciate that elements in the figures are illustrated for simplicity and clarity and have not necessarily been drawn to scale. For example, the dimensions of some of the elements in the figures may be exaggerated relative to other elements to help to improve understanding of embodiments of the invention.

# DETAILED DESCRIPTION OF THE INVENTION

**[0015]** Before describing in detail embodiments that are in accordance with the invention, it should be observed that the embodiments reside primarily in combinations of method steps and apparatus components related to managing an interactivity in at least one wireless communication device. Accordingly, the apparatus components and method steps have been represented where appropriate by conventional symbols in the drawings, showing only those specific details that are pertinent to understanding the embodiments of the present invention so as not to obscure the disclosure with details that will be readily apparent to those of ordinary skill in the art having the benefit of the description herein.

**[0016]** In this document, relational terms such as first and second, top and bottom, and the like may be used solely to distinguish one entity or action from another entity or action without necessarily requiring or implying any actual such relationship or order between such entities or actions. The terms "comprises,""comprising," or any other variation thereof, are intended to cover a non-exclusive inclusion, such that a process, method, article, or apparatus that comprises a list of elements does not include only those elements but may include other elements not expressly listed or inherent to such process, method, article, or apparatus. An element proceeded by "comprises . . . a" does not, without more constraints, preclude the existence of additional identical elements in the process, method, article, or apparatus that comprises the element.

[0017] It will be appreciated that embodiments of the invention described herein may be comprised of one or more conventional processors and unique stored program instructions that control the one or more processors to implement, in conjunction with certain non-processor circuits, some, most, or all of the functions of managing an interactivity in at least one wireless communication device. The non-processor circuits may include, but are not limited to, a radio receiver, a radio transmitter, signal drivers, clock circuits, power source circuits, and user input devices. As such, these functions may be interpreted as steps of a method to manage an interactivity in at least one wireless communication device. Alternatively, some or all functions could be implemented by a state machine that has no stored program instructions, or in one or more Application Specific Integrated Circuits (ASICs), in which each function or some combinations of certain of the functions are implemented as custom logic. Of course, a combination of the two approaches could be used. Thus, methods and means for these functions have been described herein. Further, it is expected that one of ordinary skill, notwithstanding possibly significant effort and many design choices motivated by, for example, available time, current technology, and economic considerations, when guided by the concepts and principles disclosed herein will be readily capable of generating such software instructions and programs and ICs with minimal experimentation.

[0018] Most wireless communication devices support multiplayer games where players can play against other players within a wireless communication network. Games such as car racing games, boxing games, role-playing games, shooting games, arcade games are some of the games that wireless communication devices are generally installed on wireless devices to provide entertainment for users of the devices. Different games have different levels of interactivity between the wireless communication device and the server hosting the game or amongst the players of the game based on various resource dependent parameters. For example, radio frequency (RF) conditions may affect the gaming experience in multiplayer games where players generally interact with other players within the communication network. Several such resources related parameters, disclosed in greater detail below, influence the interactivity of the wireless communication device.

**[0019]** The invention provides a method and system for managing interactivity in one or more wireless communication device. The method includes monitoring a set of predetermined resource parameters in the wireless communication device and executing an alternate scenario on the wireless communication device based on predetermined resource parameters. Several alternate scenarios can be executed at different locations within the game until the predetermined resource parameter reaches a required value and the game can then be brought back to a natural state.

[0020] FIG. 1 is an embodiment of a wireless communication system 100, in accordance with the invention. The wireless communication system 100 comprises a server 105, a wireless communication device 110 and another wireless communication device 115.In an embodiment of the invention, a plurality of wireless communication devices can be present in the wireless communication system 100. The server 105 generally belongs to a service provider proving the wireless service to the wireless communication device 110 and the wireless communication device 115. The service may include games that are played within the wireless communication system, voice calls and data calls amongst various wireless communication devices. In an embodiment of the invention, the server 105 can monitor one or more predetermined resource parameters associated with the wireless communication devices 110 and the wireless communication device 115. Examples of resource related parameters can include a RF condition in the communication network, RF congestion condition, network loading in the communication network, battery life of the wireless communication device, network signal coverage experienced by the wireless communication device and RF condition variability. Those skilled in the art shall appreciate that several other parameters associated with the wireless communication device are also known and all such parameters can be monitored and are all within the scope of the present invention.

[0021] The server 105 can inform the wireless communication device 110 and wireless communication device 115 to execute the alternate scenario based on the monitoring of the various parameters. The service provider owning the server 105 can have a knob associated for controlling the interactivity of the wireless communication device 110 and the wireless communication device 115. If the knob is set to be more malleable for calls that require less resource in sectors with heavier load, the player interactivity with the server 105 or the interactivity between each wireless communication device is further decreased.

[0022] Turning now to FIG. 2, is a flow diagram of a game played on a wireless communication device pursuant to an embodiment of the invention. A wireless communication device 205, for example a mobile phone has several games installed for providing entertainment to users. As an example, FIG. 2 illustrates a car racing game 210 showing a car approaching a transition point 215. The flow diagram further illustrates two resource parameters such as an RF condition 220 and a battery life 225 being monitored. However, those in the art shall appreciate that other parameters not shown are also monitored and are within the scope of the present invention. A transition point in the game can be generally defined to mean a predetermined location within the game where an alternate scenario can be executed. The greater the numbers of the transition points within the game, the better the interactivity of the players in the communication network as the number of locations where the alternate scenarios can be executed are increased. As per one embodiment, the alternate scenarios can be executed only at the predetermined locations and hence, in spite of unfavorable resource conditions such as a poor RF condition, the player may have to reach the transition point to execute an alternate scenario. In another embodiment, alternate scenarios may be executed as soon as a poor resource condition is realized. Executing the alternate scenarios alters the interactivity between the wireless communication device and the server or between the wireless communication devices within the communication network.

**[0023]** Some examples of alternate scenarios are disclosed, and those skilled in the art shall appreciate that the examples are not exhaustive and merely serve to represent some ways depicting how the game may be altered on executing the alternate scenarios. For example, in a car racing game, the two players can be routed down separate tunnels or roads, by creating a division, so that they are not visible to each other in order to decrease their interactivity. At the transition point **215** depicted in FIG. **2** an alternate scenario providing the division can be executed. Since generally, transmitting data from a wireless communication device utilizes greater resources, a player with poor resources such as battery life, may not transmit data related to the game to other players within the communication network.

**[0024]** As another example, for fighting games, a computer-generated entity can be generated for the players to fight with instead of fighting with other players in the game. In a starship game, a player's ship's captain can be informed by a ship's networking department that communication links of the ship have been compromised, possibly by an opponents weapon and interaction with other starships will need to be reduced. This shall also reduce the amount of data exchanged between the wireless communication devices. The wireless communication devices with similar predetermined resource parameters, for example, poor RF conditions may be introduced to the same alternate scenarios. Those skilled in the art will appreciate that there could be more than two players involved in an ongoing game or a player could be playing in a standalone mode, for example a player playing against a computer generated players.

[0025] In another embodiment of the invention, the player may decide to leave an ongoing game. The decision to leave the game may be, in one embodiment, determined by a player on realizing poor resource parameters such as a poor RF condition on entering a building. However, in an alternate embodiment, the game may also provide a message to the user or execute an alternate scenario where the player needs to leave the game due to a persistent poor resource condition, such as a battery life. In this case, an appropriate message is conveyed to the other wireless communication devices involved in the ongoing game indicating that the gaming scenario will change and that a player of the game has quit. For a multiplayer game where a plurality of wireless communication devices are playing a game, at least two players having similar RF conditions may have a common alternate scenario executed to play against each other. This scenario in the game maybe played till the poor RF conditions improve and the wireless communication devices may rejoin the other players in the game.

[0026] As per another embodiment, an alternate scenario of the game can be executed in response to an input received from one or more players of the game based on the one or more predetermined resource parameters. For example, if the RF condition on a wireless communication device of a player is poor, other players within the communication network that are also playing the game may receive an input from the wireless communication device with a poor RF condition. The input can execute an alternate scenario on the wireless communication devices of other players such that the interactivity remains consistent. The player with the poor RF condition can also be provided with a game feature based on the predetermined resource parameter. The game feature, for example, can be extra armor in the case of a fighting game, or a faster car in a racing game or additional health in role playing games, or the player may have greater endurance than other players. Various game features that enhance player experience based on parameters associated with the wireless communication devices are possible and all such game features are within the scope of the present invention.

**[0027]** Referring now to FIG. **3** a flow diagram of a game played in a wireless communication system pursuant to an embodiment of the invention is shown. Consider a case where at least two wireless communication devices decide to play a game against each other, step **305**, namely a player associated with a first wireless communication device and a second player associated with a second wireless communication device can send an indication, step **310** informing the second wireless communication device or a service provider of a poor resource parameter involved with the game. For example, a poor radio frequency (RF) condition at the first wireless communication device. Upon

receiving the message, the interactivity of the first wireless communication device is reduced, step **315** while the RF condition improves for the first wireless communication device. During this period, as per one embodiment, the alternate scenario can be executed, step **320** on the first wireless communication device and the second wireless communication device to suit the gaming condition. The first wireless communication device may continue to play the game without frequently interfacing directly with each other, step **325**.

[0028] The first wireless communication device and the second wireless communication device maybe further diverted into a different scenarios. In another example, the second wireless communication device may execute a scenario indicating a delay in the game and might pause the game for a period of time. The delay may be introduced in the scenario in other forms to slow down the gaming speed of the second wireless communication device. The second wireless communication device continues to play the game in the alternate scenario until good RF conditions are restored in the first wireless communication device. The game resumes its normal mode when the first wireless communication device informs the server of a restored RF condition or when the server realizes a restored RF condition of the player. The player associated with the first wireless communication device may rejoin the player associated with the second wireless communication device in the original scenario of the game.

[0029] In another exemplary embodiment of the invention, the first wireless communication device may send a message indicating a low battery to a second wireless communication device or the server hosting the game in the communication network. Upon receiving this message, the condition of the game for the first wireless communication device may be changed. The intensity of the light and sound used by the first wireless communication device maybe reduced to indicate to the player of a low battery condition. An option to pause the ongoing game can also be given to the first wireless communication device to replenish the low battery power till the battery of the wireless communication device is charged. An alternate scenario like a delay due to rain, bad conditions, fog and natural calamities can be executed on the other wireless communication devices while the game is being paused by the first wireless communication device on receiving the indication of a low battery.

[0030] Turning now to FIG. 4 a flow diagram of a game played in a wireless communication system pursuant to another embodiment of the invention. An embodiment of the present invention has a provision for considering the mobility of the player. If one or more of the predetermined parameters of a player are varying widely over a short interval of time, the alternate scenario may not be executed at the transition point, step 405. For example, if the RF conditions are varying over a short period of time then the player may not adapt its game scenario based on its instantaneous current RF conditions, as those RF conditions are unlikely to persist over the duration of the next game scenario. In such cases, the wireless communication device determines, step 410 whether the RF conditions were particularly good or bad over the anticipated/typical last interval of time and change, step 415 the scenario based on the determination. The interval of time can be a time during

which the predetermined resource parameter remains unchanged for the wireless communication device. Other methods for predicting the RF conditions over the upcoming interval may include out of band information such as traffic prediction. Players that are most likely to remain in good RF conditions will receive the most interactive scenarios, for example these players would typically have been consistently observed being in very good RF conditions for a long period of time.

[0031] FIG. 5 illustrates a block diagram of a wireless communication device 500, pursuant to an embodiment of the invention. The wireless communication device 500 comprises one or more of a mobile phone, personal digital assistant, a computing device and a wireless gaming device. The wireless communication device 500 comprises a processing device 505 and a memory 510 coupled to the processing device. The processing device 505 and the memory 510 are adapted for monitoring one or more predetermined resource parameter associated with the wireless communication device 500. The wireless communication device 500 can execute one or more alternate scenario on one or more predetermined location within the game based on the predetermined resource parameter monitored. Executing the alternate scenario dynamically changes the interactivity of the wireless communication device 500 with the server of the service provider and the other wireless communication device in the game. A dynamic change is change that occurs periodically based on the changing factors, for example RF condition. Typically, a resource parameter triggers a change in the scenarios within the game. A change within the environment or on the wireless communication device that the game is being played on may change the way the game is being played for that player or for the other players in the game. The processing device 505 processes the alternate scenario on the wireless communication device 500. The memory 510 may store the last known predetermined resource parameter. The processing device 505 and the memory 510 maybe operated in conjunction to monitor one or more predetermined resource parameter associated with the wireless communication device 500. The processing device 505 and memory 510 may dynamically change the scenario of the game based on the one or more resource parameter monitored.

**[0032]** FIG. **6** illustrates a block diagram of a game, pursuant to an embodiment of the invention. The game **600** comprises a monitoring module **605**, an alternate scenario providing module **610** and an execution module **615**. The monitoring module **605** monitors one or more predetermined resource parameter associated with the wireless communication device. Each wireless communication device can be equipped with a monitoring module to monitor the predetermined resource parameter associated with the wireless communication device. However, a service provider can also monitor such conditions for each wireless communication device associated with the service provider.

**[0033]** The interactivity with other wireless communication devices or the server hosting the game can be changed based on the predetermined resource parameters. For example, if the RF condition is worse than a certain threshold or the battery power remaining is less than a certain threshold, an alternate scenario can be executed which retains the gaming experience provided to the player without the player realizing the changes within the game. The alternate scenario provider **610** may be a database that provides the alternate scenarios at the predetermined location within the game based on the predetermined conditions associated with the wireless communication device. The alternate scenario may comprise a plurality of scenarios. The alternate scenario may further comprise altering graphics within the game when there is less battery power in the wireless device.

[0034] The alternate scenario may comprise routing one or more player along a scenario wherein the display intensity of the wireless communication device is reduced when the wireless communication device has low battery power. For a game involving fictional characters or super-hero characters, the alternate scenario may provide the player with an indication of a low energy of the character within the game. The player can be directed to a location where the player is able to replenish the low energy, for example when there is RF congestion within the communication network. The limited pausing or slowing of the game while the player is replenishing low energy provides the communication network room to handle other calls or games. The alternate scenario may also comprise increasing the intensity of the backlight of the wireless communication device when normal conditions are restored such as the player recharging the battery of the wireless communication device during the game.

**[0035]** The alternate scenario may further comprise providing an option to one or more player. The option may permit one player to pause and continue the game after a predetermined time interval. The option maybe provided if the wireless communication device for the player has a poor RF condition. During the paused time, normal conditions can be restored. A preloaded scenario can be executed which reduces the interactivity between the player pausing the game and the plurality of players of the game within the communication network. The preloaded scenario can end when normal conditions are restored.

[0036] The execution module 615 executes the alternate scenarios on the wireless communication device in response to receiving an input from the alternate scenario provider module 610. In an embodiment of the invention, a first wireless communication device is adapted to execute one or more alternate scenario on a second wireless communication device based on one or more predetermined resource parameter associated with the first wireless communication device. The execution module 615 is configured to execute one alternate scenario after a predefined time interval. The predefined time interval is a time interval during which the performance of the game remains unchanged. The alternate scenario is executed on one or more predetermined location based on one or more predetermined resource parameter associated with the wireless communication device in the game.

**[0037]** FIG. 7 is a flow diagram of a method for managing an interactivity of a game in at least one wireless communication device, pursuant to an embodiment of the invention. The wireless communication device can monitor one or more predetermined resource parameter associated with the wireless communication device, step **705**. An external device such as the server computer can also be configured to monitor the resource parameters. The wireless communication device can execute an alternate scenario at a predetermined location within the game based on the predetermined resource parameter, step **710**. In an embodiment of the invention, the wireless communication device executes the alternate scenario only at the next predetermined location even if the predetermined resource parameter is monitored at any point except the transition point. For example, the wireless communication device maybe monitoring the network signal received by the wireless communication device. When the wireless communication device experiences a poor network signal, an alternate scenario can be executed only at the next predetermined location such that the gaming experience of the player of the game is not affected.

[0038] In another embodiment, if the player has been playing the game with another player with poor network signal coverage in the communication network, a scenario that lowers the interaction between the player with good network signal coverage and poor network signal coverage can be executed. The alternate scenario can change the experience of the player by making the player with poor network signal coverage fight against computer-generated entities instead of the other player. Hence the experience of both players can be maintained in relation to their resource parameter and the drag of a player with poor network signal coverage may not affect the gaming experience of the other player. Alternatively if the battery condition is weak, the player may experience an alternate scenario within the game where the graphics are less intense such as driving through a dark tunnel in the case of a racing game thereby utilizing minimal battery condition. In yet another embodiment, the backlight of the wireless communication device may also be reduced to make the player experience dim light in the tunnel. Pursuant to one embodiment, the alternate scenarios are executed without informing the player and hence the player believes the scenarios to be a natural part of the game.

[0039] The execution of the alternate scenario at a predetermined location can dynamically change the interactivity of the wireless communication device with one of a wireless gaming server and one or more wireless communication device, step 715. Changing the scenario of the game can broadly comprise one of increasing or decreasing the interactivity between the players of the game and increasing or decreasing the interactivity between a player of the game and the server providing the game. The scenario of the game is changed in response to the input received from wireless communication device of the game based on the one or more predetermined parameter. One or more of the game feature is provided to the player of the game based on the one or more predetermined parameter. The scenario of the game can be changed in another wireless communication device based on the one or more predetermined parameter associated with a first wireless communication device.

**[0040]** Pursuant to an embodiment of the invention, some of the alternate scenarios are broadly disclosed below. Those skilled in the art will realize that some of the examples pertaining to the embodiments disclosed below have been dealt with above. Some possible alternate scenarios can include altering a graphics within the game. In another embodiment of the invention a division between at least two players can be created within the game by routing the at least two players along different scenarios or creating a division between at least two players within the game by routing the at least two players along at least one scenario where one or more players interact with computer-generated entities. In

yet another embodiment, an alternate scenario can include routing at least one player along a scenario where the at least one player is unable to view a portion of the remaining players or informing at least one player of a poor connectivity with at least one remaining player due to a poor communication in the communication network. Another alternate scenario can include providing an option to at least one player, the option permitting the at least one player to pause and continue the game after a predetermined time interval or routing at least one player along a scenario within the game where a display intensity of the wireless communication device can be reduced. At least one player can be provided with an indication of low power wherein the at least one player is able to replenish the low power or providing at least one delay in the game. The delay can include at least one of rain, bad conditions, fog and natural calamities, using at least one preloaded scenario. In an exemplary embodiment of the invention, at least two players with substantially similar radio frequency conditions can be matched.

[0041] Similarly, when normal conditions are restored, the game can be restored to the natural game conditions. Restoring conditions shall include reducing an intensity of the backlight of the at least one wireless communication device, reducing or increasing an amount of data exchanged between a plurality of wireless communication devices, removing the option of the at least one player, the option permitting the at least one player to continue the game, removing the at least one delay, discontinuing usage of the at least one preloaded scenario, removing the division between at least two players within the game by routing the at least two players along different scenarios, removing the division between at least two players had been interacting with computer-generated entities and allowing the players to play against each other and informing at least one player of good connectivity with other gamers. Monitoring the parameters and changing the game scenarios based on the predetermined resource parameters improves the gaming experience of the player considerably. Once the predetermined resource parameter is restored, other alternate scenarios can be executed to restore the natural gaming experience of the player.

**[0042]** The present invention uses smart selection mechanism to influence the timing of the wireless messaging intensive portions of the game. As per one embodiment, the players are given a capability to choose the game phase, which will not load up the link to the game. An admission control block can also be provided, to block players at the start of a new scenario if the cause of the weak link is excessive system load.

**[0043]** In the foregoing specification, specific embodiments of the present invention have been described. However, one of ordinary skill in the art appreciates that various modifications and changes can be made without departing from the scope of the invention as set forth in the claims below. Accordingly, the specification and figures are to be regarded in an illustrative rather than a restrictive sense, and all such modifications are intended to be included within the scope of the invention. The benefits, advantages, solutions to problems, and any element(s) that may cause any benefit, advantage, or solution to occur or become more pronounced are not to be construed as a critical, required, or essential features or elements of any or all the claims. The invention is defined solely by the appended claims including any amendments made during the pendency of this application and all equivalents of those claims as issued.

What is claimed is:

1. A method for managing an interactivity of a game in at least one wireless communication device, the method comprising:

- monitoring at least one predetermined resource parameter associated with the at least one wireless communication device;
- executing at least one alternate scenario on at least one predetermined location within the game based on the predetermined resource parameter; and
- changing dynamically the interactivity of the wireless communication device with one of a wireless gaming server and at least one other wireless communication device by executing the alternate scenario.

**2**. The method of claim 1, wherein the at least one predetermined resource parameter comprises at least one of the following:

- a radio frequency (RF) condition in a communication network
- a RF congestion condition,
- a network loading in the communication network,
- a battery life of the at least one wireless communication device,
- a network signal coverage experienced by the at least one wireless communication device,
- a RF condition variability condition,
- wherein the at least one wireless communication device is a part of the communication network.

**3**. The method of claim 1, wherein the changing step comprises at least one of

altering a graphics within the game,

- creating a division between at least two players within the game by routing the at least two players along different scenarios,
- creating a division between at least two players within the game by routing the at least two players along at least one scenario where the at least two players interact with computer-generated entities,
- routing at least one player along a scenario wherein the at least one player is unable to view at least one remaining player,
- informing at least one player of a poor connectivity with at least one remaining player due to a poor communication in the communication network,
- providing an option to at least one player, the option permitting the at least one player to pause and continue the game after a predetermined time interval,
- routing at least one player along at least one scenario wherein a display intensity of the wireless communication device is reduced,

- providing at least one player with an indication of low power wherein the at least one player is able to replenish the low power,
- providing at least one delay in the game, the delay comprises at least one of rain, bad conditions, fog and natural calamities,

using at least one preloaded scenario,

- matching at least two players with substantially similar radio frequency conditions,
- reducing an intensity of the backlight of the at least one wireless communication device,
- reducing an amount of data exchanged between a plurality of wireless communication devices,
- removing the option of the at least one player, the option permitting the at least one player to continue the game,
- removing the at least one delay,
- discontinuing using the at least one preloaded scenario,
- removing the division between at least two players within the game by routing the at least two players along different scenarios,
- removing the division between at least two players within the game by routing the at least two players along at least one scenario where the at least two players interact with computer-generated entities,
- informing at least one player of good connectivity with other gamers due to poor communication links,
- increasing the intensity of the backlight of the at least one wireless communication device, and
- increasing the amount of data exchanged between the plurality of wireless communication devices.

**4**. The method of claim 1, wherein the game comprises a plurality of transition points, the at least one alternate scenario being executed at a transition point.

**5**. The method of claim 1, wherein the interactivity of the game is changed in response to the monitoring the at least one predetermined resource parameter over a predefined time interval.

**6**. The method of claim 5, wherein the predefined time interval is a time interval during which a scenario of the game remains unchanged.

7. The method of claim 1, wherein the interactivity of the game is changed on a second wireless communication device based on the at least one predetermined resource parameter associated with a first wireless communication device, the first wireless communication device forming part of the second wireless communication device forming part of the communication network.

8. The method of claim 1, wherein the changing step comprises

assigning at least one game feature to at least one player of the game based on the predetermined resource parameter, the game feature providing an advantage or a disadvantage to the at least one player as compared to at least one remaining player of the game.

**9**. The method of claim 1, wherein the interactivity of the game is changed in response to an input received from at

**10**. The method of claim 1, wherein the managing the interactivity of the game is controlled by a service provider associated with the wireless communication device based on the at least one predetermined resource parameter.

**11**. A game, the game being executed on at least one wireless communication device, the game comprising:

- an alternate scenario provider for providing at least one alternate scenario on at least one predetermined location within the game; and
- an execution module for executing the at least one alternate scenario on the at least one predetermined location based on at least one predetermined resource parameter associated with the at least one wireless communication device;
- wherein the interactivity of the game is changed based on executing the alternate scenario

**12**. The game of claim 11, further comprising a monitoring module for monitoring the at least one predetermined resource parameter associated with the wireless communication device.

**13**. The game of claim 11, wherein the alternate scenario comprises at least one of:

altering a graphics within the game,

- creating a division between at least two players within the game by routing the at least two players along different scenarios,
- creating a division between at least two players within the game by routing the at least two players along at least one scenario where the at least two players interact with computer-generated entities,
- routing at least one player along a scenario wherein the at least one player is unable to view at least one remaining player,
- informing at least one player of a poor connectivity with at least one remaining player due to a poor communication in the communication network,
- providing an option to at least one player, the option permitting the at least one player to pause and continue the game after a predetermined time interval,
- routing at least one player along at least one scenario wherein a display intensity of the wireless communication device is reduced,
- providing at least one player with an indication of low power wherein the at least one player is able to replenish the low power,
- providing at least one delay in the game, the delay comprises at least one of rain, bad conditions, fog and natural calamities,

using at least one preloaded scenario,

- matching at least two players with substantially similar radio frequency conditions,
- reducing an intensity of the backlight of the at least one wireless communication device,

- reducing an amount of data exchanged between a plurality of wireless communication devices,
- removing the option of the at least one player, the option permitting the at least one player to continue the game,

removing the at least one delay,

- discontinuing using the at least one preloaded scenario,
- removing the division between at least two players within the game by routing the at least two players along different scenarios,
- removing the division between at least two players within the game by routing the at least two players along at least one scenario where the at least two players interact with computer-generated entities,
- informing at least one player of good connectivity with other garners due to poor communication links,
- increasing the intensity of the backlight of the at least one wireless communication device, and
- increasing the amount of data exchanged between the plurality of wireless communication devices.

14. The game of claim 11, wherein at least one player of the game is provided with at least one game feature based on the predetermined resource parameter, the game feature providing an advantage or a disadvantage to the at least one player as compared to at least one remaining player of the game.

**15**. The game of claim 11, wherein the execution module on a first wireless communication device is adapted to inform an execution module on a second wireless communication device to execute at least one alternate scenario on the second wireless communication device based on at least one predetermined resource parameter associated with the first wireless communication device, the first wireless communication device and the second wireless communication device forming part of a communication network.

**16**. The game of claim 11, wherein the execution module is adapted to change the interactivity of the game in response to monitoring the at least one predetermined resource parameter over a predefined time interval, the predefined time interval is a time interval during which a scenario of the game remains unchanged.

**17**. A wireless communication device hosting a game, the wireless communication device comprising:

- a processing device; and
- a memory operatively coupled to the processing device and adapted for:
  - monitoring at least one predetermined resource parameter associated with the at least one wireless communication device;
  - executing at least one alternate scenario on at least one predetermined location within the game based on the predetermined resource parameter; and
  - changing dynamically the interactivity of the wireless communication device with one of a wireless gaming server and at least one other wireless communication device by executing the alternate scenario.

**18**. The wireless communication device of claim 17, wherein the at least one predetermined resource parameter comprises at least one of the following:

- a radio frequency (RF) condition in a communication network
- a RF congestion condition,
- a network loading in the communication network,
- a battery life of the at least one wireless communication device,
- a network signal coverage experienced by the at least one wireless communication device, and
- a RF condition variability condition.

**19**. The wireless communication device of claim 17, wherein a server in communication with the wireless communication device is adapted to instruct the wireless communication device for changing dynamically the interactivity of the game based on the at least one predetermined resource parameter.

**20**. The wireless communication device of claim 18, wherein the at least one wireless communication device comprises at least one of a mobile phone, personal digital assistant, a computing device and a wireless gaming device.

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