METHOD OF IDENTIFYING ACCESSIBLE NODES AND SYSTEM FOR IMPLEMENTING THE SAME

TECHNICAL FIELD

[001] This description relates to a method of identifying accessible nodes for a wireless network and a system for implementing the method.

BACKGROUND

[002] As technology advances for a wireless network, such as radio access network (RAN), new generations of network equipment are developed. In some instances, user equipment (UE), such as mobile phones or other mobile devices, is not capable of interacting with a most recently developed generation of network equipment. In some instances, a UE is directed to connect to a specific generation of network equipment based on a subscription level of a user or other criteria. In some instances, network equipment from multiple generations is utilized in a same base station, data center, or cluster to provide connectivity for the UE.

[003] In order to provide connectivity for the UE to the wireless network, the base station, data center, or cluster connects the UE to one or more nodes. The nodes in turn provide connection to services of the network. While some generations of network equipment update a status of nodes based on availability to connect the UE to the nodes, a risk exists that network equipment that does not include automatically update node status information will experience difficulties in connecting the UE to the network.

SUMMARY

[003a] In a first aspect, the present disclosure refers to a method of identifying accessible nodes for a wireless network, the method comprising: storing a first list of nodes in a first device, wherein the first list comprises a corresponding status of each of the nodes in the first list, and the first device usable in a first technology generation of the wireless network; updating a second list of nodes in a second device based on the first

list of nodes, wherein the second list is free of a status of each of the nodes of the second list, and the second device is usable in a second technology generation of the wireless network different from the first technology generation; and providing connection information for a node of the second list of nodes to user equipment in response to receiving a connection request from the user equipment.

[003b] In a second aspect, the present disclosure refers to a system for identifying accessible nodes for a wireless network, the system comprising: a non-transitory computer readable medium configured to store instructions thereon; and a processor connected to the non-transitory computer readable medium, wherein the processor is configured to execute the instructions for: instructing the non-transitory computer readable medium to store a first list of nodes in a first device, wherein the first list comprises a corresponding status of each of the nodes in the first list, and the first device usable in a first technology generation of the wireless network; updating a second list of nodes in a second device based on the first list of nodes, wherein the second list is free of a status of each of the nodes of the second list, and the second device is usable in a second technology generation of the wireless network different from the first technology generation; and providing connection information for a node of the second list of nodes to user equipment in response to receiving a connection request from the user equipment.

[003c] In a third aspect, the present disclosure refers to a non-transitory computer readable medium configured to store instructions thereon for causing a processor to: instruct the non-transitory computer readable medium to store a first list of nodes in a first device, wherein the first list comprises a corresponding status of each of the nodes in the first list, and the first device usable in a first technology generation of the wireless network; update a second list of nodes in a second device based on the first list of nodes, wherein the second list is free of a status of each of the nodes of the second list, and the second device is usable in a second technology generation of the wireless network different from the first technology generation; and provide connection information for a node of the second list of nodes to user equipment in response to receiving a connection request from the user equipment.

BRIEF DESCRIPTION OF THE DRAWINGS

[004] Aspects of the present disclosure are best understood from the following detailed description when read with the accompanying figures. It is noted that, in accordance with the standard practice in the industry, various features are not drawn to scale. In fact, the dimensions of the various features may be arbitrarily increased or reduced for clarity of discussion.