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(54) Title: SYSTEMS AND METHODS FOR CREATING VIRTUAL UNIVERSAL PLUG-AND-PLAY SYSTEMS

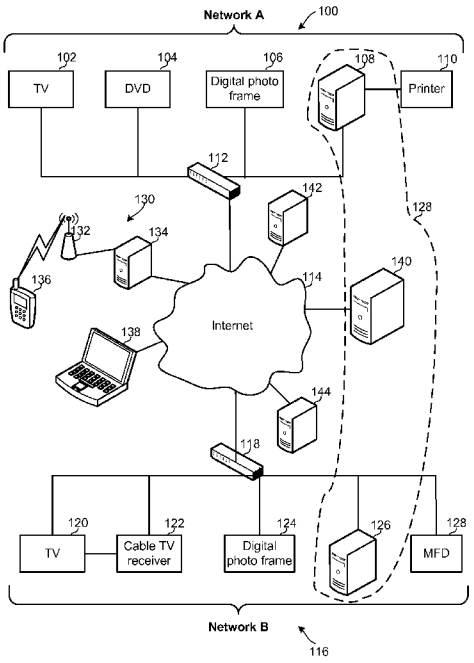


FIG. 1

(57) Abstract: Methods and devices enable a device located on a source network (100) to appear as a virtual device on a target network (116). Agent applications running on computers on the source and target networks communicate over a peer-to-peer network enabled by a super-peer networking server (140) on the Internet (114). To share a device, the target network agent (126) requests the source network agent (108) to provide access to a device in the source network. The source network agent sends the device name, properties, and service template information to the target network agent. The target network agent uses the received information to announce itself as the device to the target network. Devices on the target network may request device services from the target network agent. Such requests are repackaged by the target network agent and sent to the source network agent. The source network agent redirects the service request to the actual device and redirects received responses to the target network agent. The target network agent receives the processes forwards service response to the requesting device. Thereafter, the requesting device on the first network can directly access services from the device on the second network as if the two devices were on the same network. Using such methods, devices on a local network may access services available on an Internet server as if the server was on the local network.

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