SYSTEMS AND METHODS FOR ROUTING COMMUNICATIONS IN A COMPUTER NETWORK

FIELD OF THE DISCLOSURE

(01) The present disclosure relates to systems and methods for routing communications in a computer network.

BACKGROUND

(02) [[INSERT BACKGROUND SECTION]]

SUMMARY

(03) One aspect of the present disclosure relates to a system configured for routing communications in a computer network. The system may include one or more hardware processors configured by machine-readable instructions. The processor(s) may be configured to receive a selection to provision a master network appliance on a computer network at management console service at a network appliance. The processor(s) may be configured to identify that communications can be sent over a backplane at the network appliance to at least one other network appliance. The backplane may be a low latency link between the network appliance and the at least one other network appliance that provides a dedicated bandwidth for communications between the network appliance and the at least one other network appliance. The processor(s) may be configured to identify an internet protocol address of the at least one other network appliance. The at least one other network appliance may be a slave network appliance to the master network appliance. The processor(s) may be configured to provision

configuration data to the slave network appliance by the master network appliance. The configuration data may identify a topology of the computer network. The topology of the computer network may include a first firewall, a first switch. The first firewall may communicate with the first switch over a first network communication interface at the first switch. The switch may communicate with the master network appliance over a second communication interface at the first switch and communicates with the slave network appliance over a third network communication interface at the master network appliance.

(04) Another aspect of the present disclosure relates to a method for routing communications in a computer network. The method may include receiving a selection to provision a master network appliance on a computer network at management console service at a network appliance. The method may include identifying that communications can be sent over a backplane at the network appliance to at least one other network appliance. The backplane may be a low latency link between the network appliance and the at least one other network appliance that provides a dedicated bandwidth for communications between the network appliance and the at least one other network appliance. The method may include identifying an internet protocol address of the at least one other network appliance. The at least one other network appliance may be a slave network appliance to the master network appliance. The method may include provisioning configuration data to the slave network appliance by the master network appliance. The configuration data may identify a topology of the computer network. The topology of the computer network may include a first firewall, a first switch. The first firewall may communicate with the first switch over a first network

communication interface at the first switch. The switch may communicate with the master network appliance over a second communication interface at the first switch and communicates with the slave network appliance over a third network communication interface at the master network appliance.

(05) These and other features, and characteristics of the present technology, as well as the methods of operation and functions of the related elements of structure and the combination of parts and economies of manufacture, will become more apparent upon consideration of the following description and the appended claims with reference to the accompanying drawings, all of which form a part of this specification, wherein like reference numerals designate corresponding parts in the various figures. It is to be expressly understood, however, that the drawings are for the purpose of illustration and description only and are not intended as a definition of the limits of the invention. As used in the specification and in the claims, the singular form of "a", "an", and "the" include plural referents unless the context clearly dictates otherwise.

BRIEF DESCRIPTION OF THE DRAWINGS

(06) FIG. 1 illustrates a system configured for routing communications in a computer network, in accordance with one or more implementations.

(07) FIG. 2 illustrates a method for routing communications in a computer network, in accordance with one or more implementations.

DETAILED DESCRIPTION

(08) FIG. 1 illustrates a system 100 configured for routing communications in a computer network, in accordance with one or more implementations. In some

implementations, system 100 may include one or more servers 102. Server(s) 102 may be configured to communicate with one or more client computing platforms 104 according to a client/server architecture and/or other architectures. Client computing platform(s) 104 may be configured to communicate with other client computing platforms via server(s) 102 and/or according to a peer-to-peer architecture and/or other architectures. Users may access system 100 via client computing platform(s) 104.

(09) Server(s) 102 may be configured by machine-readable instructions 106. Machine-readable instructions 106 may include one or more instruction modules. The instruction modules may include computer program modules. The instruction modules may include one or more of a selection receiving module 108, a communication identifying module 110, an internet protocol address identifying module 112, a slave network appliance provisioning module 114, and/or other instruction modules.

(10) Selection receiving module 108 may be configured to receive a selection to provision a master network appliance on a computer network at management console service at a network appliance.

(11) Communication identifying module 110 may be configured to identify that communications can be sent over a backplane at the network appliance to at least one other network appliance. The backplane may be a low latency link between the network appliance and the at least one other network appliance that provides a dedicated bandwidth for communications between the network appliance and the at least one other network appliance.

(12) Internet protocol address identifying module 112 may be configured to identify an internet protocol address of the at least one other network appliance. The at least one other network appliance may be a slave network appliance to the master network appliance.

(13) Slave network appliance provisioning module 114 may be configured to provision configuration data to the slave network appliance by the master network appliance. The configuration data may identify a topology of the computer network. By way of non-limiting example, the topology of the computer network may include a first firewall, a first switch. The first firewall may communicate with the first switch over a first network communication interface at the first switch. The switch may communicate with the master network appliance over a second communication interface at the first switch and communicates with the slave network appliance over a third network communication interface at the master network appliance.

(14) In some implementations, server(s) 102, client computing platform(s) 104, and/or external resources 116 may be operatively linked via one or more electronic communication links. For example, such electronic communication links may be established, at least in part, via a network such as the Internet and/or other networks. It will be appreciated that this is not intended to be limiting, and that the scope of this disclosure includes implementations in which server(s) 102, client computing platform(s) 104, and/or external resources 116 may be operatively linked via some other communication media.

(15) A given client computing platform 104 may include one or more processors configured to execute computer program modules. The computer program modules may be configured to enable an expert or user associated with the given client computing platform 104 to interface with system 100 and/or external resources 116, and/or provide other functionality attributed herein to client computing platform(s) 104. By way of non-limiting example, the given client computing platform 104 may include one or more of a desktop computer, a laptop computer, a handheld computer, a tablet computing platform, a NetBook, a Smartphone, a gaming console, and/or other computing platforms.

(16) External resources 116 may include sources of information outside of system 100, external entities participating with system 100, and/or other resources. In some implementations, some or all of the functionality attributed herein to external resources 116 may be provided by resources included in system 100.

(17) Server(s) 102 may include electronic storage 118, one or more processors 120, and/or other components. Server(s) 102 may include communication lines, or ports to enable the exchange of information with a network and/or other computing platforms. Illustration of server(s) 102 in FIG. 1 is not intended to be limiting. Server(s) 102 may include a plurality of hardware, software, and/or firmware components operating together to provide the functionality attributed herein to server(s) 102. For example, server(s) 102 may be implemented by a cloud of computing platforms operating together as server(s) 102.

(18) Electronic storage 118 may comprise non-transitory storage media that electronically stores information. The electronic storage media of electronic storage 118 may include one or both of system storage that is provided integrally (i.e., substantially non-removable) with server(s) 102 and/or removable storage that is removably connectable to server(s) 102 via, for example, a port (e.g., a USB port, a firewire port, etc.) or a drive (e.g., a disk drive, etc.). Electronic storage 118 may include one or more of optically readable storage media (e.g., optical disks, etc.), magnetically readable storage media (e.g., magnetic tape, magnetic hard drive, floppy drive, etc.), electrical charge-based storage media (e.g., EEPROM, RAM, etc.), solid-state storage media (e.g., flash drive, etc.), and/or other electronically readable storage media. Electronic storage 118 may include one or more virtual storage resources (e.g., cloud storage, a virtual private network, and/or other virtual storage resources). Electronic storage 118 may store software algorithms, information determined by processor(s) 120, information received from server(s) 102, information received from client computing platform(s) 104, and/or other information that enables server(s) 102 to function as described herein.

(19) Processor(s) 120 may be configured to provide information processing capabilities in server(s) 102. As such, processor(s) 120 may include one or more of a digital processor, an analog processor, a digital circuit designed to process information, an analog circuit designed to process information, a state machine, and/or other mechanisms for electronically processing information. Although processor(s) 120 is shown in FIG. 1 as a single entity, this is for illustrative purposes only. In some implementations, processor(s) 120 may include a plurality of processing units. These processing units may be physically located within the same device, or processor(s) 120

may represent processing functionality of a plurality of devices operating in coordination. Processor(s) 120 may be configured to execute modules 108, 110, 112, 114, and/or other modules. Processor(s) 120 may be configured to execute modules 108, 110, 112, 114, and/or other modules by software; hardware; firmware; some combination of software, hardware, and/or firmware; and/or other mechanisms for configuring processing capabilities on processor(s) 120. As used herein, the term "module" may refer to any component or set of components that perform the functionality attributed to the module. This may include one or more physical processors during execution of processor readable instructions, the processor readable instructions, circuitry, hardware, storage media, or any other components.

(20) It should be appreciated that although modules 108, 110, 112, and 114 are illustrated in FIG. 1 as being implemented within a single processing unit, in implementations in which processor(s) 120 includes multiple processing units, one or more of modules 108, 110, 112, and/or 114 may be implemented remotely from the other modules. The description of the functionality provided by the different modules 108, 110, 112, and/or 114 described below is for illustrative purposes, and is not intended to be limiting, as any of modules 108, 110, 112, and/or 114 may provide more or less functionality than is described. For example, one or more of modules 108, 110, 112, and/or 114 may be eliminated, and some or all of its functionality may be provided by other ones of modules 108, 110, 112, and/or 114. As another example, processor(s) 120 may be configured to execute one or more additional modules that may perform some or all of the functionality attributed below to one of modules 108, 110, 112, and/or 114.

(21) FIG. 2 illustrates a method 200 for routing communications in a computer network, in accordance with one or more implementations. The operations of method 200 presented below are intended to be illustrative. In some implementations, method 200 may be accomplished with one or more additional operations not described, and/or without one or more of the operations discussed. Additionally, the order in which the operations of method 200 are illustrated in FIG. 2 and described below is not intended to be limiting.

(22) In some implementations, method 200 may be implemented in one or more processing devices (e.g., a digital processor, an analog processor, a digital circuit designed to process information, an analog circuit designed to process information, a state machine, and/or other mechanisms for electronically processing information). The one or more processing devices may include one or more devices executing some or all of the operations of method 200 in response to instructions stored electronically on an electronic storage medium. The one or more processing devices may include one or more devices configured through hardware, firmware, and/or software to be specifically designed for execution of one or more of the operations of method 200.

(23) An operation 202 may include receiving a selection to provision a master network appliance on a computer network at management console service at a network appliance. Operation 202 may be performed by one or more hardware processors configured by machine-readable instructions including a module that is the same as or similar to selection receiving module 108, in accordance with one or more implementations.

(24) An operation 204 may include identifying that communications can be sent over a backplane at the network appliance to at least one other network appliance. The backplane may be a low latency link between the network appliance and the at least one other network appliance that provides a dedicated bandwidth for communications between the network appliance and the at least one other network appliance. Operation 204 may be performed by one or more hardware processors configured by machine-readable instructions including a module that is the same as or similar to communication identifying module 110, in accordance with one or more implementations.

(25) An operation 206 may include identifying an internet protocol address of the at least one other network appliance. The at least one other network appliance may be a slave network appliance to the master network appliance. Operation 206 may be performed by one or more hardware processors configured by machine-readable instructions including a module that is the same as or similar to internet protocol address identifying module 112, in accordance with one or more implementations.

(26) An operation 208 may include provisioning configuration data to the slave network appliance by the master network appliance. The configuration data may identify a topology of the computer network. The topology of the computer network may include a first firewall, a first switch. The first firewall may communicate with the first switch over a first network communication interface at the first switch. The switch may communicate with the master network appliance over a second communication interface at the first switch and communicates with the slave network appliance over a third network communication interface at the master network appliance. Operation 208 may be performed by one or more hardware processors configured by machine-readable

instructions including a module that is the same as or similar to slave network appliance provisioning module 114, in accordance with one or more implementations.

(27) Although the present technology has been described in detail for the purpose of illustration based on what is currently considered to be the most practical and preferred implementations, it is to be understood that such detail is solely for that purpose and that the technology is not limited to the disclosed implementations, but, on the contrary, is intended to cover modifications and equivalent arrangements that are within the spirit and scope of the appended claims. For example, it is to be understood that the present technology contemplates that, to the extent possible, one or more features of any implementation can be combined with one or more features of any other implementation.

What is claimed is:

1. A system configured for routing communications in a computer network, the system comprising:

one or more hardware processors configured by machine-readable instructions to:

receive a selection to provision a master network appliance on a computer network at management console service at a network appliance;

identify that communications can be sent over a backplane at the network appliance to at least one other network appliance, wherein the backplane is a low latency link between the network appliance and the at least one other network appliance that provides a dedicated bandwidth for communications between the network appliance and the at least one other network appliance;

identify an internet protocol address of the at least one other network appliance, wherein the at least one other network appliance is a slave network appliance to the master network appliance; and

provision configuration data to the slave network appliance by the master network appliance, wherein the configuration data identifies a topology of the computer network, the topology of the computer network including a first firewall, a first switch, the first firewall communicates with the first switch over a first network communication interface at the first switch, and the switch communicates with the master network appliance over a second communication

interface at the first switch and communicates with the slave network appliance over a third network communication interface at the master network appliance.

2. A method for routing communications in a computer network, the method comprising:

receiving a selection to provision a master network appliance on a computer network at management console service at a network appliance;

identifying that communications can be sent over a backplane at the network appliance to at least one other network appliance, wherein the backplane is a low latency link between the network appliance and the at least one other network appliance that provides a dedicated bandwidth for communications between the network appliance and the at least one other network appliance;

identifying an internet protocol address of the at least one other network appliance, wherein the at least one other network appliance is a slave network appliance to the master network appliance; and

provisioning configuration data to the slave network appliance by the master network appliance, wherein the configuration data identifies a topology of the computer network, the topology of the computer network including a first firewall, a first switch, the first firewall communicates with the first switch over a first network communication interface at the first switch, and the switch communicates with the master network appliance over a second communication

interface at the first switch and communicates with the slave network appliance over a third network communication interface at the master network appliance.

ABSTRACT

Systems and methods for routing communications in a computer network are disclosed. Exemplary implementations may: receive a selection to provision a master network appliance on a computer network at management console service at a network appliance; identify that communications can be sent over a backplane at the network appliance to at least one other network appliance; identify an internet protocol address of the at least one other network appliance; and provision configuration data to the slave network appliance by the master network appliance.