

SD-WAN and high availability options

Describes a few options for how a sophisticated SD-WAN solution, that provides a high availability architecture for Datacenter devices, could be configured.

MADRID, MADRID, SPAIN, October 23, 2021 /EINPresswire.com/ -- This article describes a few options for how a <u>sophisticated SD-WAN solution</u>, that provides a high availability architecture for Datacenter devices, could be configured.



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These devices monitor the network to

obtain information concerning the web links as well as the network status. When a device finds that a network resource is not available, it routes the web traffic flow to another hub.

In an SD-WAN network remote devices are grouped and connected with each other utilizing the VRRP Protocol, hence using high availability for all devices attached to the LAN. If the key device was not functional, the secondary device would take control, using the very same IP address to the other devices which operations would not be impacted.

When high accessibility is configured in the SD-WAN, the hub devices (AR's) are independent, and the remote devices choose their preferred group. These are some the main features:

a) Every hub device acts as an Access Router (AR).

b) The AR's are not organized into sets.

c) The Branch devices pick their own prioritized set of ARs:

- Priority is made use of for multipath alternatives: if a service, which in the end is a network or IP address, can be reached by several AR's, the one that has the highest priority will be chosen.

- The set of AR's is assigned to the branch device the CNM (Customer Network Management

service) with the chosen group information.

In the following case three AR's are able to access to routers of 2 datacenters, 2 of their preferred sets, as well as three branch devices:

- Both AR's in datacenter A have actually been included in the preference group A.

- The only AR in preference group B is the one in datacenter B.

With SD-WAN any prioritized sets of AR's are linked to every branch device by the Customer Network Management services, ruled by the preference group's traffic and load-balancing settings:

This SD-WAN design is extremely flexible in managing datacenter connection problems. In this option, not all routers need to access all of the services made available in the distinct datacenters. As a result, each AR readily available services are dynamically accessible to the branch devices:

- All AR's make use of the exact same self-sufficient Border Gateway Protocol system.

- All branch devices use the same independent Border Gateway Protocol system.

- The eBorder Gateway Protocol is utilized to onward Datacenter solution courses to branch devices.

- Directions from branch devices are not sent to the any remaining branch devices.

- In order to make spoke-to-spoke possible for communication, the AR's produce a default route that is sent to branch devices.

- Branch devices establish their preferred rout (BGP local preference) for each and every application group, based on the AR's priority order, connection analysis, route preference and SLA assessments.

- Branch devices will pass on routes to all the connected ARs (not only the preference AR).

In the following option a datacenter failover SD-WAN architecture is implemented by using two services.

The device gets the service's routes, where each service is accessible through its very own collection of AR's. The process is fully dynamic, and the routes are instantly updated when the availability status of any service is altered.

<u>The SD-WAN Cloud Network Manager (CNM)</u> is configured based upon containers that offer high internal availability and reliability. Likewise, the Cloud Network Manager can be implemented on 3 different services, mounted in a cluster. In this configuration, if one device turns inactive, users can continue accessing the Cloud Network Manager and its services are not impacted.

The SD-WAN's network devices will still continue to work normally if the connection to the Cloud Network Manager goes down totally. This is due to the fact that the configuration remains in the device, and all defined policies and application routing choices are made independently in each remote device. Those devices also have the performance logs stored, ready to be sent back once the connectivity has been reestablished.

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