Understand SD-WAN Staging Phases

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Versa SD-WAN has three staging phases. When a SD-WAN branch device is powered up, it automatically goes through three stages before it becomes completely operational. A branch device comes preloaded with staging server configuration. In IPsec configuration profile, staging server IP address is given as remote IP address.

- Stage 1 is the prestaging phase:
  - IKE session starts between a branch and a staging server.
  - After the IKE session comes up, staging server assigns an IP address to the branch.
  - The Versa Director IP address is notified to the branch.
  - A notification is generated to Versa Director that the branch device has come up.
- Stage 2 is the staging phase:
  - Versa Director pushes the stage two configuration to branch device, through the staging server.
  - The controller IP address, in IPsec profile, is given as a remote IP.
  - The branch device is rebooted.
  - After the branch device comes up with stage two configuration, it establishes the IKE session with controller.
  - The controller assigns an IP address to the branch device and generates a notification to Versa Director.
- Stage 3 does the following:
  - Versa Director pushes the stage three configuration to branch device, over the IKE session, and reboots the branch device.
  - The branch device is fully operational and is a part of customer SD-WAN network.
  - IKE and IPsec sessions are created between branch and controller.
  - VXLAN and ESP sessions are created between branch to branch.
  - Branch to branch ESP is maintained using lightweight DH key pair proprietary protocol.

For Stages 1 and 2, the IKE session is over VNI interfaces. For Stage 3, the IKE session is over loopback (TVI) interfaces.

Supported Software Information

Releases 20.2 and later support all content described in this article.