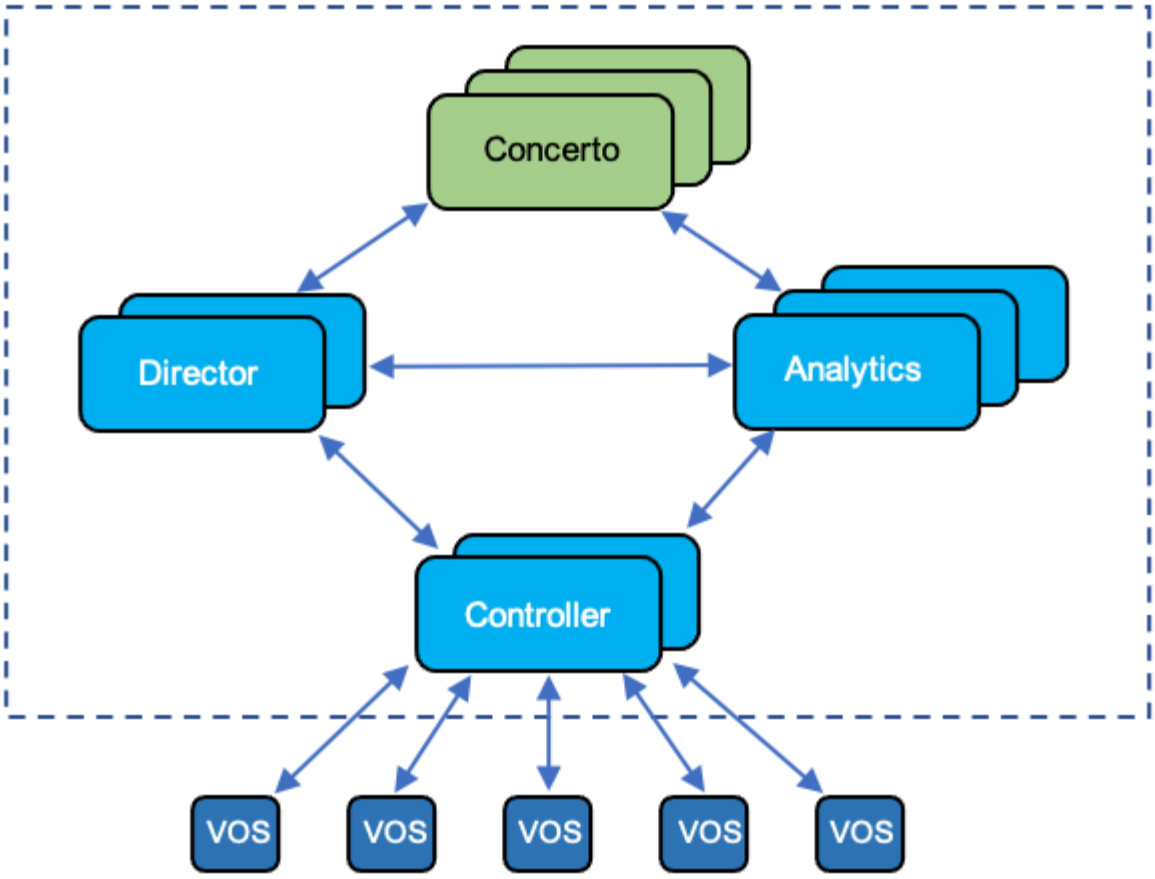
Headend Overview

For supported software information, click here.

A Versa SD-WAN network consists of two basic components: a headend and a branch. This article provides an overview of the Versa headend. For an overview of the branch, see Branch Overview.

A Versa headend is a group of components that together are responsible for gateway operations between the headend and the branch devices reachable over the internet or over a private network. The Versa headend comprises four components: Versa Director, Versa Analytics, Versa Controller, and Versa Concerto™ Orchestrator. The headend components work in conjunction with each other to manage a network of Versa Operating System™ (VOS™) devices that are located at branches and that are connected through a public network (such as the internet) or through a private network (such as an MPLS network), or through both. A Versa headend is typically located in a data center.

Available in Releases 20.2.3 and later, the Versa Concerto orchestrator provides an easy-to-use user interface to configure and monitor VOS devices in Secure SD-WAN and secure access service edge (SASE) deployments. The Concerto orchestrator uses the services of Versa Director, Versa Controller, and Versa Analytics (collectively called the *DCA complex*) in managing VOS devices. It is an orchestration layer that sits above the Versa DCA components, as shown in the following figure.

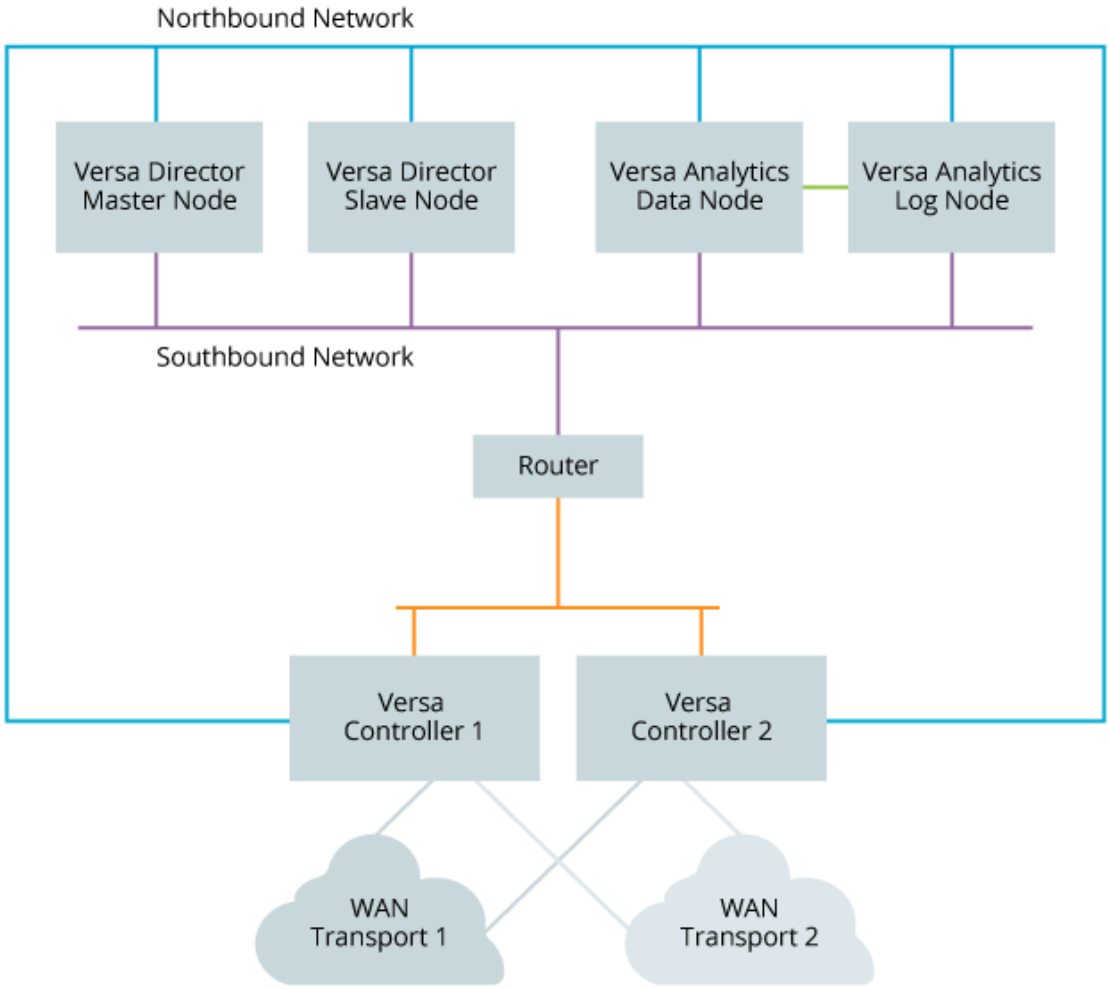


For more information about Versa Concerto, see the Versa Concerto Orchestrator and Configuration from Concerto articles.

Component Redundancy

To provide high availability and redundancy, you deploy each of the Versa DCA headend components in pairs. Each pair of Versa Director nodes operates in active-standby mode. Each pair of Versa Controller nodes operates in active-active mode. Versa Analytics nodes are either data (analytics) nodes or log (search) nodes, and each node in the pair actively participates in operations.

The following figure illustrates the Versa Networks DCA complex components in a single-site deployment, showing the redundant components.



These deployment articles discuss how to install and configure a single pair of each headend component.

To improve redundancy, it is recommended that you deploy a four-node Versa Analytics cluster.

Deployment Planning

It is recommended that you place the Versa headend components at data centers that provide high availability and resiliency, such as Tier 3 or Tier 4 data centers.

To achieve node-level redundancy, it is recommended that you place redundant nodes in different fault domains within the data center. To provide redundancy in case of a site failure, it is recommended that you deploy a second group of headend components in a second data center.

The underlying platform for each Versa headend component can be an x86 bare-metal device, a public cloud platform,

or a virtual machine (VM). You can also deploy a Versa Controller on a Versa CSG700 series appliance or on white box hardware.

When deploying headend components, ensure that you consider various physical design factors, including placing redundant components in separate availability zones, virtual machine affinity and anti-affinity rules, power supplies, physical network infrastructure redundancy, and uplink redundancy. Follow your organization's best practices when designing for these factors.

Supported Software Information

Releases 20.2 and later support all content described in this article, except:

- Releases 20.2.3 and later versions of the Versa Director, Controller, and Analytics (DCA) complex support Versa Concerto Release 10.1.1.
  Note: Release 21.1.1 of Versa DCA does not support Concerto Release 10.1.1.

Additional Information

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Configuration from Concerto
Hardware and Software Requirements for Headend
Headend Installation
Headend Initial Configuration
Versa Concerto Orchestrator