

APSTRA AUTOMATED DATA CENTER DEPLOYMENT SERVICE

Service Overview

Designing, deploying, operating, and troubleshooting a data center network can be difficult, expensive, and resource intensive. Juniper® Apstra, a turnkey, software-only solution, uses automation to dramatically simplify the process in both single- and multivendor environments. Juniper® Apstra Automated Data Center Deployment Service is designed to support new deployments and migrations from existing production data centers to Ethernet VPN-Virtual Extensible LAN (EVPN-VXLAN)/IP fabric data centers using Juniper Apstra. The service provides access to Juniper technology experts, best practices, and tools.

Service Description

Juniper Apstra is a software-only, intent-based networking solution for EVPN-VXLAN/IP fabric data centers that fully automates the process of designing, building, deploying, and operating data center networks. Using closed-loop automation and assurance along with root-cause identification, Juniper Apstra provides complete fabric management in both single- and multivendor environments, and it offers capabilities such as self-serve DevOps extensions, open and programmable infrastructure, rich telemetry, and scalable EVPN-VXLAN.

Apstra Automated Data Center Deployment Service is specifically designed to support enterprises, cloud providers, and service providers that are deploying EVPN-VXLAN/IP fabric automated data center networks using Juniper Apstra. This fully customizable service can be used for new initial deployments as well as for migration of existing production data centers to an EVPN-VXLAN/IP fabric. Migration scenarios can include:

- From an existing Juniper EVPN-VXLAN/IP fabric data center network to one that is managed with Juniper Apstra
- From an existing legacy Juniper non-IP fabric data center to an EVPN-VXLAN/IP fabric data center managed with Juniper Apstra
- From an existing non-Juniper (other vendor) fabric production data center to a Juniper EVPN-VXLAN/IP fabric data center managed with Juniper Apstra

This service gives your organization access to data center deployment experts with extensive knowledge of Juniper products and technologies. The service employs proven best-practice implementation methodology and tools that provide a high degree of assurance, faster completion speed, and reduced deployment risks. Both new initial deployments and migrations that implement Juniper Apstra are performed by incrementally moving all elements, as illustrated in the Juniper Tech Library configuration guide, "[Data Center EVPN-VXLAN Fabric Architecture Guide](#)."

With this strategy, deployment and migration phases can be organized in a flexible manner, allowing them to be aligned with priorities such as minimal downtime, lowest cost, or fastest completion. These phases can also be organized based on a variety of logical and physical parameters such as per application or per rack. As part of this service, the Juniper Professional Services consultant will advise you on the optimal phasing and grouping of the deployment and migration activities.

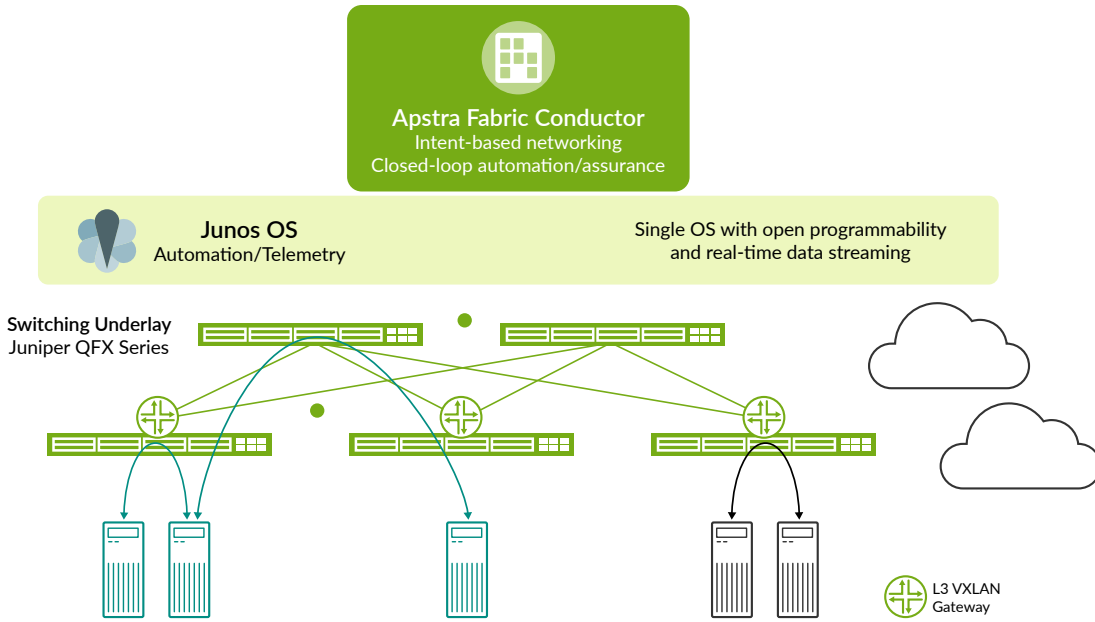


Figure 1: Automated Data Center

Service Methodology

Juniper Apstra Automated Data Center Deployment Service methodology follows a four-phase approach (Design, Build, Deploy, and Operate) and is tightly integrated with the Juniper Project Management Methodology, which addresses both the project management and risk mitigation aspects of your project.

While the methodology identifies the standard phases and types of activities within each phase, the specific activities to be included in an engagement are defined on a customer-by-customer basis. Similarly, the specific deployment tools and resource requirements are identified for each customer situation.

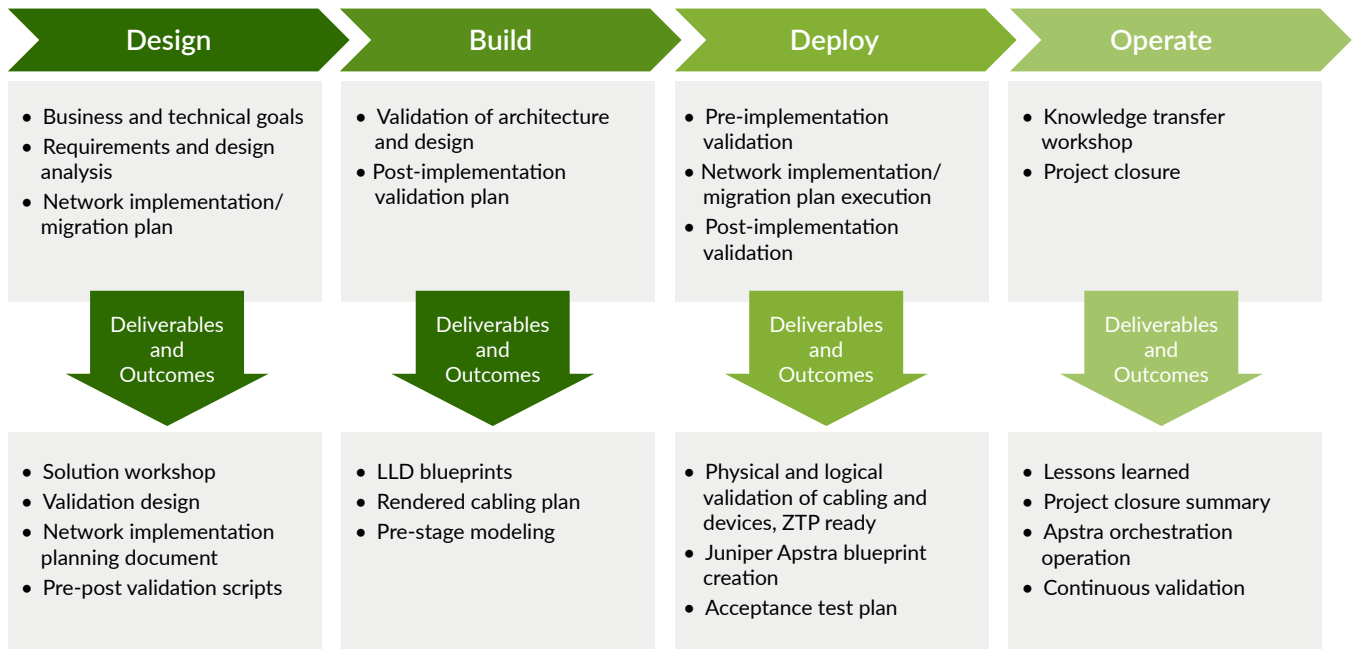


Figure 2: Service Methodology

Specifications

Deliverable	Description	Features and Benefits
Solution Workshop	Collaborative workshop for intake of customer data, review of the design to be used, and documentation and approval of the validated design	<ul style="list-style-type: none"> Align on design details, project scope, and expectations Adapt best-practice design to customer environment Leverage the skills and experience Juniper consultants have acquired working with hundreds of successful enterprise IT migrations
Low-Level Design (LLD)	Low-level designs, including Juniper Apstra blueprint (design, diagrams, cable matrix, initial builds), pre-post validation testing, and network Implementation plan details	<ul style="list-style-type: none"> Use Juniper Apstra blueprinting and pre-staging capabilities to create a pristine design prior to the implementation Use automated tools to accelerate and optimize cutover times and mitigate migration-related risks
Network Implementation Plan (NIP)/ Network Implementation and Migration Plan (NIMP)	Site readiness and prerequisites review, identifying any missing data or actions required by the customer before Network Implementation Plan Execution can begin	<ul style="list-style-type: none"> Leverage Juniper consultants' best practices to organize the network migration phases
Network Implementation Plan Execution (NIPE)/Network Implementation and Migration Plan Execution (NIMPE)	Installation of the EVPN/VXLAN IP fabric solution in the customer's environment, validating the accuracy and quality of the installation, and ensuring it is free of errors and functioning as expected	<ul style="list-style-type: none"> Use process-driven approach to ensure efficiency and accuracy; ensure that the platform is correctly installed and functioning properly
Knowledge Transfer Workshop (KTW)	Documentation from prior phases and a workshop that reviews all Juniper hardware and software implemented, and Day-2 basic operations of the Juniper Apstra platform	<ul style="list-style-type: none"> Accelerate infrastructure availability and employee readiness for improved operational efficiencies

Examples of Deployment Use Cases for the Service

1. New initial deployment of EVPN-VXLAN/IP fabric using Juniper Apstra for a single data center (1 DC): Workloads Migration Ready 1 DC with up to 2x10 spine-and-leaf and required number of virtual elements such as virtual networks, virtual port groups, VLANs, and so on, with gateway connectivity to legacy network and edge-routed bridging (ERB) network virtualization overlay
2. New initial deployment of EVPN-VXLAN/IP fabric using Juniper Apstra for two data centers (2 DC): Workloads Migration Ready 2 DC with up to 2x10 spine leaf and required number of virtual elements such as virtual networks, virtual port groups, VLANs, and so on, with Data Center Interconnect (DCI), gateway connectivity to legacy network, and ERB network virtualization overlay
3. Migration from an existing Juniper EVPN-VXLAN/IP fabric to a Juniper Apstra and ERB network virtualization overlay

Juniper Service and Support

Juniper ensures operational excellence by optimizing the network to maintain required levels of performance, reliability, and availability. For more details, please visit www.juniper.net/us/en/products-services/

Ordering Information

To order the Apstra Automated Data Center Deployment Service, or for additional information, please contact your Juniper account manager.

Exclusion

The scope of this service is for Apstra Automated Data Center Deployment Service only and does not include separately sold assessment, design, migration, or deployment services. If you require additional services from your Juniper Professional Services consultant, please contact your Juniper account manager.

About Juniper Networks

Juniper Networks brings simplicity to networking with products, solutions and services that connect the world. Through engineering innovation, we remove the constraints and complexities of networking in the cloud era to solve the toughest challenges our customers and partners face daily. At Juniper Networks, we believe that the network is a resource for sharing knowledge and human advancement that changes the world. We are committed to imagining groundbreaking ways to deliver automated, scalable and secure networks to move at the speed of business.

Corporate and Sales Headquarters

Juniper Networks, Inc.
1133 Innovation Way
Sunnyvale, CA 94089 USA
Phone: 888.JUNIPER (888.586.4737)
or +1.408.745.2000
www.juniper.net

APAC and EMEA Headquarters

Juniper Networks International B.V.
Boeing Avenue 240
1119 PZ Schiphol-Rijk
Amsterdam, The Netherlands
Phone: +31.207.125.700



Copyright 2021 Juniper Networks, Inc. All rights reserved. Juniper Networks, the Juniper Networks logo, Juniper, and Junos are registered trademarks of Juniper Networks, Inc. in the United States and other countries. All other trademarks, service marks, registered marks, or registered service marks are the property of their respective owners. Juniper Networks assumes no responsibility for any inaccuracies in this document. Juniper Networks reserves the right to change, modify, transfer, or otherwise revise this publication without notice.