

Service Description Data Sheet

Arista Validated Design and Migration (AVD-MIGRATE)

Overview

The Arista Validated Design and Migration (AVD-MIGRATE) service is specifically designed for customers who want to fully automate existing Arista networks. The migration from a manually provisioned network to a fully automated one is not an overnight transformation, but rather a journey requiring careful planning and execution. This migration process involves multiple stages and iterative improvements. It begins with a comprehensive assessment of the existing network infrastructure, followed by the development of an automation strategy tailored to a customer's specific needs. By leveraging tools such as Arista Validated Design (AVD) and programmable infrastructure like CloudVision® and EOS®, tasks like network configuration management and device provisioning can be automated, leading to increased efficiency and reduced errors. Ultimately, this migration empowers the network to deliver improved operational efficiency, scalability, and agility in meeting business requirements.

Arista Validated Design

AVD is a transformational solution that will modernize how customers build, deploy, upgrade, document, and validate their networks using open-source automation. It utilizes Ansible collections and the programmability of EOS and CloudVision to deliver a fully automated solution. The power of AVD is its ability to easily create repeatable and reusable solutions for Arista networks.

This is a departure from repetitive traditional network operations requiring significant human resources. Manually operated network infrastructure increases the likelihood of mistakes, decreases services velocity, and is difficult to operate.

AVD automation provides the following benefits:

- **Zero Touch Provisioning:** Automates DHCP-Server setup and configuration to fully onboard new EOS switches into CloudVision without human interaction.
- **Build:** Describes network infrastructure and services with powerful data-models that minimize input and maximize configuration generation. Build automation fully renders the network's configurations and can be reviewed before network changes.
- **Deploy:** Programs Arista's CloudVision using REST APIs to provision network and service configurations. Deployment automation can be as closed-loop as the customer desires.
- **Validate:** Dynamically creates Network Ready For Use (NRFU) test cases to verify network health and the success of network changes. NRFU test cases produce a detailed report with actionable information to help troubleshoot issues.
- **Software Upgrade:** Programs Arista's CloudVision using REST APIs to create image bundles to upgrade EOS switches' software.
- **Document:** Self-documenting solution maintains up-to-date design documentation after each network change. Documentation is in Markdown which can easily be posted to a Source Control Management (SCM) tool.

Arista Professional Services

The AVD-MIGRATE solution supports existing Arista network deployments in various settings such as Data Centers, Campuses, and WANs, with the ability to scale from small to medium and large deployments. The transition from a manually provisioned network to a fully automated one is a unique journey for each customer. Throughout this journey, the AVD-MIGRATE solution offers customization options at each stage, demonstrating its versatility. The following descriptions of solutions highlight the different customization options available and the outcomes achieved at each stage of the automation journey.

Assessment

The first stage of the automation journey is a required assessment of a customer's current network implementation. Arista Professional Services combines the expertise of network and automation experts to evaluate the network readiness for AVD. Below are overviews of each type of assessment:

- **Network:** A network assessment helps to audit the existing network infrastructure, including its design, components, and configurations. It assesses factors like network design without any anti-patterns, naming conventions, and any software or hardware incompatibilities. This evaluation provides valuable insights into the network's strengths, weaknesses, and potential areas for improvement.
- **Automation:** An automation assessment helps audit the network's readiness to implement AVD. Arista Professional Services will evaluate customer's automation knowledge and identify integration requirements. In addition to this, existing automation tools and automated tasks will be identified. Understanding these factors is crucial to ensure a smooth transition to automated processes.

Strategy and Planning

The second stage of the automation journey is network and automation architecture. This creates the foundation for a successful AVD deployment. Below gives an overview of Architecture tasks:

- **Network:** Arista network consultants will work with customers to articulate additional goals and objectives they want to achieve with their network migration. These could include improving network performance, accommodating future growth, or adopting new technologies like EVPN/VXLAN, L3VPN/EVPN/MPLS. Arista Professional Services will redesign the network architecture to align

Service Description Data Sheet

with customer defined goals and objectives considering factors such as scalability, flexibility, redundancy, and security. Before fully deploying the new network strategy, Arista Professional Services will conduct thorough testing and validation to identify any potential issues or areas that require fine-tuning. This step helps minimize risks and ensures optimal performance.

- **Automation:** Arista software consultants will work with customers to define their goals and objectives for network automation. Consultants will design and plan the workflows for the automated processes using AVD and Arista programmable infrastructure including integrations with the customer's existing systems. Arista Professional Services will clearly define the desired outcome of each workflow and how it aligns with the customer's overall network automation goals. Before deploying AVD automation in a production environment, Arista will thoroughly test and validate the automation workflows by using a lab or test network environment to simulate real-world scenarios and verify the automation performs as expected. We will monitor and evaluate the results to identify any issues or areas for improvement.

Migration and Adoption

The third stage of the automation journey is implementation. Arista Professional Services' skilled team of networking and software consultants will execute the migration plan to achieve the customer's automation goals.

Below summarizes the migration activities:

- **Network:** Arista Professional Services will develop a comprehensive migration strategy that outlines the steps, timeline, and priorities for the migration process. Consultants will determine whether a phased or a complete cutover approach is suitable for your network, considering any dependencies, critical applications, and potential impacts on network services during the migration. Arista

Professional Services has ample experience which ensures a smooth and efficient transition to the new architecture with minimal risk.

- **Automation:** Once AVD automation workflows have been tested and validated, Arista consultants will roll out the automation into the production network environment and deploy AVD to automate the identified use cases or tasks. Care will be taken to ensure there are proper backup mechanisms and a rollback plan in case of any unexpected issues. Consultants will continuously monitor the performance and effectiveness of automated processes and fine-tune the automation workflows as necessary to optimize results.
- **On-site Consultation:** Arista consultants are available for on-site collaboration with customers. Arista Professional Services will work with customers to understand their requirements and schedule in-person workshops or migration assistance as needed.

Knowledge Transfer and Support

The last stage of the automation journey is enabling the customer to sustain the new solution going forward. Arista has many ways to make the customer successful including:

- **Training:** Depending on a customer's knowledge transfer requirements, Arista Professional Services can deliver a wide range of content to enhance customer's skill sets and give them the confidence to operate an automated network. This includes knowledge workshops, traditional instructor lead classes, and customized training.
- **Support:** For some implementations, long-term support may be needed to assist a customer continuing on their automation journey. For this, Arista Site Reliability Engineers are available to provide day-to-day support or an additional SKU for long-term TAC support. Arista Professional Services also can provide continued time and material engagements for Day 2 needs.

Service Description Data Sheet AVD-Migrate Deliverables

This engagement model envisages set project deliverables and artifacts for a successful solution deployment with minimum risks to the customer. A dedicated project delivery team consisting of a lead technical consultant and a project delivery lead/project manager will be assigned to the service, which will reach back to the larger Arista Professional Services practice and Arista Engineering teams for increased confidence in the solution delivered.

Depending on the customer's automation journey, all or a subset of these deliverables will be completed:

- **Assessments:** Audits of customer's current network infrastructure and automation capabilities identifying areas with the potential for improvement.
- **Customer Requirements Document (CRD):** Arista will work with customers to collect and document customer's business requirements as a baseline for building the subsequent deliverables.
- **High-Level Design (HLD) Document:** Based on the CRD and detailed information collected through the requirements review process, Arista PS creates High-Level Design (HLD) Document.
- **Low-Level Design (LLD) Document:** Based on the CRD and HLD documents, Arista will create a Low-Level Design (LLD) document describing AVD configurations and configuration changes to optimize the AVD transition.
- **Integration Plan, Migration Plan, & Execution Support:** The service will plan and execute the services required for integrating AVD into their IT infrastructure and migration plan for using AVD to fully automate their network.
- **Knowledge Transfer:** Collateral enabling the customer to sustain and manage their network going forward, including best practices and references for optimizing AVD and their network infrastructure.

Services Assumptions

- Physical equipment rack and stack, cabling, and power-up services are excluded.
- Services are limited to out-of-the-box Arista product capabilities only. Customizations are excluded.
- Design and configuration services of non-Arista devices are excluded.
- Arista products and licenses are to be acquired separately.
- CloudVision[®] is a requirement for the delivery of this service.

About Arista Professional Services

Arista Professional Services, using CloudVision capabilities, can help customers and partners elevate the value of the IT and Network Infrastructure teams within their organizations using a proven methodology to successfully deploy, operate, and monetize their cloud infrastructure with reduced OPEX.

Ordering Information

| Product Number | Product Description |
|---------------------|---|
| SVE-EOS-AVD-DEPLOY | Packaged Service - Arista Validated Design (AVD) and Greenfield Deployment Service SKU |
| SVE-EOS-AVD-MIGRATE | OPTIONAL - This is an optional migration from legacy service SKU add-on service to AVD-DEPLOY SKU. Custom scoping is required for this SKU. |

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