Network Automation Capabilities

Capabilities Overview

Your business depends on your network—on its speed, reliability, efficiency, and flexibility. How do you ensure top performance of this essential asset while minimizing the time and money spent to manage and control it?

The answer is to automate manual tasks to enhance network services and enable new and innovative solutions. However, many network automation options are available. How do you determine which are best suited to your needs?

Juniper Networks® Professional Services offers automation capabilities that can help you successfully analyze, plan, and execute a network service automation strategy that delivers overall process improvement and tangible operational benefits.

Service Description

Juniper Networks automation capabilities are applicable across all phases of the overall customer network life cycle, while planning, building and operating the network.

Plan	Build	Operate
Assessment	Deploy	Maintenance
Design	Migrate	Optimization

Figure 1. Juniper Life Cycle Approach to Services

Plan

The goal of the Planning phase is to assess and then design an automation solution that enables you to optimally automate your network and help your business compete and win while reducing costs.

Juniper and our certified partners help you select and design the best automation solutions for today and the future. Juniper can also provide guidance on industry best practices around the automation platform and technology choices, as well as project execution.

Build

The Build phase focuses on developing and testing the automation software for one or more parts of the network life cycle, from network testing through deployment, integration, migration and operation. This enables you to quickly deploy secure, cost-efficient, high-performance networks.

Juniper's Professional Services consultants can help you deploy networks faster, avoid configuration errors, and leverage tools to capture the expertise of your design team, translating that into building better networks—whether that requires configuring network elements or migrating from one element to another.

Operate

Juniper Professional Services consider how best to protect your business and get more done by helping you quickly extend your capabilities.

Whether you are looking to audit your network, perform regression testing, provision network components, or simply troubleshoot network issues, Juniper automation capabilities allow you to:

- Maintain compliance and certification
- Streamline your day-to-day processes to save time and money
- Free up precious time for your team to focus on higher-value activities
- Improve productivity while minimizing risk across your network

Your ideas. Connected.™

Juniper can also help extend your capabilities allowing you to meet more customer requests, faster. Juniper Professional Services consultants act as part of your team, enhancing your skills with specialized expertise while keeping your network up to date and optimizing performance.

Project Management and Risk Mitigation

Supporting the Professional Services delivery capabilities is Juniper's approach to project management and risk mitigation.

Managing network automation requires solid planning capabilities and application of industry best practices to ensure that projects progress smoothly and with minimum risk. Based on years of experience, the Juniper Professional Service team provides the following capabilities.

Features and Benefits

Capability	Description	Benefits / Outcomes
Plan		
Information and Analysis	Understand how automation approaches relate to real operational issues, business outcomes, and OpEx reductions using real-life examples, use cases, and ROI.	· Prioritize and focus architecture transformation, network operations, and engineering management efforts · Accelerate the development of a cost-effective strategy with a measurable ROI · Successfully transform your infrastructure, management, people, and processes
Assessment	Determine your network's compliance to best practices and policies and automation readiness to support a new technology, application, architecture, or solution.	· Reduce deployment costs and adoption delays · Improve your operations team's ability to support what is being introduced
Design	Create and test new IT processes using automation software that support your business solutions by developing a design and solution framework customized to your requirements.	· Improve network infrastructure performance, security, and scalability · Accelerate adoption of new technologies and improve ROI · Reduce expensive and time-consuming redesign · Strengthen the proficiency of your deployment and operations teams
Build		
Validation	Test and validate that the automation solution meets your requirements for functionality, integration, automation, performance and other non-functional needs in a lab environment.	· Mitigate risks associated with updating the production network · Accelerate time to market and solution adoption · Reduce costly delays, risks, and rework · Improve availability
Deployment	Deploy automation solutions in your production environment. Transfer knowledge to your team for ongoing maintenance and support.	· Start realizing automation ROI sooner · Reduce delays, rework, and other problems during implementation · Decrease disruption to your production network during deployment
Operate		
Operations Support and Readiness	Ensure that network operations can easily manage resources quickly and effectively, adding visibility, network-wide inventory and scripts, and integration into NMS and other management systems.	· Enable resource provisioning · Enable resource performance management · Support resource trouble management
Service Fulfilment	Ensure that network and service operations teams (and systems) can effectively and efficiently manage service provisioning and activation, as well as integration into NMS and other management systems	· Enable effective service configuration; track and manage service provisioning and configurations and service activations. · Test resources and services across the network · Report service provisioning and inventory · Recover / reconcile services
Service Assurance	Ensure that network and service operations teams (and systems) have visibility into and can perform fault and performance management of resources, services and SLAs.	· Fault identification, correlation, forwarding, root cause analysis and integration · Resource and service performance monitoring, threshold crossing, forwarding and integration

These capabilities are the standard types of activity within each phase, but the specific activities included in an engagement are defined on an individual basis. Similarly, the specific automation tools and resource requirements are determined for each customer's situation.

Juniper Networks Service and Support

Juniper Networks is the leader in performance-enabling services that are designed to accelerate, extend, and optimize your high-performance network. Our services allow you to maximize operational efficiency while reducing costs and minimizing risk, achieving a faster time to value for your network. Juniper Networks 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

Juniper services capabilities are available worldwide as part of a broad range of engagements. For descriptions of customized engagements and examples of predefined engagements, visit www.juniper.net/us/en/products-services/services/technical-services/.

Contact your Juniper account manager for additional information and to find out how Juniper can help you address your business and technology challenges.

About Juniper Networks

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking. The company serves customers and partners worldwide. Additional information can be found at www.juniper.net.

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