

Optimizing Cloud- Enabled Branch with Juniper Services and Support

Protect and Ensure the Operational Success of Your Juniper Cloud-Enabled Branch



Cloud-Enabled Branch Solution Services Overview

We live in a connected world where business needs change rapidly. Being able to quickly add, change, or enhance network functionality is an imperative for today's enterprise networks. This is the impetus behind SDN and the shift to cloud-based services.

Juniper's Cloud-Enabled Branch solution allows the quick and flexible turn-up and modification of network services such as VPNs and firewalls in distributed branch offices. Juniper is available to assist during all phases of the planning, design, deployment, and operation of your Cloud-Enabled Branch infrastructure, helping organizations get a quick return on their network investments. Juniper provides a wide array of services for all aspects of the Plan, Build, and Operate phases of cloud-based Network Functions Virtualization (NFV).

Juniper Networks' services organization is a market leader in delivering the Juniper Cloud-Enabled Branch solution quickly, efficiently, and in a manner that allows customers to confidently take control of their networks faster. Juniper's end-to-end service capabilities span all critical phases of a network life cycle management launch, from plan to design to support and optimization. Juniper's 2,000+ strong services organization has the expertise, competence, and ability to quickly understand and address your operational challenges, continuously helping you manage and optimize those challenges through the life cycle of the solution.

Juniper can also work with your internal experts to define architecture designs and jointly develop strategies for deploying and operating the solution, including knowledge transfer to internal teams during project execution. This knowledge transfer will enable your teams to manage their solutions effectively, efficiently, and independently.

Challenges

As your Cloud-Enabled Branch is deployed, many issues that impact business, technology, and operations will need to be resolved.

The unbundling and shifting of some or all onsite network functions to the cloud introduces several new tasks to the deployment process. As with any new technology, these issues may include:

- A shortage of trained in-house personnel, requiring outsourcing or recruiting and training an onsite team
- Creating and implementing new business and IT processes
- Designing the network with new technology components, equipment, and interconnections, possibly with solutions from multiple vendors

Trends

A significant trend in the industry today is to rely on outside, vendor-provided expertise for new technology ventures. After all, the vendor who created a particular solution is best positioned to design, build, and operate it in your network, mitigating the risks of implementation and accelerating returns on investment.

Juniper Networks Cloud-Enabled Branch Related Services

Juniper's Cloud-Enabled Branch-related services are organized around the three phases of deploying any new technology: Plan, Build, and Operate.

Juniper services address the Plan and Build phases with a comprehensive set of Juniper Professional Services offerings. These target all aspects of a Cloud-Enabled Branch deployment, from assessments to hands-on services to maintenance and support services—all designed to address the operational aspects of the solution. Across all three phases, Juniper Education Services help customer teams develop technical competency to manage and maintain their Cloud-Enabled Branch solution.

Cloud-Enabled Branch “Plan” Services

Cloud-Enabled Branch Assessment

The Cloud-Enabled Branch Assessment Service helps your organization examine the existing services delivered by physical branch devices and lays out a plan and roadmap for decoupling these services from physical hardware so that they can move to a virtualized solution.

This service provides the expertise needed to review the existing network, evaluate available options, and provide a recommendation for next steps in preparing for a Cloud-Enabled Branch solution deployment. This also allows the network operations team to develop a solid understanding of how to make network transformation and cost savings an achievable goal with the Juniper Cloud-Based Branch reference architecture.

NFV Orchestration Assessment

The NFV Orchestration Assessment Service helps the IT department understand how to design new services, manage multivendor virtualized network functions (VNFs), orchestrate services, and integrate these new virtualized network services into existing and new network management systems, both in brownfield (with existing systems) and greenfield (new systems) deployments.

This assessment service focuses on the design, management, orchestration, and integration aspects of third-party virtualized network services and applications, while other Juniper Professional Services such as the Cloud-Enabled Branch Assessment Service focus on networking functions. Together, these provide a roadmap and recommendations that can justify the business case, as well as clarify how business objectives can be achieved through the deployment and integration of Juniper NFV Design, the Management and Orchestration (NFV-O) system, and Juniper Networks® Contrail Service Orchestration.

Cloud-Enabled Branch “Build” Services

Cloud-Enabled Branch Planning and Deployment

This service ensures that the desired architecture and design will meet the requirements for each specific branch deployment. Juniper will work with your systems teams to agree on a network design, as well as define and execute a deployment plan that is aligned with your expectations on needs and strategies. This service around network design and deployment ensures a quicker time to market and faster realization of your business goals through the expertise and competence gained by Juniper in similar deployments.

Cloud-Enabled Branch Field Trial Service

Juniper Professional Services can be engaged to launch initial field trials before expanding across the entire organization. For example, the Cloud-Enabled Branch Field Trial Service could deploy a Cloud-Enabled Branch instance consisting of virtualized network services and third-party services and applications, all linked together to perform seamlessly for sites in a specific region. At the conclusion of that field trial, the business will conduct an operational Cloud-Enabled Branch deployment to validate the technology solutions as well as business assumptions within its unique environment. This provides the opportunity to foresee milestones and challenges as the business plans an optimal path to deploy services on a larger scale within the shortest feasible timeframes.

VNF Life-Cycle Services

As more virtualized network functions are evaluated for use in a Juniper Cloud-Enabled Branch solution, customers need confidence that the introduction of new and innovative services will not impact existing infrastructure and will perform as expected. VNF Life-Cycle Services are a suite of capabilities focused on assuring customers that third-party VNFs are compatible with Juniper solutions.

Cloud-Enabled Branch “Operate” Services

Juniper offers extensive support infrastructure and services to protect your networking investment and ensure the operational success of your Juniper Cloud-Enabled Branch solution. To ensure this, Juniper offers both Juniper Care support services and Juniper Optimization services.

Juniper Care

Juniper Care is a family of services and support tools that covers our hardware and software products and includes our Automated Support and Prevention (ASAP) capabilities.

Juniper Care combines traditional 24x7 remote technical support, hardware replacement services, online support, and service automation. More than a simple break-fix service, Juniper Care helps

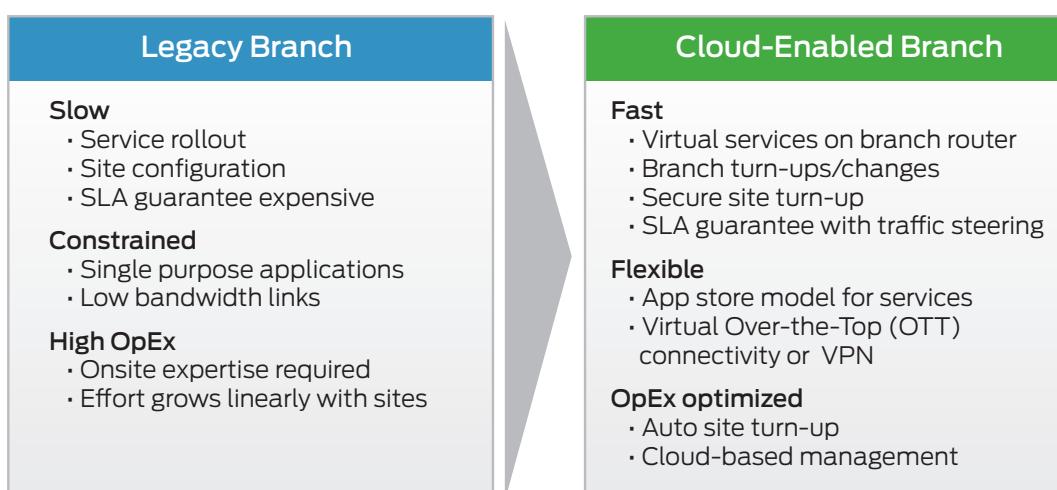


Figure 1: Cloud-Enabled Branch transformation

you meet network demands with technical and operational support designed to keep your network running reliably, while at the same time protecting your high-performance networking investment.

- Scale your operational team to new heights and leverage multilayered security features through Junos® Space Service Now management capabilities
- Increase your operational effectiveness and lower operational expenses by using Service Now (for Juniper Networks Junos operating system-based devices) to reduce the time needed for problem identification, troubleshooting, and communication with Juniper's technical support
- Dramatically simplify operational processes through self-diagnosis and automated incident reporting to significantly reduce mean time to resolution (MTTR), allowing staff to concentrate on higher priority tasks that drive the business
- Increase operational efficiency by automating detailed inventory management
- Improve operational stability with early identification of incidents that are reported in real time, allowing for preemptive diagnosis and repair, and increasing the availability of your network

Juniper Care Software Advantage Support Service

Juniper Care Software Advantage Support Service provides you with ongoing maintenance updates as well as major software upgrade downloads. It also offers unlimited 24/7/365 global access to Juniper Networks Technical Assistance Center (JTAC) experts with extensive experience supporting large-scale networks. JTAC engineers provide remote diagnostic and problem resolution assistance to help you quickly isolate and resolve issues not only at a product level but also solution issues that might arise within the Juniper Cloud-Enabled Branch solution to help increase solution uptime and network performance. This service also provides self-service access to Juniper's award-winning portal for the information, tools, and service options

required to support your network investment, including best-in-class Juniper Networks Knowledge Base, a software bug search tool, online forums, product documentation, software downloads, technical alerts and bulletins, and the online case management application.

Juniper Optimization Services

In addition to product maintenance support services and Professional Services, Juniper Networks offers a set of subscription-based services to help you optimize network operation.

These Operational and Optimization services fall into two categories: Onsite and Remote services. Customers can choose a service based on size, complexity, or needs of their network.

Both Onsite and Remote Services provide access to Juniper engineering resources and two-way communication between engineering and the end-user operations team.

Onsite Service—Resident Engineer

The Resident Engineer is an onsite resource who is skilled in relevant Juniper technologies such as Cloud-Enabled Branch and Network Virtualization. The Resident Engineer can leverage the resources within Juniper to access skillsets and expertise that enable faster solutions and best practices.

The Resident Engineer can perform the following actions:

- Develop operating procedures for the new virtualized paradigm
- Analyze network configurations and network performance
- Assist in inventory tracking and management to support network and issue resolution more quickly
- Create test plans and execute them, giving regular updates and generally speeding up operations, implementation, and issue resolution

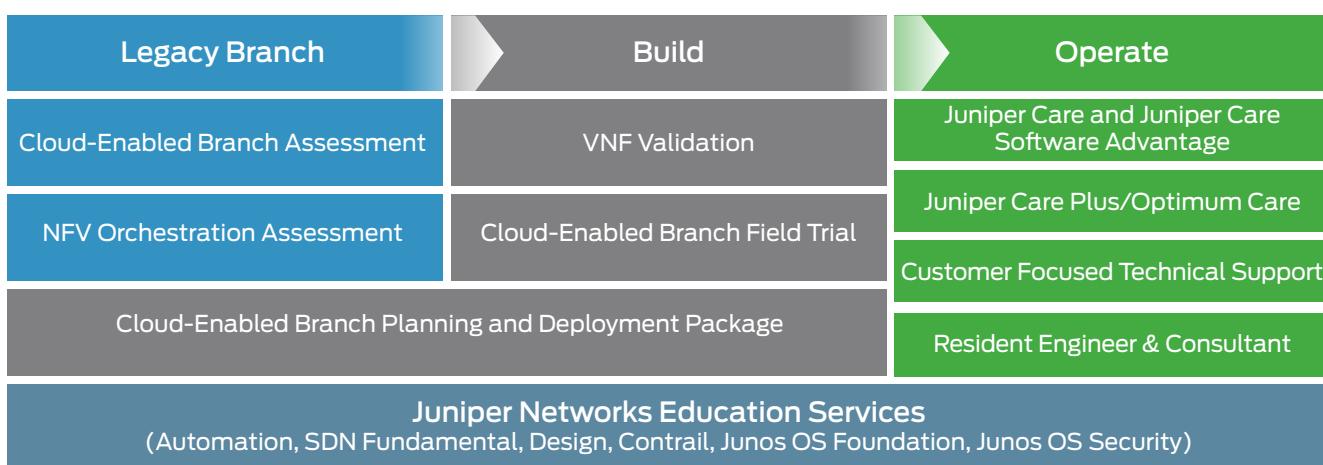


Figure 2: Juniper end-to-end service offerings

- Provide informal technical and product workshops
- Monitor for changes happening in the open-source components of the solution to assess interoperability impact

The extensive knowledge of Juniper's technologies and cloud-enabled solutions, combined with unparalleled access to Juniper's internal resources, makes the Resident Engineer a key resource for optimizing operations and fully adopting the capabilities of your Cloud-Enabled Branch solution to reduce OpEx and maximize investments.

It is highly recommended that every deployment include a Resident Engineer.

Remote Services—Juniper Care Plus and Juniper Optimum Care

These two service bundles are highly relevant when introducing a complex solution like Cloud-Enabled Branch and are focused on the Operate phase of the network management life cycle.

Juniper Care Plus is a bundle of services consisting of:

- **A Service Manager:** The service manager is a named person who becomes your point of contact for all service-related activities. The service manager manages the delivery of all services, facilitates efficient resolution of your service issues, knows your network, and is your champion inside Juniper. This service is highly valued by our customers, especially when rolling out new devices or technologies such as Cloud-Enabled Branch.
- **Expert-to-Expert access:** This service allows your IT staff to bypass Tier 1 JTAC and go directly to Advanced JTAC, thus accelerating the time to problem resolution. This is

possible because customers who subscribe to Juniper Care Plus (and Juniper Optimum Care) quickly reduce training requirements related to misconfiguration issues and "How do I..." questions because of the large number of training courses and proactive services available in the Juniper Care Plus program.

- **Education/Training credits:** Education and training credits provide you with access to knowledge transfer activities such as webcasts and a fixed number of Juniper training credits (JTCs) that can be used to gain access to any private or publicly available open enrollment, instructor-led (in person or online), and e-learning courses at Juniper Networks Education Centers or any participating Juniper Networks Authorized Education Center (JNAEC) worldwide.
- **Advanced Service credits:** Advanced Services Credits provide you with a fixed number of consulting credits from Juniper Networks expert consultants. You may choose to apply your credits to a menu of prescriptive services comprised of:
 - Configuration Analysis and Change Review
 - Design Change Review
 - Feature Rollout Plan Review
 - Network Change Plan Review
 - Implementation Support
 - Product Issue Impact Review
 - Software Upgrade Recommendation and Review
 - Product Health Check

All of the above services are important when running a complex solution such as a Cloud-Enabled Branch.

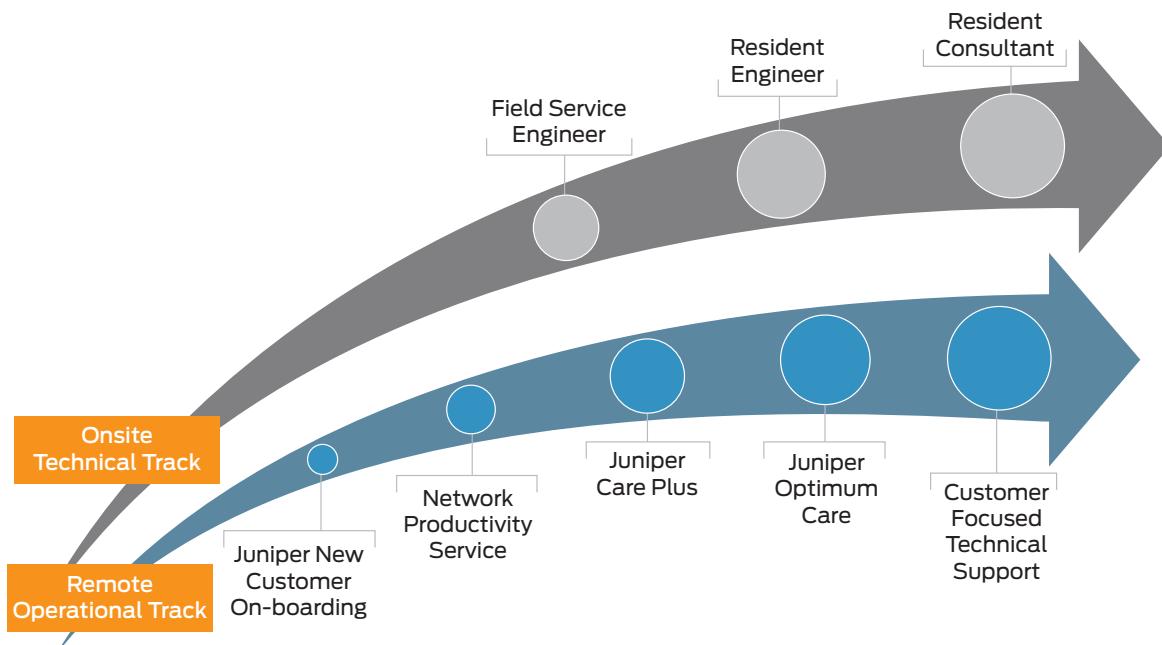


Figure 3: Onsite and Remote Services

Juniper Optimum Care is similar but focused on optimizing the day-to-day operation of your Cloud-Enabled Branch solution, with a regularly scheduled set of services selected for their usefulness in optimizing software versions and configurations.

Juniper Customer-Focused Technical Support Service

To enhance your support experience, Juniper Customer-Focused Technical Support Service provides high-touch network solution support for high-priority issues. This service can be customized to meet your specific network needs, and it gives you access to a designated team of senior engineers with in-depth knowledge of your networks and extensive experience supporting large-scale networks to help solve your issues quickly, efficiently, and thoroughly.

Cloud-Enabled Branch Educational Services

Juniper Education Services offer networking professionals the technical and solutions training, certification, and learning services they need to plan, build, and operate high-performance networks and derive the most value from their Juniper Networks investments.

Network design professionals looking to design Cloud-Enabled Branch solutions into their environment will benefit from the Juniper Networks Design curriculum, with a focus on the Juniper Networks Design – WAN (JND-WAN) course. This course is designed to cover best practices, theory, and design principles for wide area network (WAN) design including WAN interconnects, security considerations, virtualization, and management/operations. This course covers both service provider and enterprise WAN design and is a recommended preparation for the Juniper Networks Certified Design Specialist – WAN (JNCDS-WAN) certification.

Network engineers looking to implement Juniper's Cloud-Enabled Branch solution will benefit from the Enterprise Routing and Switching curriculum, which teaches the use of Junos OS in enterprise environments. From there, engineers can learn

automation, SDN, NFV, scripting, and related skills by taking courses from the Junos Automation curriculum, including the Junos SDN Fundamentals (JSDNF), Network Automation using Contrail Cloud (NACC), and Junos Platform Automation (JAUT) courses.

All training can be taken in the classroom, live online, or as part of a larger Prescriptive Training engagement where Juniper Education can develop a training plan to meet your exact needs.

Juniper Partner Advantage (JPA) Services

Juniper Partner Advantage (JPA) Services is a Juniper approved and supported program that authorizes eligible partners for two specializations:

1. The Partner Support Services Specialization
2. The Partner Professional Services Specialization

The JPA Service Partner role spans the Cloud-Enabled Branch solution life cycle, from co-developing to deploying to operating.

To ensure a successful Cloud-Enabled Branch rollout, key Juniper partners have been trained to assist you with planning, building, and operating your Cloud-Enabled Branch solution.

For further information, contact your Juniper representative or JPA-Services@Juniper.net to learn more about how JPA-Services Partners can benefit your organization.

Summary—Let Juniper Help You Optimize Your Cloud-Enabled Branch

Deploying a virtualized solution like Cloud-Enabled Branch involves more than just deploying a new piece of hardware or a new network service. Because there are so many “moving parts,” having the solution vendor help in the Plan, Build, and Operate phases of your transition can help you achieve profitability much faster and with fewer problems. Juniper has the expertise to deliver the services, training, and support capabilities that satisfy all essential steps in this process, resulting in a business-enhancing Cloud-Enabled Branch.

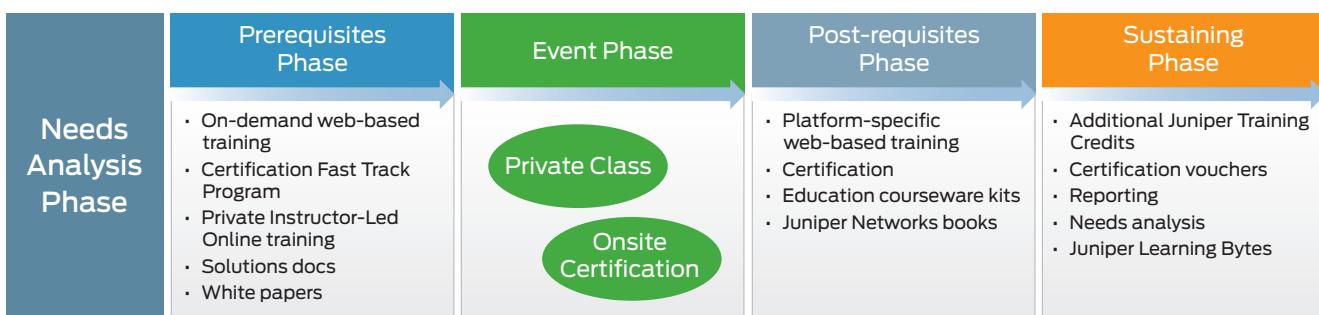


Figure 4: Example Prescriptive Training plan

About Juniper Networks

Juniper Networks challenges the status quo with products, solutions and services that transform the economics of networking. Our team co-innovates with customers and partners to deliver automated, scalable and secure networks with agility, performance and value. Additional information can be found at [Juniper Networks](#) or connect with Juniper on [Twitter](#) and [Facebook](#).

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