

# NFV OSS Assessment

## Service Overview

One of the challenges that communications service providers (CSPs) face today with the move to NFV is integrating these solutions into existing or new OSS/BSS infrastructure in order to take advantage of the business and operational benefits of NFV.

Juniper is a leading vendor of both virtualized network functions (VNFs) and physical network functions (PNFs). Juniper Professional Services consultants are experts at integrating these devices into OSS/BSS, and they understand the challenges of carrier-grade deployment, scaling, and integration.

The NFV OSS Assessment service provides guidance, recommendations, and a roadmap for successful NFV Orchestration, Management and Control within your OSS/BSS environment.

## Service Description

As communications service providers (CSPs) see the potential benefits of Network Functions Virtualization (NFV) through analysis, proof-of-concept testing, trials, and even production deployments, the challenge of how to *design, orchestrate, and manage* services delivered by VNFs, as well as how they can be *integrated* into existing or new operations and business support systems (OSS/BSS), requires expertise, analysis, and a clear roadmap—which a Juniper Networks® Professional Services NFV OSS Assessment will provide.

The Juniper NFV Solution Architecture includes Centralized and Distributed Cloud CPE solutions. This includes Contrail Service Orchestration (for service orchestration), Contrail Cloud Platform, and physical network function manager (PNFM), and virtual network function managers (VNFMs). The NFV OSS Assessment service enables CSPs to understand how to design new services, manage multivendor VNFs, orchestrate services, and integrate these new NFV components using the industry standard (ETSI) NFV model into existing and new OSS/BSS systems, both in brownfield deployments (with existing OSS/BSS) as well as in greenfield deployments.

This NFV OSS Assessment service focuses on the OSS/BSS design, management, orchestration, and integration aspects of NFV, while other Juniper Professional Services offerings such as the virtual CPE (vCPE) Assessment service focus on networking functions. Together, these provide a roadmap and recommendations that can help justify the business case, and clarify how business objectives can be achieved through the deployment and integration of the Contrail Service Orchestration platform with OSS / BSS.

## Features and Benefits

Focus	Benefits/Outcomes
<b>Service Design</b>  Understand how existing and new services can be designed in Contrail Service Orchestration, how these relate to existing technical services definitions, and how Contrail Service Orchestration can be used by service designers and operations in conjunction with existing OSS and operational processes	<ul style="list-style-type: none"> <li>Identify new Contrail Service Orchestration-enabled service design operational processes, and how they might interoperate with existing operational processes</li> <li>Clarify how new virtualized services can be designed in line with existing services, or to replace existing services</li> </ul>
<b>Management</b>  Understand how VNFs from Juniper or from third-party vendors can be onboarded, managed, and integrated by Contrail Service Orchestration Understand how virtual overlay services relate to, and interact with physical underlay networking	<ul style="list-style-type: none"> <li>See how multivendor VNFs essential to a successful open NFV solution can be enabled</li> <li>Clarify how virtual service provisioning relates to physical underlay networking</li> </ul>
<b>Service Orchestration</b>  Understand how existing (physical device-based) services can interoperate with virtual infrastructure service elements and how Contrail Service Orchestration can be deployed alongside, migrated from, or fully replace existing service orchestration systems	<ul style="list-style-type: none"> <li>Understand Contrail Service Orchestration deployment strategy</li> <li>Clarify service and operational process impacts</li> </ul>
<b>OSS/BSS Systems Integration</b>  Understand how Juniper's Contrail Service Orchestration approach and solution can be integrated with existing and new OSS/BSS systems	<ul style="list-style-type: none"> <li>Clarify how Contrail Service Orchestration APIs can easily integrate with OSS/BSS, how adaptations can be made in order to minimize change to existing OSS/BSS, and how the cost of OSS/BSS integration can be minimized</li> <li>Clarify how the greatest benefits of NFV such as time-to-market, cost reduction, and new service revenues can be achieved through different OSS/BSS processes and functionality</li> </ul>

## Assessment Methodology

The Assessment Methodology follows a 4-phase approach (Requirements, Baseline Analysis, Gap Analysis, Recommendations and Impact). It is tightly integrated with the Juniper Project Management Methodology, which addresses both the project management and risk mitigation aspects of helping you define and plan your roadmap.

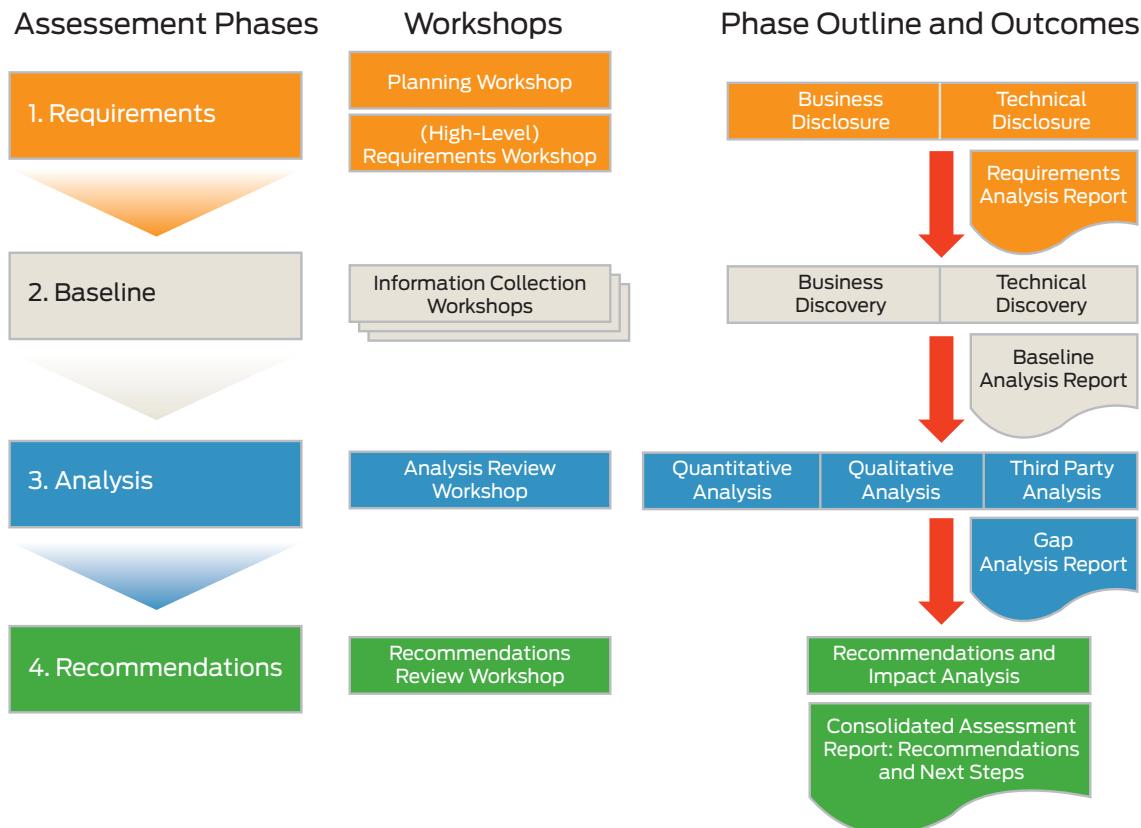


Figure 1: Assessment Methodology—phases, workshops, and outcomes

## Benefits

The primary benefit of the NFV OSS Assessment is to provide guidance, recommendations, and a roadmap for potential Contrail Service Orchestration deployments within your OSS/BSS environment. The analysis also highlights the gaps and dependencies of integrating an NFV solution. This should enable you to foresee milestones, understand the challenges, and plan an optimal path to deploy NFV-based services within the shortest feasible timeframe.

This service also enables you to have a framework that you can analyze and use on your own, with a partner, or with Juniper. Juniper Professional Services can leverage the findings in the NFV OSS Assessment to provide a more relevant and accurate project scope, and to help you move towards your business transformation goals.

## Additional Services

Juniper Networks provides additional professional services to consider along with the NFV OSS Assessment service. In addition to engagements that are customized for individual customers, a broad range of consulting and implementation services are available to help you enhance your network solutions.

- **Contrail Service Orchestration Design Services:** Provides a design (e.g. HLD, LLD) for Contrail Service Orchestration and OSS integration
- **Contrail Service Orchestration Deployment Services:** Deploys configured and customized Contrail Service Orchestration solutions into development, integration labs, and into production
- **Contrail Service Orchestration Integration Services:** Designs, implements, and integrates Contrail Service Orchestration into OSS/BSS
- **Contrail Service Orchestration Adoption Services:** Ensures best-practice adoption of Contrail Service Orchestration and transition into initial operational use; ensures that operations teams make the most of Contrail Service Orchestration

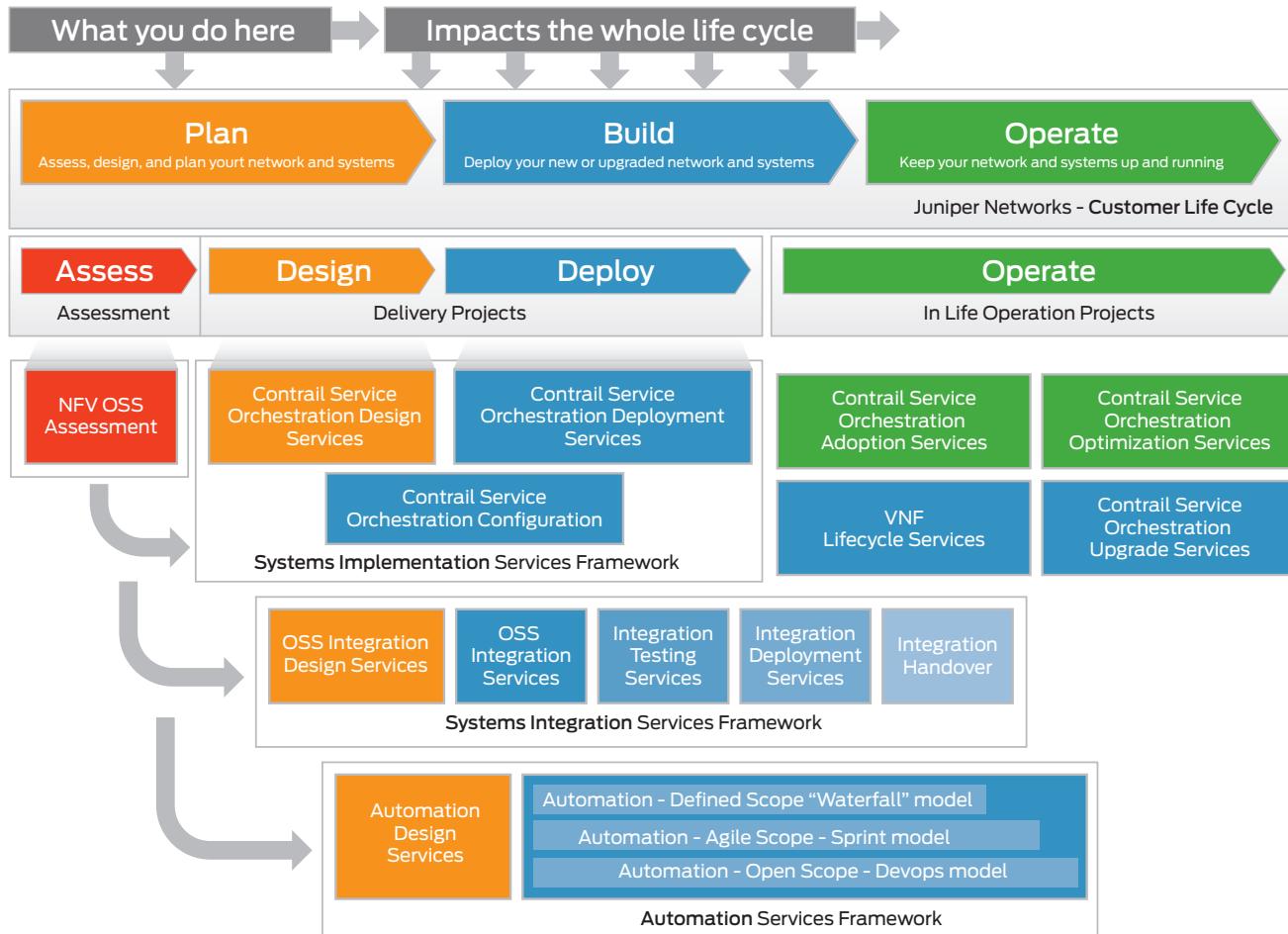


Figure 2: Importance of an NFV OSS Assessment to other services in the project life cycle

- Contrail Service Orchestration Optimization Services: Audits, assesses, and makes operational process optimization recommendations
- VNF Life Cycle Services: Validates, integrates, and onboards new VNFs into Contrail Service Orchestration.
- Contrail Service Orchestration Upgrade Services: Upgrades Contrail Service Orchestration and ensures that new functions can be introduced.
- Automation Services: Automates network life cycle operational processes such as physical or virtual network device configuration, audit, troubleshooting, customer specific fault/performance analysis, and reporting

## 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 customers 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](http://www.juniper.net/us/en/products-services).

## Ordering Information

Juniper Networks Professional Services capabilities are available worldwide as part of a broad range of engagements. Descriptions of customized engagements and examples of predefined engagements can be found at: [www.juniper.net/us/en/products-services/services/technical-services](http://www.juniper.net/us/en/products-services/services/technical-services).

Please contact your Juniper Networks account manager for additional information and to find out how Juniper Networks 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](http://www.juniper.net).

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