CORE NETWORK MODERNIZATION ASSESSMENT

Service Description

Through Juniper’s Core Network Modernization Assessment service, you receive access to Juniper Networks Professional Services experts, who can help you develop a modeling framework to quantify the value proposition of your different network evolution scenarios. These can then be integrated with business modeling to analyze and compare cost-effectiveness by quantifying their associated capital expenditures (CapEx), operational expenses (OpEx), and any potential new sources of revenue generation associated with the various scenarios. A total cost of ownership (TCO) comparison as part of the service deliverable can then be constructed that enables the network operator to select the most optimized and cost-effective approach to evolve the network as dictated by business imperatives.

The scenarios addressed in the modeling framework are as follows:

- **Present Mode of Operation (PMO)**—This scenario extrapolates the mode of growth on current operational architecture and platforms as driven by service and traffic demands.
- **Future Mode of Operation (FMO)**—These are evolution scenarios where the network growth is facilitated by new architecture and platform options driven by traffic and service demands.

These network evolution scenarios are first defined, and then followed by the introduction of network modeling and design conducted for these scenarios. The Core Network Modernization Assessment is offered in the following phases:

- **Requirement gathering and design options identification.**
  - Capture and define network architecture currently in production
  - Capture and define services and traffic forecasts, inbound/outbound routing distribution, and migration control parameters as inputs to the network design
  - Understand fast convergence techniques used in the current network architecture and its impact on services and traffic flows under normal and failover modes
- **Definition of up to three FMO scenarios under evaluation.** The assumption here is that various FMO options exist with sufficient details to facilitate a clear analysis and create a trend analysis.
- **Capture and define network architecture options employed in the various evolution scenarios**
- **Build the network model that simulates the traffic growth for the network and recommend changes to the architecture as outlined in the FMO scenarios to accommodate the projected growth, identify scaling issues, and identify potential areas of failure.** From this model, you can capture network transport costs that outline equipment and CapEx overhead for the entire network extrapolated for each year in the evolutionary period to derive a yearly.
cumulative list of equipment and CapEx needed, and a list
of network links between various types of network nodes
that are required to carry the network traffic.

The service is limited to not more than three traffic growth
scenarios (any more than three will be custom quoted). Typically,
two workshops are held at your site or via phone, and a final
presentation of the results is then provided.

Features and Benefits

Key deliverables of the Core Network Modernization
Assessment service are:

- Provide a clear report modeling the network that includes
current and up to three future modes of operations
- Give you the ability to clearly understand the required
network and device capacity that will enable you to
achieve the expected FMO
- Provide an insight into techniques and architectural
changes that your network may employ as part of the FMO
in the network evolution
- Help you design and devise a clear strategy in employing
appropriate techniques to aid in traffic engineering (both
tactical and strategic) in your network

This service is designed to provide you with a clear insight into
evolving the network as well as guidance into important aspects
of choosing the right platform, architecture, traffic engineering,
and trend analysis.

Juniper Networks Professional Services

As leaders in networks and security, our Professional Services
Consultants and engineers are uniquely qualified to assist service
providers in designing, implementing, and optimizing network
solutions. Our team appreciates the complexities and the
subtleties inherent in large-scale internetwork design and can
assist, or provide customized and integrated “turn-key” solutions.

Our process is to apply appropriate efforts and resources to
analyze the network from an end-to-end perspective. This
allows the Juniper consultants to review the existing network
and give advice about solutions or specific fixes to deploy. Once
the assessment is complete, our Professional Services team can
deliver and implement recommended solutions.

Juniper Networks Professional Services helps accelerate your
network’s time to value, bringing revenue generating capabilities
online faster for bigger productivity gains, faster rollouts of new
business models and ventures, greater market reach, and higher
levels of customer satisfaction. Your onsite staff will work closely
with Juniper specialists, building operational capabilities and
reducing your exposure to IT risks. As a result of our previous
experience involving hundreds of networks around the world,
Juniper Networks Professional Services is uniquely qualified to
help customers design, implement, and optimize their networks
for confident operation and rapid returns on infrastructure
investments. These professionals understand today’s Internet
demands and those that are just around the corner—for
bandwidth efficiency, best-in-class security, solid reliability, and
cost-effective scaling.

The use of Juniper’s consultants also avoids the requirement
for you to have the necessary technical and evaluation skills in-
house. The evaluation can be completed faster as you are not
forced to wait until internal resources become available, nor do
you have to address the issue of conflicting project priorities.

Juniper Networks Services 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

To order the Core Network Modernization Assessment Service,
or for additional information, please contact your Juniper sales
representative. Before the service begins, a statement of work
(SOW) will be created outlining the scope of the project.
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.