OPNET’s SP Guru® Network Planner and IT Guru® Network Planner enable planning and design of multi-technology, multi-vendor networks. Network Planner’s unique ability to model the behavior of the entire network and the supported applications:

- Delivers precise predictions in what-if scenarios to accurately plan for growth, change, technology migration, and new application deployment.
- Supports planning key initiatives such as data center migration, deployment of Unified Communications, VPN, and IPv6 migration.
- Automates capacity planning, survivability analysis, and traffic engineering.
- Provides a platform for validating network changes before deploying to the production network.

Carriers, ISPs, cable operators, wireless service providers, and enterprises obtain significant ROI from Network Planner’s ability to advance service and technology deployments, meet service level agreements, and maximize existing network investments.
Solution Overview

**Forecast capacity usage over a multi-period planning horizon.**

**Analyze network performance over a defined set of failure scenarios.**

**Key Features**
- Automatically create a high-fidelity network model encompassing topology, devices, configurations, and traffic using configuration and operational data from the production environment; other network management systems; and XML or CSV files.
- Analyze network capacity usage to identify trends, threshold violations, inefficiencies, atypical behavior, and the timing of future upgrades.
- Plan for growth by forecasting traffic based on trends and right-sizing links and tunnels to meet service level objectives.
- Leverage best-in-class analytics to evaluate a wide range of “what-if” scenarios in a virtual environment without affecting the production network (e.g., changes to network routing, VPN or QoS configuration).
- Perform pre-deployment analysis to accelerate deployment of new applications and technologies (e.g., VoIP, IPv6).
- Improve network survivability by predicting the impact of node, link, or shared risk group failures and planning protection strategies.
- Automatically design network topologies based on user-configurable priorities for cost, resiliency, and performance-related criteria (e.g., optimize OSPF link metrics to minimize link utilization and reduce delay).

**For Service Providers**

OPNET’s SP Guru Network Planner provides the following additional capabilities for service providers:
- Perform automated off-line MPLS traffic engineering using exclusive OPNET algorithms that optimize resource utilization and increase service survivability. Plan and analyze network survivability based on MPLS Fast-Reroute (FRR) protection and network QoS based on Diff-Serv Aware Traffic Engineering (DS-TE).
- Plan for MPLS-based L2 VPNs, BGP/MPLS-based L3 VPNs, and VPLS/VPWS carrier Ethernet services.
- Optimize peering relationships and determine the impact of core failures, peering failures, peering changes, and BGP policies on inter-AS traffic.
- Design and analyze IS-IS networks. Optimize IS-IS link metrics to minimize link utilization and reduce delay using automated IGP traffic engineering design actions.
- Design multi-layer IP/MPLS over SONET/SDH, OTN, and (D)WDM networks. Analyze the impact of optical layer failures (e.g., cable cuts or line system failures) on IP/MPLS services.

**Benefits**
- Cost-effectively plan network requirements to support the deployment of new applications and technologies such as VoIP and IPv6.
- Right-size network capacity to support projected traffic growth.
- Minimize risk by evaluating different network architectures and technology migration plans.
- Achieve service level compliance through QoS and traffic engineering.
- Improve network survivability and security.
- Accelerate troubleshooting of routing and network configuration problems.

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- Design multi-layer IP/MPLS over SONET/SDH, OTN, and (D)WDM networks. Analyze the impact of optical layer failures (e.g., cable cuts or line system failures) on IP/MPLS services.
Delivers precise predictions in what-if scenarios to accurately plan for growth, change, and change. Provides a platform for validating network changes before deploying to the production environment.

Automates capacity planning, survivability analysis, and traffic engineering.

Supports planning key initiatives such as data center migration, deployment of Unified Communication, and new application deployment.

NetMapper
Automated Network Documentation
NetMapper accelerates network diagramming, auditing, and troubleshooting by automatically generating up-to-date infrastructure diagrams. Diagrams include detailed logical and physical device configuration information and logical views of the network, including Layer 2/3, OSPF, EIGRP, HSRP/VRRP, BGP, VLANs, Spanning Tree, VPLS, and device virtualization.

Sentinel
Network Audit, Security, and Policy Compliance
Sentinel is a software appliance for ensuring network integrity, security, and policy compliance. It performs automated network-wide configuration audits, analyzing an up-to-date model of your network to diagnose device mis-configurations, policy-violations, configuration inefficiencies, and security violations. Sentinel enables organizations to reduce network outages, ensure network security, verify regulatory and policy compliance, and enhance staff productivity.

AppResponse Xpert
End User Experience, Network Monitoring and Analytics
AppResponse Xpert passively monitors and analyzes end-user experience for all types of enterprise applications. Onboard analytics provide application recognition, user identification, root-cause diagnosis, and powerful business intelligence. AppResponse Xpert simultaneously provides deep monitoring of the network and high-volume forensic storage. Optional modules include the Module for Database Performance Monitoring, the Unified Communications Monitoring Module, and NetFlow.

About OPNET Technologies
OPNET Technologies, Inc. is a leading provider of application and network performance management solutions. OPNET’s solutions deliver broad visibility and monitoring across infrastructure domains as well as deep data collection and analytics to enable powerful root cause diagnosis. These solutions have been operationally proven in thousands of customer environments worldwide.

SP Guru Transport Planner
Transport Network Planning and Engineering
SP Guru Transport Planner designs resilient, cost-effective DWDM and SONET/SDH/OTN networks. SP Guru Transport Planner integrates with SP Guru Network Planner for IP/MPLS-over-optical network planning, providing unique multi-layer traffic engineering capabilities to optimize network capacity and reliability.

Testimonials
“IT Guru Network Planner avoided the downturn of our critical applications by designing the network with resiliency to outages.”
Senior Network Architect
Financial Services Company

“We have finally become proactive in dealing with network capacity and performance issues, since we started using Network Planner.”
IT Manager
Pharmaceutical Company

“The use of OPNET across our radio, core and IP networks gives us the ability to model all facets of end-to-end customer experience with a single tool. Optimizing customer experience is the priority for the business, and the use of a single tool minimizes the investment in time and money required to achieve this.”
Forecasting and Capacity Planning Manager
Global Service Provider

“Multi-layer network optimization is important to reduce transport cost, increase network reliability, perform network dimensioning, and generate shared risk groups. These are traditionally hard problems to solve, but using OPNET’s integrated SP Guru Network Planner/SP Guru Transport Planner product makes multi-layer optimization possible. I have been using OPNET’s products for many years and SP Guru is the best product out there.”
Principal Network Architect
North American MSO

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