

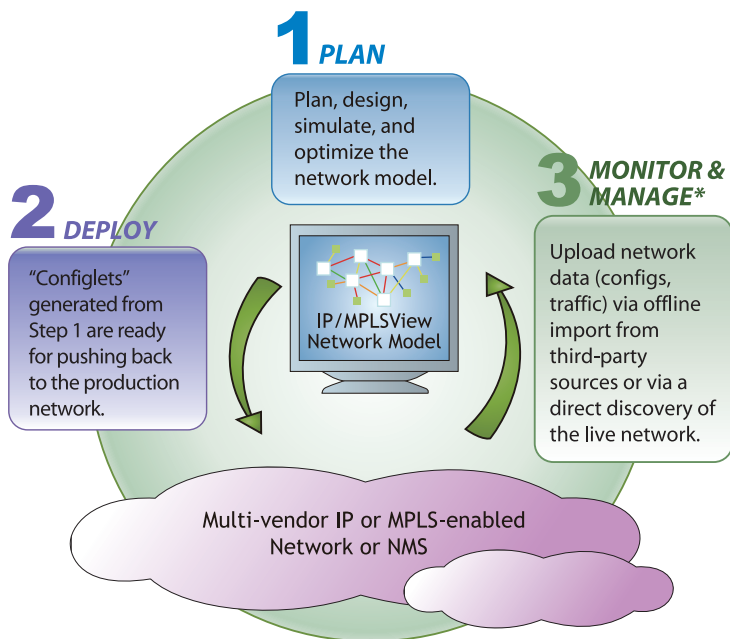
# IP/MPLSView 5.5

## Design & Planning Suite >>>



**IP/MPLSView Design & Planning Suite** is WANDL's solution for network planners, designers, and engineers. By continually refining our design and optimization algorithms over the past thirteen years based on industry best practices and customer interactions, we have created a highly intelligent and automated system. This system addresses the major areas of Network Planning including: Traffic and Routing Analysis, Capacity Planning, Resiliency Analysis/Disaster Planning, Path Design, and Optimization. An intuitive interface allows users of varying levels to effectively utilize the system without the complexities of having to program or develop the model first.

### IP/MPLSView: One Integrated Solution Covers the Complete Network Cycle



### The IP/MPLSView Advantage

- **One Single Platform** uniquely supports the entire network life cycle from integrated offline planning to online FCAPS management.\*
- **Multi-Vendor, Multi-Layer, Multi-Protocol platform.**
- **Excellent Visibility into the Network.** View the Multi-Protocol Topology via state-of-the-art network graphics to get an instant view of physical and logical relationships, link utilization, path analyses, and so on.
- **Extensive Reports** assist in identifying and troubleshooting connectivity problems. View Routing, Utilization, Protocol-Specific and other Reports from the client interface or from the convenience of the Web.
- **Accuracy of Modeling.** WANDL is distinguished for its precision modeling and routing simulation.
- **High Scalability and Performance.** IP/MPLSView handles large networks with ease. The superior speed of its design and routing engine enables many more iterations of scenario analyses and designs.

### Multiple Vendor Support

Alcatel-Lucent, Cisco, Foundry, Huawei, Juniper, Nortel, Tellabs, etc.

### Multiple Protocols

IGP: OSPF, IS-IS, IGRP, EIGRP, RIP  
Static Routes, Policy-Based Routing  
BGP, LDP/TDP, RSVP-TE, VoIP (SIP, H.323)  
Multicast: PIM-SM, -DM, -SDM, -SSM  
CoS, IPv4 and IPv6

\*See the "IP/MPLSView - Management and Monitoring Suite" brochure for additional information on IP/MPLSView's management and operational capabilities.



## Validate Changes Prior to Deployment

Validate day-to-day network changes or model and simulate network migration, network expansion, or the merging of multiple networks. IP/MPLSView allows the network planner to analyze the impact of these changes in a safe, virtual environment. Experiment with changing parameters, protocols, topology, and so on.

## Design and Simulate *MPLS-TE*, LSP Routing

Design and simulate LSP tunnels via intelligent MPLS LSP Path Calculation. Perform Network Outage Simulation across both MPLS and IP layers. Automate **Fast Reroute (FRR)** backup tunnel design and simulation. Automate the design of diverse paths for primary and backup protection tunnels. Optimize LSP Paths that have become suboptimal over time.

## Create and Model *VPNs*

Model a wide variety of VPNs and perform VPN routing simulation. Use the system to generate VPN traffic and then perform card failure simulation to see if a VPN will be brought down by a single card failure. Run VPN-specific integrity checks on the configuration files.

**Supported VPN Types**  
L3VPN (RFC4364/2547),  
L2Martini, L2Kompella,  
VPLS-LDP, VPLS-BGP, TLS,  
and CCC.

## Model the *VLAN Network*

Use the VLAN Wizard to construct or modify VLANs with ease. View topology, status, and details for each VLAN, spanning tree, and device.

## Model and Analyze *BGP*

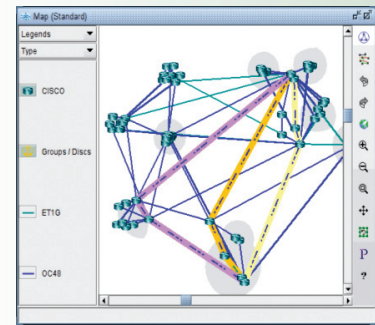
Study BGP routing. Perform detailed BGP Routing Analysis and What-If studies involving BGP policy changes or the addition of new BGP peers. Perform detailed BGP Neighbor Analysis.

## Analyze *CoS* to Ensure *SLAs* are Met

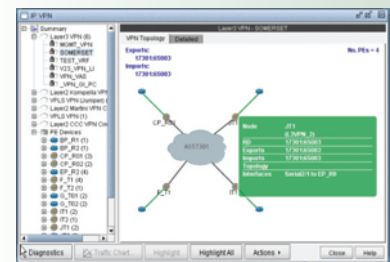
Model Class of Service (CoS) classes and policies, and different queuing schemes. Define application flows based on CoS. This enables the modeling of Voice over IP (VoIP) or Video on Demand (VoD). Analyze packet-loss and delay statistics per class of service.

## Simulate *Multicast*

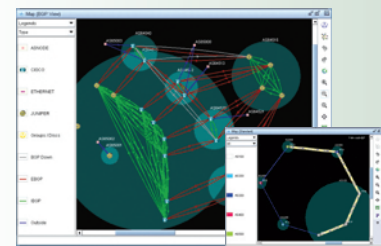
Simulate multicast flows based on user-defined multicast groups and demands. Simulate the effect of RP selection on the distribution tree and on link utilization. Simulate SPT switchover.



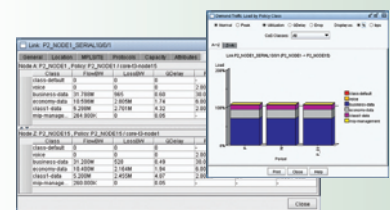
*LSP Diverse Path Calculation and Routing*



*VPN Wizard for Creating and Editing VPNs*



*BGP Views, BGP Routing*



*Bandwidth Usage, Queuing Delay, Drop charts per traffic class on a link*

## Finished my MPLS Design. Now what?

Once you are satisfied with your MPLS Traffic Engineering design and have validated your changes by running routing, traffic, and failure simulations, the IP/MPLSView **Service Creation and Provisioning Suite** can be used to deploy the changes to the actual network. The respective LSP configlets (configuration file statements) from the planning session can be automatically generated and issued for service activation. For more information about the other suites available in the IP/MPLSView product family, visit our website!

## Value Propositions

- **Reduce Network Costs.** Effective designs can result in lower hardware and maintenance costs. IP/MPLSView features tariff-based design, MPLS LSP traffic engineering for effective utilization of the network, and superior design optimization.
- **Promote Productivity and Operational Efficiency** through the automation of many tasks including automatic report and topology map generation, as well as LSP path generation. With state-of-the-art IP/MPLSView design engine and heuristics, tasks such as accommodating traffic growth and optimizing the backbone topology are also practically automated.
- **Guard Against Unnecessary Risk** by assessing the network using IP/MPLSView's intelligent Integrity Checking, Resiliency Analysis, Fiber Cut Analysis, etc.
- **Diagnose Performance Problems** using IP/MPLSView's flow analysis, bottleneck detection and analysis, peak utilization analysis, discrete event simulation, multicast simulation, etc.
- **Validate Changes Prior to Deployment** to accommodate new services, new equipment, and new technologies.
- **Plan for Future Growth** using IP/MPLSView's superior capacity planning and data forecasting to fulfill new business plans.

WANDL, Inc. (Wide Area Network Design Laboratory), founded in 1986, is the industry leader in network planning and management solutions. Through its software suite, WANDL has been instrumental in helping business and government organizations worldwide in their quest for network operational efficiency and cost savings. Today, WANDL continues to work closely with leading hardware vendors, Internet Service Providers and carriers worldwide to ensure accurate software solutions that meet the industry's most current needs.

WANDL also offers a full range of training packages and materials from basic training to advanced training with customer network scenario studies to ensure our customers become proficient in using WANDL's software systems for their day-to-day network management tasks and strategic long-term planning. To learn more, visit our website!

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## Recommended System Configuration

### Server

- Sun workstation\*
- Solaris 10 or higher
- 4 GB RAM or more
- 6 GB server disk space

### Client (Sun workstation)

- Solaris 10 or higher
- 1 GB RAM or more
- 600 MB disk space

### Client (PC)

- Windows 2000/NT/XP/Vista
- Linux (supporting Sun VM)
- 1 GB RAM or more

\*Solaris x86/x64 is recommended.

## Contact Information

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