

Network and Service Management

SMART COMPONENTS FOR NEXT-GENERATION OSS

Cost-effectiveness and real-time management in network and service operations are becoming crucial to communications companies striving to rapidly offer new, reliable next-generation services.

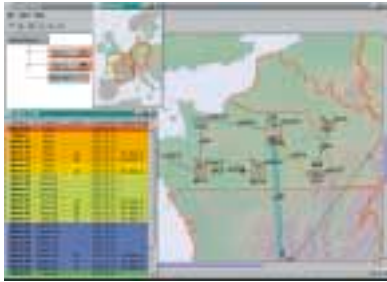
For **network infrastructure**, communications companies need management systems for monitoring equipment and connections in real time. These systems must provide a unified view of a network, so the interaction among equipment and the effects of their events can be seen immediately at any level of detail. ILOG's visualization and business rule products provide the industry graphic objects and unmatched alarm filtering and correlation needed to closely supervise a network around the clock.

For **managing their services**, communications providers need systems for provisioning according to guaranteed service levels and monitoring the levels from the customer's perspective, by comparing network operations data to service levels. ILOG software components ensure higher customer satisfaction by expediting service activation and problem resolution.

- INFRASTRUCTURE SUPERVISION
- SERVICE LEVEL MANAGEMENT
- SERVICE PROVISIONING



Network and Service Management



Infrastructure Supervision

Beyond the network equipment itself, network equipment providers have to include the right software to make their equipment easy to use. As more hybrid technologies emerge, user interfaces increasingly play a key role in simplifying the monitoring of complex infrastructures. Performance, standardization and intuitiveness are required even more in a multi-technology environment. Element and network managers can also benefit from technologies for filtering and correlating alarms to speed up and automate network problem detection.

Similarly, independent software vendors and software integrators need to improve their supervision systems to swiftly tackle new multi-vendor and multi-technology environments. Front-end systems increasingly need performance when networks grow and systems switch to the Web. Back-end systems need fast, intelligent alarm processing to help end-users deal with enormous amounts of data.

ILOG supplies the answers:

- ILOG visualization components offer ready-to-use graphic objects in Java and C++ for presenting real-time and historical events among equipment and networks, using advanced layout and intuitive navigation capabilities.
- ILOG Rules and ILOG JRules allow operators to capitalize on network behavior and save precious time in detecting network faults. The ILOG business rule products remove the burden imposed by meaningless alarm flow from infrastructure elements, and correlate alarm data to identify and locate a network fault.

NORTEL NETWORKS

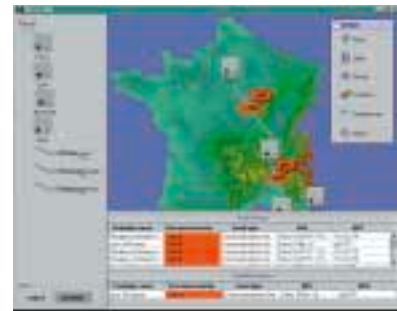
Nortel Networks chose ILOG products to rapidly develop and enhance key components in Preside™, a suite of end-to-end service-enabling solutions for next-generation service providers. ILOG Rules is the cornerstone of Preside Problem Advisor™, an alarm correlation module for multi-vendor and multi-technology domains across all the Preside-managed network elements.

ILOG visualization products are used in the new pure-Java user interface of the Preside platform, which serves as the base for such technologies as optical networks or wireless Internet.



Service Level Management

Beyond traditional network-oriented management tools, communications service providers increasingly want to have tools that allow them to manage in real time end-to-end services used by their subscribers. The ultimate goal is to differentiate themselves from their competitors by offering service level agreements (SLAs) that improve customer satisfaction while keeping network operational costs down. ILOG can accelerate the software development of any solution provider, with components for integrated service level visualization, business rule components for flexible SLA management and task automation, and optimization components for improving network operations.



ILOG supplies the answers:

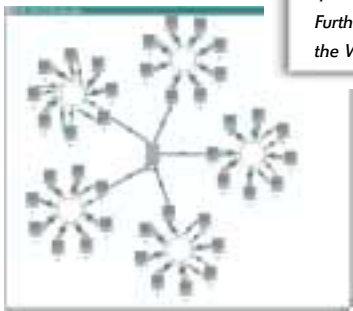
- ILOG visualization components show service quality levels from a general perspective to individual customers, using different forms of representation, including charts, maps and tables.



- ILOG Rules and ILOG JRules do real-time correlation of infrastructure level information, including network alarms and performance data, to provide the service level status of network operations. They are also used to automate proactive activities for maintaining service levels or service level agreements (SLAs).
- ILOG optimization components help optimize and trigger such operations as network reconfiguration and rerouting based on aggregated service and customer-oriented data, including service level objectives and SLAs. They allow network operations to follow business requirements in real time based on service or customer contracts.

NOKIA NETWORKS OSS

Nokia Networks OSS chose ILOG Java-based visualization components to build the user interface of Nokia Service Quality Manager (SQM), their best solution for customer-oriented service quality management. The visualization components are used to graphically display service quality and performance measurements for nodes, links, equipment and other network elements. Furthermore, the pure-Java components enable Nokia SQM users to view service levels through the Web.



Service Provisioning



To achieve total customer satisfaction, communications companies need to quickly and accurately set up services ordered by subscribers. They rely on complex solutions for configuring networks and services, solutions sure to become even more complicated to manage the next-generation of broadband services.

Among them are solutions for network resource optimization, with multiple customer requirements such as QoS criteria, accurate and automated workflow management, and an intuitive user interface for planning and provisioning network resources.

ILOG provides powerful components that meet these challenges and quickly develop new provisioning applications.

ILOG supplies the answers:

- ILOG visualization components display physical and logical resources to support provisioning and planning processes, in order to improve inventory and process management.
- ILOG business rule products automate the service activation and task management required for fulfilling customer orders. They also monitor workflow execution states and trigger corresponding actions.
- ILOG optimization components optimize workflow, provide highly reactive service configuration and rescheduling of activities.

NETWORK DESIGN HOUSE

Network Design House (NDH) chose ILOG visualization components to build a new interface for the NetScene network planning software for broadband networks. NDH looked for an intuitive user interface that could support large networks and visualize rerouted traffic after a failure. The ILOG components were selected for their performance, complete features and Web-enabled capabilities, all well adapted to developing planning software.

ILOG Business Rule Suite

In C++ or Java, ILOG's rule engines enable business logic to be externalized through a high-level set of rules that add intelligence and flexibility to mission-critical applications.

ILOG Visualization Suite

In C++ or Java, ILOG visualization technology fully supports the graphical interface needs of advanced network and service management systems with unparalleled performance and telecom specific graphic objects.

ILOG Optimization Suite

The powerful algorithms of ILOG's world-class optimizers are widely used in modeling, planning, scheduling and configuring resources and operations.

Business Leaders Choose ILOG

They're talking about ILOG

InfoVista

"The partnership with ILOG matches our overall strategy to use building blocks of standard software to shorten time to market. We share many customers who demand the best, and together we will enhance our customers' ability to graphically monitor and represent the performance of complex communications networks."

Alain Tingaud, CEO



Marconi Communications

"The ILOG front end has revolutionized the representation of links on the network, particularly where multiple links coincide. We are being offered enhanced visualization, and the overall speed of the product has also been enhanced."

Nigel Vincent, Consultant

Nokia Networks

"Nokia is committed to providing best-in-class solutions for Web-based network management solutions. We selected ILOG components for their powerful mapping and geospatial data handling. Nokia is committed to Network Management Systems and Operations Support Systems, based on open systems and standards, for the benefit of our customers."



Jari Eskola, Product Line Manager
Monitor Products, Operations Support Systems

SOME PARTNERS



Nortel Networks



"We singled out ILOG Rules from the competition for Nortel Preside's (ex-INM) Problem Advisor because of its flexibility, coupled with its powerful graphical interface, its ease of integration with our existing code, and outstanding performance. Another factor that led us to pick ILOG Rules was our commitment to supporting a wider range of platforms."

Danny Duguay, Project Leader, Nortel Preside (ex INM) service assurance



Network and service management leaders powered by ILOG software components

ALCATEL – AMS – BMC SOFTWARE – BT – CAP GEMINI – COMPAQ – ECI TELECOM – E-PLUS – ERICSSON –
EVIDIAN – FRANCE TELECOM – HEWLETT-PACKARD – INFOVISTA – ITALTEL – KOREA TELECOM – LUCENT
TECHNOLOGIES – MARCONI COMMUNICATIONS – NEC TELECOM – NETWORK DESIGN HOUSE – NEC TELECOM –
NOKIA NETWORKS – NORTEL – NTT – ORANGE – SIEMENS – SPRINT – SWISSCOM – TELCORDIA – TELECOM
ITALIA – TELEFONICA – TELEGLOBE – TELKOM – TTI – VODAFONE – WORLDCOM

About ILOG

Founded in 1987, ILOG is the world's leading supplier of visualization, optimization and business rule software components in C++ and Java. The company's commitment to R&D keeps its products among the most advanced in the industry, and its worldwide network of offices and representatives ensures every ILOG customer receives the best sales and consulting support. For more information about ILOG and its products, please visit www.ilog.com.

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