

NETSMART® 1500

MANAGEMENT SYSTEM

CUSTOM OSS INTEGRATION

FUJITSU EXPERIENCE

Reliable Networks

industry leader

FUJITSU QUALITY

MAXIMIZE NETWORK VALUE

The Challenge of Convergence

The transport world is changing as TDM, DWDM, and packet technologies merge. As communications traffic increases, the challenge is how to maximize existing network value, while addressing the growing and changing demand for innovative, advanced service offerings.

The converged network is a dynamic mix of legacy, current, and emerging technology, which presents time-consuming and costly challenges. New packet-based data services place significant stress on existing Operations Support Systems (OSS). Each new service and each new network element increases the risk of overwhelming the available support resources for OSS software development.

The solution to these challenges and risks must:

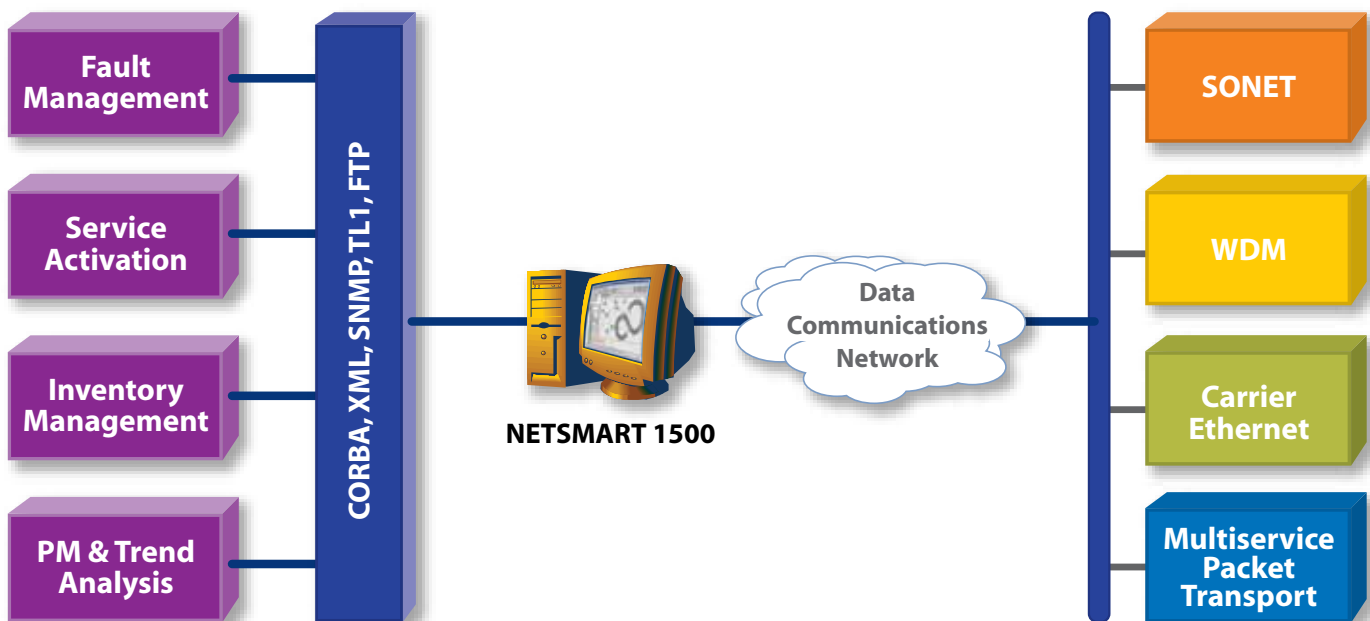
- ▶ **Reduce** the cost of operations, and of supporting new network elements
- ▶ **Reinforce** competitiveness by speeding up the introduction of new services
- ▶ **Maximize** automation to reduce costs
- ▶ **Support** efficient use of resources to keep service offerings economical

The challenge is how to maximize existing network value, while addressing growing and changing demand for innovative, advanced service offerings.

Customize NETSMART® 1500 Management System for Your OSS

Solving the problem and meeting the challenge requires an individualized approach. Your converged network requires just the right mix of simplicity and control combined with just the right feature set for individual systems. The Fujitsu NETSMART 1500 management system is firmly established as the software foundation of choice for managing Fujitsu network elements.

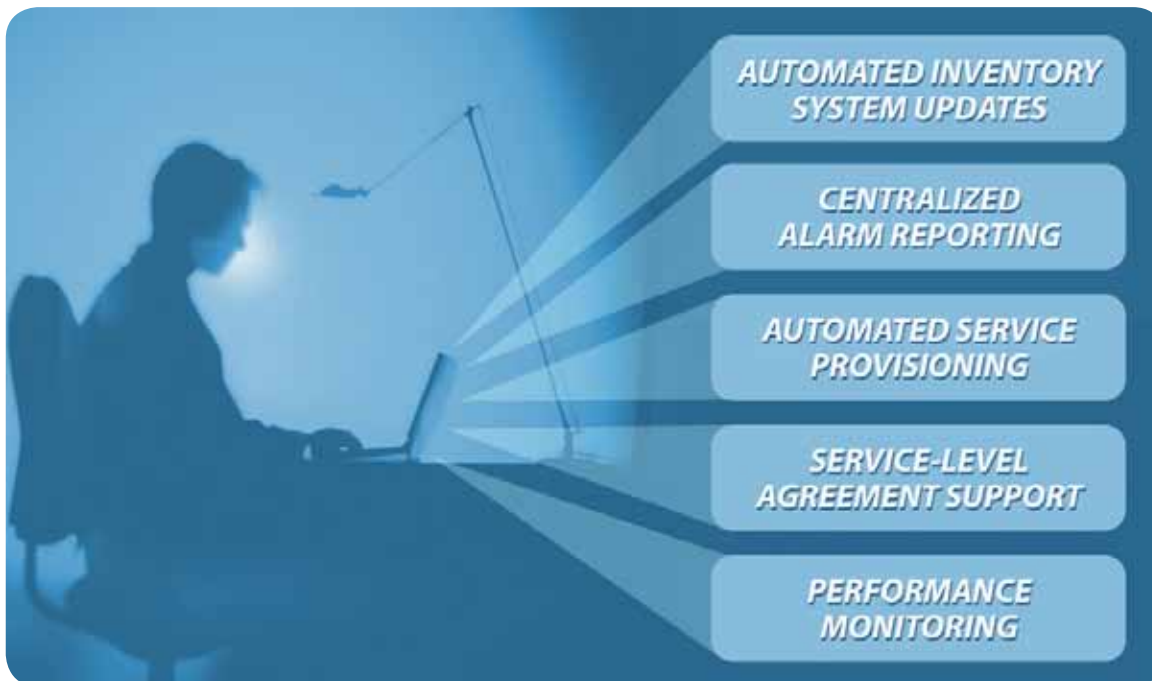
The Fujitsu custom OSS integration solution builds on this firm foundation. It offers a variety of Northbound Interfaces (NBIs), developed to optimize communication and data exchange between NETSMART 1500 management system and your OSS.



Current NBI options included with NETSMART 1500 management system

TARGETED CUSTOMIZATION

We use our technical expertise to examine and understand your network environment. We get to know how your individual OSS is implemented, and help you identify bottlenecks. Where optimal, we develop custom code to leverage the features of NETSMART 1500 software specifically for your OSS. The result: end-to-end services and seamless, simplified system management.



Our solution targets customization precisely where needed. When appropriate, the standard NBI software modules are used out of the box to support OSS integration. If your OSS cannot use an existing NETSMART 1500 NBI, Fujitsu software experts will tailor existing NBIs or develop complete, custom interface modules.

Network Management System Integration Benefits:

- ▶ Improve efficiency and responsiveness by increasing automation
- ▶ Activate new services faster by automating end-to-end provisioning across a multivendor network
- ▶ Prevent circuit-provisioning fallout by synchronizing inventory information
- ▶ Optimize network usage using dynamic data about available resources
- ▶ Reduce fault resolution time by auto-forwarding alarm data to helpdesk and trouble ticket applications
- ▶ Predict potential trouble spots and bottlenecks by sending PM data to a central repository for further analysis

A COMPLETE SOLUTION

Case Study

A carrier with a large multivendor network approached the Fujitsu Network Operations team to work as a strategic partner in an OSS integration project. The team responded with a comprehensive solution based on the NETSMART 1500 management system.

Customer Goals

The carrier needed to put new technologies rapidly and efficiently into operation. They also aimed to reduce OPEX and stretch CAPEX dollars by optimizing use of bandwidth and system resources.

The project team focused efforts on two key integration areas:

- ▶ **Service** provisioning interfaces
- ▶ **Fault** management interfaces for new services

The Optimal Solution

Fujitsu technical experts determined the optimal service provisioning solution, which was to extend the NETSMART 1500 Multi-Technology Network Management (MTNM) interface. As a result they developed a custom interface specific to the customer's back office and OSS.

The technical team also enhanced service provisioning by using the NETSMART 1500 software's topology auto-discovery to create the network connection layer automatically. This simplified construction of A-to-Z service throughout the carrier's network. The carrier's in-house OSS selected the endpoints, determined the path, and then sent the path information to the NETSMART 1500 system for service creation and activation.

Customizing the NBI also improved fault management for new services using cutting-edge DWDM technology. Fault data was posted to the carrier's NBI, while the NETSMART 1500 system continuously monitored network health. The customized system generated MTNM notifications, based on TL1 messages from the network elements.

Then the software passed these MTNM messages to the carrier's fault management application. Using root cause analysis, the fault management OSS application diagnosed problems and dispatched repair technicians. The technical team also drastically shortened response times by configuring the back office reporting and analysis solutions to interact with the trouble ticket system.

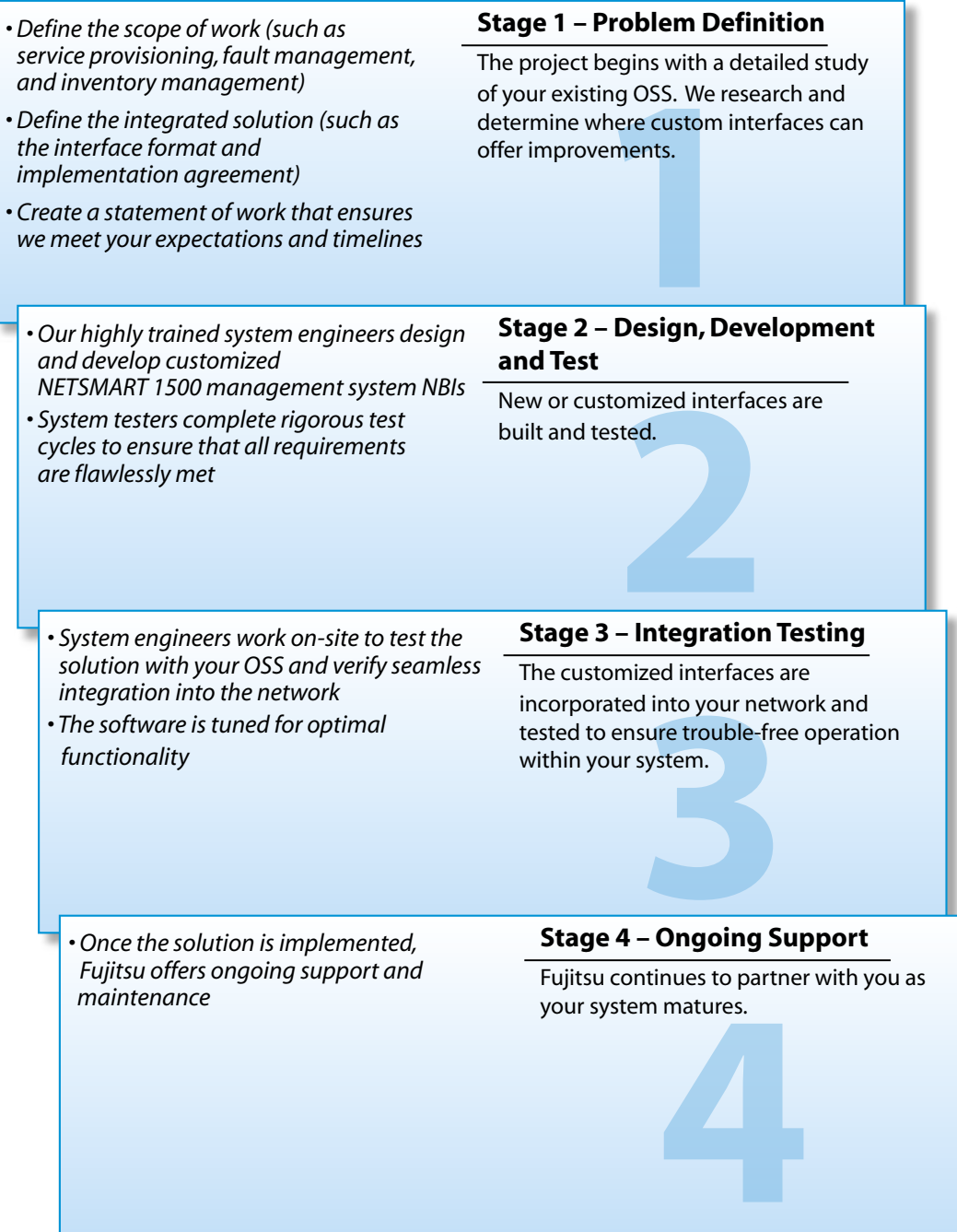
The MTNM interface was also developed to provide performance monitoring. The interface gathered the latest metrics about individual network equipment, facilities, and ports. This data could be presented on a network-wide or at an individual network element level.



END-TO-END SERVICES

Project Life Cycle

The Fujitsu NETSMART 1500 OSS integration solution consists of a set of professional services for the full project life cycle, completed in four major steps. We partner with you throughout the project—from project definition and analysis, through design and testing, to deployment and ongoing support. The customized, integrated solution can be developed, implemented, tested, and turned up without causing any interruption to your existing NETSMART 1500 system.



Project Life Cycle

EXPERTISE YOU CAN TRUST

Our Commitments: Quality and Technical Excellence

Maximizing your investment is key to meeting the demands of the converged network. You want your operations to be simple to maintain and manage. You want more automation, more efficiency, accurate system data, and the ability to modify your system as needs change. Our technical expertise and our strong experience supporting complex custom development projects will help you meet your goals.

To support current and evolving industry standards, Fujitsu is an active member of the TeleManagement Forum (TMF). We work to help you ensure compliance with appropriate standards.



The Right Solution

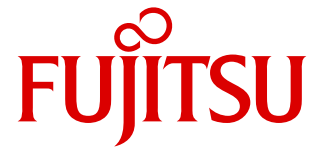
The team of experienced and innovative software experts at Fujitsu can help you find the right integration solution, whether it is a fully customized integration or a focused effort to solve a specific need. Count on our expertise to help you deliver next-generation services to your customers. Contact your Fujitsu sales representative today to find out more about integration solutions for the NETSMART 1500 management system.

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Maximizing your investment is key to meeting the demands of the converged network.



TRUSTED CONSULTANTS



Fujitsu Network Communications Inc.

2801 Telecom Parkway, Richardson, TX 75082

Tel: 800.777.FAST (3278) Fax: 972.479.6900

us.fujitsu.com/telecom

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