

# **Telcordia®**Granite Inventory

Telcordia® Granite Inventory combines intelligent inventory, provisioning automation, and data synchronization functions in a single, open, flexible SRM solution. By coupling an enterprise-wide view of your network and services with automated and manual provisioning functions, Granite Inventory puts you firmly in control of your network's growth, optimizing your networked resources while significantly reducing operations expenditures.

In the relentless drive toward more complex multivendor, multitechnology networks, it's never been more vital to know precisely what network resources are available and how they are being applied. New services and network modifications require robust workflow and automation functionality. The advent of these new technologies and service offerings dramatically increases the challenges of staying on top of discovery, provisioning, and activation. Unfortunately, relying on traditional paper-based inventory records, spreadsheets, and fragmented, in-house databases leads to sluggish, error-prone workflows and loss of competitive edge.

Granite Inventory is a comprehensive, flexible, and scalable Service Resource Management (SRM) solution. It combines intelligent inventory, provisioning automation, and data synchronization functions that speed resource queries, minimize errors, and reduce the costs of system management. Based entirely on the industry-standard  $J2EE^{\text{\tiny M}}$  platform, Granite Inventory is a true "off-the-shelf" application and provides the most scalable SRM solution in the marketplace today.

Granite Inventory vastly improves communications by implementing a single, centralized information repository that stores and manages all of your physical and logical resources. This acts as a database for the entire Operations Support System (OSS), supporting order management, service activation, fault management, and trouble ticketing. Real-time synchronization of data between the database and the

#### 001

Establish a centralized, high-quality network and service image

002

Provide intelligent automation of network and service provisioning

Get proven scalability with an open architecture and flexible, modular design

> Centralize and Automate Your Data

network can enable achievable accuracy rates of greater than 95%, while the included set of industry-standard workflow techniques enable automation of complex network and service provisioning. By streamlining integrations and automating complex provisioning tasks, Granite Inventory helps you deliver new services at unprecedented speeds, while reducing operational expenses. And because Granite Inventory optimizes the use of your deployed assets, you can reduce capital expenditures as well.

# Access the Power of Flexibility

— Since it runs on an extremely flexible, customizable platform, Granite Inventory offers the most open architecture in the industry. The system's unequalled customization capabilities include User-Defined Attributes and User-Defined Classes, which enable the user to extend the object model and fields within the database table structure to meet individualized operational requirements. User interfaces and Web portals can be delivered to meet the needs of any variety of customers, while a full range of open interfaces — including BDL, SRF (XML), Web I/F, OSS-J, TMF, SOAP — provide industry-leading data flexibility.

## Build a Solution That Works for You

Granite Inventory features a modular design, allowing you to expand its functionality as your business needs evolve. You begin by purchasing the Core System (formerly Granite Xng® System), which establishes a comprehensive SRM foundation. That includes a database server for the underlying Oracle®-based Relational Database Management System (RDBMS), a middle tier that provides the core business logic, an administrative interface, and a user interface for network service design and provisioning. Together, they deliver design, verification, and assign capabilities, as well as open interfaces that allow it to act as a database of record for other OSSs. Building on the Core System is a full suite of value-adding modules:

# • Automator (formerly Granite X<sup>ng</sup> Process Automator) extends automation capabilities to streamline such business processes as service provisioning, network element configuration, and network build-outs and rearrangements. Automator defines custom service or resource profiles to automate operations, while receiving and processing eXtensible Markup Language (XML) messages from external sources. Telcordia is actively building applied solutions for market-specific use cases using the automation system.

- AutoRouter (formerly Granite Auto-Routing) automatically identifies acceptable routes across a network. Using an advanced search algorithm, it scans a network's available bandwidth using several user-defined criteria, including number of links to consider, maximum result sets, ranking criteria, ignore capacity, and match candidate bandwidth.
- BDL-API (formerly Granite X<sup>ng</sup> BDL API) simplifies the
  integration of external applications by mediating the differences
  among the details and the business rules, and shielding external
  applications from changes. The BDL-API module also contains
  the classes and methods to simplify the building of applications.
  And the built-in validation logic, convenience methods, and
  backward compatibility significantly shorten development cycles.
- IPAM (formerly Granite ipeX<sup>ng</sup>) manages and tracks IP
  address allocations over multiple networks, integrating with
  backend OSSs. This module takes full advantage of Granite
  Inventory's administration capabilities, directly ties sites and
  equipment to IP address resources, and allows for easy access
  to IP address information.
- JMSEvents (formerly Granite eventX<sup>ng</sup>) polls the audit trail and publishes events, including site updates, container insertions, or customer status changes. Third parties can subscribe to JMSEvents to receive notification for all or specified system changes.



# ěľ - měn tiv

adj. 1. Performing as an element,2. Fundamental or essential to a solution,3. Open, flexible, and configurable,4. Resulting from originality of thought, innovative.

# Telcordia Granite Inventory Modules

Current Name	Prior Name
Core System	X <sup>ng®</sup> System
Automator	X <sup>ng</sup> Process Automator (XPA)
AutoPack-Regroom	-
AutoPack-Rehome	-
AutoPack-XDSL	
AutoRouter	Auto-Routing
BDL-API	X <sup>ng</sup> BDL API
IPAM	ipeX <sup>ng</sup>
JMSEvents	eventX <sup>ng</sup>
Loader	Xperload
User Client	X <sup>ng</sup> Client
View	viewX <sup>ng</sup>
Web-Access	webX <sup>ng</sup>
Web-OPI	X <sup>ng</sup> OPI Toolkit
Web-Toolkit	X <sup>ng</sup> Web Services Toolkit
Works	worX <sup>ng</sup>
XML Gateway	gatewayX <sup>ng</sup>

- Loader (formerly Granite Xperload) offers a proven methodology for migrating all of your legacy data into the Core System. Loader identifies all legacy data sources, understands the data content of the sources, maps legacy data fields, and normalizes the data to ensure a common naming convention.
- User Client (formerly Granite X<sup>ng</sup> Client) helps network
  engineers harness solutions to achieve outstanding results, even
  as the volume of new services and orders accelerates. With User
  Client, you can shorten provisioning cycles, reduce order fallout,
  optimize capacity, speed troubleshooting, boost productivity, and
  cut time to market.
- View (formerly Granite viewX<sup>ng</sup>) provides a range of spatial
  and schematic network configuration representations. View
  renders sites and circuits on a simplified geographic display down
  to street level, provides detailed circuit layout record displays,
  displays schematics to check multiple links for redundancy, and
  creates a graphical representation of the service resource objects.
- Web-Access (formerly Granite webXng) features a unique, browser-enabled query-handling capacity that allows users to access and create simple queries without having the primary client installed. This module also supports standard filtering and can be set up to provide customer-restricted views of core data.
- Web-OPI (formerly Granite X<sup>ng</sup> OPI Toolkit) provides the
  tools required to automatically create and manage a BDL Factory
  for Web-based applications. Web-OPI allows credential sharing
  between OPI-compatible Web applications, and offers a
  customizable "portal" for launching an authorized OPI application
  from a Web page with administration and client support.
- Web-Toolkit (formerly Granite X<sup>ng</sup> Web Services Toolkit) allows you to create custom Web interfaces for diverse audiences, providing them with the data intelligence required to be effective. Web-Toolkit grants access to all object classes, security, and business rules, and its sample style sheets can be used as templates for Web-based applications.
- Works (formerly Granite worX<sup>ng</sup>) enables you to track the
  entire network change process, from order to activation. The
  industry's first network-driven work order and task manager,
   Works constructs work orders and task lists matched specifically
  to network configuration changes. These tasks are then routed
  to user community workload queues for approval, completion,
  or execution.
- XML Gateway (formerly Granite gatewayX<sup>ng</sup>) provides an automated network audit solution, letting you collect network information directly from network elements or element management systems, compare it to current or pending configurations, and signal changes to users. XML Gateway gives you tighter control over change activity, better management of assets, and more reliable planning and design data.

### At a Glance

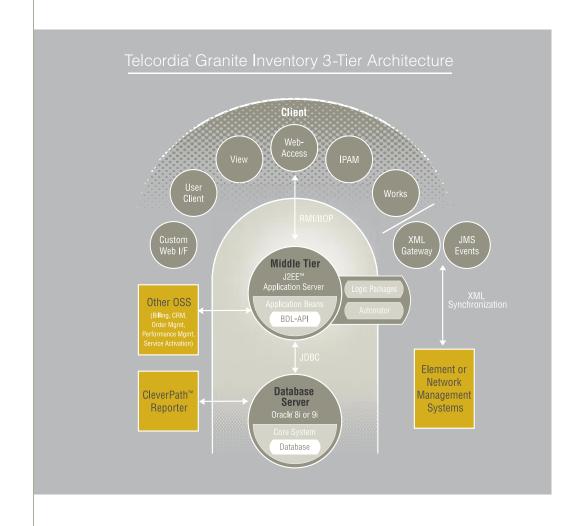
Telcordia Granite Inventory is a comprehensive, flexible, scalable SRM solution that uses the power of accurate data to put you in control of your network, allowing you to:

- Establish an intelligent, centralized, automated database of record for the entire OSS
- Develop network configurations for complex equipment and circuit layout records, using standard templates for the assignment of resources
- Manage current inventories of network resources and capacity, down to a port and channel level, as well as end-to-end deployed service delivery capacity
- Order and schedule future resources to meet expected demands
- Speed resource queries, minimize errors, and significantly reduce the costs of inventory management
- Enjoy true "off-the-shelf" flexibility and ease of installation.

Enjoy "Off-the-Shelf" Installation — With industry-standard support for integration mechanisms such as Java™ Messaging Service (JMS), Enterprise Application Integration (EAI), SOAP, and Web services — plus its fully open Application Programming Interface (API) — Granite Inventory is a true "off-the-shelf" application. Simple installation and system configuration can be accomplished in a matter of days, with advanced configuration tools and methodologies enabling easier retrieval, analysis, translation, and validation of current data. As part of our Elementive portfolio of products, Granite Inventory easily fits in with your current network infrastructure, interfacing with products from leading vendors such as Agilent, Cisco Systems, Hewlett Packard, Lucent Technologies, and Micromuse.

## Telcordia® Elementive™ OSS

Granite Inventory is just one component of Elementive OSS, the new generation of open, configurable software from Telcordia. Individual components integrate easily within multivendor environments, giving you the flexibility to address your needs your way. And with a standards-based architecture, Elementive OSS offers lower up-front investments and reduced Total Cost of Ownership (TCO).



## Achieve Proven Scalability

— With its industry-standard J2EE architecture, Granite Inventory can scale to all sizes of networks. In fact, Granite Inventory is already at work across the entire U.S. wireless marketplace, as well as in top-tier wireline, optical, and IP networks throughout the United States, Europe, South America, and Asia. No matter the size of your network, Granite Inventory is a solution that can grow with you.

## Move to Open Systems

Granite Inventory is built on an open information framework that incorporates standards-based integration technologies such as JMS, XML, and Web services. Our framework is a comprehensive realization of New Generation Operations Systems and Software (NGOSS) core principles, which Telcordia has been helping to shape since the inception of the TeleManagement Forum (TMF) NGOSS initiative. Simply put, our extensible open information framework enables you to introduce other Telcordia and non-Telcordia products, network resources, and service elements without costly integration.

# Take Control of Your Networks

— Telcordia Granite Inventory not only puts you back in control of your network assets, it also prepares you to take on the next wave of technologies. So you can transform, manage, and grow your networks and services your way.



For more information about Telcordia Technologies, contact your local account executive, or you can reach us at:

+1 800.521.2673 (U.S. and Canada)

+44 (0)20 7569 7702 (Europe)

+1 732.699.5800 (all other countries)

telecom-info@telcordia.com www.telcordia.com



X" is a registered trademark of Granite Systems, a wholly owned subsidiary of Telcordia Technologies, Inc.

JEEE and Java are trademarks of Sun Microsystems, Inc.

CleverPath is a trademark of Computer Associates International, Inc.

Oracle is a registered trademark of Oracle Corporation.

Copyright ©2005 Telcordia Technologies, Inc. All rights reserved.