ORACLE COMMUNICATIONS NETWORK INTEGRITY

The benefits that can be gained from a network inventory system are dependent on the quality of the data it contains. If there are significant data discrepancies between the inventory system and the live network, the business processes that rely on the integrity of the inventory data will deteriorate and user confidence will erode.

Oracle Communications Network Integrity is a single, flexible application that discovers and reconciles information from network devices and other data sources – such as inventory systems – to ensure optimum data accuracy. It is a single, consolidated application for discovery, assimilation, reconciliation and resolution. Built using Oracle Fusion 11g technologies, Oracle Communications Network Integrity delivers simplicity of deployment and operation with a lower, ongoing total cost of ownership.

Introducing Oracle Communications Network Integrity

Many communications service providers have made considerable investments in a common information model that puts network inventory at the heart of their communications operational support system strategy. These providers now want to leverage the value of this data resource to improve their automated service provisioning success rate, improve capacity utilization and planning, and to ensure accurate decision-making.

The benefits that can be gained from a network inventory system are dependent on the quality of the data it contains. If there are significant data discrepancies between the inventory system and the live network, the business processes that rely on the inventory data will deteriorate and user confidence will erode. Inaccurate inventory can have many expensive repercussions:

- Inaccurate network asset information can result in erroneous financial reporting & impact your ability to ensure regulatory and business process compliance.
- Investment in the network rollout can be put at risk.
- Inefficient use of expensive field engineering resources can cause higher expenses and delay projects.
- Network faults can take longer to find, impacting the customer experience.
- Capacity problems not being identified in time can lead to revenue loss.

The key to maintaining inventory accuracy is constant auditing of the data quality and a user-friendly mechanism to allow data discrepancies to be easily identified and corrected. Oracle Communications Network Integrity provides automated discovery of the network, comparison of the discovery results with existing repositories, automated generation of discrepancies and an intuitive fully browser-based graphical user interface (GUI) to resolve issues.
Discovery Functionality

Oracle Communications Network Integrity works with a broad set of network facing cartridges to automate the discovery of physical resources, logical resources, and provisioned services data from network elements, element management systems (EMSs), and network management systems (NMSs). The solution discovers and reports detailed information about physical resources such as chassis, slots, and ports. It also identifies information about logical resources such as interfaces and connections, and what services are provisioned. Key discovery features include:

- Full core-to-edge discovery
- A highly extensible cartridge architecture
- Flexible configuration and scheduling of discovery scans

![Network Integrity Diagram](image)

**Figure 1. Oracle Communications Network Integrity scans data from a variety of device types**

Flexible Configuration and Scheduling of Discovery Scans

An intuitive browser-based GUI is used to configure and schedule discovery scans. Discovery scan configuration includes selecting the interface protocol, the address range to scan, specific parameters (such as timeout interval and number of retries), and the scan schedule.

You can schedule a discovery scan to run once (at a specified time and date) or on a recurring basis (daily, weekly, or monthly). You can also run the scan on demand. You can assign configurable system-wide blackout periods to ensure that scans do not run during peak network busy times or during network upgrade windows.

The GUI displays the current status and progress of each scan in the GUI. It lets you know if a scan is currently running as well as any problems. For scans in progress, the GUI displays the number of discovered network elements, elapsed time, percentage complete and discovery errors.
Network Reconciliation Functionality

Oracle Communications Network Integrity is a generic, scalable tool that accesses different data sources such as discovered network data and inventory data. It compares the two sources, calculates where discrepancies exist, presents the discrepancies through a browser and allows correction online. Network Integrity continuously audits the inventory data to ensure optimum data accuracy.

An analysis detailing the level of data accuracy is produced for each scan instance, broader manipulation of data can be accomplished through reporting, using Oracle Business Intelligence or other reporting tools. The GUI lists all objects with discrepancies in a tree browser. Users can correct discrepancies by simply select the appropriate administrator configured action to update the Inventory object or trigger an external action such send to trouble ticketing or order management. An open application, it is also pre-integrated with Oracle Communications Unified Inventory Management (UIM) and MetaSolv Solution (MSS) ensuring data integrity of network assets throughout their entire lifecycle.

Highly Extensible Cartridges through Oracle Communications Design Studio

Oracle Communications Network Integrity shares a single cartridge extensibility environment with the Oracle Communications OSS portfolio. The Oracle Communications Design Studio is a common extensibility tool to create, manage and extend cartridges. The extensible
cartridge-based architecture delivers ultimate flexibility. Cartridges are modular components that contain the necessary logic and protocol support to discover physical/logical devices, configuration data and services and the associated attributes of each object type for a particular type of network element or system. They include mapping of the collected data and are configured with discrepancy creation rules and resolution actions. Cartridges can be built or extended by customers, Oracle Consulting or System Integrators.

Key Benefits

Oracle Communications Network Integrity, as a key component of the network asset lifecycle management process, helps deliver the following business benefits:

- Reduced capital expenditures through accurate and optimized network investment plans.
- Lower operational expenditures through reduced fallout caused by incorrect inventory data.
- Accuracy in network asset information for reliable financial and regulatory reporting.
- Faster resolution of network faults from accurate inventory data.
- Improved customer satisfaction and revenue assurance with “right first time” network configuration.
- Higher user confidence in decision-making processes based on accurate inventory data.

Summary

Oracle Communications Network Integrity provides a consolidated application for discovery, assimilation, reconciliation and resolution. An open application, it is also pre-integrated with Oracle Communications Unified Inventory Management ensuring data integrity of network assets throughout their entire lifecycle. The solution leverages highly extensible cartridges to automate the discovery of physical resources, logical resources, and provisioned services data from network elements, EMSs/NMSs and other systems. This enables ultimate flexibility in today’s rapidly changing technological environment. Built using Oracle Fusion 11g technologies, Oracle Communications Network Integrity delivers simplicity of deployment and operation with a lower, ongoing total cost of ownership.

Contact Us

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