



Highlights

- Reduce operational costs and improve staff productivity with central management for IT and network operations, maximizing service availability and reliability with rapid identification and resolution of problems
 - Improve operational workflows using configuration change data and ensure network compliance with regulatory standards
 - Maximize return on investment by discovering assets, identifying unused ports and recovering lost capacity
 - Automate backup and restore of device configuration, streamline bulk configuration changes and provisions, and activate network services
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IBM Tivoli OMNIbus and Network Manager

Assure the availability and performance of critical business services and infrastructure

Whether you are a small to large enterprise business, small to global communication service provider, government body or utility business, the uninterrupted availability and performance of mission-critical services is intrinsically tied to your organization's success. Gaining real-time visibility into infrastructure configuration and health is a key factor in optimizing operational efficiency and maximizing asset utilization.

IBM Tivoli® OMNIbus and Network Manager, provides a cost-effective solution for real-time network discovery, network monitoring, event management, network configuration and compliance management of IT domains and next-generation network environments. The customizable web-based user interface enabled through the Tivoli Integrated Portal infrastructure allows you to achieve end-to-end visualization, navigation, security and reporting (real-time and historical) across Tivoli and third-party management tools. The addition of IBM Tivoli Netcool® Configuration Manager to the IBM Tivoli OMNIbus and Network Manager offering, extends the value and enables closed-loop problem resolution with the addition of configuration change and compliance data.

Tivoli OMNIbus and Network Manager allows you to automatically discover IP-equipped assets and their configuration—building and maintaining accurate knowledge about device configuration and physical and logical network connectivity. You can then use the discovered network devices to back up the device configuration and provide ongoing synchronization of the device configuration to a central repository of configuration data. This visibility of the network is vital to achieving



maximum return on infrastructure investment. Tivoli OMNIbus and Network Manager leverages this understanding of network configuration to provide real-time and highly accurate root-cause analysis and diagnosis of complex network problems, maximizing service availability.

Suitable for the smallest to the largest deployments, this fast-to-deploy solution has a scalability of hundreds of millions of events per day, offering around-the-clock event and network management with high automation to help you deliver continuous uptime of business, IT and network services.

Highly scalable to manage complex, dispersed environments

Tivoli OMNIbus and Network Manager bridges the management gap across traditional IT domains—as well as legacy and next-generation networks—to help organizations improve the end-to-end availability and resiliency of critical business services. As the software detects developing problems from across the service infrastructure in real-time, they are processed in the ObjectServer, a high-speed, in-memory database.

Many customers use Tivoli OMNIbus and Network Manager to manage tens of millions of raw events daily and deal with intermittent event storms of much greater volumes. Furthermore, the software can be deployed in a distributed, parallel or hierarchical fashion to support complex operations environments that span diverse geographic boundaries. Because it couples scalability with a flexible architecture, the software is proven to deliver robust event management to support environments of any size, far beyond those available from other vendors' event management tools.

Growth and change at the network layer provide a continuous challenge for the network organizations entrusted with keeping the network available while dealing with continuous change

that addresses business needs. Effective network management can be a challenge—because with increased connectivity comes increased size and complexity. Large networks can comprise tens of thousands of devices, rendering the proprietary, manual tools that many companies rely on for network management impractical.

And as networks grow and change, managing device configuration can be especially difficult. Considered individually, devices are more complex than ever. Considered as a network, devices are more heterogeneous—both in their underlying architectural platforms and their vendor sources—than ever. Errors introduced during manual change can cost companies money, reduce the efficiency of network and device performance, and increase security risks. Clearly, today's complexity is beyond human intervention. A dependable automation solution is called for.

IBM Tivoli Netcool Configuration Manager software, with its support for automated change and configuration management across the entire network lifecycle, is such a solution. Its patented Smartmodels® function delivers intelligent automation capabilities for configuring the heterogeneous devices in today's complex networks.

Monitor complex service infrastructures

Tivoli Netcool/OMNIbus Probes actively collect business and technology events from thousands of sources in real-time. These lightweight collectors and applications listen for events and trap and monitor applications, systems, network and security devices across the business. You can also develop and customize Tivoli Netcool/OMNIbus Probes to support virtually any kind of “event” from virtually any data source, such as those generated by proprietary business applications, smart devices and many more.

Tivoli Netcool/OMNIBus Gateways, coupled with Tivoli Netcool/OMNIBus Probes, allow the real-time import/export and smart processing of events and data from a wide variety of peer management systems. Examples of such systems include maintenance status/logs, fault diagnostic records, change configuration management databases, asset management systems and business applications. Processing infrastructure-generated events within the context of wider operational information gained from these peer support tools can dramatically improve operational efficiencies.

IBM Tivoli Netcool Configuration Manager also supports out-of-the-box notifications to Tivoli Netcool/OMNIBus for configuration change and compliance management. This enables configuration change data and compliance data to be presented in a single view along with other network infrastructure events. It helps drive closed-loop problem resolution as the operator can now see what has changed, where and when.

This powerful combination can manage thousands of environments, offering built-in intelligence right out of the box. You can also configure thresholds based on your organization's unique requirements to generate alarms based on criteria you define. A combination of deduplication, filtering, correlation (including state, device, and topology correlation rules), and advanced problem escalation and automation can dramatically reduce events to a manageable volume. For many organizations, this can translate into event reductions from tens of thousands of events down to a single root cause.

Examples of supported environments include, but are not limited to: virtualized server, storage and mainframe environments; infrastructure services and protocols, such as Simple Network Management Protocol (SNMP); wireless and wireline network switches, such as Class 5 voice switches and Private Automatic

Branch Exchange (PABX) voice switches; and Signaling System 7 (SS7 or C7), GSM, UMTS, CDMA Radio Access Networks, network transport, multiservice components, optical equipment and many more.

Configuration management is essential in today's complex networks

Change is constant, whether within an individual network or reaching across the entire instrumented, interconnected and intelligent world. And managing change, especially when it comes to device configuration, is essential. Without configuration management, errors introduced during change can damage a host of critical operations from provisioning to performance, and from availability to security. Consider the following questions:

- How do you control who can touch what network device and what commands they are allowed to use on each device?
- Do you maintain a complete log of all changes made to each device and by whom?
- How do you make sure that only correct commands are sent to a device?
- How do you enable network engineers to instantly see what changed on a device and why?
- How do you know when a device has changed and requires an incremental backup?
- Can you roll-back a device without losing service?
- How do you prevent configuration mistakes from happening in your network?
- How do you enforce your network configuration policies?
- Do you have a common scorecard for compliance across the entire network?
- Is your scorecard updated after every change and in real-time?
- How can you do simple, yet comprehensive ad hoc reporting to find today's problem without manually touching devices?

The organization can now meet these challenges and take its network management capabilities to a new level, with the latest version of Tivoli OMNIBus and Network Manager, which includes IBM Tivoli Netcool Configuration Manager as a part of its base offering. This solution can extend management reach into devices and network areas that need greater attention for increased network reliability and reduced chance of performance degradation due to error.

See an accurate picture of layer 2 and layer 3 IP devices and their connectivity

Tivoli OMNIBus and Network Manager automatically discovers IP networks and maps topology data to create a complete picture of layer 2 and layer 3 networks. It captures not only each network's device's configuration, but also the physical and logical connectivity between devices. The software models layer 2 and layer 3 network technologies, including: Internet Protocol (IP), Ethernet, Border Gateway Protocol, Open Shortest Path First; virtual private network (VPN), virtual local area network (VLAN), asynchronous transfer mode (ATM) and frame relay, multiprotocol label switching (MPLS), Layer 2 Ethernet VPNs (including virtual private LAN services and virtual private wire services), Protocol Independent Multicast, and Carrier Ethernet.

Tivoli OMNIBus and Network Manager maintains its network topology model automatically as the network changes, updating network maps and providing accurate network information for event correlation, event isolation, troubleshooting and problem resolution. By automating map maintenance, you can save substantial time and effort—and help dramatically reduce administrative costs. The discovered IP networks are seeded to Tivoli Netcool Configuration Manager for managing the devices from a configuration management perspective.

Accelerate root-cause analysis and contextual problem resolution

Tivoli OMNIBus and Network Manager monitors network resource availability in real-time, and automates bulk configuration change to ensure network compliance. It can also monitor the performance of individual devices or interfaces and proactively alert on impending network outages, helping your staff identify the root causes of network downtime and significantly reduce the time it takes to resolve network faults. When problems occur, the software automatically navigates the operator through the appropriate network topology map to view the root problematic device. Once there, the network operator can immediately view data about other impacted network devices and servers. With change at the network level a key driver of network problems, configuration change data helps localize network problems by providing a view of detailed data on device changes to support diagnostic and triage activity.

Tivoli OMNIBus and Network Manager includes intelligence-driven automation that provides event rate baselining, prediction and trending. These features can be used to identify anomalies from normal operations that could indicate underlying problems with the infrastructure and help network operations proactively troubleshoot and resolve these problems before they become service affecting.

In addition, Tivoli OMNIBus and Network Manager integrates with Tivoli Business Service Manager to help understand how IT and network faults affect complex business services and service level agreements (SLAs).

Typically, operators diagnose and resolve one alarm at a time—leaving other alarms sitting in the queue until they have time to focus on them. Tivoli OMNIBus and Network Manager helps organizations improve the efficiency of their problem resolution

efforts by providing an advanced capability for automating corrective actions to common problems. By allowing operators to run automated resolution scripts against recurring, predictable problems, your organization can rapidly resolve routine issues and minimize manual intervention.

The combination of advanced analysis and automation provided by Tivoli OMNIBus and Network Manager allows staff to quickly hone in on the most critical problems and even automate isolation and resolution of those problems for reduced manual intervention, rapid mean time to repair (MTTR) and improved productivity.

Support the latest standards

Tivoli OMNIBus and Network Manager supports current and evolving standards, including eTOM, IT infrastructure library (ITIL) and COBIT. Across the world, communication service providers, enterprises, and governments are increasingly making the shift from the IPv4 standard to Internet Protocol Version 6 (IPv6). A long-time supporter of IPv6, IBM enables key products with IPv6 capability to meet the demands of the next-generation Internet.

Tivoli OMNIBus and Network Manager software monitors both the current IPv4 and the evolving IPv6 networks to support mixed and pure environments of any type. In addition, Tivoli OMNIBus and Network Manager uses cryptographic providers approved for the Federal Information Processing Standard (FIPS) Publication 140-2, a U.S. government computer security standard used to accredit cryptographic modules. These include IBMJCEFIPS (certificate 376), IBMJSSEFIPS (certificate 409) and IBM Crypto for C (certificate 384) for cryptography. FIPS 140-2 compliance can help significantly ease security audits of your service management infrastructure.

Gain real-time management views and reporting

Tivoli OMNIBus and Network Manager provides “single pane of glass” visibility to help leverage and extend the native capabilities provided by the Tivoli Integrated Portal interface with cross-domain, multivendor event and network management, enabling centralized visualization and reporting of real-time and historical data across both IBM and third-party tools. This information is consolidated in an easy-to-use role-based portal interface—accessed through single sign-on—so that all the monitoring data and management information needed can be retrieved from one place. Accessible from any Java-enabled web browser, Tivoli OMNIBus and Network Manager provides operations staff and executives with “any time, anywhere” access to service status and actionable information.

Highly customizable dashboards offer an array of images, graphical maps, charts, tables and event lists that are tailored according to your requirements—showing the “big picture” of a service or the specific devices that may be causing a problem. Tivoli OMNIBus and Network Manager provides executives, line-of-business managers, operations personnel and customers with real-time, customizable views of events, service health and key performance indicators, for more effective decisions.

Leverage seamless integration of Tivoli products

The breadth of management provided by Tivoli OMNIBus and Network Manager is also enhanced and extended through tight integration with the broader Tivoli suite of products. As the core of the IBM consolidated operations management solution, Tivoli OMNIBus and Network Manager can consolidate information produced by other IBM sources, such as IBM Tivoli Monitoring, IBM Tivoli Composite Application

Manager, IBM Tivoli Enterprise Console®, IBM Tivoli OMEGAMON® and other Tivoli Monitoring products, to provide a single, clear view across IT domains. In addition, Tivoli OMNIBus and Network Manager customers can leverage IBM Tivoli Netcool/Impact to further reduce symptomatic events, prioritize responses based on the actual impact to the business, execute automated actions in context and drive run-book automations. Integrated visualization and other common capabilities across Tivoli products speed problem solving across operational domains, with integrated drill down to detailed performance analytics and reporting from Tivoli Monitoring products to help reduce mean time to resolution and increase operator efficiency.

Operations staff can launch in context directly from Tivoli OMNIBus and Network Manager to Tivoli Netcool Configuration Manager, providing in context access to configuration change and compliance data within a common web interface (delivered via the Tivoli Integrated Portal). This provides a common user experience as staff navigate across event, network management, configuration and compliance management.

Users also have the ability to launch in context directly from Tivoli OMNIBus and Network Manager events to detailed network topology and root-cause views, as well as other server and application views from the IBM Tivoli Monitoring family, leverage bidirectional integration with Tivoli Service Request

Manager, extend topology views from Tivoli Application Dependency Manager, launch to and from Tivoli Business Services Management and much more.

In addition, organizations can take advantage of advanced management of the Tivoli OMNIBus and Network Manager critical components themselves. The software ships with an IBM Tivoli Monitoring performance data collector that allows you to monitor the current health and performance of Tivoli OMNIBus and Network Manager to help ensure high availability and maximize return on investment. Through this extended self-monitoring, you can set thresholds and generate predictive alerts that effectively serve as an early warning system against potential problems.

Leverage enhanced support features and language packs

IBM continues to enhance Tivoli OMNIBus and Network Manager support features. These include IBM Support Assistant, which delivers advanced remote help for administrators. Available throughout IBM Software Group, Support Assistant collects critical product information, saving valuable time.

Tivoli OMNIBus and Network Manager also supports language packs for key languages, including Simplified Chinese, Traditional Chinese, Japanese and Korean.

IBM Tivoli OMNibus and Network Manager at a glance

Operating systems:

- IBM AIX® 6.1 IBM System i®/IBM System p®
 - AIX 7.1 System i/System p
 - HP-UX 11i v2 IA64, PA-RISC
 - HP-UX 11i v3 IA64, PA-RISC
 - IBM PowerVM®, IBM PR/SM™, IBM z/VM® 6.1
 - Red Hat Enterprise Linux (RHEL) 5 x86-32, x86-64, IBM System z®
 - Red Hat Enterprise Linux (RHEL) 6 x86-32, x86-64, System z
 - SUSE Linux Enterprise Server (SLES) 10 x86-32, x86-64, System z
 - SUSE Linux Enterprise Server (SLES) 11 x86-32, x86-64, System z
 - Solaris 10 SPARC
 - Solaris 10 Whole Root Zones SPARC
 - Solaris 10 LDOM
 - VMware ESX and ESXi Server 3.5 & 4.0 RHEL x86-32,x86-64
 - Microsoft Windows Server 2008 (R1) x86-32, x86-64
 - Windows Server 2008 (R2) x86-64
 - Windows Vista Ultimate x86-64 (Client)
 - Windows Vista Enterprise with FDCC x86-32 (Client)
 - Windows 7 Enterprise x86-64 (Client)
 - Windows 7 Enterprise with FDCC x86-32 (Client)
 - Supported by IBM Tivoli Netcool Configuration Manager
 - AIX 6.1 and 7.1 (32 and 64 Bit versions) Linux
 - SUSE Linux 10 and 11 (32 and 64 Bit versions)
 - Red Hat Enterprise Linux 5 or 6 (32 and 64 Bit versions)
 - Note: Please refer to product documents for restrictions Red Hat Enterprise Linux 6
 - Solaris 9 or 10 (32 and 64 Bit versions)
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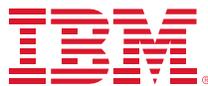
For more information

To learn more about IBM Tivoli OMNIbus and Network Manager, please contact your IBM sales representative or IBM Business Partner, or visit the following website:

ibm.com/tivoli/products/omnibus-network-mgr

About Tivoli software from IBM

Tivoli software from IBM helps organizations efficiently and effectively manage IT resources, tasks and processes to meet ever-shifting business requirements and deliver flexible and responsive IT service management, while helping to reduce costs. The Tivoli portfolio spans software for security, compliance, storage, performance, availability, configuration, operations and IT lifecycle management, and is backed by world-class IBM services, support and research.



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