OpenScape 4000 Management
OpenScape 4000 Manager V8

OpenScape 4000 Manager is the central management platform for OpenScape/HiPath 4000 networks and provides solutions for reliable and economic administration of your communications network.

With the comprehensive set of applications of the OpenScape 4000 Manager, you can perform all necessary administration tasks centrally for your entire OpenScape/HiPath 4000 network.

Access to the management functions is possible from any standard PC if network access and Microsoft Internet Explorer are available. That offers all users mobility for carrying out their tasks.

System concept

OpenScape 4000 Manager is a key component of OpenScape 4000 Management architecture and offers solutions for the economically efficient management of OpenScape/HiPath 4000 networks. This provides a modular set of applications that can be combined according to customer requirements.

OpenScape 4000 Assistant

OpenScape 4000 Assistant is integrated in every OpenScape 4000 system and provides all basic management functions that are required for the configuration and monitoring of standalone systems. For more details, refer to the separate data sheet for OpenScape 4000 Assistant.
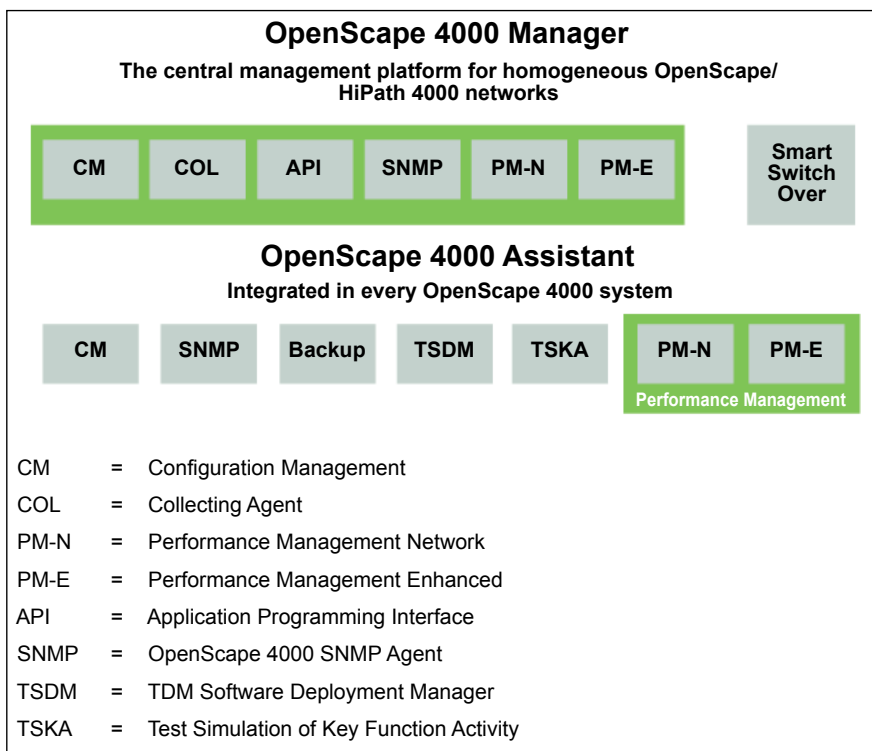
OpenScape 4000 Manager

OpenScape 4000 Manager offers the following modules:

- Configuration Management (CM): Subscriber lines, Least Cost Routing (LCR), Line and trunk administration
- Collecting Agent (COL)
- Application Programming Interface (API)
- SNMP V3 Proxy Agent for direct connection of OpenScape Fault Management
- Performance Management: Analysis of load behavior of lines and trunks (PM-N, Analysis of call patterns (PM-E)
- Smart Switch Over (SSO) dual computer configuration

Management applications

In addition to OpenScape 4000, the management applications OpenScape Fault Management, OpenScape Accounting Management, and OpenScape User Management also support other systems. For more details, refer to the separate data sheets for the respective applications.

OpenScape 4000 Manager

The central management platform for homogeneous OpenScape/ HiPath 4000 networks

CM	COL	API	SNMP	PM-N	PM-E

Smart Switch Over

OpenScape 4000 Assistant

Integrated in every OpenScape 4000 system

CM	SNMP	Backup	TSDM	TSKA	PM-N	PM-E

Performance Management

CM	=	Configuration Management
COL	=	Collecting Agent
PM-N	=	Performance Management Network
PM-E	=	Performance Management Enhanced
API	=	Application Programming Interface
SNMP	=	OpenScape 4000 SNMP Agent
TSDM	=	TDM Software Deployment Manager
TSKA	=	Test Simulation of Key Function Activity

Overview: OpenScape 4000 Manager/Assistant

System functions

General

OpenScape 4000 Manager runs on an external, high-performance server. Depending on the size of the network and the individual requirements, you can choose between different models to meet even the highest of demands for large-scale networks.

If there are special demands placed on availability, both the server with integrated redundancy functions and the Smart Switch Over (SSO) dual computer configuration Smart Switch Over (SSO) can be used. Smart Switch Over is a high-availability solution that enables very fast periodic backups of the system. If an OpenScape 4000 Manager Server fails, it is easy to switch over to the standby server. This means that a "Disaster Recovery Enhanced" solution can be supported – and, in case of failure, work can continue with slight time delays.

Client access

The applications can be used by any standard PC with Microsoft Internet Explorer and network access from almost any location by means of a web browser.

Users/permissions administration

Each user group can be assigned different access permissions depending on their activities. The user IDs are administered by the system with their graded classes of service and passwords.

Security functions

OpenScape 4000 Manager offers a wide range of security functions:
- Authentication:
  User name and password,
  Resetting of the user password in emergencies
- Authorization:
  User profiles (configurable access permissions),
  Client capability (max. 150 client groups) for the Configuration Management
- Data security:
  Encrypted password,
  Encrypted data transfer (SSL/TSL, Strong encryption)
- Logging:
  Start and end of a session,
  Non-valid login attempts,
  Generation and deletion of permissions,

Modification of security settings, Encrypted storage of sensitive data
- License Management:
  The licenses used can be checked in detail with the License Management.
- Kerberos integration:
  The Kerberos integration enhances security in Windows Domain environments. It uses the Windows log-on credentials and puts an end to log-on separately to the OpenScape 4000 Manager.
- Fully-encryped connectivity:
  The connections to OpenScape 4000, CMP, OpenScape Fault Management, and 3rd party applications using the XIE interface can be configured securely.

Online help

Context-sensitive online help offers the user wide-ranging support during transactions.

System backup

With the aid of the OpenScape Administration, configuration data or software of operating systems and applications are saved in backup copies. This means that correct, backed-up data and/or software can be accessed in the event of system failure, so that normal operation can be restored in the shortest possible time.

Configuration Management

Configuration Management allows the efficient and comprehensive configuration of the entire OpenScape/HiPath 4000 system.

Configuration administration

Configuration administration includes the administration of subscriber lines (system phones, IP and cordless phones), the centralized configuration of Least Cost Routing (LCR) and the administration of personal data (subscriber, company, location).

The user-friendly GUI supports the user in executing network-wide changes consistently and efficiently by performing complex logical checks and providing multiple help options. Up to 85% of the administration procedures can be carried out over the GUI. Further configuration tasks can be performed in expert mode by the direct use of administration and maintenance commands.

Line administration

Line administration enables the administration of all properties assigned to a subscriber line:
- Subscriber data (name, display text, etc.)
- Classes of service
- Features
- Group relations
- Subscriber lines
- Device parameters
- Key layout on terminals

Devices can be relocated quickly and easily throughout the entire network.

Mass changes

Mass changes can be conveniently made in tabular form. These tables contain values such as subscriber permissions, default key assignment, routing tables, or tables for speed dialing of number destinations.

Mass line relocations can also be conveniently carried out in tabular form. This also includes values such as membership in hunt groups or call pickup groups.

Tenant groups

The extended tenant capability of the Configuration Management enables the clear assignment of lines, group functions, person-related and organization-related data to a specific tenant group.

Synchronization

To support the Plug&Play strategy for IP phones and to enable user-friendly administration, IP phone data is automatically synchronized between the Configuration Management and the Deployment Service, e.g. call number, location and system. It is also possible to use multiple deployment servers.

Performance Management

Performance Management (PM) is based on the evaluation of call detail records and is available in the following packages:
- PM Networking provides statistical information on trunk and line load. PM-N basically supports mixed networks of OpenScape/HiPath 4000 systems.
- PM Enhanced analyzes call patterns of subscribers, hunt groups, attendant consoles and attendant console groups, and load patterns on the switch processors.

- PM ASC provides the necessary statistical analyses that are required when using an Attendant Supervisor Console (ASC) to control the attendant console groups.

The Collecting Agent (COL) collects call data records and provides them to the PM. This may involve large volumes of data depending on the size of the network and the traffic load.

With Crystal Reports, the individual reports can be individually configured using flexible filter functions depending on the purpose of the reports. The reports can be output as predefined graphics, or in Excel or CSV format.

Performance Management Networking

With Performance Management Networking (PM-N), the following reports can be created for individual lines or trunks:

- Trunk/time slot load
- Peak traffic times – overview
- Availability

Performance Management Enhanced

Performance Management-Enhanced (PM-E) can be used to evaluate a multitude of other objects:

- Subscribers
- Hunt groups
- Attendant consoles
- Attendant consoles groups
- Feature utilization
- Load behavior of the switch processors

Performance Management ASC

PM-ASC generates statistical analyses that are required to control the attendant console groups. PM-ASC can also run on the OpenScape 4000 Assistant if performance requirements are low. The ASC reports are always included in PM-E.

Standalone system-specific administration

For line and trunk administration, it is possible to access the OpenScape 4000 Manager of the relevant system directly via OpenScape 4000 Assistant. OpenScape 4000 Assistant can be used to carry out the necessary configurations of modules. The user does not need to change neither workstation nor the familiar user interface.

Data synchronization

The user does not need to know which network system subscribers are connected to or which call numbers are assigned. OpenScape 4000 Manager automatically checks the entire network and provides the user with this information. If changes are necessary, e.g. in the case of relocations or network expansions, the OpenScape 4000 Manager checks the plausibility and operability of the inputs before performing the administration tasks. Only then will OpenScape 4000 Manager supply every system in the network with individual configuration jobs. The network-wide database is updated as soon as all systems have acknowledged execution.

Synchronization of the data (upload) between OpenScape/HiPath 4000 and the database can be individually controlled. It is possible to synchronize the entire database or to carry out a delta synchronization.

Synchronization of data is also provided in both directions between the OpenScape DLS and the OpenScape 4000 Manager.

Application Programming Interface

The Application Programming Interface (API) application enables data to be exported from the central database of the Configuration Management to external applications, or to be imported from these applications.

SNMP support

The SNMP Proxy Agent is required for converting OpenScape/HiPath 4000 systems alarm and error messages into standard SNMP messages so they can be forwarded to third-party umbrella management systems.

Collecting Agent

The Collecting Agent in the OpenScape 4000 Manager collects all call data records from a OpenScape/HiPath 4000 network, filters them and makes them available to other applications as individual files.

The administration function of the Collecting Agent simplifies many tasks, for example:

- Defining receiving formats
- Defining output formats
- Setting filters
- Defining output targets
- Logging

Smart Switch Over dual computer configuration

Smart Switch Over (SSO) dual computer configuration is a high availability solution which can be used to switch manually to a standby server if a OpenScape 4000 Manager server fails. This minimizes possible downtimes.

License Management Tool

The License Management Tool (LMT) regularly checks the permissible capacity limits of the entire network. This enables the purchased line licenses within the network to be moved as required between the systems without violating a license.

Technical data

Supported systems

OpenScape 4000 Assistant V8

- OpenScape 4000 V8

OpenScape 4000 Manager V8

- OpenScape 4000 V8
- OpenScape 4000 V7
- HiPath 4000 V6
- HiPath 4000 V5
- HiPath 4000 V4
- HiPath 4000 V3.0
- HiPath 4000 V2.0
- HiPath 4000 V1.0

Hardware and software requirements

OpenScape 4000 Assistant Server

- Integrated in OpenScape 4000
- Operating system: SUSE Linux Enterprise Server 11 SP4

OpenScape 4000 Manager Server

- Database: Informix Dynamic Server 11.5
- The required hardware or virtual machine settings can be determined using the Performance Planning tool.

For all OpenScape 4000 Manager servers

- Operating system: SUSE Linux Enterprise Server 11 SP4
- Connections: LAN

Web client for OpenScape 4000 Assistant, OpenScape 4000 Manager

- Processor: at least Core i3 2 GHz or similar CPU
- Working memory: at least 4 GB
- Hard disk: at least 100 GB free disk space

- Graphics card: at least 1280 x 1024 resolution and at least 16k colors
- DVD-ROM drive
- LAN port
- Other:
  TCP/IP,
  ComWin Version 5.0.129 or higher,
  Excel 2003 V11.0, Excel 2007 (V12) for enhanced PM reports (advanced),
  Excel 2010 (V14.0),
  Excel 2013 (V15.0),
  Excel 2016 (V16.0)

- Operating systems:
  Microsoft Windows 2008 Server,
  Microsoft Windows 2012 Server
  Microsoft Windows 7 [Professional or Enterprise Edition],
  Microsoft Windows 8 [Professional or Enterprise Edition]
  Microsoft Windows 10
- Browser software (table, see below)
- For enhanced security: Java Runtime Environment 1.8 is recommended

Operating system	Windows Internet Explorer (IE)	Java Runtime Environment (JRE) – versions
Windows Server 2008	IE9.0, IE10.0, IE11	1.7.0 all versions
Windows Server 2012	IE11	1.8
Windows 7	IE9.0, IE10.0, IE11	1.7.0 all versions
Windows 8	IE10.0, IE11	1.7.0_10 and higher
Windows 10	IE11	1.8

Fast 50 Jahre erfolgreiche Präsenz im Telekommunikations- und IT-Bereich sind in dieser schnelllebigen Branche ein klares Zeichen für Kundenzufriedenheit.
Und genau das ist es auch, was uns täglich antreibt, unser Bestes zu geben - für maßgeschneiderte Lösungen, die die Anforderungen unserer Kunden optimal erfüllen.

Bis heute haben wir das Vertrauen von mehr als 4.000 Unternehmen in ganz Deutschland gewonnen. Dabei ist unser Ziel nie der schnelle Verkaufserfolg, sondern immer die langfristige Kundenbeziehung.

Was haben Sie davon?
Zum Beispiel:
- Expertenwissen durch ständige Marktbeobachtung sowie Vernetzung mit Entwicklern und Spezialisten - auch über den Tellerrand hinaus.
- Investitionsschutz bei Integration neuer Technologien.

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