

MA4000 Management Suite

Configuration Management

Key features

- Integrates with your IT department's current administration
- Centralised secure access integrates with current authentication methods or stands on its own.
- IT friendly GUI interface with easy-to-understand commands takes the mystery out of voice system administration
- Flexible group management can be pushed down to the user or kept close to the administrator
- Programming tasks can be scheduled to run unattended during off-peak hours
- Alarm notifications via email or screen pops allow administrators to respond in a timely manner
- Comprehensive audit trails provide a detailed history of changes and alarms
- Web-based client side interface allows access to the system anytime, anywhere
- Single point-of-entry for Moves, Adds and Changes on the supported voice systems
- Powerful administration tools let you make changes faster than traditional methods
- Voice over IP statistics give an instant and comprehensive check on quality
- Voicemail integration lets you configure voice mail boxes automatically
- Real time monitoring provides a robust and powerful troubleshooting tool
- Traffic management helps you manage your trunks and routes proactively
- Search across multiple help and documentation ensures all information is within easy reach



Simplified IP telephony management

Secure, easy-to-use and robust, the MA4000 is designed to increase overall productivity while at the same time delivering flexibility and simplicity to IP telephony administration. In combination with the UNIVERGE SV7000, SOPHO 2000 IPS, and SOPHO iS3000 communication servers, MA4000 provides the necessary tools for a truly comprehensive IP telephony solution.

Centralised management is an essential part of a complete voice solution in today's enterprise. MA4000 has the ability to manage all of a company's communication servers simultaneously, virtually without any daily administrator interaction. MA4000's friendly user interface requires little training for an administrator to start using the management system.

MA4000 has removed the mystery behind voice server administration. Powerful functions in MA4000 make any task within the system easy. Features like Range Programming can perform large tasks, such as adding new extensions, changing extension programming or numbering, and moving, swapping or deleting extensions, faster than using traditional methods.

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Another powerful function is the LDAP auto-provisioning system. Using advanced and granular LDAP integration, data filters and provisioning templates, the LDAP Auto-Provisioning System provides standardised integration to an administrator's existing network provisioning system. This is a true single point of entry and will significantly reduce the time and effort needed to complete moves, adds and changes.

MA4000

The MA4000 provides a simple-to-use, wizard-based interface for performing daily moves, adds and changes that makes the voice system fast, easy and convenient to manage. Extensive on-line help is available as well as global search tooling.

Note: Available functionality differs per platform. To see which features are available on which platforms, refer to the table at the end of this datasheet.

Fast, easy and consistent: moves, adds and changes

MA4000's extensive use of individual templates and template packages makes management and administration fast and easy, and at the same time consistent. Consistency reduces the total cost of ownership and operation by:

- Reducing the training of managers, who are to perform moves, adds and changes
- Reducing the training of phone users
- Reducing helpdesk calls related to features that should never have been available to the user

- Reducing the time to install or change a phone or a group of phones because button assignments, call forwarding assignments, class of service assignments, specific user attributes and speed dial memory allocation can be set up once and used repeatedly
- Reducing the guesswork of how to set up a phone, because this was done already when the templates were created

Of course, MA4000 comes complete with predefined templates for all supported phone types.

Range programming

MA4000's Range Programming wizard makes it easy to perform adds, changes, copies, deletes, moves, renumbering of extensions and swaps of phones by using a sophisticated search engine that takes the guesswork out of management.

All Range Programming tasks create an audit log. An error during Range Programming results in an alarm. You can implement a Range Programming task immediately, or you can schedule the task to run at a later time (such as after working hours).

System health monitoring

System health monitors the system for any events that might create degradation in service and immediately notifies those concerned via email or PC screen pop to MA4000 Alarm Clients. System health utilities monitor the MA4000 server and the MA4000 database periodically and alert Managers with an Alarm Notification when available hard drive or database space is becoming low.

Security

High attention is paid to secure access. Communication with the client is encrypted, as are user name and password. When users enter incorrect passwords too many times, the users account is disabled and the MA4000 manager is notified.

Users can be configured to only access certain Voice systems or even limited voice system resources as part of a particular user role. MA4000 offers detailed audit history logging.

Free numbering

This powerful feature enables you to move users between iS3000 and other networked IP servers (such as 2000IPS or

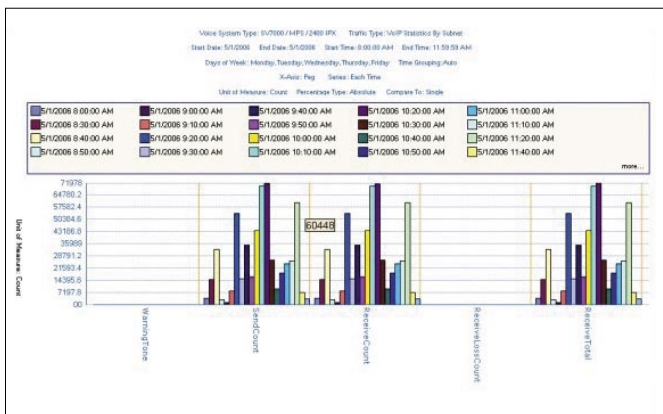
SV7000) while keeping the same extension numbers. You can upgrade your equipment and migrate users smoothly.

Task scheduling

There is a time and place for everything and sometimes you have to take that time whenever you can. That's why MA4000 supports scheduling of functions. Use Schedule Task to execute tasks for a variety of MA4000 applications. You can schedule a task to execute on a specific date and time, or to execute immediately. The Schedule Task feature uses the Windows Task Scheduler Service to monitor the time and event criteria to execute tasks scheduled for a later date and time. Toll fraud (by staff after office hours) can easily be prevented by changing the class of service of a phone at predefined schedule.

Voice over IP statistics

MA4000 show how conditions on a network affect VoIP quality. You can collect and view detailed VoIP statistics from all of the IP phones throughout your network. Statistics include: bandwidth usage, packet loss, warning tone count and much more.



You can also define thresholds for VoIP statistics and generate alarms when those thresholds are exceeded. This allows you to be much more proactive when managing the VoIP quality on your networks.

Voice mail integration

MA4000 provides tight integration with VMPP compliant voice mail systems. (e.g. UM4730 and MyMail@Net) When you create new stations with MA4000, a mailbox can be created and configured automatically with no additional effort. Voicemail configuration templates can be created in MA4000 for use

with the Range Programming tool, the LDAP Auto Provisioning engine and the Import utility.

Administration of voice mail system and mailboxes is simple. The Web-based GUI is automatically generated based on the voice mail options that are licensed in the system. MA4000 only shows the options that are actually available. Range programming can also be used to administer the voice mailbox configurations. Range Change, Add, Move, Swap, Renumber and Delete are all supported in MA4000 for voice mailbox administration.

Real time monitoring

MA4000's robust real time monitoring tool displays connection status, registered/unregistered status, connected-to information, IP Address, trunk number and route information, connection route details and much, much more. This one tool allows for

NEC MA4000 MANAGER 5.0 Voice System All

Home Administration System Users and Devices Traffic Utilities Help

Voice System Monitoring

Items To Monitor
 Add Voice System Add Extension Add Trunk Add Connection Trunk

Actions
 Disconnect Make Busy when Idle Cancel Make Busy

Results
 Select All Follow All Remove Selected

Last Update: 5/11/2006 4:28:12 PM

VOICE SYSTEMS	VOICE SYSTEM	# of Extensions	Busy Extensions	# of Trunks	Busy Trunks	# of Connection Trunks	Busy Connection Trunks
<input type="checkbox"/>	SV20	568	0	256	0	0	0

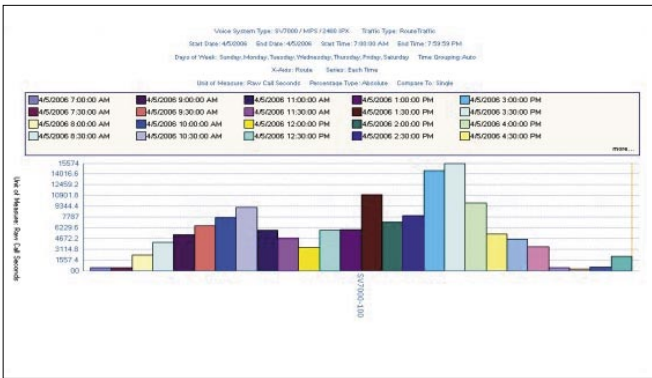
EXTENSIONS	VOICE SYSTEM	Number	Name Display	Type	Registration	Status	IP / Port
<input type="checkbox"/>	SV20	10000		TDM		Idle	000151

the simultaneous monitoring of stations, trunks and connection routes all from the same screen. You can also force devices in to a busy state when they become idle and manually disconnect if required. When tracing a call throughout a CCIS or FCCS network, you can monitor trunks and stations on multiple voice servers simultaneously. This allows you to see calls as they are created, routed between systems and connected to their final destination.

Traffic management

The MA4000 traffic management option allows for proactive traffic management of trunks, routes and processor occupancy. You can see immediately when there are potential traffic problems with routes, trunks or if the processor load is too high. Not only can the MA4000 traffic management system collect

and analyse the traffic data, but it can also generate detailed reports complete with useful and descriptive graphs describing the traffic patterns over time. All attributes of the traffic reports can be adjusted and specified. Reports can also be defined and then scheduled to run automatically. These scheduled reports can either be emailed to users or printed on specified printers.



Another aspect of the traffic management system is its ability to automatically calculate Erlang B analysis of the traffic data in the reports. It's no longer necessary to use an external Erlang calculator to manually make these calculations. This type of task takes a great deal of time to do manually, and now MA4000 can save the user precious hours each month. Traffic Thresholds can also be defined. These thresholds will automatically generate alarms if they are exceeded.

Powerful help search

This feature enables you to perform advanced keyword searches across all MA4000 online help and voice server documentation. With thousands of pages of documentation for the management tool and the voice server itself, it's often overwhelming trying to find the exact information you need. This is simple and easy with the MA4000 help search utility. Simply type in a keyword that describes the information being searched for and MA4000 returns all matching results. This feature works just like a basic web search and displays results in the same way. Each returned result is ranked in order of relevance and given a percentage score that shows this measurement. When results are opened, they show in a separate window so that you can return to the results page with ease. Results also highlight keywords when opened so you can easily identify the areas that contain the required content.

Alarm management

MA4000 can collect alarms from multiple sources. Voice Systems, it's own server, based on certain thresholds, bad passwords and even the LDAP server. If an alarm is not promptly attended to, MA4000 can be configured to automatically escalate the notification to another user. MA4000 can also classify alarms into different groups and allows the administrator to route notifications of different alarms to different people.

MA4000 Alarm client

Alarm Client is an application operating on any computer linked to a network with access to the MA4000 server. It is installed automatically with MA4000 or can be installed in a standalone installation. Each Alarm Client receives alarm notifications from the Alarm Engine (MA4000 server). A pop-up screen on the Alarm Client shows details of the alarm, including the alarm source and its severity. There is no limit to the number of Alarm Clients that can be connected to an MA4000 server. Alarm Client notifications are sent using two methods: E-mail or client pop-ups.

Optional functionality

MA4000 Assistant

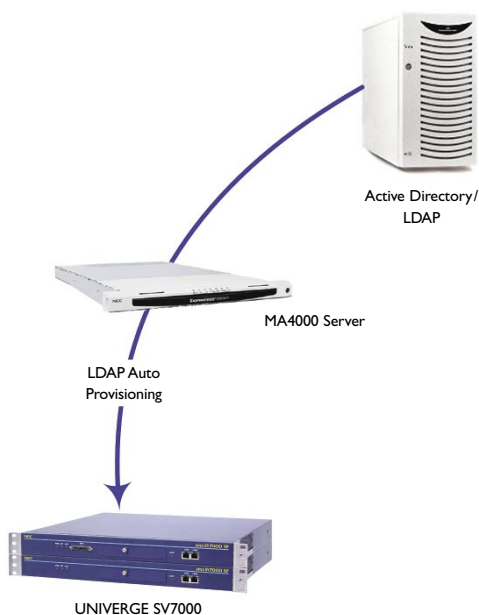
MA4000 Assistant is a web-based desktop application designed to allow individual users to perform selected management tasks and control elements of their daily communications. This decentralisation of the management task is accomplished by distributing administrative functions to individual users in relation to their own phones and in accordance with their specific permissions. MA4000 Assistant users can control such things as: updating personal information, telephone name display, telephone buttons, personal speed dial and call forwarding.

Automatic moves, adds, changes

MA4000 provides an optional module to automate the tasks of moves, adds and changes throughout an organisation's facilities. This optional module is the MA4000 LDAP Auto Provisioning Service module.

This module provides the following capabilities, which allows organisations to reduce total cost of ownership by eliminating unnecessary labour charges normally associated with moves, adds and changes:

- └ LDAP Automatic Provisioning Service (LAPS) allows IT administrators to automate moves, adds and changes from an LDAP source to the MA4000 database
- └ The LDAP source is always set up as the 'master.' Using LAPS, any change made to an LDAP source is automatically passed down to the MA4000 database
- └ MA4000 is always set up as the 'slave.' Using LAPS, any change made to MA4000 will not be passed to the LDAP source. MA4000 can only receive data from an LDAP source
- └ Rules-based criteria use specific templates to manipulate user or phone data. These criteria can be extended to update other fields such as user-defined fields.



PC platform

The recommended requirements for an enterprise system managing up to 5000 extensions with multiple users accessing the system are:

Server requirements	
Processor	Pentium IV, 2.4 GHz
Memory	1 GB RAM, 5GB Free hard disk space,
Operating system	Windows 2000 Prof. with SP 4 or higher or Windows XP Prof. with SP 1 or Windows 2000 Server with SP 4 or higher or Windows 2003 Server with SP 1 or higher
Web server	IIS 5.0 or higher for Windows 2000 Server IIS 5.1 or higher for Windows 2003 Server
Database engine	Windows SQL 2000 or MSDE 2000

Minimum client requirements	
Processor	Pentium II, 233 MHz or higher
Memory	64 MB RAM for Windows 95 128 MB RAM for Windows NT, Windows 2000 Professional or Windows XP Professional
Operating system	Windows NT with SP 6a or higher Windows 2000 Professional with SP 3 or higher Windows XP Professional with SP 1 or higher
Web browser	Internet Explorer 6 SP 1 or higher
Other	Ethernet card

SOPHO voice server

The MA4000 can be connected to:

- └ SOPHO SV7000 release 20.5 or higher
- └ SOPHO 2000 IPS release 1.1 or higher
- └ SOPHO iS3000 Call@Net 3.2 or higher

Functions	SV7000	2000 IPS	iS3000	Extension management	SV7000	2000 IPS	iS3000
Voice (system data) programming	√	√		Range programming	√	√	√
LDAP directory based programming	√	√		Template programming	√	√	
Authorisation code management	√	√		Group programming	√	√	√
Auto adjust time for daylight savings	√	√	√	Call forwarding setting depending on internal/external call	√		
Hardware configuration	√	√		Name display programming	√	√	
Advanced fault handling	√	√		Flexible phone model assignment	√	√	√
ACD management	√			Appearances/Dependencies	√	√	√
Support Remote Media Gateway controllers	√			Split internal/external call forwarding destinations	√		
Route/application data programming	√			Configure one-touch speed dial keys	√	√	
Import/export utility	√			Print individual phone (DESI) labels	√	√	
Configure voice system features	√			Program Dterm buttons	√	√	
Voice system alarm configurations		√		Configure message waiting display	√		
Voice over IP statistics	√			Enable/disable off hook suppression	√		
Voicemail integration	√	√	√	Traffic class assignment		√	√
Real time monitoring ext/trunk status	√			Assign/display MAC address of extension <i>(*display only for iS3000)</i>	√		√*
Traffic management	√			Automatic/protected login for IP phones (Desksharing)	√		
Task scheduling	√	√	√	Assign tenant	√		
Powerful Help search	√	√	√	Password dialing support			√
Voice system scheduled backups	√		√	Hotline configuration			√
Refresh data per extension / voice server	√	√		Facility class marks assignment			√
Multi-site	SV7000	2000 IPS	iS3000	User management	SV7000	2000 IPS	iS3000
Supports multiple voice systems simultaneously	√	√	√	5 organisational levels support	√	√	√
Supports multiple voice system families	√	√	√	User management independent of telephone	√	√	√
Free numbering	√	√	√	Customised fields	√	√	√
Centralised alarm management	√	√	√	Many to many relationships allowed	√	√	√
Centralised group management	√	√	√	Reports-to field	√	√	√
Centralised administration	√	√	√	Notes field	√	√	√
Centralised moves, adds and changes	√	√	√				

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