



Product Datasheet

DMS8000
MP4.30

MK8000 OPC DA Server for subsystems

- The MK8000 OPC Data Access (DA) Server for subsystems provides a wide array of solutions for the centralisation and management of physical security and control systems.
- Founded on leading software and network technology standards, the OPC DA Server is designed specifically for safety, security, and building automation applications and enables complete management from a single workstation.
- The Siemens *Fire Safety & Security Products* line of security management systems include solutions for fire, intrusion and gas detections, access control, closed circuit television monitoring, and evacuation and extinguishing systems.
- The MK8000 OPC DA Server for subsystems has been optimised for the management of the *Fire Safety & Security Products* solutions line, and allows interoperability with systems from both our I BT *Building Automation* division, as well as 3rd parties.
- The MK8000 OPC DA Server for subsystems complies with the OPC Foundation's tests and standards.
- Available as a Stand-alone OPC DA Server and as an option of MM8000 Management Station.

Background and introduction

For years, the Siemens Fire Safety & Security Products division has been recognised for its high quality security systems.

Much of our success lies in our commitment to continuously updating our products with the latest technological advances while maximising the lifetime of our customer's investment.

In compliance with the OPC Foundation's tests and standards, the MK8000 OPC DA Server can be integrated with any OPC standard management system.

If you are looking for a security solution that is complete, flexible, and scalable, it would be our pleasure to show you how the MK8000 OPC DA Server can help you to maximise both your security options as well as the lifetime of your system.

Benefits

- System and software solutions specifically designed for safety, security, and building automation applications
- Open System Philosophy based on up-to-date market standards: standard PC hardware, Microsoft Windows Vista , XP, and 2008 / 2003 operating system
- Secure and Flexible architecture allows solutions ranging from a simple single-station configuration, to complex distributed configurations
- Complete scalability of all configurations, allowing need-based expansion of any system, from small and medium systems to complex and sophisticated systems
- Open communication with third-party units utilising standard interfaces
- Communication can be performed through local and networked connections (Network data transfer support via DCOM)
- Long term investment
- Easy implementation and modification
- Configuration with Composer, our powerful DMS8000 tool environment

Features

- OPC Data Access 2.0x Specification
- Supports Tag browsing (IOPCBrowseServerAddressSpace)
- Server attempts to renew lost connections
- Tag export function
- Diagnostic log function
- MK8000 test client included
- OPC interface inspection utility included
- Optional redundancy solution with dual servers to prevent service interruption
- Free two hour Demo mode

Stand-alone: the easy solution for small size systems

- Single workstation that contains all software levels (OPC DA client, server, and communication)
- Station communicates with the next level using local ports (EIA/TIA-232) or via the NK8000 Ethernet Port

Peer-to-peer: the natively redundant solution, ideal for medium-size systems

- Multiple, independent workstations that contain all software levels (OPC DA client, server, and communication)
- Stations communicate with the next level using local ports (EIA/TIA-232) or via the NK8000 Ethernet Port
- Each station autonomous and independent; databases are not shared

Client/Server: best for large systems with multiple operation responsibilities

- A server station provides communication and background functions to one or more networked client workstations
- The server coordinates all activities so more operators can seamlessly cooperate on the same site
- The architecture may also include:
 - One or more MM8000 Management Stations
 - A networked access to the field (NK8000)
- Distributed communication over multiple Front-End Processor (FEP) computers over the network

Client/Server: fault-tolerant solution for large systems

- Same as “Client/Server” above but includes dual hardware servers and a virtual MK8000 application. If a device or an entire server fails, MK8000 continues to operate uninterrupted.

Connectivity

Communication with locally distributed field units can be performed using:

- Cerloop redundant rings
- CDI-net star topology
- NK8000 Ethernet Port serial and IP networks, also supporting dual Ethernet interface for network redundancy (*NK823x only*)
- Direct RS-232
- Direct LAN

Control level configurations

Siemens safety units:

- FS20 Sinteso / FS720 Cerberus PRO fire detection systems
- CS11 AlgoRex fire detection systems
- FC700A fire detection systems
- CS1115 fire detection systems
- FC330A fire detection systems
- CZ10 fire detection systems

- CC60 gas detection systems
- STT11 Système de Télécommande et Télésignalisation
- STT20 Système de Télécommande et Télésignalisation
- STT2410 Système de Télécommande et Télésignalisation
- SIGMASYS / D100

Siemens security units:

- SPC5000/6000 Intrunet intrusion detection systems
- SI410 / 420 Intrunet intrusion detection systems
- CS6 Guarto intrusion detection systems (with remote configuration via NK822x tunnelling)
- CS440 intrusion detection systems
- CS4 intrusion detection systems
- CZ12 intrusion detection systems

Siemens video surveillance units:

- SIMATRIX / SIMATRIX NEO video crossbars
- SISTORE AX / CX / MX (including NVS*) / SX digital video recorders (DVRs)
- TELSCAN Video Web Server
- IP cameras (fixed) equipped with:
 - CCIS1337-LP
 - CFVA-IP
 - CVVA-IP

*Network Video Software

Siemens access control units:

- SiPass Integrated
- CerPass CC30 controllers (connected via SiPass)

Siemens automation and I/O units:

- MF7033 digital PLC unit
- DF9000 / CF9000 I/O system

Remote notification units:

- Analog modem for dial-up connection

3rd party units:

- Philips-Burle Allegiant LTC 8x00 video switchers

Software architecture

The OPC DA Server for subsystems is designed using a software architecture optimised for freedom and flexibility. The key features are:

- Structured architecture with a well-defined layer interface
- Real Client/Server Configuration
- Fully Modular
- Object Oriented

Technical data

Hardware requirements	x86 32-bit CPU	2.4 GHz or faster
	Large configurations *: Core Duo CPU	3.0 GHz or faster
	RAM Memory	1028 MB or higher
	RAM for large configurations *	4 GB
	Hard disk space	500 MB free
	CD-ROM or DVD	Required
	COM Port	1 (2-3 optional)
	LPT Port	1 (optional if a USB port is present)
	USB Port	1 (optional if a parallel port is present)
	LAN Connections	10/100/1000 MB Ethernet
	Keyboard and pointing device	Standard keyboard; mouse or trackball
	SW protection Key provided by I BT	USB or parallel
	Operating systems	Microsoft Windows Vista Ultimate, Business and Enterprise Editions
Microsoft Windows XP Professional		SP2 or SP3 + Microsoft critical updates
Microsoft Windows 2008 Server		SP1 + Microsoft critical updates
Microsoft Windows 2003 Server		SP1 or SP2 + Microsoft critical updates
Software requirements	MSDE (Microsoft SQL Data Engine) 2000 or MS SQL Server 2005 Express	Available on the DMS8000 product CD
	SQLXML 3.0	Available on the DMS8000 product CD
	.Net Framework V1.1 and V2.0	Available on the DMS8000 product CD

* Large configurations are projects with 40K physical detectors and 200K nodes in Composer.

Technical characteristics

System dimensions	OPC DA clients	10 Note: Up to 30 clients are available for Field Tests only. For configurations with more than 10 clients, the server station must be equipped with Windows 2003 or 2008.
	FEP stations	10
	Subsystems	150 per FEP (please contact customer support for larger configurations) Note: See specific limitations following this table (p. 7)
	Points	200,000 (Composer nodes) Note: Configurations with more than 10 clients should be limited to 120,000 nodes.
	Ethernet connections to NK82xx (per system)	Please contact customer support for configurations above 100 NK822x/NK823x
	Networks supported	Cerloop
CDI-net		Via GW2x
NK8000 Ethernet Port, also supporting: – Dual Ethernet		Via NK822x / NK823x NK823x only
Direct control unit connection		RS-232; LAN
Subsystems supported	CS11 AlgoRex	<ul style="list-style-type: none"> ● Direct RS-232 configuration / ISO1745 ● Cerloop configuration ● NK8000 configuration / Cerban ● NK8000 configuration / ISO1745 ● CDI-net configuration / Cerban ● CDI-net configuration / ISO1745
	FC700A	<ul style="list-style-type: none"> ● Direct RS-232 configuration / ISO1745 ● NK8000 configuration / ISO1745 ● CDI-net configuration / ISO1745
	CS1115	<ul style="list-style-type: none"> ● Direct RS-232 configuration
	FC330A	<ul style="list-style-type: none"> ● NK8000 configuration
	FS20 Sinteso / FS720 Cerberus PRO	<ul style="list-style-type: none"> ● LAN configuration / BACnet
		(see BACnet limitations following this table)
	CZ10	
	CC60	
	CS4	<ul style="list-style-type: none"> ● Cerloop configuration
	CS440	<ul style="list-style-type: none"> ● CDI-net configuration / Cerban
	CZ12	<ul style="list-style-type: none"> ● NK8000 configuration / Cerban
	MF7033	
	STT11	
	STT20	<ul style="list-style-type: none"> ● Cerloop configuration
	STT2410	
	SIGMASYS / D100	
	SIMATRIX / SIMATRIX NEO	<ul style="list-style-type: none"> ● NK8000 configuration / specific protocol
DF8000 / CF9000		
Philips-Burle video switcher (LTC 8x00)		
SPC5000/6000 Intrunet	<ul style="list-style-type: none"> ● LAN configuration / EDP – max. 50 units 	

SI410 / 420 Intrunet	<ul style="list-style-type: none"> ● Direct RS-232 configuration / ISO1745 ● LAN configuration ● NK8000 configuration
CS6 Cuarto	<ul style="list-style-type: none"> ● NK8000 configuration / CNAP Max. 4 CS6 per NK8223 / 25 Max 1 CS6 per NK8222 CS6 connected via LON Bus to NK822x
SISTORE AX DVR	
SISTORE SX/CX DVR	● LAN configuration / specific protocol
SISTORE MX (including NVS) DVR	(see SISTORE limitations below)
TELSCAN Video Web Server	
IP cameras (fixed)	● LAN configuration / HTTP
– Equipped with: CCIS1337-LP / CFVA-IP / CVVA-IP	
Analog Modem	● NK8000 configuration / Cerban Max. 5 modems
SiPass Integrated	● LAN configuration Max. 4 servers per MK8000 system
CerPass CC30 controllers	● Connected via SiPass server

Max. number of DVR connections per Server/FEP station:

SISTORE AX/MX: 50 (40 recommended for best performance)

SISTORE CX/SX: 150 (100 recommended for best performance)

Max. number of BACnet/IP connections per Server/FEP station:

50 devices (e.g. FC20 units)

Details for ordering

The following table lists the parameters of each license. For details see price list.

Criterion:	Remarks
Number of Subsystems	
Number of Physical Devices	
Number of Connections, and Type of Network and Video Drivers	
Composer configuration tool	
Optional dual hardware for redundant systems	For details contact customer support

To facilitate the ordering and calculation a pre-defined *MK8000 Project sheet* must be filled in for every MK8000 project.

→ Contact your local sales distribution centre.

Export restrictions for cryptographic algorithms

The MK8000 OPC DA Server includes devices and software that make use of cryptographic algorithms. Specific cryptographic export control regulations apply that currently prohibit shipping and installing MK8000 software in the following countries:

- Cuba
- Iran
- North Korea
- Rwanda
- Sudan
- Syria

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