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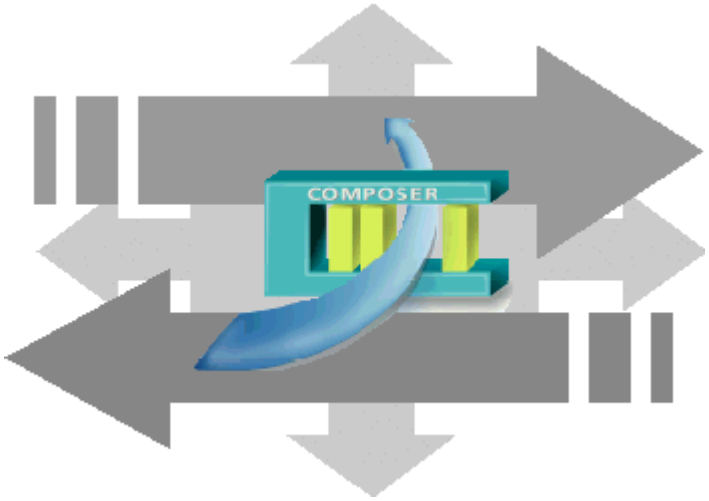

DMS8000

Migration from LMSmodular

Engineering Guide for MM8000 MP4.xx

Building Technologies

Fire Safety & Security Products

About this document

Purpose

This manual is for use during the migration of an LMSmodular Danger Management System to a DMS8000 Danger Management System. The focus of this document is the substitution of LMSmodular stations with MM8000 stations.

Scope

It is a guide to, and reference for the steps that have to be performed during the migration of LMSmodular systems to DMS8000. This manual is part of the general DMS8000 documentation set which includes the Composer™ technical manual, the Connectivity Configuration Guides, and the Installation, Configuration and Commissioning manual for each specific system.

Target audience

This manual is written for people responsible for the commissioning and configuration of the DMS8000 systems. It assumes that the reader is already familiar with the concepts and terminology related to the field of security, as well as with LMSmodular systems, Siemens fire and security products, and the networks and subsystems supported by them.

Documentation resource information

The *DMS8000 Documentation Resource Information and Glossary Guide* assembles important information regarding documentation resources. This document contains the following:

- Comprehensive definitions of the target audiences for Siemens FS DMS documents
- Training program information including the Siemens intranet link
- A complete list of all available DMS8000 documents
- Instructions for how to obtain a document via the Siemens intranet using the STEP Documentation Repository System
- A map of relevant documents for each target audience group
- Customer Support links & resources
- A glossary containing definitions of all terms and acronyms used in DMS8000 documentation

To access the *DMS8000 Documentation Resource Information and Glossary Guide* (STEP #A6V10089056), go to the link and follow the instructions below:

https://workspace.sbt.siemens.com/content/00001123/default.aspx

1. Click on the **STEP Web Client** image: 

2. Choose **04 Fire -3F** from the Product Segment box and select **Activate filter**.
3. Select **All** in the Documents section of the Quick Search page and then select **Advanced Search**.
4. Enter the document number in the Brochure No. field (**A6V10089056**) and then press **Enter**.

Operational and safety regulations

Before groups of persons begin work on the system they must have read and understood the related documents, in particular section 1, *Safety regulations*.

Liability disclaimer for damage or injuries

Before products are delivered, they are tested to ensure they function correctly when used properly. Siemens disclaims all liability for damage or injuries caused by the incorrect application of the instructions, or the disregard of danger advisories. This disclaimer applies in particular to personal injuries or damage caused by:

- Improper and/or incorrect use.
- Disregard of safety instructions in the documentation or on the product.
- Poor maintenance or a lack of maintenance.

We have checked the contents of this manual for agreement with the hardware and software described. Since deviations cannot be precluded entirely, we cannot guarantee full agreement. However, the data in this manual are reviewed regularly and any necessary corrections included in subsequent editions. Suggestions for improvement are welcome.

Modification index

Current version	Date	Comments
A6V10085965	06.2009	Corresponds to version MP4.20 of the DMS8000 software
A6V10085965	10.2007	First edition of DMS8000 Migration from LMSmodular. Corresponds to version MP4.10 of the DMS8000 software

1 Safety regulations

This chapter describes the danger levels and the relevant safety regulations applicable for the use of FS-DMS products. Please read the following subsections, as well as the previous section "About this document" thoroughly before beginning any work.

1.1 Country-specific standards

FS-DMS products are developed and produced in compliance with the relevant international and European safety standards. This document provides warnings and recommendations specific to the MM8000 Management Station.

Any additional country-specific or local safety standards and/or regulations that apply concerning project planning, and installation and operation of the MM8000 Management Station must also be taken into account, in addition to the safety regulations mentioned in the product documentation.

1.2 Assembly, installation, commissioning and testing work

Activate security-, fire- and third party systems or devices **only** in the presence of the person responsible.

- Abide by the safety regulations of the connected sub-systems when working on management stations. This especially applies when switching-off system components.
- Inform people before the testing of alarm devices - consider the possibility of panic Reactions.
- Inform the alarm and fault receiving stations connected to the system before carrying out tests.

1.3 Modifications to the system design and the products

Modifications to a system or to individual products may cause faults or malfunctioning

Please request written approval from Siemens Building Technologies, Fire Safety & Security Products. Product line DMS, and the relevant authorities, concerning intended system modifications and system extensions.

2 Introduction

Siemens fire safety and security products are designed to work together. While there are many occasions where only one product may be used in a facility, when combined our products create a robust and flexible set of architectural and connectivity solutions. The possible combinations of Danger Management Systems (DMS), network choices, and subsystems used in any given plant are extensive. However the time involved with commissioning tasks can be substantial.

With the aim of reducing time spent on configuration, Siemens FS has developed their products so that the DMS and the networks can all be configured with a single tool called WW8000 Composer.

The networks and subsystems supported by our Danger Management Systems are always configured in the same way within the Composer environment.

What this document contains

This document compares LMSmodular features with MM8000 features and provides recommendations and tips for the migration to MM8000. It describes configuration procedures needed for the migration of LMSmodular Management stations and discusses the use of the available tools.

What this document doesn't contain

Details about the configuration of each DMS product are not included in this manual, but can be found in the product-specific configuration manual.

Each DMS product carries a different set of technical and behavioural characteristics that interact with the networks and subsystems. These differences typically appear as additional tabs in the network and subsystem work areas of Composer. However, since these tabs are always associated with attributes specific to the DMS being used, they are not discussed in this manual. This information can be found in the corresponding product configuration manual.

2.1 What has been changed in MP4.20

Here is the list of modifications included in MP4.20 for new functions and software improvements.

Section, Page	Modifications
2.2, p.5 and more	New NK823x units

2.2 Overview of LMSmodular and DMS8000 families and networks

Siemens fire safety & security products are organised into three levels:

- Management level:

  Presents the events, and allows for control of the site via the management station(s). The majority of the human interface takes place at this level.

- Automation level:

  Provides data communication links between the other two levels and defines the network topology and structure. The majority of the real-time control functions are carried out at this level.

- Field level:

  Contains the discipline-specific field devices.

Level	System	Products	Compatibility notes
Management	**LMSmodular** Local Management Systems	LMSmodular base module CGS Graphic Station additional module GT Guard Tour additional module	Note that not all combinations of devices across the levels may be possible at a given time.
	DMS8000 Danger Management Systems (DMS)	MM8000 Management Station MT8001 Management Terminal MK8000 OPC Server for Subsystems	
Automation (including connectivity)	Network	Cerban Cerloop CDI-Net NK8000 (formerly CDI-WAN)	
	Network components	MK7022 GW-00, GW-01, GW-21, GW-20 NK8210 NK8222, NK8223, NK8225, NK8231, NK8232, NK8235	
	Subsystems	Fire, Intrusion, CCTV, Gas, I/O, Access Control (SiPass)	
Field	Physical devices	Automatic detectors Manual call points Signalling devices, contacts Control elements, etc.	

2.3 Additional documents

Depending on your level of experience with Composer, and the architectural solutions available with our products, as well as where you are in the commissioning process, there are a number of additional documents that you may find useful. If you need a document that you don't have, you can download it through STEP on the Siemens Intranet.

Please see the following descriptions of relevant additional documents:

- The Composer Technical Manual contains mostly introductory information for new users of Composer. In addition to general introductory information, it contains details about several functions and shortcuts that can be useful for users. This manual is typically included with the documentation set that comes with each product. The STEP document number is: A6V10062401. STEP short name: WW8000.
- The Planning Application & Planning guide shows the architectural solutions currently available with the DMS8000 solutions, including network and subsystem connectivity options. This document is a kind of library of technical solutions, and is intended primarily as sales tools, but provides an overview of the relationships within the system that may be useful when planning a configuration. STEP document number: A6V10063710.
- The DMS8000 Connectivity Configuration Guides include the configuration procedures for the networks and subsystems supported by our DMS products. They discuss in detail how to configure these systems by hand.
  STEP document numbers: A6V10062425 (Network, Fire, and Intrusion), A6V10062451 (Access Control), A6V10062457 (Video), and A6V10065253 (OPC).
- The product-specific Installation Configuration & Commissioning manual (ICC) is the necessary complement to this manual for getting a complete view of the configuration process of a DMS product.
  STEP document numbers: A6V10062413 (MM8000), A6V10062407 (MK8000), A6V10096181 (MT8001), A6V10062437 (NK8000).

3 Migration from LMSmodular

3.1 General

3.1.1 System architectures

The MM8000 system allows for single and multiple stations architectures as well as client/server solutions that can replace any LMSmodular architecture.

As far as the field connectivity is concerned, systems based on ISO1745/Cerloop and CDI-Net communication can still be supported by MM8000. However, due to obsolete and unsupported hardware, CDI-Net gateways - GW-00, GW-01, GW-20, GW-21 - should be replaced as soon as possible as described below.

Instead, connections based on Cerban, CDDL-CDSF, CDI-WAN (GW-22, GW-23), and CNV-CS6 are no longer directly supported on the MM8000 server station and require an additional interface, e.g. NK82xx.

3.1.2 Compatibility issues

MM8000 allows for restoring part of the configuration of existing LMSmodular installations. However, some components require a new configuration activity and some others are no longer supported.

In general, please be aware of the following:

- Various legacy subsystems are still supported by MM8000 and the direct import of customised texts is possible for some of them.
  Customer texts can be imported *from LMSmodular database* for the following subsystems:
  - CZ10
  - CZ12
  - CC60
  - CMX/CF9003 (note that DF8003 replaced CF9003)
  - SIMATRIX
  - Philips-Burle CCTV matrix

  In other cases, MM8000 can import the *database export (metafile)* of the specific subsystem tool. The metafiles of the following subsystems can be imported:
  - CS11 AlgoRex
  - STT11
  - CS4
  - CS440
  - CS6 Guarto
  - SI410/420 Sintony
  - CerPass CC30 (via SiPass)

Subsystems that are compatible with MM8000 and can be still used may anyway need specific software updates (and possibly hardware updates as well). Please refer to latest MM8000 Release Notes.

- The following units are still supported by MM8000, but require preliminary activities for modelling the subsystem point and command structure:
  - CDDL-CDSF units such as Comerson CCTV, WSS, CDSS, Transliner
- The following units are no longer supported by MM8000:
  - Access control: Westinghouse units SE902, SE422, SE818, and NexSentry
  - Stäfa NCRS building automation modules via NISE-PAD
  - Third-party units via FHI-PAD
  - CBA fire control unit
- The general project structure, the configuration options concerning reactions and sequences (MM8000), and the graphic maps (MM8000, MT8001) must be re-entered manually.
- In general, special options related to the LMS-WAN solution, including the time controlling module RClock, are not supported.
- Access Control module (ACW) cannot be ported. A solution based on SiPass should be studied.
- Guard Tour module (GT) cannot be directly ported. A solution based on SiPass should be studied.
- CGS Graphic Station can be replaced by a dual-monitor MM8000 station.

When evaluating the LMSmodular compatibility issues and the related migration options, it is strongly recommended that you verify the latest product portfolio and the product phase-out strategies.

3.2 Management station features

This section contains the main LMSmodular software functions and how they can be replaced in a scenario with a new MM8000 management station.

3.2.1 Basic operations

LMSmodular	Supported in MM8000	Migration procedure	References
Acknowledgement of alarms or trouble messages	Yes	Supported in Fast Treatment mode	Doc.: MM8000 Operation Manual
Resetting of alarms	Yes	Supported in Fast Treatment mode	Doc.: MM8000 Operation Manual
Switching zones or elements OFF/ON/TEST	Yes	Use Plant Browser and point properties	Doc.: MM8000 Operation Manual
Switching organisation day/night (present/not-present)	Yes	Use Plant Browser and point properties	Doc.: MM8000 Operation Manual
Switching control elements ON/OFF and other control commands	Yes	Use Plant Browser and point properties	Doc.: MM8000 Operation Manual

3.2.2 Event treatment

LMSmodular	Supported in MM8000	Migration procedure	References
Treatment pages with graphics and intervention text	Yes	Supported in Assisted Treatment mode ➢ Intervention texts must be manually added	Doc.: MM8000 Operation Manual
Alarm printouts	Yes	Supported in Assisted Treatment mode ➢ Activation must be re-configured	Doc.: MM8000 Operation Manual
Event treatment report	Yes	Supported in Assisted Treatment mode	Doc.: MM8000 Operation Manual

3.2.3 Menu selection

LMSmodular	Supported in MM8000	Migration procedure	References
Login, Switchover, Password modification	Yes	Use commands in the MM8000 “Operator” menu	Doc.: MM8000 Operation Manual
Lists menu	Yes	Use MM8000 filtering options	Doc.: MM8000 Operation Manual
Management	Yes	Use Plant Browser and point properties	Doc.: MM8000 Operation Manual
Page browser	Yes	Use Plant Browser with graphical navigation ➢ Re-engineering required	Doc.: MM8000 Operation Manual
History	Yes	Use History Browser	Doc.: MM8000 Operation Manual
Engineering Tools	Yes	Use Composer	Doc.: Composer Technical Manual
Windows Applications	Yes	Use MM8000 “Applications” menu	Doc.: MM8000 Operation Manual

3.2.4 Data point descriptions

LMSmodular	Supported in MM8000	Migration procedure	References
Max. number of characters for data point description: 80	Yes (> 80 char.)	Use Composer	Doc.: MM8000 Operation, ICC Tool: Composer
Max. number of characters for subsystem description: 60	Yes (> 60 char.)	Use Composer	Doc.: MM8000 Operation, ICC Tool: Composer

3.2.5 System security

LMSmodular	Supported in MM8000	Migration procedure	References
Access levels 0 to 9	Yes	Use MM8000 security levels ➢ Re-engineering required	Doc.: MM8000 Operation, ICC Tool: Composer

3.2.6 Graphics

Graphic pages cannot be migrated.

3.2.7 Printer support

LMSmodular	Supported in MM8000	Migration procedure	References
Serial printer	Yes	Use any printer supported by Windows.	Doc.: MM8000 Operation, ICC Tool: Composer
Parallel printer	Yes	Use any printer supported by Windows.	Doc.: MM8000 Operation, ICC Tool: Composer

3.2.8 DDE support

LMSmodular	Supported in MM8000	Migration procedure	References
DDE connectivity	No	Move to OPC and use MK8000 ➢ Re-engineering required	Doc.: MM8000 Operation, ICC Tool: Composer

3.3 Subsystem support

Note: See DMS8000 Network, Fire and Intrusion Connectivity Guide, Appendix A (STEP #A6V10062425) for network connectivity options.

Subsystem	Supported in LMSmodular	Supported in MM8000	Supported in MK8000	Supported in MT8001	Customer text import	References
CZ10	Yes	Yes	Yes	Yes	Import from LMSmodular data-base (see section 4.2.1)	Documentation: – DMS8000: CCG manuals – MM8000 / MK8000 / MT8001: ICC manual – MM8000 Release Notes
CZ12	Yes	Yes	Yes	No		
CC60	Yes	Yes	Yes	Yes		
CMX/CF9003	Yes	Yes	Yes	Yes		
SIMATRIX	Yes	Yes	Yes	No		
Philips-Burle	Yes	Yes	Yes	No		
CS11 AlgoRex	Yes	Yes	Yes	Yes	Import metafile	
STT11	Yes	Yes	Yes	Yes		
CS4	Yes	Yes	Yes	No		
CS440	Yes	Yes	Yes	Yes		
CS6 Guarto	Yes	Yes	Yes	Yes		
SI410/420 Sintony	Yes	Yes	Yes	Yes		
Cerpass CC30	Yes (via CerPass)	Yes (via SiPass)	Yes (via SiPass)	No	Import via SiPass	

3.4 Network

LMSmodular	Supported in MM8000	Migration procedure	Reference
Cerban	No	Install end-loop on data concentrators; install MK7022 or install NK8000	➔ See section 4.3.1, p.18
CDDL-CDSF	No	Install NK82xx	➔ See section 4.3.2, p.18
Cerloop	Yes	-	➔ See section 4.3.3, p.19
CDI-WAN (GW-22, GW-23) via NK8210	No	Install NK82xx	➔ See section 4.3.4, p.19
CNV-CS6	No	Install NK82xx with LON option	➔ See section 4.3.5, p. 19

4 Migration procedures

4.1 LMSmodular database files

The two files needed for importing customer texts into a DMS8000 are:

- DB_PUL.DBF
- DB_SUB.DBF

These files are located in the compressed backup set (ZIP file) of LMSmodular configuration and in the C:\COPAVI\DBM\DATA folder of the PC where the LMSmodular software is installed.

4.2 Subsystems

4.2.1 Importing customer texts from an LMSmodular database

To import customer texts from an LMSmodular database, perform the following procedures in Composer:

Adding a folder for the subsystem

1. Open the Composer project.
2. Create a folder for the Fire/Gas/Intrusion components.

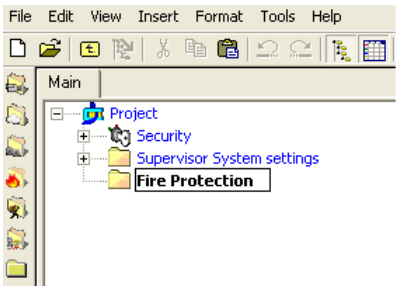

Fig. 1 Creating a new folder in the Composer tree

Adding a subsystem node

1. Select the new folder.
2. Select the appropriate subsystem icon to add a subsystem node.

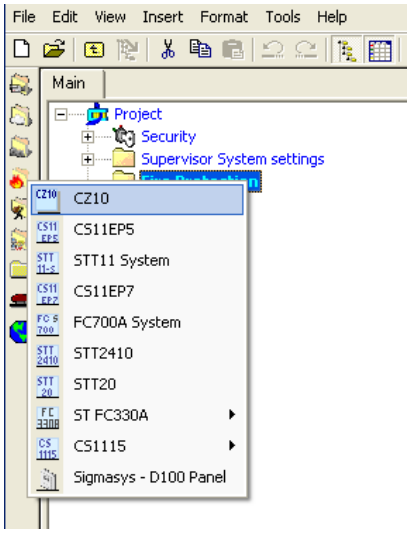

Fig. 2 Adding a new subsystem (e.g. CZ10) in the Composer tree

Setting the subsystem 'Local Address' and the 'Vitality Timer' (Cerban/Cerloop only)

1. Select the subsystem node.
2. In the Node tab form, set the 'Local Address' and the 'Vitality Timer'.

   The local address must match the corresponding value set in the unit's configuration according to the Cerban/Cerloop network rules. The vitality timer setting indicates the maximum acceptable delay between two vitality messages from the control units. If timer expires, a fault event is generated. A value between 120 and 180 seconds is recommended.

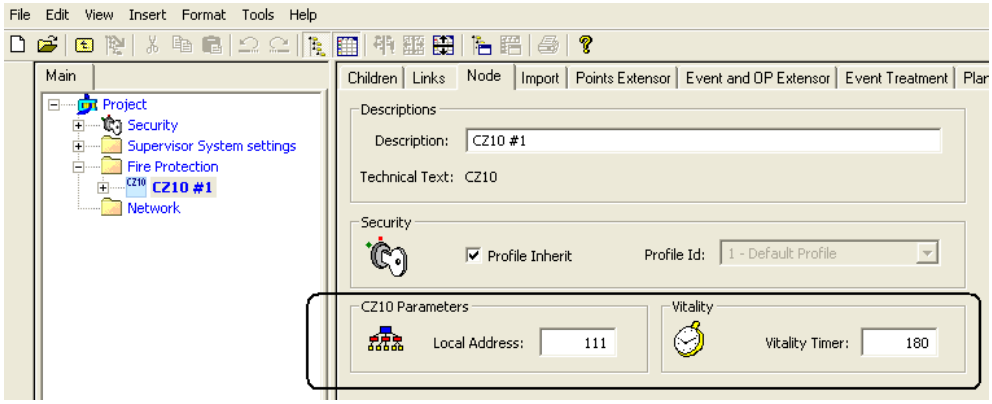

Fig. 3 Configuring Cerban/Cerloop options

Importing the LMSmodular configuration

1. Select the subsystem node.
2. Select "Tools→Import" in the Composer menu to start subsystem import.

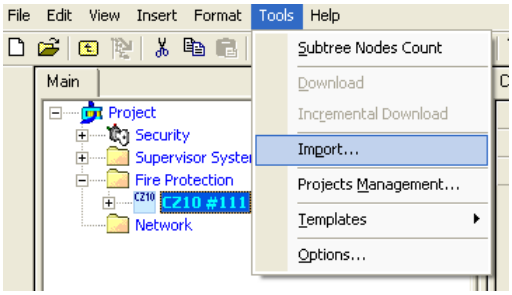

Fig. 4 Importing data from subsystem node

After a confirmation request, the software presents a browsing window to search for the files to import.

3. Using standard Windows controls, do the following:

a. Look for LMS files (DB_SUB:DBF is searched) using the browsing window.

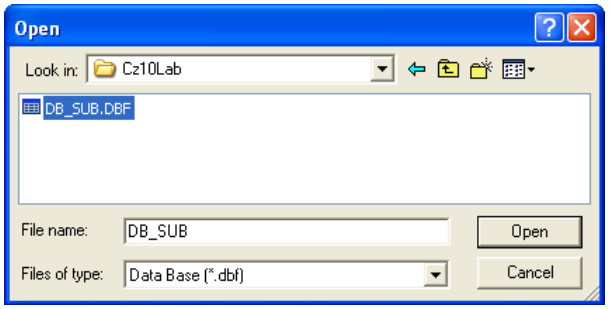

Fig. 5 Locating the file to import

b. Locate the DB_SUB.DBF file (note that DB_PUL.DBF is also required: **both** files must be present in the same folder).

c. Select DB_SUB.DBF and click ‘Open’.

d. When prompted, select the language code of the DBF file.

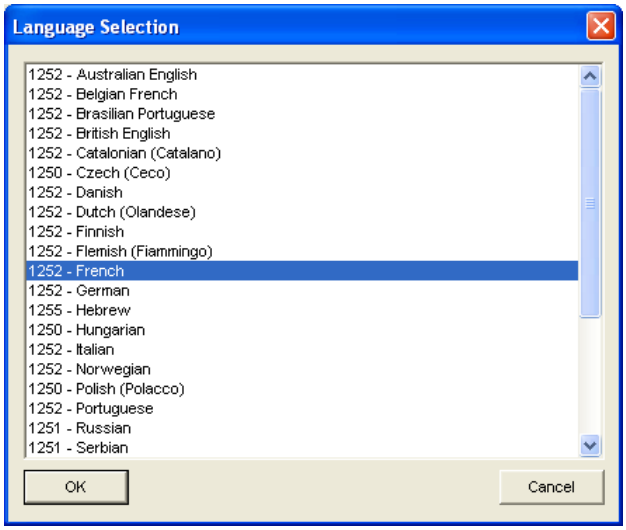

Fig. 6 Choosing language code (e.g. French)

e. If more than one subsystem unit is present in the database file, the software presents a list. Select the one you want to import and click ‘OK’.

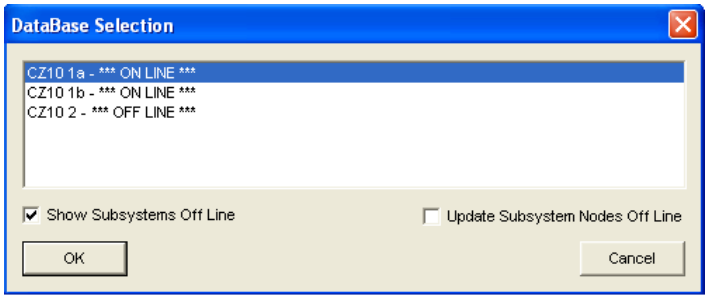

Fig. 7 Selecting the subsystem to import

In a few moments, the subsystem structure is imported, and the node is represented in the Composer tree.

Two checkboxes in the selection window allows for enabling the process of out-of-scan (off-line) data in the LMSmodular database.

The first option, *Show Subsystem Off-Line*, lets the out-of-scan subsystems appear in the selection list. Check the option *Update Subsystem Node Off-line* to include the out-of-scan points in the import.

Note that re-import is not possible.

4.3 Networks

4.3.1 Cerban

Direct connections to Cerban networks are NOT supported by MM8000.

Possible migration scenarios:

Cerban network in end-loop configuration

1. Connect all existing data concentrators in an end-loop configuration
2. Install MK7022 in Cerloop
3. Configure MK7022 using Win_K22 tool
4. Program MK7022 EPROM
5. Connect MK7022 to MM8000

   Note: NS8010 ISO1745 Driver is required on MM8000

Connect subsystems via MK7012 Cerban nodes

1. Connect subsystems via MK7012 Cerban nodes to a Cerloop network
2. Install MK7022 in Cerloop
3. Configure MK7022 using Win_K22 tool
4. Program MK7022 EPROM
5. Connect MK7022 to MM8000

   Note: NS8010 ISO1745 Driver is required on MM8000

Connect subsystems to NK8000 Network

1. Install NK82xx Ethernet Ports
2. Connect subsystems via Cerban (or ISO1745 for CC114x) to NK82xx
3. Connect NK82xx to the LAN
4. Connect MM8000 to the LAN

   Note: NS8210 NK8000 Network Driver is required on MM8000

4.3.2 CDDL-CDSF

Direct connection to CDDL-CDSF units is NOT supported by MM8000.

Migration scenario:

Connect subsystems to NK8000 Network

1. Install NK82xx Ethernet Ports
2. If a CDSF model is not already available in Composer (see note below), a new one must configured using the CDSS customization tool
3. Connect subsystems via CDDL-CDSF to NK82xx
4. Connect NK82xx to the LAN
5. Connect MM8000 to the LAN

Note: NS8210 NK8000 Network Driver is required on MM8000.
The CDDL/CDSF Control Units Add-on module is required on MM8000. The Add-on module includes a set of predefined models for the following units: CP100, AVOTEC; PATROL. The integration of other CDDL/CDSF control units requires additional engineering effort for creating specific subsystem models. For details about the CDDL/CDSF support please refer to the documents CDDL/CDSF ICC Add-on (A6V10067787) and CDDL/CDSF ICC Add-on Release notes (A6V10067804).

4.3.3 Cerloop

Existing Cerloop connections to LMSmodular can also be connected to MM8000 station using NS8010 ISO1745 Driver.

4.3.4 CDI-WAN

CDI-WAN connection (GW-22 and GW-23) is not supported by MM8000.

Migration scenario:

Connect subsystems to NK8000 Network

1. Install NK82xx Ethernet Ports (replacing one to one GW-2x)
2. Connect subsystems to NK82xx
3. Connect NK82xx to the LAN
4. Connect MM8000 to the LAN

   Note: NS8210 NK8000 Network Driver is required on MM8000.

4.3.5 CNV-CS6

Connections to CS6 Guarto via CNV-CS6 are not supported by MM8000.

Migration scenario:

Connect CS6 Guarto subsystems to NK8000 Network

1. Install NK82xx Ethernet Ports (replacing CNV-CS6)
2. Update CS6 Guarto version
3. Connect subsystems to NK82xx
4. Connect MM8000 via LAN or serial line

   Note: NS8210 NK8000 Network Driver is required on MM8000.

5 Migration Checklist

This brief checklist presents the main steps required for migrating an existing LMSmodular systems to MM8000. The list is organised in two parts, containing the planning and the implementation phases. For each step, the *References* column shows what sections of this paper or what other documents or tools can be refer to.

#	Step	Reference
Planning		
1	Analyse the existing system as well as the corresponding LMSmodular configuration	– Project documentation – LMSmodular documents: → LMSmodular Configuration Guide (001863_c) → LMSmodular Configuration Reference (001864_c)
2	Verify compatibility of field subsystems, define the list of obsolete or incompatible units	– Section 3.1.2 of this document – Subsystems' documentation
3	Acquire new subsystems as required	– Sales Support
4	Define the new DMS software (MM8000 license) and hardware (PC, NK8000) required	– Section 3.2 of this document (MM8000 software) – Section 3.4 of this document (Networks) – DMS8000 documents: → Application Specification & Planning (A6V10063710_a) → MM8000 and NK8000 Datasheets
5	Acquire new DMS software and hardware	– Sales Support
6	Define the required MM8000 software configuration, compile the configuration forms	– Section 3.3 of this document – MM8000 document: → Install., Configuration & Commissioning (A6V10062413_a)
7	Get the LMSmodular configuration files (DB_SUB.DBF, DB_PUL.DBF)	– Section 4.1 of this document
8	Get the subsystems' metafiles	– Subsystem's configuration tools – Subsystem's documentation – Section 3.3 of this document
9	Get the AutoCAD drawings of the building(s) to be used in MM8000	– DMS8000 document: → Graphical Map Configuration Guide (A6V10062441_a)
Implementation		
10	Install new subsystems or update old software/firmware	– Subsystem's documentation
11	Using Composer, configure the new MM8000 Project	– Section 3.3 of this document – See DMS8000 documents: → Composer Technical Manual (A6V10062401_a) → Network, Fire & Intrusion Connectivity Guide (A6V10062425_a) → MM8000 Install., Configur. & Commissioning (A6V10062413_a)
12	Install new MM8000	– MM8000 document: → Install., Configuration & Commissioning (A6V10062413_a)

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