

# SIEMENS

*Ingenuity for life*

## Sustainable network management

Prerequisite for successful digital companies in the glass industry.

### The Challenge

In times of digitalization, the number of devices communicating over a network increases dramatically. From the simple field device to the control components on the system bus, the operating and visualization stations of the terminal bus, to the office area - all these devices communicate with their network partners and pose great challenges for the management of these networks.

Providing sufficient bandwidth for the participants in the network is no longer sufficient; instead, high demands are placed on security and error management within a network. In the FCAPS model of the International Organization for Standardization (ISO), the cornerstones for successful network management are defined as follows:

- **Fault Management** - Recognize, log and correct error conditions
- **Configuration Management** – Capture and manage components
- **Accounting Management** – Record network usage
- **Performance Management** – Collect performance data and keep statistics
- **Security Management** – Authenticate users and authorize access and use

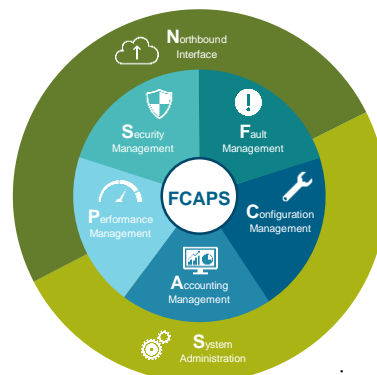
### The solution

Use SINEC NMS - the comprehensive network management system for your networks. SINEC NMS is based on the FCAPS model and extends it by the two components "System Administration" and "Northbound Interface".

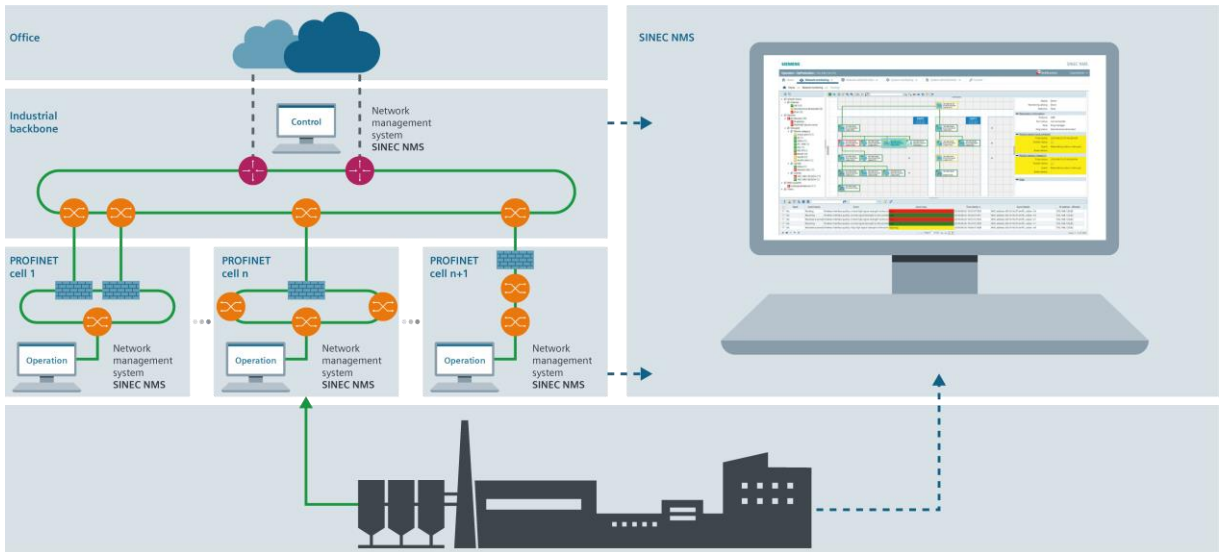
The overarching element "System Administration" comprises the three aspects operation management, system scalability and user administration. The core aspect here is the distributed, decentralized approach with a holistic view of the network, regardless of its size. For this purpose, SINEC NMS is divided into the superordinate Control level and several distributed, subordinate Operations. The subordinate SINEC NMS operation levels are centrally put into operation and managed in the control.









The SINEC NMS Operations in turn are distributed throughout the network and have the task of recognizing the network devices and reading the respective information from them. They also apply the configuration parameters from the control level to all participants.

The second extension is the "Northbound Interface" and enables the connection between the industrial network and the IT level. Thus, the network and diagnostic data preprocessed in SINEC NMS can be seamlessly integrated via OPC UA into various applications such as SIMATIC WinCC or SIMATIC PCS 7.



# SINEC NMS - Cockpit for the nervous system of the digital glass system



 <p><b>Fault Management</b> Error localization through clear status overview, structuring of the networks and evaluation of the network load.</p>	 <p><b>Graphic representation</b> Topological recognition and representation of the network as well as integration in HMI- / SCADA systems.</p>
 <p><b>Security Management</b> Increased security through connection to existing user management systems and use of data encryption.</p>	 <p><b>Transparent diagnostics</b> through automatic topology recognition, extensive diagnostic options and integration of 3rd-party devices.</p>
 <p><b>Validation and documentation</b> Repeatable testing and documentation of network properties and documentation of network participants.</p>	 <p><b>Policy-based configuration of the network</b> Reduces the complexity of network configuration and saves time and money.</p>
 <p><b>Openness and flexibility</b> Integration of 3rd party devices. Diagnostic data is made available to the HMI/ SCADA system via the OPC UA server.</p>	 <p><b>Scalability through distributed architecture</b> Scalability up to 12,500 devices.</p>

## Available product portfolio

Portfolio	Article number
SINEC NMS V1.0 100 (Download)	6GK8781-1DA01-0AK0
SINEC NMS V1.0 250 (Download)	6GK8781-1JA01-0AK0
SINEC NMS V1.0 100 (DVD)	6GK8781-1DA01-0AA0
SINEC NMS V1.0 250 (DVD)	6GK8781-1JA01-0AA0
SINEC NMS V1.0 Power Pack	6GK8781-5AA00-0AC0

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