Foxboro™ DCS

ExtremeCloud™ IQ (XIQ) - Site Engine

PSS 41S-2XIQ-SE

Product Specification

March 2023

https://www.se.com

Legal Information

Overview

The ExtremeCloud™ IQ (XIQ) – Site Engine (XIQ-SE) from Extreme Networks™ provides a collection of tools that helps you monitor the status of the network devices (Host Server and switches to be monitored), discover and document the network hardware functional status, and troubleshoot tasks for the Foxboro DCS Control Network. XIQ-SE is designed to facilitate specific network monitoring tasks while providing a historian for network messaging.

XIQ-SE is offered for use with the Control Network as a network monitoring tool. XIQ-SE enables Plant Managers, Process Engineers, and System Managers to have a more in-depth view of the Control Network. The XIQ-SE Client and Server applications provide a suite of network monitoring tools to facilitate tasks, such as monitoring the switch status, documenting network configuration, and automating troubleshooting tasks on the Control Network.

These Client and Server applications allow you to monitor your network from a single client or, for networks of greater complexity, from one or more client workstations. XIQ-SE is designed to facilitate specific network management tasks while sharing data and providing common controls and a consistent user interface.

XIQ-SE uses the concept of a "Device". A device is first the Host Server that is running the XIQ-SE program suite. It is also a term for each switch that is to be monitored on the network. This forms the basis of product sizing as discussed in this document.

The XIQ-SE user interface provides a graphical representation of each network device and its status. Color-coded arrows provide a visual indication of the status of the network device, where up denotes online and down denotes offline. A set of system device groups collects device information by IP address, location, contact, chassis, and product families.

You can create groups and organize them to view specific information. For example, an administrator can define a group for a process area.

Depending on your needs, a single XIQ-SE server can monitor networks ranging from small sizes to extremely large sizes. For information on the license sizes available for monitoring the Control Network, see Part Numbers, page 7

XIQ-SE uses SNMP queries to retrieve data from the switches. For sizing guidelines and hardware requirements for the application, see Specifications, page 6.

Features

- Client and Server applications enable distributed management of the Control Network; graphical user interfaces (GUIs) provide graphical representations of one or more network devices along with their statuses.
- FlexViews provide pre-defined and customizable views of the polled data of the network devices. New FlexViews, including a FlexView Properties editor, can be created.
- Compass search tool allows you to search for information about end users or workstations.
- Alarms and Events help you identify situations requiring action.

Standard XIQ-SE Functionality for Use with the Foxboro DCS Control Network

FlexViews

FlexViews are pre-defined, customizable views of the polled data of network devices. Multiple FlexViews are available with a range of search, filter, and sort features to control the data displayed. FlexViews can present information as a pie graph, bar graph, or line graph and can be exported in a variety of formats, including CSV and HTML.

Device Manager

The Device Manager provides status and tools to help you manage the devices (such as switches, blades, or Mini-GBICs) in the network.

Topology Manager

The Topology Manager makes it easier for you to visualize the network by generating views that demonstrate how the network devices are logically organized on the network. The Topology Manager uses graphical elements to illustrate the physical connectivity of the switch and different kinds of links, such as root ports, active links, and root bridges.

Discovery Tool

The Discovery Tool discovers network devices that will be monitored. It performs this by populating the XIQ-SE Suite database, identifying network devices based on subnet masks or IP ranges, and sorting them based on system-created device groups.

MIB Tools

The MIB tools enable viewing of network device Management Information Databases (MIBs). You can use the MIB Tools window to contact a device, view its supported MIBs, and query the device for MIB values.

Compass Search Tool

The Compass Search Tool is a customizable search tool that returns a wide variety of information on the network and allows its users to assist in network administration.

Alarms and Events

The Alarms and Events feature provides network detected error reports and alerts. The alarms and events triggered behaviors can be customized, and can be exported, printed, searched, filtered, and sorted. XIQ-SE also provides configuration tools that let administrators add and customize the Alarm and Event tabs and let them launch an application for certain detected alarms, events, and traps.

NOTICE

POTENTIAL LOSS OF FUNCTIONALITY

Do not use the XIQ-SE tools for network configuration. Foxboro DCS Switch Configurator Application Software (SCAS) is the only approved network configurator tool. The Control Network does not function correctly within the DCS system if you do not use SCAS to configure the network.

Failure to follow these instructions can result in loss of functionality.

Specifications

XIQ-SE Server

<table>
<tr><td>Operating System Requirements</td><td>Windows® Server® 2016 Standard (English version 64-bit)</td></tr>
<tr><td>Requirements[a]</td><td>
NOTE: One (1) unused GB NIC is required for the XIQ-SE installation. We recommend two (2) GB NICs be used, utilizing NIC teaming.
XIQ-SE Server Sizing
<table>
<tr><th></th><th>DCS Small</th><th>DCS Medium</th><th>DCS Large</th><th>DCS X-Large</th></tr>
<tr><td>Total CPUs</td><td>1</td><td>1</td><td>2</td><td>2</td></tr>
<tr><td>Memory</td><td>16 GB</td><td>16 GB</td><td>32 GB</td><td>64 GB</td></tr>
<tr><td>Disk Size</td><td>200 GB</td><td>300 GB</td><td>350 GB</td><td>400 GB</td></tr>
<tr><td>IOPS[b]/ Devices</td><td>10–100</td><td>100–200</td><td>200–1000</td><td>1000–2000</td></tr>
</table>
See ExtremeCloud™ IQ (XIQ) - Site Engine Installation Guide (B0700WL) to determine which stations are suitable for the XIQ-SE Server.
</td></tr>
<tr><td colspan="2">(a) Allocated to XIQ-SE.
(b) Input/output operations per second.</td></tr>
</table>

XIQ-SE Client

<table>
<tr><td>Operating System Requirements</td><td>Windows 10® (English version - 64-bit)</td></tr>
<tr><td>Requirements[a]</td><td>
NOTE: One (1) unused GB NIC is required for the XIQ-SE installation. We recommend two (2) GB NICs be used, utilizing NIC teaming.
• CPU Speed: 3.0 GHz Dual Core Processor
• Memory: 4 GB
• Disk Size: 300 MB
(User's home directory requires 50 MB for file storage)
• Java Runtime Environment[b]: Version 8
• Browser[c]: Microsoft Edge[d] (in compatibility mode)
See ExtremeCloud™ IQ (XIQ) - Site Engine Installation Guide (B0700WL) to determine which stations are suitable for the XIQ-SE Client.
</td></tr>
<tr><td colspan="2">(a) Allocated to XIQ-SE.
(b) Oracle Java only.
(c) Enable JavaScript and cookies.
(d) It is your responsibility to verify you are using the latest version of Microsoft Edge. Update regularly to help maintain browser security.</td></tr>
</table>

Part Numbers

- K0177DZ - ExtremeCloud IQ-SE (XIQ_SE) Install / Update Media two (2) disk set.
- J0202DR - ExtremeCloud IQ-SE (XIQ_SE) Pilot License (Entitlement ID)

  NOTE: Licensing is based on number of devices to be monitored (from 2 devices to as many as needed).

XIQ-SE uses licenses stored locally in a license file. This avoids the need for an internet connection in order to verify licenses are available as you add devices. This allows installations that are air-gapped from the internet to use XIQ-SE.

NOTE: Licenses in one installation of XIQ-SE in air-gap mode cannot be shared with other installations of XIQ-SE since there is no network connectivity across the air-gap.

For more information, see *ExtremeCloud IQ (XIQ) - Site Engine Installation Guide* (B0700WL).

Table 1 - License Requirements

Device	Number of Licenses per Device
Schneider Electric FDCN-supported devices (EXOS, Summit Series, A-Series, B-Series, C-Series)[a]	1
XIQ-Site Engine Server[b]	1
(a) See PSS 41H-7NwEquip for the list of currently supported Foxboro DCS Control Network (FDCN) equipment. (b) There is one license required for the XIQ-SE Server.	

Table 2 - XIQ-SE Server Licenses

Part Number	Description
J0202DR	XIQ-Site Engine Pilot Entitlement 1/switch

⚠ **WARNING**: This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov/.

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As standards, specifications, and design change from time to time, please ask for confirmation of the information given in this publication.

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