MS-ADSLA5U-x, MS-NAE451L-2

Application and Data Server (ADS) Lite-A System

Description

The Application and Data Server (ADS) Lite-A system leverages the building control and data storage capabilities of an ADS with the scalability of the Metasys® engines to meet the needs of middle-sized buildings and campuses. Capable of supporting 5 user connections and up to 4 engines, the ADS-Lite-A is a unique solution for Master-Slave/Token-Passing (MS/TP) networks and those with specialized third-party integration.

Refer to the *Application and Data Server Application and Data Server (ADS) Lite-A System Product Bulletin (LIT-12011694)* for important product application information.

The **Application and Data Server (ADS) Lite-A** is an optional component of the Metasys® system that manages the collection and presentation of trend data, event messages, operator transactions, and system configuration data. As Site Director, the ADS-Lite-A provides secure communication to a network of Network Automation Engine (NAE) 45-Lites and Network Integration Engines (NIEs).

The Site Management Portal User Interface (UI) of the ADS-Lite-A operates in a Web browser to provide flexible system navigation, user graphics, comprehensive alarm management, trend analysis, and summary reporting capabilities. With the Site Management Portal UI, you can efficiently manage occupant comfort and energy usage, quickly respond to critical events, and optimize control strategies. The ADS-Lite-A includes an Open Database Connectivity (ODBC) compliant database package for secure storage of historical and configuration data.

An optional interface called the Ready Access Portal UI provides an intuitive, task-based user experience designed for building tenants and other specialized users.
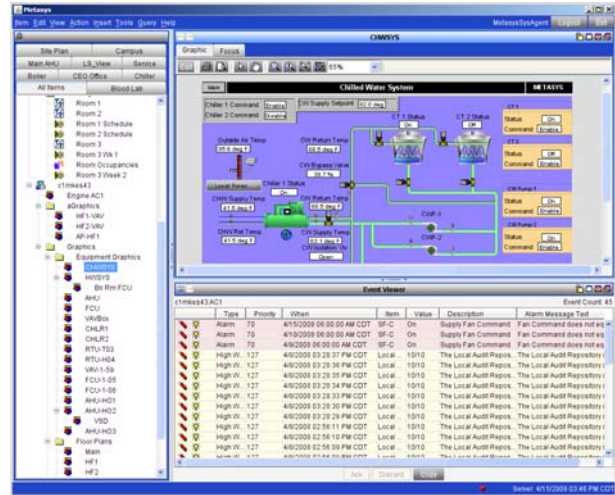
Note: In this document, the term engine refers to all supported NAE45-Lites and NIEs, unless otherwise noted. The ADS-Lite-A supports up to three NAE-Lites and one NIE29/39/49.

Network Automation Engine (NAE) 45-Lites enable Internet Protocol (IP) connectivity and Web-based access to Metasys® Building Management Systems (BMSs).

NAE45-Lites leverage standard BACnet building management communication to monitor and supervise a wide variety of Heating, Ventilating, and Air Conditioning (HVAC); lighting; security; fire; and access control equipment.

NAE45-Lites provide comprehensive equipment monitoring and control, scheduling, alarm and event management, energy management, data exchange, data trending, and data storage.

The NAE45-Lite enables cost-effective connectivity and control in small to medium facilities.

ADS-Lite-A Site Management UI

NAE45-Lite

Features

- Communication Using Commonly Accepted Information Technology (IT) Standards
- Web-Based User Interface
- UI Support for 5 Users
- Support for 4 Engines: 3 NAE45-Lites and 1 NIE29/NIE39/NIE49
- Support for MS/TP Bus, BACnet® Protocol, and Third-Party Communication
- Support for Language Installation Program (LIP)

Selection Charts

ADS-Lite-A

Code Number	Description
MS-ADSLA5U-0	New ADS-Lite-A project software for up to 5 concurrent users

ADS-Lite-A and NAE45-Lite are available for purchase and use in the following counties only: Australia, China, Hong Kong, India, Indonesia, Japan, Korea, Malaysia, New Zealand, Philippines, Singapore, Taiwan, Thailand, and Vietnam.

NAE45-Lite

Code Number	Description
MS-NAE451L-2	One BACnet MS/TP (RS-485) trunk; an additional RS-232-C serial port for optional external modem, support for up to 100 BACnet MS/TP devices on the trunk. (N2 Bus and LONWORKS® field trunk are not supported.)

For information on the NIE29, NIE39, and NIE49, contact Johnson Controls® Systems Integration Services (SIS).

Accessories

Product Code Number	Description
MS-BAT1020-0	Replacement data protection battery for NAE45-Lite. Rechargeable NiMH battery: 3.6 V 500 mAh, with a typical life of 5 to 7 years at 21°C (70°F)
AS-XFR100-1	Power transformer (Class 2, 24 VAC, 92 VA maximum output), with enclosure
AS-XFR010-1	Power transformer (Class 2, 24 VAC, 92 VA maximum output), no enclosure

Technical Specifications

Application and Data Server (ADS) Lite System Requirements	
Recommended Computer Platform[1]	2.8 GHz Pentium® 4 processor with 80 GB hard disk (2.0 GHz Pentium 4 processor with 40 GB hard disk minimum) 20 GB free space on the hard disk (drive C) after installing all prerequisite software and before installing the ADS-Lite software DVD drive Note: Prerequisite software includes the supported OS, database software, .NET Framework, and any other software or service packs required for your ADS-Lite configuration.
Recommended Memory	2 GB RAM minimum
Supported Operating Systems[2] and Database Software	**Microsoft® Windows® 7 OS Professional, Enterprise, and Ultimate Editions (32-bit) with SP1** (Includes Microsoft IIS Version 7.5) Supports Microsoft SQL Server™ 2008 R2 Express software (32-bit), SQL Server 2008 Express software with SP2 (32-bit), or SQL Server 2005 Express software with SP3 (32-bit) **Microsoft Windows XP® OS Professional Edition (32-bit) with SP3** (Includes Microsoft IIS Version 5.1) Supports Microsoft SQL Server 2008 R2 Express software (32-bit), or SQL Server 2008 Express software with SP2 (32-bit), or SQL Server 2005 Express software with SP3 (32-bit)
Required Web Browser Software for Metasys Client Computers	Microsoft Internet Explorer® Version 6.x, 7.0, or 8.0 Java® Runtime Environment (JRE) 1.6.0_23 Note: When browsing to the UI of a Metasys system device, the OS on the client computer must be supported by the Metasys release loaded on the device. You may be unable to browse to Metasys system devices if the client OS is not supported. Refer to the *Requirements for Site Management Portal Client Computer* section of the *Metasys System Extended Architecture Overview Technical Bulletin (LIT-1201527)* for more information.
Network Communication	Ethernet network interface card 10/100/1000 Mbps (100 Mbps or better recommended) Note: The ADS-Lite supports only one network interface card.
Additional Software Included with the ADS-Lite	CCT software Export Utility software Metasys Database Manager software Microsoft .NET Framework Version 3.5 SP1 Microsoft SQL Server 2008 R2 Express software Microsoft SQL Server 2008 Express software with SP2 Microsoft SQL Server 2005 Express software with SP3 Ready Access Portal software SCT software SCT Manager software Note: The Microsoft Windows 7 OS includes Microsoft .NET Framework Version 3.5.1 which is built into the operating system (no separate software installation is necessary).
Optional Hardware	Any network or local printer supported by the qualified Windows operating system

1. Our computer platform and memory recommendations are not meant to imply that older or slower machines are not usable. Refer to the *Network and IT Guidance for the BAS Professional Technical Bulletin (LIT-12011279)* for more information regarding computer/server recommendations.
2. Refer to the *Network and IT Guidance for the BAS Professional Technical Bulletin (LIT-1201279)* for specific Microsoft Windows OS settings that may be required for your Metasys system configuration.

NAE45-Lite	
Power Requirement	Dedicated nominal 24 VAC, Class 2 power supply (North America), Safety Extra-Low Voltage (SELV) power supply (Europe), at 50/60 Hz (20 VAC minimum to 30 VAC maximum)
Power Consumption	25 VA maximum
Ambient Operating Conditions	0 to 50°C (32 to 122°F); 10 to 90% RH, 30°C (86°F) maximum dew point
Ambient Storage Conditions	-40 to 70°C (-40 to 158°F); 5 to 95% RH, 30°C (86°F) maximum dew point
Data Protection Battery	Supports data protection on power failure. Rechargeable NiMH battery: 3.6 VDC 500 mAh, with a typical life of 5 to 7 years at 21°C (70°F); Product Code Number: MS-BAT1020-0
Processor	192 MHz Renesas™ SH4 7760 RISC processor
Memory	128 MB Flash nonvolatile memory for operating system, configuration data, and operations data storage and backup 128 MB Synchronous Dynamic Random Access Memory (DRAM) for operations data dynamic memory
Operating System	Microsoft® Windows® CE embedded
Network and Serial Interfaces	One Ethernet port; 10/100 Mbps; 8-pin RJ-45 connector One optically isolated RS-485 port; 19.2k, 38.4k, or 76.8k baud; with a pluggable and keyed 4-position terminal block One RS-232-C serial port with standard 9-pin sub-D connector that supports standard baud rates. A second serial port supports an optional, user-supplied external modem. One USB serial port with standard USB connector that supports an optional, user-supplied external modem.
Housing	Plastic housing material: ABS + polycarbonate UL94-5VB Protection: IP20 (IEC 60529)
Mounting	On flat surface with screws on three mounting clips or a single 35 mm DIN rail
Dimensions (Height x Width x Depth)	131 x 270 x 62 mm (5.2 x 10.6 x 2.5 in.) Minimum space for mounting NAE45-Lite: 210 x 350 x 110 mm (8.3 x 13.8 x 4.3 in.)
Shipping Weight	1.2 kg (2.7 lb)
Compliance CE	**United States:** UL Listed, File E107041, CCN PAZX, UL 916, Energy Management Equipment, FCC Compliant to CFR47, Part 15, Subpart B, Class A
	Canada: UL Listed, File E107041, CCN PAZX7, CAN/CSA C22.2 No. 205, Signal Equipment; Industry Canada Compliant, ICES-003
	Europe: CE Mark – Johnson Controls, Inc., declares that the NAE45-Lite is in compliance with the essential requirements and other relevant provisions of the EMC Directive 2004/108/EC.
	Australia and New Zealand: C-Tick Mark, Australia/NZ Emissions Compliant