Reference Manual

Original Instructions



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EtherNet/IP Web Server Module Migration

Catalog Number 1756-EWEB

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Notes:

Migration Options

There are no direct product replacement options for the 1756-EWEB web server module. The replacement options that are listed in this guide are engineered replacements. An engineered replacement is defined as follows:

- A product or family that can be used to migrate an earlier product or family and requires engineering changes to existing applications.
- An engineered replacement means that there is a form, fit, or function change of the application that is not backward compatible and that does not emulate the earlier product. It requires considerable changes to the application. The migration solution requires engineering effort that requires additional software/hardware tools and products or architectural modifications. Rockwell Automation[®] services and/or third-party services are available to support Engineered replacements.

To determine which products can replace specific features of a web server module, refer to the following table.

Web Server Module Feature	Replacement
Create and access data views	
Create custom webpages	ControlLogix® compute module (1756-CMS1B1, 1756-CMS1C1)
Allow web access to control system data	
Configure email	EtherNet/IP™ communication module (1756-EN2x, 1756-EN3x, 1756-EN4x)
Prevent bridging to other modules	1756-EN4x communication module with CIP Security™
Configure time settings	EtherNet/IP communication module (1756-EN2x, 1756-EN3x, 1756-EN4x) with Add-On Instruction sample code
Access the socket interface	EtherNet/IP communication module (1756-EN2x, 1756-EN3x, 1756-EN4x)

ControlLogix Compute Module Applications

Compute modules offer an embedded operating system that lets you develop custom applications via an API (application programming interface) library. The API library supports industry standard programming languages. See the ControlLogix Compute Modules User Manual, publication <u>1756-UM003</u>.

You can use a compute module to replace custom webpages and other applications that you managed via a web server module.

IMPORTANT You cannot use a compute module to bridge across the backplane to other modules. To bridge across the backplane, use an EtherNet/IP communication module.

EtherNet/IP Communication Module Applications

ControlLogix EtherNet/IP communication modules establish connections between devices and implement network-based access control for users, devices, and networks in a 1756 chassis. For more information about these communication modules, see the ControlLogix EtherNet/IP Network Devices User Manual, publication <u>1756-UM004</u>.

Configure Email

To replace email functionality provided by a web server module, you can use an EtherNet/IP communication module as an email client. Configuring email with a communication module requires the following:

- A mail relay server to deliver the email to a recipient.
- A controller configured to send a MSG instruction with the email text to the EtherNet/IP communication module and then to the mail relay server. The delivery of the email depends on the mail relay server.

For instructions about how to send email via a controller-initiated MSG instruction, see the EtherNet/IP Network Devices User Manual, publication <u>ENET-UM006</u>.

Prevent Bridging to Other Modules

If you used a web server module to prevent bridging to other modules across the backplane, you can use any 1756-EN4x module with CIP Security to secure access to other modules. See <u>CIP Security on page 4</u>.

Configure the Time Server

To replace time server configuration in a web server module, you can use an EtherNet/IP communication module with Add-On Instruction sample code. The Add-On Instruction uses the socket interface to get time from an NTP or SNTP server.

For more information about the socket interface and how to use Add-On Instruction sample code to read time, see these resources:

- EtherNet/IP Socket Interface Application Technique, publication ENET-ATOO2
- Knowledgebase article <u>RSLogix 5000: A0I example for using sockets to read time from NTP or SNTP server</u>

CIP Security

When migrating to an EtherNet/IP communication module from a web server module that disallowed bridging, we recommend that you consider implementing CIP Security via 1756-EN4x communication modules.

CIP Security is a standard, open-source communication mechanism that helps to provide a secure data transport across an EtherNet/IP network. It lets CIP-connected devices authenticate each other before transmitting and receiving data.

CIP Security uses the following security properties to help devices protect themselves from malicious communication:

- Device Identity and Authentication
- Data Integrity and Authentication
- Data Confidentiality

Rockwell Automation uses the following products to implement CIP Security:

- FactoryTalk[®] Services Platform, version 6.11 or later, with the following components enabled:
 - FactoryTalk Policy Manager
 - FactoryTalk System Services
- FactoryTalk Linx, version 6.11 or later
- Studio 5000[®] Design Environment, version 31.00.00 or later
- CIP Security-enabled Rockwell Automation products, for example, the product described in this publication

For more information about CIP Security, including which products support CIP Security, see the CIP Security with Rockwell Automation Products Application Technique, publication <u>SECURE-ATOO1</u>.

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
EtherNet/IP Network Devices User Manual, <u>ENET-UM006</u>	Describes how to configure and use EtherNet/IP devices to communicate on the EtherNet/IP network.
Ethernet Reference Manual, <u>ENET-RM002</u>	Describes basic Ethernet concepts, infrastructure components, and infrastructure features.
System Security Design Guidelines Reference Manual, <u>SECURE-RMOO1</u>	Provides guidance on how to conduct security assessments, implement Rockwell Automation products in a secure system, harden the control system, manage user access, and dispose of equipment.
UL Standards Listing for Industrial Control Products, publication <u>CMPNTS-SR002</u>	Assists original equipment manufacturers (OEMs) with construction of panels, to help ensure that they conform to the requirements of Underwriters Laboratories.
American Standards, Configurations, and Ratings: Introduction to Motor Circuit Design, publication <u>IC-ATOO1</u>	Provides an overview of American motor circuit design based on methods that are outlined in the NEC.
Industrial Components Preventive Maintenance, Enclosures, and Contact Ratings Specifications, publication <u>IC-TD002</u>	Provides a quick reference tool for Allen-Bradley industrial automation controls and assemblies.
Safety Guidelines for the Application, Installation, and Maintenance of Solid-state Control, publication <u>SGI-1.1</u>	Designed to harmonize with NEMA Standards Publication No. ICS 1.1-1987 and provides general guidelines for the application, installation, and maintenance of solid-state control in the form of individual devices or packaged assemblies incorporating solid-state components.
Industrial Automation Wiring and Grounding Guidelines, publication <u>1770-4.1</u>	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, rok.auto/certifications.	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at <u>rok.auto/literature</u>.

Rockwell Automation Support

Use these resources to access support information.

Technical Support Center	Find help with how-to videos, FAQs, chat, user forums, and product notification updates.	rok.auto/support
Knowledgebase	Access Knowledgebase articles.	rok.auto/knowledgebase
Local Technical Support Phone Numbers	Locate the telephone number for your country.	rok.auto/phonesupport
Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	rok.auto/literature
Product Compatibility and Download Center (PCDC)	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	rok.auto/pcdc

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Rockwell Automation maintains current product environmental compliance information on its website at rok.auto/pec.

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