

1. Product Description

The AX9000 Gateway HART-IP is a software solution that enables the connectivity of HART devices in Altus automation systems. The AX9000 enables integration with asset management tools through the HART-IP protocol. The application provides a web graphical interface that allows configuration of the automation system topology where the gateway is installed.

Once the network topology of Controllers and Remote units is configured in the gateway, all HART devices connected to the automation system are automatically identified and can be accessed through the HART-IP protocol. The HART-IP Gateway provides a simple and efficient way to access HART devices installed in the field and connected to an Altus automation system. The AX9000 does not require additional hardware and it offers high scalability.

The AX9000 HART-IP Gateway application is installed together with the Architex software.



1.1. Product Features

- Network topology creation:
 - Scan Topology;
 - Add Remote IO manually;
 - Remove Remote IO manually;
 - Edit Gateway Tag;
- Syslog support;
- Periodic and manual scanning of HART devices;
- Device status and information;
- Event and message logs;
- Configuration via web application;
- High scalability through the acquisition of licenses only for the number of instruments present in the architecture;
- No additional hardware is required.

2. Requirements

The AX9000 application is distributed along with the Architex Software installer. AX9000 has the following requirements for installation and use:

	AX9000
Operating System	Windows 10 ® (64 bits) Windows 11 ® (64 bits) Windows Server 2025
Processor	1.6 GHz (minimum) 2.5 GHz (recommended)
Disk Space	1 GB
RAM Memory	512 MB
Resolution	1024 x 768 (minimum)
Language	English and Portuguese

Table 1: Installation requirements

The automation system and products compatible with the use of the HART-IP Gateway are presented in Table 2.

Supported CPUs	NX3035
Supported PROFIBUS Remote Units	NX5110 NX5210 PO5064 PO5065
I/O Modules	NX6014 NX6134 PO1114 PO2134
Communication Protocol	HART-IP

Table 2: Application requirements

3. Data for Purchase

AX9000 Gateway licensing is managed through the Architex software. Licensing is based on the number of HART devices connected to the gateway topology. The free version of the gateway allows integration of only one HART instrument.

3.1. Included Items

The free version of the gateway, which comes with the Architex installation, allows the integration of only one HART instrument. Adding more instruments to the Gateway is done through individual licenses. The licenses are provided to the client in digital format.

3.2. Product Code

The following codes shall be used for product purchase:

Code	Description
AX9000	HART-IP GATEWAY
AX8500	ARCHITEX

Table 3: Product Code

Notes:

AX9000: Licensing for the AX9000 Gateway is done through the Architex software (AX8500). An AX9000 license is required for each HART instrument.

AX8500: Software tool for managing industrial plant assets. It has Lite and Pro licenses. AX9000 can be used with both licenses.

4. Installation

The necessary information regarding the installation of the AX9000 can be found in the *Nexto Series Asset User Manual*.

5. Network Architecture

The AX9000 HART-IP Gateway does not require additional hardware. So it can run directly on a machine or server that is connected to the CPU Ethernet network. Figure 1 presents an automation network architecture with redundant CPUs, where the user can monitor assets through the Gateway HART-IP AX9000.

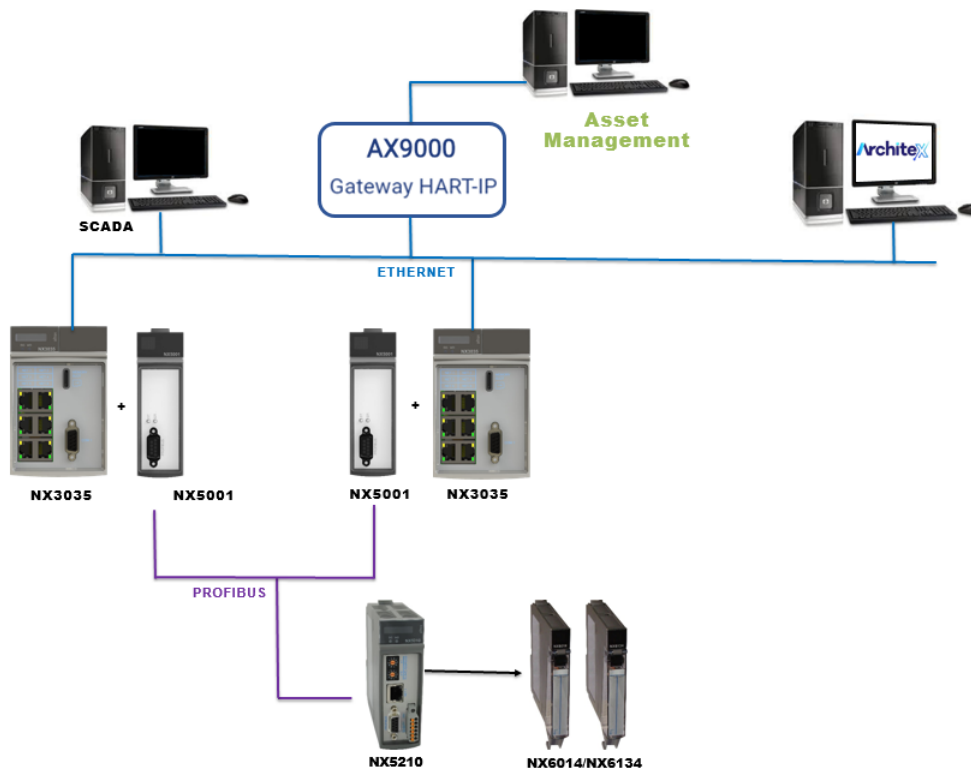


Figure 1: Network Architecture

6. Configuration

The AX9000 has a web application that can be used for both configuration and status verification of the gateway and instruments.

6.1. Information Tab

The Information tab displays basic gateway information, including the current software version and a summary of the current system status. The system status and the number of HART devices detected by the gateway are displayed. Figure 2 presents the available information.

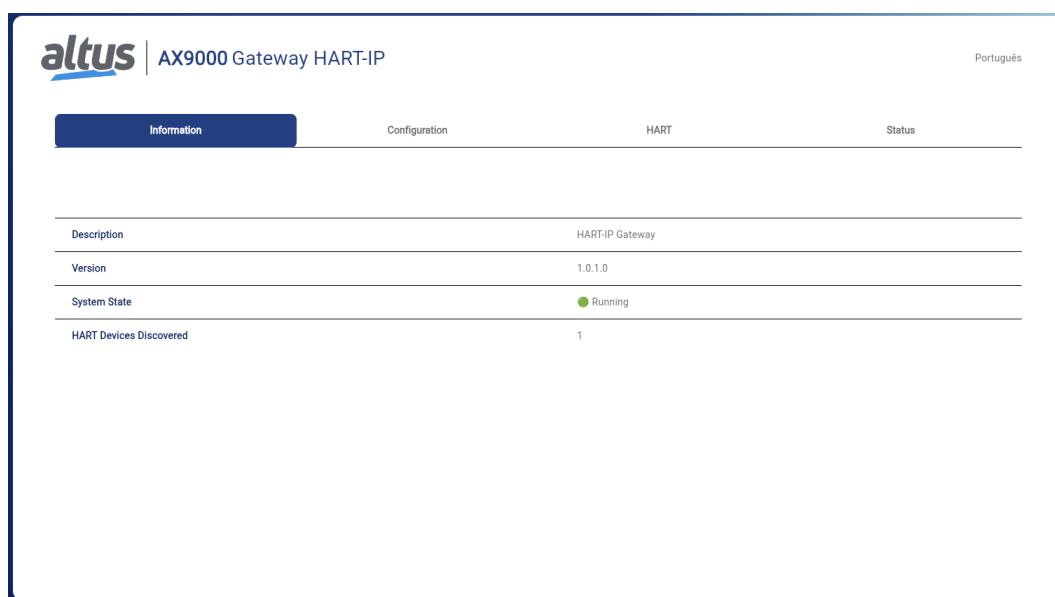


Figure 2: Information Tab

6.2. Configuration Tab

The Configuration tab groups all configuration options related to the gateway. There are three configuration groups: Server, License, and Syslog.

- **Server:** In the Server group, you can configure the gateway Long Tag, which is transmitted to the asset management software.
- **Syslog:** In the Syslog configuration group, it is possible to enable and disable the syslog service, as well as configure the remote Syslog server for messages and events that occur in the gateway.
- **License:** Displays licensing options, including license management and the current license status and usage.

Figure 3 illustrates the Configuration tab and the configurations present in the Gateway.



Figure 3: Configuration Tab

6.3. HART Tab

The HART tab allows users to configure all PROFIBUS Remote IOs to be monitored by the gateway. This configuration and addition of Remote IOs can be performed in two ways: manually and through topology scan.

Topology scan allows the gateway to detect the Remote IOs and input/output cards with HART communication present in a CPU. When performing the scan, the gateway communicates with the CPU and performs a scan of all cards and Remote IOs present in the project that is currently in operation. Figure 4 presents the information described and also illustrates an example of a remote configuration that was applied to the Gateway.

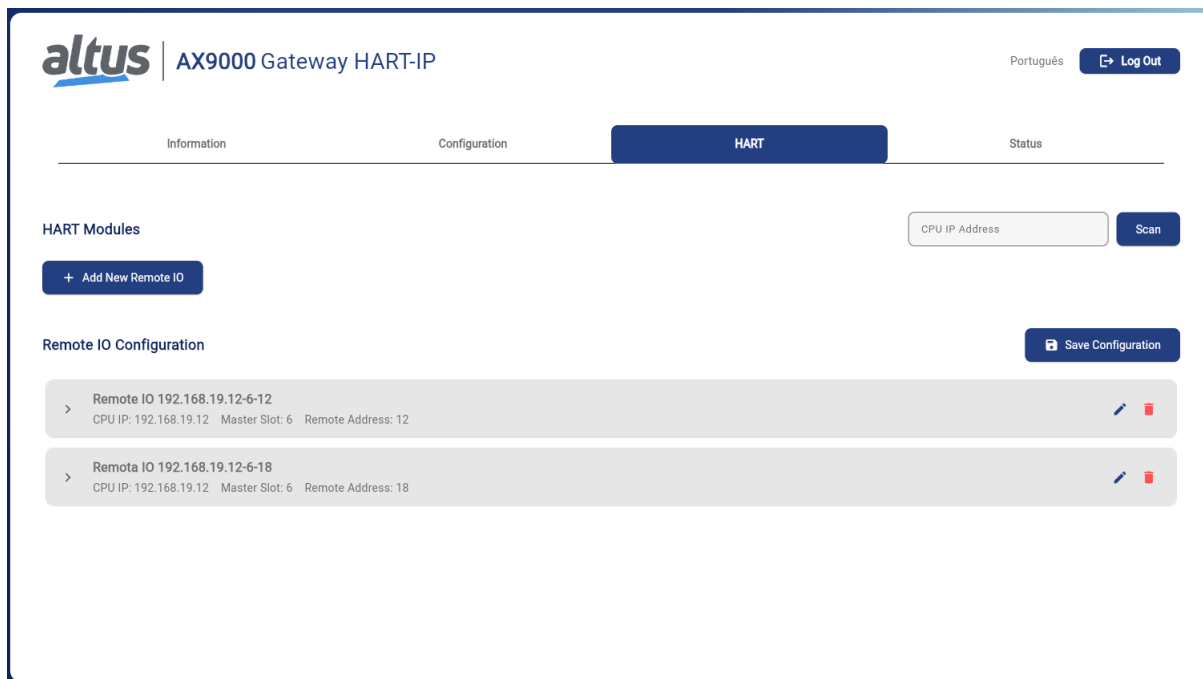


Figure 4: HART tab configuration

6.4. Status Tab

The Status tab presents information about all HART devices detected by the gateway in the monitored Remote IOs. This tab also allows you to manually perform a scan of devices present in the Remote IOs configured in the gateway. It is possible to configure automatic scanning of all channels of the cards in the Remote IOs configured in the gateway. For this, the time interval in minutes at which the scan should be performed is defined. Figure 5 displays the information related to Status Tab after the scanning process.

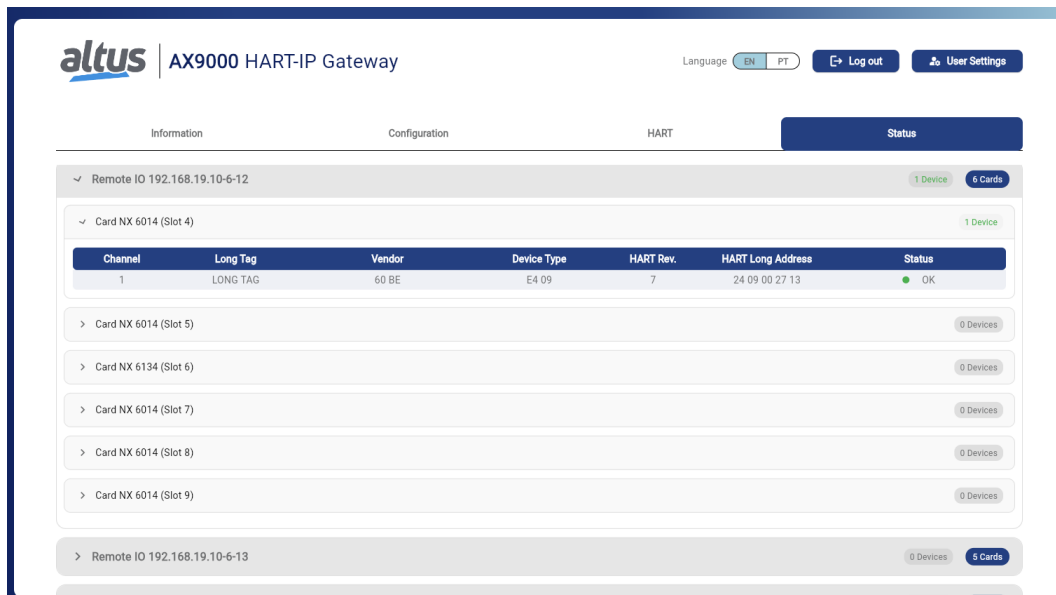


Figure 5: Status Tab

7. Manuals

For further technical details, configuration, installation and programming, the table below should be consulted.

The table below is only a guide of some relevant documents that can be useful during the use, maintenance, and programming of this product.

Code	Description	Language
MU299611	Mastertool X User Manual	English
MU299049	Manual de Utilização Mastertool X	Portuguese
MU214603	Nexto Series HART Manual	English
MU214003	Manual de Utilização de Gestão de Ativos com Série Nexto	Portuguese
CE114108	NX3035 Technical Characteristics	English
CT114108	Características Técnicas NX3035	Portuguese
CE114908	NX5110 and NX5210 PROFIBUS-DP Heads Technical Characteristics	English
CT114908	Características Técnicas Interfaces Cabeça PROFIBUSDP NX5110 e NX5210	Portuguese
CE114315	NX6014 Technical Characteristics	English
CT114315	Características Técnicas do NX6014	Portuguese
CE109511	PO5064 Technical Characteristics	English
CT109511	Características Técnicas do PO5064	Portuguese
CE109321	PO1114 Technical Characteristics	English
CT109321	Características Técnicas do PO1114	Portuguese
CE109416	PO2134 Technical Characteristics	English
CT109416	Características Técnicas do PO2134	Portuguese
CE114408	NX6134 Technical Characteristics	English
CT114408	Características Técnicas do NX6134	Portuguese
MU209020	Manual de Utilização Rede HART sobre PROFIBUS	Portuguese

Table 4: Related Documents