NETx Multi Protocol Server

Tender Specifications

Software solution for technical building management, which can integrate data points of heterogeneous building automation systems. The software consists of several components (Core Studio, Core Server, XLogic Editor) that collect, process and modify data point values. In addition, various building management functions can be realized.

The MP Server uses IP networks to access field devices and their data points. The field / automation level supports the following technologies:

- KNX
- BACnet
- Modbus
- SNMP
- OPC Data Access (OPC DA)
- Oracle Fidelio/Opera
- Protel
- Infor
- Mews
- VingCard
- Kaba
- Salto
- oBIX & MQTT

KNXnet / IP tunneling or KNXnet / IP routing is used for the connection to the KNX network. The KNXnet / IP Security extension is also supported. Access is via one or more KNXnet / IP routers and / or interfaces. All official KNX data point types (KNX DPTs) are supported. In addition, non-standardized DPTs can be added. The KNX configuration can be imported directly from ETS using an ETS app. Several ETS projects can be integrated in a single server. When using the ETS app, the entire ETS project is available in the server (group addresses, communication objects, KNX devices, topology, buildings and systems of vision). KNX devices can be monitored by heartbeat mechanism.

The BACnet interface uses BACnet / IP for communication with BACnet devices and their BACnet objects. Using BACnet / IP routers, BACnet devices can be integrated from any BACnet media (MS / TP, ...). An online discovery tool for searching BACnet devices and their objects is provided. In addition, the BACnet Server interface offers the possibility to create own BACnet objects in the server. Using this server interface, any data points (even non-BACnet data) can be mapped to BACnet objects and made available for access by third-party BACnet clients.

The Modbus interface uses Modbus / TCP to access Modbus devices and their data points. Using Modbus TCP Gateways, Modbus / RTU devices can also be integrated. Configuration of manufacturer-dependent Modbus implementations (memory layout, register types, Modbus service types to be used, etc.) is possible. In addition, the Modbus interface supports the integration of native Modbus / RTU devices over TCP / IP or UDP / IP using standard IP-to-RS485 converters.

The SNMP interface supports SNMP version 1, 2, and 3. SNMP data points can be polled at a definable time interval. In addition, SNMP can be processed.

The Fidelio / Opera and Protel interface uses the FIAS protocol for the inclusion of property management systems. Information about hotel rooms (booking status, room status, ...) and hotel guests can be requested via this interface. Information such as room status and messages can be exchanged bidirectionally. The Fidelio / Opera interface is certified by ORACLE.

Additional interfaces to property management systems such as Infor and Mews are also available.

The interfaces like VingCard, Kaba or Salto offer the possibility to integrate electronic door lock systems. Using this interface, door events (guest entry, personnel entry, door open, door closed) can be received.

Data from IoT devices can be integrated via the MQTT interfaces. MQTT data publications ("publish") can also be queried ("subscribe").
Bidirectional data exchange with one or more Gira HomeServer / FacilityServer is also possible. This makes it possible to forward information about any supported technologies to the Gira HomeServer / FacilityServer.

In addition to these native interfaces, additional protocols such as DALI, DMX, EnOcean and M-Bus can be integrated via hardware gateways.

The modular design of the server allows the extension of the existing interfaces. This can be done using LUA programs or C# via a .NET API.
The processed data points can be made available to management clients via open interfaces. The following management interfaces are available:

• OPC DA and OPC UA
• BACnet / IP
• oBIX
• MQTT
• Proprietary TCP / IP interface

Any number of management clients can be connected via these interfaces.
For large projects with different parts of buildings and projects with multiple buildings that are spread over a wide area, multiple servers can be connected via a Wide Area Network (WAN). By means of clustering, data and information between the servers can be exchanged bidirectionally. It is also possible to define a hierarchy of servers where the main server aggregates the data points from different sub-servers.
Redundant configuration is also supported.
All integrated data points can be further processed in the server. It is possible to link data points - including automatic data type conversion.

NETxAutomation
Software GmbH
Maria Theresia Straße 41
4600 Wels | Austria
T +43 7242 252 900
office@netxautomation.com
www.netxautomation.com

Product:
NETx Multi Protocol Server
Version: ....
Software Protection: ....
Product ID: ....

Definition of the product version:
Number of data points
Licensed Data Points:
Number of KNX group addresses, BACnet objects, Modbus data points, SNMP data points.

Software Protection:
Hardlock (with USB dongle) or Softlock (hardware-dependent software code)

optional:
Interface Fidelio / Opera
Interface Protel
Interface Infor
Interface Mews
Interface charPMS
Interface RMS Cloud
Interface VHP
Interface VingCard
Interface Salto
Interface Kaba
Interface HDL

Service:

Transfer data from engineering tools
Configure MP Server
Creation of functions in the logic editor or scripting language LUA
Development of project-specific drivers, interfaces and modules

System Requirements:

Following operating systems are currently supported:

- Microsoft Windows 2008 R2 Server 32/64 bit
- Microsoft Windows 2012 Server 64 bit
- Microsoft Windows 2012 R2 Server 64 bit
- Windows 2016 64 bit
- Windows Server 2019 64 bit
- Windows Server 2022 64 bit
- Windows 7 32/64 bit
- Windows 8 64 bit
- Windows 8.1 64 bit
- Windows 10
- Windows 11

Other Requirements:

.NET Framework: 3.5
.NET Framework: 4.7 or higher

Hardware requirements:

CPU: 1.8GHz Quad Core
Ram: 16 GB
Hard disk: 100 GB

The following server types are available:

Software	Product ID	max. Datapoints
HOME	S10.04.0.00.0001	1.000
BASIC	S10.04.0.00.0002	2.500
STANDARD	S10.04.0.00.0003	5.000
PROFESSIONAL	S10.04.0.00.0004	10.000
ENTERPRISE	S10.04.0.00.0005	20.000

Larger licenses on request.