

Industrial Communication Platform  
**DeviceXPlorer® OPC Server**



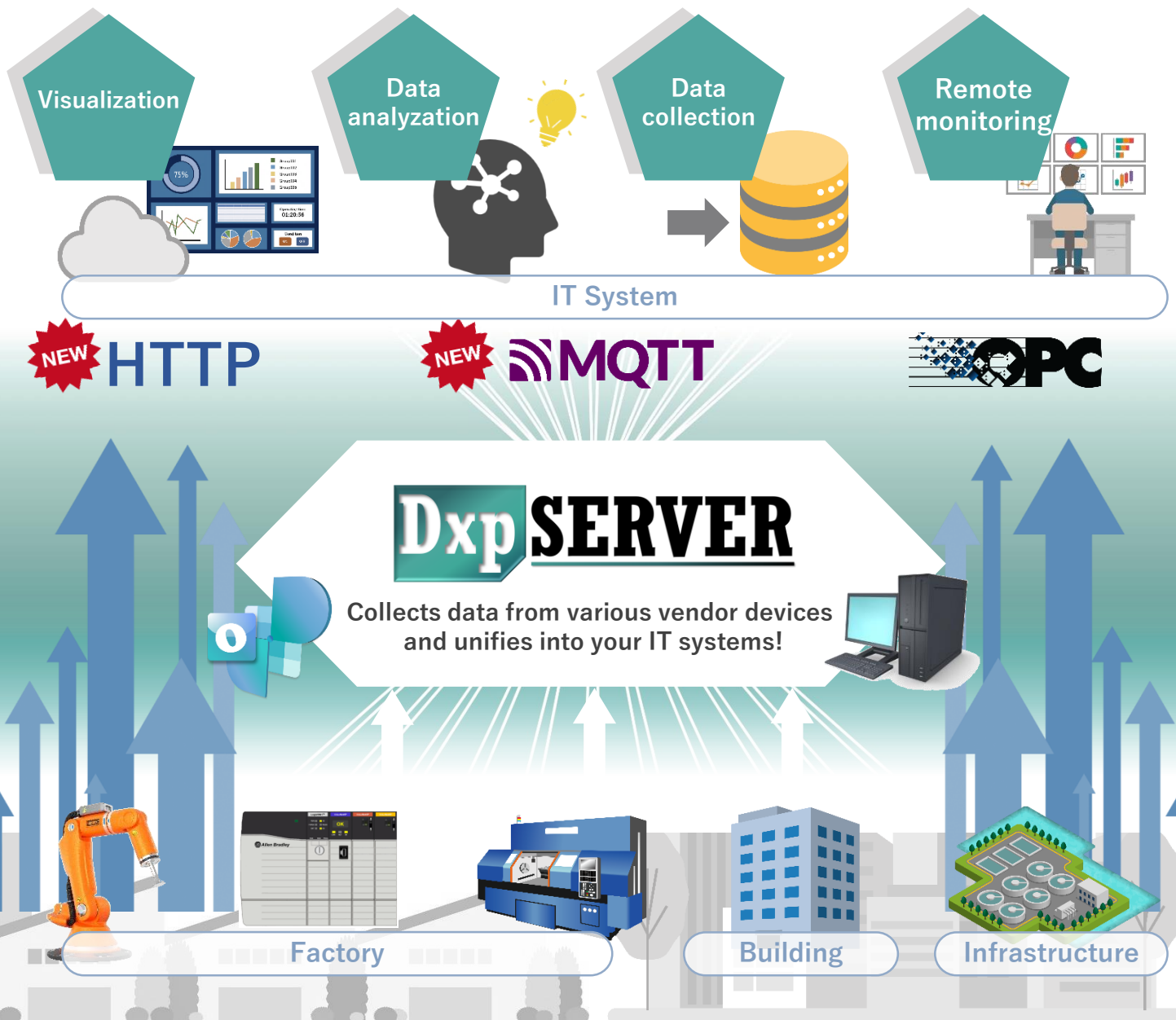
**DeviceXPlorer®**  
**OPC Server**

Check our  
YouTube channel  
for more details!






# Product Overview

## Industrial Communication Platform DeviceXplorer® OPC Server Ver.7



### Special Features

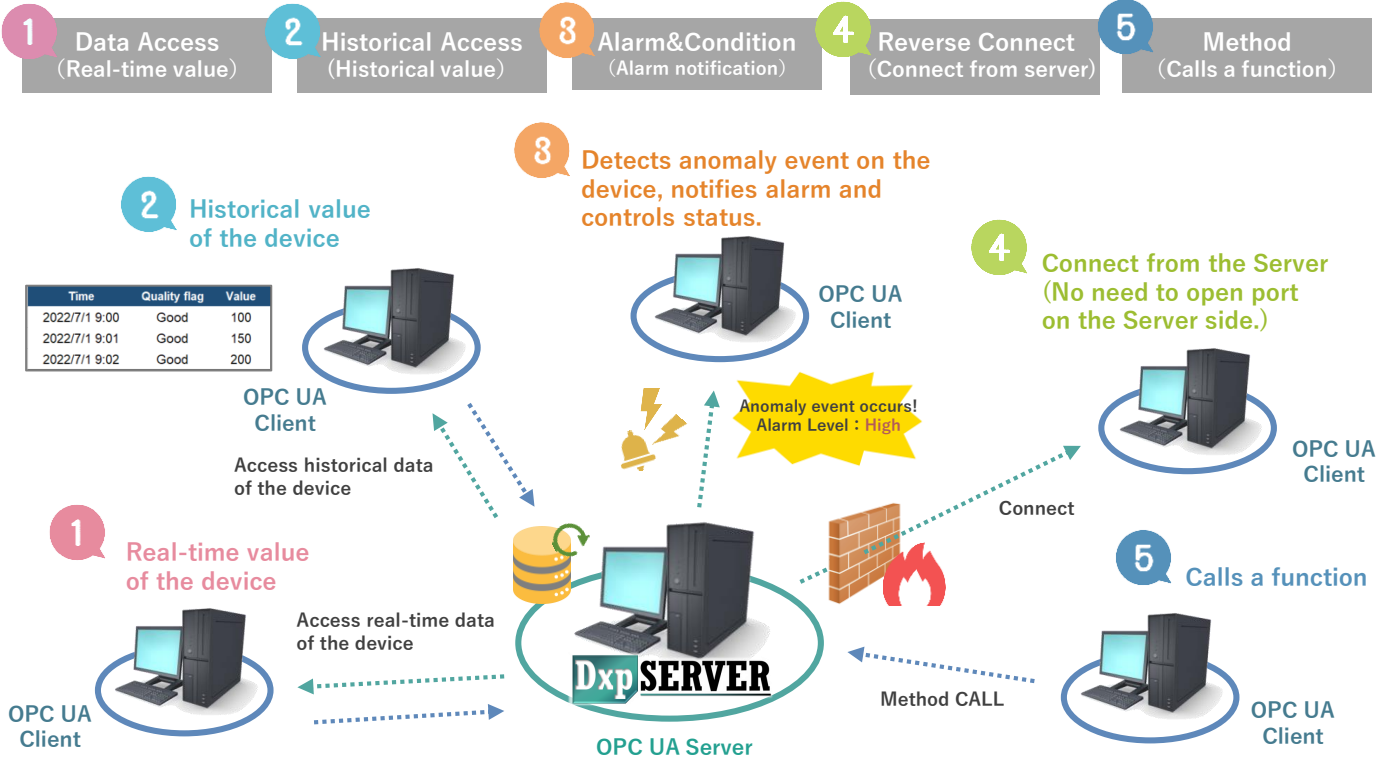
-  Enables communication with various IT systems on cloud services and on-premises systems via OPC, MQTT, and HTTP communication protocols.
-  Can communicate with many kinds of devices (400+ series / 100+ vendors devices) in production sites. Enables centralized management of devices from various vendors.
-  Hot Configuration feature allows you to change settings without stopping the system.

# Features

## Communication with IT system (OPC, MQTT, HTTP)

### ● Supports Industrial Standard "OPC UA"

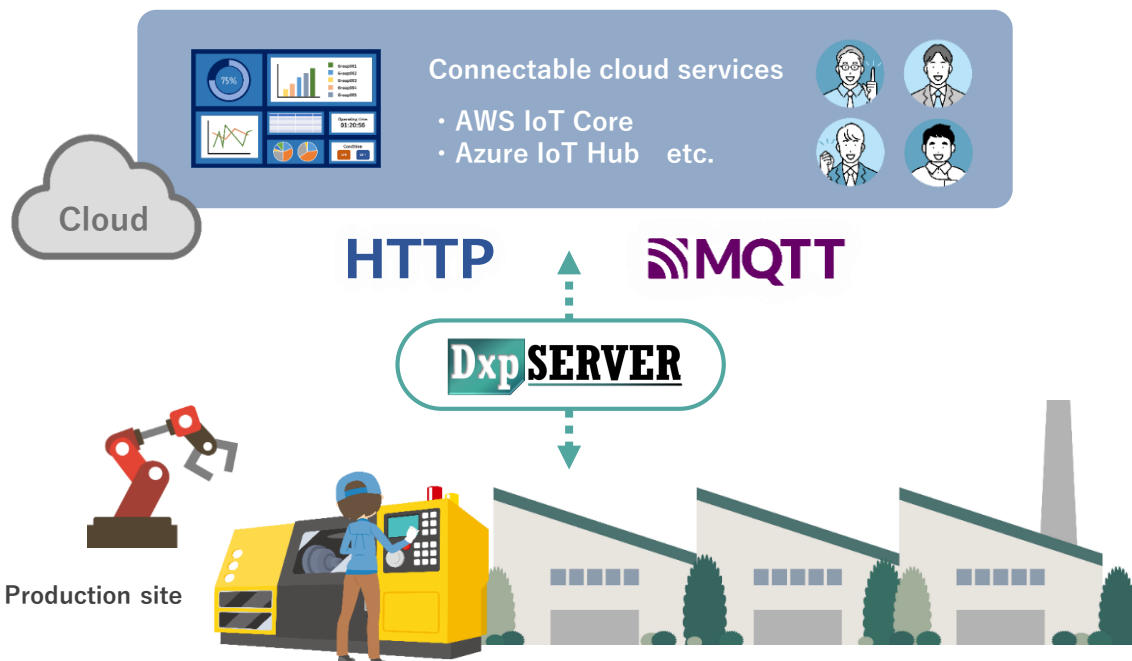
DxpSERVER supports industrial standard OPC UA protocol, as well as various OPC UA specifications for utilizing production facility data.



\*Historical Access and Alarm&Condition functions are limited to Professional Edition. Please see ["P.9 Editions"](#).

### ● Supports connection to the cloud (MQTT/HTTP)

DxpSERVER supports MQTT and HTTP, general communication protocols for cloud services.



\*MQTT and HTTP functions are limited to Professional Edition. Please see ["P.9 Editions"](#).

## Variety of connectivity

Check out the full connectivity list on our website



<https://www.faweb.net/en/product/opc/plc/supportlist>

DxpSERVER enables connection to **more than 400 series/100 vendors devices**, including PLCs, Robots and processing machines.



Modbus Supported	Robot·NC(CNC)	Server Function	Open Network
<ul style="list-style-type: none"> <li>AZBIL</li> <li>IAI</li> <li>MG (Formerly M-System)</li> <li>OMRON</li> <li>IDEC</li> <li>KOYO</li> <li>WAGO</li> <li>MTT</li> <li>Phoenix Contact</li> <li>HAKKO</li> <li>ANYWIRE</li> <li>Eurotherm</li> <li>COGNEX</li> <li>HIOKI</li> <li>HITACHI</li> <li>YOKOGAWA</li> <li>DELTA</li> <li>RKC instrument</li> <li>CHINO</li> <li>MITSUBISHI</li> <li>Panasonic</li> <li>CODESYS</li> <li>MOXA</li> <li>GRAPHTEC</li> <li>PATLITE</li> </ul>	<ul style="list-style-type: none"> <li>MITSUBISHI</li> <li>KAWASAKI</li> <li>YASKAWA</li> <li>FANUC</li> <li>YAMAHA</li> <li>SHIBAURA</li> <li>IAI</li> <li>SANYO</li> </ul> <p>Injection molding machine</p> <ul style="list-style-type: none"> <li>Sumitomo Heavy Industries</li> <li>The Japan Steel Works</li> </ul>	<ul style="list-style-type: none"> <li>OPC UA</li> <li>OPC DA/AE</li> <li>Modbus/TCP</li> <li>SuiteLink</li> </ul>	<ul style="list-style-type: none"> <li>MTConnect</li> <li>SLMP</li> <li>IEC60870</li> <li>IEC61850</li> <li>EtherNet/IP</li> <li>BACnet/IP</li> <li>CC-Link</li> <li>DNP3.0</li> <li>OPC UA</li> <li>OPC DA</li> <li>DDE</li> <li>ODBC</li> </ul>
		RFID/BCR	Energy-saving support device
		<ul style="list-style-type: none"> <li>MITSUBISHI</li> <li>OMRON</li> <li>KEYENCE</li> <li>COGNEX</li> </ul>	<ul style="list-style-type: none"> <li>EcoServer III</li> <li>E-Energy</li> <li>EcoMonitorLight</li> </ul>



## Simple setting

The setting of DxpSERVER is easy to configure.

To access data of devices, you only need to follow the 3 steps as below.

### 1 Port setting



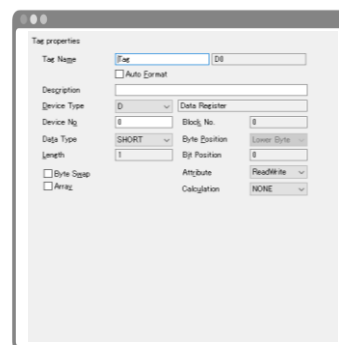
IP address, Port number etc.

### 2 Device setting



CPU model, network parameter etc.

### 3 Tag setting



Data address, data type etc.

Check out the setting procedure



[https://www.youtube.com/@faweb\\_en](https://www.youtube.com/@faweb_en)

## Support 24 hours full operation

DxpSERVER utilizes a Hot Configuration function. This allows you to change settings **without stopping a running system**. It is ideal for the systems which require continuous operation.



Change setting during operation



SCADA etc.

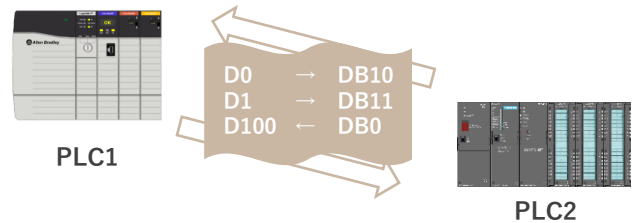
## Multilingual

DxpSERVER supports **multiple display languages**. Japanese / English / Korean / Chinese (Simplified / Traditional)



## Data bridge

Data can be exchanged simply between devices from different vendors, **just by selecting source and destination tags**.



## Script

Interpreted language "Lua" can be used to embed custom logic in DxpSERVER. **Embedded custom logic can be executed with periodic or event-driven timing**. e.g. Output files, Tracing data

```

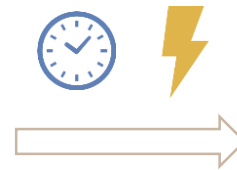
1  -- Check the open result
2  if (f == nil) then
3    Dxp.LogErrorMessage("File Open Error (" .. msg .. ")");
4    return;
5  end
6  -- Make CSV
7  local text = ""
8  text = text .. Dxp.GetCurrentTime():Format();
9  text = text .. "," .. @t("Tag001"):ToStringValue();
10 text = text .. "," .. @t("Tag002"):ToStringValue();
11 text = text .. "," .. @t("Tag003"):ToStringValue();
12 -- Write to file
13 f:write(text .. "\n");
14 -- Close the file
15 f:close();

```

Lua script



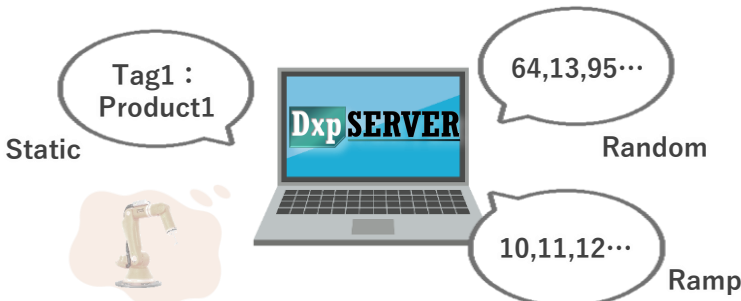
Cyclic or Event-driven



Output files

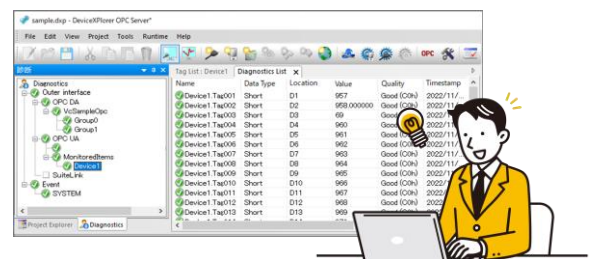
## Simulation

DxpSERVER is equipped with a simulation function that generates simulation data for tag values. **Systems can be debugged without an actual device.**



## Diagnostic function

**Real-time status can be checked** for the connection to the device and communication with the system.

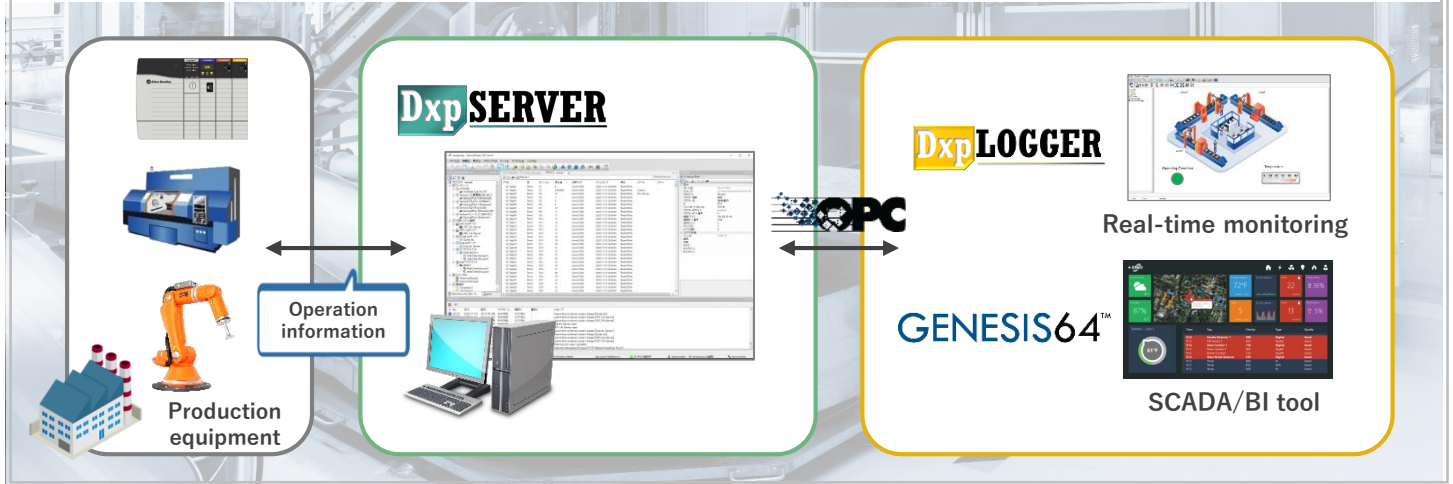




# Case Study

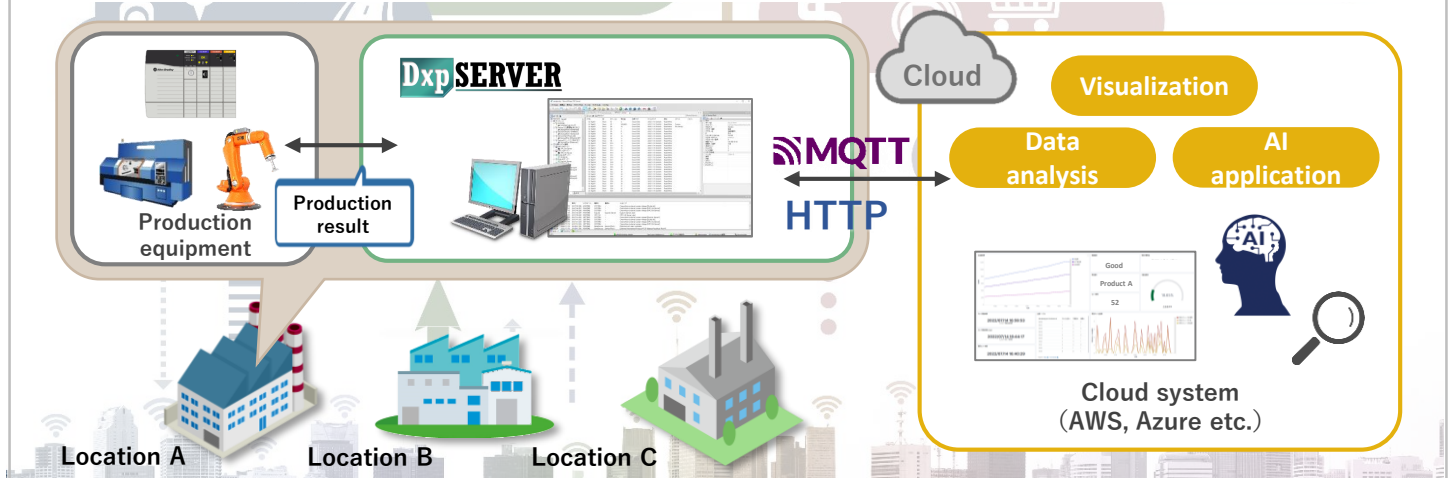
## Monitoring the equipment

- DxpSERVER enables visualization of the data in equipment used together with SCADA and BI tools that support OPC.
- You can monitor equipment operating status in production sites in real-time and immediately detect anomaly events.



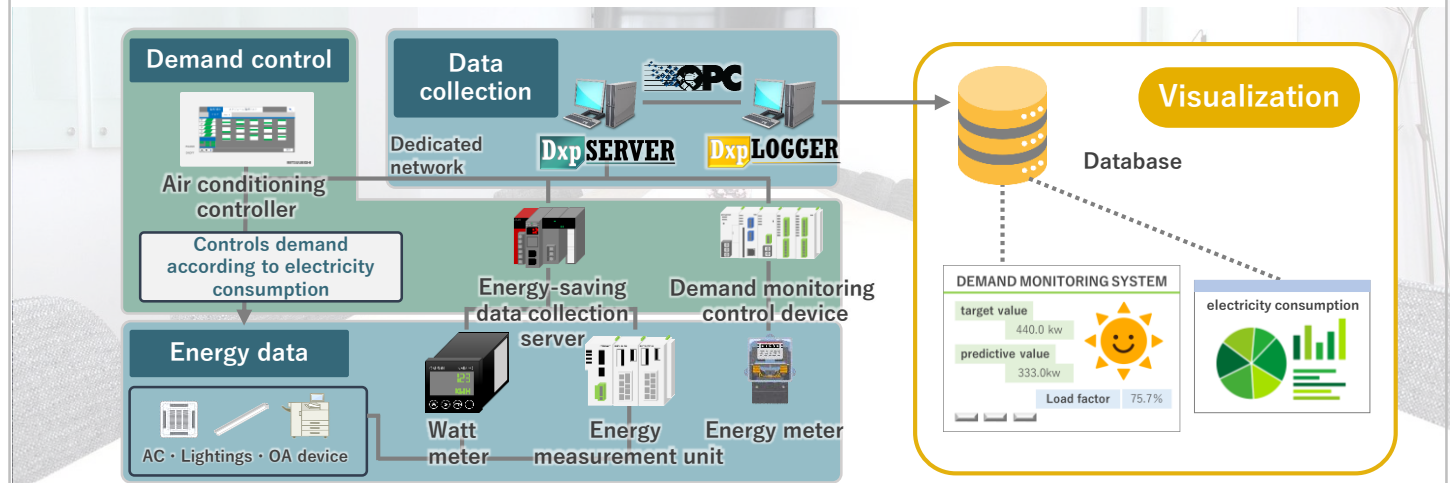
## Connection to cloud

- DxpSERVER uploads data from production equipment to cloud systems via MQTT/HTTP protocol.
- It enables centralization of data across locations by collecting data in the cloud.



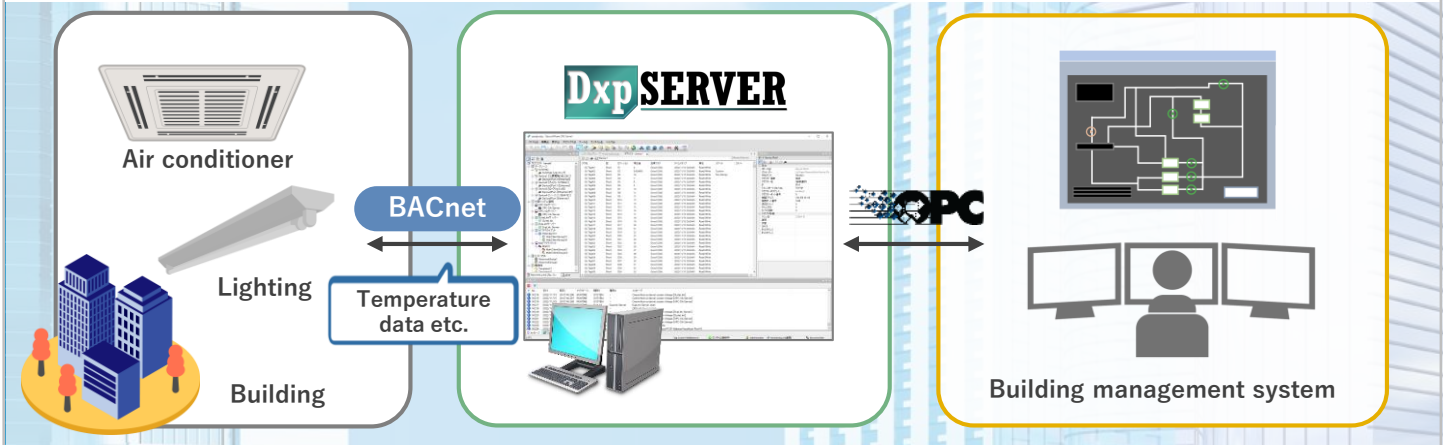
## Energy Visualization

- DxpSERVER enables real-time visualization of electricity consumption in offices and buildings.
- It collects the data to a database by using together with data logging software DeviceXplorer Data Logger.



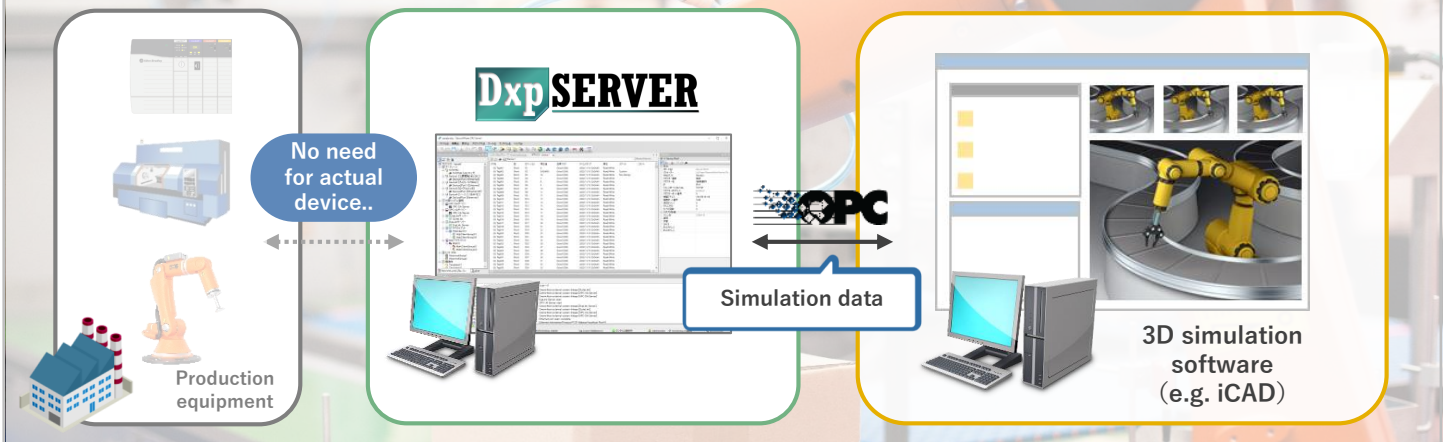
## Building management

- DxpSERVER enables integration of system with BACnet, a standard protocol in building automation.
- It allows monitoring status of facilities such as air-conditioning and lighting, and also supports control scheduling functions.



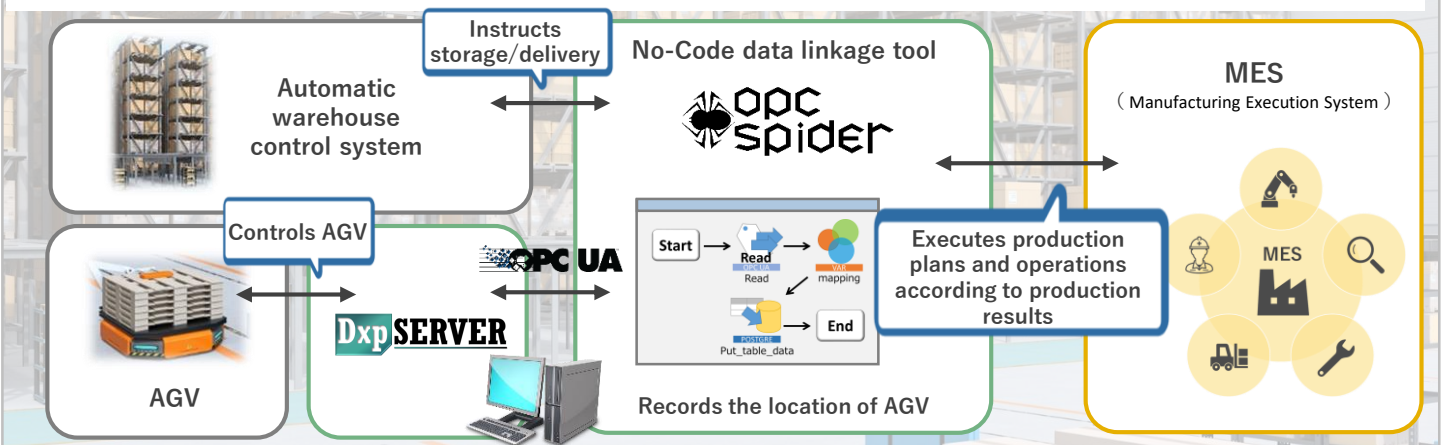
## 3D Simulation

- DxpSERVER connects production equipment and 3D simulation software via OPC.
- It enables interference checks, operation simulations prior to actual operation, as well as simulations to reproduce error status when it occurs.



## Inventory control

- DxpSERVER enables connection to AGVs, automated warehouses and MES systems.
- It automates the control of AGVs based on the production plan, instructs the automated warehouse for storage and delivery of goods, and updates the production results in the inventory management system.



# Specifications

Item		Description
OS		Windows 11(21H2/22H2/23H2)* <sup>1</sup> Windows 10 IoT Enterprise 2021 LTSC Windows 10 IoT Enterprise 2019 LTSC Windows 10 IoT Enterprise 2016 LTSC Windows 10(1809/1903/1909/2004/20H2/21H2/22H2)* <sup>1</sup> Windows Server 2022/2019/2016
Application Type* <sup>2</sup>		32-bit application(Win32/x86), 64-bit application(Win64/x64)
Hard Disk		1GB or more
Memory		1GB or more
Framework		.NET Framework 3.5(32-bit edition only)
License		1 license required per installed PC (Unrelated to the number of OPC Client connections)
Protection		License is protected by Serial number and License Key(software or hardware key)
Operating Mode		As a normal application or a Windows service program
Max. Connections* <sup>3</sup>		255
Max. Tags		Unlimited
Support Protocol for External System		OPC UA1.04, OPC DA3.0/2.05A, OPC AE1.10, SuiteLink* <sup>2</sup> , DxpLink, HTTP* <sup>4</sup> , MQTT* <sup>4</sup> , Modbus/TCP Server* <sup>5</sup>
Simulation Mode		Random, Ramp(Increment), Sine curve, Shared Memory (Static)
Language		Japanese, English, Korean, Simplified Chinese, Traditional Chinese
OPC UA Interface	Function Type	Server/Client
	Profile	Standard UA Server Profile Historical Raw Data Server Facet* <sup>4</sup> Historical Data Insert Server Facet* <sup>4</sup> Historical Data Update Server Facet* <sup>4</sup> Historical Data Replace Server Facet* <sup>4</sup> A&C Base Condition Server Facet* <sup>4</sup> A&C Refresh2 Server Facet* <sup>4</sup> A&C Address Space Instance Server Facet* <sup>4</sup> A&C Enable Server Facet* <sup>4</sup> A&C Acknowledgeable Alarm Server Facet* <sup>4</sup> A&C Alarm Server Facet* <sup>4</sup> A&C Exclusive Alarm Server Facet* <sup>4</sup> A&E Wrapper Facet* <sup>4</sup> Reverse Connect Client Facet
	Endpoint URI	opc.tcp://[IP address or machine name]:52250
	Security Mode	None, Sign, SignAndEncrypt
	Security Policy	None, Basic128Rsa15, Basic256, Basic256Sha256, Aes128Sha256RsaOaep, Aes256Sha256RsaPss
	User Authentication	Anonymous, User Name/Password, X509 User Certificate
OPC UA Pub/Sub Interface* <sup>6</sup>	Transport Profile	http://opcfoundation.org/UA-Profile/Transport/pubsub-udp-uadp
OPC DA Interface	Function Type	Server/Client
	PROG.ID	Takebishi.Dxp.7
	OPC Item ID	Use delimiters to specify device, group and tag names.
SuiteLink* <sup>2</sup>	Application Name	Any (default: "DXPV7")
	Topic name	Any (default: "Device1")
HTTP(S) Client (Ver.1.1)	HTTP Authentication	None, basic authentication, digest authentication OAuth2.0 authorization (only ROPC)
	HTTP Method	GET, PUT, POST, DELETE, OPTIONS, HEAD, TRACE
	Proxy Server	Supported (username/password authentication also supported)
MQTT(S) Client (Ver3.11)	Messaging System	Publish / Subscribe
	Protocol	TCP (WebSocket not supported)
	Authentication	Username/password, TLS authentication
	Other Function	QoS0/1/2, Retain/Will, TLS/SSL

\*1 In Windows 10/11 Home Edition, Windows Update type is fixed at "Current Branch" (update is performed automatically), so we are recommend using Windows Pro Edition or above.

\*2 64-bit DeviceXPLorer does not support the following communications, please use 32-bit DeviceXPLorer for the following:

- MELSEC EZSocket/GOT connection
- SYSMAC FinsGateway/SysmacGateway/CX-Compolet connection
- TOYOPUC CPU Port connection
- FANUC FOCAS connection
- Mitsubishi CNC EZSocketNc connection
- SuiteLink interface

\*3 Communication performance decreases in proportion to the number of devices and tags to be accessed.

\*4 These functions are available in DxpSERVER Professional Edition.

\*5 We provide "OPC DA/UA client" and "Modbus/TCP server" as data sources (a function to connect with devices).

\*6 We provide is a beta version. Please contact us if you require this function.



## Supported devices

Refer to the list of supported devices on the following website.

<https://www.faweb.net/en/product/opc/plc/supportlist>



## Editions

We offer three lineups, Single, Multi, and Professional, according to system requirements.

Edition	Professional Edition functions*	Accessible devices
Professional	✓	All devices
Multi	N/A	All devices
Single	N/A	Devices from 1 vendor

\* Professional Edition functions are: MQTT Client, HTTP Client, OPC UA Historical Access, and OPC UA Alarm&Condition functions.

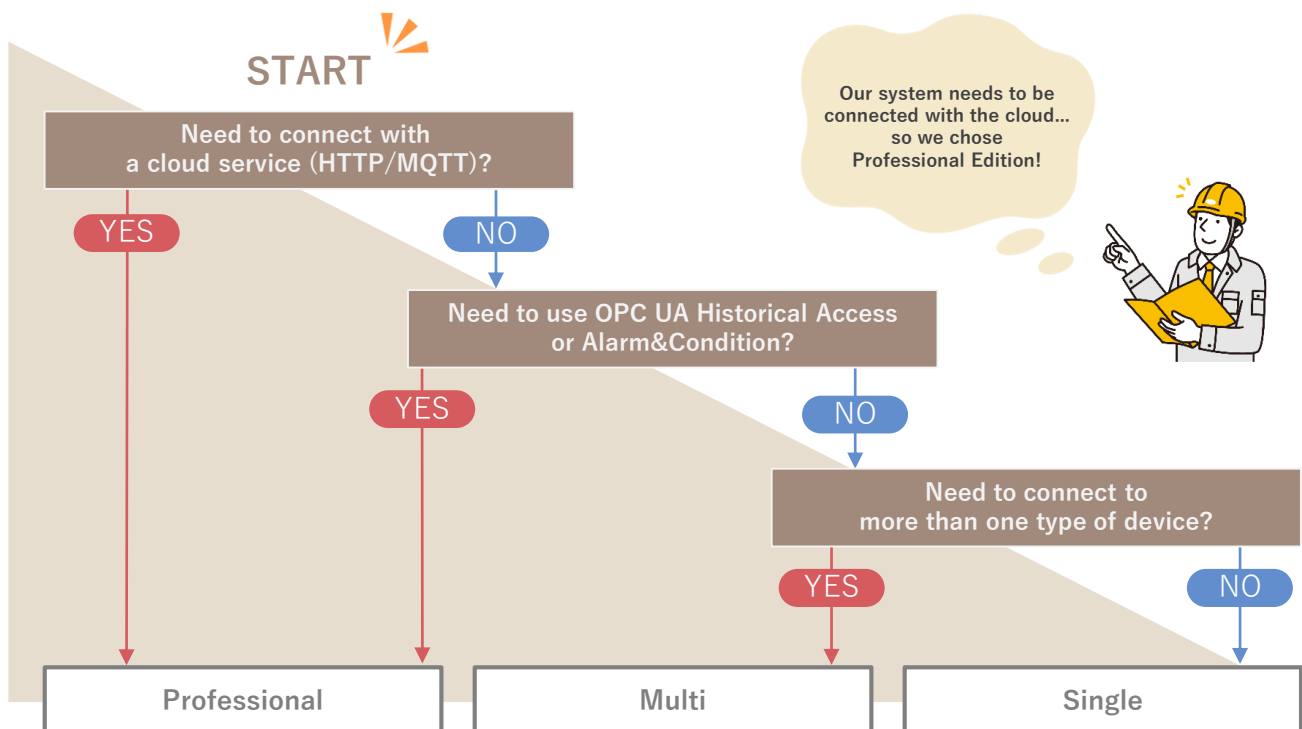
## Version Upgrade

To upgrade the version from previous versions please refer to following list. You can select Protect Key. For further details of Protect Key, please see ["P.10 License"](#).

Upgrade from (Ver.3-6)	Upgrade to (Ver.7)	Model
Enterprise	Multi	DXPV7ML-●●-V
Standard or Advanced	Single	DXPV7SG-●●-V

- No other version upgrade service available other than above.
- Minor version (version upgrades after the second digit, e.g. 7.0.0 → 7.1.0) can be upgraded for free of charge.

## How to select the Edition



# License/Maintenance Service

## License

License type	Protection system	Notes
Perpetual	Hardware Key	<ul style="list-style-type: none"> <li>• Activate by attaching USB Key to PC</li> <li>• Need to attach the Key to PC during operation</li> </ul>
	Software Key	<ul style="list-style-type: none"> <li>• Node-locked license</li> <li>• Activate the license via the internet*</li> </ul>
Subscription (Annual update required)	Software Key	<ul style="list-style-type: none"> <li>• Node-locked license</li> <li>• Activate the license via the internet*</li> <li>• A license activation process is also required when updating.</li> </ul>

\* For information on how to activate a PC that cannot connect to the Internet, please refer to the product manual.

Protection system	Hardware key	Software Key
	✓ Easy to activate the License There is a risk of losing the Key	When connecting to Internet : ✓ Easy No connection to Internet : Some process needed ✓ No risk of losing the Key
	PC must have USB port	✓ PC does not need to have a USB port

## Maintenance Service

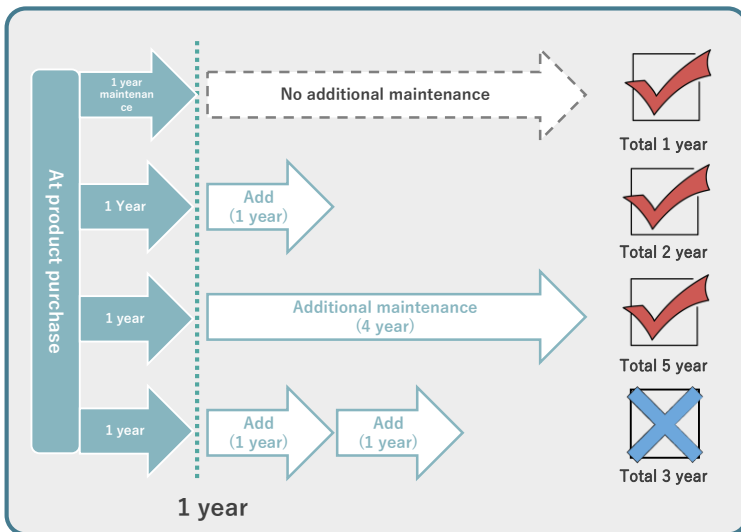
Maintenance Service is only provided to products which are **within the maintenance service period and registered on the User Registration (Product Registration) page**. One year of Maintenance Service is included with the original purchase. Maintenance Service is optional from the second year onwards. Subscription licenses include Maintenance Service and must be renewed annually.

### Maintenance Service

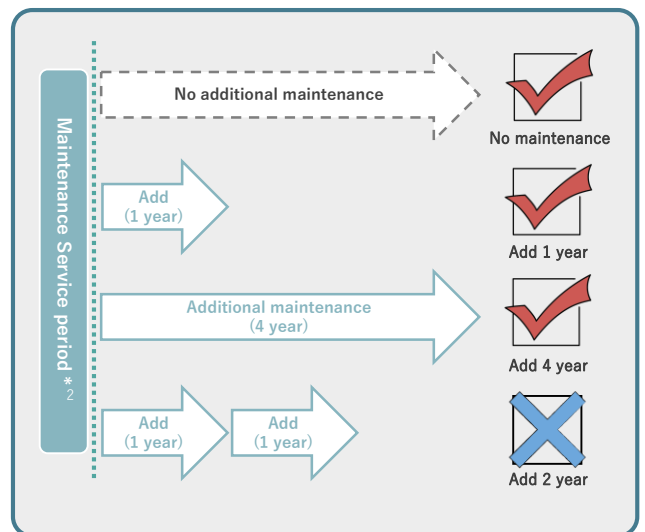
- ◆ Technical Support\*<sup>1</sup> (Available : Weekdays 9:00-12:00, 13:00-17:00 (JST))
- ◆ Major Version Upgrade\*<sup>2</sup>  
(You can upgrade your product, including major version upgrades, free of charge. Major version upgrade means an upgrade of the first digit of the version.)

### Additional maintenance (updating Maintenance Service period)

- Additional maintenance can be purchased at the initial purchase of a product or at the time of update of the maintenance service period.
- Only 1 piece of additional maintenance can be purchased per product serial number (Additional maintenance is serviced for either 1 year or 4 years).  
Example: It is not possible to add 2 years of additional maintenance by purchasing 1 year x 2 pieces. You can purchase additional maintenance (1 year) again after the maintenance period expired.



At initial purchase



At renewal of maintenance service period

\*1 We ask you to show the product serial number when you require Technical Support.

For pre-purchase, such as product selection, inquiry support can be provided without Maintenance Service. We do not guarantee that all inquiries will be resolved. We will help as much as possible.

\*2 Minor version upgrades (version upgrades in the second digit or later) are available without Maintenance Service by downloading an update patch.

\*3 The Maintenance Service Renewal period starts 3 months before the expiration of the current Maintenance Service period.

Registered users will be notified 3 months and 1 month before the Maintenance Service expiration date.

Maintenance Service period for the additional maintenance starts the day after the expiration date of the previous Maintenance Service period.

## Model Code definition : DXPV7 **A** - **B** - **C** - **D**

<b>A</b>	Edition	<b>PR</b> : Professional <b>ML</b> : Multi <b>SG</b> : Single
<b>B</b>	License Key / Protection System*1	<b>HW</b> : Hardware Key (Perpetual) <b>SW</b> : Software key (Perpetual) <b>SS</b> : Software key (Subscription) <b>CL</b> : Software key (Subscription, For Cloud)
<b>C</b>	Maintenance / Upgrade / Bulk purchase	<b>Unspecified</b> : Normal product <b>RE</b> : Update Subscription <b>V</b> : Version Upgrade <b>MNT1</b> : Additional maintenance (1 year) <b>MNT4</b> : Additional maintenance (4 years) <b>A10</b> : Bulk purchase 10 pcs
<b>D</b>	Destination country*2	<b>Unspecified</b> : Japan <b>E</b> : Outside of Japan



The data can be **downloaded from our website**.

If you need an installation disk (DVD media), please place an order for "DxpSERVER V7 software media (model: DXPV7-MEDIA)" separately.

### Professional Edition

Product name	License type	Protection system	Model*2	
DxpSERVER V7 Professional OPC Server	Perpetual	Hardware Key	DXPV7PR-HW-E	
	Perpetual	Software Key	DXPV7PR-SW-E	
	Subscription (1 year)	Software Key	DXPV7PR-SS-E	
	Subscription (1 year) (Usage in the cloud)	-	DXPV7PR-CL-E	
	Update	Subscription (1 year)	Software Key	DXPV7PR-SS-RE-E
		Subscription (1 year) (Usage in the cloud)	-	DXPV7PR-CL-RE-E
	Bulk purchase (10 pcs)	Perpetual	Hardware Key	DXPV7PR-HW-A10-E
		Perpetual	Software Key	DXPV7PR-SW-A10-E
Additional maintenance (1 year)*3	-	-	DXPV7PR-MNT1-E	
Additional maintenance (4 years)*3	-	-	DXPV7PR-MNT4-E	

### Multi Edition

Product name	License type	Protection system	Model*2	
DxpSERVER V7 Multi OPC Server	Perpetual	Hardware Key	DXPV7ML-HW-E	
	Perpetual	Software Key	DXPV7ML-SW-E	
	Version upgrade (Target : Ver.3-6 Enterprise Edition)	Perpetual	Hardware Key	DXPV7ML-HW-V-E
		Perpetual	Software Key	DXPV7ML-SW-V-E
	Bulk purchase (10 pcs)	Perpetual	Hardware Key	DXPV7ML-HW-A10-E
		Perpetual	Software Key	DXPV7ML-SW-A10-E
	Additional maintenance (1 year)*3	-	-	DXPV7ML-MNT1-E
	Additional maintenance (4 years)*3	-	-	DXPV7ML-MNT4-E

### Single Edition

Product name	License type	Protection system	Model*2	
DxpSERVER V7 Single OPC Server	Perpetual	Hardware Key	DXPV7SG-HW-E	
	Perpetual	Software Key	DXPV7SG-SW-E	
	Version upgrade (Target : Ver.3-6 Standard / Advanced Edition)	Perpetual	Hardware Key	DXPV7SG-HW-V-E
		Perpetual	Software Key	DXPV7SG-SW-V-E
	Bulk purchase (10 pcs)	Perpetual	Hardware Key	DXPV7SG-HW-A10-E
		Perpetual	Software Key	DXPV7SG-SW-A10-E
	Additional maintenance (1 year)*3	-	-	DXPV7SG-MNT1-E
	Additional maintenance (4 years)*3	-	-	DXPV7SG-MNT4-E

### Others

Product name	License type	Protection system	Model*2
DxpSERVER V7 Software Media	-	-	DXPV7-MEDIA-E
DxpSERVER V7 license key replacement (Hardware key ⇄ Software key)	-	-	DXPV7-LICCHG-E

\*1 License type: Subscription (1 year) is only for Professional Edition.

\*2 The product with "-E" at the end of the Model code is for outside of Japan.  
The display language of the software can be changed from the configuration setting.  
Supported languages: Japanese, English, Korean, Chinese (simplified/traditional)

\*3 When purchasing additional maintenance when renewing the Maintenance Service period, the serial number of the product is required.  
Please see "[P.10 Maintenance Service](#)".



29, Mamedacho, Nishikyogoku,  
Ukyo-ku, Kyoto, 615-8501, Japan

**Contact Form** Available : Weekdays 9:00-12:00, 13:00-17:00 (JST)

 <https://www.faweb.net/en/support/contact>

**HP** : <https://www.faweb.net/en/>

**YouTube** : [https://www.youtube.com/@faweb\\_en](https://www.youtube.com/@faweb_en)

