



ThingWorx SaaS Service Description

Effective starting: January 3, 2023

Your use of PTC's ThingWorx SaaS offerings is subject to the terms of the [PTC Master SaaS Agreement](#) (the “**Agreement**”) as well as the following additional terms. Any capitalized terms used but not defined below have the meanings in the Agreement. There are two ThingWorx SaaS offerings, as follows: ThingWorx SCP SaaS Platform Service, and ThingWorx SCO Solutions SaaS Platform Service.

Version Support

The Service will include installation of new releases and update releases that PTC elects to apply to the Service. Customer will be responsible for updating customizations and/or integrations in order to ensure compatibility with the new release/update release.

PTC reserves the right to keep the Customer in a supported software release across the entire platform, and PTC reserves the right to install updates and perform general maintenance on the platform. Where Customer is not on a currently-released version of the software, PTC may terminate the Service or may impose additional fees (up to 30% of the annual contracted value on a per month basis) for each month of Services delivered by PTC.

Data Export

Once the Service End Date is known, Customer can request up to two data exports: (1) prior to Service End Date an export for purposes of testing the input of that data into Customer's new system, and (2) final export at Service End Date. The Customer shall coordinate such requests with PTC. The data export includes the information required to redeploy the as-is software configuration in another environment. The file format(s) that are available for each offering are as set forth in the offering-specific sections below.

Other than as set forth above, export and snapshot of Data (e.g., for Customer's long-term retention needs) are not offered as part of the standard PTC offering. Customer may, however, contract with PTC for additional non-standard data export for additional fees.

PTC will retain Customer's Data for approximately 30 days following the last extraction after which time it will be destroyed. One copy of archived data can be provided during this 30-day period upon customer request.

Data export will include applicable items such as service configuration and data. This data can be exported in 2 formats

- Export of all entities via ThingWorx Export functionality, delivered as XML and JSON files
- Export of the database(s) according to each database standard export format

Additionally, any files in the ThingWorx Storage repositories will be provided in a ZIP format.

Back Ups and Disaster Recovery

PTC maintains a comprehensive data backup policy to support Business Continuity and Disaster Recovery best practices. Full system backups are taken on a daily basis, and stored in geo-redundant locations. Production system backups are maintained for 30 days. Non-production backups are maintained for 7 days.

In the event of a wide-scale service outage, PTC will work with impacted Customers to determine if the Disaster Recovery protocol should be implemented. If needed, the Recovery Point Objective (RPO) for production systems is 24 hours, and the Recovery Time Objective (RTO) for production systems is 5 days. Non-production systems will be restored as quickly as possible after all production systems are fully restored.

Security and Data Privacy

Information about the security program for this Service is located at PTC's [Trust Center](#).

Information about data that is collected as part of the Service is located at www.ptc.com/en/documents/policies.

Influx Database

InfluxDB, which is a fully managed time series database that can be purchased as an add-on to ThingWorx SaaS Platform Service(s) (either SCP or SCO). The workload is defined as Messages or Writes per second, per Instance, for all data incoming into the ThingWorx platform. Additional InfluxDB capacity may be purchased and provisioned to support higher rates of Messages or Writes per second as workload grows. Each Instance of InfluxDB comes with an allocated amount of Messages per second and storage as specified in the quote. Additional entitlements may be purchased.

A "Message" is a discrete value associated with a data item/data point or location (e.g. location value) that is transmitted to the Platform. For example, a Message may be temperature, but the transmission of a value of 98 degrees Fahrenheit, followed by a transmission of a value of 90 degrees Fahrenheit, would be two Messages transmitted. The transmission of a value of 98 degrees Fahrenheit and a location for that temperature value would be two Messages transmitted. Each Message is counted.

The InfluxDB components may only be used with the ThingWorx items listed in this Order. Customer shall not use, and Customer shall not permit End Users to use, the InfluxDB components on a standalone basis.

Customer shall not upload or enter, and Customer shall not permit personally identifiable information to be uploaded to or entered into the InfluxDB components and InfluxDB Service configurations.

ThingWorx SCP SaaS Platform Service

Introduction

This offering grants to Customer for the Term of Customer's subscription to the ThingWorx SCP SaaS Platform Service, a non-exclusive, nontransferable limited right and license to access and use ThingWorx SCP SaaS Platform Service for connecting Customer's products and for building and running IoT applications. The ThingWorx SCP SaaS Platform Service may not be used for remote management of Customer's operations.

Solution Scope

ThingWorx SCP SaaS Platform is available as a standard service package with optional services that can be purchased separately.

All ThingWorx SCP SaaS Services include:

- ThingWorx SCP SaaS Editions (Premium, Professional, Enterprise) or Machine Builder Bundle
- Registered Users and Assets as specified in each edition
- Connectivity to Kepware or any other supported Edge Agent technology
- Use of the PTC Hosted Global Access Server (GAS) network for remote access and control (RAC) with compatible devices
- A single dedicated production instance
- Storage allocation as specified per environment
- Connectivity to Microsoft Azure IoT Hub
- A total of 12 Named Service Requests per calendar year across all purchased environments

Offering Basis

There are different ThingWorx SCP SaaS Platform "Editions": Premium Edition, Professional Edition, and Enterprise Edition and ThingWorx Machine Builder Bundles. Each ThingWorx SCP SaaS Platform Edition includes a designated number of SCP Registered Users, Assets, and ThingWorx SCP SaaS Platform Edition-specific features as set forth in the license profile. The ThingWorx SCP SaaS Platform cannot be installed on the Customer's physical premises or at the Customer's designated hosting provider. An "Instance" means a deployment of application servers. Each ThingWorx SCP SaaS Platform Edition includes the "ThingWorx agents" or "Edge Microservers" and a ThingWorx SDK used by the Customer to add connectivity into the Customer's run-time applications. The "ThingWorx agents," "Edge Microservers," and Customer's applications created with a ThingWorx SDK are unlimited and distributable with connected products, but only for use with ThingWorx products. ThingWorx agents, and Edge Microservers are non-hosted components of the service and are directly maintained by the Customer.

- ThingWorx SCP SaaS Platform production instance is sized based on the Customer's unique entitlements such as Assets and Registered Users. The system is designed to support a highly secure operational mode and accommodate backup

and restore options that support PTC SLA commitments. PTC reserves the right to review Customer implementation for performance, security and scalability concerns to ensure proper performance of the production instance. Customer implementations that create extraordinary usage that negatively impacts performance of Customer system may be subject to additional fees.

- The ThingWorx GAS Network is a collection of Nodes (Servers), that function as rendezvous points for remote diagnostic sessions being performed by service technicians. Remote sessions are routed from a remotely located asset, through the GAS node, to the technician's PC. These servers and routings off load traffic from the main IoT server, assist in reducing session latencies, and aid in complying with data sovereignty requirements.
- Customers are responsible for all configuration and maintenance of remote Assets. PTC does not provide support for any devices at the edge.
- Customer must maintain that all connected Assets communicate at a minimum-security SSL level of TLS 1.2
 - If Assets are not at specified level, Customer must gain approval from PTC in writing to connect assets to the service
 - PTC reserves the right to disconnect or block communication that does not meet the minimum-security level
 - PTC reserves the right to increase the minimum-security SSL TLS level that assets may connect at
- The following Service inclusions are subject to overage fees as defined in the Quote if Customers exceed their allowances:
 - Assets
 - Registered Users
 - Data/Storage

ThingWorx SCP SaaS Platform standard entitlement includes:

	Premium	Professional	Enterprise
Assets (included)	50	75	100
SCP Registered Users (included)	5	5	5
SCP View Only Users (included)	Included	Included	Included
ThingWorx Foundation	Included	Included	Included
ThingWorx Analytics (1)	Not Available	16 cores included	32 cores included
Software Content Management	Not Available	Not Included	Included
IoT Hub	1 IoT Hub Unit S1		
Technical Support	Gold+		
eLearning (Registered Users)	1 license per Registered User		

1. If the Customer exceeds the compute capacity of the included ThingWorx Analytics cores, the Customer can purchase additional core entitlement for additional compute capacity on any of instance running components that deliver computational functionality.

ThingWorx Machine Builder:

The ThingWorx Machine Builder Service Bundle entitles Customers to use the ThingWorx SCP SaaS Service, Vuforia Chalk SaaS, ThingWorx Kepware Edge for SaaS, and other bundled functionality for connecting Customer's products and for creating and running IoT applications. See the "Vuforia Chalk SaaS Offering" Section of this the Vuforia SaaS Service Description document for additional/different terms and entitlements set forth below.

ThingWorx Machine Builder Bundle standard entitlements:

	MBB Tier 1	MBB Tier 2	MBB Tier 3	MBB Tier 4
Assets (included)	25	250	1000	2000
SCP Registered Users (included)	5	5	5	5
SCP View Only Users (included)	Included	Included	Included	Included
ThingWorx Foundation	Included	Included	Included	Included
ThingWorx Analytics (1)	Not Included	Not Included	Not Included	Not Included
ThingWorx Flow	Included	Included	Included	Included
Software Content Management	Not Included	Not Included	Not Included	Not Included
ThingWorx Kepware Edge For SaaS (up to 1500 Tags Per Designated Computer)	25	250	1000	2000
Vuforia Chalk Users (2)	5	5	5	5
IoT Hub	1 IoT Hub Unit S1			

Technical Support	Gold+
eLearning (Registered Users)	5 Registered Users

1. If the Customer exceeds the compute capacity of the included ThingWorx Analytics cores, the Customer can purchase additional core entitlement for additional compute capacity on any of instance running components that deliver computational functionality
2. The Vuforia Chalk SaaS offerings are entitled by Registered Users. "Registered User" means Users who have a log-in and password and are authorized by the Customer Chalk administrator to use the Chalk application. The Customer Chalk administrator may add and/or substitute from time to time new Registered Users as long as the aggregate number of Registered Users does not exceed at any point in time the number of subscriptions in effect at such time.

Additional Instances – Production

Additional production instances may be purchased separately. These instances do not include additional Assets or Registered Users but are entitled to reflect the standard production entitlement as quoted. Customer may allocate Assets or Registered Users to a single production or additional production instance. Additional production instances are sized based on the number of devices and users allocated to that particular instance.

Additional Instances – Non-Production

Additional non-production (Development, QA and Integration) instances may be purchased separately. These instances do not have limitations on number of Assets or Registered Users, however, are designed to support functional development and testing. Load and performance testing is not covered. If additional performance is required, please contact your PTC Representative.

Additional Databases

This entitles the Customer to Production and non-production databases, purchased separately. Customers must purchase at a minimum 1 database of each (Production and Non-Production) to ensure there is a non-production for testing and validation. Sizing (as defined by CPU Cores) and storage will be specified in the Quote. The databases configured are pursuant to the conditions specified in the General Terms and Conditions and will not have an individual SLA for production. Customer implementations that create extraordinary usage that negatively impacts performance of Customer system may be subject to additional fees.

ThingWorx High Availability

ThingWorx High Availability is an add on to any compatible ThingWorx SCP SaaS entitlement. This entitles the Customer's production system to be configured with active-active clustering that is included in ThingWorx 9.0 and higher versions. This entitlement does not change any SLA unless otherwise specified in the Quote.

ThingWorx Kepware Edge for SaaS

The ThingWorx Kepware Edge for SaaS offering is sold on the basis that a license is needed for each Designated Computer and is limited to the specified number of tags in the product description (generally, one Tag equates to one data item). Designated Computer products are licensed to operate solely on the designated computer on which they are installed. ThingWorx Kepware Edge for SaaS components and functionality may only be used to connect to the ThingWorx SCP SaaS Platform Service that is included with the ThingWorx Machine Builder Service Bundle.

License Profiles and Allowable Configurations

License Profiles

The ThingWorx SCP SaaS offerings are entitled by Assets. There are 2 types of Assets that may be entitled.

Normal Asset (IoT) (also sometimes referred to in the product itself or elsewhere as a "Device" or a "Thing" or a "Remote Thing") means a sensor, device, machine, system, web service, etc. that is modeled (represented) and/or registered as an asset (or "device" or "thing" within the Licensed Product) or any separately defined part of the foregoing if it is being treated as a separate asset within the software. For example, without limitation, an Asset could be a brake press, industrial dryer, another computer system, or a set of individual components within those machines if modeled or registered as a separate asset in the software), etc.

Simple Narrow Band IoT (NB-IoT) or Unconnected Asset means a device that runs on an industry standard Low Power Wide Area Network (LPWAN). These devices are considered remote things on the ThingWorx platform. These assets are differentiated from the Normal Asset due to their connection via LPWAN networks. Additionally, this class of assets includes unconnected assets. Assets of this class include any asset that is created in the offering and represents a physical or virtual asset but is in no way connected to the asset. It is only represented virtually in the offering.

Configurations

Customers will not have access to the OS or Server level of the offering. All configurations and customizations have to be realized through ThingWorx official configuration and customization options (Composer, loading extensions, Solution Central).

Data & Devices

Data Storage Entitlements

Customers are entitled to different levels of storage based on the edition of ThingWorx that they have subscribed to as detailed in this section. In addition, they can purchase additional storage in blocks of 1GB. The total amount of storage a Customer is entitled to is for the ThingWorx production environment and is determined by the total storage of all Customer data in both the ThingWorx file system and the ThingWorx database(s), this is inclusive of all ThingWorx components unless otherwise specified. For the included ThingWorx Integration Environment, 100GB of base storage is included.

All storage entitlements are detailed in the table below:

ThingWorx Edition	Base Storage	Additional Storage Entitlements
ThingWorx SCP Premium SaaS	100GB	0.1GB per additional purchased IoT Asset entitled 0.0045GB per additional purchased NB-IoT Asset
ThingWorx SCP Professional SaaS	100GB	0.1GB per additional purchased IoT Asset entitled 0.0045GB per additional purchased NB-IoT Asset
ThingWorx SCP Enterprise SaaS	100GB	0.1GB per additional purchased IoT Asset entitled 0.0045GB per additional purchased NB-IoT Asset
ThingWorx Machine Builder Bundles (all)	100GB	0.1GB per additional purchased IoT Asset entitled 0.0045GB per additional purchased NB-IoT Asset
ThingWorx Non-Production Environment	100GB	None

Example:

Customer purchases ThingWorx SCP Enterprise SaaS with 100 additional normal assets:

Customer Production environment entitled to: $100\text{GB} + (100 * .1) = 110\text{GB}$ total storage

ThingWorx SCO Solutions SaaS Platform Service

Introduction

The ThingWorx SCO models allow Customers to license the IoT Platform for connecting and monitoring Customer’s internal manufacturing systems, processes, and/or operations related to the production of Customer products. There are several SCO Solutions models, which are based primarily on solutions/use cases sold per Site, plus SCO Named Users and in some cases assets. Each model includes the “ThingWorx agents” or “Edge Microservers” and a ThingWorx SDK used by the Customer to add connectivity into the applications

SCO Solutions Models

Definitions Applicable to SCO Solutions Models

- A “Custom Application” is either: (i) a customization of a standard PTC-provided application, or (ii) a software application not created by PTC that has been built for a single business use case for end users, addressing the Customer’s needs

and requirements. A Custom Application is developed using the ThingWorx platform technology and made up of a combination of backend components, services, and mashups

- “SCO Named User” means a person who accesses the ThingWorx Platform directly (when sold with SCO Solutions Premium or SCO Solutions Enterprise) or via an intermediate application (when sold with Digital Performance Management or SCO Use Case).
- A “Site” means a singular customer building or set of connected buildings where the software is being used. In the case of connected buildings there must be no physical barriers between the operations themselves, or the process flow of materials.

SaaS SCO Solutions Enterprise Model – permits customer to use ThingWorx to access all of the ThingWorx standard applications available at time of purchase (i.e., DPM, AMU, CWC, RTPPM) at a particular Site, and to use ThingWorx to develop Custom Applications for SCO purposes at such Site. An additional fee will be required for each additional Site where such application(s) are deployed. So, for example, without limitation, if Customer deploys five applications at three Sites, three Site licenses will be required. Furthermore, fees are required for each SCO Named Enterprise User over 100 users per Site, The SCO Solutions Enterprise model comes with the entitlements specified in the table below.

SaaS SCO Solutions Standard Model – PTC’s SCO Solutions Standard Model permits a customer to use ThingWorx for PTC developed Solutions. These solutions such as Digital Performance Management (DPM) and others listed in the table below are PTC-provided applications that can be purchased by Customer in connection with any of the SCO Solutions models specified above. Each solution is licensed and purchased individually per customer manufacturing site. Customer may edit the mashups provided with the out-of-the-box Standard Solutions but is prohibited from creating new mashups (either directly or by excessively editing the existing mashups). Customer may integrate Standard Solutions with other systems but only for read-only data sharing purposes. Customer may access ThingWorx only to configure Kepware tags for connectivity, and for no other purposes. The Solutions Standard model comes with the entitlements specified in the table below.

SaaS SCO Solutions Premium Model - PTC’s SCO Solutions Premium Model permits Customer to use the ThingWorx platform to create Custom Applications for SCO purposes. The licensing basis for PTC’s SCO Solutions Premium model entails a fee per Site where any Custom Application will be deployed, and this fee is in addition to the fee for the Standard Model for such Site (i.e., a Standard Model application is a pre-requisite to purchasing the Premium Model). The SCO Solutions Premium model comes with the entitlements specified in the table below.

Solution Scope

All ThingWorx SCO Solutions SaaS Services include:

- Users in the quantity specified below for each configuration purchased by Customer
- Connectivity to Assets via Kepware or any other supported edge agent technology, within the defined use cases for SCO
- Connectivity to Microsoft Azure IoT Hub
- A single dedicated production instance
- Storage allocation as specified in the table below
- A total of 12 Named Service Requests per calendar year across all purchased environments.

Offering Basis

- The ThingWorx SCO Solutions model allows Customers to license the IoT Platform and Solutions for connecting and monitoring Customer’s internal manufacturing systems, processes, and/or operations related to the production of Customer products, using a Registered User-based model.
- Customers are responsible for all configuration and maintenance of remote Assets. PTC does not provide support for any devices at the edge.
- Customer must maintain that all connected Assets communicate at a minimum-security SSL level of TLS 1.2
 - If Assets are not at specified level, Customer must gain approval from PTC in writing to connect assets to the service
 - PTC reserves the right to disconnect or block communication that does not meet the minimum-security level
 - PTC reserves the right to increase the minimum-security SSL TLS level that assets may connect at
- The following Service inclusions are subject to overage fees as specified in the Quote if Customers exceed their allowances:
 - Registered Users
 - Data/Storage
 - Microsoft Azure IoT Hub Usage

SCO Solutions License Profiles and Allowable Configurations

License Profiles

The ThingWorx SCO Solutions SaaS offerings are entitled by any of the following Solutions, Registered Users as specified in the configurations below.

Configurations

	SCO Standard (DPM, AMU, CWC, RTPPM)	SCO Solutions Premium Edition	SCO Solutions Enterprise Edition	SCO Solutions Custom Enterprise Edition
Prerequisite	N/A	Purchase of SCO Standard App	N/A	N/A
SCO Registered Users¹	25 per application, only to be used for that application	5 (only for administrative use purposes and not to access custom applications)	100 per Site included	100 per Site included
Custom Application included	0	Unlimited number of Custom Applications may be created	Unlimited number of Custom Applications may be created	Unlimited number of Custom Applications may be created
ThingWorx Runtime License	1 per application per site	N/A	N/A	N/A
ThingWorx Foundation	Included			
ThingWorx Analytics	N/A	Included (32 cores)		
ThingWorx Apps (DPM, AMU, CWC, RTPPM)	Access per app license (1 per Site) included	Purchased Separately	Included	Purchased Separately
ThingWorx Building Blocks	N/A	Included		
ThingWorx Kepware Server	5 ThingWorx Kepware Server Manufacturing Suite per app (Designated Server)	0	5 ThingWorx Kepware Server Manufacturing Suite (Designated Server)	40 ThingWorx Kepware Single Factory Licenses (Designated Server)
ThingWorx Software Content Management	N/A	Purchased separately		
Azure IoT Hub	1 Unit S1	1 Unit S1	1 Unit S1	1 Unit S1
ThingWorx Production Environment²	1			
ThingWorx Active-Active Clustering	Purchased Separately			

eLearning (Registered Users)	1 per SCO Registered User and SCO Connected User
Technical Support	Gold+

1. Additional registered users may be purchased a la carte
2. Only one production environment will be included in the SCO Solutions offerings, regardless of how many sites are purchased. Additional production environments may be purchased a la carte.

Additional Users – SCO Solutions Standard and Premium

Additional users for SCO Solutions Standard and Premium are purchased on a per site basis.

Example:

Site “A” has one DPM and one CWC application deployed, each app with 25 entitled users. The site has 30 workers with access needed to both solutions. The customer should purchase 10 additional users, 5 for each use case, for this site.

Additional Users – SCO Solutions Enterprise and Custom Enterprise

Additional users for SCO Solutions Enterprise and Custom Enterprise are purchased on a per site basis. Enterprise users are entitled with access to all custom use cases and solutions on that specific site.

Example:

Site “B” has an enterprise offering deployed consisting of multiple custom use cases. The offering was entitled with 100 enterprise users at that site. The customer purchases 10 more enterprise users, to total 110 users with access to all use cases deployed for Site “B”.

Additional Instances – Production

Additional production instances may be purchased separately and can be used to support multiple manufacturing sites or regions. These instances do not include additional Registered Users and are entitled to reflect the standard production entitlements as quoted. This will entitle the Customer to a production instance that is subject to PTC Service Level Agreement (SLA), Service Level Targets (SLT) and other terms as described in the General Terms and Conditions. Customer may allocate Registered Users to a single production instance. Additional production instances are sized based on the number of users allocated to that instance.

Additional Instances – Non-Production

Additional non-production (Development, QA and Integration) instances may be purchased separately. These instances do not have limitations on number of Assets or Registered Users, however, are designed to support functional development and testing of no more than 5 assets. If additional performance is required, please contact your PTC Representative.

Additional Databases

This entitles the Customer to Production and non-production databases, purchased separately. Customers must purchase a minimum 1 database of each to ensure there is a non-production for testing and validation, and a production instance. Sizing (as defined by CPU Cores) and storage will be specified in the Quote. The databases configured are pursuant to the conditions specified in the Terms and Conditions and will not have an individual SLA for production. Customer implementations that create extraordinary usage that negatively impacts performance of Customer system may be subject to additional fees.

ThingWorx High Availability

ThingWorx High Availability is an add on to any compatible SCO Solutions environment. This entitles the Customer’s production system to be configured with active-active clustering that is included in ThingWorx 9.0 and higher versions. This entitlement does not change any SLA unless otherwise specified in the Quote.

Data & Devices

Data Storage Entitlements

Customers are entitled to different levels of storage based on the edition of ThingWorx that they have subscribed to as detailed in this section. In addition, they can purchase additional storage in blocks of 1GB. The total amount of storage a Customer is entitled to is for the ThingWorx production environment and is determined by the total storage of all Customer data in both the ThingWorx file system and the ThingWorx database(s), this is inclusive of all ThingWorx components unless otherwise specified.

All storage entitlements are detailed in the table below:

ThingWorx Edition	Base Storage	Additional Storage Entitlements
ThingWorx SCO Solutions Standard	325GB	100GB Per App
ThingWorx SCO Solutions Premium	325GB	None
ThingWorx SCO Solutions Enterprise	1325GB	100GB Per Site
ThingWorx SCO Solutions Custom Enterprise	1325GB	100GB Per Site
ThingWorx Non-Production Environment	100GB	None