Product Description

INSYS icom

icom Router Management - Server / Data Center

Purpose and Scope of this Document
This document serves as the product description for the product variants:

- **icom Router Management-Server**
- **icom Router Management-Data Center**

  (in the following also referred to as "icom Router Management", "software" or "product")

If the information is different between the variants, this will be mentioned explicitly in the respective sections.

This product description in force at the relevant time is allocated to the licence and subscription and so part of the licence and subscription agreements. Furthermore, all General Terms and Conditions of INSYS icom GmbH (hereinafter referred to as "INSYS") under Imprint in their latest version are effective for "icom Router Management-Server" and "icom Router Management-Data Center", in particular General Software License Terms

Intended use
icom Router Management is an application that permits a central administration and management of a portfolio of INSYS routers with *icom OS* operating system. Functions offered by icom Router Management include the update of firmware, software, configurations and certificates. Routers connected to the service receive instructions based on input from system users in the web interface or automated via an application programming interface (API). The central administration permits considerable time savings through the automation of processes and error prevention.

Form of operation
The two product variants *Server* and *Data Center* of the *icom Router Management* mainly differ from the *Cloud* variant in their form of operation.

Both variants are intended for the "on Premises" use in an IT infrastructure that is either owned by the customer or operated on its behalf. The customer is user, hoster and operator of the software together. It is responsible for operation, administration, maintenance and first-level support as well as all tasks relating to IT security and availability, such as updates, security patches, monitoring and network configuration. The "on Premises" form of operation is preferably used for an application in critical infrastructures, in which an operation within a closed infrastructure provides an additional security factor.

For the cloud variant, however, INSYS is service provider and operator. If you are interested in the *Cloud* variant, please refer to your sales contact person.

icom Router Management — Server

The *Server* variant is used for installation on a dedicated server within a closed/secured network of the customer's IT infrastructure. The variant can be used for a number of 1 to 3,000 connected routers. INSYS cannot guarantee functionality for a number exceeding this.

icom Router Management — Data Center

The *Data Center* variant is used for installation within a "Kubernetes cluster" that is provided in the customer's IT infrastructure. The variant meets high requirements in terms of availability and scalability. The variant can be used from 1,000 to 50,000 connected routers. INSYS cannot guarantee functionality for a different number or a number exceeding this.

Core functions and performance characteristics

Account settings

- Management of user profile and company account
- User authentication using user name and password
- User settings of the system language (English or German)

Router management
- Registering and managing routers including mass registration via csv import
- Scalable for a large number of active router connections
- Indication of online status and event messages in the router device list
- Configuration of router meta data
- Creating and managing device groups

Resource management
- Uploading and managing update packets, firmware, containers and router configuration profiles
- Creating update packets

Creating and executing router updates
- Creating update jobs from configured update packets or resources provided by INSYS
- Applying update jobs to a device group, individual devices or all devices
- Tracking result/progress of active or executed update jobs

Infrastructure
- Modern security architecture (refer to IT Security Measures for more information)
- Slender and permanent active control channel/communication channel to the routers

Application programming interface (API)
- Automate the operation of this product using external applications, Scripts and systems using the application programming interface (API) [1].
- API using REST architecture and JSON data format for data exchange.
- A valid licence permits to generate an API access token for authorised access to the API.
- API documentation (Swagger) [2]

Notifications

In order to be able to receive e-mail notifications [3] related to the purchase of the product, the customer must ensure that e-mails from the sender addresses info@insys-icom.de and no-reply@insys-icom.de will not be filtered. Moreover, the customer must ensure that the data of the contact person stored at INSYS are always up to date.

Technical Information

icom Router Management has been developed for high scalability and availability in industrial environments. Depending on the chosen variant, different capacity limits apply:
- *icom Router Management Server* supports the management of up to 3,000 routers.
- *icom Router Management Data Center* supports the management of up to 50,000 routers.

These limits represent the maximum supported capacities under standard operating conditions and should be considered during planning. Requirements exceeding these limits require individual evaluation and approval by INSYS icom.

Installation Requirements

icom Router Management — Server

The installation requirements for the *Server* variant are available in the Install Guide. Until further notice, installation is only supported for Linux servers. Installation on Windows servers is not covered by the standard article and requires separate consultation.

icom Router Management — Data Center

The *Data Center* product variant requires an available Kubernetes cluster within the IT infrastructure of the customer. Installation and purchase is only possible in cooperation with INSYS icom after prior consultation and requires technically experienced personnel on the customer's side. INSYS does not support the installation and setup of a

INSYS icom

Kubernetes cluster, nor does it offer consulting services for setting up a Kubernetes cluster.

Ordering and Provisioning

The complete ordering and provisioning process requires the assistance of an INSYS icom (or Partner) sales representative and the following customer actions:

1. First time customers must order a Setup article. Renewing customers may order subscription licences only.
2. First time customers must download the installation media compatible with the host computing infrastructure and operating system.
3. Install the product.
4. Activate product/function with a valid licence key.

Test period

You can register for an account for *icom Router Management Cloud* yourself here - without having to contact the sales department or provide any billing details. After registering, you will receive a 45-day test period and access to the installation files for setting up the *icom Router Management Server* variant.

Subscription and licensing terms

The use of *icom Router Management* in the variants *Server* or *Data Center* requires the subscription of a licence with a term of 2 years. After expiry of the 2-year term, the subscription can be extended by 1 year at a time. The use of a licensed function is authorised by importing a licence. Due to the installation in a closed infrastructure, INSYS has no possibility to validate the validity of a licence. For this reason, licences for "on premises" installations are also validated in the cloud variant. After receiving the licence keys via e-mail upon an order, registration at the icom Router Management - Cloud is required. An account must be set up for this. Upon entering the licence keys, the licence file for the "on Premises" installation can be downloaded and imported into the *Server* and *Data Center* variants. The process is described in detail in this Configuration Guide. A licence activates a given function for a defined period of use. The period of use is indicated in the respective item description. After expiry of the period of use, the licence key loses its validity and the use of the function expires. Using a function is only possible by the renewed purchase of the item. Licence keys not activated within two-years (24 months) from the time of purchase from INSYS lose their validity.

Feature set

The feature set of the variants *Server* and *Data Center* is identical. The licences activate the full feature set that is available in the latest version of the software.

Feature set licence Server and Data Center

Feature	Description
Dashboard	Router status & series, location world map, version distribution firmware, Aktivitäten-Log.
Device details	Device details, timestamp of last connection, location, serial number, type description, FW-Version.
Multi User	Access to the Router Management account for multiple users.
Technical Support	Authorization for assistance within the scope of INSYS Standard Support for technical questions regarding the product Technical Support.
Update Jobs	Interactive distribution of updates in the form of update packages. Possible components: Configurations, scripts, certificates, firmware, containers.
Auto-update server	providing update packets via several auto-update servers. The URL of an auto-update server is stored in the router.
Audit Logs	Audit complete logging of all user actions on the system for full traceability and non repudiation.
Configuration Templates	Templates to enable mass update of routers and rollouts with device individual parameters.
Certificate Store	Upload, store and manage digital certificates and CAs. Used e.g. fpr authentication or VPN.
Custom fields	Add device-individual parameters to the batch configuration or as notes field for project-related information.

Available items

Available items by article number for variant server

Article description	Article Number
icom Router Management Server - Installation	10022802
icom Router Management Server - Licence Subscription (2 years)	10023610
icom Router Management Server - Licence Renewal (1 year)	10023611
icom Router Management Server - API-Licence (1 year)	10023613

Available items by article number for variant data center

Article description	Article Number
icom Router Management Data Center - Installation	10022803
icom Router Management Data Center - Licence Subscription (2 years)	10023614
icom Router Management Data Center - Licence Renewal (1 year)	10023615
icom Router Management Data Center - API-Licence (1 year)	10023616

Article Description icom Router Management — Server

icom Router Management Server — Setup

- Provision of the installation medium as download link of the latest version of the *Server* variant by INSYS.
- Provision of setup instructions
- Up to four (4) hours of technical consultation to assist in the installation and deployment of the product on a dedicated server within the host computing infrastructure.
- Requires pre-confirmed adherence to the details of installation and operation specific to the product version to be installed. Refer to § Installation Requirements for details.
- Acceptance of the installation by an INSYS employee including acceptance protocol of the installation. Without an acceptance protocol, INSYS will not assume any support efforts for the installed software.
- The INSYS support is made from remote. For an on-site support, additional travel costs are calculated according to INSYS standard rates.

To prevent unsatisfactory system performance, INSYS limits the *icom Router Management – Server* variant to a maximum of 3,000 managed routers.

icom Router Management Server — Licence Subscription (2 years)

Bound for use with *icom Router Management — Server* to manage INSYS routers running the icom OS operating system. Includes five hundred (500) licences which authorise the registration and concurrent management of up to five hundred (500) routers. Licences are transferable, not bound to dedicated routers (e.g. independent of serial no.) or product versions. The licence term (validity period) is (24) months. Expired licence may lead to unexpected operation or loss of basic functionality. An expired licence cannot be reused.

icom Router Management Server — Licence Renewal (1 year)

Bound for use with *icom Router Management — Server* to manage INSYS routers running the icom OS operating system. Includes five hundred (500) licences which authorise the registration and concurrent management of up to five hundred (500) routers. The article serves to extend a license subscription by 1 year, which was initially concluded by the purchase of *icom Router Management Server — Licence Subscription (2 years)* and thus corresponds to a minimum term. Licences are transferable, not bound to dedicated routers (e.g. independent of serial no.) or product versions. The licence term (validity period) is (12) months. Expired licence may lead to unexpected operation or loss of basic functionality. An expired licence cannot be reused.

icom Router Management Server — API-Licence (1 year)

Bound for use with the *icom Router Management - Server* variants. Offers access to the rich set of public application programming interfaces (APIs) that interact with external software applications to allow developers to extend or automate the functionality of the product through programming. The licence term (validity period) is twelve (12) months. Expired licence may lead to unexpected operation or loss of basic functionality. An expired icom Router Management - API Licence (1 year) cannot be reused.

Article Description icom Router Management — Data Center

icom Router Management Data Center — Setup

- Provision of the installation medium as download link of the latest version of the *Data Center* variant by INSYS.
- Up to eight (8) hours of technical consultation to assist in the installation and deployment of the product on a single namespace within the host computing infrastructure as designated by the customer.
- Requires pre-confirmed adherence to the details of installation and operation specific to the product version to be installed. Refer to § Installation Requirements for details.
- Acceptance of the installation by an INSYS employee including acceptance protocol of the installation. Without an acceptance protocol, INSYS will not assume any support efforts for the installed software.
- The INSYS support is made from remote. For an on-site support, additional travel costs are calculated according to INSYS standard rates.

The *Data Center* variant is suitable for a number of 1,000 to 50,000 connected routers. INSYS cannot guarantee functionality for a different or exceeding number.

icom Router Management Data Center — Licence Subscription (2 years)

Bound for use with *icom Router Management — Data Center* to manage INSYS routers running the icom OS operating system. Includes one thousand (1000) licences which authorise the registration and concurrent management of up to one thousand (1000) routers. Licences are transferable, not bound to dedicated routers (e.g. independent of serial no.) or product versions. The licence term (validity period) is (24) months. Expired licence may lead to unexpected operation or loss of basic functionality. An expired licence cannot be reused.

icom Router Management Data Center — Licence Renewal (1 year)

Bound for use with *icom Router Management — Data Center* to manage INSYS routers running the icom OS operating system. Includes five hundred (500) licences which authorise the registration and concurrent management of up to five hundred (500) routers. The article serves to extend a license subscription by 1 year, which was initially concluded by the purchase of *icom Router Management Data Center — Licence Subscription (2 years)* and thus corresponds to a minimum term. Licences are transferable, not bound to dedicated routers (e.g. independent of serial no.) or product versions. The licence term (validity period) is (12) months. Expired licence may lead to unexpected operation or loss of basic functionality. An expired licence cannot be reused.

icom Router Management Data Center — API-Licence (1 year)

Bound for use with the *icom Router Management - Data Center* variants. Offers access to the rich set of public application programming interfaces (APIs) that interact with external software applications to allow developers to extend or automate the functionality of the product through programming. The licence term (validity period) is twelve (12) months. Expired licence may lead to unexpected operation or loss of basic functionality. An expired icom Router Management - API Licence (1 year) cannot be reused.

Billing and Payment

Payment of full term of all product items with costs due on delivery. Separate billing data may be created per subscription licence, the underlying billing modalities (e.g. payment method, payment cadence, payment terms) are identical across all product editions and versions. General Terms of Purchase of INSYS icom GmbH apply.

Service and Operation

Responsibilities and Qualifications of the User

As a matter of principle, the user must observe the legal regulations, which are valid in his or her country, concerning operation, functional test, defects and administration of software products.

The installation, commissioning, operation and maintenance of the product must only be performed by trained expert personnel, which have been authorised by his or her employer. The expert personnel must have read and understood this documentation and observe the instructions.

A usage not according to the intended purpose, an ignorance of this documentation, the use of insufficiently qualified personnel as well as unauthorised modifications exclude the liability of the manufacturer for damages that result. The liability of the manufacturer ceases to exist.

Securing software for online use requires special technical skills and settings not guaranteed by the use of the product. It is the responsibility of the user to ensure that adequate security considerations are in effect to protect against hacking, theft, or other damages. Important security considerations may include, but are not limited to, regular replacement of user passwords and security certificates, for example. All security considerations are the responsibility of the product's user, administrator or his or her employer.

Public Hosting Restriction

This product is available for installation and operation within a customer-managed host computing infrastructure. INSYS prohibits the resale of this product as a public service for the management of routers owned or operated by third parties. INSYS licences this product only for management of routers owned by or under the management of the licenced end-customer. Forwarding the installation medium to third parties is not permitted under any circumstances. The recipient must ensure that this is the case.

Maintenance

This product requires one or more system administrators of the customer to perform regular maintenance to ensure secure and reliable operation. Maintenance tasks may include, but are not limited to:

- Monitoring host server load and uptime
- Monitoring host server disk space
- Monitoring host server network activity
- Rotating user passwords or security keys
- Renewing security certificates
- System backup for disaster recovery
- Performing system updates
- Be an available contact for the INSYS Customer Support Center
- Provide administrative and/or remote access to the INSYS Customer Support Center for troubleshooting

Updates

The product *icom Router Management* is subject to constant development, maintenance and new product functions will follow. If an update for an existing *Server* or *Data Center* installation is available and the version is compatible, the update can be executed. Product updates are of no additional charge to an existing licence subscription. All active and valid licences remain valid during an update. An update to a possibly available newer version may require changes to the installation. The customer is in sole ownership and responsibility for the update process and preparation of the system for the update process.

Not all functions available in the *Cloud* variant will be made available for the *Server* and *Data Center* variants. This may be for technical and/or commercial reasons. There is no right to make a functions of the *Cloud* variant available in *Server* or *Data Center*. There is no right for further development of the *Server* and *Data Center* variants. The scope of services corresponds to the status of the current version of *Server* and *Data Center* at the date of purchase.

Security Updates

INSYS will assess the impact on the IT security of the product in the event of critical public security vulnerabilities (CVSS 9.0-10.0) and decide to provide a security update on a case-by-case basis. The provision of a security update requires the availability of a patch for the publicly available component. INSYS assumes in any case that the *Server* and *Data Center* variants are operated in a closed and secure network.

Technical Support

Technical Support for customers is available via e-mail to support@insys-icom.de according to our support-levels. Further information regarding Technical Support are available on our Support page. INSYS supports the product under the following conditions:

1. The latest product version available from INSYS OR a product version not older than one (1) year from the latest product version
   AND
2. The product is operated with a valid (unexpired) licence OR with a test licence.

Training

INSYS icom offers training and consulting to help customers get the most value from this product. Visit our Support page or send an e-mail to training@insys-icom.de to learn more about the training courses and consulting services available for this product.

Cancellation

Pre-paid licenses (pre-paid 3 years) are neither cancellable nor refundable. For details, refer to the General Software License Terms § 6 Term of the license.

Endnotes

[1] *API: Application Programming Interface. This is a programming interface according to REST architecture that enables to call/consume functions of the product. Unlike operation via the web interface, functions can be called from scripts in order to automate processes or integrate them into third-party systems*

[2] *A Swagger documentation of the REST API is available on request from the INSYS Customer Service.*

[3] *This concerns messages, such as messages automatically generated by INSYS upon license orders.*