

# Data Sheet

## Fujitsu Software Infrastructure Manager (ISM)

The comfortable way to simplify your data center management

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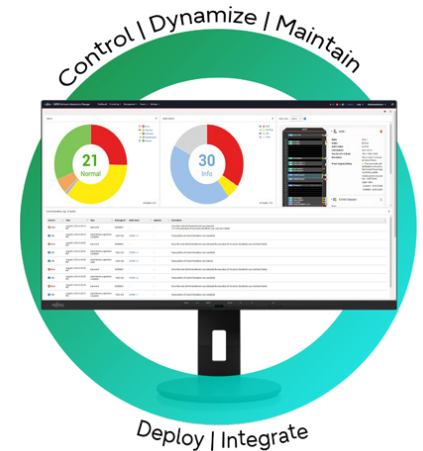
Fujitsu is standardizing on Infrastructure Manager (ISM) as its powerful tool for monitoring and managing entire IT landscapes, including servers, storage, network devices as well as power and cooling. ISM simplifies data center management by centralizing operations and monitoring of the entire IT infrastructure environment in a single unified platform. Using one user interface, ISM is not just restricted to managing a single data center, but is also capable of distributed data center management. ISM is available as Essential edition for standard infrastructure management capabilities in single configurations or as Advanced licensed edition providing comprehensive infrastructure management across multiple data centers.

With a consistent web-based user interface, Fujitsu ISM is able to scale with business demand in modern data center, from small groups of servers up to heterogeneous infrastructures with multiple local or remote instances. It covers most of the On-Premise IP-network connected devices that are included in our Fujitsu data center infrastructure portfolio as well as several business-relevant third party devices.

ISM helps to simplify day-to-day IT operations. Gain actionable insights and act using programmable APIs to track compute resources and reallocate workloads to reduce power consumption. In addition, increase storage utilization based on data usage patterns and easily redirect network traffic when congested.

ISM is designed the way people work, providing an integrated view and centralized control over

a heterogeneous environment. Automated device configuration and bulk OS installation allow you to deploy your IT quickly, easily and reliably. Node management, health status, capacity and threshold monitoring, administration and power management let you centrally control everything easily and efficiently. Converged management, virtual I/O management and network topology management make the IT environment dynamic in a simple, sophisticated and efficient way. No matter where you are, you can always maintain your IT in any state due to remote management, update management, logging and auditing. Furthermore, ISM is easy to integrate seamlessly and manage uniformly across enterprise management, vendor-specific management. You can also monitor third-party platforms.



# Features & Benefits

Main Features	Benefits
<p><b>IT Operations</b></p> <ul style="list-style-type: none"> <li>ISM has a single, customizable and intuitive dashboard with a unified view across multiple data centers. Creation of unique profiles and groups with a roll-out to any number of enclosures, servers and storage arrays. Tracking of activities in the system by the collection and combination of various log-files. Quick and unattended mass OS installation can be performed for multiple servers.</li> </ul> <p><b>Agility</b></p> <ul style="list-style-type: none"> <li>Comprehensive and real-time monitoring and management of converged IT infrastructure environments. Automated discovery of nodes and network connections. Compliance check function for node configurations. Firmware baseline update function provides a check of firmware and driver versions as well as update functionality. Seamless and easy integration into widely used enterprise management or vendor-specific server management solutions.</li> </ul> <p><b>Operational Efficiency</b></p> <ul style="list-style-type: none"> <li>User-friendly, structured graphical user interface and features like cluster configuration, back-up of node configurations and local back-up of appliances available. Resource utilization and right allocation through threshold settings and power capping function offer a holistic view.</li> </ul> <p><b>Designed for the Future</b></p> <ul style="list-style-type: none"> <li>Broad coverage of devices, being continuously enhanced with latest versions of ISM. Security is supported by high levels of encryption and access, single-sign-on across data centers, auditing and multi-tenancy. Programmable interfaces are available to support various integrations and automation of workflows. Continuous development will ensure ISM as a future-proof platform for data center infrastructure management.</li> </ul>	<ul style="list-style-type: none"> <li>Reduced efforts for data center monitoring and management as well as increased compliance and consistency due to centralization and automation.</li> <li>Always having the latest data center status available to support agile decisions. Centralized real-time control over local or distributed data center infrastructure help to identify bottlenecks and system errors. Keep the infrastructure up and running with the latest software versions. Acceleration of the node setup process by automated identification of any new devices added to the network as well as identification of changes in the infrastructure.</li> <li>Reduced administration effort by increased automation and enhanced infrastructure availability while ensuring the desired level of security. Save time and costs by having one single point of control and administration in heterogeneous environments. Increase your speed in troubleshooting and optimise your IT infrastructure management with ISM.</li> <li>ISM provides the speed and scale to manage all, from SMBs to large-sized data centers. Due to a wide range of features, ISM supports the principles of modern data centers.</li> </ul>

# Infrastructure Manager Editions

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## ISM Essential

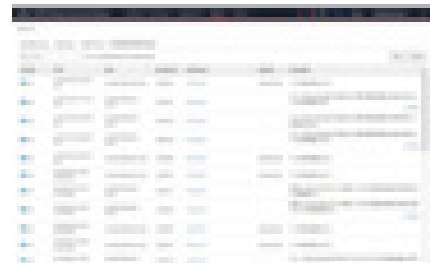
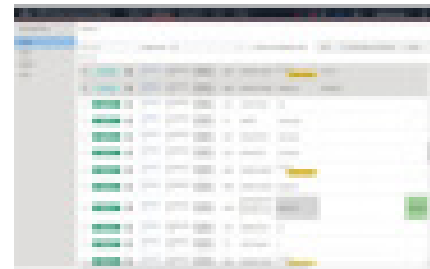
- It is the standard version of ISM and serves as the entry point to infrastructure management. It provides essential monitoring capabilities and update functions across all supported devices including servers, storage and network switches. It also provides health monitoring, inventory management, event management functions etc. It is available free-of-charge, but optional support pack is available at an additional cost.



## ISM Advanced

- It is a full-featured advanced version of ISM that provides comprehensive and robust infrastructure management capabilities across servers, storage, and network devices. With centralized management of entire data centers, companies can easily focus on the infrastructure required for their business solutions. Some of the advanced capabilities include a unified and intuitive dashboard, firmware baseline management to ensure hardware compliance and automated deployment of all nodes with profile management. It also monitors 3rd party vendor devices in addition to integrating into VMware®, Microsoft® System Center®, and Ansible environments.

More details for all features can be found on:  
<http://www.fujitsu.com/infrastructuremanagement>



# Technical details

## Infrastructure Manager Comparison

Version	ISM Essential	ISM Advanced
Dashboard	x	x
Auto discovery	x	x
Update Management	x	x
Logging and auditing	x	x
Performance management	x	x
Node management	x	x
Health status	x	x
Event management	x	x
Capacity/ Threshold management	x	x
Power consumption	x	x
Inventory management	x	x
Anomaly Detection		x
Automate device configuration		x
Mass OS installation		x
Group power capping		x
Firmware baseline		x
Archive management		x
Virtual-I/O management		x
Network topology management		x
In Enterprise management		x
3rd party platforms (monitoring only)		x
In vendor specific management		x
License	free	paid
Support	paid (optional)	paid

## System requirements for ISM-VA (virtual appliance)

Number of CPU cores (for ISM-VA)	2 cores or more
Memory capacity (for ISM-VA)	8 GB or more
Free disk space (for ISM-VA)	35 GB or more
Network (for ISM-VA)	1 Gbit/s or higher
Hypervisor (for ISM-VA)	VMware ESXi 6.5 / 6.7 / 7.0 / 8.0 Windows Server 2012 / 2012 R2 / 2016 / 2019 / 2022 Azure Stack HCI OS version 20H2 / 21H2 / 22H2 Red Hat Enterprise Linux 7.3 / 7.4 / 7.6 / 7.7 / 7.9 / 8.2 / 8.4 / 8.6 / 8.7 / 8.8 / 9.0 / 9.1 / 9.2 SUSE Linux Enterprise Servre 12 SP4 / 12 SP5 / 15 / 15 SP1 / 15 SP2 / 15 SP3 / 15 SP4 / 15 SP5

## System requirements for management terminals

Device (management terminal)	PC Server iPad Android tablet Windows 10 tablet
Display (management terminal)	PC, server and Windows 10 tablet: 1280 x 768 pixels or more Tablet: Display mounted to devices stated above
Network (management terminal)	100 Mbit/s or more
Web browser (management terminal)	PC, server and Windows 10 tablet: Internet Explorer 11 Microsoft Edge 86 or later Mozilla Firefox 82 or later Google Chrome 86 or later Android tablet: Google Chrome 43 or later iPad: Safari 13 or later

### System requirements for management terminals

Related software (management terminal) Acrobat Reader (for viewing manuals)

### Supported nodes

Supported Servers	PRIMERGY BX PRIMERGY CX PRIMERGY RX PRIMERGY TX PRIMERGY GX PRIMEQUEST PRIMEFLEX for VMware vSAN Appliance
Supported Storage	ETERNUS AB ETERNUS AF ETERNUS AX ETERNUS DX ETERNUS HB ETERNUS HX ETERNUS LT NetApp AFF NetApp FAS
Supported Switches	FUJITSU Ethernet ToR Switch (PSWITCH 2048) Brocade Cisco Arista Juniper
Supported Facilities	Cooling Distribution Unit

### Product license

License keys	FUJITSU Software Infrastructure Manager 1 Node Adv License V2.x FUJITSU Software Infrastructure Manager 5 Node Adv License V2.x FUJITSU Software Infrastructure Manager 10 Node Adv License V2.x FUJITSU Software Infrastructure Manager 20 Node Adv License V2.x FUJITSU Software Infrastructure Manager 100 Node Adv License V2.x FUJITSU Software Infrastructure Manager Server Adv License V2.x
Notes	Licensing rules and hints ISM Server license applies to the manager server, which hosts ISM software as a virtual appliance (VA). An ISM node license is required for each device, which will be registered and managed by ISM. Each server and node license requires a Support Pack. All Support Packs, including for ISM Essential, are available for periods of 1, 3, or 5 years. More information available at <a href="https://www.fujitsu.com/emeia/products/product-support-services/software-support/index.html">https://www.fujitsu.com/emeia/products/product-support-services/software-support/index.html</a>  The detailed information is (at product support page): Support Pack Datasheet: <a href="http://docs.ts.fujitsu.com/dl.aspx?id=d8cb66dd-a9b9-4c84-928b-e8fb71fc41f1">http://docs.ts.fujitsu.com/dl.aspx?id=d8cb66dd-a9b9-4c84-928b-e8fb71fc41f1</a> Technical appendix for ISM: <a href="https://docs.ts.fujitsu.com/dl.aspx?id=fed32418-8411-459d-8ca5-49f7f3a43b7f">https://docs.ts.fujitsu.com/dl.aspx?id=fed32418-8411-459d-8ca5-49f7f3a43b7f</a>

### Deploy

Profile management	Enables template-based deployment with configuration for hardware components, which includes administrator passwords, SNMP, NTP settings, RAID groups, and volumes saved as a profile, copied and applied as a batch to drive automated installation. This helps ensuring compliance, consistency and increased productivity.
Mass OS installation	Easy, swift configuration and unattended installation of operating systems on a scale of devices; create and execute scripts, which set several configurations in the final phase of the installation sequence.

### Control

Node management	Discover and register nodes within your network. Manage and visualize rack locations on data center floors and node positions within the racks.
Health status monitoring	Track and monitor the health status of the entire data center infrastructure. Visualized by configuring rack location on the floor or data center, enabling nodes to be managed intuitively and efficiently. Reduce monitoring costs by consolidating all error reports to one server, sending these to the system log.
Event management	Monitor user operations based on events (SNMP traps) sent from data center IT infrastructure devices registered on ISM. Track parameters such as intake air temperature, CPU utilization and power consumption for each node to ensure it is within defined limits.
Execute actionable insights	ISM provides flexibility to run external scripts to execute appropriate actions to ensure system availability, reduce network load, etc.
Threshold manager	Provide accurate warnings about utilization limits of node resources being reached, thus helping to easily identify current performance issues and to ensure constant service delivery.

## Control

Power capping and monitoring functions	Power capping function for single devices or groups of devices; performance of automatic power consumption control by setting the upper limit value of power consumption and setting the priority of power capping.
Inventory management	Collect information on monitored nodes such as serial number and firmware version. With advanced search, additional information from the managed inventory is available. The gathered inventory information can be exported by using CSV format.
Multi-tenancy	Assign user access rights to each user or each node based on usage, and associate user groups with node groups. Restrict the infrastructure that can be monitored user-wise based on company policy to ensure security and meet customer SLAs. Users have direct and quick access to iRMC with a Single Sign-On from ISM.
Anomaly Detection	This function is available with the ISM V2.7.0 officially. ISM will therefore not only collect the data as a threshold-monitoring tool, it will also detect unusual trends by a special algorithm. A new tab will be added on the event view, and a message is displayed when an unusual trend is detected. In addition, the user will receive a recommended solution for solving the unusual trend.

## Dynamize

Analytic	Collect and analyze data to pinpoint the root cause of system outages and performance issues with the converged data center registered to ISM. Customizable design layout helps to highlight priorities and make quick and proactive decisions.
Auto discovery	Speed up the node setup process by automatically identifying any new PRIMERGY or PRIMEQUEST server or PSWITCH added to the network.
Configure virtual MAC / WWN	Virtualize LAN, SAN network, fibre channel and IO parameters to eliminate the layer of complexity in current network architectures through virtualization of physical network addresses and clear separation of server management from LAN and SAN management.
Resource pooling of MAC and WWN	Support resource pool function of virtual MAC and WWN address. User can define address range and assign an ID when a new profile is created. Deleted profiles will be released and further re-assigned.
Network map	Obtain a consolidated view of the network topology displaying network connections between multiple nodes of both physical and virtual environments automatically. Track of possible network congestion and detect network failures in advance.
Virtual network analysis	Provide of virtual network packet analysis with insights into performance of virtual network ports by port number and VMs. Customers can identify network performance bottlenecks and proactively ensure business continuity.

## Maintain

Firmware baseline management	Confirm the firmware versions of each node on the ISM GUI and execute firmware update to multiple nodes simultaneously. Increase infrastructure availability by ensuring systems run on the latest firmware and avoid omission of update by managing firmware of each node batch wise. Schedule firmware updates in advance to run during non-peak hours and have hassle-free updates without interfering with business operations. Reduce user operations in preparing firmware data by downloading firmware from "global flash", or downloading e.g., update DVD into ISM.
Repository management	Manage repository of update modules imported from update DVD.
Performance monitoring	Long-term monitoring of server, storage and network resources; utilization analysis for specific components; help to detect resource bottlenecks and to guarantee service levels.
Archive management	Device system logs and OS event logs collected from the managed node automatically in scheduled time for further check and analysis.
Logging and auditing	Recording of user events including resources accessed by users, destination, source addresses, time stamp and user login information.

## Integrate

Integration Packs	ISM integrates with the following management systems: Microsoft Windows Admin Center, Microsoft SCOM, Microsoft SCVMM, VMware vCenter, VMware vRealize Operations Manager, VMware vRealize Orchestrator, Ansible, OpenStack Note: OpenStack integration is limited to monitoring of the OpenStack environment on ISM.
RESTful API	Manage node status and inventory information using REST API. Use programmable APIs or customized scripts to run operations and integrate into the existing management system.

### Fujitsu products, solutions & services

In addition to Fujitsu Software Infrastructure Manager (ISM), Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

#### Fujitsu Portfolio

Built on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offerings. This allows customers to select from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

#### Computing Products

[www.fujitsu.com/global/products/computing/](http://www.fujitsu.com/global/products/computing/)

#### Software

[www.fujitsu.com/software/](http://www.fujitsu.com/software/)

### More information

Learn more about Fujitsu Software Infrastructure Manager (ISM), please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.

<http://www.fujitsu.com/infrastructuremanagement>

### Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.

Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT.

Please find further information at <http://www.fujitsu.com/global/about/environment>



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