

Date (dd.mm.yyyy): 21.05.2025

Product description:

SOMATOM go.Top

1 Product Overview

Included products are listed below:

Item	Description	Qty	Rel
	<u>SOMATOM go.Top</u>		
1.	SOMATOM go.Top 14482405 / Country of Origin: DE	1	R
2.	SAFIRE 14482439 / Country of Origin: DE	1	R
3.	SW Base Package 14500412 / Country of Origin: DE	1	R
4.	syngo Expert-i 14468581 / Country of Origin: DE	1	R
5.	Table Extension 14460614 / Country of Origin: CN	1	R
6.	High-speed 0.33 s 14482443 / Country of Origin: DE	1	R
7.	227 kg Patient Table 14460609 / Country of Origin: CN	1	R
8.	Neuro Perfusion Reading 14482460 / Country of Origin: DE	1	R
9.	Cardiac Acquisition Basic 14482444 / Country of Origin: DE	1	R
10.	DE Acquisition - TSDE 14482466 / Country of Origin: DE	1	R
11.	Gantry tilt 14482431 / Country of Origin: DE	1	R
12.	go.Power Computers 14482427 / Country of Origin: DE	1	R
13.	Wireless edition 14482433 / Country of Origin: DE	1	R

14.	myExam Care 14482429 / Country of Origin: DE	1	R
15.	Coronal Supine Head Holder 14460644 / Country of Origin: DE	1	R
16.	Table Accessories Set 14460643 / Country of Origin: CN	1	R
17.	Diagnostic Window 100x80 cm 07444990 / Country of Origin: DE	1	R
18.	Advance Plan Information 14468552 / Country of Origin: DE	1	R
19.	Identifier SRS 14460600 / Country of Origin: DE	1	R
20.	AppS Training Imaging 14460697 / Country of Origin: DE	1	R
21.	syngo.via CT Bundle Identifier 14444626 / Country of Origin: DE	1	R
22.	syngo.via Auto/Routine WS SW 14481369 / Country of Origin: DE	1	R
23.	syngo.via Project Identifier 14456549 / Country of Origin: DE	1	R
24.	syngo.via VB80 Documentation Check 14481336 / Country of Origin: DE	1	R
25.	Workplace/Workstation Hardware 14484715 / Country of Origin: CZ	1	R
26.	Prime HW Support WS 5y 14484719 / Country of Origin: DE	1	R
27.	Monitor EIZO MX243W col. 24.1-inch 14481015 / Country of Origin: JP	1	R
28.	Keyboard UK English 14412575 / Country of Origin: CN	1	R
29.	syngo.CT Coronary Analysis #1 14473002 / Country of Origin: DE	1	R

30.	syngo.CT CaScoring #1 14473055 / Country of Origin: DE	1	R
31.	syngo.CT Cardiac Function #1 14473052 / Country of Origin: DE	1	R
32.	syngo.CT Vascular Analysis #1 14473005 / Country of Origin: DE	1	R
33.	syngo.CT Neuro DSA #1 14473085 / Country of Origin: DE	1	R
34.	syngo.CT Neuro Perfusion #1 14482229 / Country of Origin: DE	1	R
35.	syngo.CT Colonography #1 14473113 / Country of Origin: DE	1	R
36.	syngo.CT Pulmo 3D #1 14473107 / Country of Origin: DE	1	R
37.	syngo.CT Bone Reading #1 14473104 / Country of Origin: DE	1	R
38.	syngo.CT Liver Analysis #1 14473125 / Country of Origin: DE	1	R
39.	syngo.CT Body Perfusion #1 14473119 / Country of Origin: DE	1	R
40.	syngo.CT Lung CAD #1 14473097 / Country of Origin: DE	1	R
41.	Handover Train SY Auto Routine / WS 14463735 / Country of Origin: DE	1	R
42.	PACS-Driven Implementation Pkg. HQ 14432433 / Country of Origin: DE	1	R

T O T A L quantity is for one system

Optional products are listed below:

Item	Description	Qty	Rel
	<u>SOMATOM go.Top</u>		
	<u>T O T A L quantity is for one system</u>		

2 Technical description

Item	Description
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1. SOMATOM go.Top Smart

- Control scans remotely with Mobile Workflow*
- Reduce workflow steps and increase patient well-being with myExam Compass and myExam Care

* Depending on country local release.

Flexible

- Excellent low-dose performance thanks to imaging chain and Stellar Detector
- High throughput management thanks to Athlon® X-ray tube
- Excellent iodine contrast with High Power 70⁴

Productive

- Scanner footprint¹ of just 4 m²
- FAST 3D Camera gantry-mounted without additional ceiling infrastructure⁴
- Electrical consumption of just ≤ 115 kWh (maximum power consumption)

¹ Surface covered by gantry and moving table top

Technical specifications:

- Slices 64 (128 with IVR)
- Max. mA 625 mA (825mA²), 1560 mA³ (2060 mA^{2,3})
- Rotation time Up to 0.33 s
- kV 70, 80, 90, 100, 110, 120, 130, 140 kV
- z-Coverage 64 × 0.6 mm
- Tube 7.0 MHU
- Power 75 kW
- Table load Up to 307 kg
- Bore size 70 cm

² With the High Power 70 option.

³ Max. tube current equivalent with SAFIRE.

⁴ Optional

Item	Description
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2.	<p>SAFIRE</p> <p>Equipped with SAFIRE, a model-based iterative reconstruction, SOMATOM go. scanners achieve up to 60% dose reduction while maintaining image quality and detail visualization combined with fast image reconstruction¹. By this, equivalent results can be achieved at less dose, filling up the heat storage of the system more slowly and therefore, additionally, increasing the heat storage capacity.</p>
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3.	<p>SW Base Package</p> <p>myExam Compass</p> <p>myExam Compass offers knowledge-based guidance at the hands of the technologist supporting individual patient characterization, based on patient input (size, age, sex, ECG) and interactive questions, adaptable by users, in their own clinical language (e.g., "does the patient have a metal implant?", "can the patient hold the breath longer than 5 sec?").</p> <p>myExam Cockpit</p> <p>The central engine of myExam Compass is driven by this cockpit: the central user interface for fast and intuitive protocol configuration. In this expert mode, users benefit from high flexibility in modifying predefined protocols and the option to integrate their knowledge into standardized protocols, and through myExam Compass, make them available for every user across your institution.</p> <p>SureView</p> <p>SureView ensures that image quality is kept constant for all scan speeds, independent of the selected volume pitch.</p> <p>WorkStream4D</p> <p>With Workstream4D, thin slice data reconstruction is not required prior to the production of reformatted images.</p> <p>This enhancement saves time when compared to alternative MPR techniques 4D workflow with direct generation of axial, sagittal, coronal, or doubleoblique images from standard scanning protocols.</p> <p>Adaptive Signal Boost</p>
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Item	Description
	<p>The Adaptive Signal Boost amplifies low signal areas of the CT data when high attenuation is present – such as when imaging obese patients or patients with metal implants or pediatric imaging at low kV.</p> <p>HD FoV Designed to enable visualization of the human body parts and skin line located outside of the 50 cm scan field of view up to the bore size, based on an algorithmic complement of missing detector data outside of the 50 cm scan FOV.</p> <p>10kV Steps Adapt your kV selection more precisely to reduce radiation dose at maintained image quality for a broad range of patient sizes. Benefit from patient-specific and user-independent selection of the optimal kV setting with CARE kV in 10 kV steps. More patient-specific dose management thanks to finer kV selection in 10 kV steps for individual dose management</p> <p>Flex Dose Profile For long scan ranges, Flex Dose Profile works in combination with CARE Dose4D and FAST Planning to allow a more optimal modulation of the dose. In longer scans, some organs require more dose than the rest of the scan, i.e., there are different target dose levels needed for different anatomical regions, e.g., in regular thoracoabdominal examinations or in chest pain or TAVI procedures. FAST Planning automatically detects individual patient landmarks and anatomies, while Flex Dose Profile adjusts the tube currents for more personalized and accurate dose handling.</p> <p>Interleaved Volume Reconstruction IVR enables utilization of the measured data as effectively as possible. By using IVR, the system extracts the maximum amount of diagnostic information from measured data, thereby improving spatial sampling in z-direction, independent of pitch.</p> <p>DynSerio Scan</p> <p>FAST: FAST ROI Automatic ROI identification for the aorta and the pulmonary trunk for optimal enhancement timing</p> <p>FAST Planning FAST Planning is an AI machine learning powered set of algorithms that allow fast, organ-based setting of scan and reconstruction ranges. This enables consistent and reproducible acquisitions in Single and Dual Energy scans. By automating the workflow, users increase efficiency due to reduced manual steps and effort in scan preparation.</p> <p>FAST Adjust With FAST Adjust, you have the option of adjusting scan parameters during scanning. Intuitive scan parameter adjustment at the push of a button Optimized scan settings lead to improved image quality Optimized utilization of scanner capacities</p>

Item	Description
	<p>FAST Contact FAST Contact is an easy way to contact our service experts directly from the scanner console for technical and clinical application support. teamplay Fleet – our fleet management tool – also tracks and archives service tickets generated with FAST Contact.</p> <p>GO Technologies: - Check&GO: Check&GO is an intelligent algorithm, based on big data, that monitors and flags problems for immediate action or correction. This allows you to correct issues on the go, avoid subsequent errors as well as stop the archival sub-optimal images.</p> <p>Metal Detection Check&GO Metal Detection helps prevent mistakes and rescans by alerting the user when metallic objects such as keys, belts, chains, earrings are not removed and are present in the scan area after the topogram is done.</p> <p>Contrast Coverage An intelligent algorithm that flags problems with coverage or contrast media distribution as they occur.</p> <p>- Recon&GO: Recon&GO enables the creation of Inline results, a set of fully automated postprocessing applications as an alternative to the regular syngo.via algorithms. This reduces postprocessing to zero-clicks with Recon&GO.</p> <p>Inline Anatomical Ranges Automatic generation of radial and parallel ranges in any anatomical orientation and thickness. This automation saves time by avoiding manual workflow steps. Just configure your required results once and Recon&GO will always create them like a conventional reconstruction.</p> <p>Inline Table & Bone Removal Zero-click bone-free VRT reconstruction that facilitates a precise vascular assessment by visualizing blood vessels without interfering anatomical structures</p> <p>Inline Vessel Ranges Zero-click vessel centerline extraction and anatomical labeling of the main vessels (aorta, run-offs and carotids) with display of Curved Planar Reconstruction to simplify reporting of findings and stenosis assessment</p> <p>Inline Spine Ranges Zero-click reconstruction of anatomically aligned spine reconstructions. The software detects and labels vertebrae within a predetermined scan area, and calculates their position for anatomically correct image reconstructions.</p> <p>Inline Rib Ranges</p> <ul style="list-style-type: none"> - Zero-click reconstruction of specific radial and parallel rib visualizations that adapts the rib cage anatomy displaying all ribs spread out in one plane - Automated rib labeling and numbering <p>Multi Recon</p>

Item	Description
	Automatic generation of multiple series in different orientations (coronal / sagittal / axial) or image impressions (soft tissue / air / bone / ...)
	- CT View&GO: This viewing application available at the AWP provides you with intuitive and customizable cross-specialty tools for 3D visualization, filming and printing, as well as several post processing applications.
	- Customizable user interface, through a Favorite Toolbox
	- Automatic distribution and filming of images and results
	- Window width and center freely selectable
	- Single window
	- Multiple window settings for multi-image display
	- Organ-specific window settings, e.g., for soft tissue and bones
	- Image zoom and pan
	Table and Bone Removal Table and bone-free VRT reconstruction that facilitates a precise vascular assessment by visualizing blood vessels without interfering anatomical structures
	Vessel Extension - Set of tools and layouts for guided creation of CPR (Curved Planar Reconstructions) for enhanced vascular assessment
	- Comprehensive length and diameter measurements
	Endoscopic View Virtual Endoscopy software enabling visualization of airways and intestines
	Diameter / WHO Area Longitudinal lesion measurements and WHO for enhanced clinical decisions in oncology
	Lung Lesion Segmentation The Lung Lesion Segmentation tool in CT View&GO performs an automated segmentation of solid and subsolid lesions in lungs, providing the volume and diameter according to the LungRADS guidelines.
	ROI HU Threshold Evaluation and display of tissue densities within a certain HU range
	Dual Energy ROI Basic evaluation of the behavior of different tissues at different energies as an indication of their composition
	Spine Ranges - Guided reconstructions of anatomically aligned spine Curved Planar Reconstructions (CPR)
	- Automatic detection and labeling of vertebrae
	Average Allows fusion of two DICOM images on a pixel-by-pixel basis for orthopedic measurements
	- syngo System Security

Item	Description
	<p>Modern way of guarding against malware, viruses and malicious attacks, comprising a bundle of solutions:</p> <ul style="list-style-type: none">- Provides functionality for user Management and flexible access control for patient data- Improves IT security- Avoids system breakdowns due to malware installations which results in higher system uptimes and reliability- Reduces risk of unwanted software installations- Supports local IT personel- Improves system performance and robustness- Improves security for the use of external storage devices
4.	<p>syngo Expert-i</p> <p>Questions that may arise at the syngo Acquisition Workplace can be addressed quickly and efficiently via network PC without having to go to the workplace.</p>

Item	Description
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5. **Table Extension**

Table extension for prolongation of the scan range and easy patient positioning

6. **High-speed 0.33 s**

This option provides a rotation speed of down to 0.33 sec per rotation, for very high scan speeds. Fast gantry rotation times are the prerequisite for highest temporal resolution and are therefore essential for motion free cardiovascular imaging. With the temporal resolution of 165ms, this CT is especially suitable for cardiac examinations and fast scanning.

Item	Description
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7. **227 kg Patient Table**

- Scannable range 1600 mm / 63" with patient table extension Table feed speed 1 - 200 mm/s
- Vertical table travel range 500 - 885 mm / 19.6" - 34.8." (table center)
- Vertical travel speed $\geq 28,3$ mm/s
- Max. table load 227 kg / 500 lbs

8. **Neuro Perfusion Reading**

CT View&GO Neuro DSA

The Neuro DSA application within CT View&GO provides a bone-free view of the cerebral vasculature based on the subtraction of an additional nonenhanced CT (NECT) scan that is 3D registered to the acquired CTA data set. The improved visualization of vascular structures in the skull base area will help to delineate aneurysms and other vascular diseases.

A negated Image provides an angio-like view.

CT View&GO Stroke Layout

The Stroke Layout plugin will automatically load stroke results in a dedicated layout to facilitate the readability of the results. This layout will show the relevant patient results, based on the type of stroke (e.g., ASPECTS in case of Ischemic Stroke). The results can be read from CT View&GO at the scanner and/or MM Reading (syngo.via).

syngo.CT Neuro Perfusion

syngo.CT Neuro Perfusion for dynamic 4D quantification and visualization of perfusion data.

Recon&GO Inline Neuro Perfusion

Neuro Perfusion supports the assessment of brain tissue perfusion through a contrast CT head scans with a full automatically and reproducible quantitative grading system for tissue differentiation, i.e., whether Penumbra or core infarct. Recon&GO provides inline neuro perfusion calculation and automatic transfer to PACS.

Item	Description
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9. **Cardiac Acquisition Basic**

Physiological Measurement Module

Three-channel ECG cable connection. The ECG signal is automatically checked for impedance and monitored on the tablet.

Retrospective ECG-triggered scanning to obtain CT images of the heart in defined phases of the cardiac cycle.

Any kV CaScoring

Calcium scoring can be performed either at any kV or with Tin Filter enabling Agatston equivalent low-dose coronary calcium scoring.

Cardio BestPhase

is a dedicated software which automatically calculates and detects the optimal phase for motionless coronary visualization. The phase is defined as either end-systole, end-diastole or both timepoints and is automatically reconstructed.

10 **DE Acquisition - TSDE**

TwinSpiral Dual Energy scan mode

A new holistic solution for spectral imaging is introduced. The TwinSpiral scan mode offers the possibility to acquire two consecutive spiral data sets at different energies used for non-contrast scans and the two different kV levels with independent mAs modulation deliver a combination of both morphological and functional information within one examination.

SPP reconstruction

Improve workflow by fusing low- and high-energy data into the Spectral Postprocessing (SPP) data format. SPP Format based on low and high energy series contains all relevant DE information when sent to syngo.via or PACS. The SPP data set provides information to calculate different Dual Energy result images.

Item	Description
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| 11 | Gantry tilt
Physical tilt up to $\pm 30^\circ$ |
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- | | |
|----|--|
| 12 | go.Power Computers
Acquisition Workplace (AWP):
466 GB and up to 877.000 images
Image Reconstruction (IRS):
85 fps for FBP; 65 fps for IR |
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Item	Description
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13	Wireless edition
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	Wireless tablet and wireless Remote Scan Control for mobile workflow.
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14	myExam Care
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	myExam Care is combining smart features that support you to keep radiation dose low (e.g., CARE Dose 4D) and your patients at ease (e.g., CARE Breathe) and helps you to put patients well-being in the center.
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	CARE 2D Camera (full-range)
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	2 × 2D Cameras are directly integrated in front and rear gantry funnel that offers live images allowing a closer look to the patient during the whole examination, even when the patient is inside the gantry.
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	Gantry Ring Moodlight in orange
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	CARE Dose 4D
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	Fully automated dose modulation solution.
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	The algorithm automatically modulates tube current for optimum image quality. This results in deduced dose levels, depending on patient size and anatomy, i.e., there is automatic patient- and organ-specific tube current adaption.
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	CARE kV
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	CARE kV automatically tailors tube voltage according to patient size and clinical task. Simplify processes by automatically aligning mAs with the kV setting. With the selection of optimal kV level between 70 and 140 kV, CARE kV minimizes dose. It further simplifies the process by automatically aligning the tube current with the selected kV.
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	X-CARE
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	Provides organ dose reduction for radiation-sensitive peripheral organs e.g., eye
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Item	Description
	<p>lenses, while maintaining image quality. Keeps the average CTDIvol constant, i.e., with and without X-CARE. myExam Companion individualizes the utilization of X-CARE by considering the gender and breath-hold capability of the patient.</p> <p>CARE Child CARE Child offers scan parameters to be adapted to even small patient sizes. Dedicated pediatric protocols automatically set a low tube voltage – in most cases 70 kV – while CARE Dose4D optimizes dose distribution and offers special modulation curves.</p> <p>CARE Profile Provide visualization of dose profile of the scan ranges. CARE Profile enables checking of Automatic Exposure Control (AEC) prior to scanning.</p> <p>CARE Topo Real-time topogram Manual interruption possible once desired anatomy has been imaged.</p> <p>CARE Filter Specially designed X-ray exposure filters installed at the tube and the collimator for protocol individual optimization of patient dose and image quality Permanent filtration of X-ray tube assembly Equivalent to 5.5 mm Al @ 140 kV Tube collimator <ul style="list-style-type: none"> - Equivalent to 0.5 mm Al in the isocenter - 1 mm Al with cardio wedge </p> <p>CARE Bolus Scan mode for contrast bolus triggered data acquisition The procedure is based on repetitive low-dose monitoring scans at one slice level and analysis of the time density curve in an ROI (Region of Interest). CARE Bolus CT allows the planning and the execution of contrast workflows within the Scan&GO user interface.</p>

Item	Description
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15	Coronal Supine Head Holder
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16	Table Accessories Set
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Item	Description
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17	Diagnostic Window 100x80 cm
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	Consisting of the following components:
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| | <ul style="list-style-type: none"> - Frame made of 2 mm thick quality sheet steel - Galvanized and painted in RAL 1014 - Radiation protection glass RD 50 - Lead equivalent: 2.1 mm Pb |
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	Lead-glass size (W x H): 100 x 80 cm
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	Dimensions of the wall opening (W x H): 105 x 85 cm
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18	Advance Plan Information
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	The following content is informative only and represents delivered content only with a local service agreement.
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	Advance Plans are available in three plan configurations: Advance Plan CORE, Advance Plan FIT and Advance Plan MAX. Each Advance Plan consists of the same digital key components, the AdvanceNow continuous upgrade service and our digital platforms teamplay Fleet, PEPconnect and SRS.
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	AdvanceNow, Siemens Healthineers' unique long-term update & upgrade service, keeps your imaging equipment secure and highly efficient throughout its entire serviceable life, by constantly and proactively providing updates and cybersecurity patches, online. To benefit from advancements in intelligent imaging and deliver efficient precision medicine, system software upgrades are provided as soon as they become available and computing hardware is replaced as soon as required.
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	Siemens Healthineers' digital platforms – online touchpoints that move our services closer to you – provide immediate access to service experts, equipment information, and education insights. This enables fast action with less interruption of your daily business and opens up a wealth of intelligent services: from fast remote technical support, to virtual training and more.
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	Furthermore, our planned and corrective maintenance services keep your systems performant and operations running, while covering your fundamental regulatory, quality and financial needs.
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Item	Description
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19	Identifier SRS
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20	AppS Training Imaging
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Item	Description
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21	syngo.via CT Bundle Identifier
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22	syngo.via Auto/Routine WS SW
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Item	Description
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23	syngo.via Project Identifier
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24	syngo.via VB80 Documentation Check
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Item	Description
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25	Workplace/Workstation Hardware
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Brief description

Type: Hewlett Packard Enterprise server-based workstation ML110 Gen11

Operating System: Windows Server 2022 Standard

Processor: 1x Intel Xeon Silver

RAM: 96GB

System and Database Disk: SATA SSD

Image and Backup: SAS HDD

Gross Image Storage: approximately 1.9 TB

Optical drive: CD/DVD-RW

Graphical Processing Unit: 1x NVIDIA RTX A4000

Mouse: USB Optical Scroll Mouse

Included accessory: USB Standard international keyboard

SRS Bandwidth Requirements

In order to ensure uncompromised service support, the minimum bandwidth of the SRS broadband internet connection from the customer site to the SRS backend is 10 Mbit/s Download (recommended 30 Mbits/s) and 1.5 Mbit/s (recommended 2 Mbits/s) Upload.

Hardware Service

Hardware Service for this server configuration is mandatory and has to be ordered separately.

Limited warranty applies for SSD/M.2 - storage due to maximum usage limitations. Three full drive writes per day for five (5) years is the maximum amount of data that can be written to the drive for operating system and Image Data (STS). Drives that have reached this limit will not be eligible for warranty coverage.

The maximum amount of data written to the SSD/M.2 should not be achieved under normal use.

Technical details are subject to change without notice.

Customers authorize Siemens Healthineers to install updates and new software versions automatically by remote access or other means. If the automatism is not desired, it can be deactivated.

Item	Description
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26	Prime HW Support WS 5y
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Brief description

Prime HW Support with a service window depending on your IT Care Plan and on the SIEMENS Healthineers Customer Care Center (CCC) office hours.

The delivery of the on-site Break & Fix support is performed by HPE.

Content of the Prime HW Support:

- Remote problem diagnosis and support - Siemens Healthineers Service remotely uses HPE support tools to isolate your problem and facilitate resolution in close cooperation with the next HPE service hub in your area.
- Break & fix service with on-site support (NBD 9x5) - For issues that cannot be resolved remotely, an authorized HPE Services representative will be sent on-site and returns your system to operational condition, repairing or replacing components or entire units. If required, HPE services restore at the same time system and network functionality to allow Siemens Healthineers Service to seamlessly continue with any further required remote service activity.
- Defective Media Retention Service - This option allows you protect sensitive data by keeping your defective disk, without the need to return defective media.
- Integrated service management: - This customized solution speeds up the incident and problem management process by directing the issue forthright to HPE.

- Enhanced HW support - Provision of necessary BIOS-, Firmware and Driver update packages to keep the HW system up to date.

Required patches and updates are provided remotely to be installed conveniently during the next application maintenance or service window by Remote Service Center (RSC) or the responsible IT system administrator.

Item	Description
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27	Monitor EIZO MX243W col. 24.1-inch
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Type: Color (IPS)

Backlight: LED

Size: 24.1" (61 cm)

Native Resolution: 1920 x 1200 (16:10 aspect ratio)

Maximal Brightness (typical): 410 cd/m²

Contrast ratio (typical): 1350:1

Monitor is delivered with an additional cable-kit, containing required power cables for the intended target region (APAC, Americas or EMEA).

28	Keyboard UK English
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Item	Description
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29	<p>syngo.CT Coronary Analysis #1</p> <p>syngo.CT Coronary Analysis provides a set of automatic pre-processing steps and display functions for evaluation and quantification of CT angiography images of the coronary arteries. With these features, the case is ready for review when first opened, thus saving many manual workflow steps.</p> <ul style="list-style-type: none"> - Segmentation and labeling of the major coronary branches - Single-Click stenosis measurement - The VesselSURF tool enables 3D vessel assessment in axial slices. As the vessel is being surfed the cross section and best longitudinal view are displayed - The Image Sharpening tool allows for evaluation of calcified lesions or stents without the need for an additional reconstruction at the scanner - Zero-click visualization of the coronary tree - Automated centerline - Straightened MPR view for complete vessel overview <p>With Rapid Results Technology you can automatically generate and archive reproducible and ready-to-read standardized visualizations of the coronary and general vessels in various types and orientations.</p> <p>New with VB40:</p> <ul style="list-style-type: none"> - Rapid Results Technology for Coronary Tree and Heart Isolation <p>Customize your every-day procedures by defining and saving individual Protocols in the Protocol Configurator</p> <ul style="list-style-type: none"> - Re-use your own configured protocols for an automated generation of snapshots, radial and parallel ranges for MPR, MIP, VRT and Cinematic VRT* images (incl. VRT presets) in every case - Standardized image creation, including PACS series and filming - Pause the Protocol execution at any time and adjust settings interactively - Configure result names and properties including snapshot and range series - Send your findings to report and printing - Integration of measurement tools into a protocol, such as length and diameter measurements - enabling a direct communication between scanner and PACS, utilizing your <i>syngo.via</i> workstation <p><u>*Included in <i>syngo</i> Automate & Routine Package</u></p> <p>The <i>syngo.via</i> Cinematic VRT provides photorealistic 3D views of CT datasets through photon simulations. Multiple advanced image processing features like automatic volume rendering technique (VRT) range generation, mask handling, clip plane functionality and others are provided. Together with various view options this enables the user to highlight anatomical details of clinically relevant structures.</p>
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Item	Description
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30 **syngo.CT CaScoring #1**

syngo.CT CaScoring is a workflow step that allows visualization and quantification of calcified coronary lesions. It provides volume (in mm³), calcium mass (mg calcium hydroxyapatite), vessel specific and total calcium score (Agatston method) and number of lesions. During the evaluation, the patient's score can be compared to the scores of a healthy reference group.

- Implemented large reference databases are:
 - MESA, McClelland, Circulation, 2006 (USA, 6,110 patients)
 - Data support for different ethnic groups: CaucasianAsian, Hispanic, etc.
 - Hoff, Am J Cardiol, 2001 (USA, 35,246 patients)
 - Rumberger, Mayo Clinic, Proc, 1999 (USA, 1,898 patients)
 - HNR, Schmermund, Atheroscl., 2006 (Germany, 4,275 patients)
 - Raggi, Circulation, 2000 (USA 9,730 patients)

New with VB40:

- Rapid Results Technology for total CaScore result

31 **syngo.CT Cardiac Function #1**

syngo.CT Cardiac Function is a workflow step that allows reading and diagnosing CT angiography images of the heart for the evaluation of left ventricular function. The software automatically calculates the global parameters of ejection fraction, myocardial mass, stroke volume, cardiac output, end-systolic and end-diastolic volumes.

Automatic calculation of functional parameters (e.g. Wall Thickness ES, Wall Thickness ED, Wall Thickening, Wall Motion)

- **The local parameters of wall motion, wall thickness and wall thickening are displayed in 17-segment 2D polar maps in accordance with the American Heart Association (AHA).**
- Aortic Valve and Mitral Valve plane display

With **Rapid Results Technology** you can automatically generate and archive reproducible and ready-to-read standardized visualizations of the coronary and general vessels in various types and orientations.

Customize your every-day procedures by defining and saving individual Protocols in the Protocol Configurator

- Re-use your **own configured protocols** for an automated generation of snapshots, radial and parallel ranges for MPR, MIP, and VRT images (incl. VRT presets) in every case
- **Standardized image creation**, including PACS series and filming
- Pause the Protocol execution at any time and adjust settings interactively
- Configure result names and properties including snapshot and range series
- Send your findings to report and printing

Item	Description
	- enabling a direct communication between scanner and PACS, utilizing your <i>syngo.via</i> workstation

32 syngo.CT Vascular Analysis #1

syngo.CT Vascular Analysis allows to evaluate and quantify CT angiography images of the general vessels. It provides a set of auto-preprocessing steps and display functions. These functions make it possible that the case is immediately ready for review when opened, thus saving many manual workflow steps. The **VesselSURF** tool enables 3D vessel assessment in axial slices

- Auto pre-processing steps, like auto bone and table removal, provide an **immediate vascular-only view**
- The 2-click center line creation allows for **vessel segmentation** and CPR display
- **Vessel analysis tools** provide all relevant information, e.g. stenosis diameter and area, curved length, profile curve, minimum lumen identification, etc.
- Measurement and reporting tools for therapy support, such as stent planning in case of AAABone & Vessel Isolation mode for selective highlighting of high-contrast structures, for example to bring out the bone in trauma cases involving fractures of the femur or hip
- **Straightened MPR** view for complete vessel overview, stenosis identification, and measurements

With **Rapid Results Technology** you can automatically generate and archive reproducible and ready-to-read standardized visualizations of general vessels in various types and orientations.

Customize your every-day procedures by defining and saving individual Protocols in the Protocol Configurator

- Re-use your **own configured protocols** for an automated generation of

Item	Description
	<p>snapshots, radial and parallel ranges for MPR, MIP, VRT and Cinematic VRT* images (incl. VRT presets) in every case</p> <ul style="list-style-type: none"> - Standardized image creation, including PACS series and filming - Pause the Protocol execution at any time and adjust settings interactively - Configure result names and properties including snapshot and range series - Send your findings to report and printing - Integration of measurement tools into a protocol, such as length and diameter measurements - enabling a direct communication between scanner and PACS, utilizing your <i>syngo.via</i> workstation

* Included in *syngo Automate&RoutinePackage*

The *syngo.via* Cinematic VRT provides photorealistic 3D views of CT datasets through photon simulations. Multiple advanced image processing features like automatic volume rendering technique (VRT) range generation, mask handling, clip plane functionality and others are provided. Together with various view options this enables the user to highlight anatomical details of clinically relevant

33 **syngo.CT Neuro DSA #1**

syngo.CT Neuro DSA removes/suppresses bone structures in CTA (CT Angiography) scans to provide a bonefree view of the cerebral vessel system/vasculature.

Features:

- Low dose volume datasets without contrast media are automatically subtracted from a CTA dataset
- One click aneurysm tool

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34	<p>syngo.CT Neuro Perfusion #1</p> <p><i>syngo.CT Neuro Perfusion</i>, available both as guided or automated (Auto Stroke) workflow, allows for the visualization of dynamic processes for example brain tissue perfusion and contrast flow through vessels. <i>syngo.CT Neuro Perfusion</i> processes dynamic scans / 4D imaging volumes / 4D datasets that were reconstructed from consecutively acquired CT data after the injection of contrast media.</p> <p><i>syngo.CT Neuro Perfusion</i> allows the user to save perfusion maps and tissue at risk maps [TAR] (penumbra/core).</p> <p>Tissue at risk can be visualized in 3D color maps, based on the mismatch between blood volume (CBV) and blood flow (CBF). Alternatively, custom mismatch parameters can be defined (including Tmax, relative Cerebral blood flow (rCBF) and relative Cerebral blood volume (rCBV)). <i>syngo.CT Neuro Perfusion</i> allows for quantitative analysis of perfusion maps and time attenuation curves. <i>syngo.CT Neuro Perfusion</i> automatically calculates the volume of penumbra, infarct, hypoperfusion, mismatch ratio and perfusion recuperation fraction.</p> <p><i>syngo.CT Neuro Perfusion</i> provides the following results:</p> <ul style="list-style-type: none"> - Cerebral blood flow (CBF) - Cerebral blood volume (CBV) - Local bolus timing (time to start (TTS), time to peak (TTP), time to drain (TTD)) - Mean transit time (MTT) - Transit time to the center of the IRF (TMax) - Flow extraction product (permeability) - Temporal MIP - Temporal Average - Baseline Volume - Modified dynamic input data <p><i>syngo.CT Neuro Perfusion</i> allows the calculation of mirrored regions or volumes of interest and the visual inspection of time attenuation curves.</p> <p><i>syngo.CT ASPECTS</i> calculates the ASPECT score of a non-contrast CT head scan based on a 10-point quantitative topographic CT scan and highlights the affected brain regions as an overlay on the CT image. The images and results are automatically calculated in the background and can be directly sent to PACS without any user interaction.</p> <p>Within your PACS or in <i>syngo</i>.via MMReading the ASPECTS overlays can be toggled on/off (depends on the capabilities of the used PACS system, PACS needs to support DICOM 6000). Full window and level capabilities of the non-contrast CT head images are maintained</p> <p>Stroke Layout</p> <p>The application Stroke Layout is designed to facilitate the visualization of stroke results, by offering overview of stroke results (e.g. ASPECTS, Neuro Perfusion etc.) in one single view. The application will automatically load Stroke results in a dedicated layout to get an overview of all treatment decision relevant results.</p>
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Item	Description
35	<p>syngo.CT Colonography #1</p> <p><i>syngo.CT Colonography</i> combines 2D and 3D reading strategies. Flexible screen layouts and dual monitor support permit instant switching between the 3D endoscopic view and the corresponding 2D images. It allows to perform a synchronized flight in both prone and supine positions. The registered navigation offers both endoscopic views in a side-by-side display on up to two monitors. The Findings Navigator automatically collects and stores all marked findings.</p> <p>In detail the application provides:</p> <ul style="list-style-type: none"> - Synchronized real-time display of two scans (prone and supine) on up to two monitors - Support of dual monitor setup - Synchronized update of endoscopic, axial and global views - Real-time virtual endoscopic viewing - Fully automated flight path finding - Automated tagging of the small bowel for removal from examination - Display of entire colon for easy overview of path - Overview segment containing flight path and marked findings - Semi-automated polyp measurement in 3D endoscopic view - Visualization of stool tagging - A panoramic endoscopic view of the colon allows the user to visualize the colon in both directions, enabling visualization of the area behind folds while flying in one direction. - The Findings Navigator collects, stores, and exports marked findings - Findings can be reviewed from the Findings Navigator and reported easily according to C-RADS standard.
36	<p>syngo.CT Pulmo 3D #1</p> <p><i>syngo.CT Pulmo 3D</i> is a <i>syngo.via</i> application that utilizes native CT chest scans for assessment of lung parenchyma and airways.</p> <p>In detail the application provides:</p> <ul style="list-style-type: none"> - Automated segmentation of left and right lung, including differentiation of lung lobes, thirds, and core / peel - Interactive lobe segmentation editing - Automated calculations for different lung lobes as well as whole, left, and right lung. Tabular display of: lung volume, relative volume, emphysema index, mean lung density (MLD) [HU] - Measurement and color coded display of emphysema index - Color coded display of different user defined sub-ranges - Color coded visualization of different percentile - Color coded visualization of voxel cluster below user defined threshold - Automated segmentation of airways including trachea and bronchi - Automated evaluation and color coded display of the trachea and bronchi - Measurement of airways structures including wall thickness, lumen diameter and associated vessel - Comprehensive export of calculations and measurements <p>All results are stored in <i>syngo.via</i>'s findings navigator.</p>

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37 **syngo.CT Bone Reading #1**

syngo.CT Bone Reading is a visualization tool for easy manual identification, marking and reporting of pathologies such as bone lesions or fractures. It is visualizing the spine and ribs in an unfolded view to assessing the complete anatomy at a glance. *syngo.CT Bone Reading* features automated rib and spine labeling and numbering.

In combination with Rapid Results technology, it allows automated results creation and archiving.

38 **syngo.CT Liver Analysis #1**

syngo.CT Liver Analysis offers preprocessing for complete liver segmentation and semi-automated segmentation of arterial, portal venous, venous vascular, and bile ducts tree. It also visualizes vascular supply of the hepatic parenchyma. For planning of surgical interventions, there is a functionality for semi-automated segmentation of liver lesions, virtual separation planes, and calculation of resulting partial liver volumes. Furthermore, the planning results may be reviewed by overlaying them on available MRI acquisitions.

In detail the application provides:

- Pre-processing for complete liver segmentation
- Interactive refinement of segmentation results
- Semi-automated segmentation of liver lesions
- Semi-automated segmentation of arterial, portal venous, and venous vascular and bile ducts tree
- 3D semi-automated mapping of vascular supply areas onto liver tissue
- Virtual separation planes and subsequent volumetric calculation of resulting partial liver volumes

All results are stored in *syngo.via*'s findings navigator.

Item	Description
39	<p>syngo.CT Body Perfusion #1</p> <p><i>syngo.CT Body Perfusion</i> facilitates the 3-dimensional quantitative evaluation of dynamic CT data of organs and tumors, following the injection of contrast media. By providing images of blood flow, blood volume, and permeability from dynamic CT images, <i>syngo.CT Body Perfusion</i> lets users assess perfusion disturbances and perfusion changes</p> <p>In detail the application provides:</p> <ul style="list-style-type: none"> - Fast simultaneous multislice calculation of images of: <ul style="list-style-type: none"> - Blood flow - Blood volume - Permeability - Various additional perfusion parameters - MBF filtering to improve the image quality - Automated motion correction for improved anatomical alignment - Guided workflow - User-defined individual evaluation templates - Input of target volume of interest (VOI) and multislice segmentation of organ and area of interest - VOI measurement tools for a detailed analysis of perfusion characteristics - Composite images allowing a merged display of an anatomical image with a color parameter display - Dedicated liver perfusion analysis - calculation of arterial and portal venous hepatic blood flow and determination of the hepatic perfusion index <p>All results are stored in <i>syngo.via</i>'s findings navigator.</p>
40	<p>syngo.CT Lung CAD #1</p> <p><i>syngo.CT Lung CAD</i> is a computer-aided detection tool designed to assist radiologists in the detection of solid pulmonary nodules, partial-solid nodules as well as Ground-Glass Nodules (GGN) during review of CT examinations of the chest. All <i>syngo.CT Lung CAD</i> findings are presented directly in the Mini-Toolbar, located in the image segment, which facilitates reviewing and reporting of CAD-marked potentially suspicious lesions.</p> <p>Alternatively to reviewing Lung CAD results in <i>syngo.via</i>, Rapid Results Technology sends preprocessed Lung CAD results to the PACS, thus eliminating manual steps and providing advanced visualization results - ready for reading directly in the PACS.</p> <p>The software is an adjunctive tool to alert the radiologist to regions of interest (ROI) that may have been initially overlooked. <i>syngo.CT Lung CAD</i> is intended to be used as a second reader tool after the initial read has been completed.</p>

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41	<p>Handover Train SY Auto Routine / WS</p> <p>Brief description</p> <p>The objective of this continuous Education Plan is to give the participants the necessary theoretical knowledge and practical experience to routinely operate the <i>syngo.via</i> system, and to become acquainted with the advanced multimodality clinical applications over the subscription term.</p> <p>Among other methodologies; lectures, interactive practical exercises and e-Learnings will familiarize the participants with the functionality of <i>syngo.via</i> and the clinical case-specific applications.</p> <p>Clinical Administrators will be trained as well in relevant clinical settings and configuration of the system. The customer has to provide the names of the Clinical Administrator and the Clinical Users to be trained, and ensure availability for training on the agreed training dates.</p> <p>The Education Plan includes:</p> <p>Pre-Training clarification: Prior to the training, an analysis of the hospital/department workflow will be performed together with the nominated Clinical Administrator, resulting in a training outline tailored to your needs. The training sessions will be performed subsequently over the contracted subscription term.</p> <p><i>syngo.via</i> Standard User functionality training:</p> <ul style="list-style-type: none"> - Patient Navigation, data handling - User Interface, mouse concept handling - Standard Routine Reading Functionality <p><i>syngo.via</i> Advanced Visualization application training, based on country regulatory application availability:</p> <ul style="list-style-type: none"> - <i>syngo.MM</i> reading - <i>syngo.via</i> Advanced Reporting - <i>syngo.via</i> ALPHA Technology - <i>syngo.via</i> Cinematic VRT - <i>syngo.via</i> advanced workflows based on user requirements <p>Clinical customization:</p> <ul style="list-style-type: none"> - Adjustment of system functions and workflow setting parameters within the User Interface (Prefetching, Worklists, Layouts, Monitor settings on the clients) - Definition of assignment rules based on RIS examinations and/or modality scan protocols to their corresponding <i>syngo.via</i> workflows - Adjustment of default basic reporting <p>The Siemens Application Specialist will support the clinical integration of the <i>syngo.via</i> into the institution clinical workflow.</p> <p>Delta training: Siemens will provide education means and training sessions for keeping up-to-</p>
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Item	Description
	<p>date users' knowledge and competences along with <i>syngo.via</i> product lifecycle in case relevant subscription contract is available (version upgrades).</p> <p>The Clinical Administrator will also be trained on the customization of additional scanners or modalities and on the assignment of site-specific workflows.</p> <p>Application training hours per day can vary depending on country regulation. Effort or financial value recommended for WS packages is 2 days in total.</p> <p>In case of multiple years of subscription is planned, Add-On of respective years have to be added using "Education Plan Lead / WS / 1y". This package will add additional 3 days for each additional year.</p> <p>In case of additional applications are included as part of <i>syngo.via</i> system, training effort should be increased based on added applications on top of base SY package.</p> <p>Before the application training, the Siemens Implementation Engineer will take care of the IT related system implementation which includes:</p> <ul style="list-style-type: none"> - Implementation DICOM Modality Worklist from RIS - Configuration of archiving rules - Configuration result transfer from Findings Navigator & Report into PACS and/or RIS - Configuration of Network nodes between modality, <i>syngo.via</i>, PACS, RIS, printer etc. - Configuration of Short-term storage, e.g. fill level for auto deletion - Auto-Deletion, Auto-Archiving, Auto-Routing - Installation of clients, where applicable, and setup of user groups and roles

42 PACS-Driven Implementation Pkg. HQ

The PACS-Driven Implementation Package includes the following tasks:

- Import of all *syngo.via* server license files
- Basic clinical configuration and integration of up to 5 DICOM nodes in *syngo.via*, such as one modality, one PACS, not more than two *syngo* MultiModality Workplaces, one printer, or one RIS/ DMWL-source including the request of a DICOM Modality Worklist sent to *syngo.via* for a networked Siemens scanner.
- Configuration DICOM access to *syngo.via* in *syngo* MMWP
- Assistance in setting up frontend integration of *syngo.via* with one PACS workplace (for image call-up directly out of the PACS application user interface). This may require the purchase of software and services from the PACS vendor. Additionally, the PACS must support a command line interface for *syngo.via*'s ialauncher program. In case the PACS does not support the command line interface, consider using Desktop Connector.
- Integration of *syngo.via* into the IT infrastructure using an existing Active Directory, consultation of the customer's IT administrator for routing/ports.
- Configuration of basic workflow rules: autodelete, archiving, autorouting in *syngo.via*
- Acceptance Test in cooperation with the customer
- If applicable: Basic hardware installation, network integration and activation of Siemens Remote Services connections

Context of the implementation tasks:

Item	Description
	<ul style="list-style-type: none"> - The DICOM conformance of the DICOM nodes is prerequisite for connection to <i>syngo.via</i>. - The DICOM nodes to be connected to <i>syngo.via</i> must be configured and tested by the customer, for e.g. configuration of the remote DICOM node <i>syngo.via</i>, routing rules, procedures. If necessary, the customer orders these services from the DICOM node's vendor. - The DMWL-source must be able to provide the DMWL to <i>syngo.via</i> identical to the DMWL provided to the modalities. - The configuration of the customer's Local Area Network is performed by the customer. - Provision of a minimum broadband Internet connection bandwidth with 2000 kBit/s downstream and 256 kBit/s upstream for Smart Remote Services (SRS) by the customer. If the customer does not provide SRS connectivity, then additional professional services for implementation without SRS support are offered. For service support after implementation the following minimum specification has to be provided: Downstream 2000 kBit/s (for Software update, IT- and Application support); <u>Upstream</u> 512 kBit/s (for Application support); <u>Upstream</u> 256 kBit/s (for Software update and IT support). - The customer provides information, such as: IP addresses of the server for its network integration and the DICOM nodes identifiers. - The customer provides the required power supply and the installation location for the server hardware. - Presence and support of the customer's administrators (clinical and IT administrator) is required during implementation. In preparation for implementation support the customer's administrators have completed the <i>syngo.via</i> web-based trainings, which are part of the scope of delivery. - A list of applications and systems with validated connectivity to <i>syngo.via</i> can be requested from your Siemens Sales Representative. - If a DICOM node or another system has not been validated yet for connection to <i>syngo.via</i> by Siemens, then the customer will give his acceptance though there could be a narrowed functionality of the connection. - Installation of <i>syngo.via</i> client software on additional workplaces, or configuration of additional DICOM nodes, or the distribution of the frontend integration to additional PACS workplaces are performed by the customer's administrator or can be ordered from Siemens separately as an option. - The image call-up implementation and configuration will be upgraded by the customer with future software versions of the calling application (RIS, PACS). <p>Project coordination is performed by Siemens. Please see the <i>syngo.via</i> Data Sheet for system requirements and detailed description of implementation tasks.</p> <p>If applicable, the hardware installation service includes the following tasks:</p> <ul style="list-style-type: none"> - Unwrapping. Consolidation of all packaging material and notification to the customer that the materials are ready for removal. - Mechanical and electrical connections at site of operation - Mechanical installation in a common rack (e.g. HP, Fujitsu, IBM, Rittal) not older than three years and connection to a console. - Connection to the power supply, to Uninterruptable Power Supply (if applicable) - Startup of operating system - Connection and network configuration of the server and the remote service board to the LAN - Configuration of remote service board (network settings, users configuration) if

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supported by server

- Test monitor setup and Handover of the readily installed system to the customer.

For the installation the customer provides, as described in the product Data Sheet,:

- Access to the location and space for server operation
- Electrical power
- LAN access and LAN configuration
- Configuration of the broadband internet access for Siemens Remote Services
- IT Administrator's coordination and support for the mechanical and IT installation.
- Server and monitor(s) are at the site of operation. The customer's monitors are accompanied by appropriate cables.
- The connection of one or two monitors to the Workstation HW (including the Workstation HW Extended) does not include monitor calibration.
- For Workstation HW (including the Workstation HW Extended), depending on the local regulations, the monitor installation described here may allow viewing only.

If applicable, the import of a predefined container is to be done by the customer administrator for the setup of a virtualized system.

Note:

Some activities (e.g. hardware installation) may be subcontracted to a local partner of Siemens HQ.

Note:

Certain constraints apply regarding the supported OS versions for the syngo.via clients. For details please check the datasheet of the respective syngo.via version.