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Line #	Description	Qty
1	IntelliSpace Portal HX	1

IntelliSpace Portal HX, ideal for hospital-sized performance of up to 10 concurrent users, is designed to create smart clinical integration that often leads to enhanced patient outcomes. It is a thin-client applications server that turns virtually any PC into an advanced multimodality imaging system workspace that can support radiology, cardiology, oncology, neurology, orthopedics, and other specialties' imaging needs, thereby streamlining imaging workflow. IntelliSpace Portal uses advanced networking capabilities to enable collaboration among clinicians that may ultimately lead to faster, more accurate and informed patient care. Clinicians can review the results of multiple imaging modalities – including studies acquired from multiple vendors' imaging equipment – at their convenience in their preferred location via a secure interactive Internet browser. Until now, most powerful visualization workstations were housed in the radiology department, requiring a referring physician to make a special trip to view advanced images so crucial to accurate patient diagnoses.

The IntelliSpace Portal offers powerful capabilities, both standard and optional including:

- Thin-client architecture and multivendor compatibility that makes image data and applications available anywhere for all CT, MR, Nuclear Medicine images
- IntelliSpace Portal is based on the Extended Brilliance Workspace, which has been ranked at or near the top in the "Best in KLAS" awards in Ease-of-Use for four consecutive years; and was also the 2008 and 2010 "Best in KLAS" designee for Software & Professional Services for Advanced Visualization
- Guided Task workflow walks users through each processing stage from start to finish
- Use of bookmarks, email generation, interactive snapshots and other convenient tools to increase efficiencies and minimize training needs
- Unlimited number of client installs: number of concurrent users only subject to available server resources
- Performance-based licensing eliminates the need for purchasing a fixed set of licenses: HX configuration is modeled for a thin-client solution throughout a hospital, maintaining optimal performance even when as many as 10 users are concurrently using IntelliSpace Portal's processing, viewing and advanced clinical applications tools
- "Zero-click" automated processing without any user interaction: Enhanced Performance option includes preprocessing for CT Angiography, Advanced Vessel Analysis, brain perfusion and virtual colonoscopy
- Multimodality Viewer for display of CT, MR and Nuclear Medicine datasets - standard
- Smart MR Viewing, smart linking, cine movie loop for MR datasets
- Multimodality Fusion: PET-CT, SPECT-CT, NM-CT, CT-CT and MR-MR
- PET/CT Alpha blending and 2D/3D SUV calculations
- Display of multi-frame secondary captures
- 3D Volume rendering, MIP, VIP, miniP, SurfaceMIP
- Slab Review capabilities including regional investigation and curved MPR
- Volume Explorer: for instant and interactive seed-growing 3D segmentation
- "Glass View" to display bony structures in relation to 3D volumes
- Virtual endoscopy

- Dual monitor support - standard
- DICOM query, retrieve and export
- Open API interface for PACS integration

IntelliSpace Portal proprietary technology streams display to the client over a LAN, WAN or any broadband Internet connection through the hospital's VPN (virtual private network) without the need to download the CT, MR or Nuclear Medicine data to the client PC. The 'heavy lifting' and complex processing of the data is done on the server.

Key specifications and requirements:

Server hardware specifications

- Dell PowerEdge T610 Tower Chassis
- 2x Intel Xeon X5690 Processor 3.46 GHz, 6 Cores
- 32 GB memory
- 3x 300GB SAS 15k 3.5" HD (RAID 5 configuration)
- Form Factor: 5U
- Tower dimensions (without bezel): 18.85" (47.89cm) H w/feet x 8.92" (22.66cm) W x 26.55" (67.43cm) D ; (including LCD panel)
- Tower weight 49.9 kg (110 lb), maximum configuration
- 110-240 Volts and 2 redundant hot-plugs
- Server can be tower or rack mounted
- Gigabit redundant network card(s)
- 0.5TB storage (optional 2TB extended storage)

Server software specifications

- Windows 2008 Server 64-bit edition
- .NET framework version 1.1 (1.1.4322.573)
- Philips IntelliSpace Portal server software, including:
 - Proprietary Portal server application
 - User management application for managing user database
- McAfee antivirus software provided by Philips
- Networking
 - TCP/IP protocol only
 - Static IP address
- Security
 - No unused Windows services running
 - No shared drives
 - Windows access control defined by the client (hospital site IT)
 - Access to the computer itself either using its console or by remote desktop
 - Encrypted users/groups database file
 - User management application available only to defined Portal administrators
 - Encrypted transfer over the network of user name and password information
 - Logging of important events
 - Windows Firewall

Network requirements

- Gigabit connections recommended

- Recommended DNS server with reverse DNS capabilities
- Recommended VPN access
- Recommended domain based network environment
- Minimum network bandwidth of 100MB/min
- Minimum Internet speed of 5 Mbps upload and download

Client Hardware requirements

- Screen resolution: 1280 x 1024 (recommended) or 1024 x 768
- Minimum processor speed: 2.0 GHz (recommended) or 1.0 GHz
- Minimum memory: 1 GB (recommended) or 512 MB
- Gigabyte-speed network adapter
- 500 MB free disk space on C: drive (1024 MB Recommended)
- 3-button mouse

Client Software requirements

- Windows XP with SP2 or above
- Windows Vista, Windows 7 account administrative access for Initial installation
- Ability to add the IntelliSpace Portal to the firewall exception list
- .NET framework 3.5 or higher

Clinical Education Program for IntelliSpace (Thin Client Portal):

Initial Handover On-Site Education: The Philips Clinical Education Specialist will provide one twenty-four (24) hour session of onsite, initial handover education to the Principal User. The Principal User will be designated by the facility, and will spend the entire twenty-four (24) hours with the Clinical Education Specialist. It is recommended that the Principal User have experience in the primary modality (CT) to be used by the facility and, possess knowledge of the clinical workflow of the department. The education will cover the fundamentals of image manipulation and processing associated with the specific software (application packages) purchased. The Principal User is responsible for reading, and adhering to, the Philips clinical education guidelines that are provided during the scheduling/enrollment process and before the Clinical Education Specialist arrives at the facility. The Principal User is also responsible for coordinating and organizing the participation of physicians in sessions of 2 – 4 hours with a maximum of 2 physicians per session. ASRT CEU credits may be available for each participant that meets Philips Guidelines. Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

Follow-Up On-Site Education: The Philips Clinical Education Specialist will provide one twenty-four (24) hour session of advanced onsite education and support to the Principal User, and to any additional staff (up to 2) that may require education in the primary modality (CT) used by the facility. The Principal User will be designated by the facility, and will spend the entire twenty-four hours with the Clinical Education Specialist. The Principal User is responsible for reading, and adhering to, the Philips clinical education guidelines that are provided during the scheduling/enrollment process and before the Clinical Education Specialist arrives at the facility. ASRT CEU credits may be available for each participant that meets Philips Training Guidelines. Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

Advanced Follow Up On-Site Education: The Philips Clinical Education Specialist will provide one additional twenty-four (24) hour session of advanced onsite education and support to the Principal User, and to any additional staff (up to 2) that may require education in the primary modality (CT) used by the facility. The Principal User will be designated by the facility, and will spend the entire twenty-four hours with the Clinical Education Specialist. The Principal User is responsible for reading, and adhering to, the Philips clinical education guidelines that are provided during the scheduling/enrollment process and before the Clinical Education Specialist arrives at the facility. ASRT CEU credits may be available for each participant that meets Philips Training Guidelines. Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref#587588589-110412

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CT Premium Enterprise Lic Pkg

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The Portal Enterprise License package provides a suite of key clinical applications on the Brilliance Workspace Portal focused on the following diseases:

- Cardiovascular
- Lung
- Colon
- Neurovascular

These applications include:

Portal Comprehensive Cardiac Analysis

Comprehensive Cardiac Analysis (CCA) is a complete cardiac evaluation package* that provides simplified workflow and minimal user interaction. This high-tech cardiac analysis tool helps you visualize coronary trees, perform detailed coronary artery evaluations and analyze ventricular function. With CCA, you can substantially reduce the time and complexity of a cardiac evaluation, opening the doorway to quicker, more accurate analysis for the operator and faster clinical results.

This package includes:

- A **no-click** total cardiac segmentation for all phases selected with complete cage removal.
- Globe View (Globe, 3D Map and 2D Map).
- Unique "IVUS-like" view for the central cross-sectional cut.
- Easy stenosis calculations.
- Outstanding volume rendering visualization with coronary tree extraction and complete vessel visualization including its origin from the aorta for ostial morphology assessment. Slab tools (including cut planes) on Volume Rendered image in cine.
- New and advanced LV Functional Assessment, including bulls-eye presentation.
- Continuous identification of C-arm angles

*Designed exclusively for the Brilliance Workspace environment.

Pre-requisites: Rate Responsive CV toolkit

Portal AVA Stenosis

AVA Stenosis offers a set of tools for stent planning and general vascular analysis. It allows the user to easily remove bone, and extract and segment the vessels to quickly perform typical measurements such as intra-luminal diameter, cross sectional lumen area, length and tortuosity of vessel's segments, and angle of the vessels. AVA allows the user to display the dataset using volume rendering, Average, or MIP with cross sections images that can be used to delineate aneurysm, presence of mural calcification and lining mural thrombus, branch vessel (celiac,

mesenteric, renal) and the ilio-femoral arterial runoff circulation.

The interactive measurement tools make it easy for the user to calculate the angulation between the superior neck and aneurysm, the angle between the superior neck and aneurysm lumen, as well as other complex anatomic calculations.

Portal AVA Stent Planning

Stent Planning uses an auto centerline detection algorithm to provide the basis for accurate, reproducible quantitative measurements of vascular structures. These measurements are useful for planning endoluminal stent to repair aneurysms, stenosis and other vascular abnormalities. For example, easy and accurate dimensions can be obtained of an aneurysm, the neck of the aneurysm, relationship to surrounding vascular structures, and total distance in order to non-invasively plan stent placement.

Pre-requisite: Portal AVA Stenosis

Portal Advanced Brain Perfusion

Philips' Brain Perfusion package differentiates areas of increased blood volume and decreased blood flow and presents this information in a summary map. The summary maps may help clinicians distinguish between still-viable and non-viable infarcted tissue. Philips Advanced Brain Perfusion provides exclusive motion correction, noise reduction and improved ease-of-use to maximize efficiency. This program is available on the extended Brilliance Workspace system.

Using serial CT scans obtained with intravenous injection of contrast, the Brain Perfusion package derives perfusion information from the time-density curves based on the uptake of injected contrast material and subsequent tissue enhancement (or lack of). The package generates quantitative color maps of cerebral blood flow (CBF), cerebral blood volume (CBV), mean transit time (MTT) and time-to-peak (TTP), in addition to summary maps which differentiate between areas of the brain that may benefit from re-perfusion therapy.

Portal Lung Nodule Assessment

Philips' Lung Nodule Assessment (LNA) and comparison program is a powerful clinical tool that provides the physician with quantitative information about the size, shape and change over time of user-identified pulmonary lung nodules that are identified on high-resolution computed tomography (CT). The LNA program optimizes overall performance and workflow of the lung nodule assessment process. It delivers a robust comparative tool for nodule matching, one-touch segmentation, standardized measurement tools and results reporting on current and previous lung CT scans of the same patient. The LNA program allows for volumetric analysis of pulmonary nodule or lesion size over time, helping the physician to accurately assess the nodule's doubling time growth rate.

Philips' Lung Nodule Assessment program allows the user to segment physician-identified lung nodules with a single click of the mouse. Quantitative size information can be reported on individual nodules during a single exam. Segmentations on each nodule are automatically stored and retrieved when the study is loaded for follow-up comparison after a new exam is completed. At this point, the user can load both the current and previous high-resolution lung studies for linked viewing and comparison of nodules in each study.

Portal Virtual Colonoscopy

Philips CT Virtual Colonoscopy is the fastest way to perform & interpret a virtual colonoscopy exam. Philips CT-VC reduces reading times to approximately five-to-ten minutes. In comparison read times with competitive products routinely approach 30-40 minutes, significantly limiting the number of cases that can be performed per day.

Key to the success of the CT-VC package is the power and flexibility the package provides, beginning with a new, exclusive rendering view called Perspective Filet. The Perspective Filet view provides a 'virtual dissection' of the colon by unfolding or unrolling along the centerline and

displaying a portion of the colon for inspection. The Filet of the tube enables the clinician to see the entire area of a colon segment in one view, including the areas in and around folds of the colon (haustra). The Image is not really flat, but rather a perspective projection that allows viewing of all three surfaces of folds and in between tight folds (Philips Exclusive!), enabling the clinician to view 100% of the surface of the colon with no Image or hands-on manipulation.

Key features:

- 0-click auto-segmentation of colon and centerline with total prep time of just seconds, not minutes
- Flexible viewing allows user to select between primary 2-D and 3-D inspection modes (forward, reverse, Filet, split and 2D-centerline inspection).
- Prone-Supine comparison
- Vequion & Brilliance Workspace harmonized user interface

Portal CT Reporting

Provides reporting capabilities for paper print of clinical results from the Philips Brilliance Workspace Portal including display of key images and results frames. The report is available for paper or electronic distribution to referring physicians, patients, or for medical records. Each report is editable and new default templates can be easily created and included in the system configuration. The report can be saved as a PDF file for digital transfer or printed as a paper report.

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CT Calcium Scoring

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Calcium Scoring is an application that rapidly quantifies coronary artery calcifications (CAC). The application can report results in Mass, Agatston, and Volume scoring methods.

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Intellispace Portal Enh. Perf.

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This powerful upgrade for IntelliSpace Portal servers enables "zero-click" automated processing without any user interaction, for the following clinical functions:

- Automatic preprocessing of bone removal and vessel segmentation within the Advanced Vessel Analysis (AVA) package for CT angiography (CTA) cases
- Automatic segmentation of cardiac anatomy within the Comprehensive Cardiac application
- Automatic segmentation of the centerlines of the inner lumen of the colon for the Virtual Colonoscopy application
- Automatic mirrorline and selection of arterial and venous regions of interest (ROI) in the CT Brain Perfusion application

Preprocessing automatically begins when the entire dataset has been loaded onto the IntelliSpace Portal server, for true "zero-click" convenience. With the Enhanced Performance option, IntelliSpace Portal can provide up to an 80% reduction in preparation time for complex aorta and stent planning, and reduce CT virtual colonoscopy reading times to just five to ten minutes, allowing you to maintain diagnostic quality with significantly less time.

Note that AVA, Comprehensive Cardiac, Virtual Colonoscopy, and Brain Perfusion are separate optional packages in addition to the Enhanced Performance option.