All your advanced analysis needs
One comprehensive solution
As networks like yours become more complex, new planning and staffing needs emerge. Delivering excellent, value-based care means being able to adopt clinical advances, such as new modalities quickly and easily—and as part of a managed investment. But additional users and sites in different geographies join your growing organization at different times. Anticipating these demands is just the start. You need to be able to deliver when change calls for it.

Is this your world?
Drive standardization across your enterprise

Philips IntelliSpace Portal Enterprise is an advanced visualization and analysis solution offering one 3-step approach to simplifying your operations as if you had one user to work with. Focus on your key activities – connecting, integrating, and monitoring – and lay the foundation for long-term success. IntelliSpace Portal Enterprise handles the rest.

- Scale your advanced visualization quickly and easily as new users and sites come online through one shared license
- Rely on one service provider to design a solution around your business today and connect you to innovation and enhancements tomorrow
- Free up valuable IT resources for value-added tasks with just one software version that’s easy to manage
What does standardization across your enterprise look like?

Don’t imagine a connected enterprise. Experience it. IntelliSpace Portal Enterprise joins disperse geographical sites by connecting multiple IntelliSpace Portal servers into one comprehensive enterprise solution. Get a unified view thanks to clinical data aggregated across these servers – whether they’re located at the same site or different sites.

**Which setup is right for you?**

Every healthcare organization is unique. Our Enterprise Services team designs every IntelliSpace Portal Enterprise solution around specific usage needs to help you leverage the full potential of advanced visualization.

Our technical solutions consultants will work with you to determine the server deployment based on your network structure. This process takes into account your bandwidth, latency, and network traffic.

**Networks can take multiple forms.**

- **Centralized**: all servers are located at your main hospital site, and remote clients at other sites are connected to these servers
- **Distributed**: remote servers are running at separate sites for clients at each site
- **Hybrid**: some sites are connected to the server at your main hospital, while other sites rely on their own on-site server
With IntelliSpace Portal Enterprise, clinicians can...

**Practice and promote clinical excellence**
Clinicians conduct their analyses at their monitor of choice. IntelliSpace Portal Enterprise connects with multiple servers (either at different sites or at a single site) to create one unified view of patients throughout their journey. Within this multi-modality viewing environment, clinicians access, view, process, and present MR, CT, MI, iXR, DXR, and ultrasound images from virtually anywhere, anytime.

The right technology supports outstanding care instead of hindering it. IntelliSpace Portal Enterprise uses HL7 order information to start pre-fetching priors, for example, and integrate with your organization’s PACS, RIS, and EMR so clinicians can obtain rich patient demographics and export patient reports.

**Work intuitively and efficiently**
Wherever they are in your network, clinicians can spend more time on analysis at their monitor of choice. With IntelliSpace Portal, there’s just one software to learn. It also retains user preferences and system configuration across sites. Everyone works to the same standards since every user accesses the same clinical applications and embedded productivity and visualization tools.

**Help create centers of excellence and drive collaboration**
Apply clinical advances to patient care with real-time, context-based training. KnowledgeScape clinical education offers on-the-spot support. Training materials include step-by-step instructions on how to use each application and are updated continually. Every IntelliSpace Portal Enterprise user can access these resources through the main screen or within any clinical application.

Share real-time knowledge between specialties and increase diagnostic confidence thanks to the Web Collaboration* option. Colleagues see the same image results and reviews in the Web-based and can even process the image during the session.

“We have access to our images whether we are in Le Mans or in Chartres, be it in staffrooms, consultation rooms, at home, or elsewhere, just using a simple Internet connection – and we can even access images simultaneously.”

Dr. Laurent Macé  
Centre Jean Bernard, Le Mans and COREL, Centre d’Onco – Radiothérapie d’Eure et Loir, Chartres, France

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*Web Collaboration enables viewing and sharing with tablets and smartphone devices – not intended for diagnosis
With IntelliSpace Portal Enterprise, executives can...

**Standardize care pathways**
Join separate geographical sites and create common access and workflows at the same time. IntelliSpace Portal Enterprise quickly accommodates a large increase in concurrent users. And it easily adapts when more users and sites join your network without interrupting busy workflows.

Looking to connect care across the enterprise? IntelliSpace Portal Enterprise uses industry standards such as HL7 and DICOM order information to communicate with the rest of your healthcare IT systems, including your PACS, VNAs, RIS, and EMRs.

**Expand quality of care at a reduced cost**
Protect your investment in IntelliSpace Portal Enterprise from day one with a RightFit Service Agreement. Adjust your advanced visualization capabilities to the growing needs of your enterprise at a low total cost of ownership. Updates and upgrades, for example, lower lifecycle costs and pave the way for enhanced upgradeability in the future.

Resource-based licensing for the IntelliSpace Portal works to enhance your investment in your existing systems by aligning the number of concurrent users to your organization’s needs. Multiple users per site have access to the full range of installed applications. That access remains fast and simple no matter how many users are online since IntelliSpace Portal Enterprise calculates data and server loads to route to the most suitable server available at that time.

**Introduce advanced workflows**
As your network grows and evolves, new opportunities to support excellent care arise. One example: 3D labs. IntelliSpace Portal Enterprise centralizes use of advanced visualization across your organization to help you take advantage of these developments.

Please contact your local sales representative to discuss how to implement advanced workflows.
With IntelliSpace Portal Enterprise, IT administrators can...

**Provide access whenever it’s needed**
Patient care can’t wait. That’s why high availability for users is so important. IntelliSpace Portal Enterprise features a failover system to help maintain high availability. Should one IntelliSpace Portal server from the single site “farm” go down, another server automatically takes over. IntelliSpace Portal Enterprise continues working with the remaining portal server’s resources.

Even at heavy loads, IntelliSpace Portal Enterprise delivers exceptional performance for exceptional patient care by introducing redundancy in both hardware and software. This balances the load and automatically routes users to the best portal server on-site based on data type and server load.

**Manage one centralized solution**
Keep track of your advanced visualization capabilities without leaving your chair. There’s just one solution to manage using a convenient dashboard for users, configurations, licenses, even performance review. The Web-based Portal Management system helps you monitor and administer your installation, while the Global Worklist provides an overview of all DICOM studies located across IntelliSpace Portal servers at your enterprise.

**Rely on support from one place**
Your network might be far-reaching, but assistance on advanced visualization is close by. When you choose IntelliSpace Portal Enterprise, you work with one support desk and one service contract. RightFit Service Agreements keep it simple. For more information, please go to the next page.

And when you choose Philips, you’re investing in a long-term relationship. We’re committed to helping you realize the full clinical and operational potential of IntelliSpace Portal Enterprise in your organization. To do this, we leverage our strong track record, deep clinical insights, global delivery capabilities, and broad spectrum of services.
Every year, you have more advanced clinical imaging options to choose from. New technologies are introduced at an ever-increasing pace. And the IT landscape is evolving just as quickly. Today’s operating systems, hardware, and software will look very different two to three years from now.

Shape high-efficiency and technology-driven healthcare for the years to come
This advanced visualization platform evolves continuously with an annual “development heartbeat” to help manage change without disrupting current operations. Available as an option for IntelliSpace Portal Enterprise, RightFit Service Agreements keep you connected to clinical, workflow, and IT advances of your solution.

Invest resources wisely
Maintain peak performance at predictable costs. RightFit Service Agreements are operationalized through budgets instead of relying on capital investments.

RightFit Service Agreements benefits*:

- Software and hardware upgrades and updates, including installation (enhancements to existing applications and easy access to new applications)
- Tailored interoperability and workflow consulting
- Training courses (clinical and administrative)
- Clinical and technical support (remote and on-site)

*Some conditions apply
SMA is the RightFit Service Agreement contract type available in the US.
RightFit Service Agreements at a glance
Diverse components work together to secure your investment. They’re all captured in one service contract to keep management simple. And should you need assistance, you can always get in touch with one support desk.

Software
- System software kept fully up-to-date via updates and upgrades (every year, the latest release is installed, featuring expansions and enhancements of existing clinical packages and providing access to new ones)
- Updates and upgrades include enhancements for workflow and IT management tools
- Designed for compatibility with existing and future systems and equipment in your enterprise

Hardware
- When needed, server hardware replaced by Philips to support software evolution and enable top performance

Education
- Application training – both online modules and on-site sessions – to enable both new and experienced users to make the most of the solution in the short and long term

Support
- Service desk support for technical and clinical questions
- Remote and on-site service support as well as incident management

Looking for the right fit?
To learn more about how RightFit Service Agreements protect your advanced visualization investment, contact your local sales representative or visit www.philips.com/rightfit
IntelliSpace Portal Enterprise Engine hardware specifications

To provide a high level of reliability, IntelliSpace Portal Enterprise Engine runs over the VMware® High Availability (HA) cluster model. This solution can be purchased as a hardware (HW) and software (SW) solution (running over specific validated hardware) or deployed over your existing VMware® infrastructure.

The IntelliSpace Portal Enterprise Engine HW option is composed of:

Two identical Dell™ PowerEdge™ R320 servers (1U rack server space each; total size of 2U of rack space)

<table>
<thead>
<tr>
<th>Item</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>One Intel® Xeon® E5-2430, 2.2GHz</td>
</tr>
<tr>
<td>RAM</td>
<td>24GB (six 4GB RDIMMs), 1600MHz</td>
</tr>
<tr>
<td>Hard drives</td>
<td>Diskless configuration (no RAID; embedded SATA)</td>
</tr>
<tr>
<td>SD cards</td>
<td>Two 2GB, internal, redundant cards</td>
</tr>
<tr>
<td>Media</td>
<td>DVD ROM SATA Drive</td>
</tr>
<tr>
<td>Network</td>
<td>Six network ports, 1GB (two onboard ports; four Broadcom 5719 Network Card ports)</td>
</tr>
<tr>
<td>Power supply</td>
<td>Dual hot plug power supplies, 350W</td>
</tr>
<tr>
<td>iDRAC</td>
<td>VFlash 8GB SD Card, iDRAC Port Card, iDRAC Enterprise</td>
</tr>
<tr>
<td>OS</td>
<td>No OS</td>
</tr>
<tr>
<td>VMware®</td>
<td>ESXi 5.1 for IntelliSpace Portal 7.0, ESXi 5.5 for IntelliSpace Portal 8.0, embedded image only</td>
</tr>
</tbody>
</table>

Each server runs VMware® ESXi 5.1 for IntelliSpace Portal 7.0, ESXi 5.5 for IntelliSpace Portal 8.0 platform and together create an HA cluster called “ESXi host”. The servers host two virtual machines:

- VMware® vCenter Server Appliance
- IntelliSpace Portal Enterprise layer

Two servers are supplied with no hard disks. VMware® ESXi 5.1 for IntelliSpace Portal 7.0, ESXi 5.5 for IntelliSpace Portal 8.0 image is installed on internal SD cards.

One Dell™ PowerVault™ MD3420 storage array (1 server; 2U of rack space)

<table>
<thead>
<tr>
<th>Item</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard drives</td>
<td>Three 600GB SAS 12Gbps 10k 2.5&quot; RAID5</td>
</tr>
<tr>
<td>Power supply</td>
<td>Redundant power supply (2 PSU); 600W</td>
</tr>
<tr>
<td>Network</td>
<td>Two network ports, 1GB, management</td>
</tr>
</tbody>
</table>

The storage array is connected to each server via two redundant 12Gbps SAS connections.

IntelliSpace Portal Enterprise Engine VMware® HA cluster facilitates smooth failover in the following scenarios:

- **Physical server failure**: The affected virtual machines (IntelliSpace Portal Enterprise or VMware® vCenter) are automatically restarted on the secondary ESXi host with spare capacity.
- **Operating system failure**: HA restarts the affected IntelliSpace Portal Enterprise virtual machine on the same physical server.
- **IntelliSpace Portal Enterprise application failure**: HA Application Monitoring API allows you to monitor the IntelliSpace Portal Enterprise Engine solution and restart the Virtual Machine on the same physical server if needed.

**Network switches**

You must provide two network switches for this solution (excluding the network connections required to power the servers). Network switches connect the ESXi hosts and storage array to a hospital LAN to provide enhanced network redundancy.

Rack space, network ports, and power connections requirements for IntelliSpace Portal Enterprise Engine hardware

<table>
<thead>
<tr>
<th>Server configuration</th>
<th>Number of servers</th>
<th>Rack space</th>
<th>Number of required network switch ports</th>
<th>Number of required power connectors*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dell™ PowerEdge™ R320 Server 1 (ESXi Host1)</td>
<td>1</td>
<td>1U</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Dell™ PowerEdge™ R320 Server 2 (ESXi Host2)</td>
<td>1</td>
<td>1U</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Dell™ PowerVault™ MD3220 storage array</td>
<td>1</td>
<td>2U</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

This does not cover IntelliSpace Portal server requirements. Reserve rack space, network switch ports, and power connectors for them

* Requirements: Two output IEC 320 EN 60320 C19 connectors and NEMA L6-20 LOCKING input (input plug to match the pole receptacle) for each machine

Mains supply and quality - Server and storage array electrical data

<table>
<thead>
<tr>
<th></th>
<th>Wattage per power supply</th>
<th>Voltage per power supply</th>
<th>Maximum inrush current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dell™ PowerEdge™ R320 server</td>
<td>350W</td>
<td>100-240 VAC, auto ranging, 50-60Hz</td>
<td>55A</td>
</tr>
<tr>
<td>Dell™ PowerVault™ MD3420 storage array</td>
<td>600W</td>
<td>100-240 VAC, auto ranging, 50-60 Hz</td>
<td>55A for 10ms and less 25A for 10-150 ms</td>
</tr>
</tbody>
</table>
Deploy IntelliSpace Portal on your own VMware® server farm using the IntelliSpace Portal Enterprise software-only option. This increases the utilization and flexibility of your organization’s hardware while reducing the hardware investment for IntelliSpace Portal.

**IntelliSpace Portal Enterprise Engine software-only specifications**

To do this, your organization must meet these requirements:

<table>
<thead>
<tr>
<th>Item</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPU</strong></td>
<td>Six cores of 2.9 GHz (or more)</td>
</tr>
<tr>
<td></td>
<td>Cores should be distributed across four sockets or fewer</td>
</tr>
<tr>
<td><strong>RAM</strong></td>
<td>12GB</td>
</tr>
<tr>
<td><strong>NIC</strong></td>
<td>At least 1Gbps</td>
</tr>
<tr>
<td><strong>Storage space</strong></td>
<td>400GB (storage divided into two local disks: (no network attached storage))</td>
</tr>
<tr>
<td></td>
<td>C (80GB min), D (remaining storage space)</td>
</tr>
<tr>
<td></td>
<td>Both disks must be present prior to the IntelliSpace Portal Enterprise Engine installation</td>
</tr>
<tr>
<td><strong>VMware® infrastructure version</strong></td>
<td>VMware® vSphere 5.1 or VMware® vSphere 5.5</td>
</tr>
<tr>
<td><strong>OS</strong></td>
<td>Windows® Server 2008 R2 Standard (English Local), SP1</td>
</tr>
<tr>
<td></td>
<td>You must install the latest Microsoft™ Security updates according to Philips policy documented in Security Status Documents dealing with product security: <a href="http://www.philips.com/productsecurity">www.philips.com/productsecurity</a></td>
</tr>
<tr>
<td></td>
<td>• 48 GB page file is required (preferred on drive D)</td>
</tr>
<tr>
<td><strong>Antivirus</strong></td>
<td>McAfee® Application Control® (Solidcore) provided by Philips as a part of IntelliSpace Portal Enterprise SW installation</td>
</tr>
<tr>
<td></td>
<td>Optional: Installed by Hospital IT, one of the supported and authorized by Philips ICAP antivirus SW:</td>
</tr>
<tr>
<td></td>
<td>• Symantec™ Endpoint Protection 12</td>
</tr>
<tr>
<td></td>
<td>• Trend Micro™ OfficeScan 10</td>
</tr>
<tr>
<td><strong>.NET Framework</strong></td>
<td>Pre-installed .NET 4.5X (full install)</td>
</tr>
<tr>
<td><strong>Granting remote access to the field service engineer</strong></td>
<td>Provide remote accessibility from PRS to IntelliSpace Portal Enterprise VM</td>
</tr>
</tbody>
</table>

**IntelliSpace Portal (application) servers**

Since IntelliSpace Portal Enterprise is an additional “layer” to the IntelliSpace Portal platform, you must already have the IntelliSpace Portal installed at your organization to deploy IntelliSpace Portal Enterprise. This means you must meet all technical requirements of the IntelliSpace Portal to run IntelliSpace Portal Enterprise.

IntelliSpace Portal Enterprise is comprised of the IntelliSpace Portal Engine and two or more IntelliSpace Portal (application) servers according to the number of concurrent users as well as the number of physical locations within the scope of the enterprise deployment.

For additional details on the IntelliSpace Portal (application) server technical specifications, please refer to the IntelliSpace Portal datasheet.
Discover how IntelliSpace Portal Enterprise can help you drive standardization across your enterprise without leaving your chair.

Visit philips.com/intellispaceportal or contact your local sales representative.