Undeniably smart, unbelievably efficient

Philips Pinnacle³ SmartEnterprise solution

Compact yet powerful, the new SmartEnterprise configuration leverages thin client technology to centralize your Pinnacle³ radiation therapy planning system. All computing power and data storage is moved from the desktop into your data center, enhancing accessibility, maintenance, and management of the system, as well as providing remote access. The Pinnacle³ application is displayed on cost-effective and space-efficient thin client desktop devices.

Key advantages
- Boosts capacity and is ideal for institutions requiring eight or more Pinnacle³ workstations
- System scalability is virtually unlimited
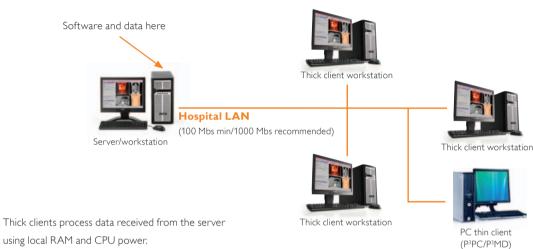- Floating licenses and smart cards expand access and enhance flexibility

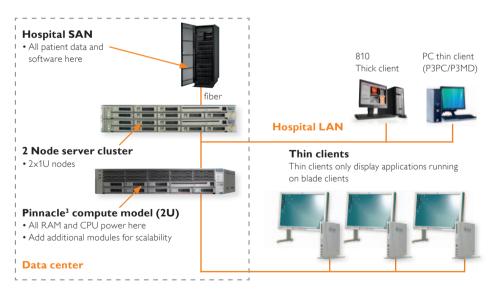**PHILIPS**

SmartEnterprise highlights

Smart, simple, and scalable

SmartEnterprise allows users to access Pinnacle[3] through a thin client network appliance to display the application. The user's keyboard, mouse, and LCD display connect to the thin client device, providing a flexible, cost-effective, and scalable desktop solution. Thin client devices are small, quiet, and use very little power.

Traditional server – thick client

Software and data here

Thick client workstation

Hospital LAN
(100 Mbs min/1000 Mbs recommended)

Server/workstation

Thick client workstation

Thick client workstation

PC thin client
(P³PC/P³MD)

Thick clients process data received from the server using local RAM and CPU power.

Pinnacle[3] SmartEnterprise deployment

Hospital SAN
• All patient data and software here

fiber

810
Thick client

PC thin client
(P3PC/P3MD)

Hospital LAN

2 Node server cluster
• 2x1U nodes

Thin clients
Thin clients only display applications running on blade clients

Pinnacle³ compute model (2U)
• All RAM and CPU power here
• Add additional modules for scalability

Data center

Thin client devices are simple network appliances that display the Pinnacle[3] application. All data processing is done by the compute module(s) in the SmartEnterprise system.

Larger capacity for larger institutions

The SmartEnterprise configuration is ideal for institutions requiring eight or more Pinnacle[3] workstations, providing large numbers of CPUs and memory (RAM) in a small space.

SmartEnterprise provides the computing power previously supplied by the client workstation on the user's desk, allowing you to leverage existing enterprise storage and providing enterprise-level hardware with built-in redundancy.

Virtually limitless scalability

The SmartEnterprise system is extremely scalable. Users could, in theory, add any number of compute modules to their SmartEnterprise system, providing essentially unlimited scalability.

Expanded access: floating licenses

Each thin client appliance has its own IP address and is licensed only to display Pinnacle[3]. The license to execute Pinnacle[3] is assigned to the compute module(s) in the SmartEnterprise. Users only purchase the number of software licenses necessary to cover expected simultaneous usage, rather than a single license per thin client appliance.
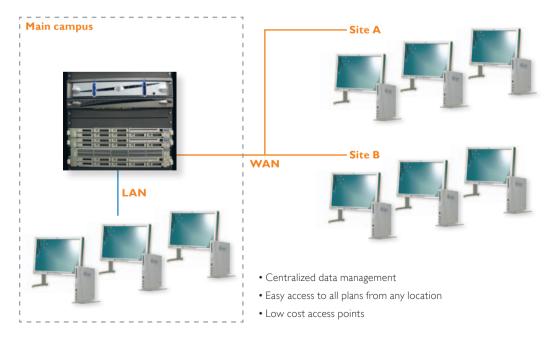
Portable sessions with smart cards

SmartEnterprise allows you to preserve and transfer sessions using smart cards. Users can pull the smart card in the middle of a session and resume the session after inserting the card into any thin client device. Users can prepare a case on one thin client device, then review it on another. Only the user's session ID is stored on the smart card, protecting patient information.

Access from remote sites

SmartEnterprise is also ideal for centralizing planning for multiple facilities without requiring prohibitively expensive network bandwidth between sites. Thin clients can operate on lower bandwidth networks, allowing access from remote facilities. While recommended network minimum is a T[3]/DS[3] (45 Mbps) line, thin clients can also operate at a lower bandwidth (as low as 6 Mbps/thin client), depending on network traffic. Thick clients require a minimum bandwidth of 100 Mbps.

Smart for remote sites

Main campus

Site A

Site B

WAN

LAN

- Centralized data management
- Easy access to all plans from any location
- Low cost access points

Pinnacle³ SmartEnterprise solution

SmartEnterprise with thin clients	Traditional thick client workstations
Centralized processing	Distributed processing
Network relied upon only to display application	Network relied upon to open and save plan
Can operate on networks with bandwidths as low as 6 Mbps	Requires higher bandwidth
Can mix thin, thick and P³PC clients	Can mix workstations and P³PC thin clients
Identical licensing (floating licenses) on every thin client	Individual licensing
Server-class hardware	Workstation-class hardware
Compact rack installation with very small footprint on desktop	Tower computer size and form

Server cluster and storage

The SmartEnterprise requires a dedicated data and application server to function as an interface to data storage. The SmartEnterprise server cluster provides high availability (redundancy) and automatic fail-over capability.

The SmartEnterprise server cluster does not provide storage for Pinnacle³. It must be connected to an external mass-storage system via redundant fiber connection. If your facility already has enterprise storage, such as a SAN, we may be able to use that system with SmartEnterprise. For users who do not have enterprise storage, we can provide a third-party workgroup storage array. Users are also encouraged to use existing enterprise backup software to provide disaster-recovery backup for Pinnacle³.

Requirements

We will work with you to create a custom configuration using hardware to best meet your needs.

Please visit www.philips.com/radiationoncology