

Varian Oncology Care Datacenter



The Varian oncology care datacenter is a fully integrated, scalable solution for optimizing clinical IT workflow within and between networked oncology care centers.

The Varian oncology care datacenter combines Citrix® application virtualization and Varian grid processing to deliver a distributed calculation framework that is a flexible, high-performance solution for the ARIA® oncology information system and Eclipse™ treatment planning system. This fully integrated and scalable solution accelerates treatment planning and calculation times, helping to optimize clinical IT workflow, and offers improved redundancy and reliability to further ensure data integrity. The Varian oncology care datacenter—finally, an oncology patient management solution that provides easy access to networked oncology care centers worldwide.

Key features

- > Utilizes high-performance multi-core Intel® processors and enterprise-level software from Microsoft® and Citrix
- > Allows medical and radiation oncology teams to work collaboratively across departments and networks
- > Works with existing low-powered hospital and clinic workstations
- > Includes a grid of high-performance servers dedicated to running Varian's Eclipse Distributed Calculation Framework (DCF)
- > Allows concurrent user access to applications

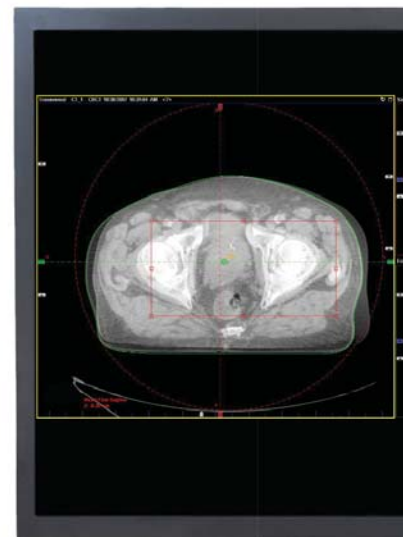
Optimizing clinical IT workflow

Enhance clinical staff efficiency with a “thin” environment

The Varian oncology care datacenter raises the bar on productivity with the introduction of a fully integrated, scalable solution utilizing high-performance multi-core Intel processors and enterprise-level software from Microsoft and Citrix. In tandem with ARIA and Eclipse, this feature-rich solution enables medical and radiation oncology teams to use local or geographically distributed systems to work collaboratively across departments and networks to streamline cancer treatment planning and patient chart management.

- All applications reside on the Citrix server(s) and are accessible through existing low-powered hospital and clinic workstations.
- No X Window emulator or remote desktop connections are required.
- Eclipse uses built-in optimization and calculation modules in tandem with contouring and plan review modules to achieve a simple, but effective user experience.

- All applications are loaded natively in Windows® Server 2003 to improve usability and performance, eliminating the need to access network links to stand-alone Unix-variant systems.
- Concurrent access sessions for up to 10 Eclipse users or 30 ARIA users per Citrix server can be accommodated.
- Patient data is accessible via the Citrix server(s) during active sessions and does not reside on the client workstation(s), satisfying HIPAA requirements.
- Communications between the Citrix client/server can be SSL-encrypted.
- VPN and Citrix Gateway provide clinical users with remote access to ARIA and Eclipse.



Dedicated high-performance servers

Unique to the Varian oncology care datacenter is the Framework Agent Server (FAS) Array, a grid of high-performance servers dedicated exclusively to running Varian's Eclipse Distributed Calculation Framework (DCF). FAS with DCF leverages specialized network-based parallel processing power to optimize throughput for Eclipse planning and dose calculation in both native client/server topologies and Citrix environments.

- The Varian oncology care datacenter delivers unmatched multi-core processing power versus client workstation hardware.
- Configurable memory and CPU utilization controls fine tune server-only functionality and workstation-based shared calculation modes to achieve optimal performance based on user planning behavior.
- Advanced awareness metrics monitor and route processing jobs based on the memory and CPU statistics of each calculation engine.
- Web-based monitoring tools allow system administrators to view DCF status, including users, jobs, available engines, processing times, and more.
- Modular scalability makes it easy to add FASs to an existing array as clinical needs change.

Full access to Eclipse and ARIA functionality

Eclipse and ARIA functionality is available to clinicians during user sessions, ensuring them access to a full complement of treatment planning and management tools, including:

- Plan optimization and calculation for RapidArc®, intensity-modulated radiation therapy (IMRT), 3D conformal, and biological optimization, brachytherapy, proton, and 4D planning
- Contouring
- Image review
- Resource management
- Electronic medical record for medical oncology and radiation oncology
- Treatment plan management
- Chemotherapy prescribing and drug ordering
- Clinical trials management
- Reporting
- Charge capture

