Hospital & Healthcare Industry

A US diagnostic chain uses desktop virtualization to enable device mobility for its radiologists and hasten diagnoses

Engagement Background

The client is a 65-year-old chain of radiology centers having branches at 32 locations in the US. This chain revolutionized radiology delivery by providing patients their diagnostic reports delivered within 24 hours of a test. Radiologists rely on high-performance hardware and applications like the picture archiving and communication system (PACS) to deliver accurate diagnosis. However, this meant that radiologists had to be always in proximity to such hardware, limiting their mobility.

While the client considered options that could deliver device mobility, apprehensions around application performance and data security needed to be addressed. Anunta demonstrated the versatility of desktop virtualization technology that could help deliver immediate benefits and created a customized solution that would deliver superior all-round performance based on end-user requirements. The technology had to deliver on the following objectives.

Client's business objectives	Attributes	Engagement objectives
Provide device and location-agnostic high performance computing for medical imaging and processing applications	Performance expectations	Implement performance-optimized, personalized, and lag-free virtual desktops with high application availability
Ensure continuous compliance with federal regulations around customer privacy and data security	Regulatory Compliance	Leverage the inherent security guardrails of virtualization technology to transition to an always available, always secure, and HIPAA compliant desktop infrastructure
Build a resilient and scalable computing platform that provides reliable access and enables mobility for radiologists	Workforce requirements	Design architecture that can scale in order to meet performance demands and provide peripheral access across discrete end-points

Solution Overview

	Business need	Anunta's solution
Design	Architect a solution that delivers superior desktop and application performance across the gamut of devices being used by radiologists	Assessment of hardware performance, application benchmarking, and persona analysis fed into crystallizing platform architecture and technology mix
Implement	Implement the designed technology mix in-line with best-in-class tenets and deployment methodology	Implementation of designed architecture for the infrastructure foundation, seamless application delivery, superior user experience, and device mobility with continuous performance monitoring and optimization loops effected
Support	Ensure SLA bound resolution of application performance and hardware issues associated with the computing infrastructure	Implementation of an intelligent monitoring platform backed by Anunta's AIOps monitoring tool to preempt issues and recommend mitigation
Migrate	Time bound migration of 500 users to the new computing infrastructure foundation	High touch wave-based migration approach with persistent feedback loops to preempt performance gaps resulting in minimal routine disruption

Solution Details

Solutions	**Design**
	Aware of constraints around application performance in the radiology field, Anunta executed a comprehensive assessment of client's current application landscape, rooted in a mature and highly consultative approach. By involving the end users and radiologists in the design process, Anunta was able to architect a solution that addressed their specific needs and concerns
	User persona analysis: Identification of user-specific nuances, network access modes, end-user devices, peripherals, and average log on times
	Application benchmarking: Application discovery, documentation of application performance, recommended hardware configurations and technology stacks
	Business objective analysis: Stakeholder meetings to understand expected user satisfaction scores, peaks in computing requirements, concerns around mobility, and data security
Key observations	Medical imaging and processing applications are resource heavy, with larger processing capacity, memory and bandwidth requirements
	Image resolution was critical to radiology. Hardware performance aberrations directly impacted image resolution and loading times, affecting quality of diagnosis
	Radiologists used several audio-visual peripherals such as cameras, printers and scanners. These would need to work seamlessly
	Significant number of custom-built applications present in the landscape. These would need special focus in a virtualized delivery mode
	Diverse set of end user devices including Macintosh machines, Windows machines and Chromebooks
	Implement
	Leveraging the outcomes of the due diligence exercise, Anunta was able to build a solution in-line with best-in-class architecture and technology standards
	Technology mix: VMware Horizon implementation on VxRail hyperconverged infrastructure. Attached graphics chips to deliver the required superior processing capabilities
	Application delivery: VMware AppVolumes and AppStacks integration for the seamless delivery of virtualized applications
	Security guardrails: Configuration of inherent security guardrails, unified endpoint management (UEM), unified access gateway (UAG), profile management, trust zones, and organizational units (OU)

Solutions

Migrate

Anunta chalked out a phased, risk-mitigated migration plan in cognizance of business considerations, application complexity, and operational constraints. Anunta places heavy emphasis on end user experience, working in tandem with radiologists, continually tracking performance and implementing remedial action

Enforcement of a cooldown phase post each wave to stabilize, observe and correct configuration issues

Iterative user acceptance testing (UAT) by the end users to detect application performance gaps and undertake performance optimization

Continuous tracking of key performance indicators to benchmark and optimize hardware performance

User contact at timed intervals during migration to provide high-touch resolution of teething issues

Anunta was able to successfully set up, configure and migrate desktops to the new environment in an impressive three-months

Support

Anunta leverages its state-of-the-art intelligent operations platform to ensure consistent user experiences and lower times to issue resolution. AI-enabled monitoring of hardware capacity and platform performance enables proactive implementation of corrective action, greatly reducing ticket volumes

Value Delivered

Better user productivity & experience

- Implementation of device mobility for radiologists resulting in faster diagnoses and better quality of care
- Improved application performance

Boost IT efficiency

- Simplified IT hardware management due to lesser discrete components in hyperconverged infrastructure
- Centralized management of discrete end-user devices
- Reduction in mean time to issue resolution

Improved business agility

- Optimization of capital spending on computing infrastructure from shared resource utilization
- HIPAA compliance and improved security posture from secure system access and minimized data loss
- Ability to foster a collaborative culture by extending platform access to consulting specialists when required

Anunta's EuVantage advantage

This engagement was seamlessly executed supported by Anunta's EuVantage. This intelligent AIOps platform accelerates the migration process beginning with infrastructure and application discovery to custom stress test simulations, all the way through to proactive hardware monitoring and issue mitigation. EuVantage simplifies service delivery and provides a granular, single pane of glass view into the entire environment.

anunta®

About Anunta

Anunta is an industry recognized end user computing solutions provider focused on managed virtual desktops and digital workspace technology. We have successfully migrated close to 500,000 remote desktop users on cloud and have ensured 99.98% application delivery for enhanced workforce productivity and superior end-user experience.

For more information about Anunta, visit www.anuntatech.com

anunta® DesktopReady

About DesktopReady

DesktopReady is a modern fully managed Desktop as a Service (DaaS) with built-in automation and monitoring that simplifies the delivery and management of cloud desktops for the unique needs of companies that want to spend less time on IT. Developed using Windows Virtual Desktop (WVD) infrastructure within the Microsoft Azure cloud, DesktopReady provides fully functional Windows 10 desktops that are easy to install, configure and ready within minutes. The highly secure cloud desktops are built on platforms that are PCI, HIPAA and SOC2 compliant and supported by 24/7 service desk and infrastructure monitoring. For more information about DesktopReady, visit www.desktopready.com

DesktopReady is brought to you by Anunta Tech Inc., a global leader in VDI and DaaS solutions.

Key Differentiators

Specialized VDI focus and deep domain expertise

Deep understanding of the client's VDI estate

Ability to port learnings from other engagements

Focus on outcomes vs effort