



Desktop Virtualization Solutions Brief



QCT QxVDI Transforms Desktop Virtualization

The worldwide increase in remote work in recent years has heightened the importance of desktop virtualization. With diverse workload demands, having a desktop virtualization solution that can be form-fit to ensure your customers are properly taken care of is critical, as it solves a number of issues that complicate work and inflate bottom lines.

The QCT VDI solution, called QxVDI, powered by VMware Horizon software, is simple to implement and manage, solving a number of pain points your customers deal with on a daily basis. These include:

Enhanced Security: Client virtualization ensures data is safe in the data center.

Centralized Management: QxVDI solution acts as a single point of contact and delivers pre-validated value.

High Scalability: You'll deliver agility to the VDI environment through a pay-as-you-grow program.

Why Get QxVDI?

If you needed any more reason that this solution is right to power your customers, check out these critical benefits:

Target User Needs: Meet customer needs regardless of user type through QCT's diverse product portfolio.

Pre-validated, Reliable Turnkey Solution: QCT's VDI appliances are integrated with VMware Horizon.

VM Sizing: Customers can complete VM sizing with QCT's help, ensuring a hardware configuration that fits perfectly.

QxVDI Solution Breakdown

The QxVDI solution provides four levels of virtualization, each specialized for certain workloads.

Standard VDI

This is best used for standard office applications, where users are focused on tasks, inputting basic data.

Suggested configuration:

- 1U general purpose:
 - QuantaGrid D53X, D43K
- 2U general purpose:
 - QuantaGrid D53XQ, D43KQ
- 2U4N high density:
 - QuantaPlex T42S

Advanced VDI

Those users who focus on the need for lightweight graphic processing.

Suggested configuration:

- 2U general purpose:
 - QuantaGrid D53XQ
- GPU technology
 - NVIDIA A16
 - NVIDIA Virtual PC (vPC) software

Premium VDI

Graphic design organizations that have power users like engineers, designers and CAD/CAE users.

Suggested configuration:

- GPU server
 - QuantaGrid D43N
- GPU technology
 - NVIDIA A40, A16 (for light users only)
 - NVIDIA RTX Virtual Workstation (vWS) software

Performance VDI

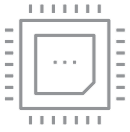
AI and high-performance computing users like engineers and architects should be using this version of the solution.

Suggested configuration:

- GPU server
 - QuantaGrid D43N
- GPU technology
 - (compute) NVIDIA A100, A30
 - (compute) NVIDIA AI Enterprise



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Semiconductor Use Case

IT professionals who work in the semiconductor industry have several uses for VDI, whether it be for general office purposes or engineers who work in eCAD. However, CAD software licenses are expensive and keeping track of remote access can be a challenge.

Using the QxVDI solution makes it easier to maintain these systems. Manage the entire system from a central location, reduce the performance-to-cost ratio with a lower total cost of ownership and ensure user experiences are maximized.



Higher Education Use Case

IT professionals who work in higher education must account for diverse application and computing resources, which can be complicated. It's also important to ensure everything is consistently updated to prevent downtime.

With the QxVDI solution, the IT experience improves with centralized management, providing a higher level of security through centralized user files and scalability.







Health Care Use Case

IT professionals working in healthcare need to keep productivity at high levels, allow for image processing and facilitate the use of AI-based applications. It's necessary to factor in the increasing need for managing the constant changing of terminal devices, operating systems and BYOD, as well. It's possible to address these needs with the QxVDI solution, as it allows for centralized management, increased remote access ability and doesn't sacrifice security.

NVIDIA Powers QxVDI





Graphic-intensive workloads are on the rise. NVIDIA powers QCT-accelerated virtual desktops with different NVIDIA GPUs for different purpose. For example, NVIDIA A30 and A100 are used for compute workloads such as AI, deep learning, data science and high-performance computing (HPC). As for the graphic uses, NVIDIA A16 is well suited for high-density VDI for office productivity applications and streaming video. For professional visualization workloads which require the power of RTX technology, NVIDIA A40 is the best choice.

By taking advantage of NVIDIA vGPU software, such as NVIDIA vPC, RTX vWS and NVIDIA AI Enterprise software, virtual GPUs are easily shared across virtual machines.

Customer demand			
Standard VDI	Advanced VDI	Premium VDI	Performance VDI
<ul style="list-style-type: none"> Scenario: Office Application Target users: Task user/ office user Use case: <ul style="list-style-type: none"> - Basic data input, standard office apps - ROBO/ Call center/ Computer room/ large office users 	<ul style="list-style-type: none"> Scenario: Lightweight graphic processing Target users: knowledge user Use case: <ul style="list-style-type: none"> - Entry level graphics for office uses (video watching, drawing, analysis...) - Lab/R&D daily uses 	<ul style="list-style-type: none"> Scenario: Graphic design Target users: Power user (Engineers, designers, CAD/CAE users) Use case: <ul style="list-style-type: none"> - Rendering, 3D design and engineering workflows - Visual design/ animation 	<ul style="list-style-type: none"> Scenario: AI/ HPC Target users: High-end computing user (Engineers, Architects) Use case: <ul style="list-style-type: none"> - Graphic-intensive workload - AI/HPC software
 <p>Task users/ Office users</p> <ul style="list-style-type: none"> - Basic data input, office application - Basic tasks and do not need graphics acceleration 	 <p>Knowledge users</p> <ul style="list-style-type: none"> - Entry level graphics for office uses (video watching, drawing, analysis...) - Lab/R&D daily uses 	 <p>Power users</p> <ul style="list-style-type: none"> - Some graphically demanding apps - Engineers, designers, CAD/CAE users 	 <p>High-end computing users</p> <ul style="list-style-type: none"> - High-end computing demands for HPC and AI/ML use cases - Engineers, Architects, AI scientists

VMware Horizon/vSphere/vSAN

NVIDIA GPUs

QxVDI server portfolio			
General purpose- 1U,2U		High density- 2U4N	GPU server
<p>1U server</p>  <p>D53X-1U D43K-1U</p>	<p>2U server</p>  <p>D53XQ-2U D43KQ-2U</p>	 <p>T42S-2U</p>	 <p>D43N-3U</p>

Learn more about QxVDI here:

<https://go.qct.io/nvidia/qxvdi-vmware-edition/>