

Dassault Systemes 3DEXPERIENCE Platform on Cisco UCS C240 Servers with NVIDIA Tesla GPU

Deliver a True 3D Graphics Experience to Virtual Desktops



What if your designers and engineers could work with industry-leading Dassault Systemes 3DEXPERIENCE software on virtual desktops? You'd speed up design cycles by eliminating lengthy file uploads and downloads. Lower endpoint costs. And keep proprietary designs safe in your data center instead of on endpoints. Now you can deliver a true, 3D graphics experience to virtual desktops using industry-leading Cisco® servers with NVIDIA graphics processing units (GPUs).

Virtual desktops give you a competitive advantage for design and engineering. Designers and engineers can work from anywhere, on any device. Intellectual property lives safely in your data center instead of on endpoints. There's no confusion about which design file is the latest because all data is centralized. And since files never leave your data center, distributed teams can access even the largest files instantly instead of waiting for them to crawl over the network.

But data center server CPUs don't have the power to deliver a true 3D graphics experience to multiple virtual desktops. So even if you already provide virtual desktops for productivity applications, you probably still buy and support dedicated graphics workstations for designers and engineers.

Now you can deliver a true 3D graphics experience for the Dassault Systemes 3DEXPERIENCE Platform on virtual desktops. Dassault Systemes has certified a virtual desktop infrastructure (VDI) configuration built on Cisco Unified Computing System™ (Cisco UCS™) C240 M4 rack servers with NVIDIA Tesla M60 graphics processing units (GPU). Certification takes the guesswork out of configuration, so you can start benefiting from virtual graphics desktops much sooner.

Benefits



Reduce risk because the Cisco UCS C240 M4 server with NVIDIA Tesla M60 GPU is certified to deliver outstanding Dassault Systemes 3DEXPERIENCE Platform performance.



Work with Dassault Systemes 3DEXPERIENCE software on any device that has the required display resolution, including lower-cost zero and thin clients.



Strengthen security and simplify collaboration because files never leave the data center.



Scale easily by adding more Cisco UCS servers with NVIDIA GPUs.

Time to Market Is Growing More Important

Automotive, aviation, and other manufacturers are diversifying their portfolios and entering fast-growing markets. Speed to market is critical. The faster your designers and engineers can create and revise their models, the faster you can get innovative new products to market. Design teams need creative ways to make the best use of talent in different locations. But arranging for team members to travel to a central location to collaborate is costly and wastes time.

The answer is virtual graphics desktops. By using the industry-leading leading Dassault Systemes 3DEXPERIENCE Platform on virtual desktops, design and engineering teams can collaborate as if they were all in the same room.

Visualization Applications Have Exacting Demands

When you deliver Dassault Systemes 3DEXPERIENCE software to virtual desktops, the underlying VDI platform makes a big difference in the experience. Delivering the same performance as a high-end graphics workstation requires a powerful CPU plus a graphics processing unit (GPU). And as you ramp up your operation with more engineers or more projects, you need the ability to quickly scale both types of processing.

Dassault Systemes has certified the VDI configuration in Table 1 for reliable 3DEXPERIENCE Platform performance.

Table 1 Dassault Systemes-certified VDI Configuration for 3DEXPERIENCE Platform

Server	GPU	Hypervisor	VDI Software
Cisco UCS™ C240 M4 rack server with 2 Intel® Xeon® CPU E2600 v3 or v4 processors. Any RAM configuration.	1 or 2 NVIDIA Tesla M60 GPUs NVIDIA Quadro Virtual Data Center Workstation (vDCW) profile.	VMware ESXi	VMware Horizon

Server Configuration Options

Order the Cisco UCS with the optimum configuration for your requirements. Choose the CPU core density (up to 22 cores per processor), frequency (up to 3.6GHz), and memory (64GB to 1.5TB)

Storage Options

Boot virtual graphics desktops from your choice of:

- Mirrored Cisco FlexFlash SD cards that don't require a RAID controller
- Local RAID-protected hard disk drives or solid-state drives
- Fiber channel or iSCSI SAN storage

Simple Network Connectivity

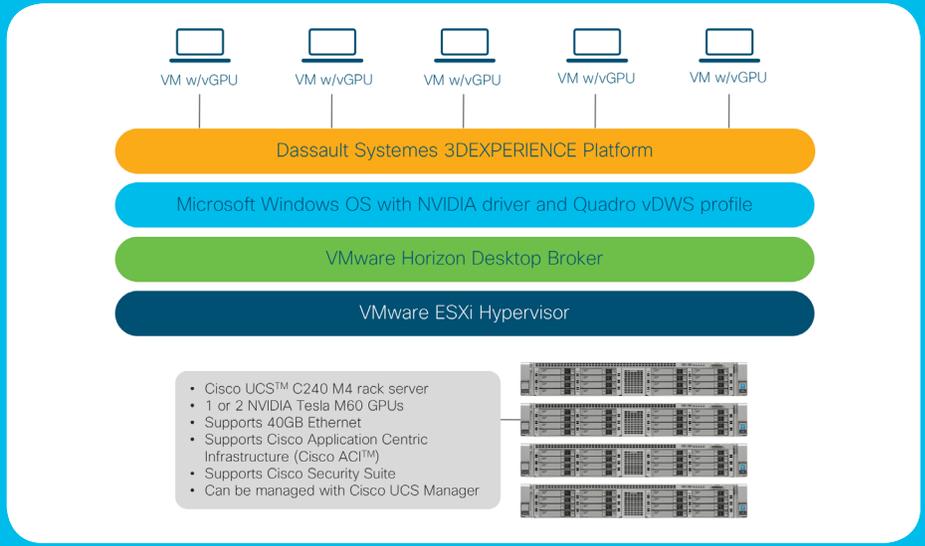
Cisco UCS servers use fewer adapter cards and cables than other servers, cutting costs and simplifying deployment and troubleshooting. The reason: Cisco UCS Virtual Interface Cards provide fault-tolerant, high-speed connectivity to both the LAN and storage over a single link. Connect via fiber channel, FCoE, or 10GB Ethernet.

Provisioning in Minutes, Simple Management

Create a service profile in Cisco UCS Manager that specifies the server configuration. Then just click to apply the profile to each Cisco UCS server. When you add more servers, reuse the same service profile to make sure all servers are configured the same way.

Also use Cisco UCS Manager to manage NVIDIA Tesla, Pascal, and Volta cards. Automated firmware updates save time, and you always have the latest features.

Solution Diagram



Use Cases

Use Dassault Systemes 3DEXPERIENCE Platform virtual desktops hosted on Cisco UCS servers for:

- **Design and styling:** 3D sketching, subdivision surface, Class-A surfacing, 3D printing, and visualization
- **Engineering:** Digital prototyping, digital analysis, and simulation
- **Systems engineering:** Requirements engineering, systems architecture definition, and detailed modeling and simulation of complex systems

Financing to Help You Achieve Your Objectives

Cisco Capital can help you acquire the technology you need to achieve your objectives and stay competitive. We can help you reduce CapEx. Accelerate your growth. Optimize your investment dollars and ROI. Cisco Capital financing gives you flexibility in acquiring hardware, software, services, and complementary third-party equipment. And there's just one predictable payment. Cisco Capital is available in more than 100 countries. [Learn more.](#)

The Cisco Advantage

The Cisco UCS C240 M4 Rack Server provides an excellent experience for graphics-rich applications like those in the Dassault Systemes 3DEXPERIENCE Platform. For designers and engineers, the Cisco advantage is the fast performance from dual Intel® Xeon® processors. IT teams like the simplicity of deploying and managing a single device that combines computing, networking, management, virtualization, and storage access—all in 2 rack units (2RU). Plus, you can manage the Cisco UCS C240 rack server right alongside your other Cisco servers using Cisco UCS Manager.



Take the First Step

Contact your Cisco account manager or email
ciscodassaultsystemessales@cisco.com.