

Cisco UCS X-Series for GPU-Accelerated VDI



VDI power users require ultimate performance

The Cisco UCS X-Series provides functionalities of both blade and rack servers by offering compute density, storage capacity, and expandability in a single system, embracing a wide range of workloads in your data center.

People who use applications that enable extremely complex graphical renderings are traditionally known as power users. These applications normally require at least one GPU (graphics processing unit) to develop the graphics with speed and precision and a larger amount of system memory compared to knowledge or task VDI user profiles.

Power users are found in many industries including manufacturing, healthcare,

entertainment, science, architecture, etc. Traditionally, their needs are addressed by dedicating a rack-optimized server to one or a small number of users. However, these servers require power, rack space, and cabling that has to be managed. You can imagine that for some firms the number of servers IT has to manage can grow exponentially over time!

The Cisco UCS X-Series is a game-changing answer to this problem. A blade-like system chassis that can hold up to four [Cisco UCS X440p PCIe GPU nodes](#) and four Cisco UCS X210c Compute Nodes, thus enabling up to 24 GPUs while realizing reduced system cabling, power consumption, and rack space savings.

Benefits

- **Boost performance:** GPUs offload complex graphical rendering from the server CPU, freeing up processor cycles to improve system performance.
- **Lower TCO:** the Cisco USC® X440p PCIe Node supports 1-4 GPUs, thus replacing up to four rack servers, reducing cost and solution complexity.
- **Improved sustainability:** lower the energy required to drive graphical applications for power users.
- **Save space:** single Cisco UCS X-Series chassis is 7RU in height and can house 1-24 GPUs, replacing 16RU of rack servers (2RU x eight servers).
- **Improve cable management:** the Cisco UCS X-Series with the Cisco USC X440p PCIe Node and compute nodes do not require additional cabling compared to rack servers.

Learn more

Are your power users getting the performance they need from an infrastructure that meets your IT challenges? If not, talk with Cisco and learn how the Cisco UCS X-Series is a game changer for accelerated [VDI](#).

Exceed power-user requirements with Cisco UCS X-Series

The [Cisco UCS 9508 X-Series Chassis](#) is designed to house up to eight nodes. Think of these nodes as smaller rack-optimized servers placed vertically within the chassis. While Cisco UCS [x210c M6](#) or [M7](#) compute nodes can support a limited number of GPUs, the new Cisco UCS X440p PCIe Node offers the ability to support a wide range of NVIDIA and Intel® GPUs including on the [Cisco UCS X410c M7](#). Thus, a wider range of applications are supported with desired performance.

Nodes and GPUs may be added at any time to match business needs without taking up

additional rack space or adding to system cabling. You can choose between Citrix and VMware Horizon as your VDI broker, and Cisco has published a number of [Cisco Validated Designs](#) where Cisco UCS X-Series with GPUs have been incorporated into FlexPod and FlashStack designs.

No other hybrid-cloud system offers the flexibility and array of choice to meet the exacting requirements of power users, yet can simultaneously meet the needs of your other remote users.