SmartVDI™
Converged Infrastructure Platform
Virtualized Desktops for High Performance Users and their Workloads

SmartVDI 1U Building Blocks

High-availability

POWERED BY NVIDIA GRID™

ClearCube's Smart Virtual Desktop Infrastructure (SmartVDI™) host platform smoothly transitions your workers from using physical Personal Computer desktops to using highly available virtual desktops that can deliver an equal to, or better than, end user experience. SmartVDI desktops are capable of handling complex configurations with the same personalization features as physical PCs.

Incorporating VMware's core VDI components, SmartVDI uses VMware's vSAN to cluster storage and deliver high availability and Horizon 6 to broker zero client connections. SmartVDI hosts feature dual Intel® Xeon® processors, up to 512GB DDR4 RAM, 10GB Ethernet and redundant power supplies. A PCoIP Hardware Accelerator Card, and NVIDIA GRID K1 or K2 graphics cards are added to SmartVDI for user environments running simultaneous video intensive applications such as YouTube, data visualization, or video monitoring. Up to two NVIDIA GRID adapters are supported per SmartVDI 1U rack mount system.

SmartVDI's scalable open stack architecture allows you to integrate the system into existing virtualization environments to target specialized power user groups that need high powered graphics or for general audiences that include task and knowledge workers.

SmartVDI delivers a phenomenal high performance user experience that is easy to support because it utilizes VMware software-defined components with optimized high availability and storage with low cost-per-seat configurations.

SmartVDI™ Hardware Architecture

SmartVDI's hardware architecture is very straightforward, consisting of three primary components:

- 1U dual Xeon ES-2600v3 family processor systems featuring SSD drives for caching, spindle drives for storage, dual 10GBe ports for fast network throughput, and 64-512GB RAM to host the virtual desktops

- Hardware acceleration using NVIDIA GRID K1 or K2 adapters and PCoIP Hardware Accelerators

- A range of dual and quad display zero client options

VDI Production-ready Building Blocks

Satisfies the most demanding graphically intense use cases with options for multiple NVIDIA GRID K1 or K2 add-in-boards and PCoIP Hardware Accelerators

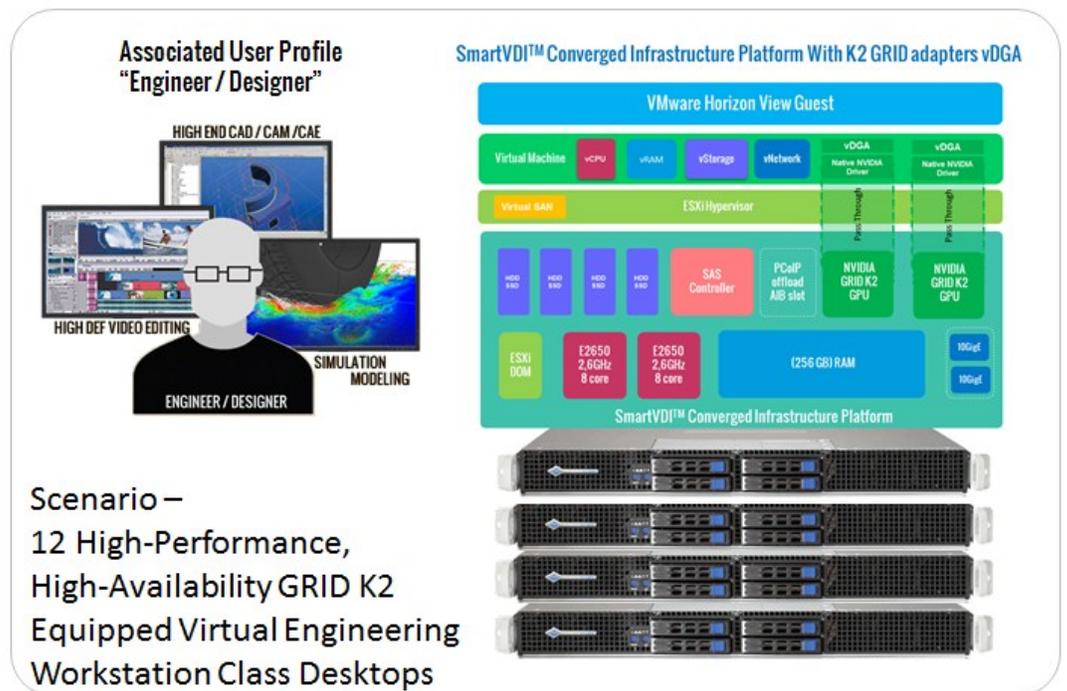**High Availability Configurations Recommended**

VDI Building Block

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High Availability

Designed for mission-critical environments that need 24/7/365 uptime, SmartVDI's incorporation of VMware's vSAN software provides clustered storage and high availability across SmartVDI nodes. Using three systems as the foundation, if a failure of any one system occurs, virtual desktops are migrated to the remaining two systems allowing work to continue.

From the storage perspective, the vSAN storage implementation is always up and available if a node fails. From a user perspective, like any normal SAN with VMware HA, the desktops reboot on another host and users simply log back in. That is a huge plus for any business or operation that cannot afford worker downtime.

Associated User Profile "Engineer / Designer"

HIGH END CAD / CAM /CAE

HIGH DEF VIDEO EDITING

SIMULATION MODELING

ENGINEER / DESIGNER

SmartVDI™ Converged Infrastructure Platform With K2 GRID adapters vDGA

Scenario – 12 High-Performance, High-Availability GRID K2 Equipped Virtual Engineering Workstation Class Desktops

Scalability

As a converged compute and storage device, SmartVDI scales well. Once the high availability core foundation is set up with as many SmartVDI Hosts and the vSAN storage is accessible by all hosts, adding more users just means adding more SmartVDI nodes. No external storage is required as each host contains all the needed hardware components and actively shares with other nodes in the environment.
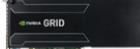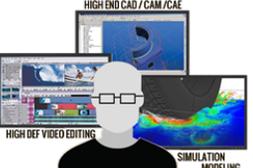
Completeness

SmartVDI hosts complement ClearCube's zero clients, Blade PCs, and Sentral single console management in CVDI (Centralized and Virtualized Desktop Infrastructure) and VDI projects to provide you with a single vendor solution with desktop-to-datacenter vision and accountability.

Leveraging ClearCube's experience as the first manufacturer to embrace PC-over-IP™ (VMware's native VDI protocol), ClearCube's in-depth PC-over-IP™ protocol knowledge produces a performance- optimized VMware-centric system like no other.

ClearCube's objective is to transition you from the physical to the virtual PC world in the least disruptive manner possible. We start with the objective of identifying the requirements of your specific user population, and configuring the appropriate hardware resources to satisfy their needs at the optimal price point. Typically this results in multiple SmartVDI systems that are identically matched to meet the user population application requirements.

Highly-Configurable, Production- Ready Profile Examples

SmartVDI Converged Infrastructure Platform Components

USERS		SmartVDI CI Platform	RAM/Server	GRID K1	GRID K2	PCoIP HC
KNOWLEDGE USERS	240 HA	4 ATLANTIS USX	256	8 vSGA	0	4
	80 NHA	1	256	2 vSGA	0	1
POWER USERS	120 HA	4	192	4 vSGA	0	0
	40 NHA	1	192	1 vSGA	0	0
	24 HA	4	128	8 vDGA	0	0
	8 NHA	1	128	2 vDGA	0	0
DCC/DESIGN/ENGINEER USERS	12 HA	4	256	0	8 vDGA	0
	4 NHA	1	256	0	2 vDGA	0

Call 512.652.3500 or email sales@clearcube.com for order information.