v-Class – VDI @ Campus

Introduction of VDI in campus and requirements

Virtualization Desktop Infrastructure (VDI) was implemented in many fields in recent years. Especially in campus field, VDI architecture could help IT to address the rising cost and complexity of desktop management. The customized template image by teachers can be centralized management and used for every virtual class unit. Teachers could update and create materials on the campus VDI virtual machines, so that students could access information or remote teaching by thin client PC/NB. Virtual class (v-Class) has implemented by VDI solutions for years and MSI has solutions to improve and enhance the performance aggressively.

MSI proposes to improve below items to upgrade VDI performance in campus.

1. More economical scale-out servers for VDI cluster
2. High scalability of network for rapid changing network demand anytime and for everywhere
3. Integrate PoE cameras for classes monitoring

MSI provides VDI @ Campus solutions

VDI architecture needs scalable network and powerful computing servers to run whole system. Thus MSI provides diversity solutions for improving VDI architecture at campus field.

- **S2000 series & H5000 series for VDI servers**

S2000 series is 2U rackmount servers which provides 12x hot-swap bays 3.5" HDDs and Dual/Single socket for high computing demand. If the campus need to upgrade network ability for more and more VDI thin client services, MSI also provides S2000 series with 10GbE solutions for high speed transmission. Such as S200a model.

H5000 series is a powerful computing and high density of storage workstation. When the VDI scope need to be scale up and allocate at any places like computing center/classes/labs etc. H5000 is the best price/performance ratio to be.
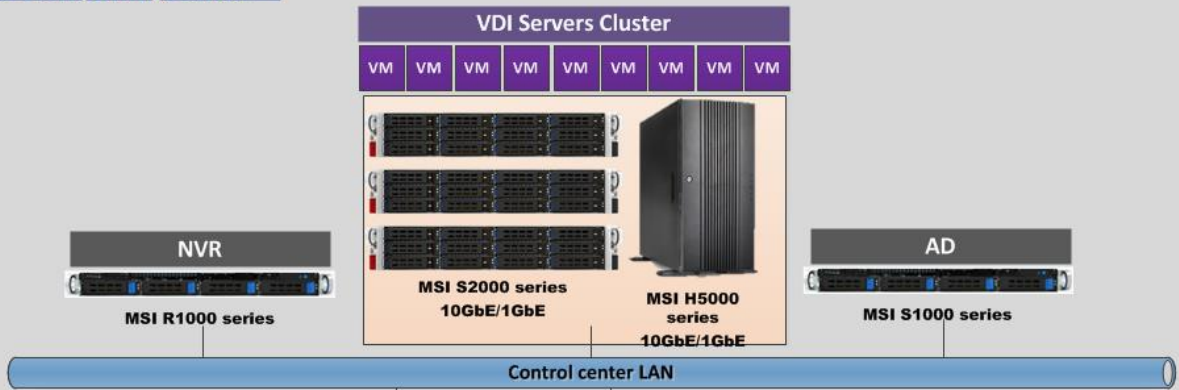
- **N5000, N3000 and N2000 series to boost network**

Referring figure 1. VDI @ Campus demonstration, the thin client PC/NB are allocated in every classes/labs.
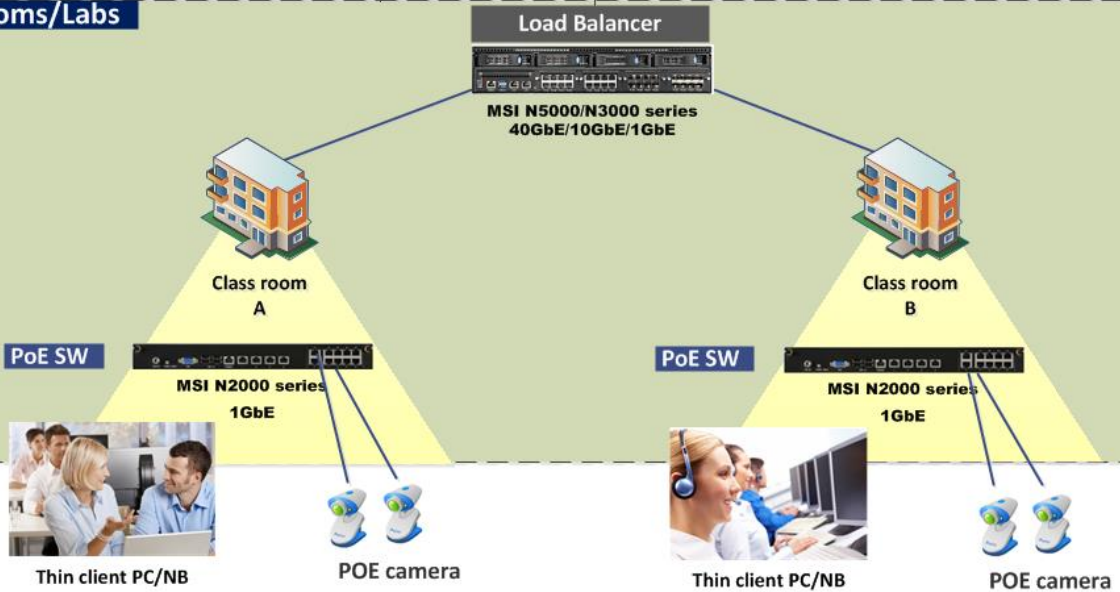
- ✓ **Classes PoE switch/simplified security:** N2000 series can be the switch and with security solution for local thin devices. For higher level of campus, some area or buildings will need to use different security and router to connect with all classes/labs network.
- ✓ **Edge router:** N3000 series has the high computing to be edge security and router to control for every zone. At the end of campus computing center.
- ✓ **Aggregate router and load balancer:** N5000 could be the most important and aggregate the all edge router and to be load balancer for VDI system.

- **R1000 series for CCTV integration**

However, in v-Class or remote teaching, teachers need the monitor function to watch their students and practical status. Considering this issue, MSI N2000 series can be a PoE switch and link to every thin client in the meantime. Therefore, using N2000 to link PoE cameras, and set a R1000 series to be NVR servers into CCTV solution. Obviously, MSI CCTV solution is perfectly integrated with VDI solutions and be cost-benefit.

Figure 1. VDI @ Campus

MSI solutions for VDI @ Campus

Performance
High end security solution in Telecom and large enterprise
o o : Discover

Mainstream
Enterprise and campus security solution
o o : Discover

Server Message Block (SMB)
Small box security service and vCPE solution
o o : Discover

Network Video Recoder (NVR)
Store huge video data solution
o o : Discover

2U
Most popular size for storage server
o o : Discover

1U
Economized space with high computing solution
o o : Discover