

# Cisco HyperFlex and UCS help NYU Shanghai to accelerate VDI, Oracle RAC and HPC performance



## New York University Shanghai (NYU Shanghai)

- Industry: Education
- Location: Shanghai, China
- Students: 1,300 undergraduate and graduate students from 70 countries

## NYU Shanghai Mission

Cultivate globally-minded graduates through innovative teaching and become a world's leading research institution

## How NYU Shanghai achieves it's mission ?

- Offer students a ubiquitous learning environment by deploying VDI on Cisco HyperFlex
- Build a research center for high performance computing with Cisco UCS to facilitate scientific research

New York University Shanghai (hereinafter referred to as NYU Shanghai) is China's first Sino-US research university jointly established by New York University and East China Normal University of Shanghai.

NYU Shanghai seeks to cultivate globally-minded graduates through innovative teaching with the mission of becoming a world class research university.

The university currently has 1,300 undergraduate and graduate students from 70 countries. A member of the NYU global education system, NYU Shanghai fosters opportunities for cross-cultural communication and cooperation. Students have access it's global curriculum, faculty and educational resources to equip them with broad knowledge and tools to become creative thinkers and active learners.

## A learning environment for innovation

Traditionally learning is delivered in classroom and on campus where students needs to attend class in person and Large scale scientific computing software can only be access on campus with high end personal computers.

To provide a ubiquitous learning environment for innovative teaching, NYU Shanghai deployed VDI that enable students to run Adobe and Autodesk design software and ArcGIS, SPSS, MATLAB research software and university computing resources anywhere, anytime and on any computing devices. Professors can now monitor student's learning progress, provide accurate academic assessments for better teaching results

## Cisco's Solution

- Cisco HyperFlex HX240: to support NYU Shanghai VDI
- 6-node Cisco HyperFlex HX220: to run scientific research software like ArcGIS/SPSS, and core applications including smart card and payment system
- Cisco all-flash HyperFlex HX240 M5: to deploy Oracle RAC database cluster as well as collaboration applications including phone and video system
- Cisco UCS server: to build a high-performance computing platform for research

## Customer Benefits

- High performance VDI system (30% over comparable HCI) to support ubiquitous learning environment
- Applications powered by HyperFlex allows professors to monitor student's learning progress, provide accurate academic assessments
- High scalability and manageability of HyperFlex make rooms for future expansion and ease IT operation
- Exceptional computing power and low latency Cisco UCS is the ideal solution for NYU Shanghai HPC platform
- Powered by Cisco UCS, NYU Shanghai Research Center helps the university to become a world class research institution

NYU Shanghai need a highly available and high performance VDI system to support their innovative learning environment. Upon careful comparison of different Hyper-converged infrastructure solutions in the market, the university chose Cisco HyperFlex. A 6 node Hyperflex HX 220 system was also deployed to support scientific research software like ArcGIS/SPSS and the campus smart card and payment system. HyperFlex All Flash HyperFlex HX240 M5 was used to deploy Oracle RAC database cluster and collaboration applications.

“ Cisco HyperFlex system integrates network, compute and storage resources, In our real world testing results, Cisco HyperFlex performance is at least 30% higher than comparable hyperconverged infrastructure product in the market ”

*Shengbin Lu*  
Senior Network Specialist, NYU Shanghai

## Highly scalable for future expansion

NYU Shanghai VDI system usage was pretty high, and with the increase in students and faculty and applications, the university need to cater for future expansion. Cisco HyperFlex can be scale to 64 node cluster. And unlike other hyperconverged product, HyperFlex support independently scale of computing or storage capacity to meet the specific application's needs.

“ With VDI virtualized desktop technology based on the Cisco HyperFlex platform, we were able to reduce the software licensing cost to one-fifth, this cost reduction is very significant; At the same time, the technology greatly simplifies our IT Operation and management, makes our IT operations more efficient and reliable. ”

*Shengbin Lu*  
Senior Network Specialist, NYU Shanghai

## Become world's leading research university

The quality of research is what distinguishes a great university, allowing it to draw talented scholars and top students. NYU Shanghai has always been devoted to research, and has established a joint research center with NYU covering a wide range of researches including applied mathematics, computational chemistry, physics, data science and AI, brain and cognitive science.

To become a world-leading comprehensive research university, NYU Shanghai research center build a high-performance computing platform to facilitate scientific research and allows NYU research data to be validated on their platform.

Computational performance and availability are the key consideration criteria for NYU Shanghai HPC platform. After a comprehensive evaluation of different server products, NYU Shanghai selected Cisco UCS. Cisco UCS usNIC technology offers a low-latency and high-throughput communication transport make it an ideal solution for NYU Shanghai HPC platform.

“ Empowered with a strong research platform, we were able to attract leading professors for research as well as top notch students.

”

*Pan Chang*

Director of IT Department, NYU Shanghai

“ Cisco's usNIC ultra-low latency technology helps to effectively reduce network latency for high-performance computing, dramatically improved our computing efficiency.

“The highly available Cisco UCS server downtime is almost zero, which prevent any interruption to our scientific research.

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*Shengbin Lu*

Senior Network Specialist, NYU Shanghai

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