Nebula Cloud for Higher Education Institutions

Virtual Cloud Centre of Excellence for Education, Trainings, Hands-on learning, Demo's and POCs
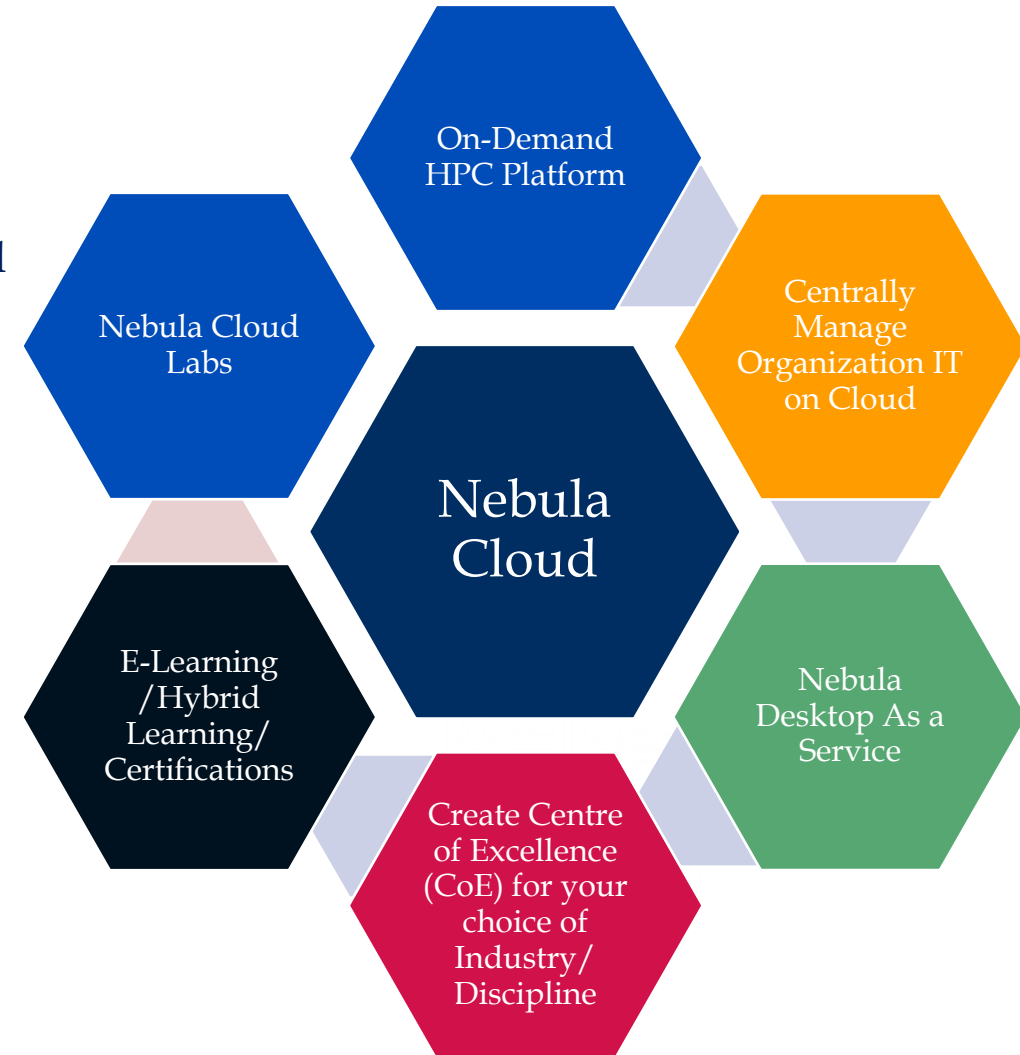
What is Virtual Cloud Centre of Excellence (CCoE)?

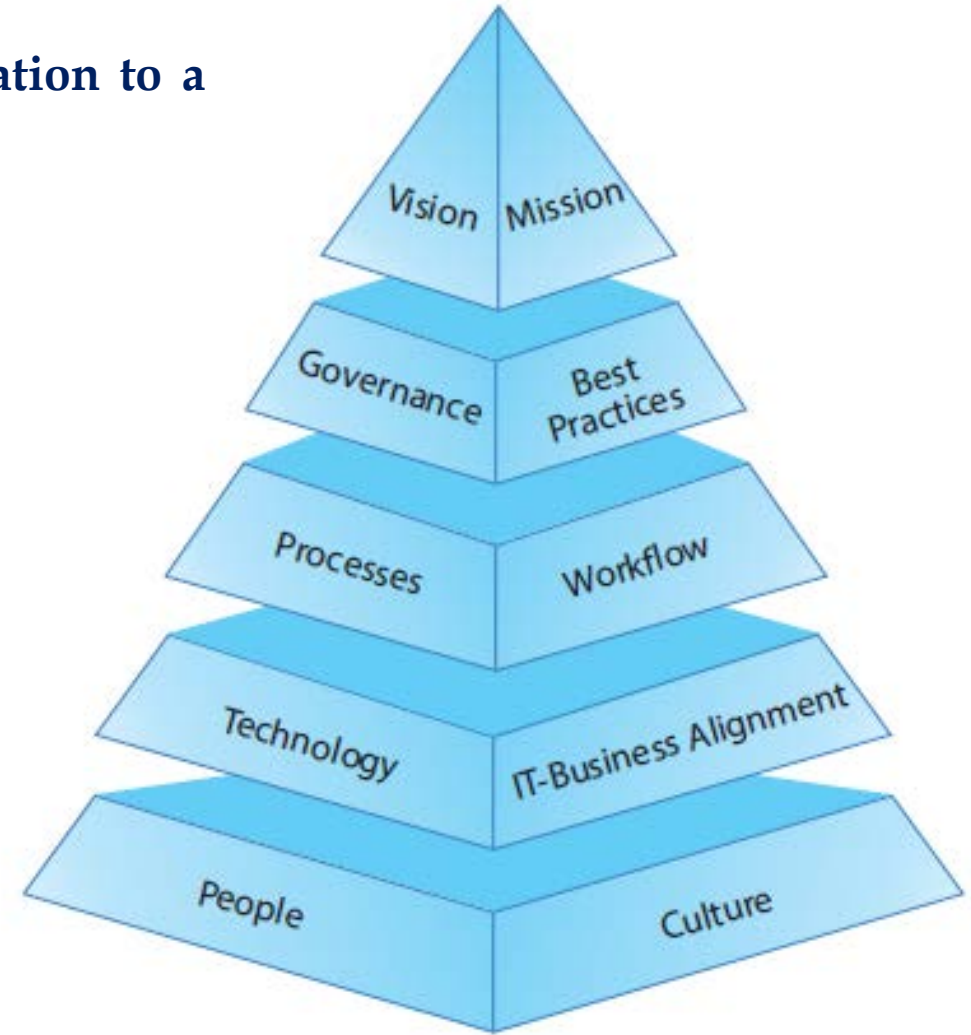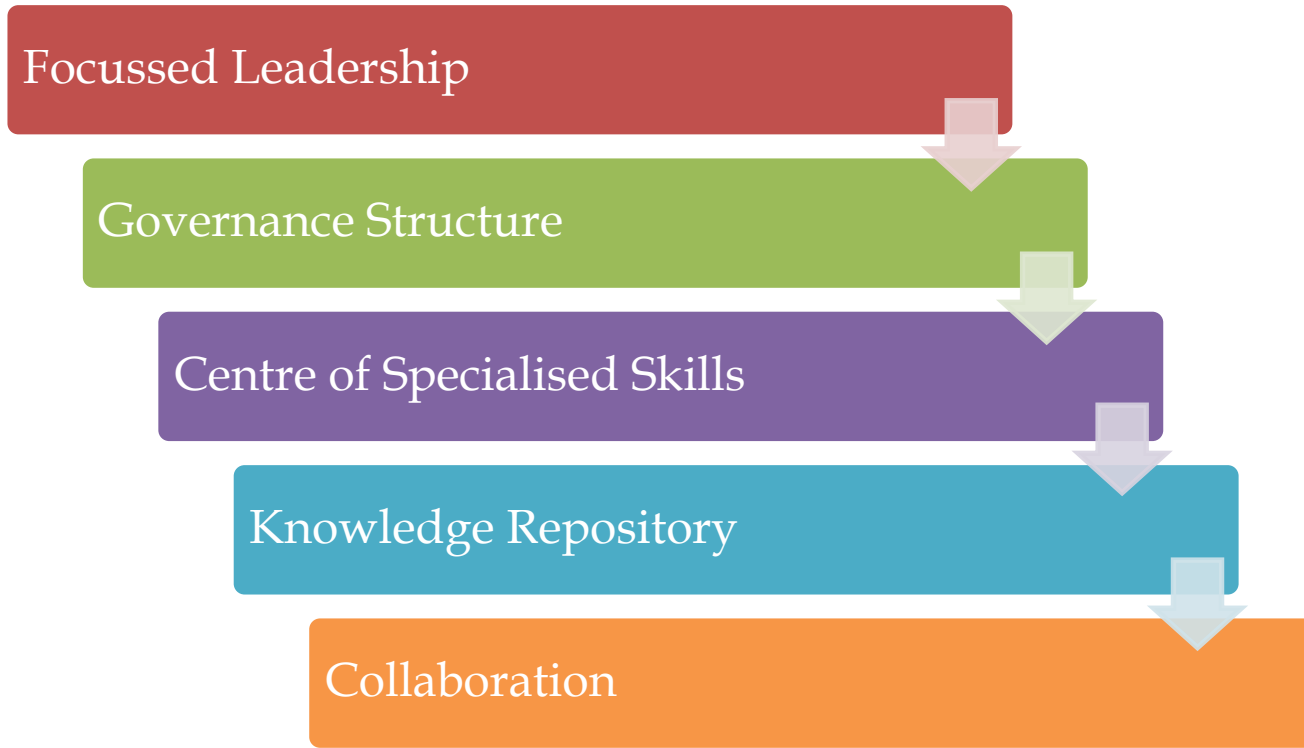**Ready to use Digital Transformation and Workplace Automation platform for organizations.**

❖ Nebula Cloud CCoE offers dynamic collaborative access to engineering, design, simulation and data analytics technology, plus scalable HPC and cloud resources, all in one place.

❖ It is built to Discover, Monitor, Automate, Transform, Collaborate and Manage the Operations for IT Service Management, Cloud Management, Digital Workplace Automation, Trainings and many more from a single unified environment.

❖ Delivered as a 100% white-labelled and localized platform.

❖ Cloudify various departments within University and centrally manage IT from a single pane of glass.

❖ Introduce new offerings, create CoE's, skill development programs through trainings, workshops, bootcamps, courses on various technology areas for internal and external users

❖ Conduct Research, Consultancy and other services via CCoE

On-Demand HPC Platform

Centrally Manage Organization IT on Cloud

Nebula Cloud Labs

Nebula Cloud

Nebula Desktop As a Service

E-Learning /Hybrid Learning/ Certifications

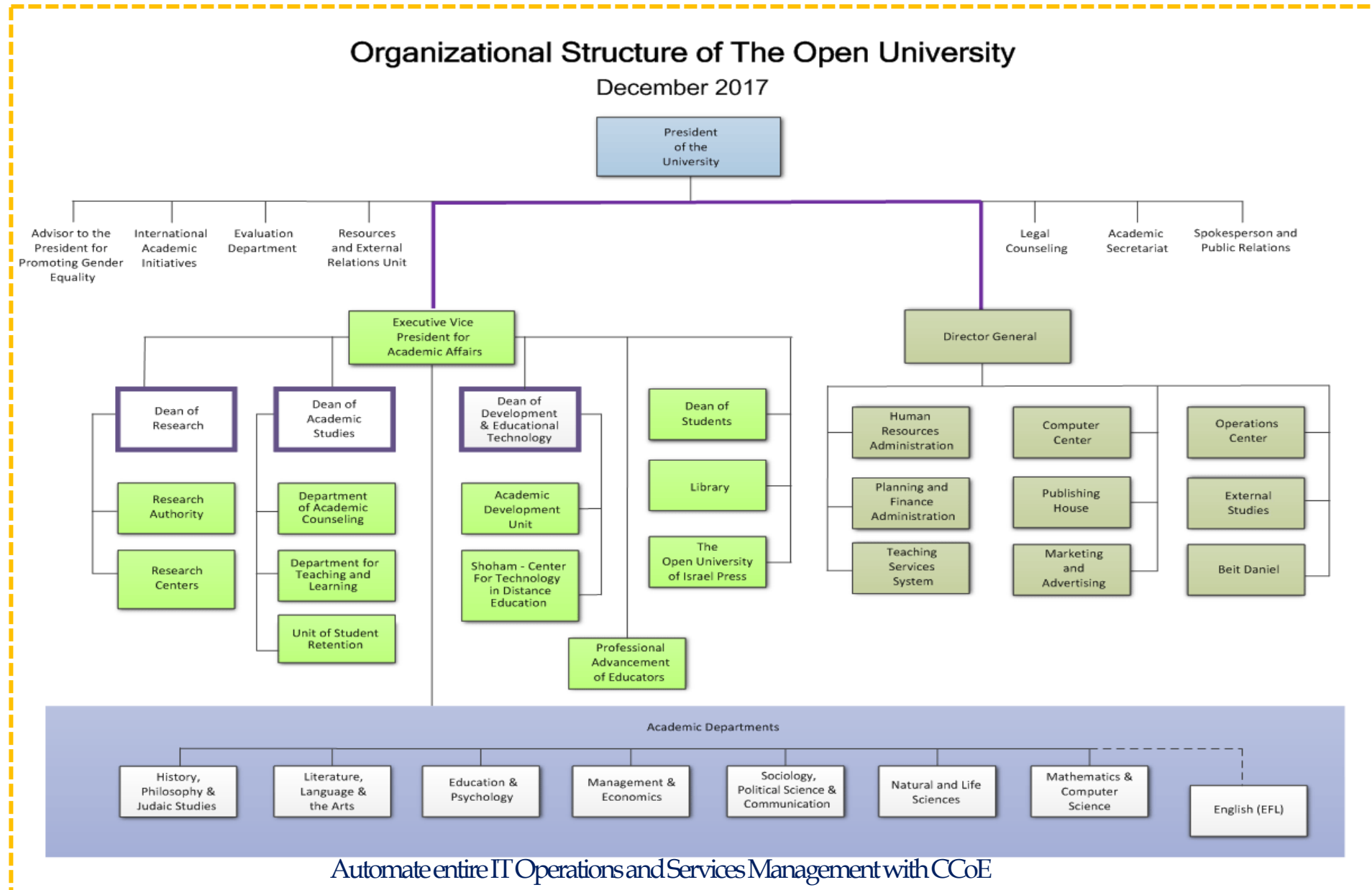Create Centre of Excellence (CoE) for your choice of Industry/ Discipline

CoE Framework

Five pillars essential to sustain an organization wide transformation to a CoE model.
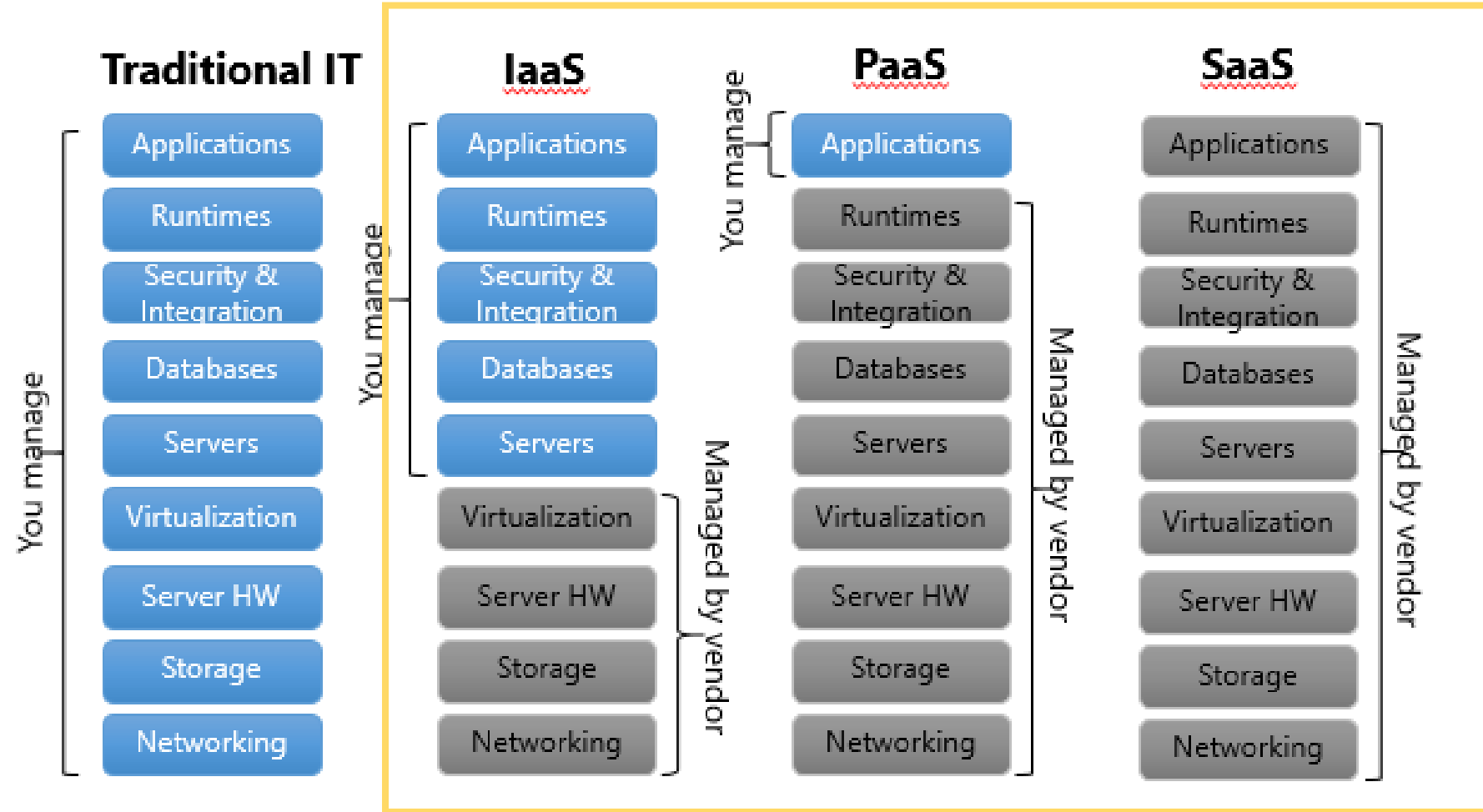
Some of the key components of a successful CoE are:

- Focussed Leadership
- Governance Structure
- Centre of Specialised Skills
- Knowledge Repository
- Collaboration

CoE Framework

Digital Transformation Initiative with CCoE

Organizational Structure of The Open University
December 2017

President of the University

- Advisor to the President for Promoting Gender Equality
- International Academic Initiatives
- Evaluation Department
- Resources and External Relations Unit
- Legal Counseling
- Academic Secretariat
- Spokesperson and Public Relations

Executive Vice President for Academic Affairs

- Dean of Research
  - Research Authority
  - Research Centers
- Dean of Academic Studies
  - Department of Academic Counseling
  - Department for Teaching and Learning
  - Unit of Student Retention
- Dean of Development & Educational Technology
  - Academic Development Unit
  - Shoham - Center For Technology in Distance Education
  - Professional Advancement of Educators
- Dean of Students
  - Library
  - The Open University of Israel Press

Director General

- Human Resources Administration
- Planning and Finance Administration
- Teaching Services System
- Computer Center
- Publishing House
- Marketing and Advertising
- Operations Center
- External Studies
- Beit Daniel

Academic Departments

- History, Philosophy & Judaic Studies
- Literature, Language & the Arts
- Education & Psychology
- Management & Economics
- Sociology, Political Science & Communication
- Natural and Life Sciences
- Mathematics & Computer Science
- English (EFL)

Automate entire IT Operations and Services Management with CCoE

Current and Future state of IT with CCoE

Put your entire IT footprint on autopilot mode with CCoE by Nebula Cloud

Traditional IT	IaaS	PaaS	SaaS
Applications	Applications	Applications	Applications
Runtimes	Runtimes	Runtimes	Runtimes
Security & Integration	Security & Integration	Security & Integration	Security & Integration
Databases	Databases	Databases	Databases
Servers	Servers	Servers	Servers
Virtualization	Virtualization	Virtualization	Virtualization
Server HW	Server HW	Server HW	Server HW
Storage	Storage	Storage	Storage
Networking	Networking	Networking	Networking

You manage (Traditional IT)

You manage / Managed by vendor (IaaS)

You manage / Managed by vendor (PaaS)

Managed by vendor (SaaS)

Current IT

Future Cloudified IT – Powered by CCoE of Nebula Cloud

Before CCoE

After CCoE

What's possible with Nebula Cloud's CCoE?

Infrastructure Automation

Enable your developers to deploy scalable, reliable and highly available environments for end-to-end applications.

Application Management

One-click installation, support and unified management for most popular ISV Software, languages, frameworks and CMSs.

DevOps Automation

Out of the box tools that would otherwise take months to build by a dedicated team of DevOps Engineers.

Workplace Automation

Supports 250+ enterprise Big Data, Data Analytics and Simulation applications, optimized for HPC in the cloud.

Subscription billing & invoicing

Subscription billing for all services offered via your cloud

Support, ticketing & service operations

Integrated helpdesk and support tools Reseller Portal, Reseller management with dashboards & reports

How are we helping Educational Institutions?

Nebula Cloud Labs enables educational institutions to set up real-world technology environments for students to practice and get hands-on experience on real-life projects. Also enables Product Demos, POCs, Ready-to-use Sand-box environments across Engineering, Scientific and IT Disciplines, all in one integrated platform.

Nebula Cloud Labs for Everyone:

CLOUD LABS FOR UPSKILLING/RESKILLING

Upskill or Reskill your employees on the latest technologies with Nebula cloud labs.

Run enterprise commercial Engineering and IT projects using HPC and GPU Computing

CLOUD LABS, CLOUD CCOE FOR EDUCATIONAL INSTITUTIONS

Make your students industry ready by providing Nebula cloud labs on latest technology stacks.

CLOUD LABS FOR ONLINE LEARNING PROVIDERS

Enable students by providing hands-on experience with Nebula cloud labs.

CLOUD LABS FOR DEMOs & POCs

Make building and presenting sales demos simpler, more consistent, and more efficient.

Deliver complex demos and POCs, and sales enablement training for cross platform software solutions on AWS, Azure and GCP.

The challenges faced by educational institutions are

- Capital expense in setting up the CoE/lab quickly changes to operational expenses in maintenance, support and training of the staff.

- Recurring operational, support and maintenance expenses eat into the revenue stream and profits.

- Network and computer administration takes on a life of its own once the capex costs are accounted for.

- Finding and retaining the right kind of talent for lab maintenance is a cascading challenge.

- Setting up time of a new lab for each batch is time consuming and resource intensive.

- Unavailability of HPC/ GPU Computing and wide range of labs for new technologies.

- Lab utilization and governance with periodic reporting and insights.

A case study with survey responses for computer lab challenges and priorities among Top 20 universities:

What challenges are you facing with your computer lab?
(Select all that apply)

a)	Cost	�▬	66.5 (141)
b)	Maintenance effort	▬	59.9 (127)
c)	Underutilization	▬	55.1 (117)
d)	Limited physical space	▬	42.9 (91)
e)	Doesn't meet student needs	▬	42.4 (90)
	(BYOD, online courses, collaboration etc.)		
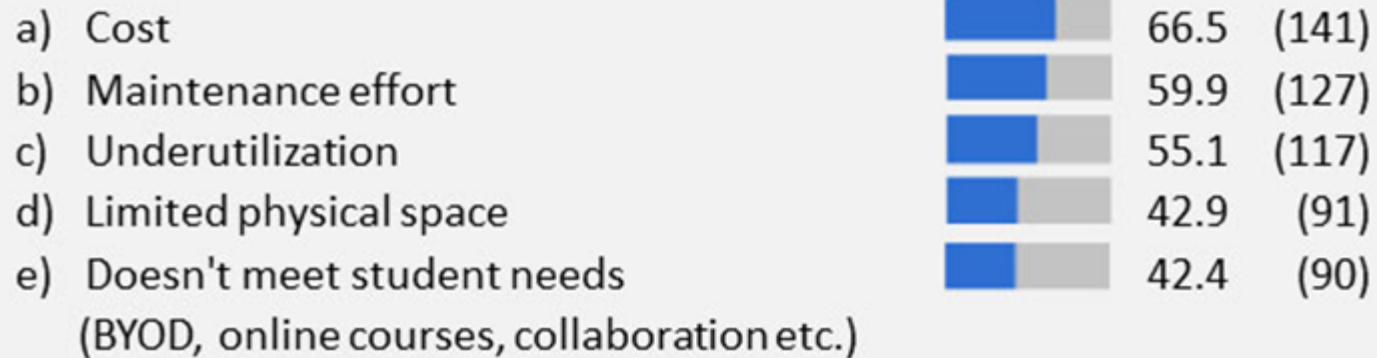
What are the highest priorities for your computer lab?

a)	Cost reduction	▬	66.4 (117)
b)	Powerful hardware (ex. GPUs)	▬	15.9 (28)
c)	Online classes or "work anywhere"	▬	70.4 (124)
d)	Collaboration tools	▬	42.0 (74)
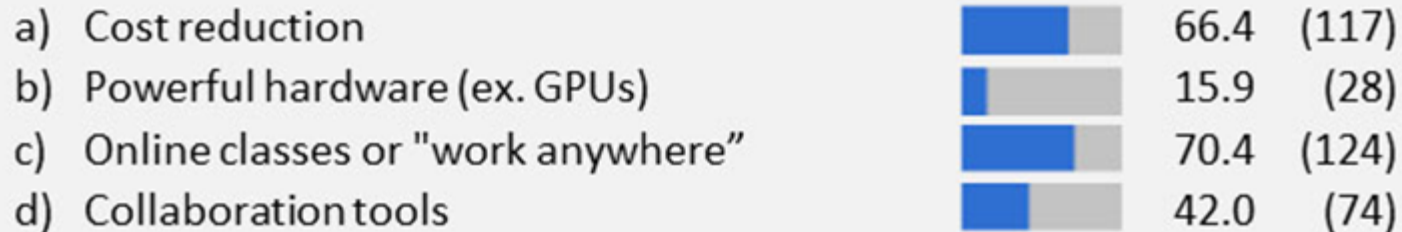
The True Cost of the Traditional CoE/ Lab Environments

How do the costs of cloud-based labs stack up against the costs of traditional labs? and what other factors should influence this decision?

Any good ROI analysis starts by analyzing the true cost of traditional computer labs:

Machine and equipment costs: These will vary based on the PC performance and the depreciation period used, but they tend to be quite expensive.

Personnel costs: Time spent assisting users, troubleshooting, imaging, maintaining units, and installing software adds up quickly.

Repair and upgrade costs: In addition to routine maintenance, there are always breakages and other unexpected expenses. Even something as simple as coffee spilled on a keyboard can require a great deal of work (and money) to fix.

Software costs: License fees and the outright purchase of operating systems, antivirus protection, Deep Freeze, and other core programs also consume budget.

Real estate costs: Space on campus is at a premium, and computer labs (which are underused most of the year) take up valuable real estate. University leadership may want to transform these single-use spaces into something more flexible and collaborative.

Nebula Cloud Labs is the Way to Go

A single window platform to address organization's all Software, IT infrastructure and Project Delivery needs

Solution

NEBULA CLOUD LABS – Single window multi-cloud enabled HPC platform to address all business needs. Associated products to increase flexibility, digitalisation, scalability and reduce capital block.

FIND. TRY. BUY. DEPLOY. USE.

Nebula Cloud Marketplace Platform is a digital catalog with hundreds of software listings from Open Source and Independent Software Vendors (ISVs) that make it easy to find, test, buy, deploy, and use software that runs on AWS, Azure and nCloud Swiss.

GIS	Remote Sensing	Digital Image Processing	CAD, CAM & CAE
BIM	Aeronautical	LiDAR, UAV & Drones	PLM
Business Intelligence	Big Data	Analytics	IoT
ML/AI	3D Modelling	Geo-sciences	Water Resources
Design & Architecture	CFD & Simulation	HPC & GPU	Many More…

Nebula Cloud Labs Highlights

Access and Availability
- 24 X 7 access to labs from anywhere
- Accessible on any device
- Browser-based seamless access to lab infrastructure
- On-demand availability of labs
- Single sign-on

Support
- Self-service to the learners via Nebula Cloud portal
- Support for virtual, physical machine or SaaS labs
- 24X7 support

Scalability
- Scalable to any number of users
- Extendible to any user across the world

Automation
- Schedule the lab switch on and switch off
- Lab request and approval
- Lab creation and setup once configuration is selected

Managed Labs
- Lab management and maintenance is done by Nebula Cloud
- No intervention required from lab managers

Billing Flexibility
- Flexible billing models based on pay as you go or annual commitment
- Chargeback to different departments / functions

Branding
- White label the platform as per your brand guidelines
- Custom create templates aligned with your brand

Extensive Labs
- Widest range of labs
- Focus on Artificial Intelligence, Deep Learning, Machine Learning and Big Data Labs
- Choose from our extensive catalog of ready to use labs or work with our team to create a bespoke lab to meet your requirements
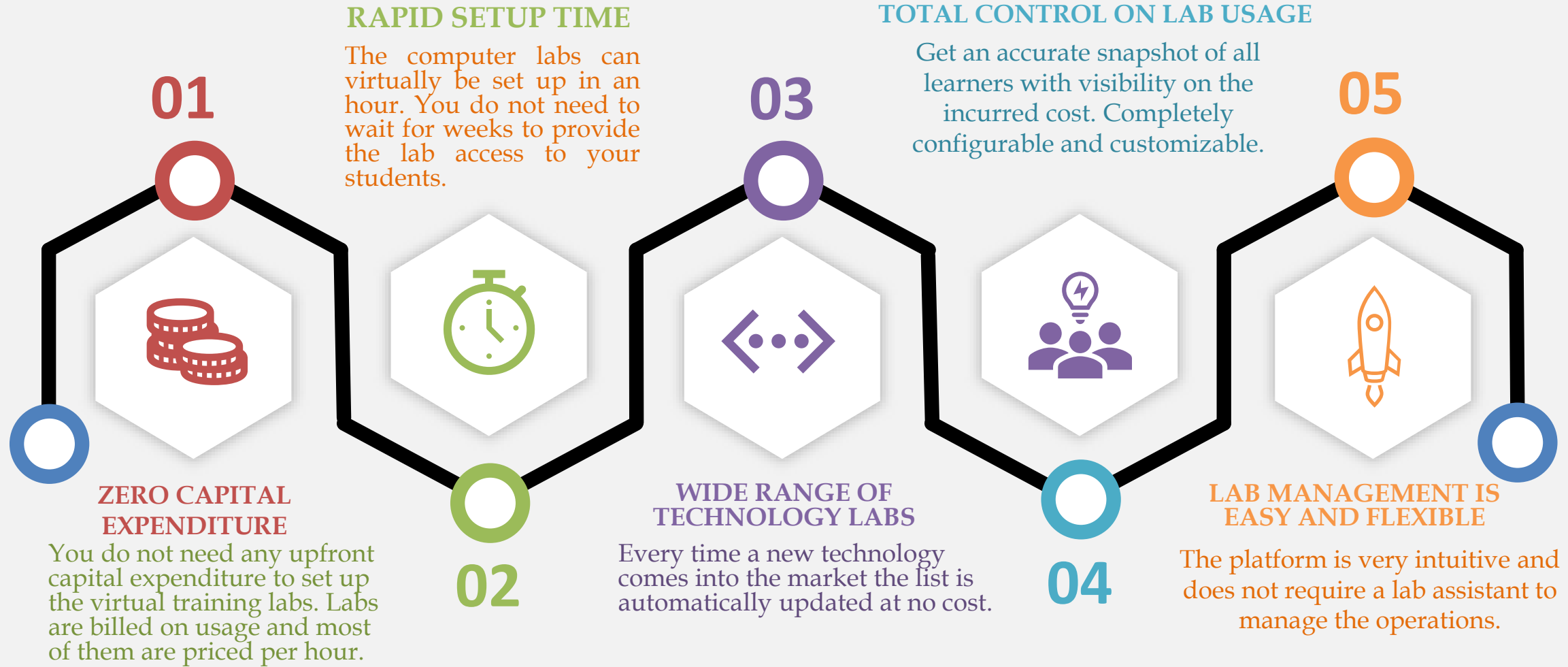- Access to ever-growing catalog of latest labs

Lab Provisioning
- Provision in bulk
- Provision from marketplace or through APIs
- Switch on and switch off labs in bulk
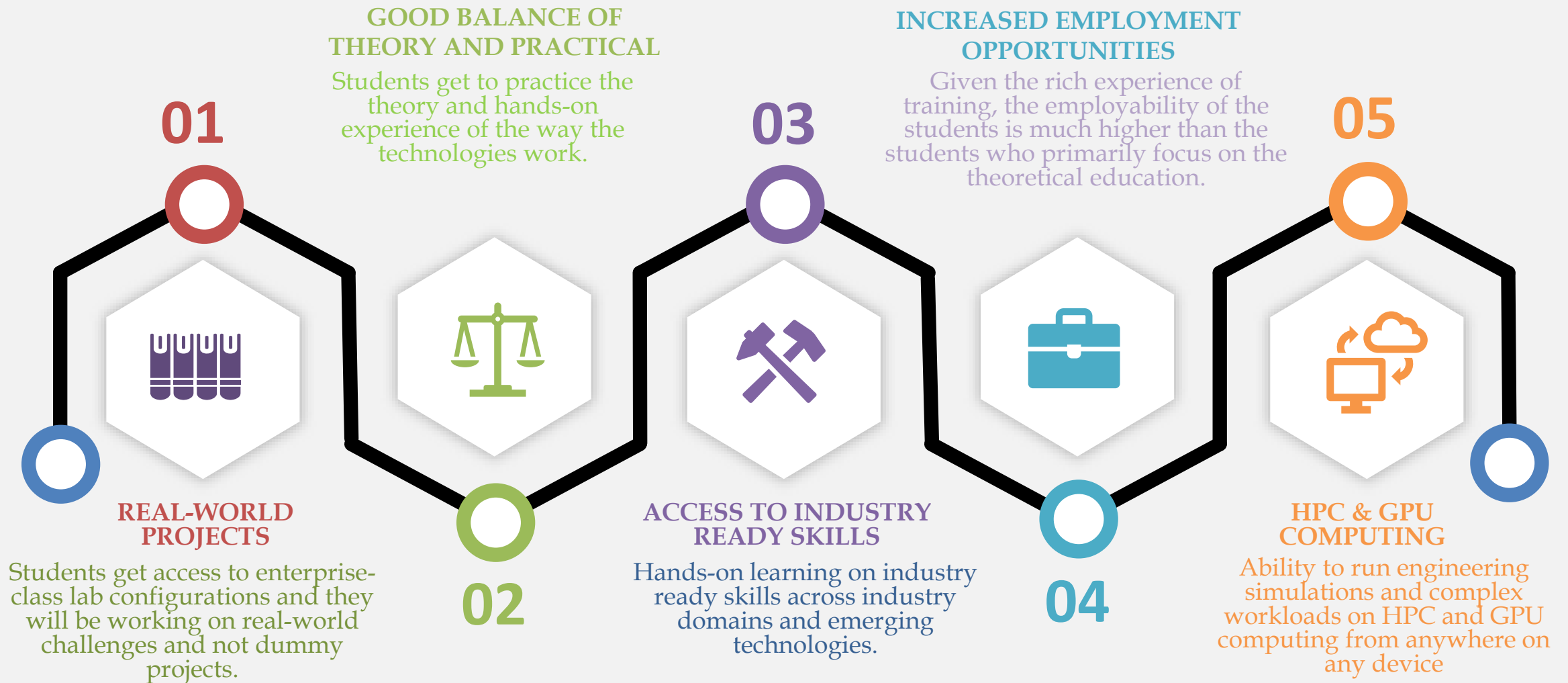- Automated approvals

Fully Secured
- Single sign-on
- Secured cloud environment
- Client IT policy based alignment

Benefits for Educational & Training Institutions

01

RAPID SETUP TIME

The computer labs can virtually be set up in an hour. You do not need to wait for weeks to provide the lab access to your students.

03

TOTAL CONTROL ON LAB USAGE

Get an accurate snapshot of all learners with visibility on the incurred cost. Completely configurable and customizable.

05

ZERO CAPITAL EXPENDITURE

You do not need any upfront capital expenditure to set up the virtual training labs. Labs are billed on usage and most of them are priced per hour.

02

WIDE RANGE OF TECHNOLOGY LABS

Every time a new technology comes into the market the list is automatically updated at no cost.

04

LAB MANAGEMENT IS EASY AND FLEXIBLE

The platform is very intuitive and does not require a lab assistant to manage the operations.

Benefits for Students, Freshers and Faculty

01

REAL-WORLD PROJECTS

Students get access to enterprise-class lab configurations and they will be working on real-world challenges and not dummy projects.

GOOD BALANCE OF THEORY AND PRACTICAL

Students get to practice the theory and hands-on experience of the way the technologies work.

02

03

ACCESS TO INDUSTRY READY SKILLS

Hands-on learning on industry ready skills across industry domains and emerging technologies.

INCREASED EMPLOYMENT OPPORTUNITIES

Given the rich experience of training, the employability of the students is much higher than the students who primarily focus on the theoretical education.

04

05

HPC & GPU COMPUTING

Ability to run engineering simulations and complex workloads on HPC and GPU computing from anywhere on any device

Additional Benefits, with Nebula Cloud Labs

Do you know why cloud-based virtual labs have become an increasingly popular trend among university IT departments?

- Learning becomes more engaging and interactive, as students follow along on their own devices.

- Students can collaborate on group assignments virtually, without leaving their browser.

- Off-campus students and researchers can access needed tools from anywhere there's an internet connection.

- Universities can better adapt to working students' needs and hours.

- There's greater support for online courses, interactive teaching methods, and flipped/hybrid classes.

- IT staff can quickly adjust to changing requirements, cut down on installation times, and provide a controlled testing environment for off-campus students.

Digital Workplace Deployment Options

Solutions for every business need and situation

Nebula Cloud is one such way to experience virtual desktop infrastructure with preconfigured enterprise software and High Performance Computing (HPC) resources via its single window multi-cloud enabled DaaS platform. We have designed our solution to be simple and enterprise-ready.

Single Workbench

Dedicated Virtual Machines for main users with critical usage requirements.

Pooled Workbench

Assign a Single Desktop to a pool of users and efficiently manage the load of your virtual machines

Multi-Session Workbench

Target lower costs by pooling multi-session resources and reduce the number of virtual machines in your environment.

Case Study: Cloud Centre of Excellence (CCoE) and Cloud Labs

Establishment of CCoE and Cloudify various departments at WUD.

*Demo Environment for CCoE and Cloud Labs at WUD can be accessed here: https://nebulacloud.dev/

Case Study: Cloud Centre of Excellence (CCoE) and Cloud Labs

Establishment of CCoE and Cloudify various departments at GNIOT.

*Demo Environment for CCoE and Cloud Labs at GNIOT can be accessed here: https://nebulacloud.dev/

Nebula Cloud - Business Model (IaaS, PaaS, SaaS, DaaS) – Option 1

Consumption based pricing available directly on Nebula Cloud via On-Demand and Subscription Plans

Nebula Cloud Platform
(Software, Data & Cloud)

Multiplier (3 Years)

Savings Plan
(Yearly)

Flexible Monthly

Pay As You Go
(Hourly)

Bring Your
Own License
(BYOL)
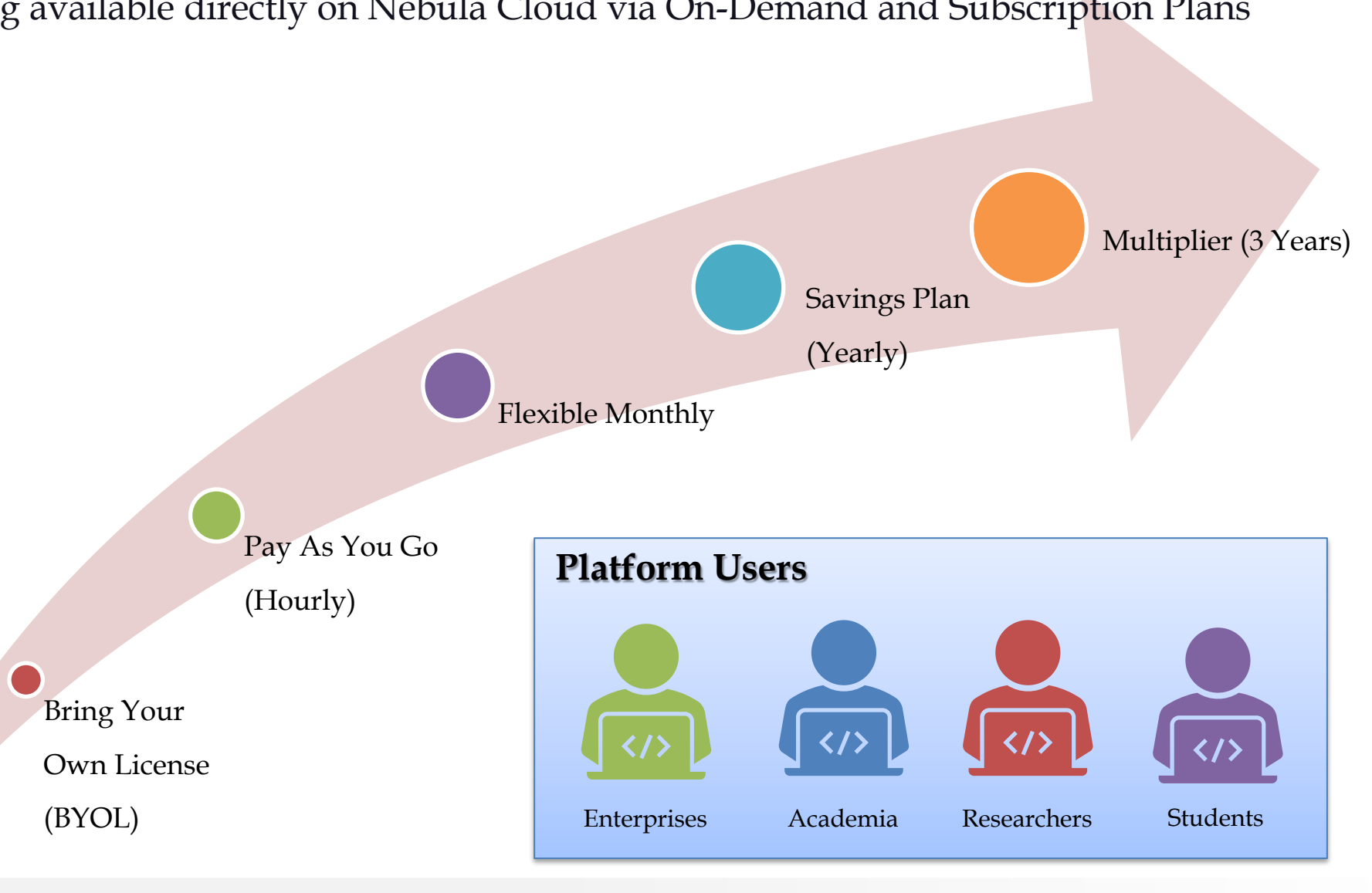
Platform Users

Enterprises   Academia   Researchers   Students

Custom Branding of Nebula Cloud Labs/ CCoE – Option 2

Ready to use Cloud Centre of Excellence (CCoE) and Cloud Labs for Digital Transformation

Nebula Cloud Platform As a Service (Software, Data & Cloud)

Product	Unit Price without Taxes
Nebula Cloud Platform As a Service (Nebula Cloud PaaS) Commercial New - Annual Subscription	
Nebula Cloud Platform As a Service (Nebula Cloud PaaS) Commercial New - 3 Year Subscription	

- Redeemable Cloud Credits worth Rs.2,50,000 (Validity: 1 year)
- White label the platform as per your brand guidelines
- Platform management and maintenance is done by Nebula Cloud
- GST and Applicable local taxes extra.
- Basic Support Included for Nebula PaaS
- Cloud Managed Services charges are extra.
- Cloud Charges based on actuals (post redemption of cloud credits)
- ISV software licensing cost – Not Included

Nebula Desktop as a Service (DaaS) Platform - Single Tenant Architecture
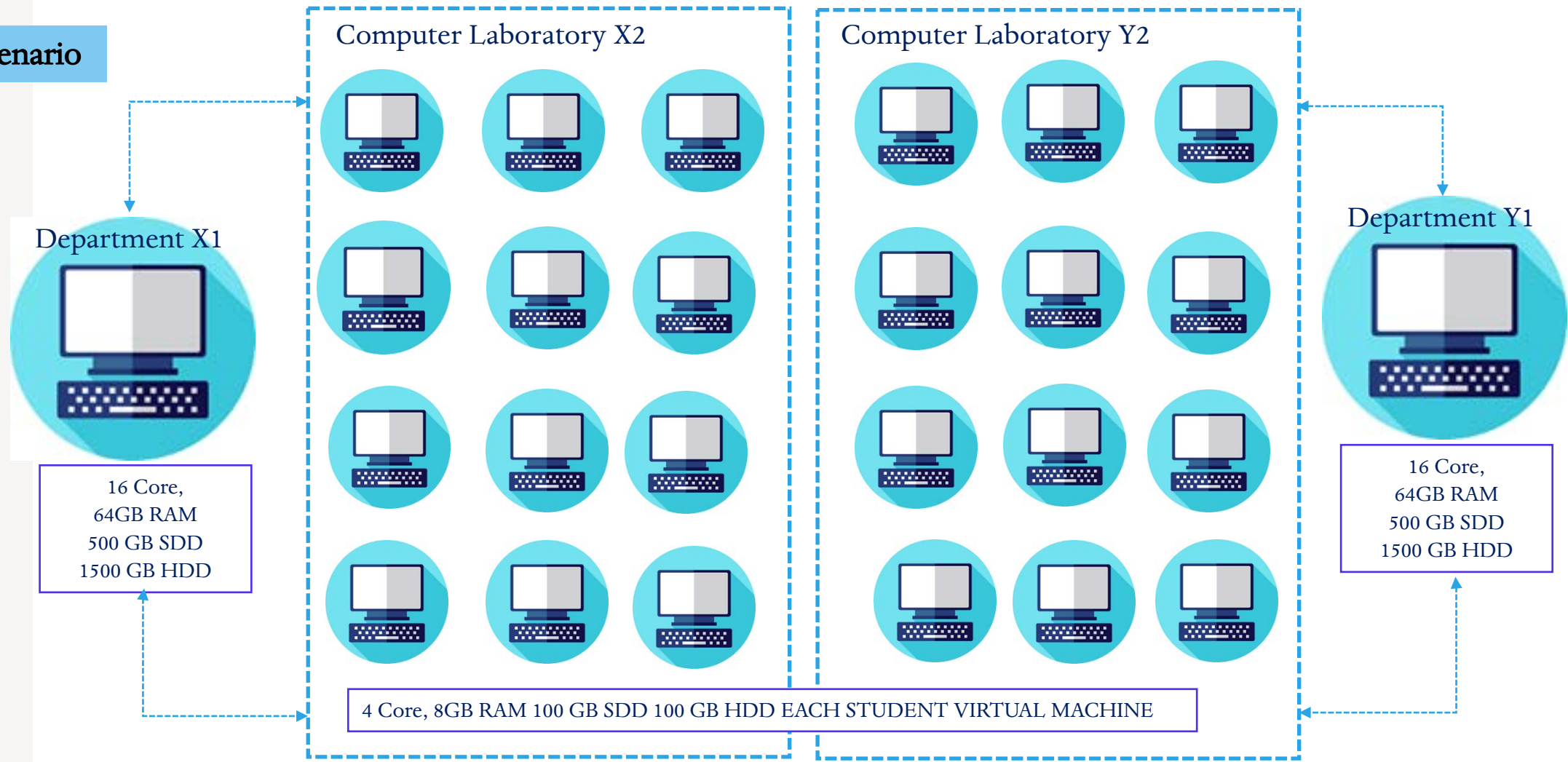
Nebula Desktop as a Service (DaaS) Platform – Multi-Session Single Tenant Architecture

University

Department X1, YI

Laboratory X2, Y2

Sample Scenario

Computer Laboratory X2

Computer Laboratory Y2

Department X1

16 Core,
64GB RAM
500 GB SDD
1500 GB HDD

Department Y1

16 Core,
64GB RAM
500 GB SDD
1500 GB HDD

4 Core, 8GB RAM 100 GB SDD 100 GB HDD EACH STUDENT VIRTUAL MACHINE

Some of Our Premium Partners

There is an opportunity for every customer success

CAD, CAM, CAE

BI & Analytics

CAD, CAM, CAE

GIS, 3D, Earth Sciences

CAD, CAM, CAE, PLM, 3D

Photogrammetry

GIS, BIM, 3D

Design, Modelling

Earth Sciences

CAM, CAE, PLM, 3D

BI, Big Data, ML, AI

BI, Data Sciences

*over 250 curated products to support enterprises and academia in all aspects of engineering

Nebula Cloud Managed Services

We want to join in your journey to success

Cloud Managed Services	Manage the post environment setup 24×7 with proactive monitoring of your environment.
Cloud Migration	Build a suitable migration strategy with increased security, scalability and instant availability of data.
Cloud Consulting	Adopt cloud seamlessly with our cloud road map, architecture basis the industry best practices.
Cloud Integration	Build and orchestrate a comprehensive integration strategy, encompassing Application Integration, B2B integration and cloud integration.
Cloud Devops	Automates and standardizes the processes for better operational efficiency, improved deployment quality.
Cloud Security	Principle of least privilege using access controls for users and systems, Advanced Firewall settings and adhering to cloud security best practices.

Technical Support and SLAs

Severity	Criteria	Response Time
Critical	Causes a severe impact to business operations (e.g., critical business processes are disabled) No workaround available	Six (6) business hours
High	Causes a noncritical impact to business operations (e.g., significant degradation of quality or handling of data) No stable workaround available	Eight (8) business hours
Medium	Causes a minor impact to business operations	Two (2) business days
Routine	Causes little or no impact to business operations	Two (2) business days

Summary

○ We power businesses of all kinds with the smart technology solutions and services they need to accelerate their intelligent transformation.

○ Nebula Cloud's range of technology solutions enables people to bring their best, no matter where they are or what they do.

○ Our mission is to provide highly powerful simulation platforms that empower the world's engineers, scientists, developers, and CIO and IT professionals to design innovative products, develop robust applications, and transform IT into unified, agile environments.

Our Vision

Our vision is to enable and empower businesses with innovative digital technologies and reduce their IT investments, realize their true TCO and ROI, and help them grow globally without any boundaries.

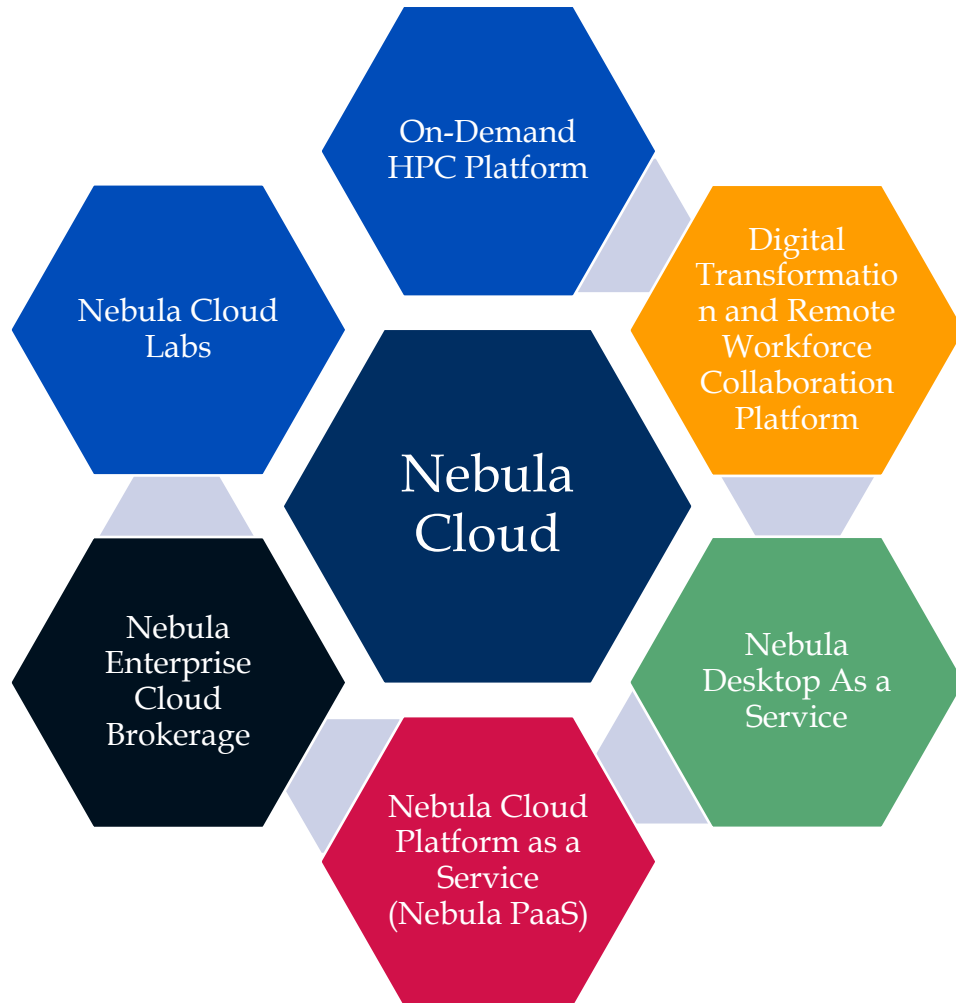We want to become one of the top 10 cloud HPC providers by 2025

Nebula Cloud

- On-Demand HPC Platform
- Digital Transformation and Remote Workforce Collaboration Platform
- Nebula Desktop As a Service
- Nebula Cloud Platform as a Service (Nebula PaaS)
- Nebula Enterprise Cloud Brokerage
- Nebula Cloud Labs

THANK YOU!

Founded by IIT Kanpur Alumnus, GVB Geomatics Private limited is a NASSCOM incubated Technology Start-up into Cloud computing and Location intelligence space, Head Quartered in Gurgaon, Haryana, India.

Please send your business enquiries to: sales@nebulacloud.in