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Nutanix Cloud Infrastructure (NCI)

Nutanix Cloud Infrastructure (NCI) is a complete software stack to unify your hybrid cloud infrastructure including compute, storage and network, hypervisors and containers, in public or enterprise clouds; all with built-in resilience, self-healing, disaster recovery capabilities, and security. It includes enterprise data services and consolidated storage, data protection and disaster recovery, native virtualization and container management, networking and security.

NCI Software Editions

	STARTER	PRO	ULTIMATE
	Core set of software functionality	Rich data services, resilience and management features	The full suite of Nutanix software capabilities to tackle complex infrastructure challenges
	Small-scale	Running multiple applications	Multi-site deployments and

Ideal For	deployments with a limited set of workloads (on-prem only)	or large-scale single workload deployments (on-prem or in public clouds)	advanced security requirements (on-prem or in public clouds)
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Enterprise Data Services

	STARTER	PRO	ULTIMATE
Max Cluster Size	12	>12*	>12*
Heterogeneous Clusters	✓	✓	✓
VM-centric Snapshots & Clones	✓	✓	✓
Data Tiering	✓	✓	✓
Online Cluster Grow/Shrink	✓	✓	✓
Data Path Redundancy	✓	✓	✓
Tunable Redundancy Factor	2	2 or 3	2 or 3
Availability Domains	Node	Node, Block, Rack	Node, Block, Rack
Basic Compression (LZ4) - Inline and post process	✓	✓	✓
Deep Compression (LZ4HC) - Greater efficiency for cold data	✓	✓	✓
Data Deduplication	✓	✓	✓
Erasur Coding (EC-X)		✓	✓
VM Centric Storage QoS		✓	✓
VM Flash Mode		✓	✓

Consolidated Storage Services

Volume Groups - for in-cluster VMs ¹	✓	✓	✓
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Volume Groups - external access		✓	✓
Files/Objects Storage (included capacity)	1 TiB Free Capacity	1 TiB Free Capacity	1 TiB Free Capacity

Data Protection and Disaster Recovery

Async Replication (RPO = 1 hr or greater)	✓	✓	✓
Application Consistent Snapshots	✓	✓	✓
Self-Service Restore		✓	✓
Multiple Site DR (many to one, one to many, many to many)		✓	✓
Metro Availability ²		Adv Replication add-on license	✓
Sync Replication (RPO = 0) ²		Adv Replication add-on license	✓
NearSync Replication (RPO = 1-15 min) ¹		Adv Replication add-on license	✓
Advanced Orchestration with Runbook Automation ²		Adv Replication add-on license	✓

Security

Client Authentication	✓	✓	✓
Cluster Lockdown		✓	✓
Data-at-Rest Encryption (Software-based & SED) ³		Security add-on license	✓
Native KMS ³		Security add-on license	✓

Enterprise Compute

Nutanix AHV Virtualization	✓	✓	✓
Credential Guard	✓	✓	✓
vGPU and GPU Passthrough		✓	✓
HA Guaranteed Failover		✓	✓
Nutanix Kubernetes Engine	Limit one managed Kubernetes cluster per NCI cluster	Limit one managed Kubernetes cluster per NCI cluster, Cloud Native add-on license	✓
Cross-Cluster Live Migration		Adv Replication add-on license	✓

Networking and Network Security

Overlay Networking		✓	✓
Microsegmentation		Security add-on license	✓
Nutanix Security Central ⁴		Security add-on license	✓

Management and Analytics

Multi-Cluster management with Prism Central	✓	✓	✓
Infrastructure management, monitoring and health	✓	✓	✓
Enterprise authentication and RBAC	✓	✓	✓
REST APIs	✓	✓	✓
Comprehensive search	✓	✓	✓
Insights	✓	✓	✓
LCM	✓	✓	✓

Foundation	✓	✓	✓
Foundation Central	✓	✓	✓

* Refer to [Nutanix Configuration Maximums](#) on the Nutanix portal

1: NUS licenses are not needed for external access to Volume Groups if the storage is deployed on an NCI-Pro/Ultimate Cluster. For NCI-Starter licenses, Volume Group access is only supported for VMs running within the cluster.

2 For any model on the hardware compatibility list, an Advanced Replication SKU is available as an add-on for the Pro licensing tier. This add-on license is applicable to Advanced Orchestration (Multiple Boot Stages, Script Execution, Re-IP, Test Failover), Metro Availability, Sync or NearSync Replication (RPO = or RPO = 1-15 min.).

3: Encryption support is subject to export laws. Contact your account representative to confirm eligibility. For any model on the hardware compatibility list, an Encryption SKU is available as an add-on for the Pro licensing tier. This add-on license includes data-at-rest-encryption required for Self Encrypting Drives (SED) or software-based encryption. License includes an optional native Key Management Service (KMS).

4: Scope included for Nutanix Security Central in NCI Ultimate and Security Add-on for NCI Pro is infrastructure running Nutanix Cloud Infrastructure. Public cloud capability requires NCM Security Central SaaS SKU.

Nutanix supports freedom of choice of hypervisor and container platform, by offering a version called NCI Data that delivers rich data and storage services but does not include Nutanix compute and networking capabilities (grey rows in the table above are not included in NCI Data). Support for Hypervisor specific features, such as GPU support on ESXi, is not impacted by NCI Data licensing tiers.

NCI licenses are purchased and applied on the number of physical CPU cores capacity in your deployment. Licenses are portable across hardware platforms and are available in 1 through 5-year term options.

[Nutanix Unified Storage \(NUS\)](#) and [Nutanix Database Service \(NDB\)](#) can also be added to clusters running NCI (minimum Pro version required to add NDB, no minimum version to add NUS).

Nutanix Cloud Manager (NCM)

[Nutanix Cloud Manager \(NCM\)](#) offers our customers simplicity and ease of use to build and grow their cloud deployments faster and realize rapid ROI, by providing intelligent operations, self service and orchestration, visibility and governance of spend, security and teams, all through a unified Multi-cloud management solution.

NCM Software Editions:

	Starter	Pro	Ultimate
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Ideal for	Infrastructure AIOps: monitoring, planning, rightsizing and low code automation	IaaS across private and public clouds, plus cost governance	Enterprise deployments, supporting complex app automation, security features and governance workflows
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Intelligent Operations

Reporting	✓	✓	✓
Capacity Forecast and Planning	✓	✓	✓
Resource Inefficiency Detection and Right-sizing	✓	✓	✓
Support for ESXi on non-NCI Environments	✓	✓	✓
Low-code/No-code Operations Automation	✓	✓	✓
SQL Server Monitoring for IT Ops		✓	✓
Application Discovery		✓	✓
Self-tuning with Machine Learning		✓	✓

Cost Governance

Cost Metering for Private Cloud Resources		✓	✓
Cloud Visibility and Optimization ¹		✓	✓
Budgeting and Chargeback		✓	✓

Self-Service

Self-Service Marketplace		✓	✓
IaaS (Single VM) Blueprints		✓	✓
Advanced Orchestration Runbooks		✓	✓
App (Multi VM) Blueprints			✓
Governance (Approvals & Scheduler)			✓
Security Compliance			
Security Monitoring & Remediation			✓
Network Security Planning			✓
Regulatory Compliance			✓

¹ Scope included for Cost Governance in NCM Pro and NCM Ultimate is infrastructure running Nutanix Cloud Infrastructure. Multi-cloud capability requires NCM Cost Governance SaaS SKU

NCM licenses can be purchased and applied on the number of physical CPU cores capacity in your deployment. Licenses are portable across hardware platforms and are available in 1 through 5-year term options.

NCM Cloud Add-ons

By default, NCM provides coverage for all Nutanix and on-prem VMWare environments, metered per core. For supporting public cloud environments using the same NCM deployment, customers should purchase appropriate NCM Cloud SKUs as add-ons. There are three public cloud focused add-ons available as SKUs- NCM Self-Service add-on for Public Cloud SKU, NCM Cost Governance SaaS SKU and NCM Security Central SaaS SKU. These add-ons are metered by the number of Virtual Machines (VM) managed in the public cloud. Note: For on-prem environments, Cost Governance is available for AHV and ESXi on AOS and Security Central is available for AHV.

NCM SaaS (Software as a Service)

NCM is also available as a fully managed Software as Service Option. Customers can experience multi-cloud self-service, app automation, governance, and security compliance capabilities, without requiring to run any on-prem Nutanix software. The NCM SaaS offering is available to purchase as à la carte SaaS licenses for these four NCM SaaS modules:

- NCM SaaS – Operations (in development)

- NCM SaaS – Self-Service
- NCM SaaS – Cost Governance
- NCM SaaS – Security Central

NCM SaaS licenses are metered by the number of Virtual Machines (VM) managed in the public cloud.

Nutanix Cloud Platform (NCP) Bundles

Nutanix Cloud Infrastructure (NCI) and Nutanix Cloud Manager (NCM) can be purchased together in 3 ‘better together’ Nutanix Cloud Platform (NCP) bundles:

Nutanix Cloud Platform (NCP) Edition	Nutanix Cloud Infrastructure (NCI) Edition included	Nutanix Cloud Manager (NCM) Edition included
NCP Starter	NCI Pro	NCM Pro
NCP Pro	NCI Ultimate	NCM Pro
NCP Ultimate	NCI Ultimate	NCM Ultimate

Nutanix Unified Storage

[Nutanix Unified Storage](#) provides software-defined, scale-out storage solutions for enterprise NAS and object workloads for unstructured data, block storage for structured data, and backup storage. Nutanix Unified Storage replaces traditional independent storage services and brings NAS, object, and block workloads into a consolidated unified storage platform with all its benefits, including a unified control plane.

Nutanix Data Lens delivers cloud-based data governance for unstructured data stored in the Nutanix Unified Storage platform, including data lifecycle management, data security, ransomware protection, and audit compliance.

Nutanix Unified Storage and Data Lens are purchased and licensed on a perTiB usable basis.

Nutanix Unified Storage Editions¹:

	Starter	Pro
Nutanix Files		✓
Nutanix Objects	✓	✓
Nutanix Volumes		✓

Add-ons ²	Adv Replication (Streaming)	Adv Replication (Streaming, NearSync, Adv. Runbooks)
	Data-at-rest Encryption, KMS, Microsegmentation	Data-at-rest Encryption, KMS, Microsegmentation

1: A cluster has a single identity; Starter and Pro cannot be applied to the same cluster.

2: NUS licenses are not needed for Volume Groups if the storage is deployed on an NCI-Pro/Ultimate Cluster. For NCI-Starter licenses, Volume Group access is only supported for VMs running within the cluster.

3: Unified Storage Add-Ons apply only to Dedicated clusters; NCI clusters require NCI add-ons to enable Security and Advanced Replication capabilities

Nutanix Unified Storage can be deployed either as a dedicated software-defined storage cluster or alongside Nutanix Cloud Infrastructure (NCI) for further consolidation. Dedicated Mode allows for a maximum of 1 VM per node, if more VMs are required, NUS must be run in NCI mode. Additionally, Nutanix allows customers to convert between Dedicated and NCI mode. Depending on the deployment mode, different add-ons are required to enable features as shown in the following table:

Capability	NCI Mode	Dedicated Mode
Advanced Replication	NCI Advanced Replication Add-On	NUS Advanced Replication Add-On
Security	NCI Security Add-On	NUS Security Add-On

Nutanix Mine Integrated Backup

[Nutanix Mine](#) is a dedicated storage platform for integrated data protection and backup solutions, providing both the compute and the storage for the data protection software to run and store its backups.

Nutanix Mine is licensed on a per usable TiB basis. Please consult the below table to determine which Nutanix Unified Storage Tier.

Backup Vendor	NUS Tier
Veeam Backup & Replication Primary Tier	NUS Pro
All Other Supported ISVs and Veeam Capacity Tier	NUS Starter

Existing Mine customers with Mine v2 licenses will be migrated to United Storage Pro and current Mine v3 licenses will be migrated to US Starter edition. Mine v2 licenses will be converted from TiB raw to TiB usable at a 50% conversion ratio (e.g. 100 TiB RAW will be migrated to a 50 TiB usable capacity license)

Nutanix Database Service

[Nutanix Database Service \(NDB\)](#) is a Hybrid Multicloud DBaaS that enables small, nimble teams of DBAs to easily manage large fleets of databases using a single console and API, while enabling developers to self-service their database requests. NDB is purchased and licensed on a per core basis and is available either as a standalone or as an add-on to NCI. In the standalone version, NDB includes NCI Ultimate functionality in addition to database-specific capabilities and is licensed on a per-core basis.

	NDB Add-on for NCI	NDB Standalone
NCI Ultimate Feature Set		✓
NDB Feature Set	✓	✓

Nutanix Database Service (NDB) Feature Set

Provisioning	
Provision single instance and highly available database clusters	✓
Integrated Best Practices	✓
Customized Images and T-shirt Sizes	✓
Support most popular Databases including Oracle, SQL Server, PostgreSQL, MySQL and MongoDB	✓
Data Protection	
Point in Time Backups	✓
In Place and Side by Side Recovery	✓
Hybrid / Multi-cloud Backup tiering	✓
Patching and Upgrades	

Rolling Database Patching for single instance and Database Clusters	✓
Major upgrade support for Oracle	✓
Data Management	
Thin Database cloning	✓
Scheduled clone refreshes	✓
Scaling	
Online database storage scaling with best practices	✓
Database Fleet Management	
Manage both new and already deployed Databases	✓
Full control over Database Servers	✓

Nutanix Virtual Desktop Infrastructure (VDI) & Nutanix Frame

The [Nutanix VDI](#) per user model offers hybrid cloud infrastructure capabilities appropriate for on-prem virtual desktop infrastructure (VDI) and Desktop as a Service (DaaS) use cases with pricing based on a Maximum Concurrent User basis (maximum number of provisioned end-user VMs). VDI per user is an alternative to the core-based NCI licensing option and is designed to provide simple, transparent licensing for all VDI users, regardless of the underlying hardware, hypervisor, or cloud.

- **Agnostic:** Works with any EUC management platform including Citrix Virtual Apps & Desktops and VMware Horizon
- **Term license:** 6month through 5-year options
 - Term license must run on a dedicated software licensed VDI cluster with no core-based licensing. Mixing of non-VDI workloads is not supported.
- **Unified Storage:** Built-in and also available as a per TiB base add-on
- No additional license cost for DR site
- Portable across on-premises and public cloud, public cloud use requires Ultimate edition

- Available in Starter, Pro, and Ultimate editions
- Cloud Native and Database Service Add-ons not available with NCI VDI. Advanced Replication and Security Add-on features require NCI Ultimate edition

	VDI STARTER	VDI PRO	VDI ULTIMATE
NCI Feature Set	Everything in NCI Starter	Everything in NCI Pro*	Everything in NCI Ultimate*
Nutanix Unified Storage	1 TiB Free Capacity	50 GB Per User	100GB Per User

*No add-ons are supported on VDI Pro.

[Nutanix Frame](#) is sold as a separate per-user subscription service in addition to NCI VDI based on either Named Users or Max Concurrent Users (maximum number of provisioned end-user VMs). Subscriptions range from pay-as-you-go per month to pre-paid subscriptions for up to 5 years. For more information, please visit the [Nutanix Frame pricing page](#).

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