



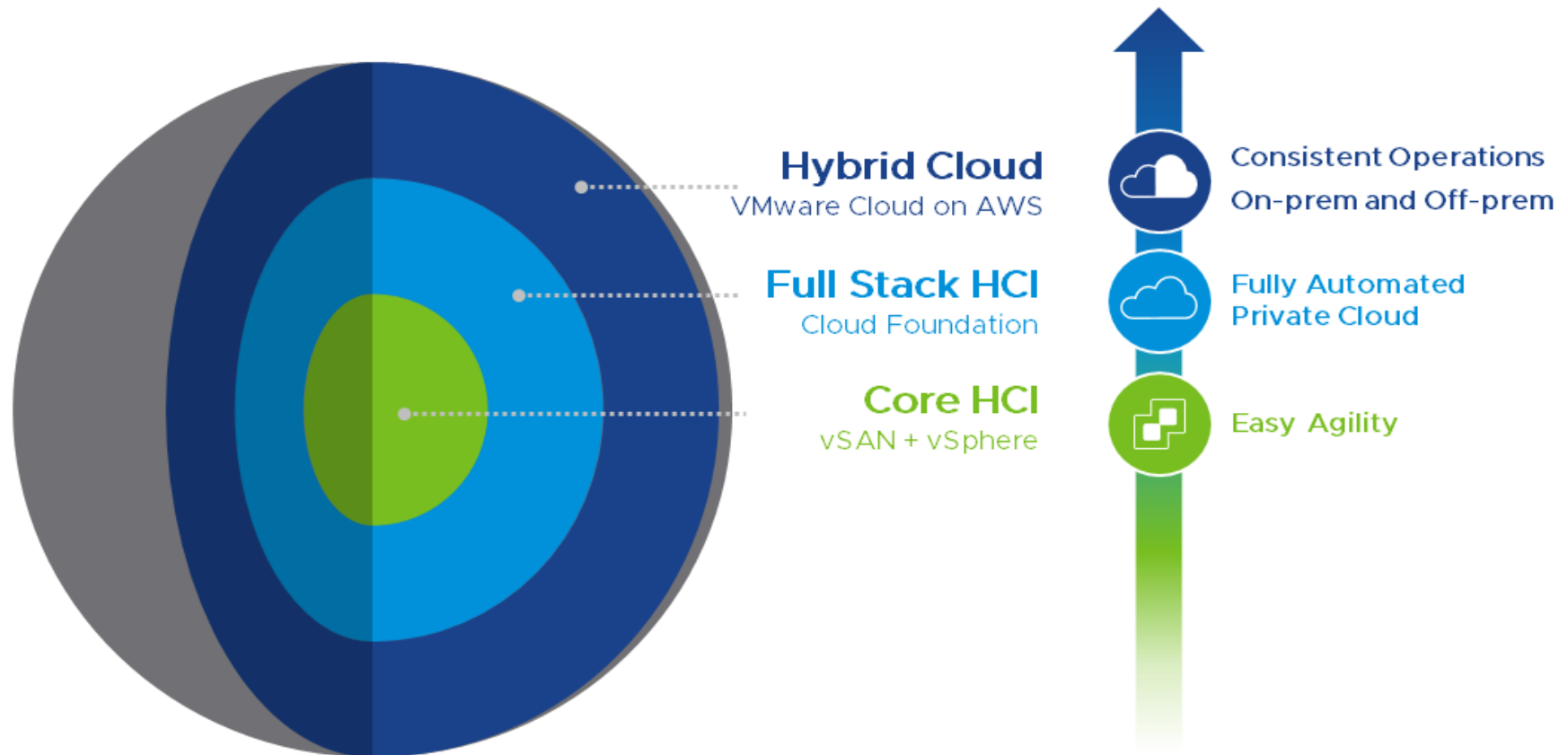
vSAN Proposal

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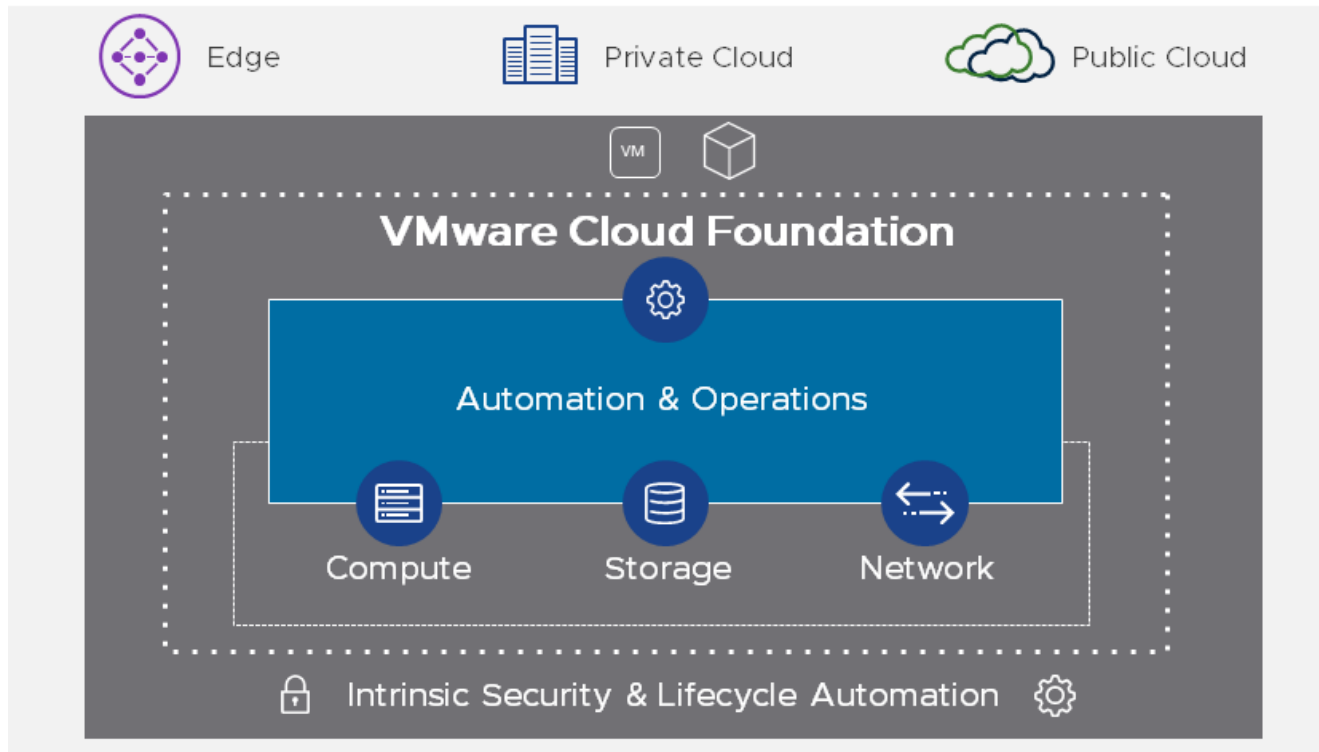
Project Name: PRODASEN - PE 99/2020

Company Name: PRODASEN

Infrastructure Modernization at Your Own Pace



HCI Introduces A New, Consistent Operational Model



Hybrid Cloud: Extend, Failover, Burst, Consolidate

Management: Automation, Monitoring, Alerting, Blue Prints, Cost Modeling

Networking: Service-defined security, Hybrid Cloud connectivity

Data services: Capacity IOPs, QoS, Encryption, Stretch cluster

Compute: CPU, RAM, vMotion, HA, DRS

New Features in vSAN 7.0

Persistent Storage for Kubernetes and VM Workloads



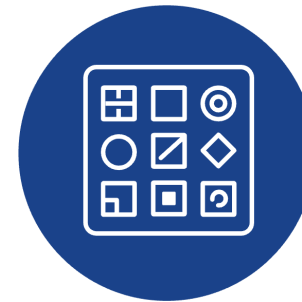
Simpler Lifecycle Management

Increase reliability and reduce number of tools



Integrated File Services

Unified management of block and file storage



Enhanced Cloud-Native Storage

Expanded data services enable more use cases

vSAN Cluster Configuration

vSAN Cluster Configuration	Primary Site : 7 ESXi Servers with 200 VM(s) in cluster Secondary Site : 7 ESXi Servers with 200 VM(s) in cluster
Usable Capacity	Primary Site : 233.2 TB Secondary Site : 233.2 TB
Effective Usable Capacity with Overheads	Primary Site : 375.59 TB Secondary Site : 375.59 TB
Cache Size	Primary Site : 5.6 TB Secondary Site : 5.6 TB
vSAN License Edition	Enterprise License
vSAN Version	vSAN 7.0 U1
Raw Capacity	Primary Site : 375.59 TB Secondary Site : 375.59 TB
Operations Reserve	Primary Site : 10.33 TB Secondary Site : 10.33 TB

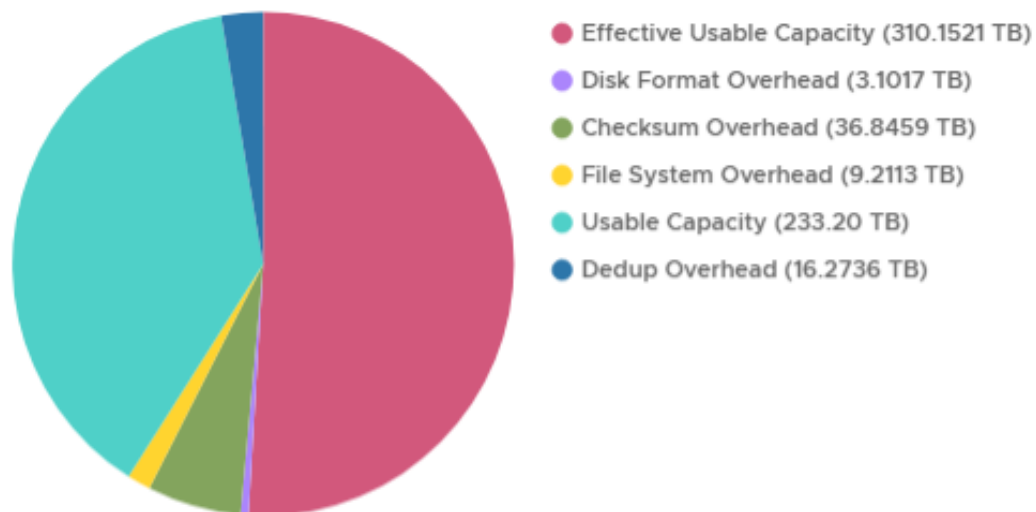
Recommended Node Configuration

Best Match ReadyNode Profile	AF-8
Cores per Node	48
Memory per Node	256 GB(Application Memory:114.38GB)
Number of Disk Groups Per Node	3
Effective Usable Capacity with Overheads Per Node	53.66 TB
# Capacity drives per Node	15 X 3.84 TB SSD
Performance Class(Capacity Drive)	Class C or above
Endurance Class(Capacity Drive)	Class A or above
# Cache drives per Node	3 X 266.6666666666667 GB SSD
Performance Class(Cache Drive)	Class F: 100,000+ writes per second
Endurance Class(Cache Drive)	Class D >=7300 TBW

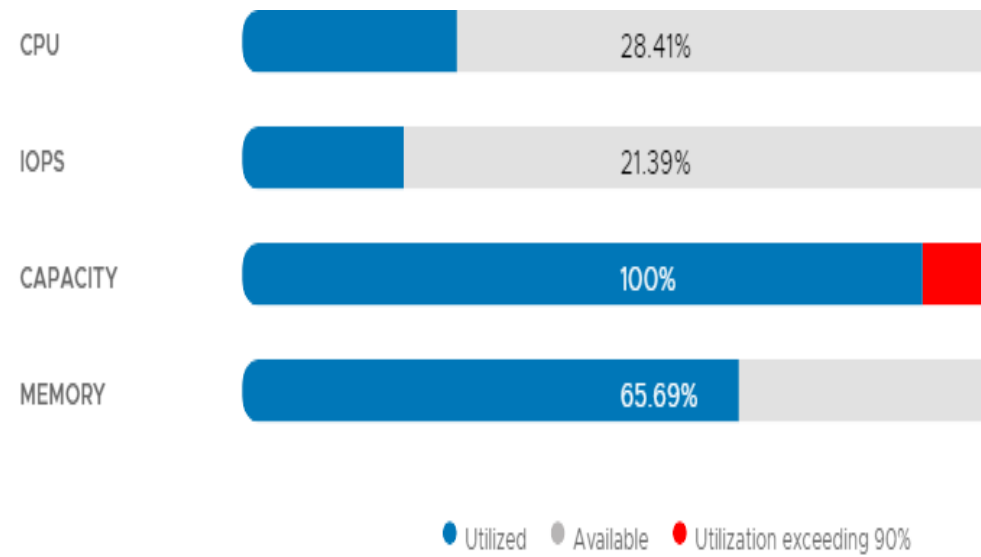
Disk Space Usage And Resource Utilization

Effective Usable Capacity	310.1521 TB
Dedup Overhead	16.2736 TB
Disk Format Overhead	3.1017 TB
Checksum Overhead	36.8459 TB
File System Overhead	9.2113 TB
Usable Capacity	Primary Site : 233.2 TB Secondary Site : 233.2 TB

Disk Space Usage Distribution (TB)



Resource Statistics



Cluster Configuration Inputs

Profile Mode	AF
vSAN Version	vSAN 7.0 U1
Deployment Scale Type	DSD
Two Site Selected	Yes
Operations Reserve Selected	Yes
Growth Factor(%)	0
N+	0
Swap Space Enabled	No

Server Configuration Details

Total Sockets	2
Cores Per Socket	24
Clock Speed(GHz)	3 GHz
Max Drive Slots Available	18
Cache Tier Media Rating	10
Max Capacity Drive Size(TB)	3.84 TB
Disk Group Distribution Method	User Defined Disk Group
User Defined Disk Groups	3

User Inputs

General VMs

Workload	General Purpose
WorkloadType	General VMs
IO Access Pattern	Random
IO Size	4 KB
IO Ratio	70/30
Storage Per VM	1165 GB
Total Count of VMs	200
vCPU / Core	6
vCPU / VM	2
vRAM / VM	4 GB
IOPs / VM	600
Dedup	1.000001
Compression Only	false
Host Failures To Tolerate	1
Fault Tolerance Method	RAID-5