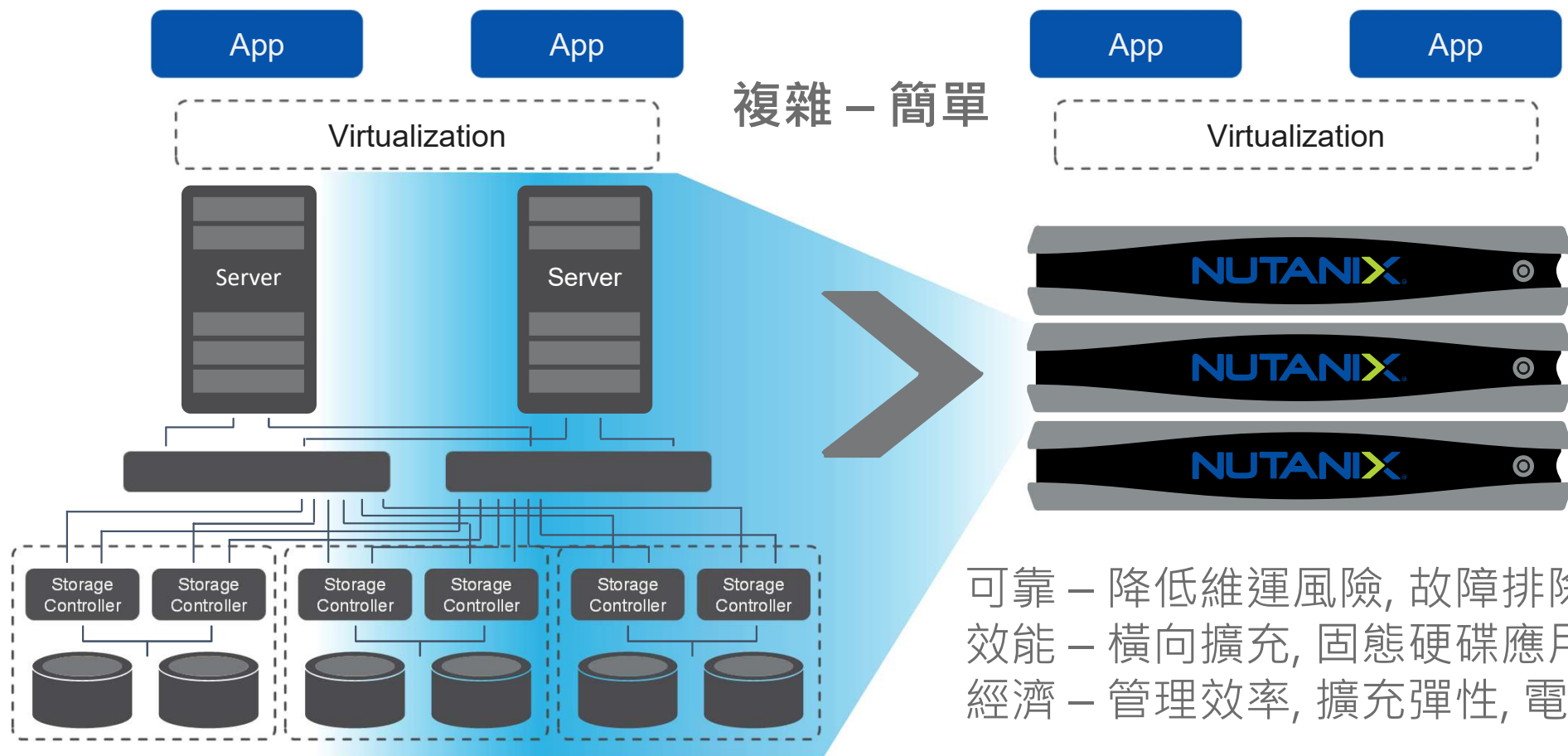




單鍵建構彈性超融合 邁向自在悠遊的多雲旅程

Nutanix 資深技術顧問
陳永恆 Eternity Chen

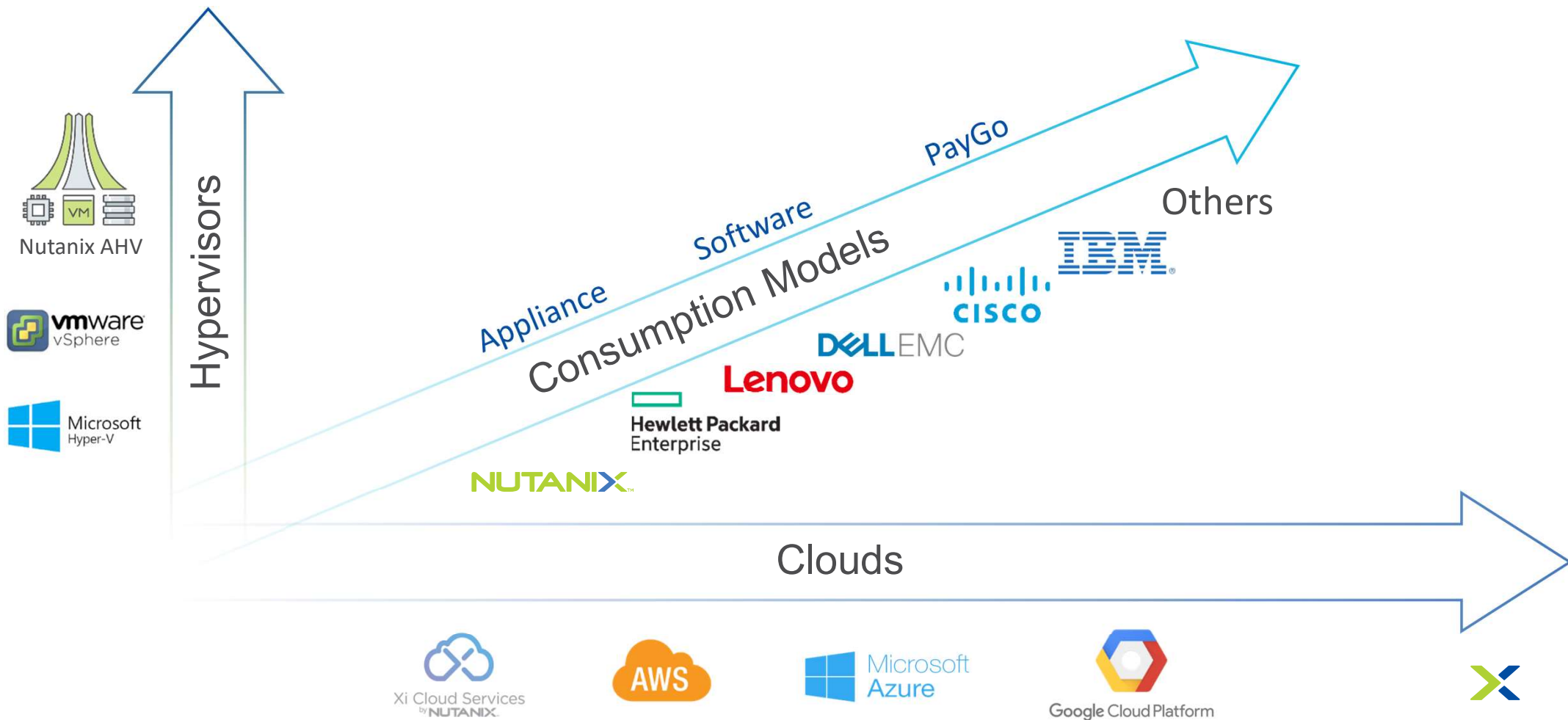
NUTANIX 新世代數據中心平台



可靠 - 降低維運風險, 故障排除效率
效能 - 橫向擴充, 固態硬碟應用
經濟 - 管理效率, 擴充彈性, 電力, 空間

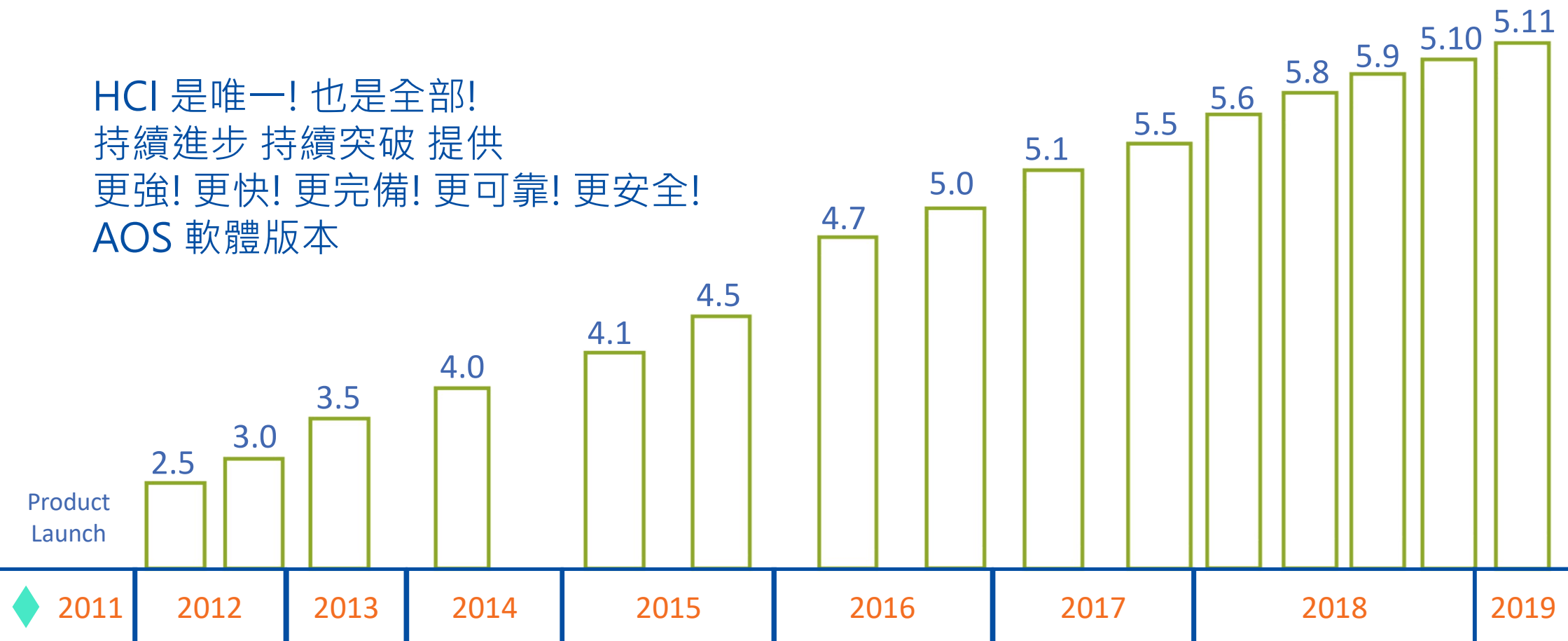


Freedom of Choice - 彈性多元軟硬體組合

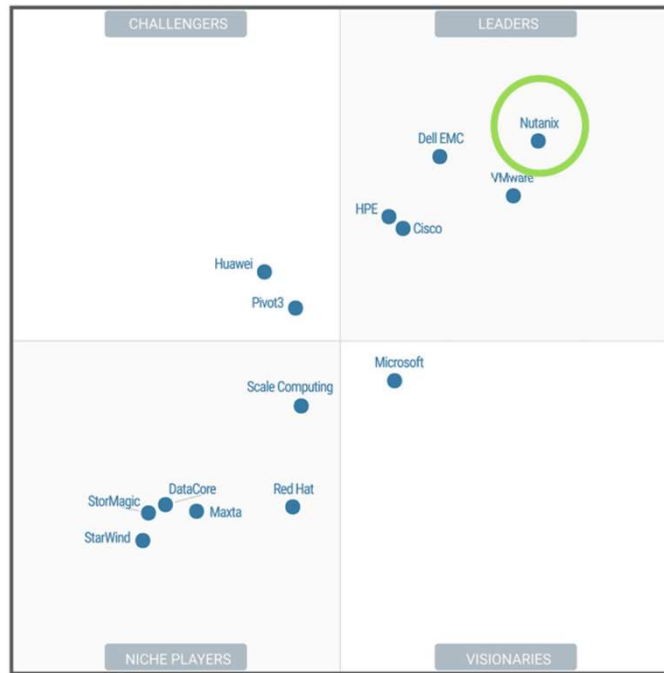


NUTANIX AOS 版本演進

HCI 是唯一! 也是全部!
持續進步 持續突破 提供
更強! 更快! 更完備! 更可靠! 更安全!
AOS 軟體版本



NUTANIX – 超融合領域領導者



November 2018
Gartner®



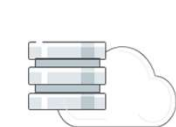
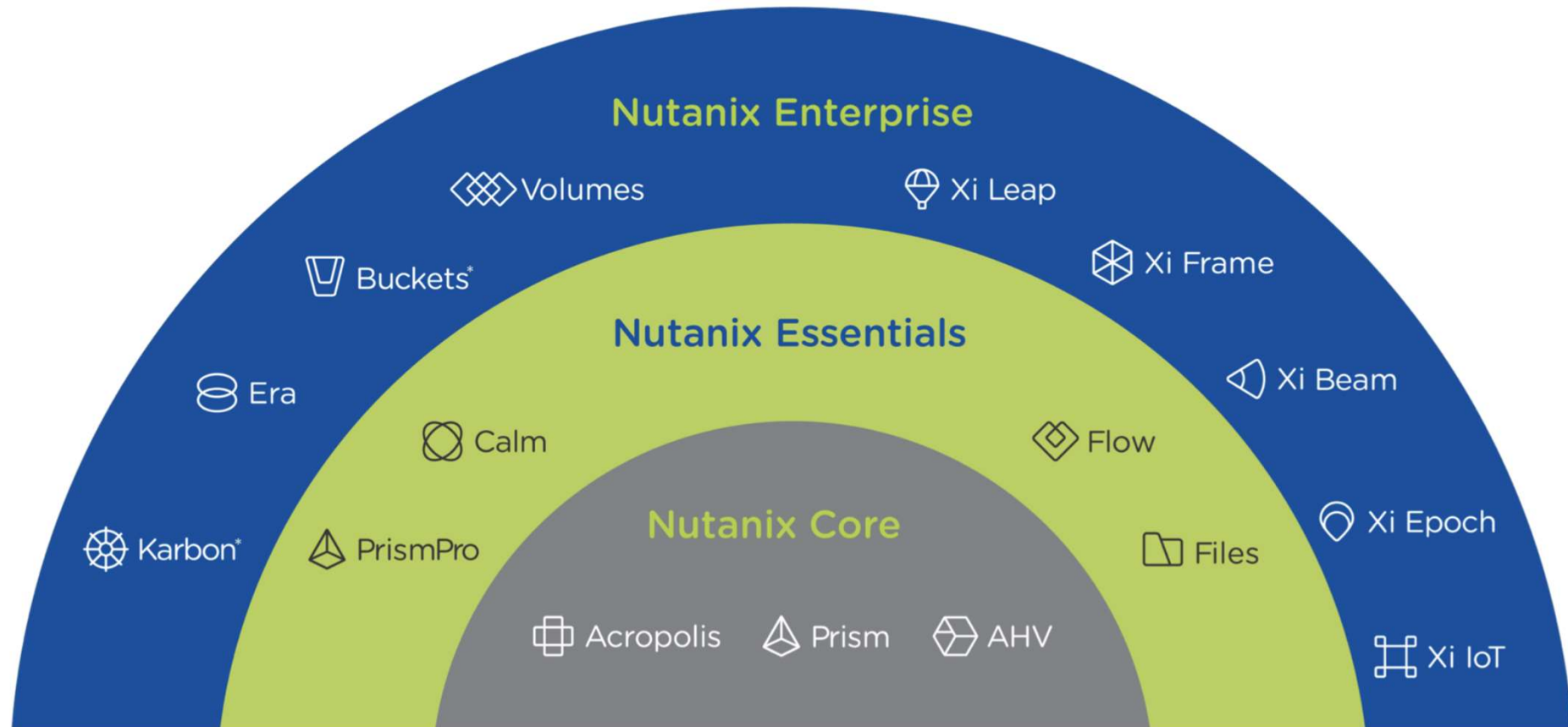
Q3 2018
FORRESTER®



November 2019
Gartner®



NUTANIX 企業雲 多元完整 解決方案



Virtualization
and Cloud



Enterprise
Applications



VDI



Big
Data



Remote and
Branch Office

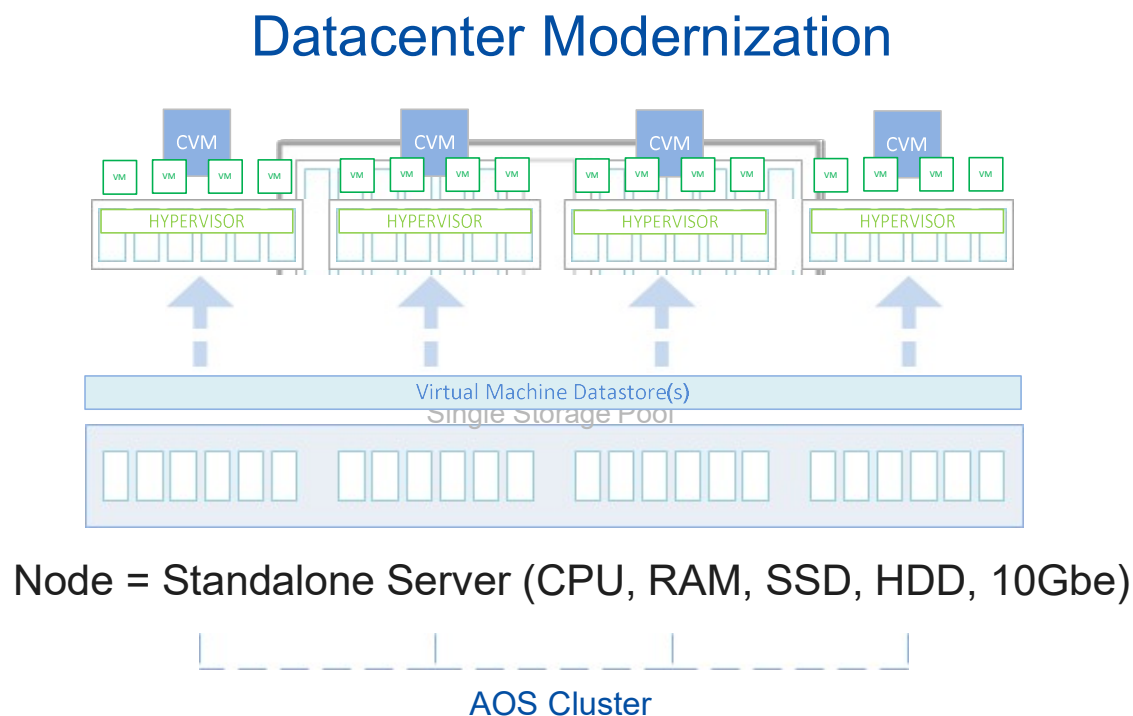


docker
Cloud-native
Applications



從超融合開始 自由彈性安心的旅程

- ✓ Tiering
- ✓ Deduplication
- ✓ Compression
- ✓ Snapshots
- ✓ Clones
- ✓ Erasure Coding
- ✓ Resilience
- ✓ Data Locality



- ✓ Computing
- ✓ Capacity
- ✓ Different Type
- ✓ New Generation

- ✓ Enterprise-grade Storage
- ✓ Network Security and Orchestration
- ✓ Native Virtualization
- ✓ Data Protection & DR



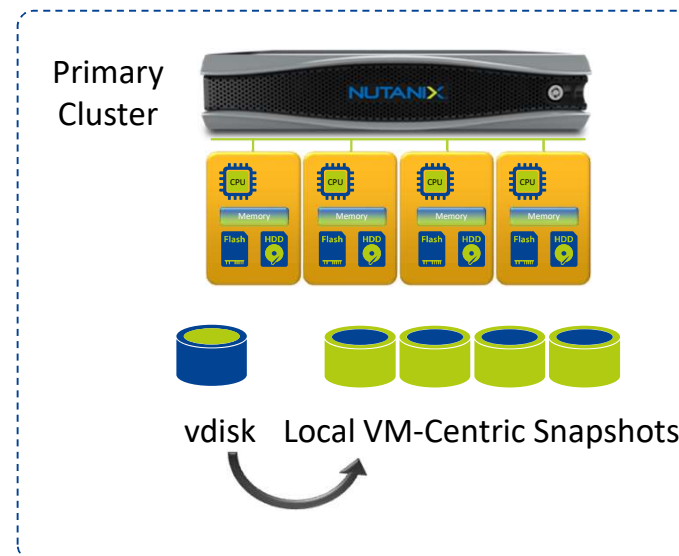
Snapshots and Clones - 本地資料保護機制

Use Cases

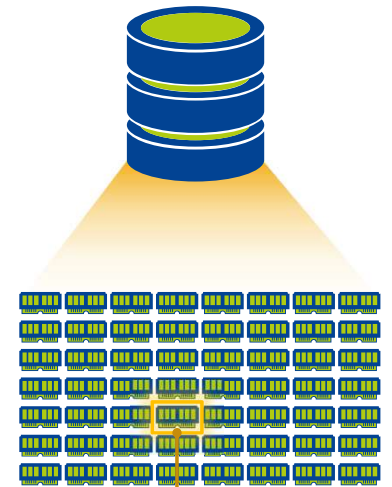
- ✓ Protection against Guest OS corruption
- ✓ Snapshot VM environments
- ✓ Self-Service File Level Restore

Points of differentiation

- ✓ VM granularity
- ✓ No performance impact
- ✓ VM and application level consistency
- ✓ Lower \$ / GB with storage heavy/only nodes



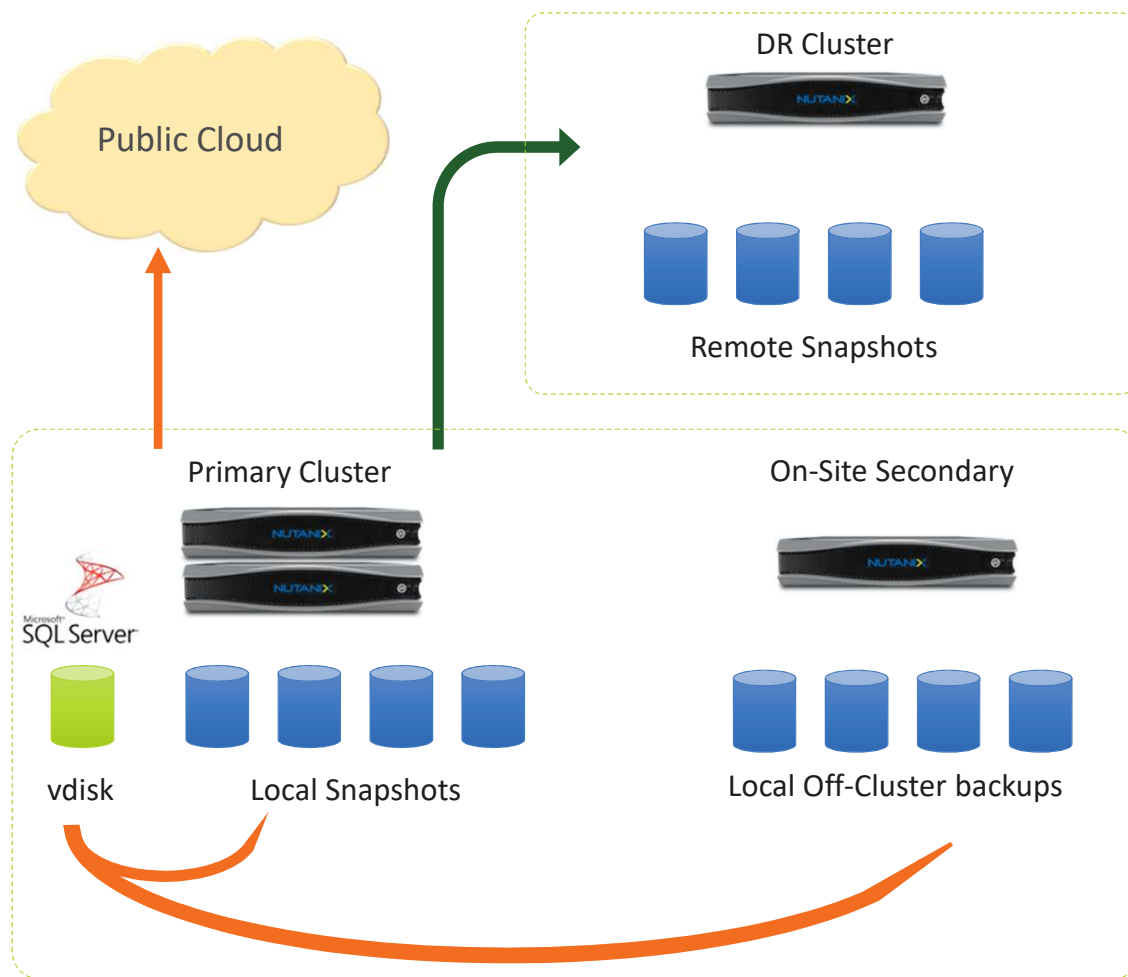
RPO: minutes
RTO: minutes



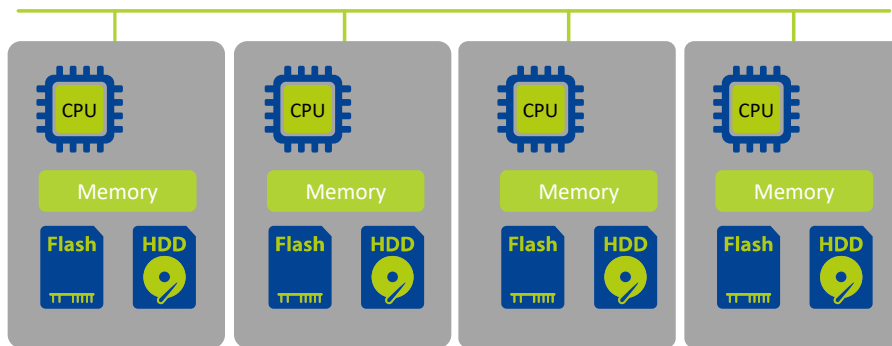
Nutanix
Snapshots have
byte-level
Resolution



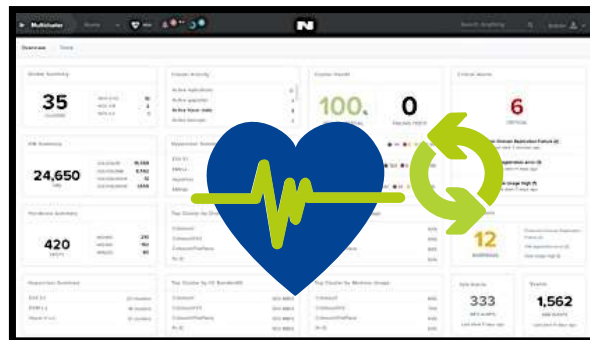
彈性異地備援與備份機制



完整監控與自動化系統健檢



Cluster Health



What is it?

- Monitor health of VMs, nodes and disks
- Automatic health checks

Benefits:

- Enables self-service troubleshooting and rapid resolution
- Quick investigation – grouping, filtering and hierarchy navigation



技術支援日不落



★ Support Centers ● NBD Depots

Over 100 Countries

7 WW Support Centers

24x7x365

“Follow the Sun” Support

Proactive Support with **Pulse**

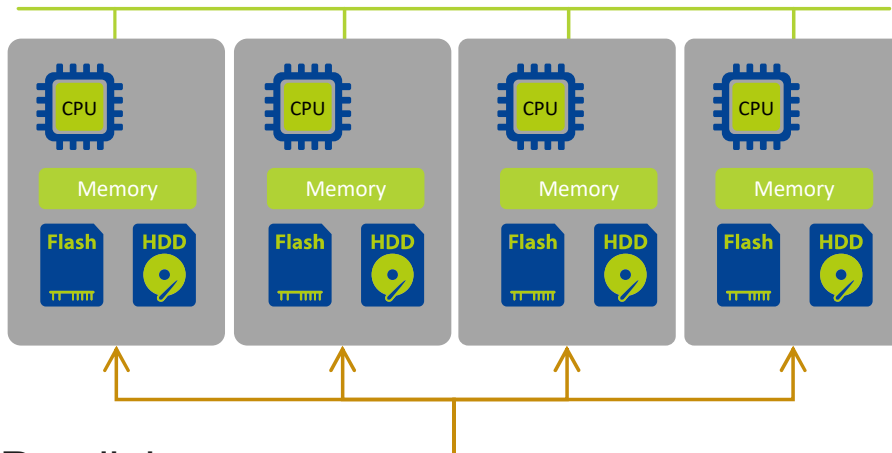
<30 min Mission Critical
Support Response Time

97% Customer Satisfaction

+90 Net Promoter Score
for > 4 Years

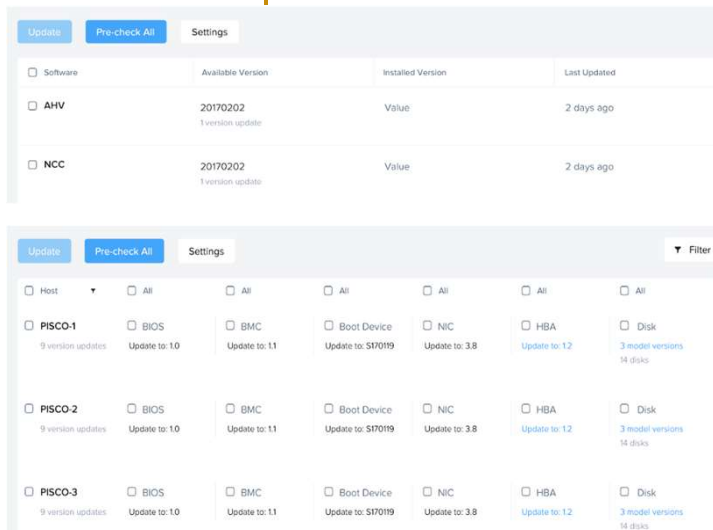


One-Click 單鍵系統軟硬體升級



Parallel
Upgrades

Serial
Reboots



What is it?

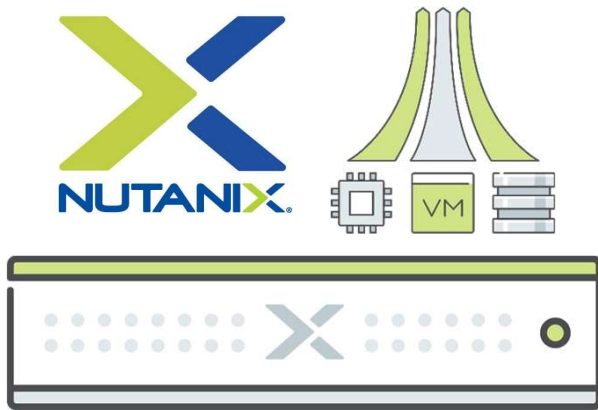
- Automatically upgrade Nutanix software, hypervisors and firmware non-disruptively with no manual intervention

Benefits:

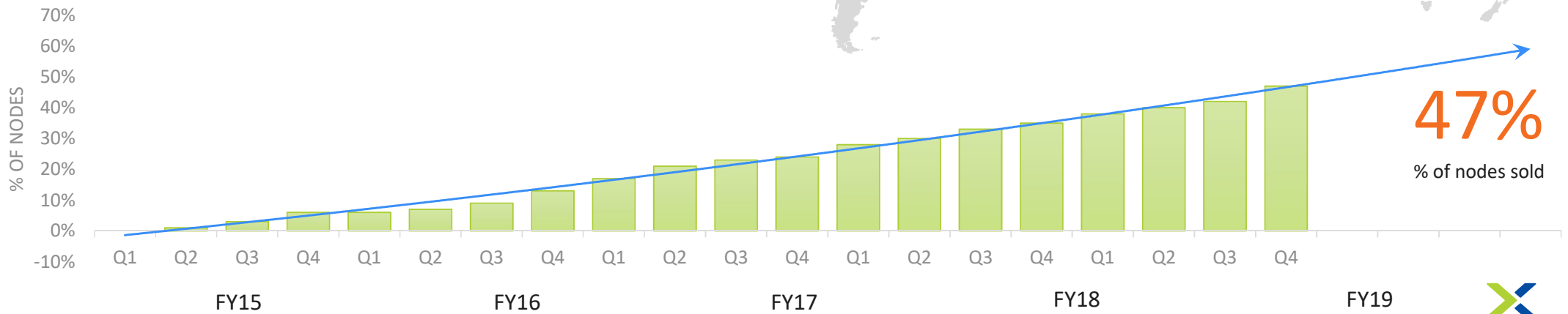
- Automatic sequencing of reboots
- Done in minutes with zero touch
- No downtime while upgrade happens
- As easy as upgrading iOS



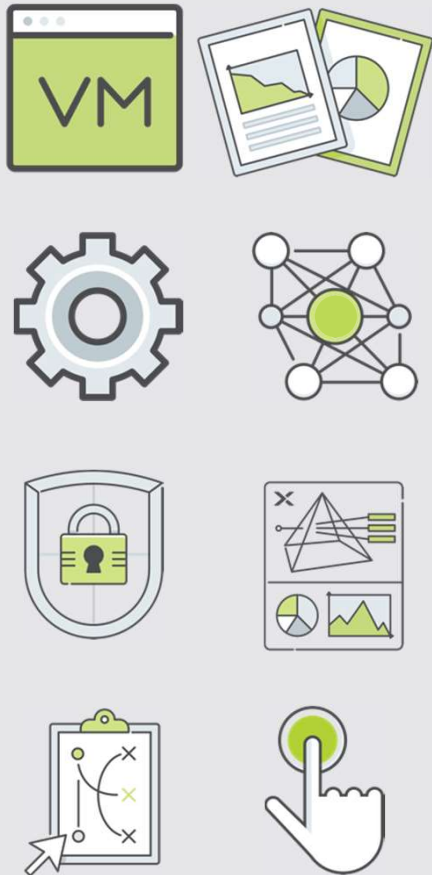
AHV Installed Base Success



- >47% Run AHV
- >70% of US Federal Running AHV
- 2,300 All-AHV Node Customer



Feature-Ready for Enterprise Applications



- Automated Resource Scheduling & VM Placement
- Resource Contention / Hot-Spot Avoidance (aka DRS)
- Host & VM High Availability
- Live Migration
- VM-centric storage w/Snapshots and Clones
- Dynamic IP Address Management (IPAM)
- Analytics & Forecasting
- Software Defined Networking (SDN) & Visualization
- VM Microsegmentation
- 1 Click (Infrastructure / Hypervisor / Management)
- Automatic CPU Compatibility
- Image Services (Import, Convert, Manage)
- X-Hypervisor Migration
- DR & Backup

客製化 排程報表



What is it?

- Create scheduled custom reports with email delivery
- Leverages existing dashboards and widgets

Benefits

- Easily socialize reports / KPIs to broader audience
- Allow application owners and other external stakeholders access to valuable performance data
- Easily share evidence of waste or resource constraint



虛擬機規格 智慧分析與建議

10 Overprovisioned Potential Gain: 82.33 GiB Storage, 38 vCPU	25 Inactive Potential Gain: 17 GiB Memory, 2.37 TiB Storage, 5 vCPU
10 Constrained	0 Bully

What is it?

- Automatically detect VMs that occupy unused resources, or have performance issues due to non optimized resource consumption
- Provides guidance for correct VM resource (RAM, CPU) allocation based on behavioral analysis and machine learning
- Generate reports of idle (zombie) VMs to enable simple resource reclamation or reallocation to other VMs.

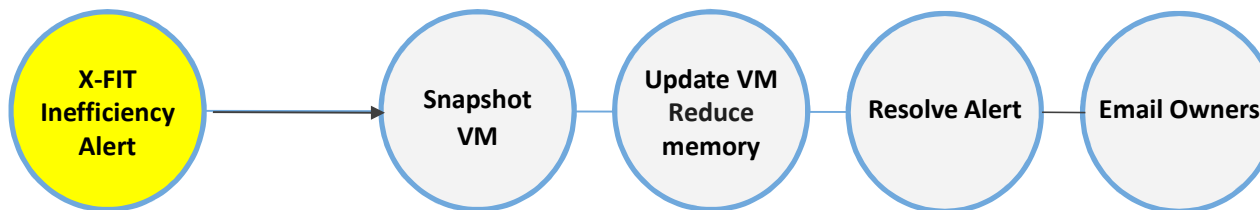
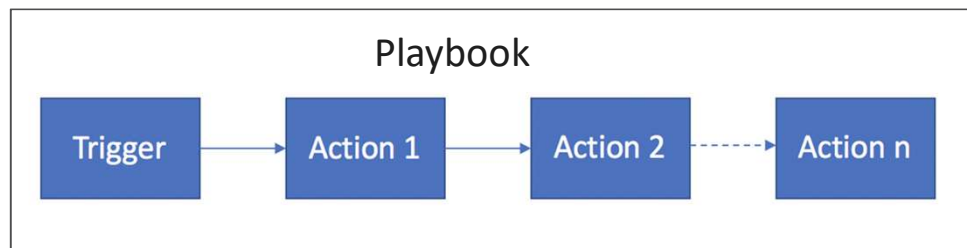
Benefits:

- Eliminate waste by optimal utilization of resources
- Improve VM performance by detecting any performance issues
- Generate reports of idle (zombie) VMs to enabled simple resource reclamation or reallocation to other VMs.



自動告警與調整資源

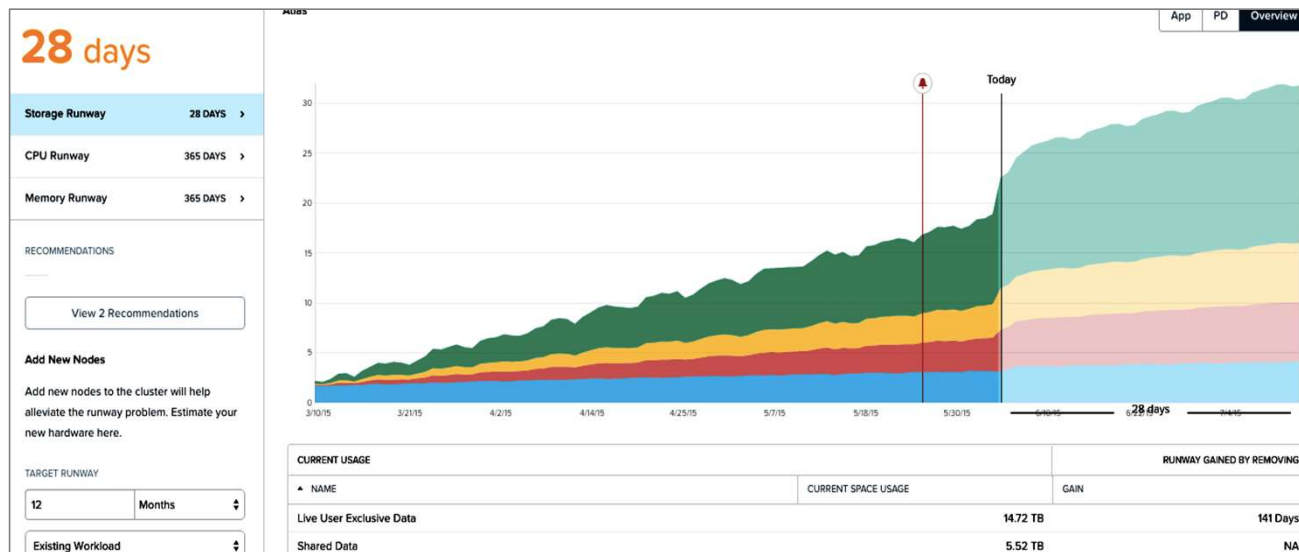
- Define a trigger (Alert or manual)
- Define actions to take to accomplish goal
- Mostly simple widget based (exception: powershell, api & ssh)
- Playbooks are grouping of a trigger and action(s)



Type name to filter by

☐	Acknowledge Alert	SYSTEM
☐	Email	SYSTEM
☐	Generate Forecast Report	SYSTEM
☐	IP Address Powershell	SYSTEM
☐	IP Address SSH	SYSTEM
☐	Power Off VM	SYSTEM
☐	Power On VM	SYSTEM
☐	Resolve Alert	SYSTEM
☐	REST API	SYSTEM
☐	Slack	SYSTEM
☐	VM Add CPU	SYSTEM
☐	VM Add Memory	SYSTEM
☐	VM Powershell	SYSTEM
☐	VM Reduce CPU	SYSTEM
☐	VM Reduce Memory	SYSTEM
☐	VM Snapshot	SYSTEM
☐	VM SSH	SYSTEM
☐	Wait for Some Time	SYSTEM
☐	Wait until Day of Month	SYSTEM

系統資源使用趨勢分析預測



What is it?

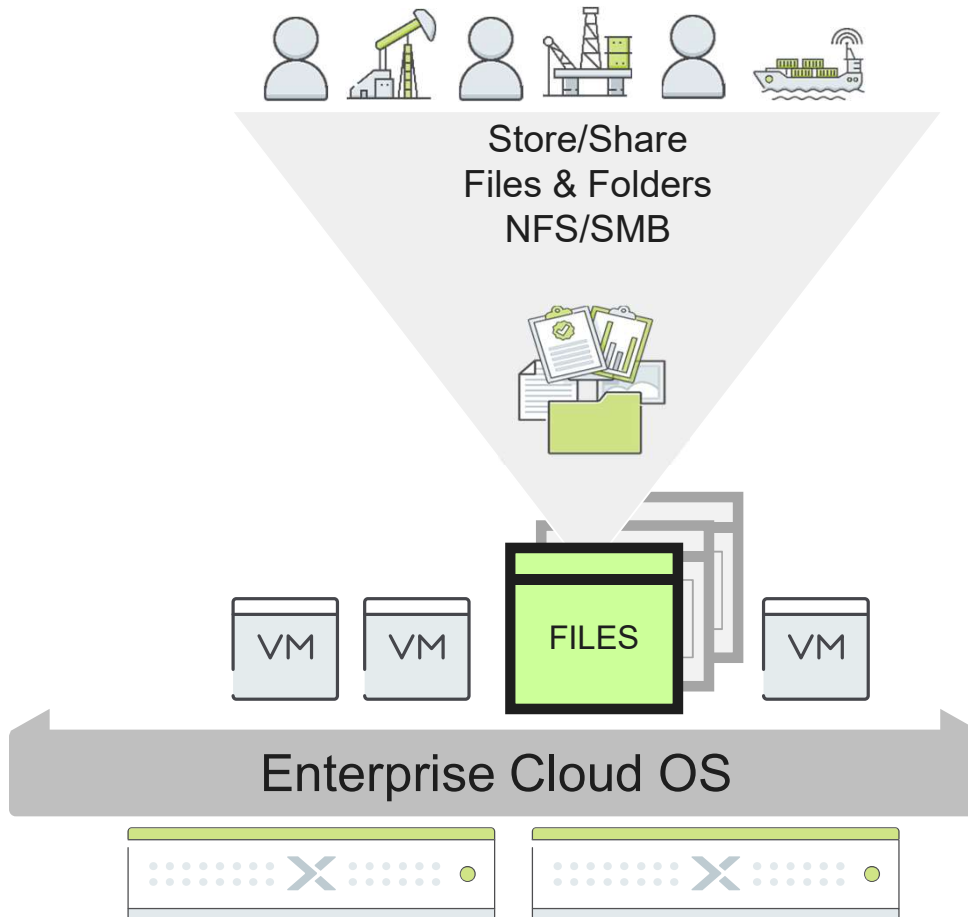
- Detailed capacity trends
- Intelligent recommendations
- Powered by patent pending X-FIT algorithm

Benefits:

- Enables pay as you grow capacity expansion
- Eliminates guesswork



NUTANIX 企業雲 - 原生檔案服務



Simple & Intelligent

- Fully-managed file service
- Deploy in minutes
- 1-click file insights and recommendations

Scalable

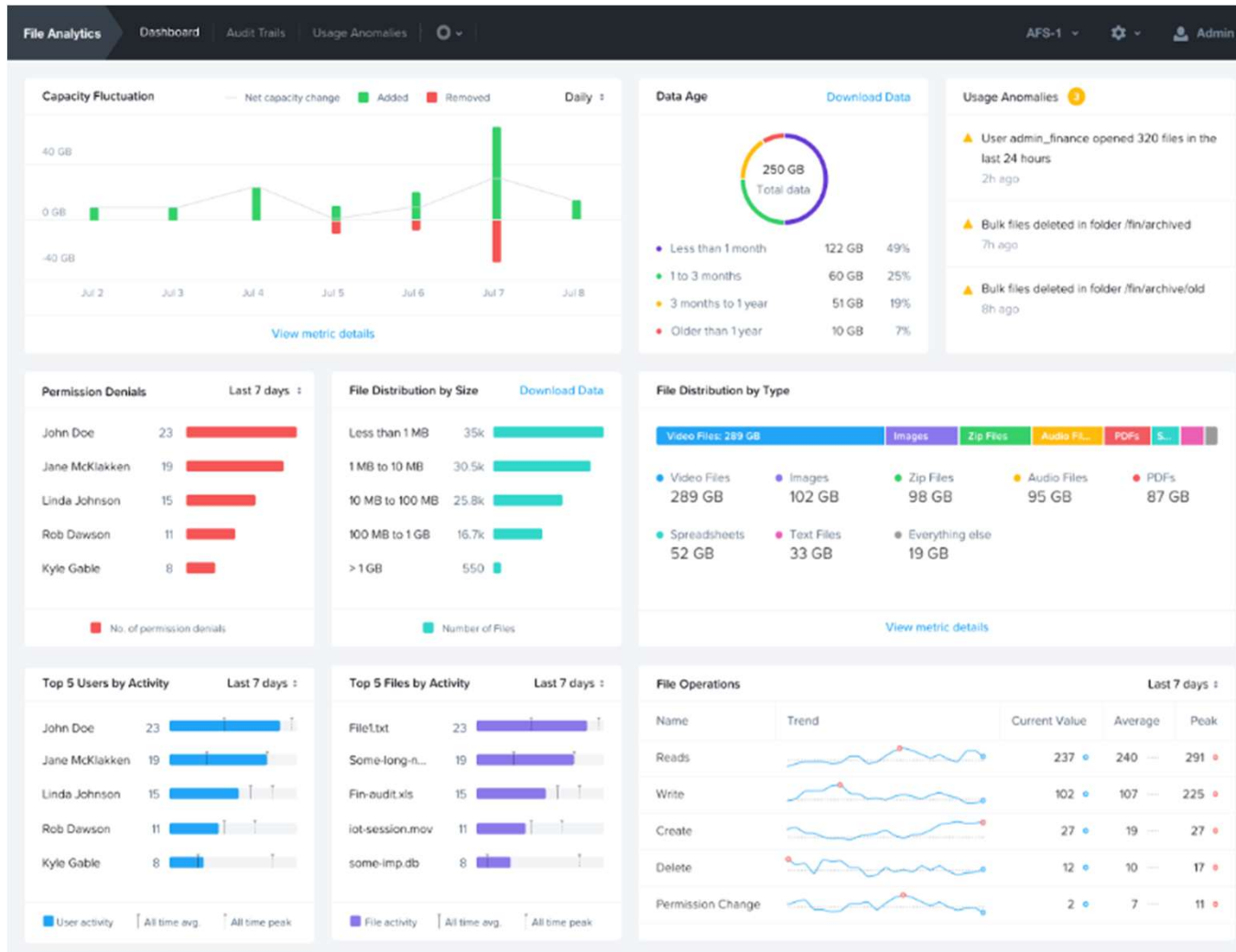
- Pay as you grow → Pay only for what you store
- Petabyte scale
- Grow and shrink capacity on demand

Enterprise Class

- Standard Interfaces: NFS & SMB
- Secure, reliable and resilient architecture
- Support 1000s of simultaneous connections



檔案服務 智慧分析



Data about Data

- Visibility into what data is being stored and how it changes over time

Audit Trails

- Search & Filter who accessed which Files
- Identify every change made to a given File and who made the change

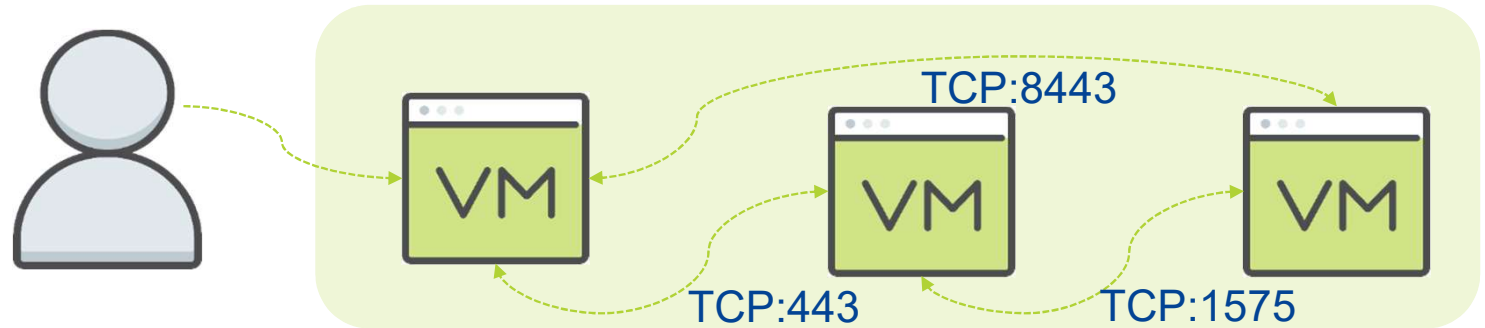
Anomaly Detection

- Define & Detect anomalies in access behavior
- Receive Email Alerts when anomalies occur

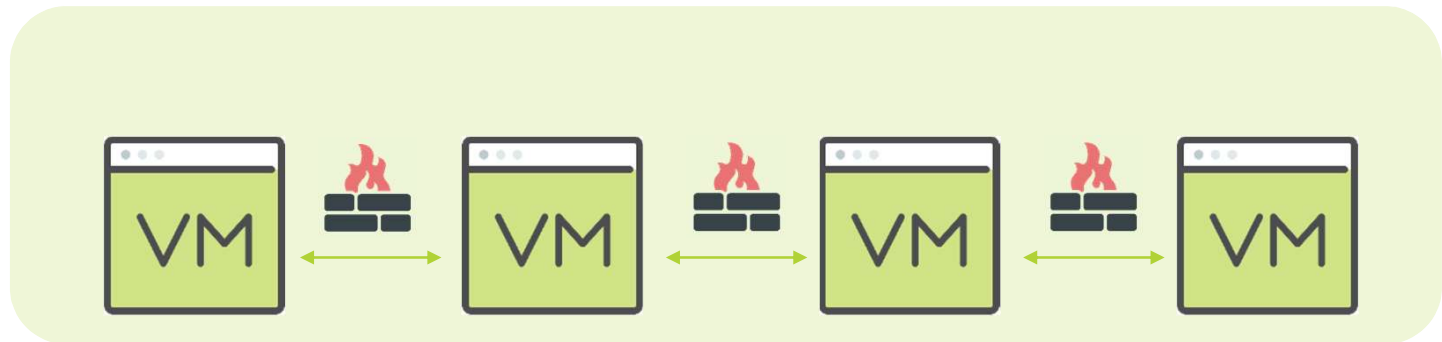


視覺化東西向防火牆

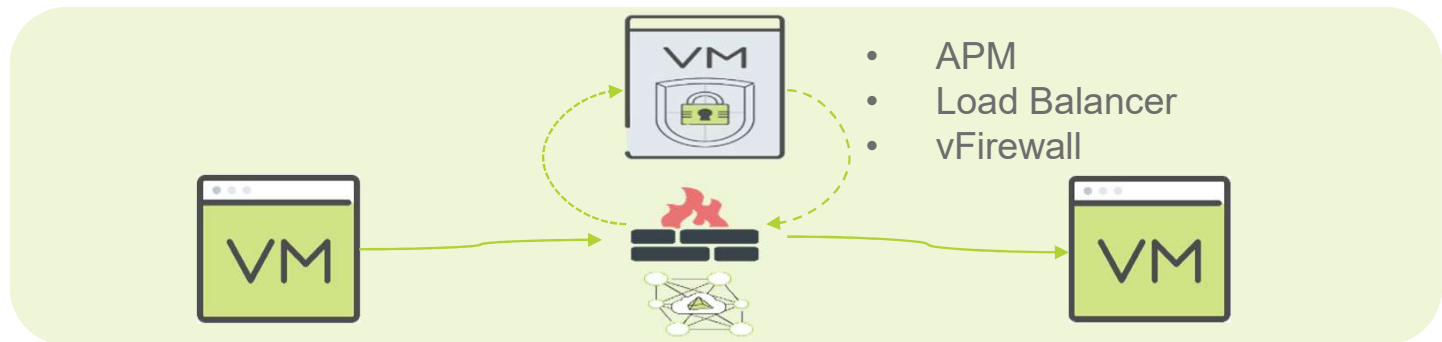
Application
Visualization



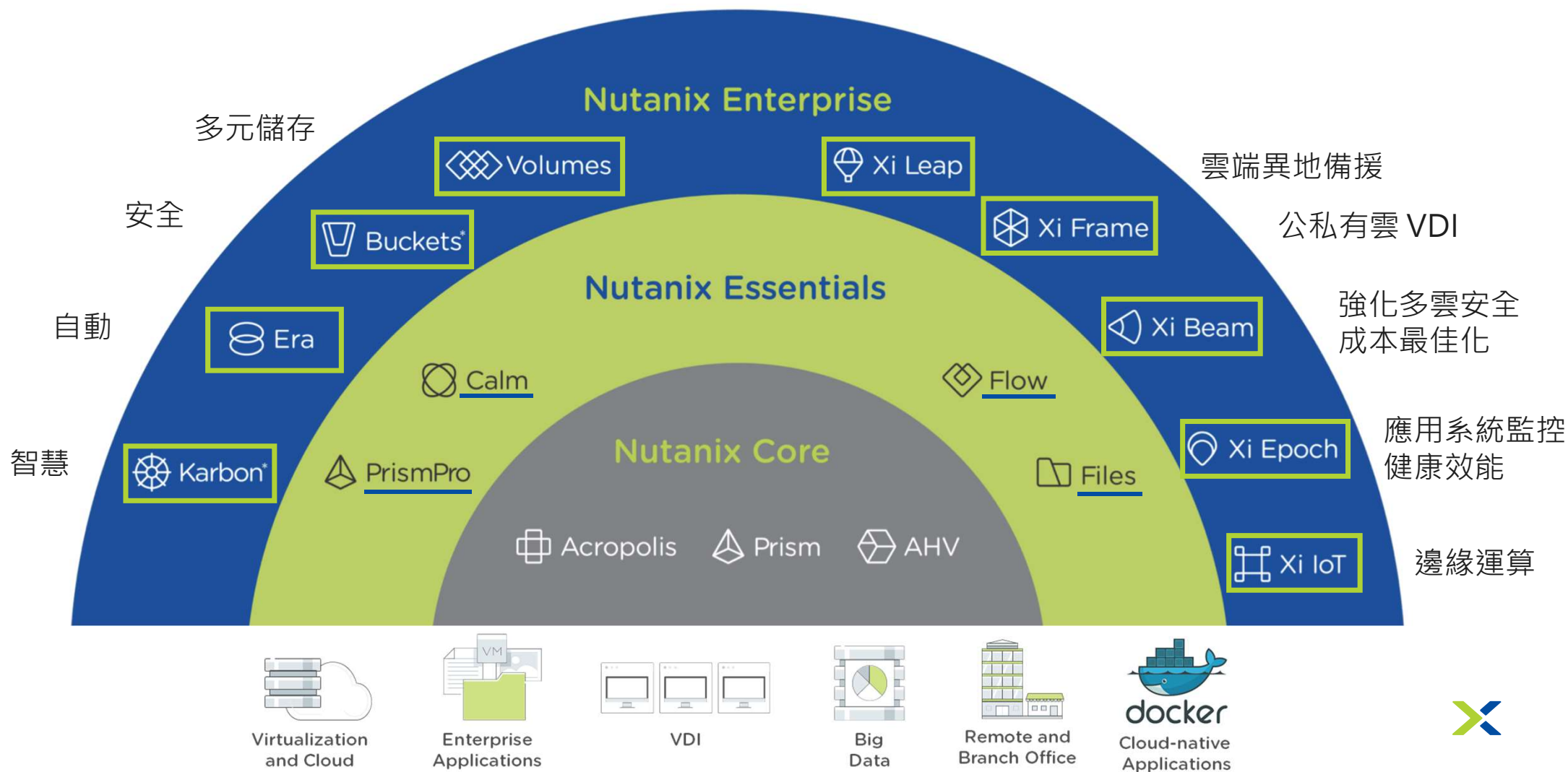
Microsegmentation
(East-West Firewall)



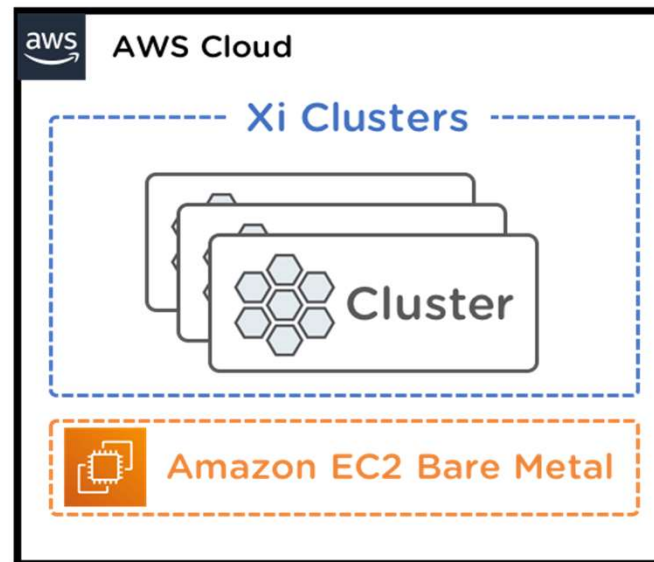
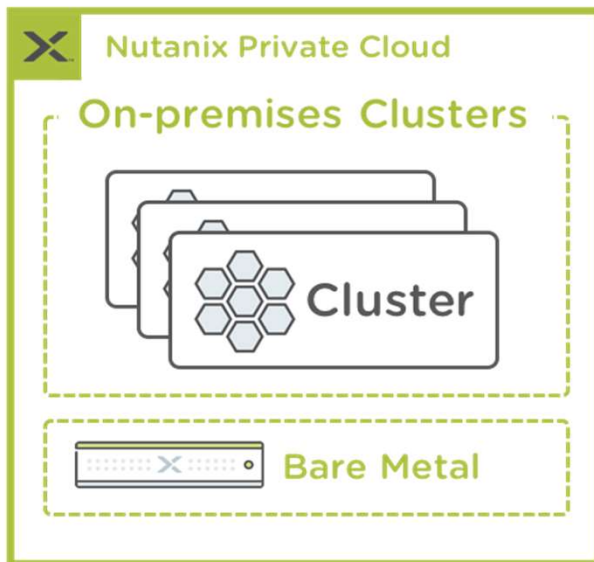
Service Chains
Network Functions



從超融合企業雲 邁向自在悠遊的多雲旅程 最佳選擇



從超融合企業雲 邁向自在悠遊的多雲旅程 的下一站



With Amazon EC2 Nitro System

Use existing AWS IAM accounts & billing

No complex network overlay needed, Use Existing Amazon VPC

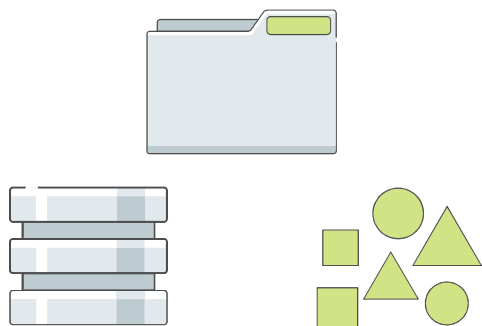
Unified management console via Prism



Nutanix 企業雲 - 單一平台 多元應用

簡化基礎架構 – 可靠 效能 智慧 安全 彈性 效率 經濟

Storage Services



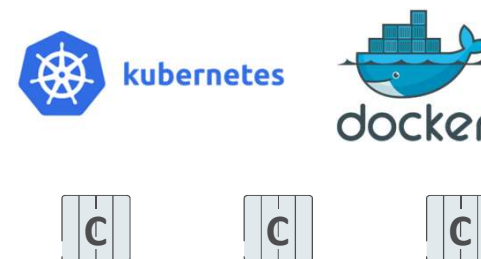
Simple, scalable and enterprise-grade software to consolidate file, object and block storage

Virtual Workloads



High performance infrastructure for mission-critical virtual applications and desktops

Cloud Native Apps



Single platform for deploying and managing containerized applications with persistent storage





NUTANIX™