

NUTANIX™

提供資訊透明、去除複雜度的
領導地位完整企業雲方案

Ivan Tung , Sr. System Engineer



> NUTANIX – The Enterprise Cloud Company

協助企業 將IT基礎架構 隱形化
讓企業能更加專注於驅動組織營運的
應用程式和服務

9,690+ customers

Over 145 countries

6 continents

3500+ employees



創立於 2009年

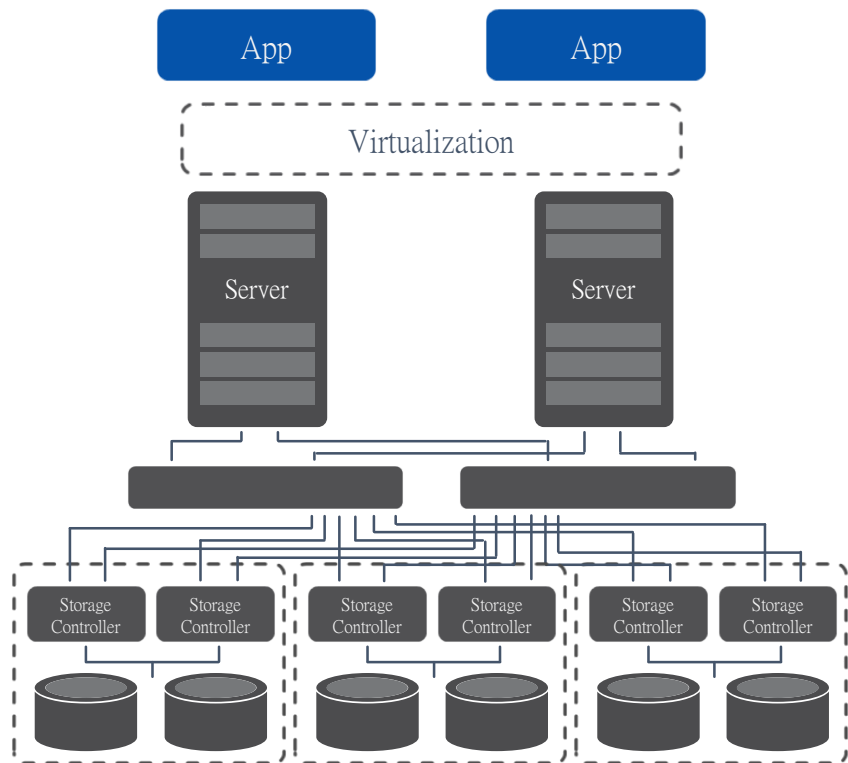


3年來持續榮獲：NPS 90+
(Net Promoter Score)



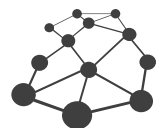
NASDAQ 上市：
NTNX

> 傳統三層式架構之特性



採購

Purchase in big increments, incur prediction risk, overprovision



建置

Deployment takes weeks to months -- complex, big footprint



管理

Multiple management panes, manual operations



擴充

Difficult to grow quickly



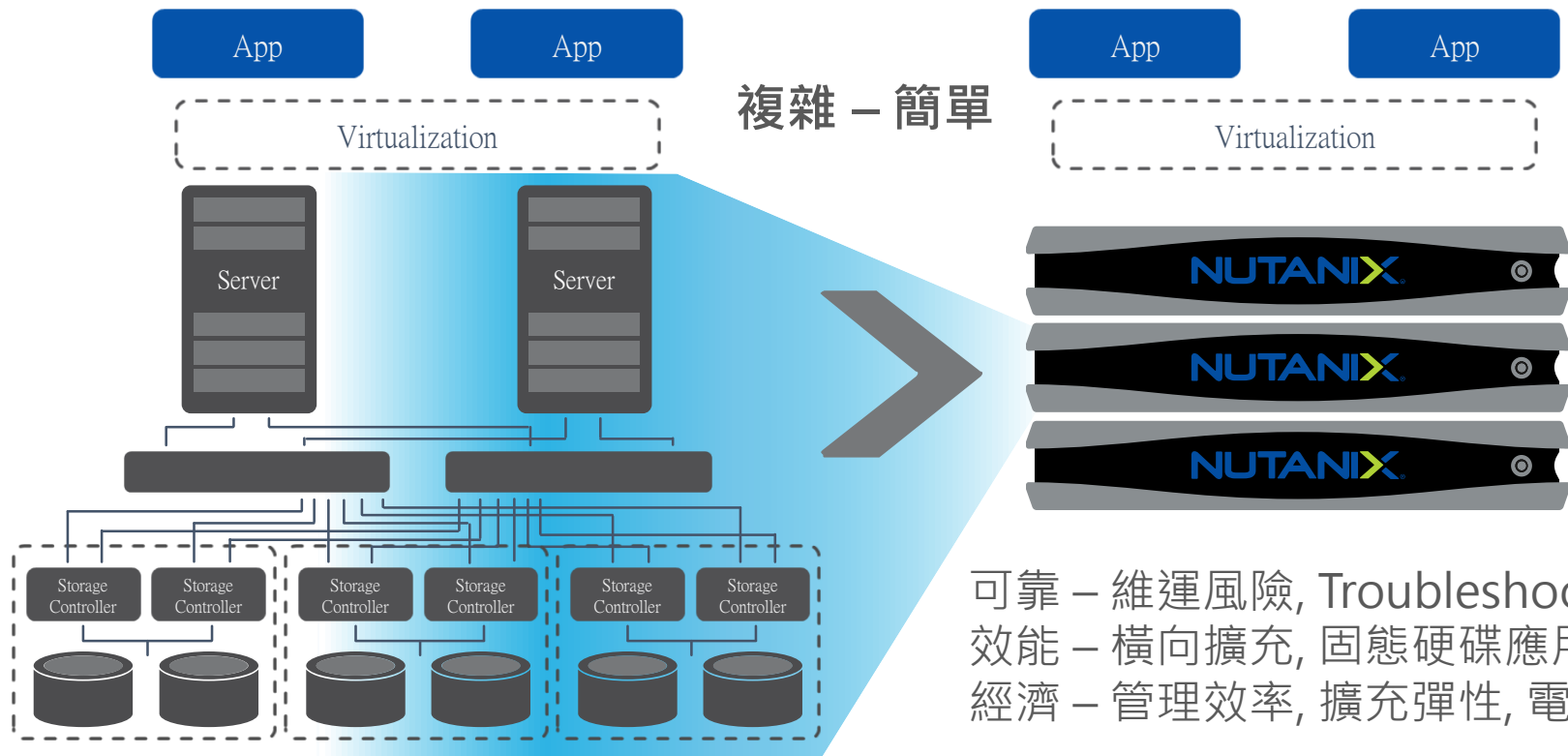
支援

Multi-hop support, lack of end-to-end visibility, firefighting



複雜的機房環境

> Nutanix 新世代數據中心平台



可靠 - 維運風險, Troubleshooting
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

> IDC 報告 – 傳統三層式與 Nutanix 超融合架構 財務分析

12,331
avg. # employees

861
avg. # VMs

315
avg. TBs (data)


62
avg. # nodes

63
avg. apps

Independent interviews and analysis of 11
Nutanix customers

Nutanix NX | Dell XC | Lenovo HX

IDC White Paper | Nutanix Delivering Strong Value as a Cost-Effective, Efficient, Scalable Platform for Enterprise Applications

 **IDC**
ANALYZE THE FUTURE

Sponsored by
Nutanix

Authors:
Eric Sheppard
Matthew Marden
August 2017

Nutanix Delivering Strong Value as a Cost-Effective, Efficient, Scalable Platform for Enterprise Applications

EXECUTIVE SUMMARY

The datacenter infrastructure market is undergoing a dramatic change. IT executives are increasingly turning to next-generation datacenter technologies that support extensive digital transformation projects while improving operational efficiencies. This is driving new infrastructure spending on solutions that are able to drive down costs, reduce complexity, and increase agility of IT staff. Sales of hyperconverged infrastructure (HCI) have increased dramatically over the past few years because of, in part, the ability of these solutions to collapse core compute, storage, and network services onto a highly virtualized cluster of x86 server resources.

HCI solutions, which address both business and IT resource challenges, provide the performance, provisioning, and scale-out attributes to meet escalating business demands, while the automation, ease-of-use, and orchestration characteristics ensure resource optimization and efficiency.


IDC interviewed 11 organizations about their experiences running various enterprise workloads on Nutanix Enterprise Cloud Platform (Nutanix) solutions. These interviews revealed that the study participants are realizing significant value with Nutanix as a cost-effective, efficient, and business-enabling IT platform built on hyperconverged infrastructure. IDC calculates that study participants will achieve average annual benefits of \$4.24 million per organization (\$51,077 per 100 users), which would result in a five-year return on investment (ROI) of 534%, because Nutanix:

- Serves as a cost-effective IT platform
- Requires less IT staff time to deploy, manage, and support
- Provides an agile, scalable, and high-performing IT platform
- Enables improved business results and higher user productivity

Business Value Highlights

- 534%** five-year ROI
- 60%** reduction in five-year cost of operations
- \$4.24** million in average annual benefits per organization
- 7** months to payback
- 61%** more efficient to deploy, manage, and support
- 97%** fewer unplanned outages
- \$10.56** million in average additional revenue per interviewed organization per year

#US42005717 © 2017 IDC. www.idc.com | Page 1

 **IDC**
ANALYZE THE FUTURE

提高建置與維運效率 有效降低成本 創造更大的經濟效益

商業價值



5年的
投資回報率

534%



7
Months



5年的
整體成本節省

60%



每年額外增加的
營收

\$10.56M

效能增進



儲存部署
加速

68%
Faster



管理整體
環境時間節省

60%
Less Time



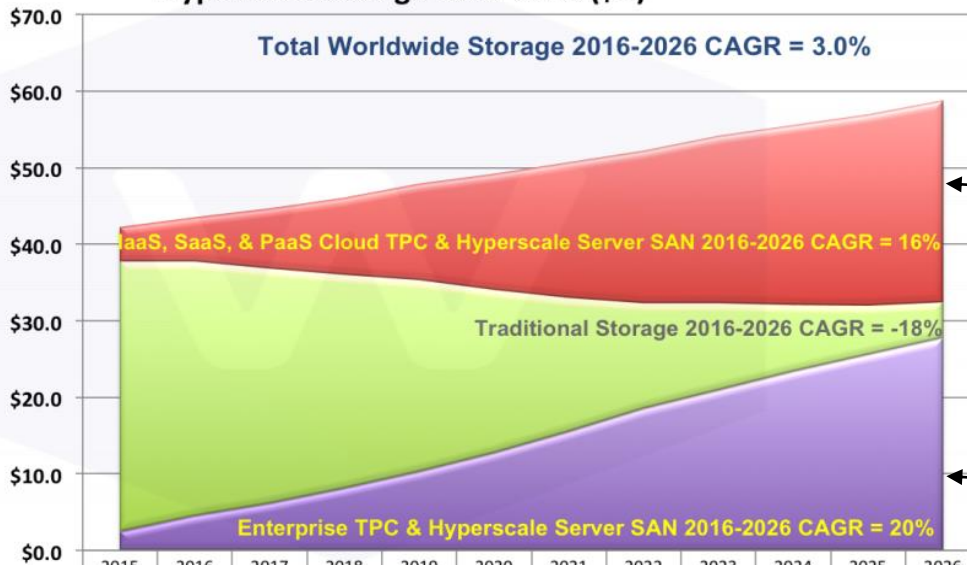
非計劃停機
降低

97%
Fewer Occurrences

傳統企業儲存與Server SAN全球市場銷售趨勢預測

Annual Enterprise Traditional, Enterprise TPC & Hyperscale, & Cloud TPC & Hyperscale Worldwide Storage Revenues (\$B)

Worldwide Traditional, Enterprise TPC & Hyperscale, & Cloud Hyperscale Storage 2015-2026 (\$B)



公有雲

私有雲

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
IaaS, PaaS, SaaS Cloud TPC & Hyperscale Server SAN Storage	\$4.6	\$5.8	\$7.8	\$10.0	\$12.6	\$15.2	\$17.7	\$19.9	\$21.8	\$23.4	\$24.9	\$26.2
Enterprise Traditional Storage	\$35.2	\$33.2	\$30.7	\$27.9	\$25.0	\$21.3	\$17.5	\$13.9	\$11.4	\$8.8	\$6.5	\$4.8
Enterprise TPC & Hyperscale Server SAN Storage	\$2.5	\$4.5	\$6.2	\$8.1	\$10.3	\$12.7	\$15.5	\$18.4	\$20.9	\$23.3	\$25.5	\$27.7
Total Worldwide Storage	\$42	\$43	\$45	\$46	\$48	\$49	\$51	\$52	\$54	\$56	\$57	\$59

Source: © Wikibon, 2017

> Gartner 超融合基礎架構魔力象限 Jan 2018



強項

“高度創新和無限制橫向擴充的基礎結構，與大多數競爭對手相比，有著跨世代的領先地位。”

“在虛擬化平台選擇方面的靈活性，隨著基於 KVM 的 AHV 的越來越多企業用戶採用，成為企業用戶尋求更低成本的替代 VMware ESXi 的首選。”

“經過驗證的使用者接受度和高客戶滿意度，成功的在大型全球企業用戶中打造重複購買模式和大量節點的建置 (100+)。”

NUTANIX™

企業雲的基礎



> 企業雲的基礎



Nutanix 超融合基礎架構

- ✓ 融合伺服器與儲存系統於一體
- ✓ 商品化的x86伺服器
- ✓ 適應所有的應用程式
- ✓ 靈活無限的可擴展性

> 企業雲的基礎



支援主流的虛擬化平台



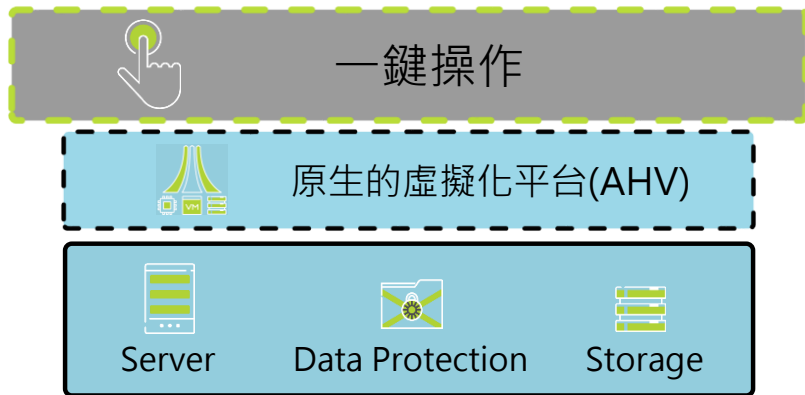
> 企業雲的基礎



原生的高效能虛擬化平台 (AHV)

- ✓ 高效能, 高安全性的虛擬化平台
- ✓ 整合式的管理
- ✓ 不需任何費用

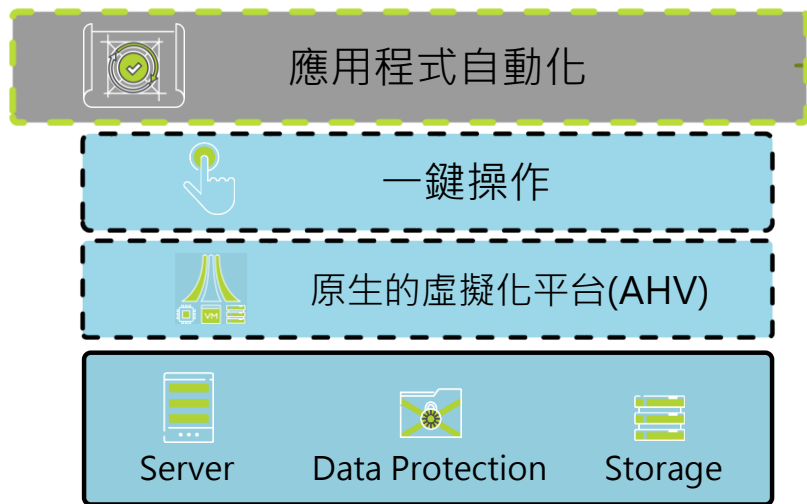
> 企業雲的基礎



一鍵操作

- ✓ 基礎設施部屬
- ✓ 規劃及擴充性
- ✓ 可視性及報表

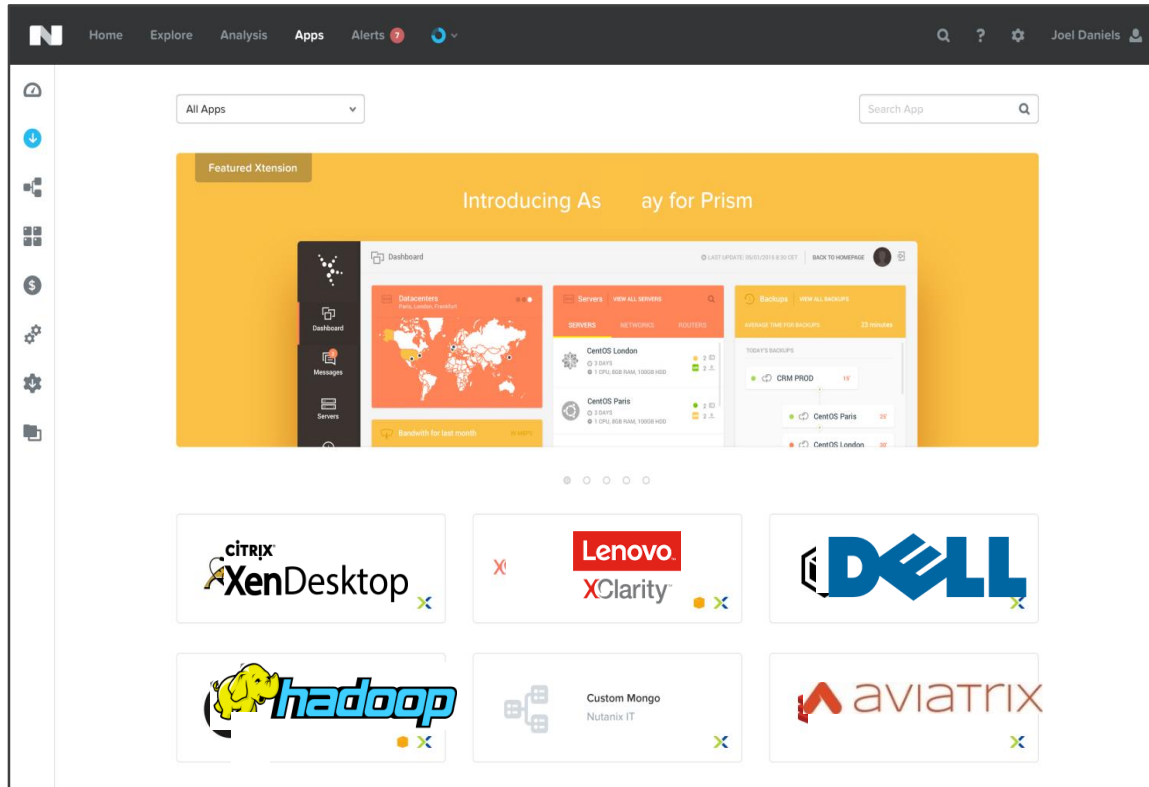
> 企業雲的基礎



應用程式自動化

- ✓ 以應用程式為中心的部屬
- ✓ 提供應用程式市集

> Nutanix Marketplace

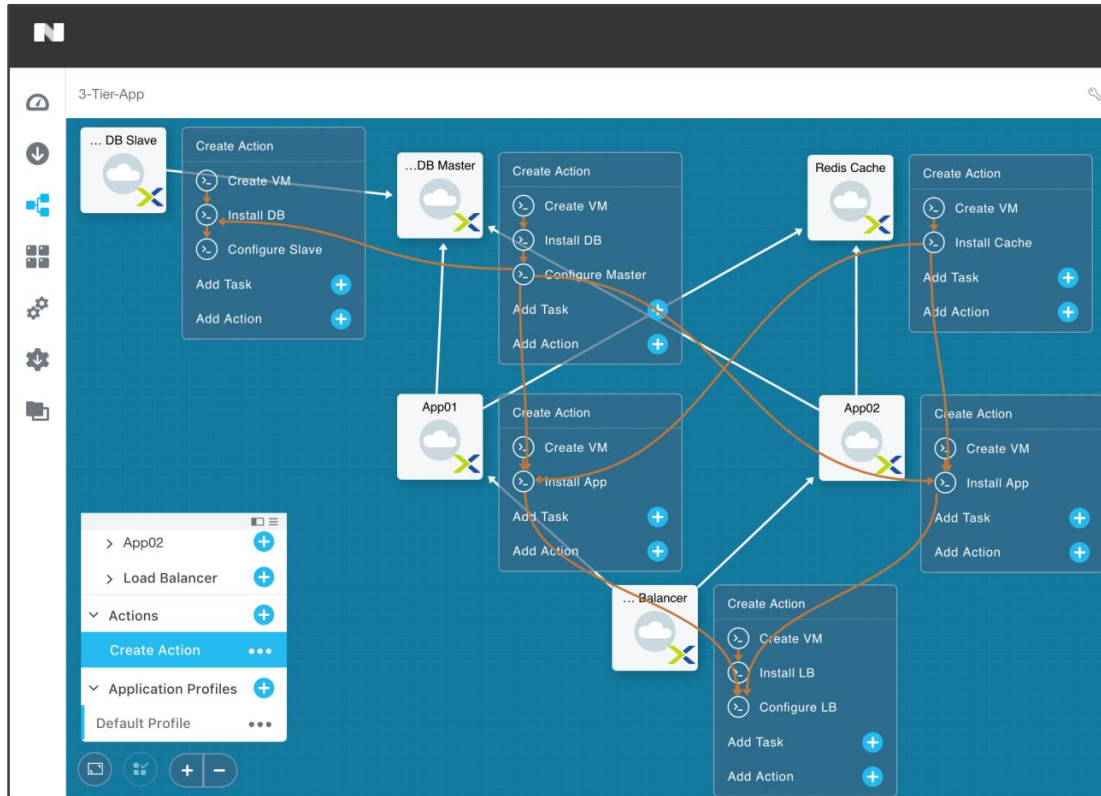


One-Click App Provisioning

Pre-integrated blueprints

Self-service based on user role and group

> App Blueprint



Intuitive and visual way to model applications

Incorporate all elements including VMs, configurations and binaries

Drive repeatable provisioning of applications

> 企業雲的基礎



多重雲端平台管理



應用程式自動化



一鍵操作



原生的虛擬化平台(AHV)



Server



Data Protection



Storage

多重雲端平台管理

- ✓ 實現跨雲平台的可移動性
- ✓ 雲端平台費用的可視性和可控制性

簡單且容易管理的整合性介面

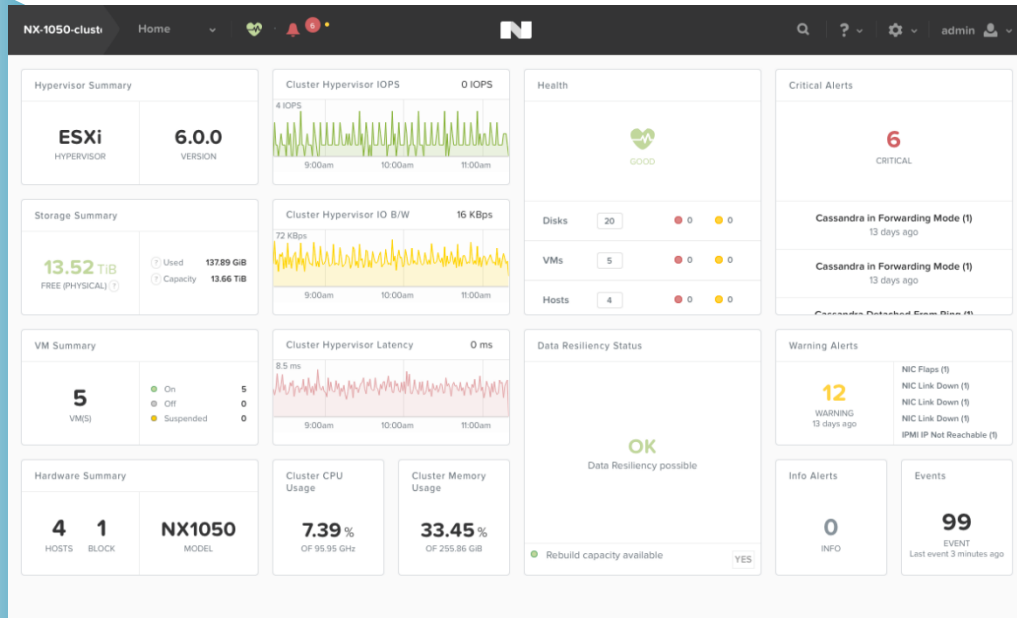
多雲端管理

應用程式自動化部屬

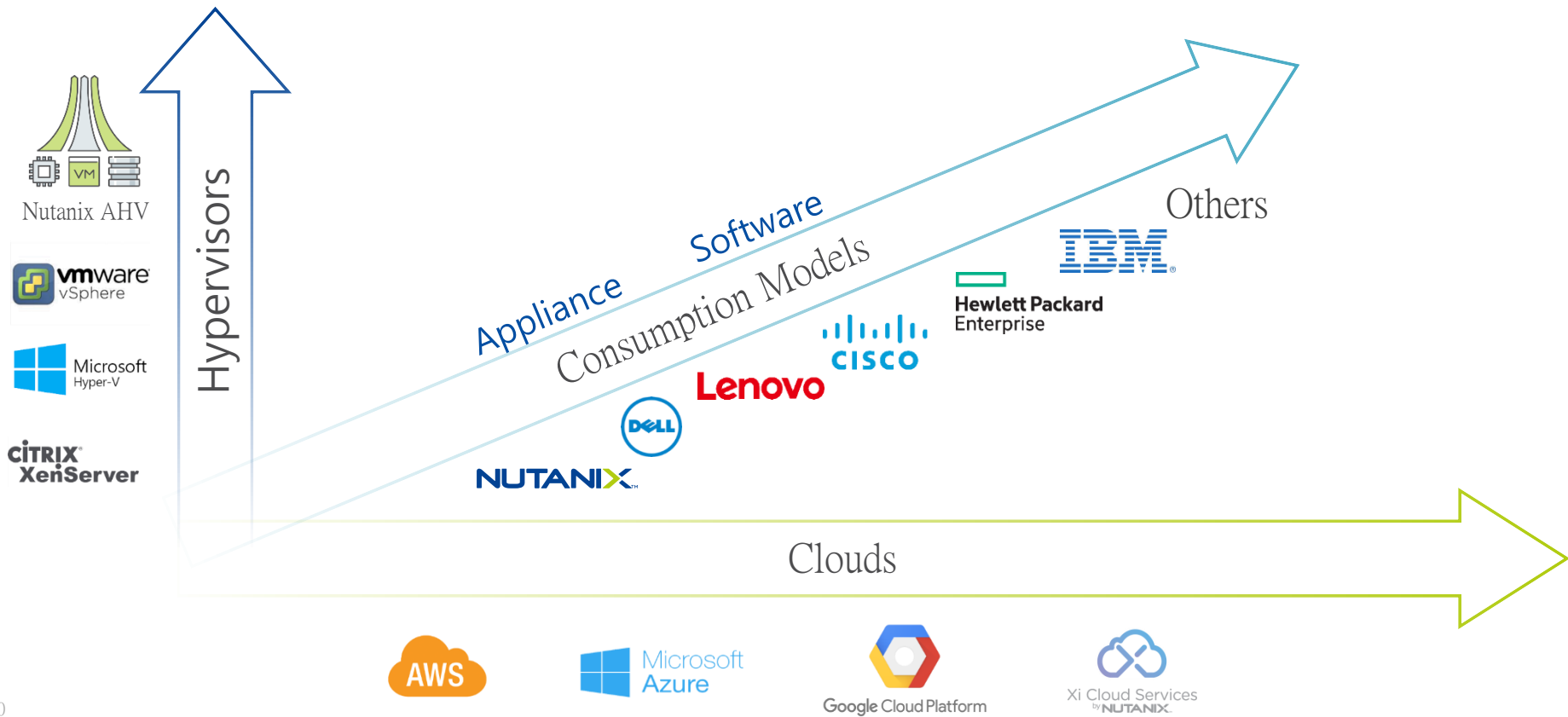
系統維運分析

虛擬化平台管理

基礎設備管理 (運算, 儲存, 網路,
資料保護及異地備援)



> 彈性及選擇



NUTANIX™

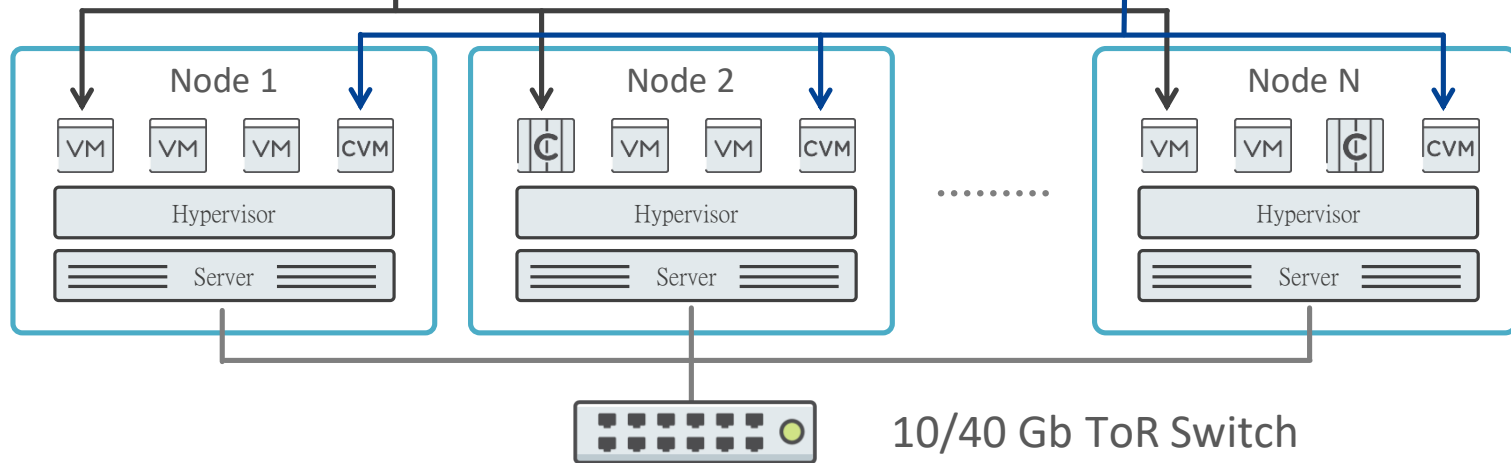
產品及核心技術



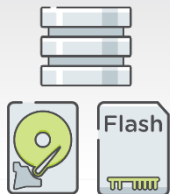
可輕易擴展，分散式的基礎架構

虛擬機 – 資料本地存取
容錯資料分散儲存 (2-3份...)

Nutanix Controller VM



分散式基礎結構包含



- ✓ 企業及儲存功能
- ✓ 網路安全及自動化分派

- ✓ 原生的虛擬化平台
- ✓ 資料保護及異地備援

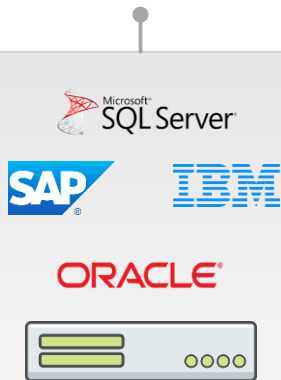
> 能運行所有的應用程式

檔案伺服器



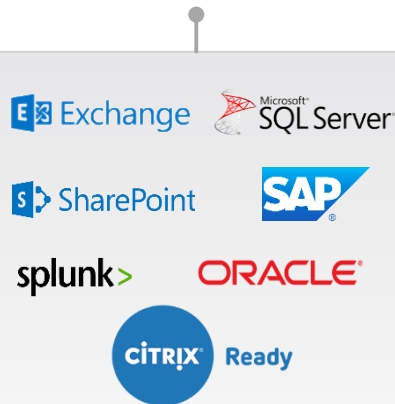
原生的分散式檔案伺服器，提供高可用性且橫向擴展

實體機的負載



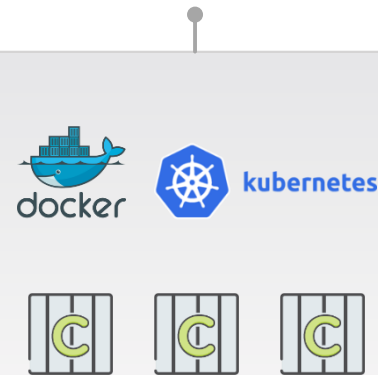
提供所有未虛擬化的實體應用（資料庫...等）

虛擬化環境的應用



高效能的基礎平台，可提供關鍵應用服務所需之IOPS

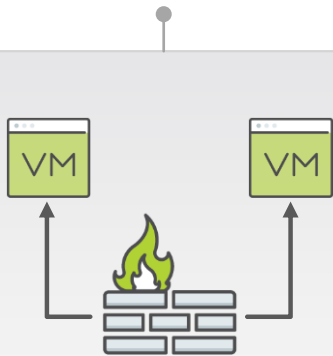
Containers



支援容器自助部署和管理

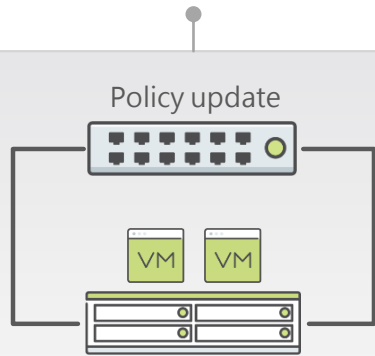
> 簡化常見的網路操作

網路安全



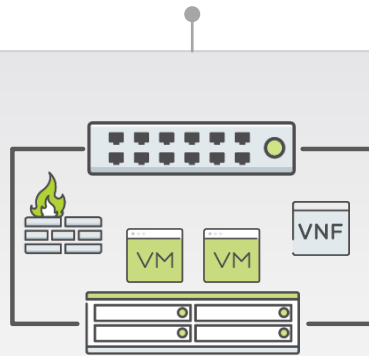
原生的東西向防火牆，
保護了應用程式及資
料

網路資安政策控管



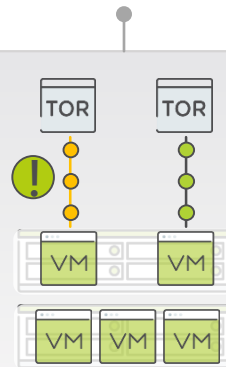
以應用程式為中心的
資安策略自動更新

網路自動化部屬



插入及整合第三方
網路自動化程式部
屬

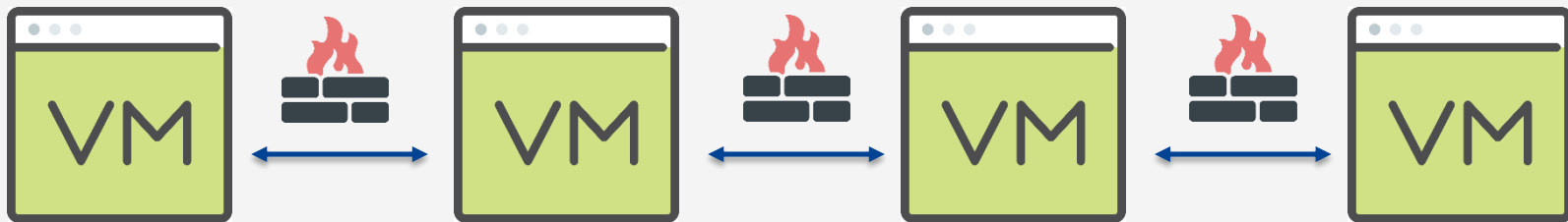
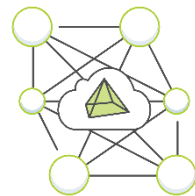
網路故障排除



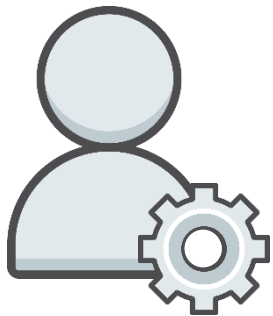
從虛擬機到網路端，
完全通透可見性，簡
化故障排除

> 以虛擬機為中心之東西向防火牆

- ✓ 持續運行的虛擬機防火牆
- ✓ 簡單變能建立防護策略 (Policy) 並立即應用
- ✓ 以應用程式為中心，與網路VLAN ID脫勾
- ✓ 當虛擬機更新時，能自動變更防護策略



> 以應用程式為中心的防護策略



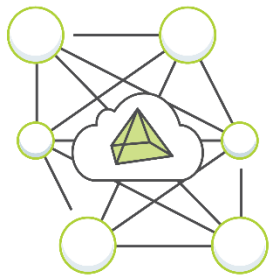
資安管理人員

網頁伺服器群組



tcp:443
tcp:1575

資料庫群組



流量監控
資安政策引擎



194.22.17.0/24

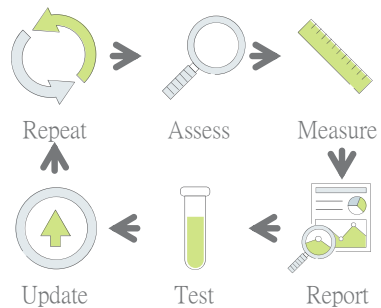


tcp:443
tcp:1575

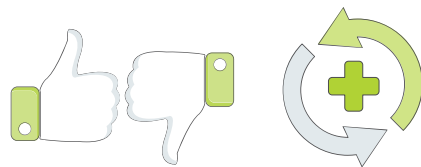


10.3.4.0/24
192.168.77.0/22

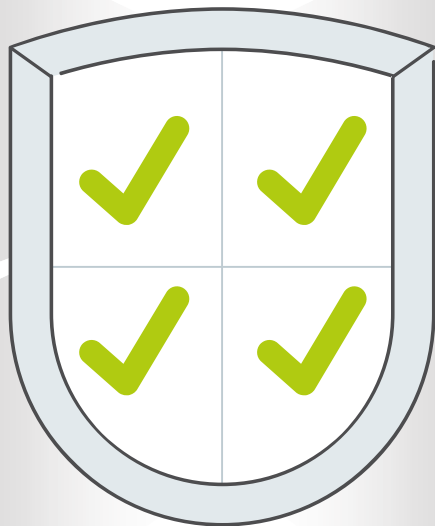
基於資訊安全的開發週期



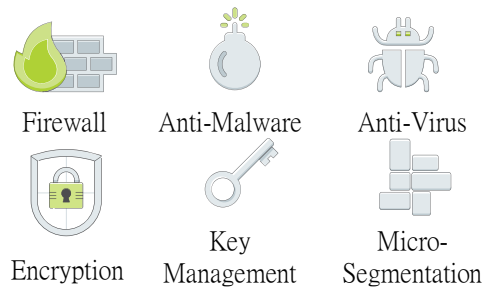
自動驗證且自我修復



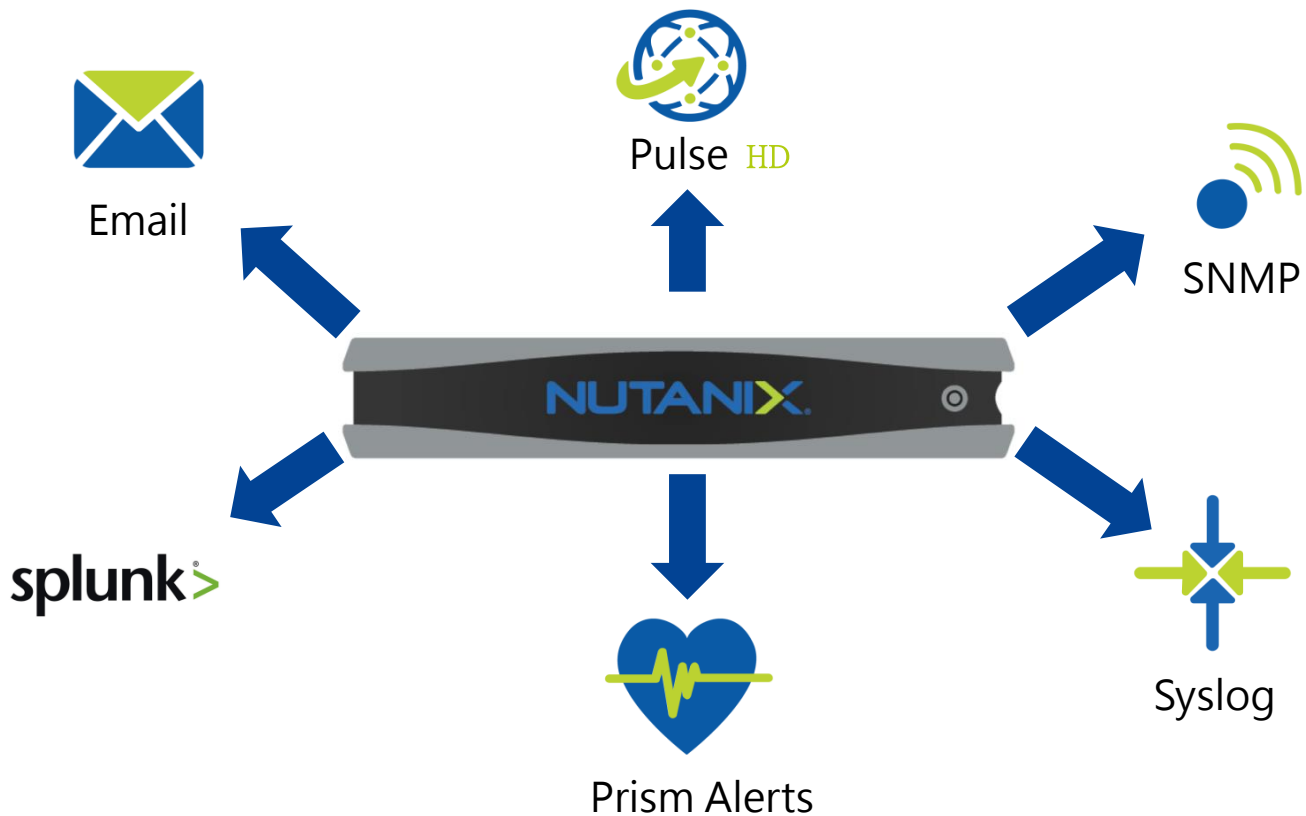
資安認證



合作伙伴



> 智能監控方式



> Nutanix 本地及異地快照

RTO: Minutes

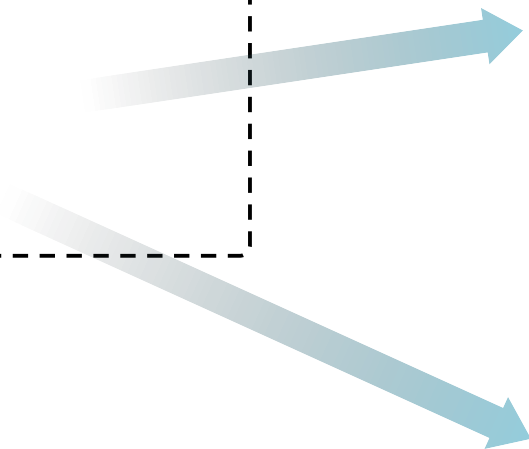
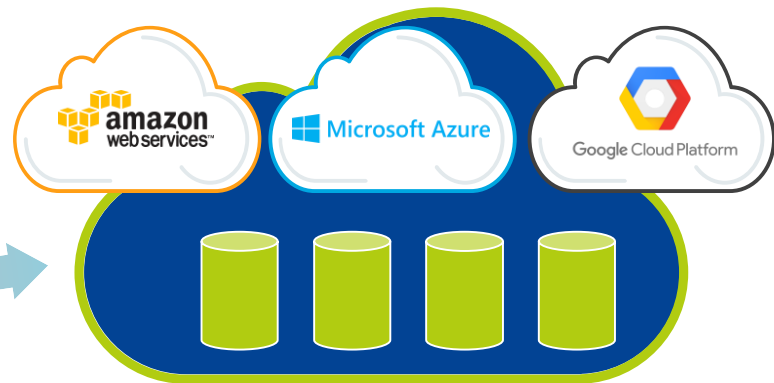
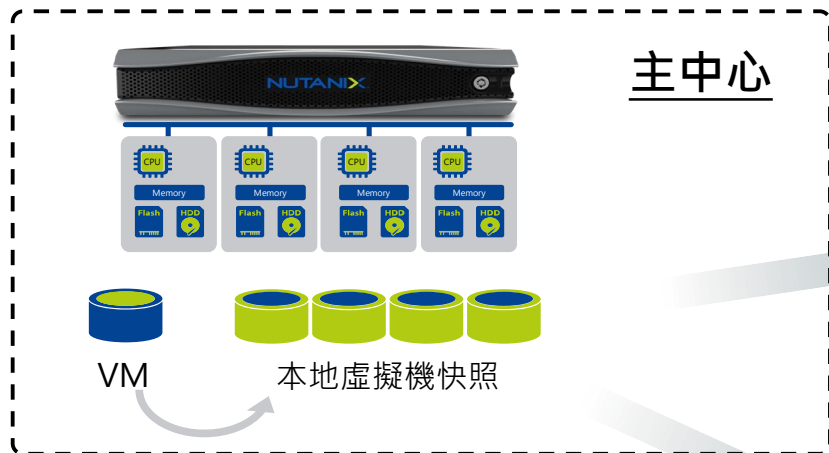
RPO: Minutes



直接備份到雲端

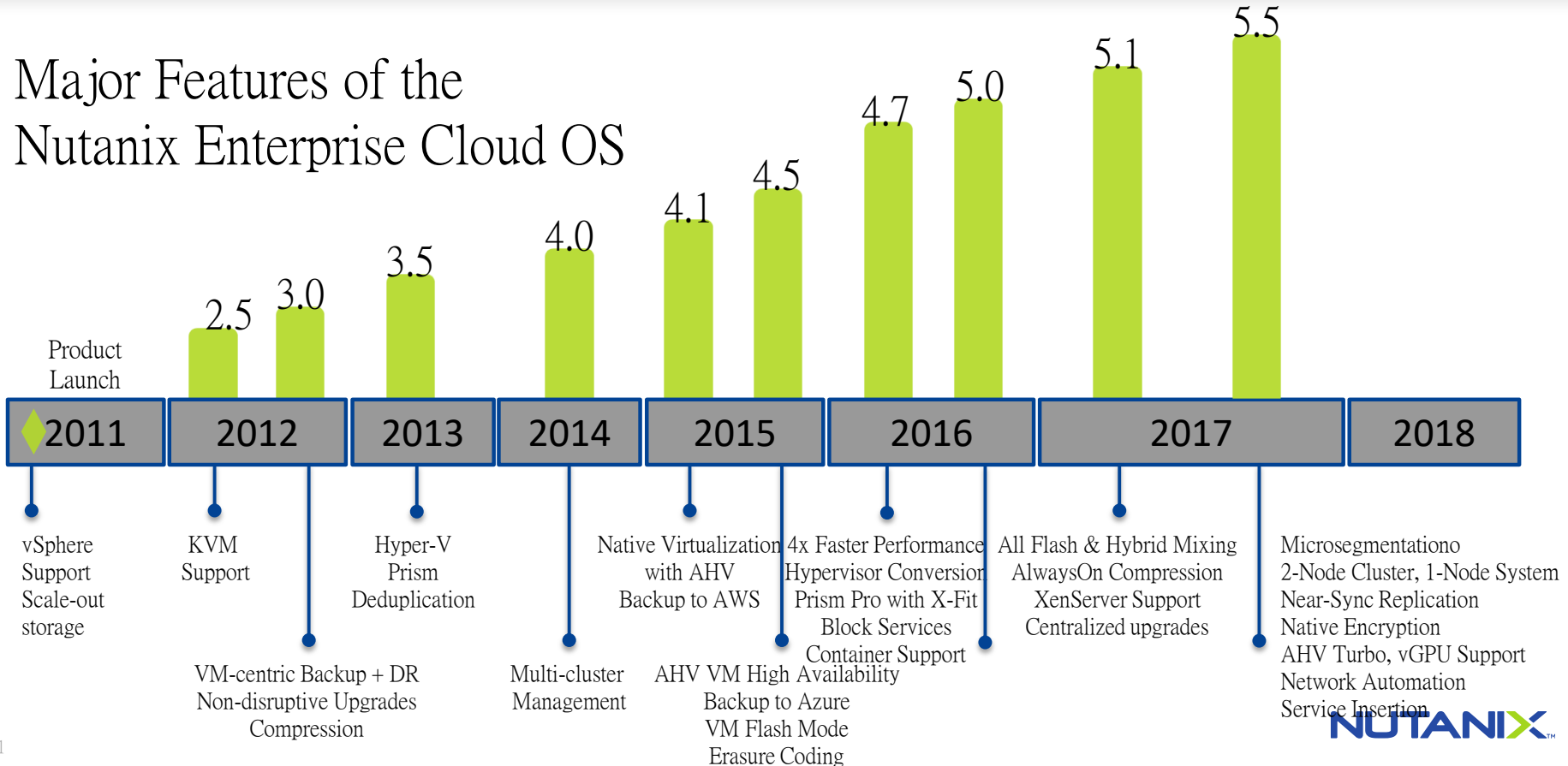
RTO: Minutes

RPO: Minutes



> 一直在研發更新的功能

Major Features of the Nutanix Enterprise Cloud OS



> Nutanix 定義了企業雲的創新



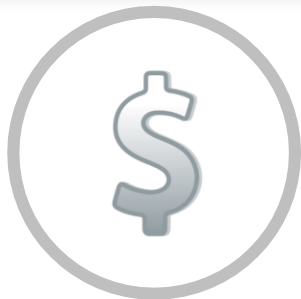
完整堆疊的
基礎架構服務

超融合基礎架構



自動化維護
及操作

豐富的智能學習



按需求成長量
再進行購買

Web-scale彈性擴充



整合性的
資安設計

資安優先的設計



開放且
可任意選擇

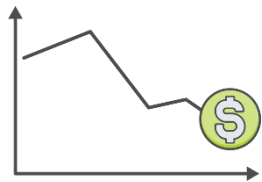
應用行動架構

NUTANIXTM

企業雲平台

NUTANIXTM

> Why Nutanix



降低成本

免費虛擬化平台
擴充選項
資料壓縮與消重
彈性保護機制



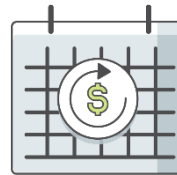
架構單純

提高維運效率
降低維運風險
資源有效運用



效能極致

橫向擴充
Scale-Out
智慧資料配置
Data Locality
智慧資料搬移
Tiering



完備保護

跨平台異地備援
多點異地備援
同步 非同步
雙活機制
雲端備份



單鍵管理

滿足各種應用
場景
輕鬆服務轉移

NUTANIX™

