Agenda

1) NetApp 及 Data Fabric
2) 橫跨邊緣、資料中心到雲端的資料透通新架構
3) 完整的NetApp雲資料服務 Cloud Data Services
The Industry’s Fastest-Growing All-Flash and SAN Vendor
全閃存儲存設備廠商 - 業界成長速度最快, 市佔率第一

Benefit from NetApp’s 27 years of superior experience

- Rapidly set up your storage in minutes
- Confidently deploy complete infrastructure with NetApp technology
- Simplify your transition with rapid migration tools and services
- Leverage our comprehensive global partner ecosystem
- Get continuous, proactive care with NetApp® Active IQ® analytics and support
NetApp recognized as a Leader for three years in a row in Gartner 2018 Magic Quadrant for Solid-State Arrays

NetApp continued to make incremental investments to its flash portfolio, which includes AFF, SolidFire and EF-Series. Each product is based on a different architecture and, therefore, the different models use different administration GUIs. All product enhancements are clearly aligned with NetApp's Data Fabric strategy, the goal of which is to facilitate data management in distributed IT environments encompassing edge, cloud and the data center. NetApp ONTAP provides the deepest integration with top public cloud providers among all SSA vendors. NetApp SnapMirror can replicate or archive data to ONTAP Cloud, a compute instance that can be deployed in AWS and Microsoft Azure, among other top cloud service providers. ONTAP can also tier data from AFF systems to native protocols in public cloud or to NetApp object storage deployed on-premises. In May 2018, NetApp was first to market with an end-to-end NVMe-based solid-state array, the AFF A800, a system that connects to internal SSDs via high-performance NVMe. It also released ONTAP 9.4, which supports NVMe-oF, cloud tiering, new REST APIs, and Server Message Block multichannel protocols. With this update, customers can connect existing AFF systems to servers via FC-NVMe host bus adapters (HBAs), resulting in further reduction in latency. NetApp offers workload-specific data reduction guarantee programs, as well as free controller upgrades at the beginning of the fourth year; provided that customers purchase six years of premium support. It also introduced NextCredit, a rewards program that provides credits for purchase of the AFF product line, which can be used to procure other NetApp products in the future including cloud and SaaS-based solutions.

Gartner

NetApp 為市場第一達成 End-to-End NVMe 儲存設備
NetApp recognized as a Leader six times in a row in Gartner 2018 Magic Quadrant for General-Purpose Disk Arrays

This Magic Quadrant was published as part of a larger research note and should be evaluated in the context of the entire report.

- NetApp 再一次位居領導者與遠見者位置
- Gartner: 「NetApp 利用 Data Fabric 願景成功提升了敏捷靈活性，從存儲與資料管理角度說明客戶探索混合雲潛力……。」

Source: Gartner, Inc., November 8, 2018
Stanley Zaffos, Roger W. Cox, Valdis Filks, Santhosh Rao

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Gartner Identifies “Data Fabric” in Top 10 Data and Analytics Technology Trends for 2019

Trend No. 6: Data Fabric

Data fabric enables frictionless access and sharing of data in a distributed data environment. It enables a single and consistent data management framework, which allows seamless data access and processing by design across otherwise siloed storage.

Through 2022, bespoke data fabric designs will be deployed primarily as a static infrastructure, forcing organizations into a new wave of cost to completely re-design for more dynamic data mesh approaches.
您所熟悉的資料中心架構

- 複雜 IT 架構
- 營運管理耗費人力
- 產生資料孤島
- 資源難以分配
- 資料難以分析應用
- 與雲服務連接困難
將您的資料中心升級成 Data Fabric

- 比原雲服務商更好的雲端儲存服務
- 快速部署 Kubernetes 雲服務
- 無痛備份 Office365 及 Salesforce
- 隨點即傳的雲端資料複製及移轉
- 輕鬆使用公有雲各項服務資源
- 完美整合地端雲端資料
- 建立多雲/混合雲異地備援
- 立即駕馭及管理跨雲架構

AFF/FAS 跨世代跨等級横向擴充

Data Fabric

Cloud Insights

DATA SERVICES
- Cloud Sync
- Cloud Secure
- Cloud Tiering
- SaaS Backup
- Cloud Backup Service

CLOUD STORAGE
- Azure NetApp Files
- Cloud Volumes Service for AWS
- Cloud Volumes Service for GCP
- Cloud Volumes ONTAP

NetApp Kubernetes Service

NetApp HCI

StorageGRID

MongoDB

Hadoop

SAP

Oracle

Red Hat

Microsoft

vmware

Citrix
我們是領先全球的資料管理公司

- 我們對資料充滿熱情
- 我們是混合雲環境的資料權威專家
- 我們提供重要的資料洞見、存取與控制，能保護資料並釋放資料的完整潛能

NetApp 透過 Data Fabric 平台
賦予客戶用數據改變世界的能力

- 將儲存與資料管理現代化
- 建構次世代資料中心
- 充分發揮混合雲的龐大威力
Edge to Core to Cloud Data Pipeline with Future-proof

**Edge**
- Ingest
  - Data collection
  - Edge-level Application

**Core**
- Data Prep
  - Aggregation
  - Normalization
- Prod. Cluster
  - Exploration
  - Training
- Deployment
  - Deployment
  - Model serving

**Cloud**
- Analyze / Tiering
  - Direct Connect
  - Express Route
  - Cloud AI
    - GPU-as-a-Service
    - Cold Data Tiering

Unified Data Lake
Multi Workload
DB/AP/VM
Repo

IM1
IM2
IM3

Cloud Volumes
Cloud Sync
NetApp 如何協助客戶上雲
常見的應用場景, 需求及挑戰

雲端備份與災害備援
支援雲的工作負載到雲端。在不更改現有基礎架構的情況下將備份遷移到公有雲。

發展多雲整合
Lift & Shift應用
從地端到雲端
發展多雲結構

善用公有雲中資源
暫時利用公有雲中的計算資源
依據特定的工作負載 (如數據分析)
在多雲中進行選擇要使用的雲服務

資料放置在地端
有效地使用多個雲應用
歡迎拜訪NetApp雲服務網站

All NetApp Cloud Data Services from one portal
Try | Buy | Deploy | Manage

Welcome to NetApp Cloud Central
NetApp Cloud Data Services deploy, run, monitor, maintain and manage services in the biggest public clouds so customers don't have to!

Sign Up | Login

Accelerating your Cloud Workloads

https://cloud.netapp.com
NetApp 雲服務跨及全球三大公有雲業者

最全面的雲資料服務及管理

Azure NetApp Files

NetApp Cloud Volumes for AWS

NetApp Cloud Volumes for GCP
Cloud Volume ONTAP (CVO) - Enterprise-class data management in the cloud

- Enterprise-class storage efficiency features
- Fully integrated with on-premises arrays
  - Leverages mature technologies (ONTAP®, SnapMirror®, SnapManager®)
  - Simple to manage
- Built to support enterprise DR failover scenarios
- Scalable to grow with business needs

Cloud Manager

- Citrix share farm running Microsoft SQL Server on AWS
- Multi-AZ operation in EUWest, DR in EUCentral
- Same datastore formats on CIFS and NFS
- Same data management as data center storage

NetApp Cloud Volume ONTAP (CVO)

Data Center

Cloud Volume ONTAP

SnapMirror

NetApp

AWS

Microsoft SQL Server

Citrix

CV ONTAP

SnapMirror

EBS

AEC

NetApp

AWS

Microsoft SQL Server

Citrix

CV ONTAP

SnapMirror

EBS

AEC

NetApp

AWS

Microsoft SQL Server

Citrix

CV ONTAP

SnapMirror

EBS

AEC

NetApp

AWS

Microsoft SQL Server

Citrix

CV ONTAP

SnapMirror

EBS

AEC

NetApp

AWS
NetApp FabricPool – Tiering Solution

- Automatic tiering
- Zero-touch management
- Preserves file system
- Lower cost of ownership

Cloud Tier

Object Storage
雲應用場景三：提供企業級高效能的雲端檔案分享服務
NetApp Cloud Volumes Service (CVS)

加速企業應用程序在公有雲上的部署和開發
NetApp實現的雲端文件存取服務

DEPLOY MORE WORKLOAD IN THE CLOUD
• 全方位支援NFS 和 SMB, 提供最佳效能與資料管理

GO FROM ZERO TO 100TB
• 提供三種效能設定, 於幾秒鐘內部署高效能檔案分享系統

PAY-AS-YOU-GO
• 從 "持有" 到 "使用" (從 CapEx 到 OpEx 的費用)

SECURE AND PROTECT DATA
• 業界領先的高可用性和資料保護

COPY DEV/OPS WORKSPACES INSTANTLY
• 加快您的業務週期

INTEGRATED WITH THE BIGGEST CLOUD PROVIDERS
• 充分整合與使用公有雲資源
Synchronizes NAS data with cloud object storage
Synchronizes NAS data with other NAS data platforms
Easy-to-use dashboard for control and scheduling
Detailed monitoring of sync relationships and status
Failure and error alerts
NetApp SaaS Backup

SaaS
(such as, Office 365)

App Service
(such as, Exchange Online, SharePoint Online, and OneDrive for Business)

- AWS NA (Virginia)
- AWS EMEA (Dublin)
- AWS APAC (Sydney)

Backup

User tiering

Restore In place
Same user/site

Restore out of place
Another user/site

Office 365

Reporting and user activity logging

- Backup-as-a-Service Platform for Office 365
- Easy to configure (less than five minutes)
- No installs, executables or agents
- Auto-scaling, born in the cloud backup
應用場景六：如何管理及維運複雜的混合雲？

NetApp Cloud Insight - An industry-leading data services stack

- NetApp Cloud Insights
- NetApp Cloud Controls
- ONTAP Data Management
  Backup, Protection, Security, and so on

- On-Premises
- Cloud Storage
- Software-as-a-Service (SaaS) Applications
總結: NetApp 多元的Cloud Service
歡迎蒞臨 cloud.netapp.com

- Cloud Volumes Service (CVS)
  - 為無存儲管理經驗的使用者提供一個高效能的檔案存儲服務

- Cloud Volumes ONTAP (CVO)
  - 提供使用者一個自我管理且具靈活性的資料存儲雲服務

- NetApp Kubernetes Service (NKS)
  - 提供Kubernetes的管理主控台。透過3步驟，可輕鬆在公有雲或本地部署Kubernetes Clusters。

- Cloud Insights (CI)
  - 提供企業內部與公有雲一個全面、完整的工具，可監控、部署、障礙排除及優化存儲資源。

- Cloud Sync (CSync)
  - 一個快速、安全的檔案資料同步服務

- SaaS Backup (SB)
  - 保護您的O365和Salesforce資料免受威脅、意外刪除和損壞。

- NetApp即將推出新的雲服務：
  - Cloud Secure、Cloud Tiering、Cloud Backup Service
Key Takeaways

- NetApp Data Fabric
- Data Pipeline – From Edge to Core to Cloud
- NetApp Cloud Data Services
NetApp 5大優勢
買得安心、事後放心

1. 市佔率第一品牌
2. 多雲整合最完整
3. 全台四大備品倉
4. 台灣研發、在地支援
5. 實現 IT 投資最高價值
THANK YOU