



賽門鐵克雲端運算解決方案

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資深顧問 技術暨解決方案

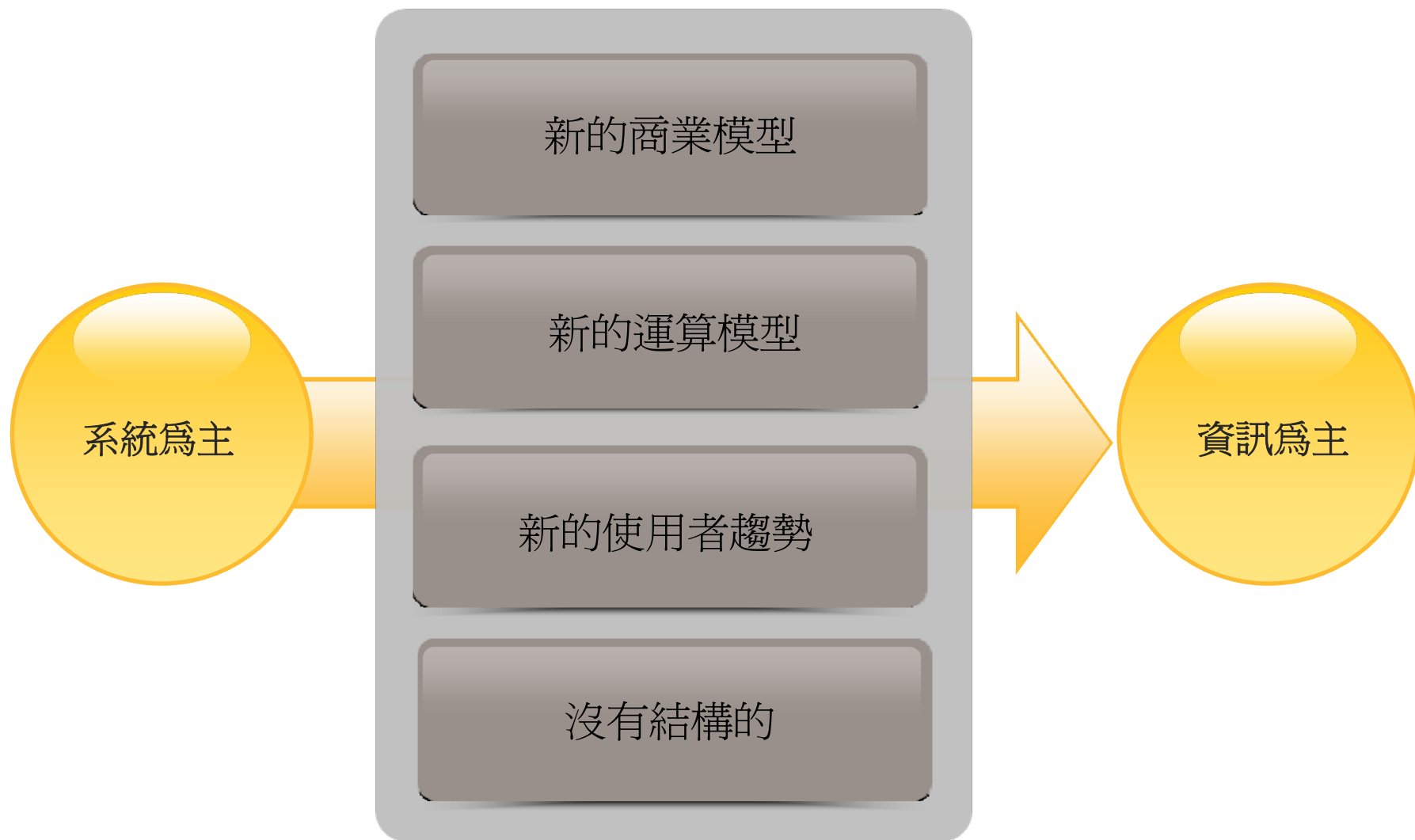
內容

1. 賽門鐵克雲端運算策略
 - 針對雲端運算的願景與藍圖
2. 賽門鐵克雲端運算服務
 - 提供四種方法讓您上雲端
3. 賽門鐵克針對雲端運算的部署及可用性
 - 如何建置可用性之雲端服務
4. 賽門鐵克針對雲端運算的資料安全性
 - 如何確保雲端服務資料安全性

賽門鐵克雲端運算策略

針對雲端運算的願景與藍圖

資訊逐漸自系統獨立出來



針對資訊安全及管理的資訊為主之模型

針對 IT 管理 以資訊為中心的模型

整合的 治理

遵循
報表
政策
危險修正
搜索

關聯的 資訊 智庫

分類
搜尋 & 索引
威脅 Intelligence
權限管理
所有權/使用方式

一致的 基礎架構 管理

資訊安全
可用性
備份/還原
儲存管理
端點管理



端點



資料中心



雲端/SaaS

挑戰

- 資訊分散在由設備, 基礎架構 & 服務所組成的複雜網路上
- 危機散佈在多個據點:
 - 用戶, 資料中心, 雲端, 服務提供者, 地理
- 企業產品僅專注在其運作
 - 資訊被獨立掃描, 分析, 處理, 拷貝, 且不只一次
 - 有限的知識分享 – 存在, 地區, 使用方式, 價值, 內容, 等等.

機會

- 套用我們“一般且共享的”企業資訊相關的知識
- 讓資訊管理及運作變得更有效率, 快速, 且能夠互相關聯
- 橫跨高度虛擬化, 分散的, 雲端化的運算環境

將 workloads 移到雲端上

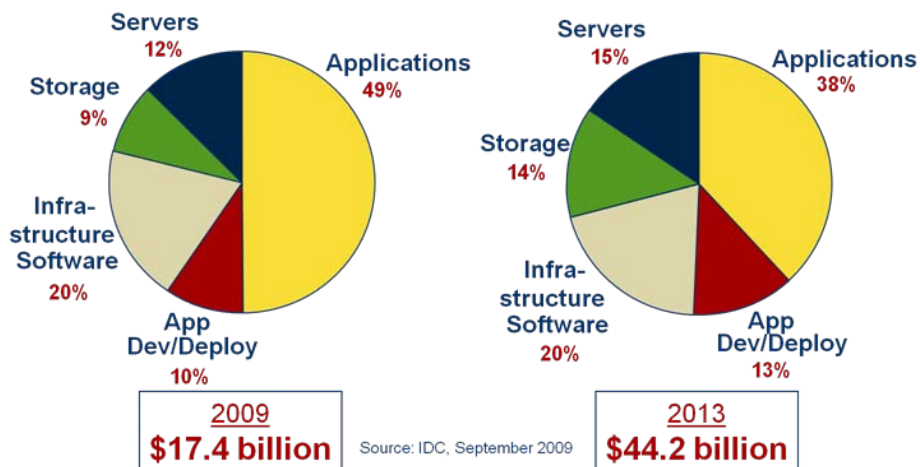
"One of the assumptions about cloud computing is that it's basically a simple matter of choosing an application workload and finding the best place to host it from a pricing perspective.

But now all cloud computing services are created equal, and there are many issues related to security, governance and identity management that need to be worked out.

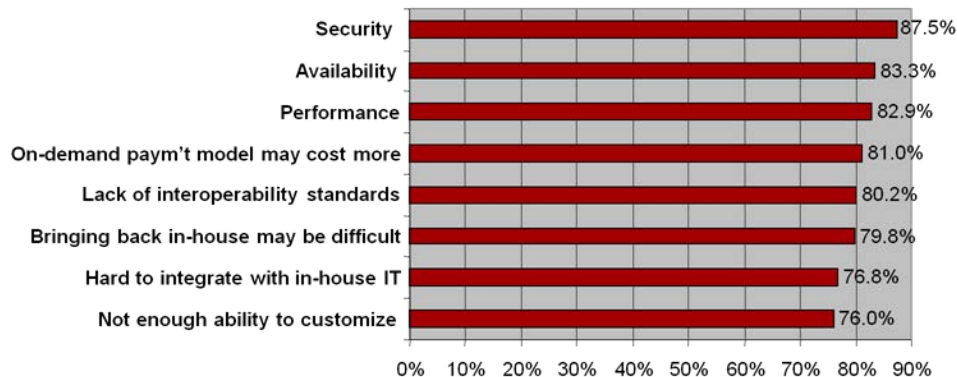
And if truth be told, more often than not, an IT organization is going to discover that an application workload sitting behind a corporate firewall today is not in any real shape to be exposed to the outside world."

Michael Vizard, IT BusinessEdge

Worldwide IT Cloud Services Revenue* by Product/Service Type

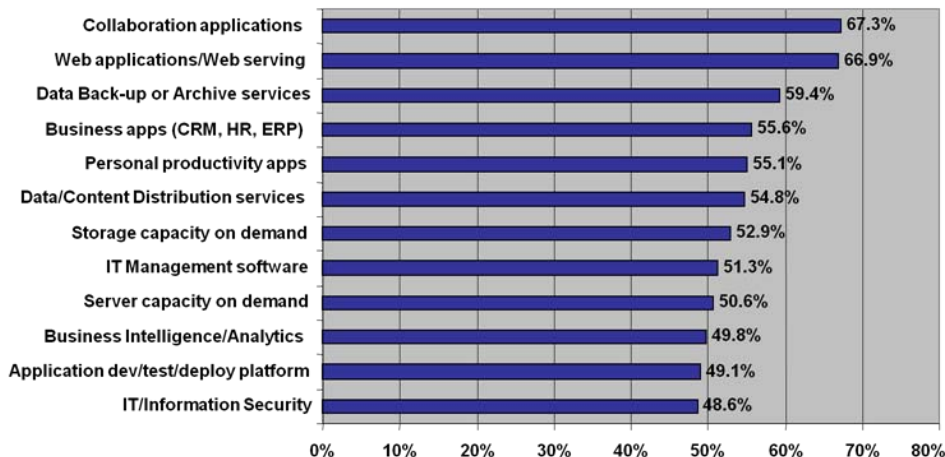


Q: Rate the **challenges/issues** of the 'cloud'/on-demand model



Source: IDC Enterprise Panel, 3Q09, n = 263, September 2009

Q: Rate your **likelihood** to pursue the cloud model for the following



Source: IDC Enterprise Panel, 3Q09, n = 263, September 2009

IT 管理軟體的雲端化

針對 IT 管理的 資訊為主的模型

整合的 治理

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端點管理



端點

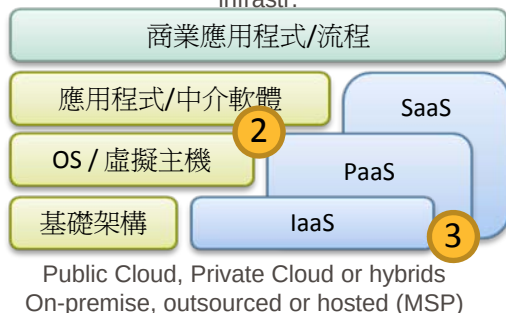
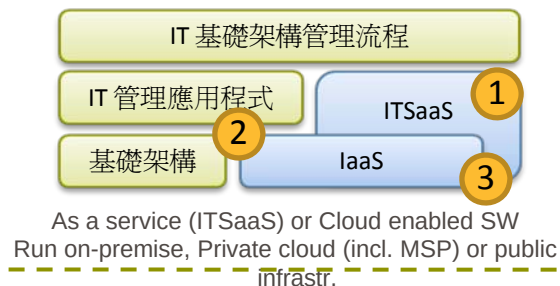


資料中心



雲端/SaaS

雲端導入模型



賽門鐵克雲端策略

- 1 SHS ITSaaS offerings
提供 Symantec Hosted Services, 協助消費者及企業針對資訊執行管理及安全.
- 2 EPG Cloud enabled IT SW
讓用戶可部署賽門鐵克解決方案在公有雲上. 並透過企業內的賽門鐵克軟體及雲端服務, 針對現有架構進行強化
- 3 EPG Infrastructure for cloud computing
提供資訊安全及管理軟體及經驗給企業與服務提供者, 協助建立公有或私有雲端運算環境.

雲端導入模型會依客戶族群有所不同

客戶群組	Channel	雲端導入模型	導入/ 準備狀況	EPG Priority	範例
大型企業	Direct	On-premise private	■ ■ ■ ■	高	• VMware as a private cloud platform
		SaaS	■ ■ □ □	中	• Salesforce.com, SuccessFactors.com
		PaaS/IaaS (public)	■ □ □ □	中	• SQL on Amazon EC2 or MSFT Azure
		ITSaaS	■ ■ □ □	中	• SHS messaging security
	Indirect (e.g. MSP, integrator, etc.)	ITSaaS	■ ■ □ □	中	• CSC reselling SHS, EV, DLP
		Hosted private cloud	■ ■ ■ □	高	• CSC/EDS/IGS hosted services
中小企業 SMB 個人工作室	Direct	On-premise private	■ □ □ □	低	• VMware as a private cloud platform
		SaaS	■ ■ ■ □	高	• MSFT Bus. Prod. Onl. Suite (BPOS)
		PaaS/IaaS (public)	■ ■ □ □	中	• SQL on Amazon EC2 or MSFT Azure
		ITSaaS	■ ■ □ □	中	• Mozy.com
	Indirect (e.g., MSP VAR)	MSP mgmt of public cloud	■ □ □ □	低	• Mgd SQL on Amazon EC2
		MSP mgmt of private cloud (incl. ITSaaS)	■ ■ ■ ■	高	• MSP mgmt of on-premise endpoints

賽門鐵克現在所提供的解決方案

客戶群組	導入模型	1 SHS – ITSaaS	2 EPG – 雲端啓用的 IT 軟體	3 EPG – infra. provider
Enterprise	On-premise private		- NBU/VCS for VMware - SEP for VMware (<i>not optimized</i>)	- FileStore - CNFS (cluster NFS)
	SaaS			
	PaaS/IaaS		SEP/SFb on Amazon EC2	SMS for SMTP
	ITSaaS	Msg/web security	Veritas Op. Services (VOS)	
	Hosted private	Resell msg/web security		Hosted EV, DLP, backup (early stages)
SME SMB SOHO	On-premise private		BE for VMware	
	SaaS			
	PaaS/IaaS		- BE to SHS (SPN) - SEP on Amazon EC2	
	ITSaaS	- Msg/web security [Online backup (SPN)]		
	MSP mgd. public			
	MSP mgd. private cloud (+ITSaaS)			SMS for SMTP

針對雲端運算的賽門鐵克基礎架構解決方案

雲端需求

- ✓ 服務為主
- ✓ 可擴充性及彈性
- ✓ 共享的
- ✓ 服務層級



關鍵技術

- ✓ 虛擬化的伺服器
- ✓ 虛擬化的存儲
- ✓ Scale out architectures
- ✓ 自動化的 HA/DR
- ✓ 常見的 HW



賽門鐵克解決方案

- ✓ 資訊安全 & 企業規範
- ✓ 儲存管理
- ✓ 叢集儲存架構
- ✓ 備份及歸檔
- ✓ 可用性
- ✓ 端點虛擬化
- ✓ 雲端規劃服務



賽門鐵克雲端運算服務

提供四種方法讓您上雲端

雲端運算一覽

什麼是雲端運算

- 可大幅擴充以及提供各式各樣彈性的 IT 功能...
- 以服務形式提供 ...
- 用多少付多少 ...
- 虛擬化及自動化架構

雲端服務類型

軟體 (SaaS)

平台 (PaaS)

基礎架構 (IaaS)

部署方式

- 公共 – 一般大眾可用的服務
- 私人 – 由單一實體代替該實體管理的服務
- 混合 – 協調私人與公共雲端服務以提供完整的商業流程或解決方案

雲端部署模式

公共

私人

混合

Cloud Service Provider Models

公有雲

提供給一般大眾的服務

私有雲

因為某企業需求而提供給單一企業的服務

混合雲

協調私有與公有的服務以提供完整的解決方案

常見的特質

- ✓ 服務為主
- ✓ 擴充性及彈性
- ✓ 共享的
- ✓ 自助服務
- ✓ 使用現付
- ✓ 網際網路技術

雲端運算帶來的好處與利益

- 更低的基礎架構成本
 - 商品化硬體 (伺服器、儲存陣列)
 - 虛擬化基礎架構
- 更低的作業成本
 - 自助式模式
 - 自動化部署
 - 商品化應用程式
- 更高的機動性
 - 小量漸進式擴充 - 用多少付多少
 - 不需簽訂長期合約



“雲端運算為透過網路互相連結的各種 IT 資源 (如服務)，可以大幅擴充並透過虛擬化方式來提供服務；客戶可以依據不同的成本模式及其使用量付費。

”

賽門鐵克，2009 年 9 月

三步上雲端



作業轉型

更有效地管理今日的技術

- 停止購買儲存裝置
- 最佳化復原作業
- 作業自動化



資料中心轉型

最佳化伺服器與儲存裝置
基礎架構

- 資料中心整合
- 虛擬環境的高可用性與災難復原能力



雲端服務轉型

善用企業中的網路架構

- 善用外部雲端服務
- 建立內部儲存雲端服務

全方位防護

最佳化基礎架構

輕鬆管理

賽門鐵克提供四種方法讓您上雲端

Hosted Services

- 提供SaaS服務(hosted service)給企業與消費者
 - ✓ Symantec.cloud (前 MessageLabs)
 - ✓ Symantec Protection Network
 - ✓ Norton 線上備份

Cloud Infrastructure

- 透過賽門鐵克的服務與軟體，協助客戶建置私雲基礎架構
- Symantec FileStore
- 運用在 Symantec 自己的雲端服務上的儲存架構及管理

Cloud-Ready Software

- 提供賽門鐵克「雲端版」軟體與 third-party 雲端架構提供者(cloud-infrastructure)
- Amazon EC2
 - ✓ Symantec Endpoint Protection
 - ✓ Veritas Storage Foundation

Cloud Strategy Development

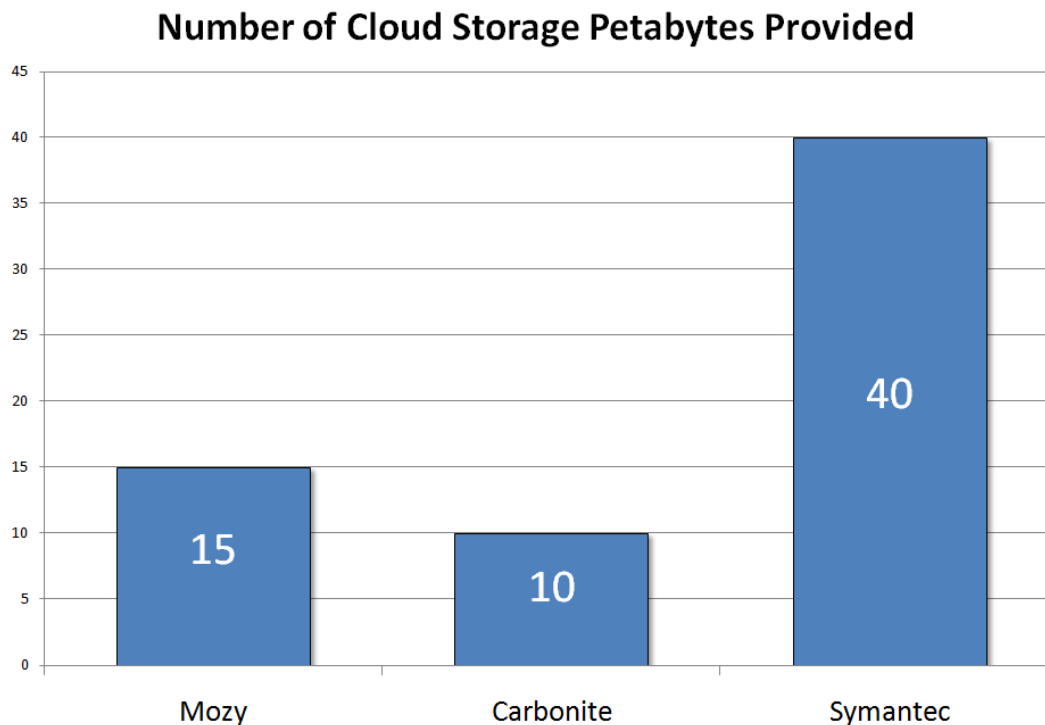
- 提供賽門鐵克顧問服務建構雲端策略

賽門鐵克線上備份服務

- 賽門鐵克是全球儲存 SaaS 的領導廠商
 - Symantec FileStore
 - Veritas Storage Foundation for Windows
 - Veritas Cluster Server
 - Symantec Endpoint Protection
 - Altiris Deployment Server

40 PB

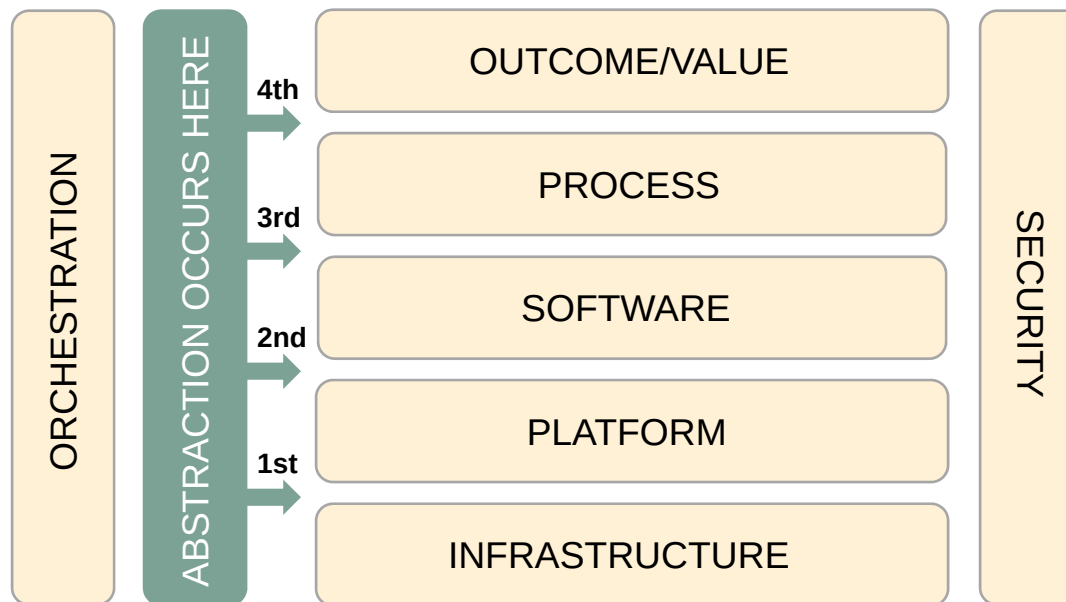
管理的儲存量



Source: Symantec
Data from Mozy May 2009; TechTarget April 2009; and Symantec September 2009

Cloud Computing Abstraction Layers

- 從底層軟體及硬體將定義好的服務各自獨立
- 協助企業定義及專注在服務管理



雲端的驅動者 vs 雲端的抑制者

驅動者

- ✓ 敏捷度
- ✓ 靈活性
- ✓ 花費
- ✓ 組合的合理化

抑制者

- ✓ 文化的規範
- ✓ 服務層級
- ✓ 資訊安全
- ✓ 資料隱密性

信賴讓雲端變的可行

“Trust is the key characteristic of the cloud service consumer-provider model.”

- Gartner, Oct 2009

Confidence

Information Portability and Ownership

Information Privacy

Information Protection

Security

Availability

針對雲端運算的賽門鐵克基礎架構解決方案

雲端運算 需求

- ✓ 服務為主
- ✓ 可擴充性及靈活的
- ✓ 共享
- ✓ 服務品質管控



關鍵 技術

- ✓ 虛擬伺服器
- ✓ 虛擬儲存空間
- ✓ 向外擴充的架構
- ✓ 自動化的 HA/DR
- ✓ 市面上常見的硬體

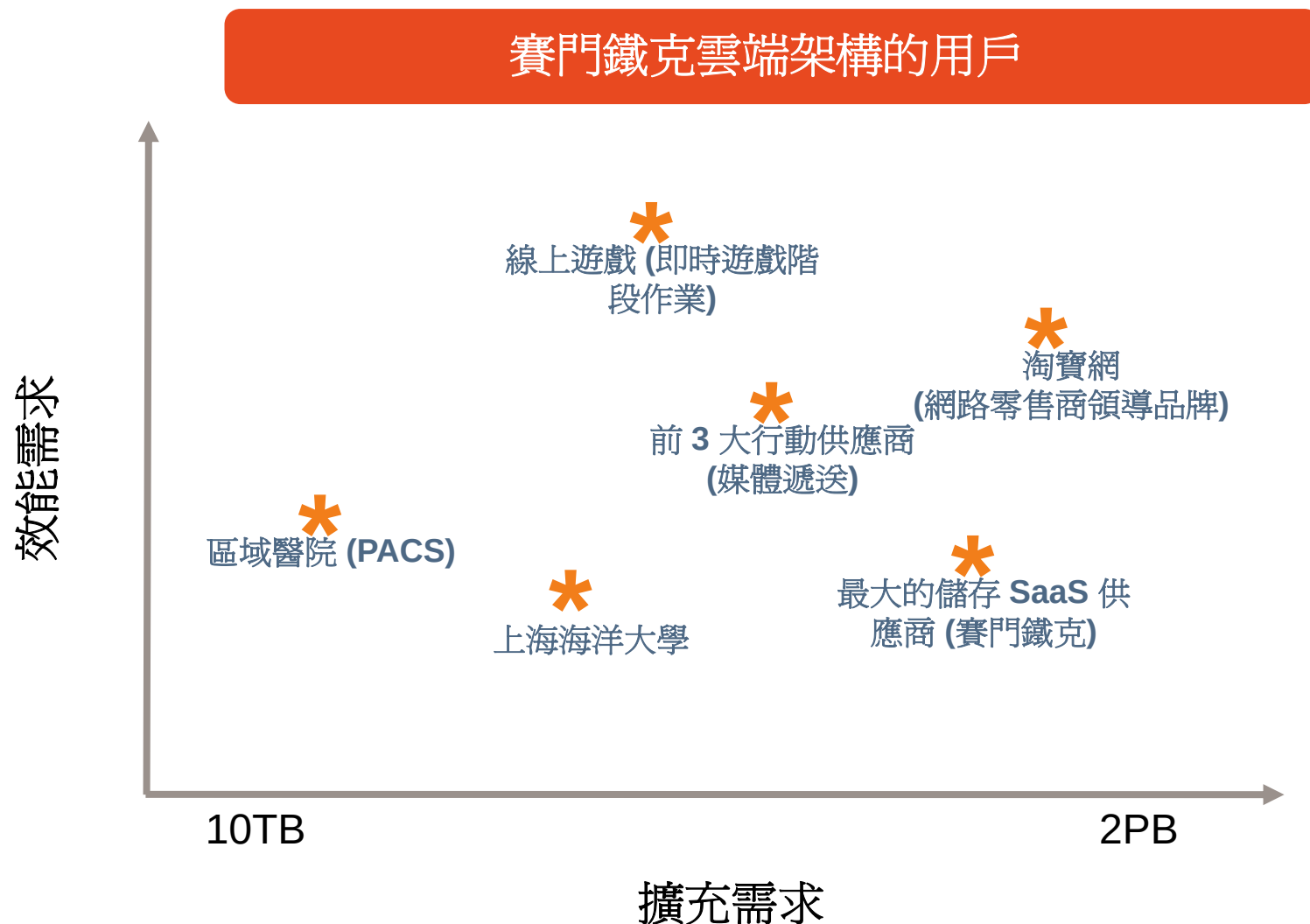


賽門鐵克 解決方案

- ✓ 資安 & 遵循
- ✓ 儲存管理
- ✓ 叢即儲存架構
- ✓ 備份與歸檔
- ✓ 可用性
- ✓ 端點虛擬化
- ✓ 雲端運算規劃服務



滿足各類應用程式需求的彈性儲存平台



賽門鐵克市場領導地位

	2008	2012	Market Position	Market Share
Consumer Security	\$3.4B	\$5.4B	#1	53%
Enterprise Security	\$2.9B	\$4.4B	#1	24%
Backup and Recovery	\$3.2B	\$4.3B	#1	40%
Compliance	\$1.6B	\$3.2B	#1	11%
SaaS	\$1.0B	\$2.8B	#1	-
Online Backup	\$0.8B	\$2.1B	#1	-
Storage Management	\$1.3B	\$1.8B	#1	52%
Archiving	\$0.5B	\$1.1B	#1	36%
Data Loss Prevention	\$0.2B	\$0.9B	#1	38%

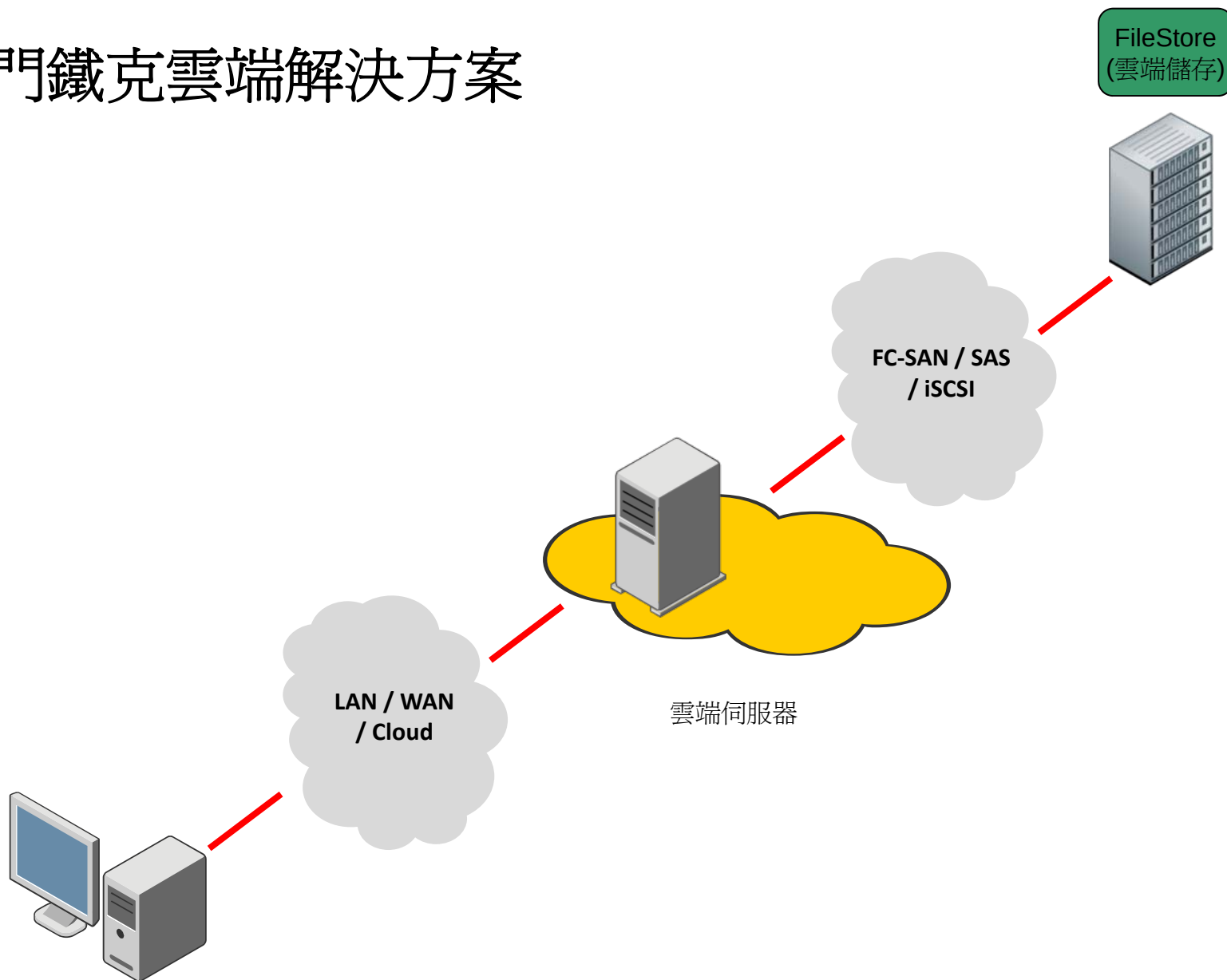
Source: IDC

賽門鐵克針對雲端運算的部署及可性

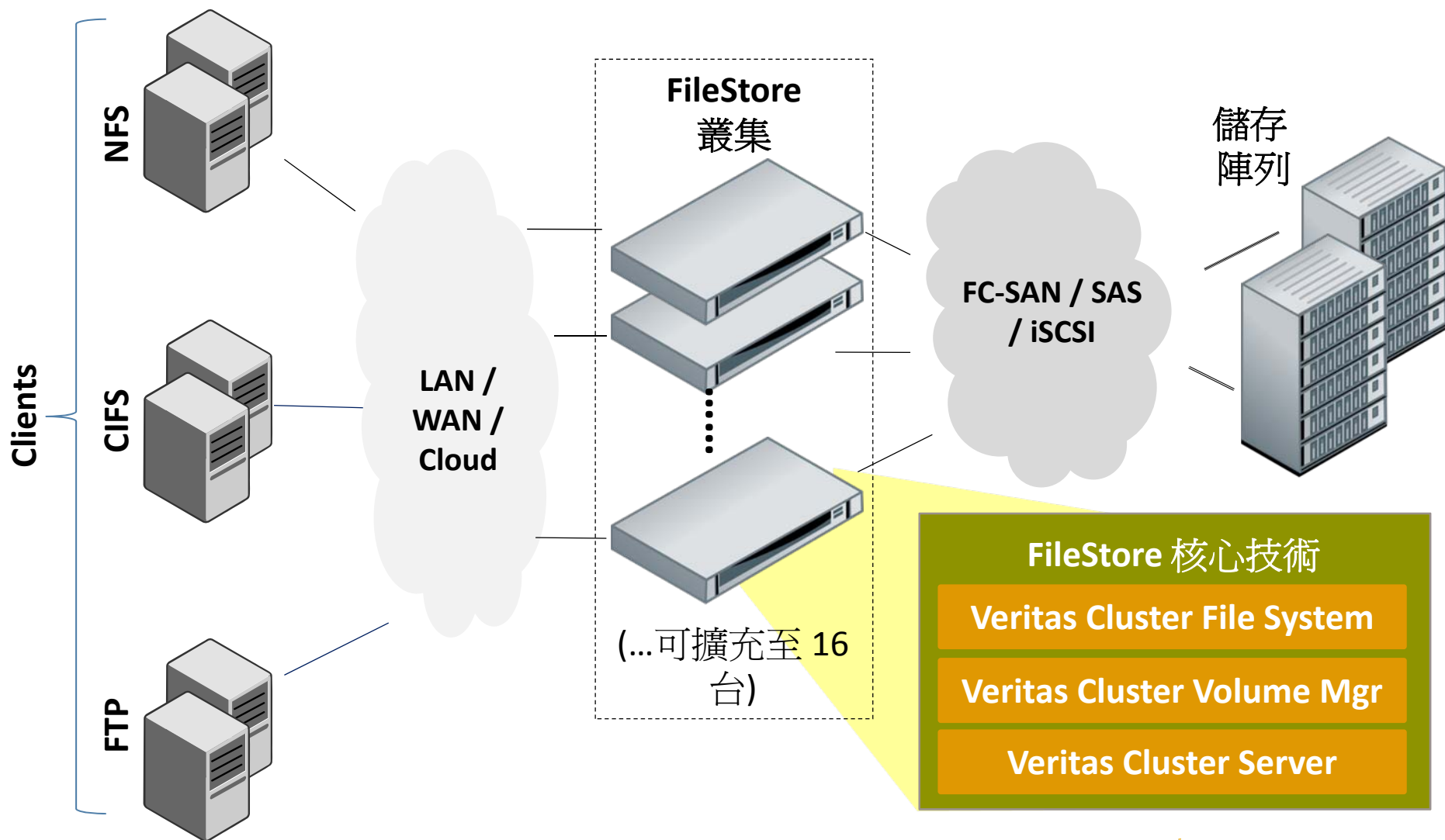
如何建置可用性之雲端服務

如何建置可用性之雲端服務 (雲端儲存服務)

賽門鐵克雲端解決方案



一個可擴充性的架構



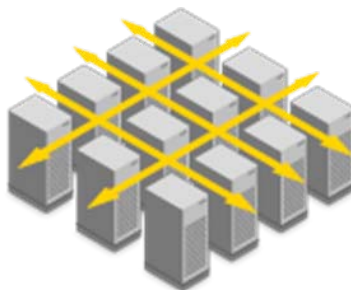
FileStore 主要功能

- 領先企業的效能
- 多樣化的負載支援
- 依需求進行有效率的擴充



效能與擴充性

- 快速的故障轉移
- 所有運作皆為線上操作



可用性

- 和賽門鐵克資訊服務緊密結合：
 - NetBackup
 - Endpoint Protection
 - Dynamic storage tiering



功能

同時享有效能與空間上絕佳的擴充能力

效能方面的擴充性:

- 領先業界的效能
- 可擴充到 16 台主機, 方便資料的儲存
- 絕佳的小型及大型檔案效能

空間上的擴充性:

- 256TB / 檔案系統
 - 每個檔案系統可儲存最多 2 億個檔案
 - 2PB / 叢集
- 可用性
 - 小於 20 秒的 failover 時間

SPECsfs 2008 IOPS 排名

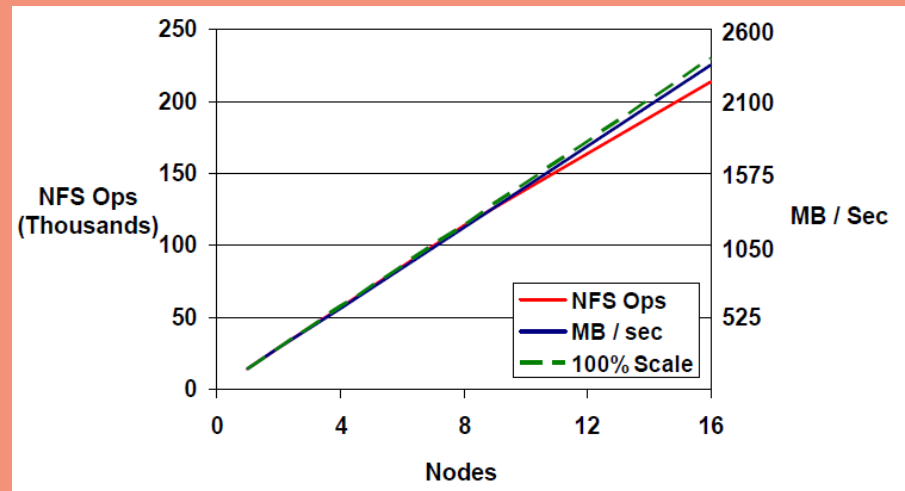
#1 – FileStore – 176,728 ops/sec

#2 – BlueArc – 146K ops/sec

#3 – HP – 135K ops/sec (using VxFS)

#5 – NetApp FAS6080 – 120K ops/sec

線性擴充

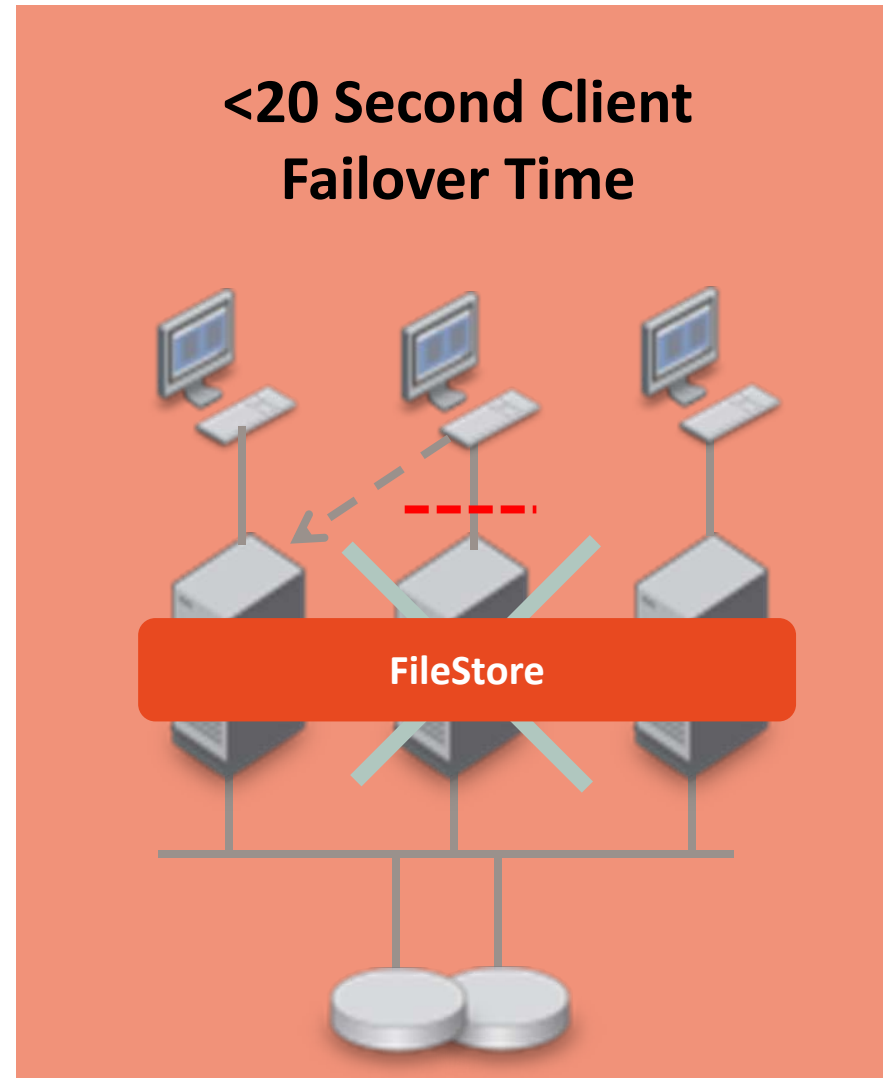


讓雲端儲存服務永遠是上線狀態

以下動作也不會造成影響：

- 新增主機 / 升級
- 新增儲存空間 / 升級
- 快照
- 主機損毀
- 升級 / 維護

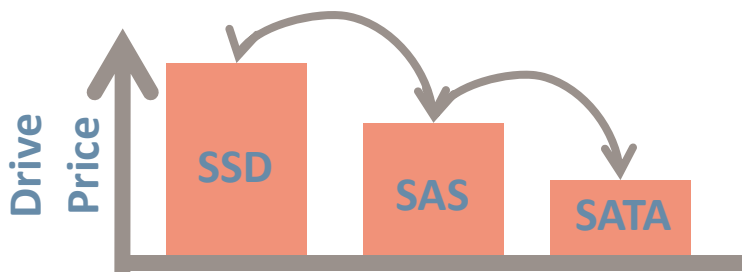
每一台主機皆會提供資料的存取, 所以每台連線的主機會從損毀的主機轉移到運作中的主機



一個資訊服務的平台

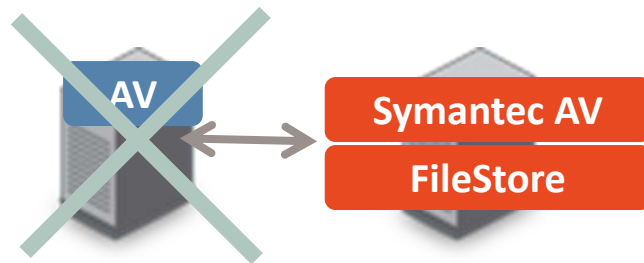
動態階層式分類

聰明的將資料移到更便宜的磁碟上 (以及移回來)



防毒

透過內建的病毒掃描，降低可能性的影響



備份

透過內建的 NetBackup 元件，降低備份時間

- 更高的效能
- 更簡化的管理
- 更少的伺服器需求

FileStore – 和 NetBackup 整合所帶來的優勢

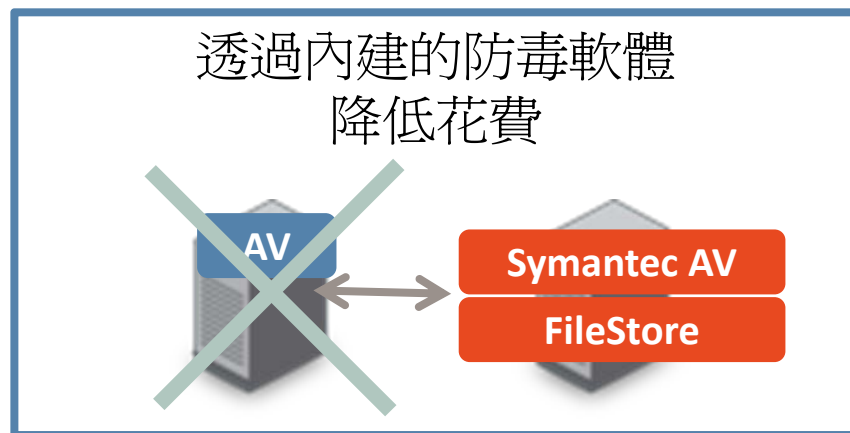
- FileStore 出貨時便內建了 NetBackup SAN Client, 允許客戶可透過 SAN 將資料執行快速的備份.
- 而 SAN Client 和 NDMP 備份比較起來有顯著的優勢:
 - 更快的備份效果: SAN client 備份速度和 NDMP 比較起來快上 5到10 倍.
 - SAN Client @ 400MBps-500MBps / NDMP @ 30MBps-70MBps
 - 更容易的設定/管理: 透過內建的 SAN client, 使用者不需要執行 NDMP 的設定及認證的步驟.
 - 檔案層級的還原: NetBackup 可做到更快速, 更簡單的檔案還原.

透過內建的 NetBackup,
降低 backup windows

- 更高的效能
- 更簡單的管理
- 更少的伺服器需求

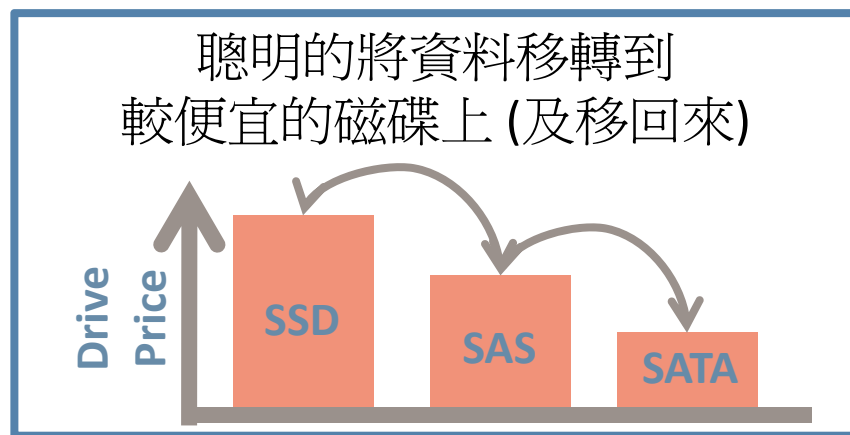
FileStore – 和 Symantec AV 整合所帶來的優勢

- FileStore 出貨時便內建 Symantec 防毒軟體, 允許使用者可以直接在 FileStore 叢集內執行掃毒動作. 使用者可以搭配外部的掃毒伺服器使用.
- 內建防毒軟體的優勢:
 - 更快速的檔案存取
 - 降低網路消耗約 20% 左右
 - 更簡單的管理: 從 FileStore 管理介面便可以控制防毒軟體的運作

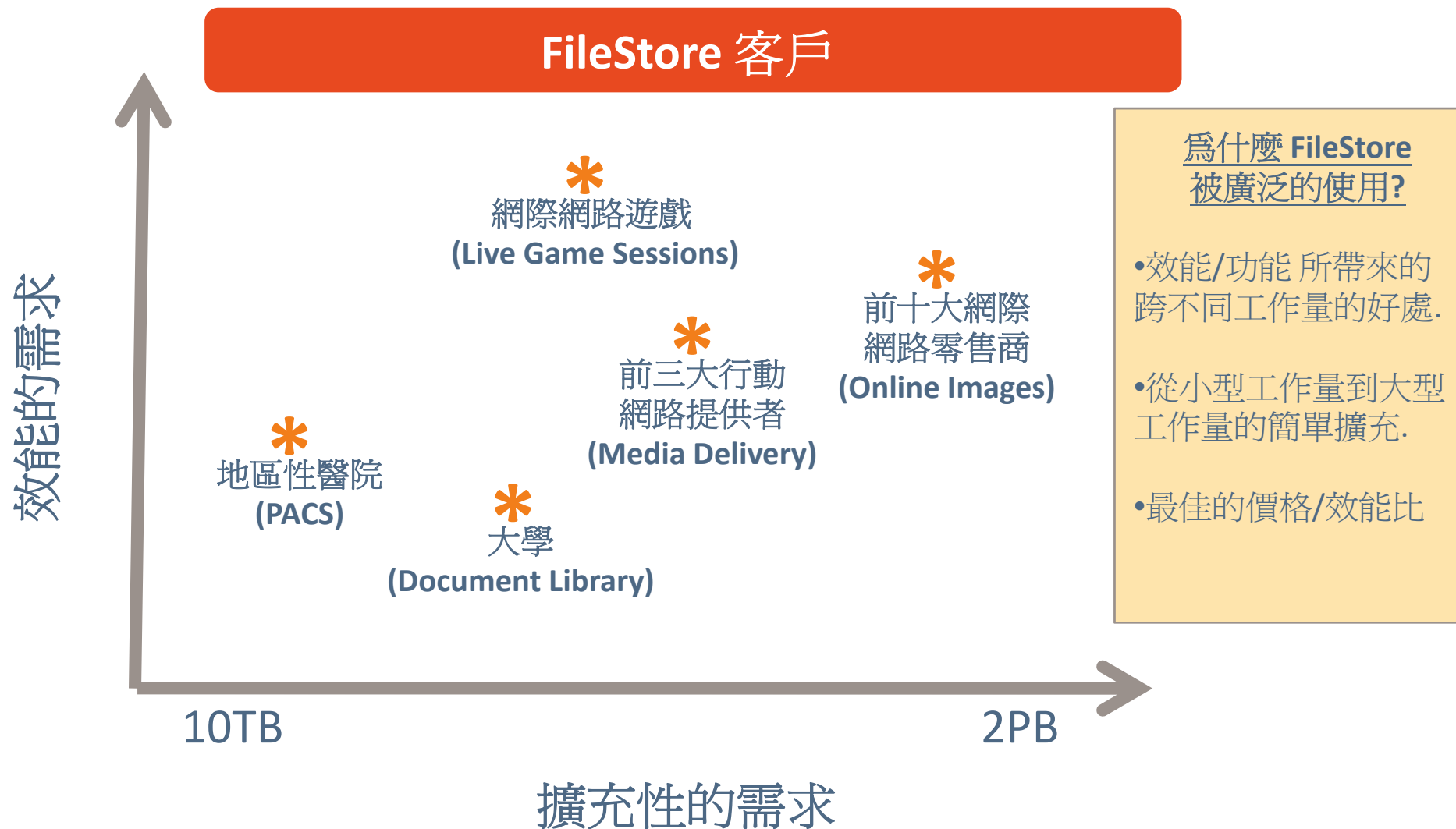


FileStore – Symantec Storage Tiering 所帶來的優勢

- FileStore 使用者可以享受到階層式儲存架構所帶來的好處, 可自動將資料依照使用模式在不同階層的磁碟之間移轉.
- 階層式儲存架構所帶來的優勢:
 - 透過將較少使用的檔案放在較便宜的磁碟上降低儲存的花費.
 - 靈活的政策 – 很少使用的就移轉到便宜儲存空間上; 經常使用的就移轉到高階的儲存空間上



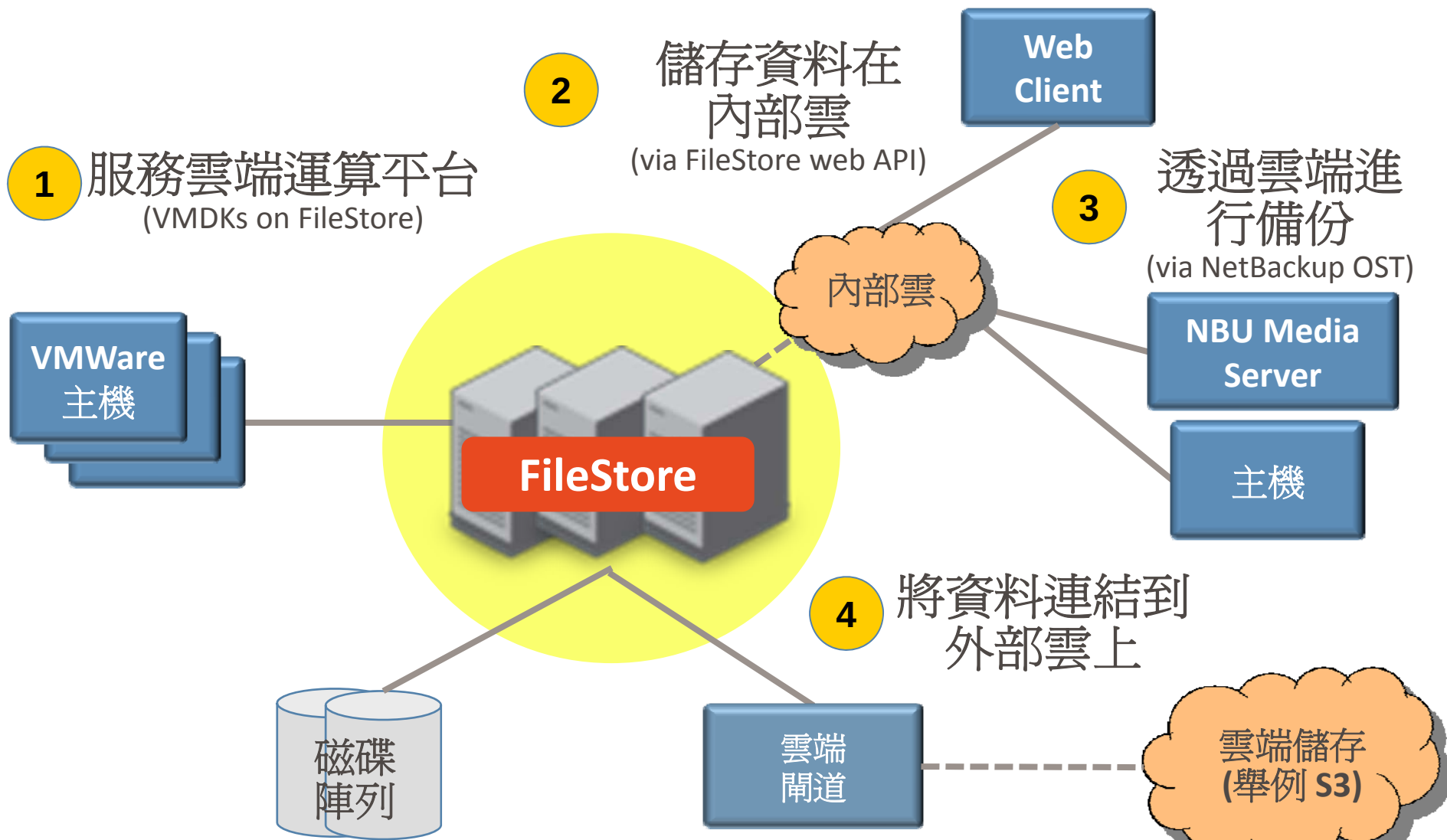
一個可以滿足任何工作量需求的 NAS 平台



接下來

- 會和 Enterprise Vault 進行整合, 提供資料歸檔功能
- VMWare 最佳化 – cloning; 和 vCenter 整合
- 和 資料外洩防禦 (DLP) 解決方案整合

一個雲端的樞紐



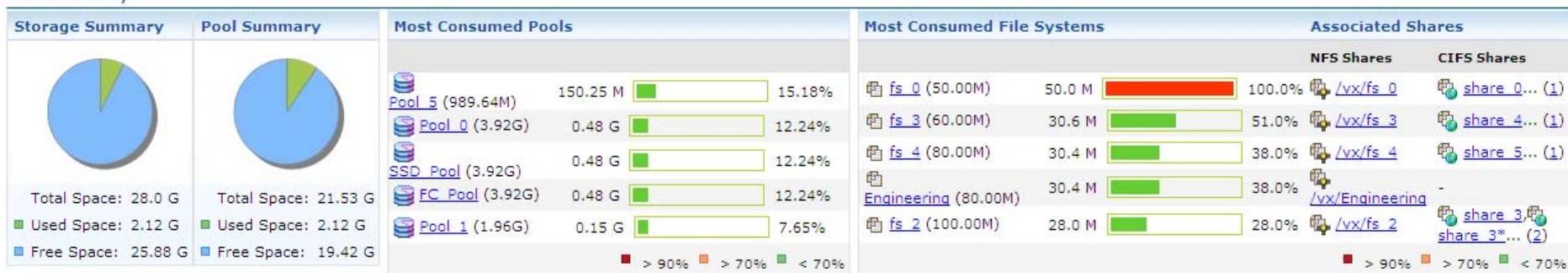
FileStore GUI – 儀表板

About | Logout | Help

[Home](#) | [File Systems](#) | [Shares](#) | [Storage](#) | [Cluster](#) | [Replication](#) | [Settings](#)

[Summary](#) | [Alerts](#)

Summary



Status Summary				
		File Systems	Snapshots	Nodes
	Total	16	26	1
■	Faulted	0	0	0
■	At Risk	0	0	0
■	Online	16	5	1
■	Offline	0	21	0

Disk Status		
Node	Online	Offline
gui10_02	0	1
gui8_01	14	0
-	-	-
-	-	-
-	-	-

Share Status				
Node	NFS Share		CIFS Share	
	Online	Offline	Online	Offline
gui8_01	12	2	7	4
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Service Status					
Node	NFS	CIFS	FTP	Console	Backup
gui8_01	Offline	Offline	Online	Online	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
Offline IPs:-					

FileStore GUI – 檔案系統列表

 Symantec™ FileStore About | Logout | Help

Home | **File Systems** | **Shares** | **Storage** | **Cluster** | **Replication** | **Settings**

File Systems | Snapshots |

File Systems

File Systems

-- Select Filter -- [Advanced ▼](#)

☐	Name ▲	Protocol	DST	Status	No of Snapshots	Layout	Total Space	Used Space	% Used
☐	 fs_0	NFS	-	Online	0	Mirrored	50 M	50 M	100.0%
☐	 fs_1	CIFS,NFS	Enabled	Online	2	Mirrored	100 M	4 M	4.0%
☐	 fs_3	CIFS,NFS	-	Online	0	Simple	60 M	30 M	51.0%
☐	 fs_5	NFS	-	Online	10	Simple	90 M	1 M	2.0%
☐	 fs_2	CIFS,NFS	-	Online	12	Simple	100 M	28 M	28.0%
☐	 fs_4	NFS	-	Online	0	Simple	80 M	30 M	38.0%
☐	 fs_7	CIFS,NFS	-	Online	0	Mirrored	100 M	2 M	2.0%
☐	 fs_6	CIFS,NFS	-	Online	2	Simple	50 M	2 M	4.0%
☐	 fs_8	CIFS	-	Online	0	Simple	100 M	2 M	2.0%
☐	 fs_9	-	-	Online	0	Simple	50 M	2 M	4.0%
☐	 fs_10	-	-	Online	0	Simple	50 M	2 M	4.0%
☐	 fs_11	-	-	Online	0	Simple	50 M	2 M	4.0%
☐	 fs_999	-	-	Online	0	Simple	50 M	2 M	4.0%
☐	 Marketing	CIFS,NFS	Enabled	Online	0	Mirrored	100 M	4 M	4.0%
☐	 Sales	NFS	-	Online	0	Simple	90 M	1 M	2.0%
☐	 Engineering	NFS	-	Online	0	Simple	80 M	30 M	38.0%
Total Objects: 16									

FileStore GUI – 資料複製

Symantec™ FileStore About | Logout | Help

Home | File Systems | Shares | Storage | Cluster | Replication | Settings

Jobs | Replication Units | Schedules

Jobs

Create Modify More ▾

☐	Job Name ▲	Schedule	So
☒	job 1	schedule 1	repu
☐	job 2	schedule 1	repu
☐	job 3	schedule 1	repu
☐	job 4	schedule 1	repu
Total Objects: 4			

Modify Job - Mozilla Firefox

symantec.com https://nasgw16.engba.symantec.com:8443/sm/jsp/operation/Dialog.jsp

Modify Job

Selected Job: \$SELECTED_JOB_VALUES

SOURCE_WORKSET:

TARGET_WORKSET:

\$SCHEDULE_NAMES:

Link Name:

OK Cancel

Done

Status Message
file sent
file sent
file sent
file sent

Logged in as: [master@(unixpwd)] Page generated: [Thursday, November 5, 2009 10:47:20 AM PST]

FileStore GUI – 和 NetBackup 的整合

Symantec™ FileStore

Home | File Systems | Shares | Storage | Cluster | Replication | Settings

General | Backup | Reports | User Accounts | Upgrade | Replication

Backup

NBU

NDMP

NetBackup Settings

Master Server Name: not configured

EMM Server Name: not configured

☐ Use media server

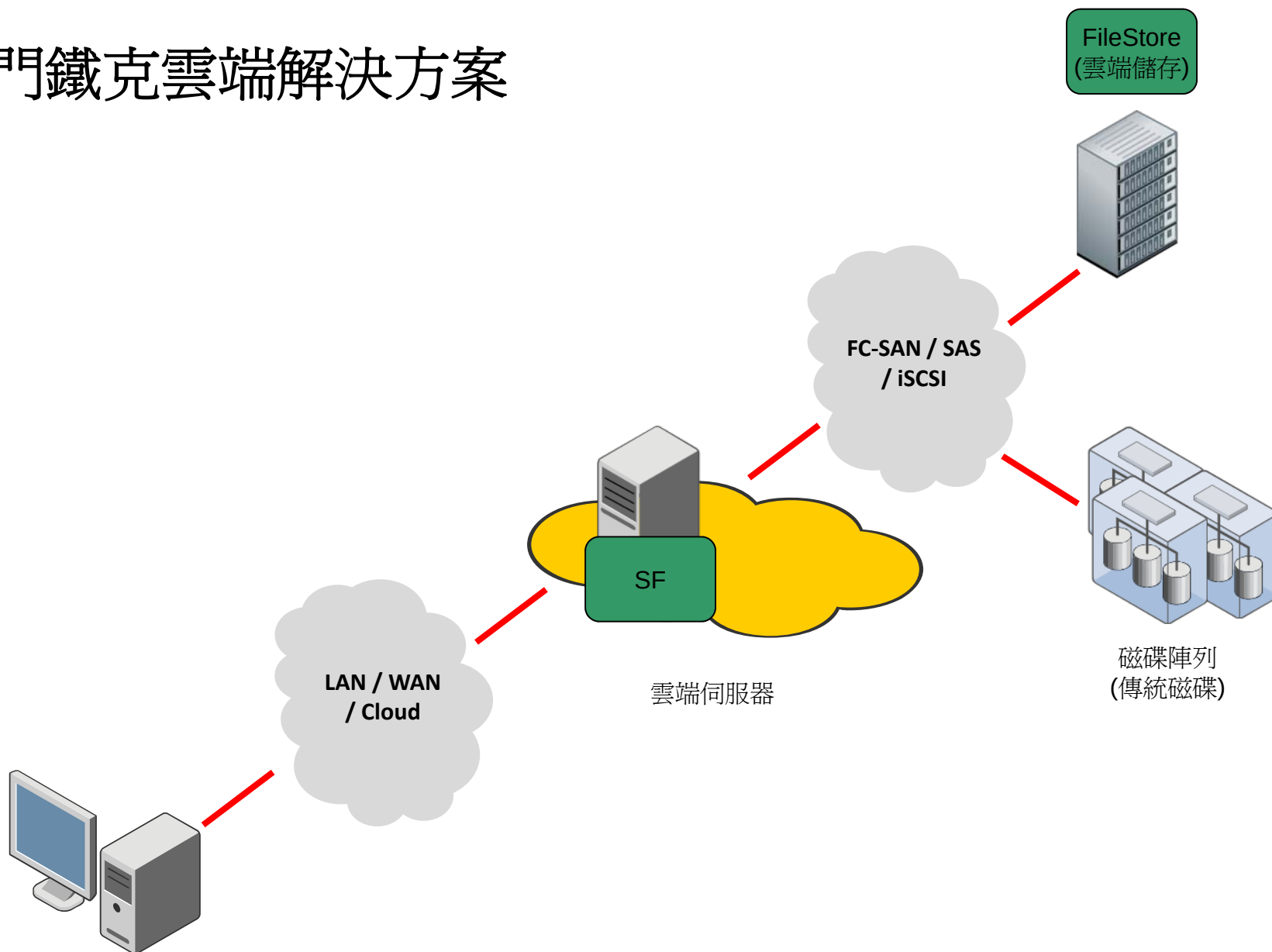
Server Name: not configured

Virtual IP: not configured

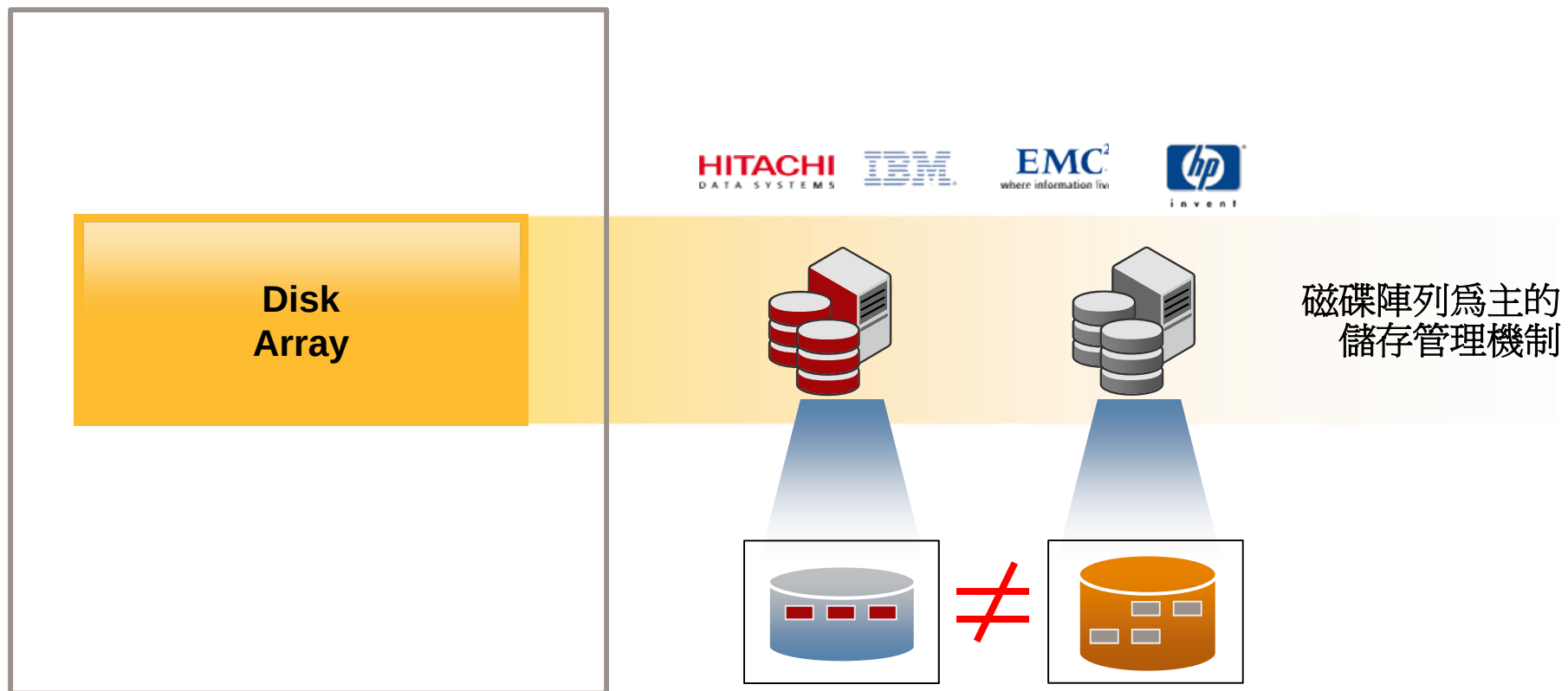
Virtual Name: not configured

如何建置可用性之雲端服務 (雲端儲存管理)

賽門鐵克雲端解決方案

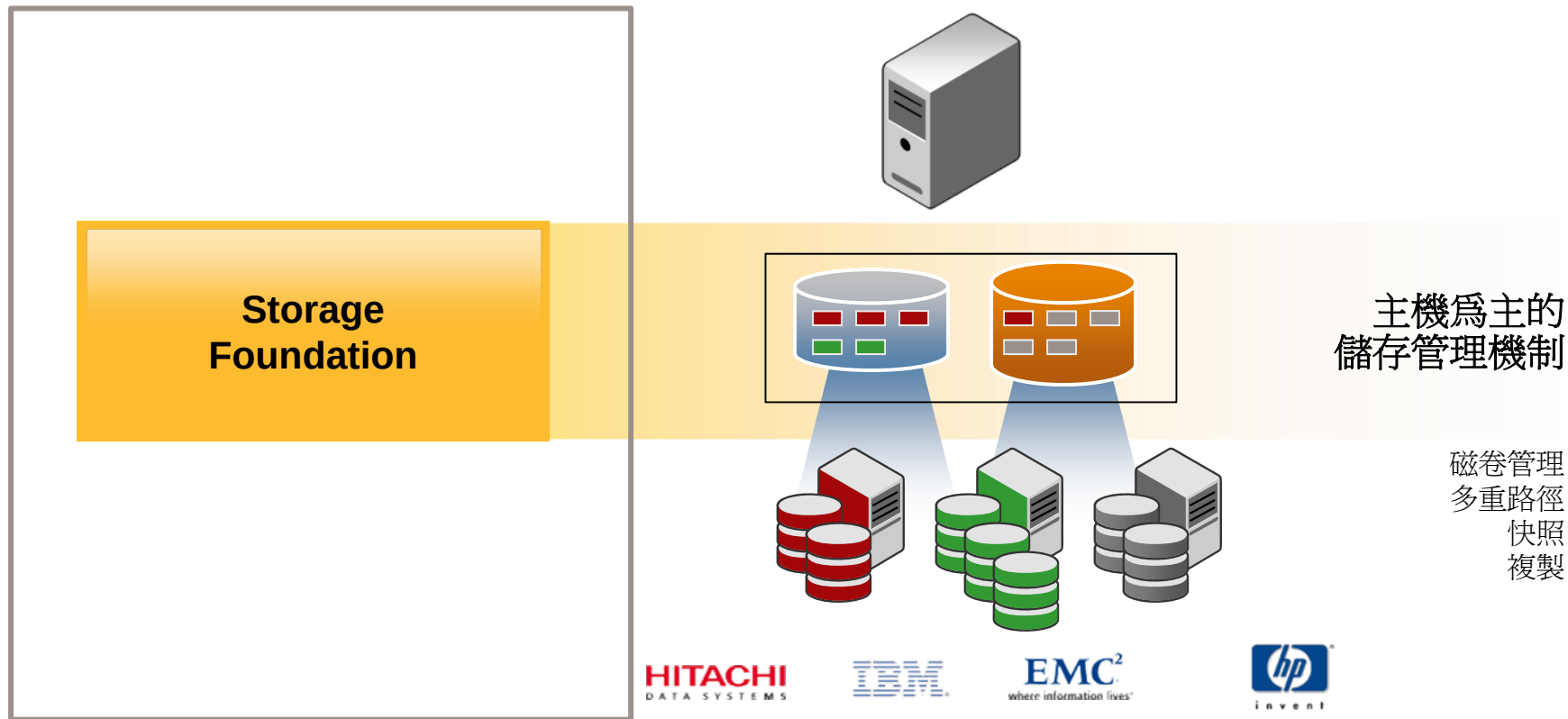


什麼是儲存虛擬化?



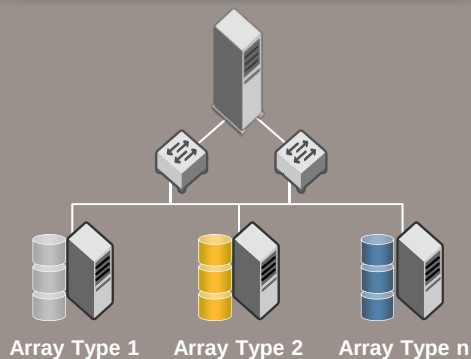
磁碟陣列之間彼此不往來, 也無法共享資源

什麼是儲存虛擬化?

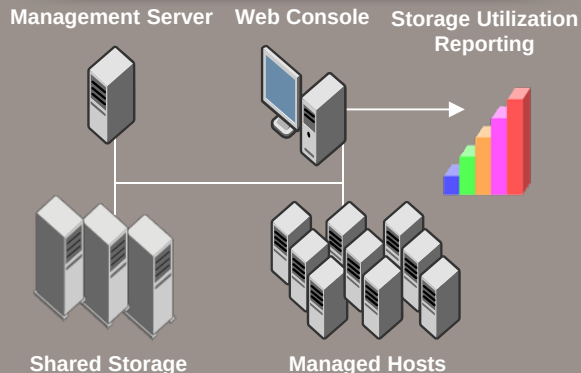


降低儲存花費及沒有計劃的當機

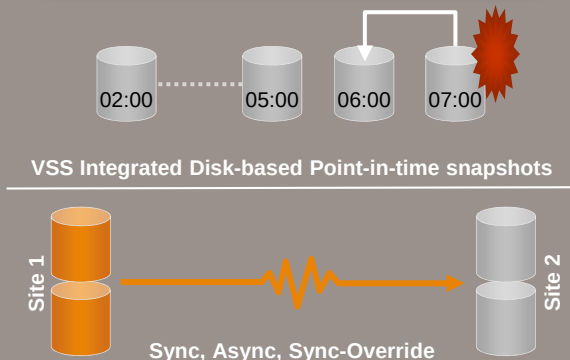
儲存設備的虛擬化



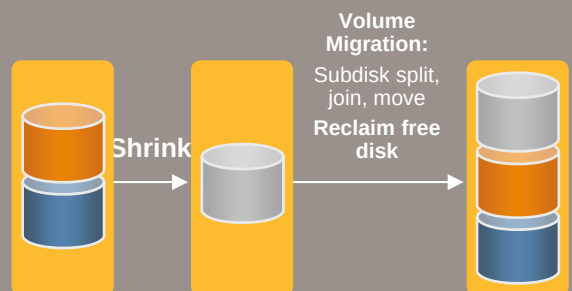
辨識儲存使用率



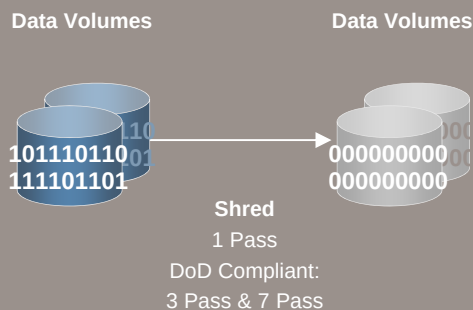
透過 FlashSnap / VVR 保護資料



取回沒有使用的儲存空間



確保資料的安全丟棄



透過 DMP 保護資料的存取



Veritas Operations Manager (VOM) – 能見度及控管的集中 提供單一介面的管理



Summary

Applications					
Business Entities			Databases		
Faulted	6			Offline	Online
At Risk	2		Oracle	11	7
Healthy	0		DB2	1	0
			MSSQL	0	0
			Sybase	5	0
All	8		All	17	

觀看及管理
異質的應用程式, 伺服器
及 儲存環境

Servers									
Hosts by Platform					Hosts by License				
OS		Faulted	At Risk	Healthy	License		Enterprise	Standard	Basic
AIX	20	2	3	15	Storage Foundation	62	53	30	0
HP	2	1	0	1	Cluster File System	78	70	0	0
Linux	62	18	7	37	SF for Windows	0	0	0	0
Solaris	93	13	7	73	High Availability	26	20	2	0
Windows	1	0	1	0	Other	178	11	114	4
All	178								

Storage									
Enclosures by Vendor					Enclosures by Connection				
Vendor		A/A	A/P	Other	Fibre Channel				
HITACHI	13	10	0	3	iSCSI				
EMC	10	1	7	2	Mixed				
3PARdata	9	9	0	0					
IBM	4	1	1	2					
HP	2	1	0	1					
Other	4	0	0	4					
All	42								

存取 HA/DR 及
資料複製的設定

HA-DR									
Clusters						Service Groups			
	Offline	Online	VCS	MSCS	Unknown	Faulted			
Failover	9	0	9	8	1	-	7		
Oracle RAC	0	0	0	0	-	0	40		
CFS	1	0	1	1	-	0	59		
CVM	24	5	19	24	-	0	4		
Sybase CE	0	0	0	0	-	0	1		
All	34						0		

Veritas Operations Manager (VOM) – 能見度及控管的集中

觀看應用程式到 LUN 之間的對應關係

Veritas™ Operations Manager User : [root@sfmlnx04.engba.symantec.com(unixpwd)] About Help Logout

Home Manage Monitor Licenses Policies Add-ons Reports Search Settings

Reports Resource Mapping

Archive Report Go

Details

Resource Mapping

Shows the mapping between Host and LUN including Path, HBA, Array Port, Enclosure and associated Business Entity.

可辨識出相關的資源，以便做出必要的決定

Device	Paths	Host	Platform	Business Entity	Enclosure	Enclosure Type	Array Port WWN	HBA	HBA WWN	LUN	Path Status	Disk Status	Disk Group	LUN Size (GB)	VM Size (GB)	VM Unallocated (GB)
3pardata0_1	/dev/rdsd/c3t2121000	cpesol6.veri	SunOS	all_dgs	3PARdata_V	A/A	21210002AC	c3	210000E08E	50002AC004	Enabled	Imported	trydg	2.0	1.97	1.97
3pardata0_1	/dev/rdsd/c4t2021000	cpesol6.veri	SunOS	all_dgs	3PARdata_V	A/A	20210002AC	c4	210100E08E	50002AC004	Enabled	Imported	trydg	2.0	1.97	1.97
3pardata0_1	/dev/rdsd/c4t2021000	cpesol6.veri	SunOS	all_hosts	3PARdata_V	A/A	20210002AC	c4	210100E08E	50002AC004	Enabled	Imported	trydg	2.0	1.97	1.97
3pardata0_1	/dev/rdsd/c3t2121000	cpesol6.veri	SunOS	All_Arrays	3PARdata_V	A/A	21210002AC	c3	210000E08E	50002AC004	Enabled	Imported	trydg	2.0	1.97	1.97
3pardata0_1	/dev/rdsd/c3t2121000	cpesol6.veri	SunOS	all_hosts	3PARdata_V	A/A	21210002AC	c3	210000E08E	50002AC004	Enabled	Imported	trydg	2.0	1.97	1.97
3pardata0_1	/dev/rdsd/c4t2021000	cpesol6.veri	SunOS	All_Arrays	3PARdata_V	A/A	20210002AC	c4	210100E08E	50002AC004	Enabled	Imported	trydg	2.0	1.97	1.97
3pardata0_1	/dev/rdsd/c3t2121000	cpesol6.veri	SunOS	All_Arrays	3PARdata_V	A/A	21210002AC	c3	210000E08E	50002AC004	Enabled	Deported	TCg2-2986	2.0	1.97	0.0
3pardata0_1	/dev/rdsd/c3t2121000	cpesol6.veri	SunOS	all_hosts	3PARdata_V	A/A	21210002AC	c3	210000E08E	50002AC004	Enabled	Deported	TCg2-2986	2.0	1.97	0.0

Veritas Operations Manager (VOM) – 能見度及控管的集中

SFHA 部署及修補程式版本

Veritas™ Operations Manager User : [root@sfmlnx04.engba.symantec.com(unixpwd)] About Help Logout

Home Manage Monitor Licenses Policies Add-ons Reports Search Settings

Reports > SF Product Version

Details

SF Product Version

Shows VxVM, VxFS and VCS versions and patch IDs across all hosts.

Email Archive

11:37 AM

1 2 3 4

Host	Platform	OS Version	VxVM Version	VxVM Patch	VxVM Patch IDs	FS Version	FS Patch	FS Patch IDs	VCS Version	VCS Patch	VCS Patch IDs	Management Patch IDs
sfv245v13	SunOS	5.9	9.9,REV=01.08..	PSTAMP: VERITAS- TOT:11- May-2004		5.0,REV=5.0A55	PSTAMP: VERITAS- 5.0FS- 2006-06-01					
vm240v4	SunOS	5.9	9.9,REV=01.04..	PSTAMP: VERITAS- TOT:11- May-2004								
vvropt03	SunOS	5.10	9.9,REV=12.10..	PSTAMP: VERITAS- TOT:11- May-2004								
vvrsun08	SunOS	5.10	9.9,REV=11.04..	PSTAMP: VERITAS- TOT:11- May-2004		5.1,REV=7Sep2	PSTAMP: VERITAS- 5.1FS- 2009-09-07		5.1	PSTAMP: Veritas- 5.1-09/05 /09-07:01:01		
vm240v2	SunOS	5.10	9.9,REV=01.09..	PSTAMP: VERITAS- TOT:11- May-2004								
sfv245v20	SunOS	5.9	5.1,REV=10.06..	PSTAMP: Veritas- 5.1-P1.1:2009-1	142629-01	5.1,REV=7Oct20	PSTAMP: VERITAS- FS-5.1.0.0-2009	142633-01			143260-01, 143262-01	
sansol-04.engba.symar	SunOS	5.9	5.1,REV=10.06..	PSTAMP: Veritas-5.1		5.1,REV=7Oct20	PSTAMP: VERITAS- 5.1FS- 2009-10-07					
vmgalaxy04	SunOS	5.10	5.1,REV=10.06..	PSTAMP: Veritas-5.1		5.1,REV=7Oct20	PSTAMP: VERITAS- 5.1FS- 2009-10-07		5.1	PSTAMP: Veritas- 5.1-10/06 /09-14:37:00		
vvrsun40	SunOS	5.10	5.1,REV=10.06..	PSTAMP: Veritas-5.1		5.1,REV=7Oct20	PSTAMP: VERITAS- 5.1FS- 2009-10-07		5.1	PSTAMP: Veritas- 5.1-10/06 /09-14:37:00		

可觀看到 SFHA 的版本及部署的修補程式

Veritas Operations Manager (VOM) – 能見度及控管的集中

取得新的修補程式資訊

Veritas™ Operations Manager

User : [root@sfm1nx04.engba.symantec.com(unixpwd)]

About

Help

Log Out

Home

Manage

Monitor

Licenses

Policies

Add-ons

Reports

Search

Settings

Manage Summary

Servers

Hosts

dcsun161.ebc.veritas.com

Actions

dcsun161.ebc.veritas.com (Administer)

dcsun161.ebc.veritas.com

Status : Healthy

Family : Solaris

OS Version : 5.10

Architecture : sparc

VxVM Version : 4.1

Cluster : 4.1

See All...

Overview

Disks

Disk Groups

Volumes

File Systems

Initiators

LUNs

Host Attributes

Licenses/Packages

Available Patches

Performance

Patches

Product	Release Type	Size	Release Name	Obsolete
Veritas Enterprise Administrator [Details]	Hot fix	1.22 MB	vea-4.1-hpux_linux_solaris-4.1_HF2 [Download]	No
Veritas Enterprise Administrator [Details]	Hot fix	38.85 MB	vea-4.1-sol_sparc-4.1_HF1 [Download]	No
Veritas Storage Foundation HA [Details]	Maintenance Pack	-	4.1 MP2b [Download]	No
Veritas Storage Foundation HA [Details]	Maintenance Pack	-	4.1MP1_sol [Download]	Yes
Veritas Storage Foundation HA [Details]	Maintenance Pack	-	4.1MP2_sol [Download]	Yes
Veritas Storage Foundation HA [Details]	Maintenance Pack	-	4.1 MP1a [Download]	Yes
Total Objects: 6				

可取得已推出的修補程式之相關資訊

Administrator, More...

Veritas Enterprise AdministratorVeritas File System, Veritas Storage Foundation, Veritas Storage Foundation Cluster File System, More...

Veritas Cluster ServerVeritas Cluster Server, Veritas Cluster Server Agents, Veritas Cluster Server Agents, More...

Veritas File SystemVeritas Storage Foundation HA, More...

Veritas File SystemVeritas Storage Foundation HA, Veritas Storage Foundation HA, More...

Veritas Cluster ServerVeritas Cluster Server Agents, Veritas File System, Veritas Storage Foundation, More...

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Veritas Operations Manager (VOM) – 能見度及控管的集中 針對異質環境的資訊

Veritas™ Operations Manager User : [root@sfmlnx04.engba.symantec.com(unixpwd)] About Help Logout

Home Manage Monitor Licenses Policies Add-ons Reports Search Settings

Manage Summary Servers Hosts sansol-03.engba.symantec.com

Actions

sansol-03.engba.symantec.com

sansol-03.engba.symantec.com Status : Healthy Family : Solaris Architecture : s314.0 VVR : No See All...

Overview Disks Disk Groups Volumes File Systems Initiators LUNs Host Attributes Licenses/Packages Available Patches Performance

File Systems

Clear Filter Add to Business Entity [Default View]

	Mount Point ▲	Host	Type	Mounted	Size	Free	% Used	Volume	# Checkpoints	# Volume Snapshots
☐	/	sansol-03.engba.symantec.com	ufs	Yes	60.58 GB	55.82 GB	7.00%		-	-
☐	/cm	sansol-03.engba.symantec.com	vxfs	Yes	10.0 MB	7.42 MB	22.00%	concat_mirror_0	-	-
☐	/dst-fs	sansol-03.engba.symantec.com	vxfs	Yes	200.0 MB	194.52 MB	2.00%	DST-VS	-	-
☐	/dst-fs_0	sansol-03.engba.symantec.com	vxfs	Yes	200.0 MB	194.52 MB	2.00%	DST-VS_0	-	-
☐	/emc-3par	sansol-03.engba.symantec.com	vxfs	Yes	20.0 MB	16.77 MB	12.00%	emc-3par	-	-
☐	/sm0	sansol-03.engba.symantec.com	vxfs	Yes	30.0 MB	26.17 MB	8.00%	stripe_mirror_0_0	-	-
☐	/st-mir-enc	sansol-03.engba.symantec.com	vxfs	Yes	1.3 GB	1.22 GB	1.00%	st-mirr-enc	-	-
☐	/strip-col3	sansol-03.engba.symantec.com	vxfs	Yes	10.0 MB	7.42 MB	22.00%	stripe-col3-mir3	-	-
☐	/test	sansol-03.engba.symantec.com	zfs	Yes	1.95 GB	1.95 GB	0.01%	test	-	-
☐	/usr	sansol-03.engba.symantec.com	ufs	Yes	4.81 GB	1.0 GB	79.00%		-	-
Total Objects: 10										

Symantec Confidential

觀看系統內建的檔案系統及磁卷資料

觀看給予應用程式使用的儲存空間

[illegible]

Veritas Operations Manager (VOM) – 管理儲存的成長

瀏覽 tablespace 使用狀態

Veritas™ Operations Manager User : [root@sfmlnx04.engba.symantec.com(unixpwd)] About Help Logout

Home Manage Monitor Licenses Policies Add-ons Reports Search Settings

Manage Summary Applications Databases kdb

Environment

kdb Status : Online Type : Oracle Version : 10.2.0.1.0 Owner : oracle Home : /ora_home/product/10.2.0/Db_2 Total Size : 820.0 MB Free Space : 373.73 MB See All...

Overview Tablespaces Files File Systems Volumes Disks

Tablespaces

Name ▲	Status	Total Size	Free Space	% Used
SYSAUX	Online	200.0 MB	52.0 MB	74.00%
SYSTEM	Online	400.0 MB	224.0 MB	44.00%
UNDO1	Online	200.0 MB	102.0 MB	49.00%
Total Objects: 3				

Veritas Operations Manager (VOM) – 將運作標準化

管理主機的磁卷, 及檔案系統

Veritas™ Operations Manager User : [root@sfmlnx04.engba.symantec.com(unixpwd)] About Help Logout

Home Manage Monitor Licenses Policies Add-ons Reports Search Settings

Manage Summary Servers Hosts sansol-01.engba.symantec.com sansol-01.engba.symantec.com Summary All Volumes

All Volumes

All Volumes Active Alerts

All Volumes

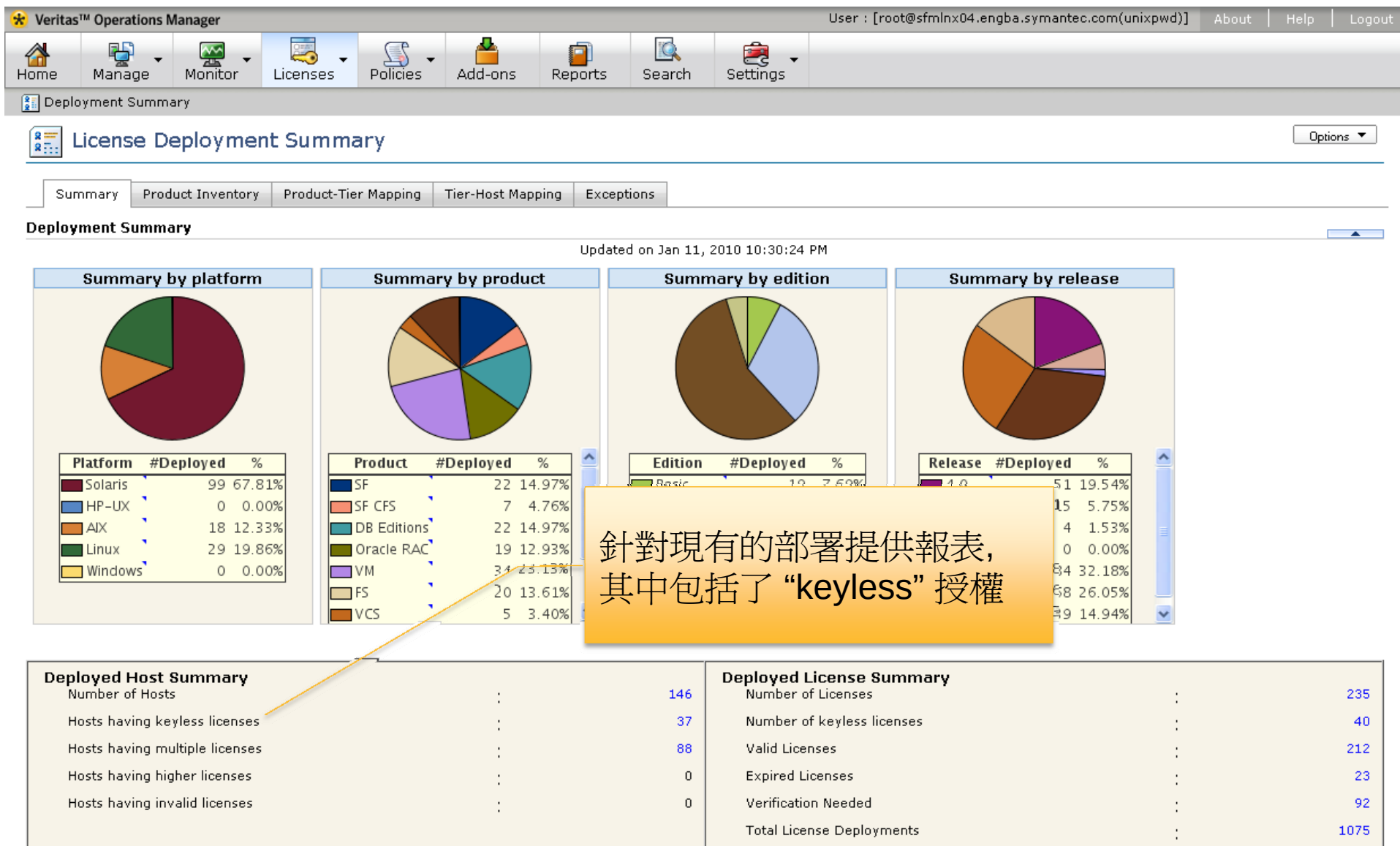
Resize Add to Volume Set More [Default View]

	Name ▲	Group	Status	Size	Layout	Copies	Pool name	Free	FS Type	Mount Point	% Used	Mounted
☐	cvm_vol1	oradatadg_sai	Healthy	15.000 MB	Concatenate	1	-	11.174 MB	vxfs	/cvm1	24.00%	Yes
☐	cvm_vol2	oradatadg_sai	Healthy	10.000 MB	Concatenate	1	-	6.479 MB	vxfs	/cvm2	34.00%	Yes
☐	cvm_vol3	oradatadg_sai	Healthy	10.000 MB	Concatenate	1	-	6.477 MB	vxfs	/cvm3	33.00%	Yes
☐	cvm_vol4	oradatadg_sai	Healthy	10.000 MB	Concatenate	1	-	-	-	-	-	-
☐	cvm_vol5	oradatadg_sai	Healthy	10.000 MB	Concatenate	1	-	-	-	-	-	-
☐	ocrvol	ocrdg_sansol0	Healthy	1.953 GB	Concatenate	1	-	1.767 GB	vxfs	/ocrfs	4.00%	Yes
☐	ora_data_0	parallel_datab	Healthy	1.000 GB	Striped Mirrored	2	-	-	-	-	-	-
☐	ora_log_0	parallel_datab	Healthy	500.000 MB	Striped	1	-	-	-	-	-	-
☐	oradatavol	oradatadg_sai	Healthy	2.930 GB	Concatenate	1	-	532.786 MB	vxfs	/oradata	83.00%	Yes
☐	parallel_db_v	parallel_datab	Healthy	2.000 GB	Striped Mirrored	2	-	-	-	-	-	-
☐	testvol	sdedg	Healthy	50.000 MB	Concatenate	1	-	-	-	-	-	-
☐	vset1	sdedg	Healthy									
Total Objects: 12												

透過一致且不會犯錯的方式，
執行 SF 操作

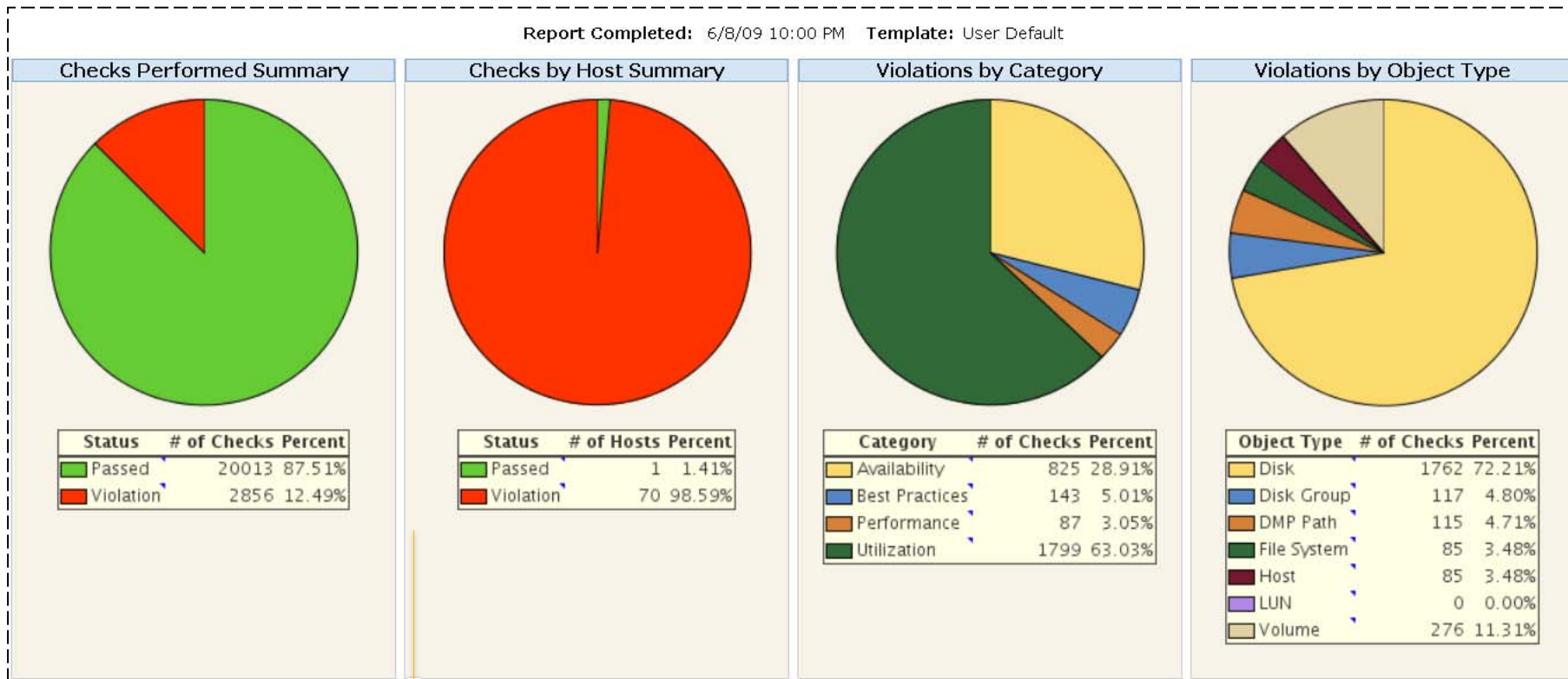
Veritas Operations Manager (VOM) – 確保政策的遵循

授權部署報表



Veritas Operations Manager (VOM) –健康檢查

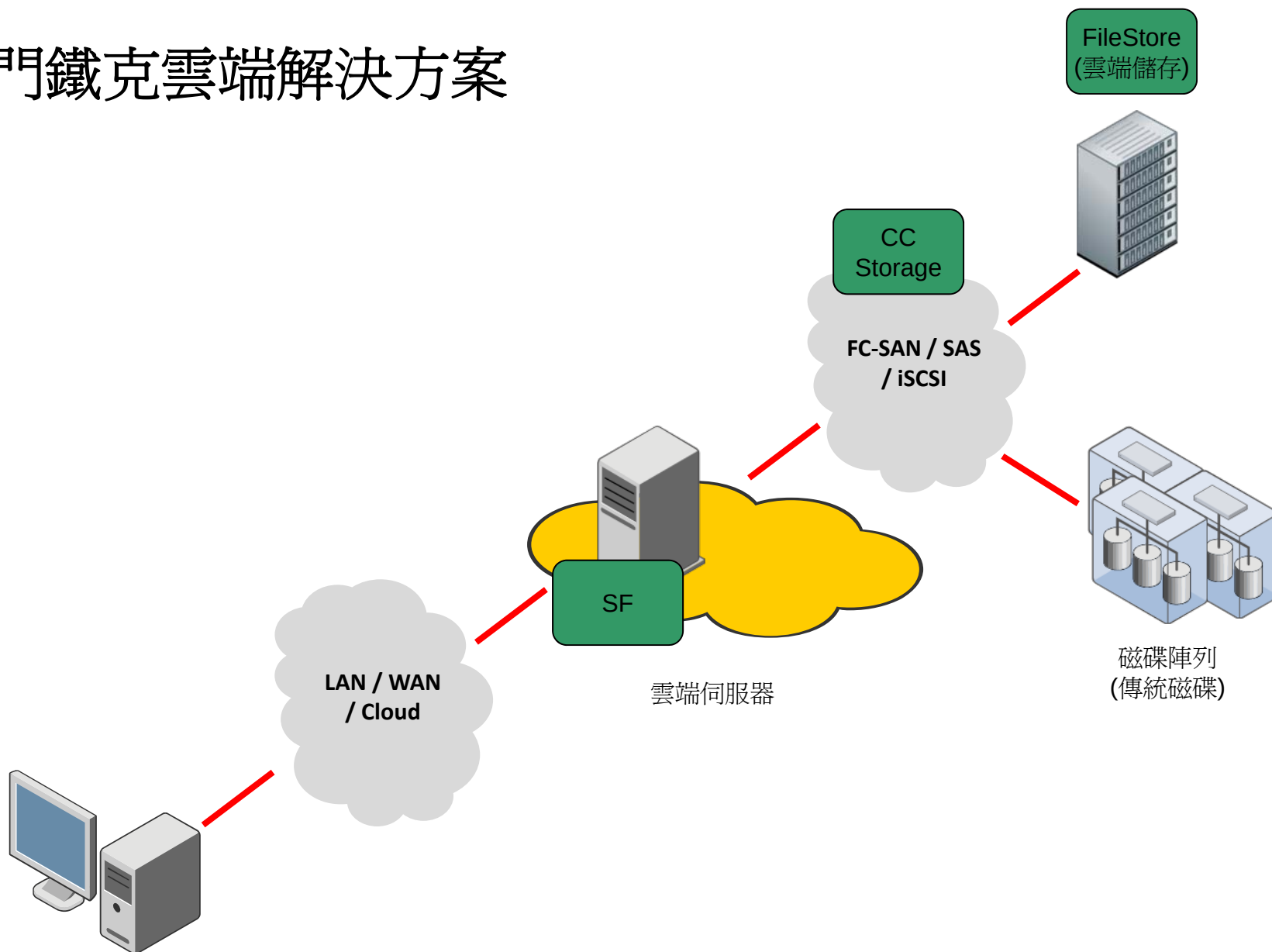
辨識出問題並進行預防



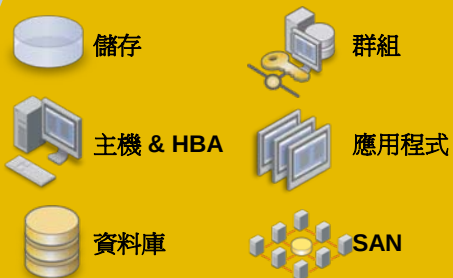
儲存及系統管理人員可以主動檢查
SF 管理的架構, 以便找出會造成可
用性及效能的問題來源

保護雲端服務資料 (雲端儲存資源管理)

賽門鐵克雲端解決方案

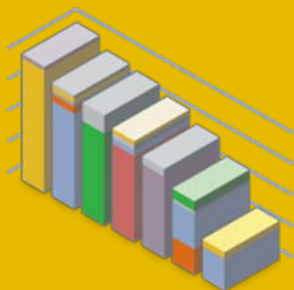


雲端儲存資源管理所需提供的功能



點對點的能見度

- 所有儲存有關資產的企業層級觀點
- 跨異質儲存環境的集中式能見度及管控
- 自儲存網路的企業層級觀點到特定的資訊



儲存空間管理

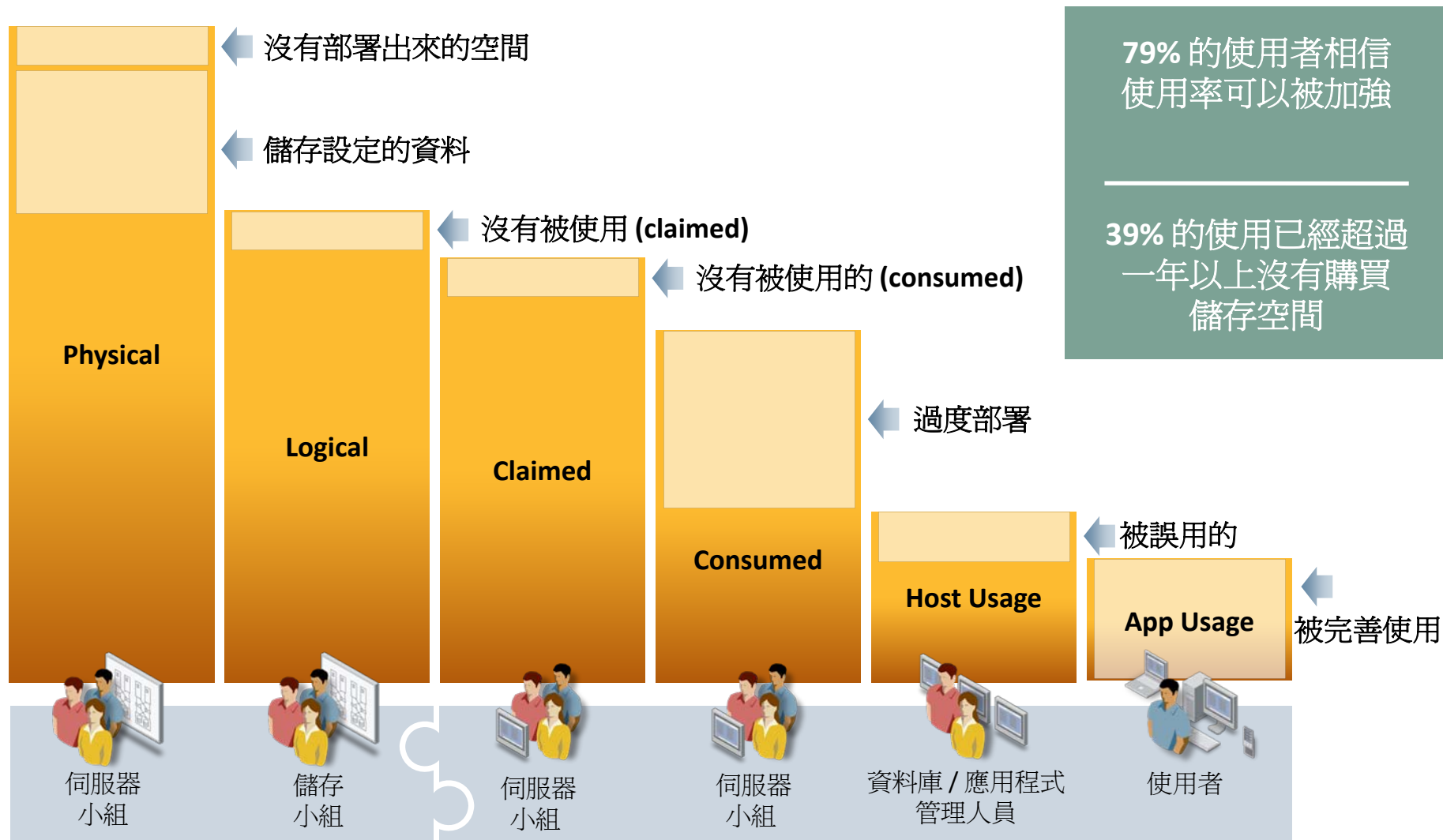
- 辨識使用走向
- 影響網路設定的決定及未來成長的計劃



自儲存至應用程式的可用性

- 辨識出應用程式及它的儲存設備之間路徑上所有的元件, 以及相關的依賴性

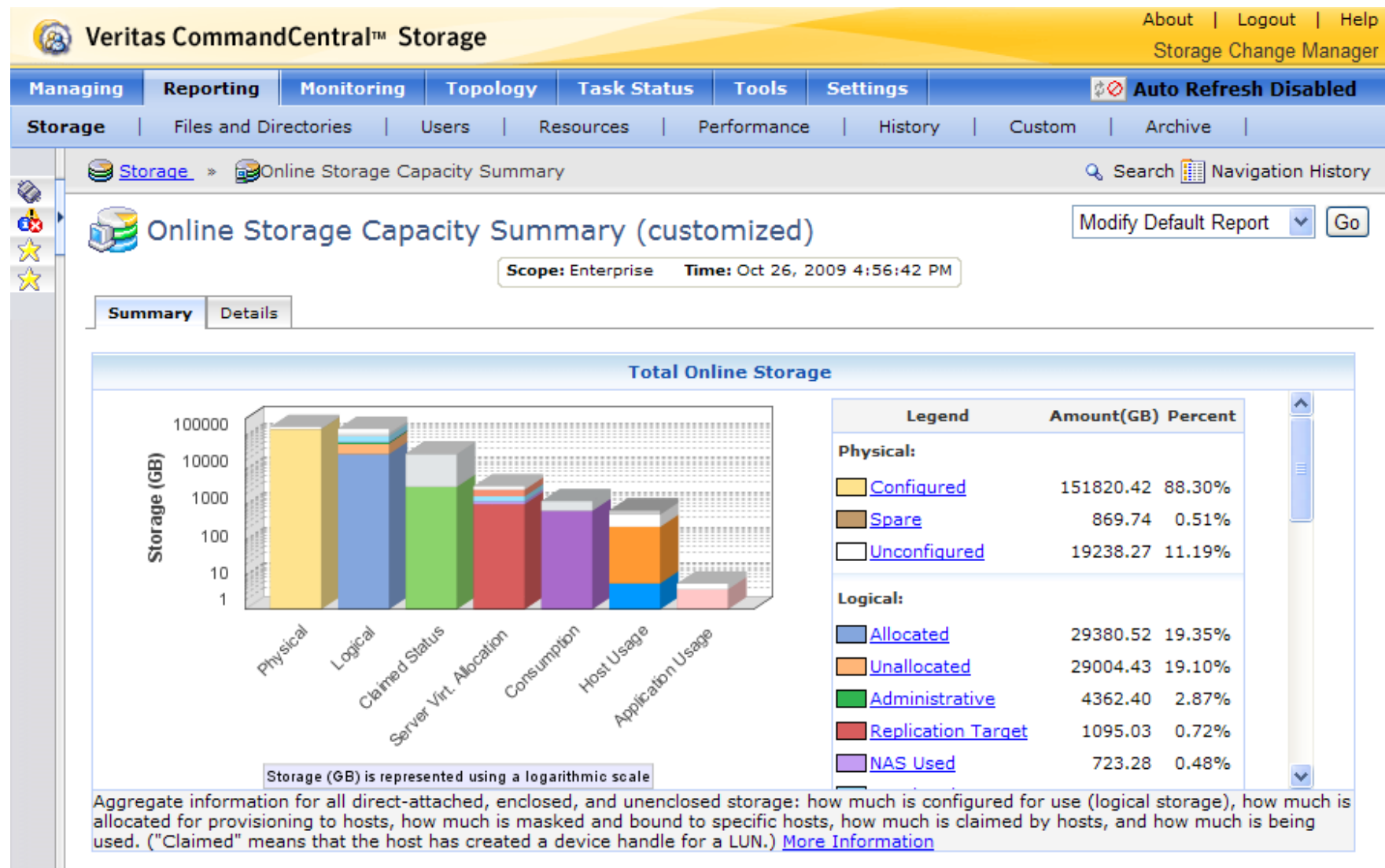
強化儲存使用率



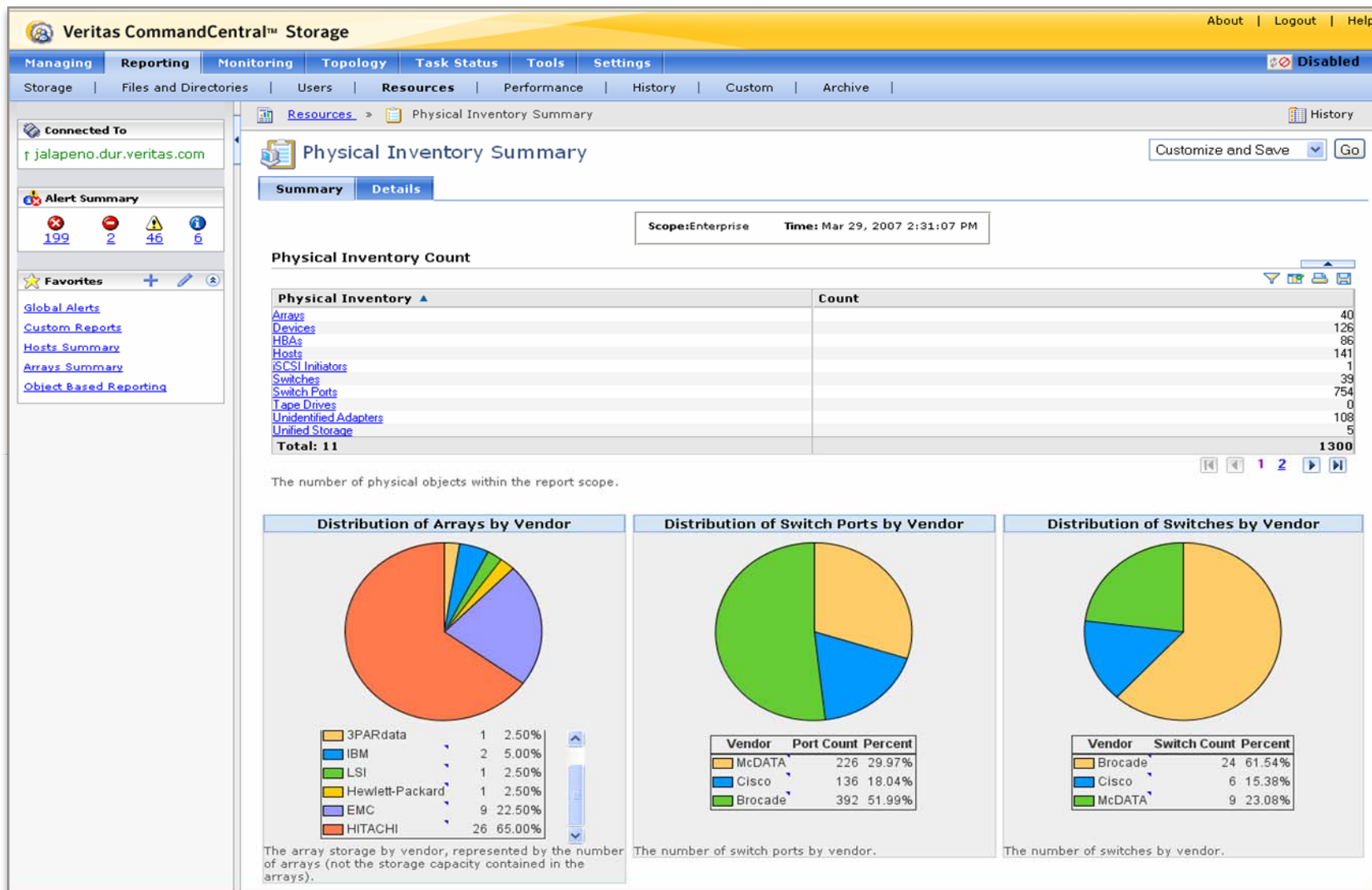
79% 的使用者相信
使用率可以被加強

39% 的使用已經超過
一年以上沒有購買
儲存空間

儲存空間管理



儲存架構管理



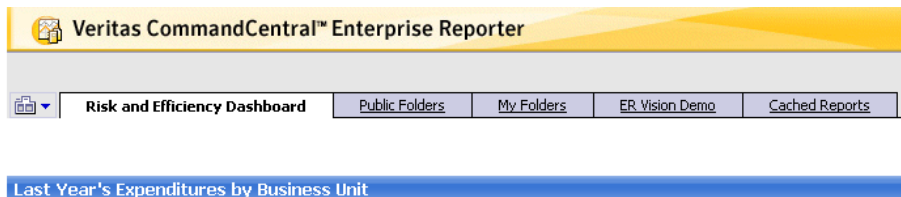
儲存運作管理



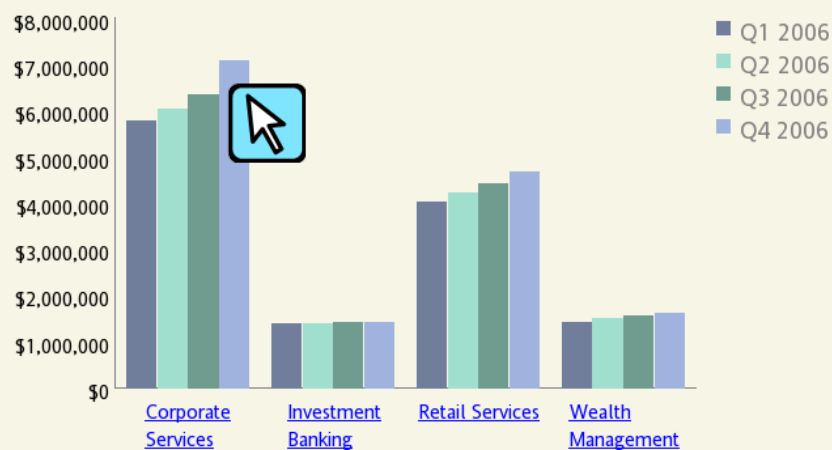
Top 5 Tickets | New 5 Tickets

ID	Detection Date	Status	Summary	Severity
240	Nov 16, 2008 4:29:26 PM	●	Multiple databases are stored on VG vg_oradb1paa on host oradb1p1 at site New York	▲
258	Nov 16, 2008 4:29:26 PM	●	VG oravg on host crmdb1 at site New York is stored on storage volumes of different types	▲
334	Nov 16, 2008 5:35:51 PM	●	A mounted/auto mounted file system of a passive node in Veritas Cluster Server VACluster at site New York has the same configuration as an existing mount resource	▲
238	Nov 16, 2008 4:29:26 PM	●	Local file system D:\ on host portaldb2 at site New York contains a mixture of database files	▲
301	Nov 16, 2008 4:29:26 PM	●	Inconsistent access to replicas of Symmetrix meta head 0583/000 on host billingprd by Symmetrix meta head 1412/124 was detected at site New York.	▲

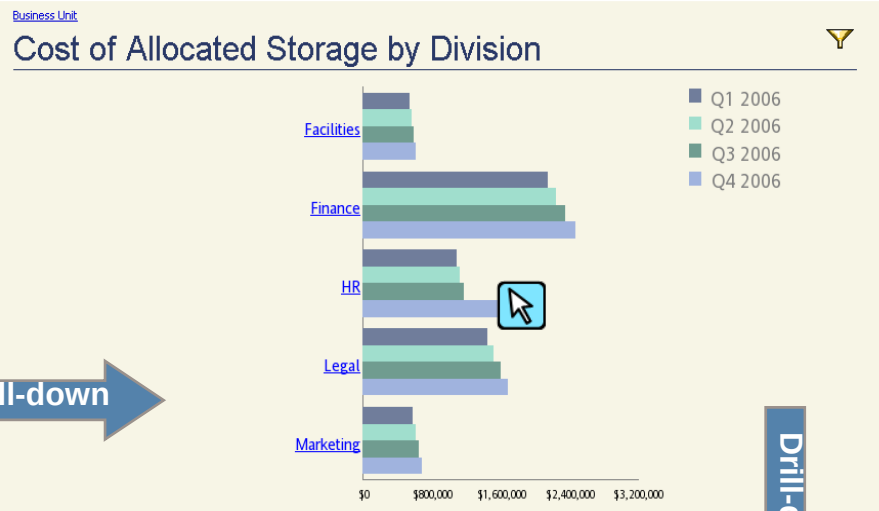
儲存計價



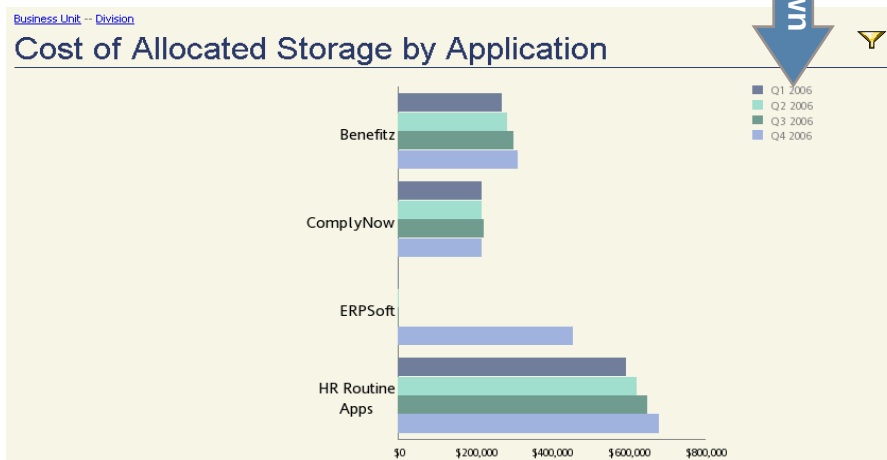
Last Year Spend on Storage by Business Unit



Drill-down



Drill-down



儲存計價細節

Storage Chargeback Report

This report displays capacity allocated to each host, from each tier. To calculate chargeback for each department, provide price to be charged per GB for each tier. Then click "Finish" to recalculate the dollar amount.

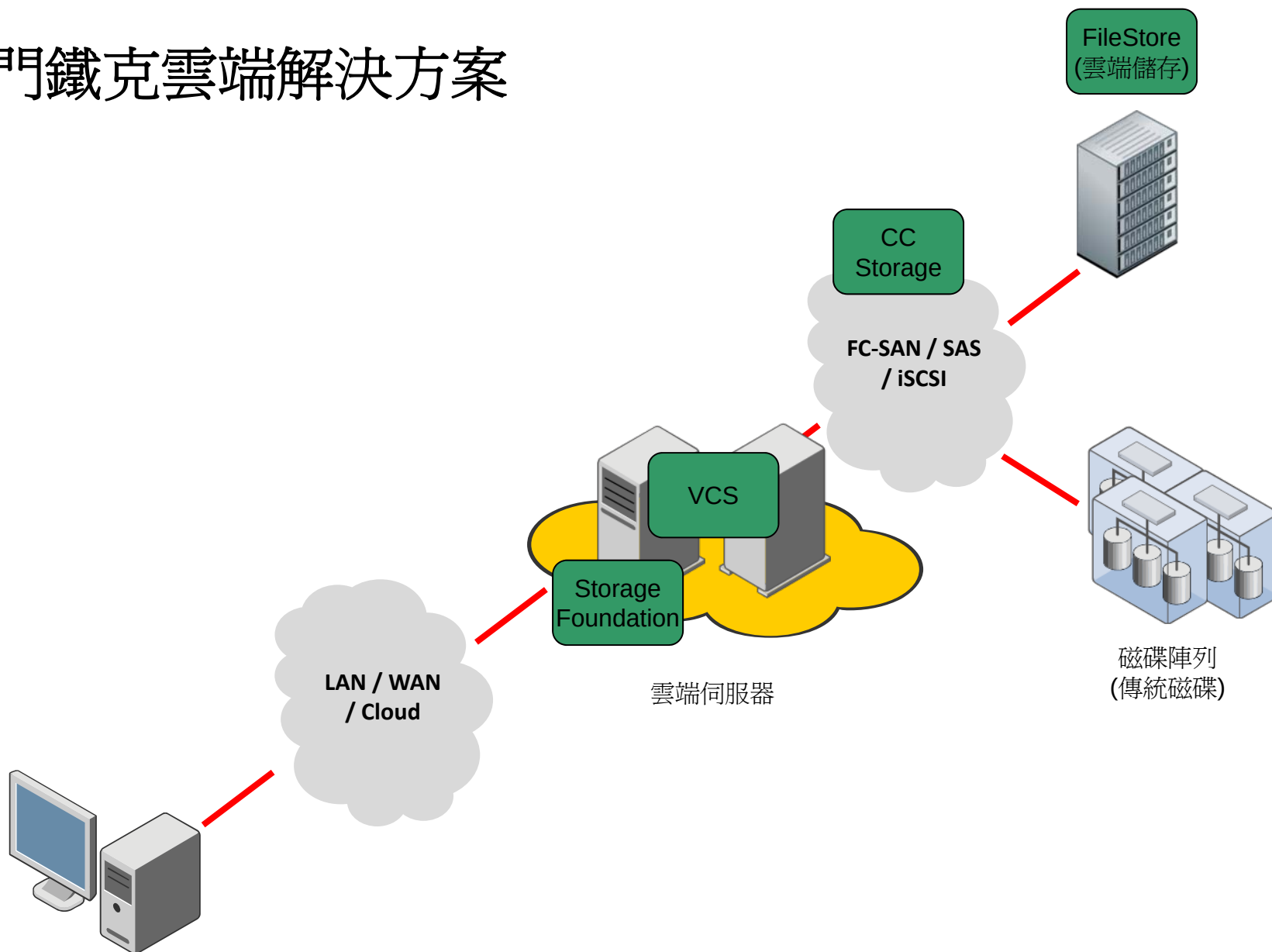
Enter storage price per GB for each tier

Tier 1 price	15.0	Per GB
Tier 2 price	10.0	Per GB
Tier 3 price	5.0	Per GB
		Finish

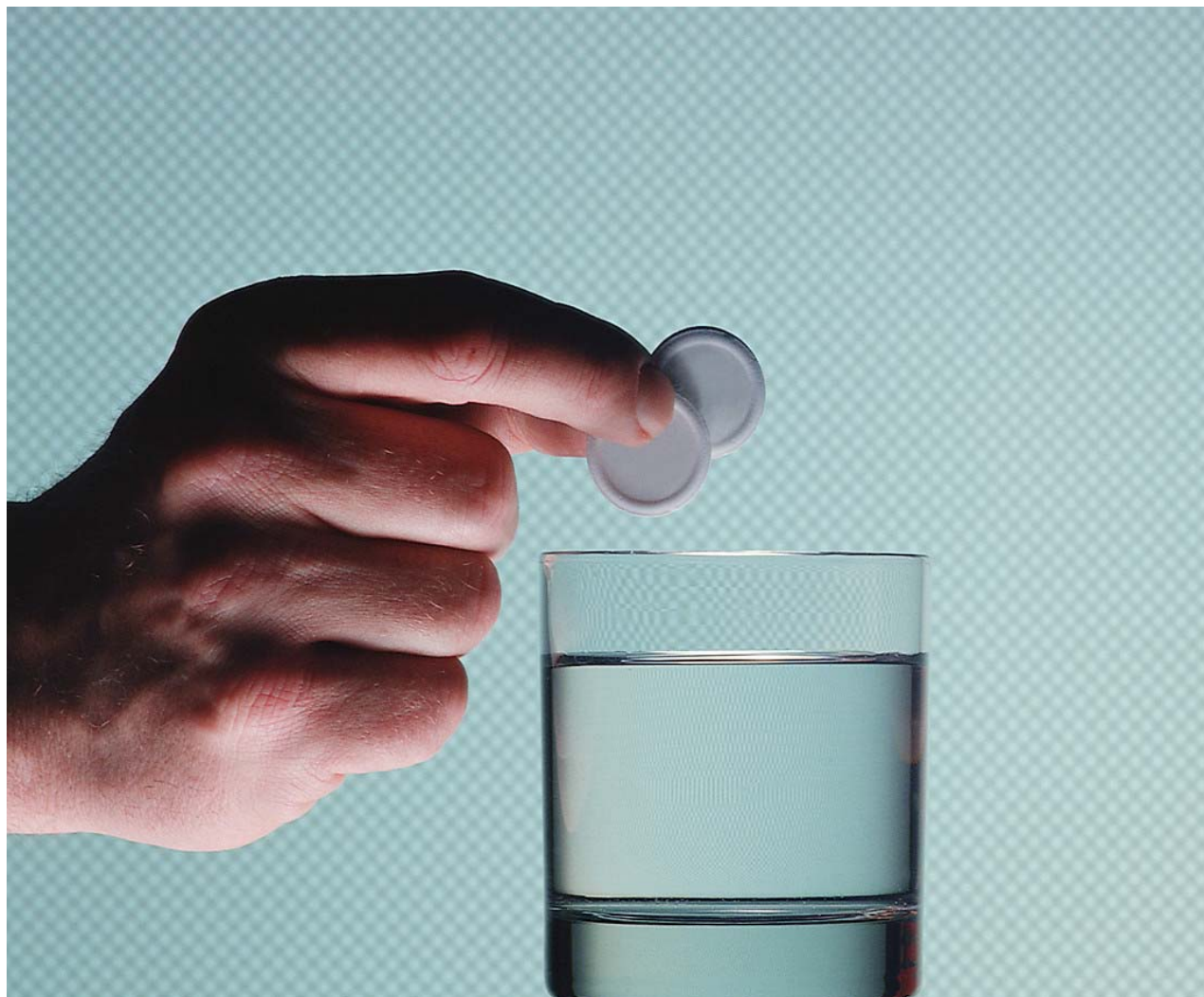
Department	Host	TIER	Allocated Capacity	Claimed Capacity	Capacity Charge (USD)
Manufacturing	bdma264.mobile.veritas.be	1	651.54	651.54	9,773.12
	bdbm203.mobile.veritas.be	1	54,411.93	54,411.93	816,178.89
	bdbm204.mobile.veritas.be	3	14,646.00	14,646.00	73,230
	bdbm206.mobile.veritas.be	3	9,764.00	9,764.00	48,820
	bdmc202.mobile.veritas.be	2	22,423.41	22,423.41	224,234.06
	bdmc203.mobile.veritas.be	1	48,302.05	48,302.05	724,530.8
	bdmc245.mobile.veritas.be	1	814.40	814.40	12,216
	bdmd202.mobile.veritas.be	2	22,423.41	22,423.41	224,234.06
	bdmd245.mobile.veritas.be	1	814.40	814.40	12,216
	bdme245.mobile.veritas.be	1	814.40	814.40	12,216
	edca202.mobile.veritas.be	1	35,789.93	35,789.84	536,849
	edca206.mobile.veritas.be	1	244.48	244.48	3,667.13
	edma540.nt.mobile.veritas.be	2	9,520.37	4,760.28	95,203.71
	edma602.nt.mobile.veritas.be	2	1.95	1.95	19.53
	edma613.nt.mobile.veritas.be	2	104.99	104.99	1,049.92
	edma650.nt.mobile.veritas.be	2	8,401.37	8,401.37	84,013.66
	edma667.nt.mobile.veritas.be	1	2.13	2.13	31.9
		2	0.18	0.18	1.79
	edma671.nt.mobile.veritas.be	1	3,771.75	3,771.75	56,576.17
	edma680.nt.mobile.veritas.be	1	380.86	380.86	5,712.96
	edmb203.mobile.veritas.be	1	175,038.18	175,038.18	2,625,572.75
	edmb234.mobile.veritas.be	1	8,879.63	8,879.63	133,194.39
	edmb254.mobile.veritas.be	1	27,317.59	27,317.59	409,763.78
	edmb650.nt.mobile.veritas.be	2	8,401.37	8,401.37	84,013.66
	edmb671.nt.mobile.veritas.be	1	3,771.75	3,771.75	56,576.17
	edmc214.mobile.veritas.be	1	4,806.43	4,806.43	72,096.38
	edmc245.mobile.veritas.be	1	162.91	162.91	2,443.71
Manufacturing Total chargeback (USD)					6,324,435.54
	edca214.mobile.veritas.be	1	4,562.05	4,562.05	68,430.81
	edcb650.nt.mobile.veritas.be	2	8,401.37	8,401.37	84,013.66
	edcb671.nt.mobile.veritas.be	1	3,771.75	3,771.75	56,576.17
	edcc245.mobile.veritas.be	1	162.91	162.91	2,443.71
	edcd203.mobile.veritas.be	1	175,038.09	175,038.09	2,625,571.38

保護雲端服務資料 (雲端服務的監控與高可用性)

賽門鐵克雲端解決方案



我們該如何滿足持續增加的 IT 服務永續經營需求？



面臨的挑戰

- 沒有足夠的預算
- 沒有足夠的資源
- 不夠頻繁及不足夠的災難備援 DR 測試
- 導入新技術如何伺服器虛擬化的複雜度
- 不足的流程及異動管理
- 技術本身沒有做到其承諾的功能

自動化災難備援的運作

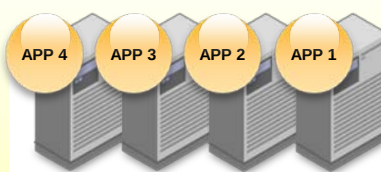
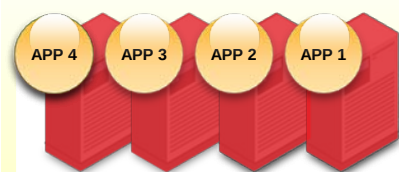
賽門鐵克高可用性及災難備援

好處

Local HA

Metropolitan HA (Stretch Cluster)

Wide-Area DR (Global Cluster)



Synch
Replication
or Mirroring

- 更快的還原
- 發生問題時降低人員上的依賴
- 降低人工方面的錯誤
- 提出完善的資料及應用程式的可用性
- 透過單一解決方案簡化:
 - Local HA
 - Campus/Metro DR
 - Global DR

加速應用程式的還原

針對需要在幾秒內帶起的應用程式

ORACLE®

SYBASE®

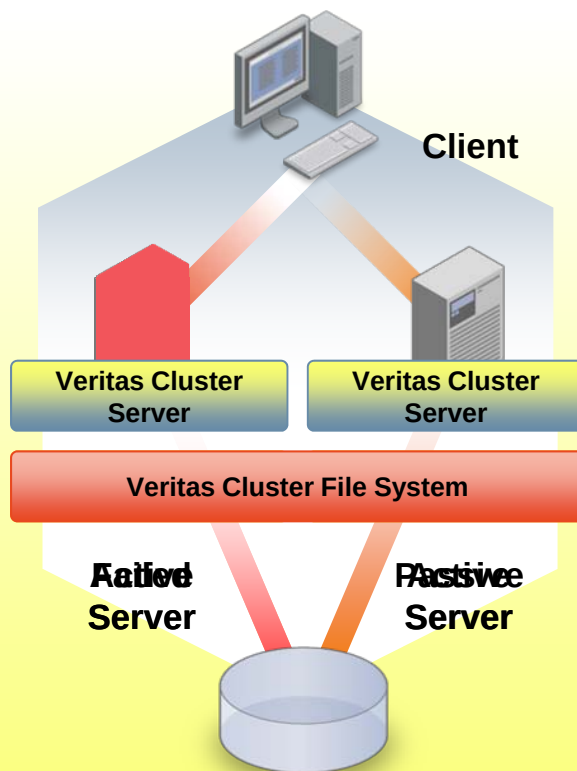
TIBCO®
The Power of Now®

INFORMATICA®

SAP®

IBM® DB2®

快速故障轉移是如何運作



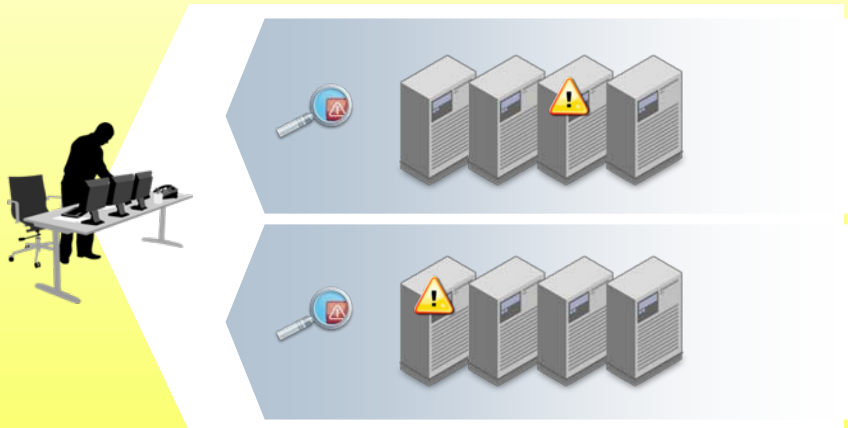
Recovery Steps

- Detect failure
- Un-mount file system
- Deport disk group
- Import disk group
- Mount file system
- Start application
- Clients reconnect

在不影響 IT 服務下測試你的 HA/DR 策略

掃描及分析

- 掃描你整個資料中心環境, 超過 3000 種以下的可能行漏洞:
 - 備份
 - 叢集
 - 應用程式
 - 儲存
 - 複製
- 簡易部署及排程
- 透過儀表板及報表, 進行辨識及追蹤



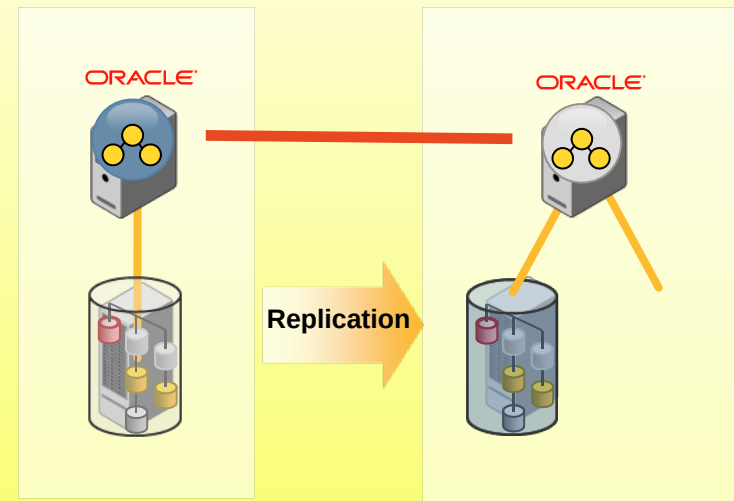
模擬 DR 的故障轉移

- 在 DR 環境中, 排程並執行真正的故障轉移
- 透過內建的報表進行診斷

Instant Clone Shot

Primary Site

Secondary Site



將你的雲端服務之 HA/DR 架構標準化

透過賽門鐵克滿足跨異質資料中心的標準化

- 減少多個單點工具也就代表降低人工錯誤
- 透過集中式管理方式增加能見度及管控能力
- 降低人工花費並取得更好的價格

平台



應用程式 & 資料庫



儲存



複製



Veritas Operations Manager (VOM)

辨識 VCS 所偵測到的問題及危機

Veritas™ Operations Manager User : [root@sfmlnx03.engba.symantec.com(unixpwd)] About Help Log

Home Manage Monitor Licenses Policies Solutions Reports Search Settings

Faults and Risks Overview

	Faulted	At Risk	Visual Overview
Applications			
Business Entities	12	6	
Exchange	0	0	
Databases	0	0	
Servers			
Hosts	40	63	
Disk Groups	0	13	
Disks	3	0	
File Systems	0	3	
Volumes	36	2	
HA-DR			
Clusters	2	3	
Service Groups	7	6	
Replicated Volume Groups	2	0	

Top Faults and Risks

Name	Possible Causes	Source	Date
vol1	Volume stopped	vol1	5:52 PM
vol2	Volume stopped	vol2	5:52 PM
vol3	Volume stopped	vol3	5:52 PM
c2t50060E800476 CC55d8s2	Disk offline	c2t50060E800476 CC55d8s2	5:30 PM
testvol_17	Volume stopped	testvol_17	11:02 AM
testvol_19	Volume stopped	testvol_19	11:02 AM
testvol_47	Volume stopped	testvol_47	11:02 AM
testvol_49	Volume stopped	testvol_49	11:02 AM
thor240.engba. symantec.com	Volume using disk with atleast 1 disabled path	thor240.engba. symantec.com	5:52 PM
sunv2401.vxindia. veritas.com	Volume using disk with atleast 1 disabled path	sunv2401.vxindia. veritas.com	11:02 AM

Activity Board

Add an update.

Show all >

Quick Links

Links

- Veritas Operations Manager
- Download Add-ons
- Documentation
- Contact Technical Support
- Veritas Operations Services
- Symantec

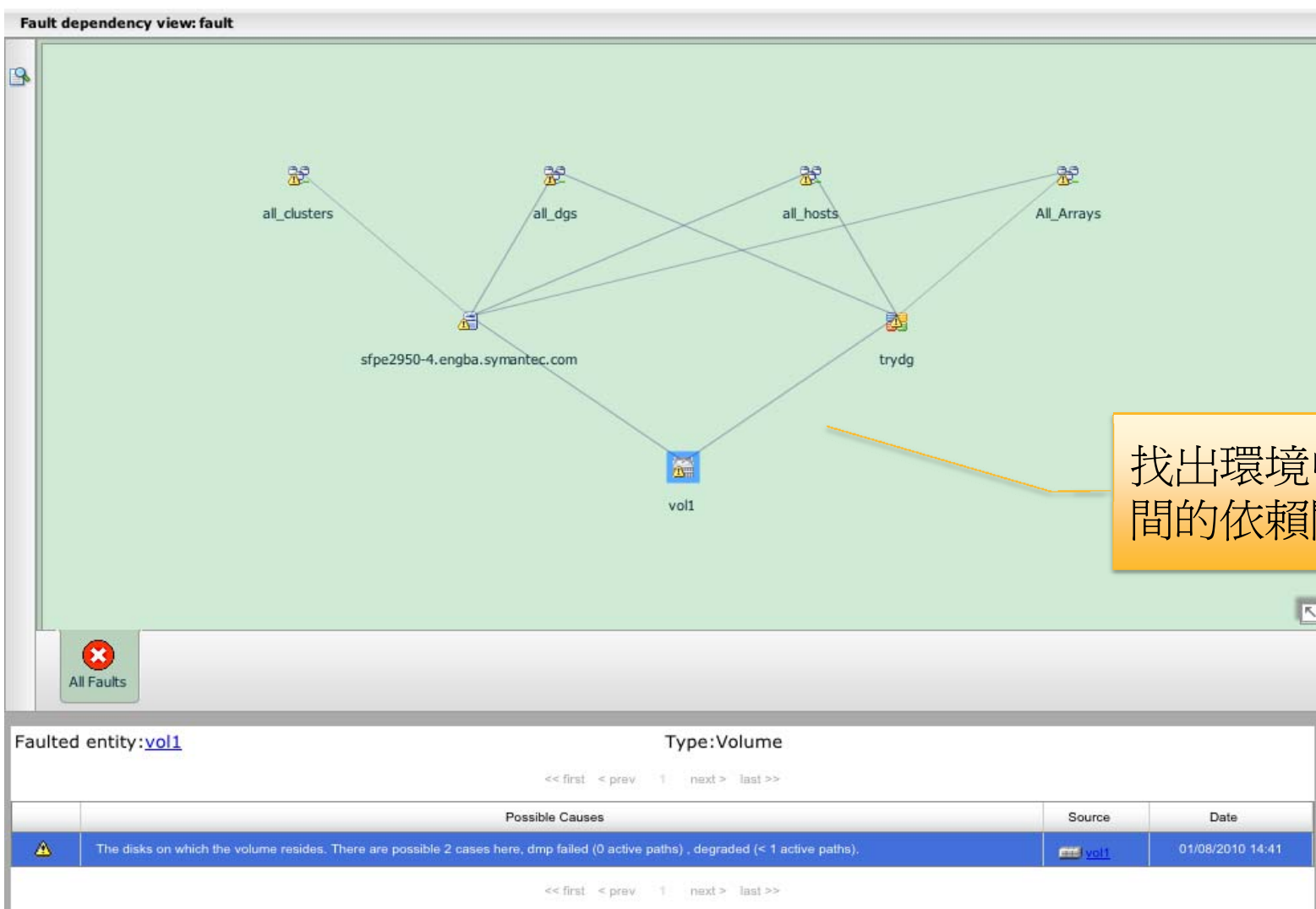
Recently Visited

- storefront-Application
- BE1
- ccrac
- ccrac
- XIV 1300308-b1039
- ccrac

透過其完善的儀表板, 可快速辨識出問題及原因

Veritas Operations Manager (VOM)

分析問題所造成的影響



找出環境中, 問題之間的依賴關係

Veritas Operations Manager (VOM)

根據問題自動執行對應的動作

The screenshot displays the Veritas Operations Manager (VOM) interface. The top navigation bar includes Home, Manage, Monitor, Licenses, Policies, Add-ons, Reports, Search, and Settings. The main content area shows a summary for 'vol1' with a 'Condition : At Risk' and 'Status : Healthy'. Below this, the 'Faulted Conditions' section is active, showing a table of fault sources. A 'Create Rule' dialog box is open, allowing the user to setup notifications for a specific rule. The dialog box has tabs for 'Email', 'SNMP Trap', 'Command Action', and 'Custom script'. The 'SNMP Trap' tab is selected, and the 'Host' field is set to 'noc.acme.com' and the 'Port' is set to '162'. A yellow callout box points to the 'SNMP Trap' tab with the text: 針對問題種類, 設定要進行回應的方式.

Veritas™ Operations Manager

User : [root@sfmlnx04.engba.symantec.com(unixpwd)] About Help Logout

Home Manage Monitor Licenses Policies Add-ons Reports Search Settings

Manage Summary Servers Hosts sfpe2950-1,sfpe2950-4 vol1

vol1 Disk Group : trydg Host : sfpe2950-1 sfpe2950-4 Condition : At Risk Status : Healthy Layout : Mirrored/RAID-1 See All...

Overview Disks Performance

Faulted Conditions

Suppress Faults Create Rule Analyze all faults

[Default View]

Possible Cause	Fault Source	Time
The disks on which the volume resides. There are possible 2 cases here, dmp failed (0 active paths), degraded (< 1 active paths).	vol1	Jan 8, 2010 2:41:33 PM

Total Objects: 1

Business Entity Associations

Name	Description	Status
All_Arrays		Faulted
all_dgs		Faulted
all_hosts		Faulted

Total Objects: 3

Create Rule

Setup notifications for this rule

☐ Email.

☒ **SNMP Trap.**

Host: noc.acme.com Port: 162

☐ Command Action.

☐ Custom script.

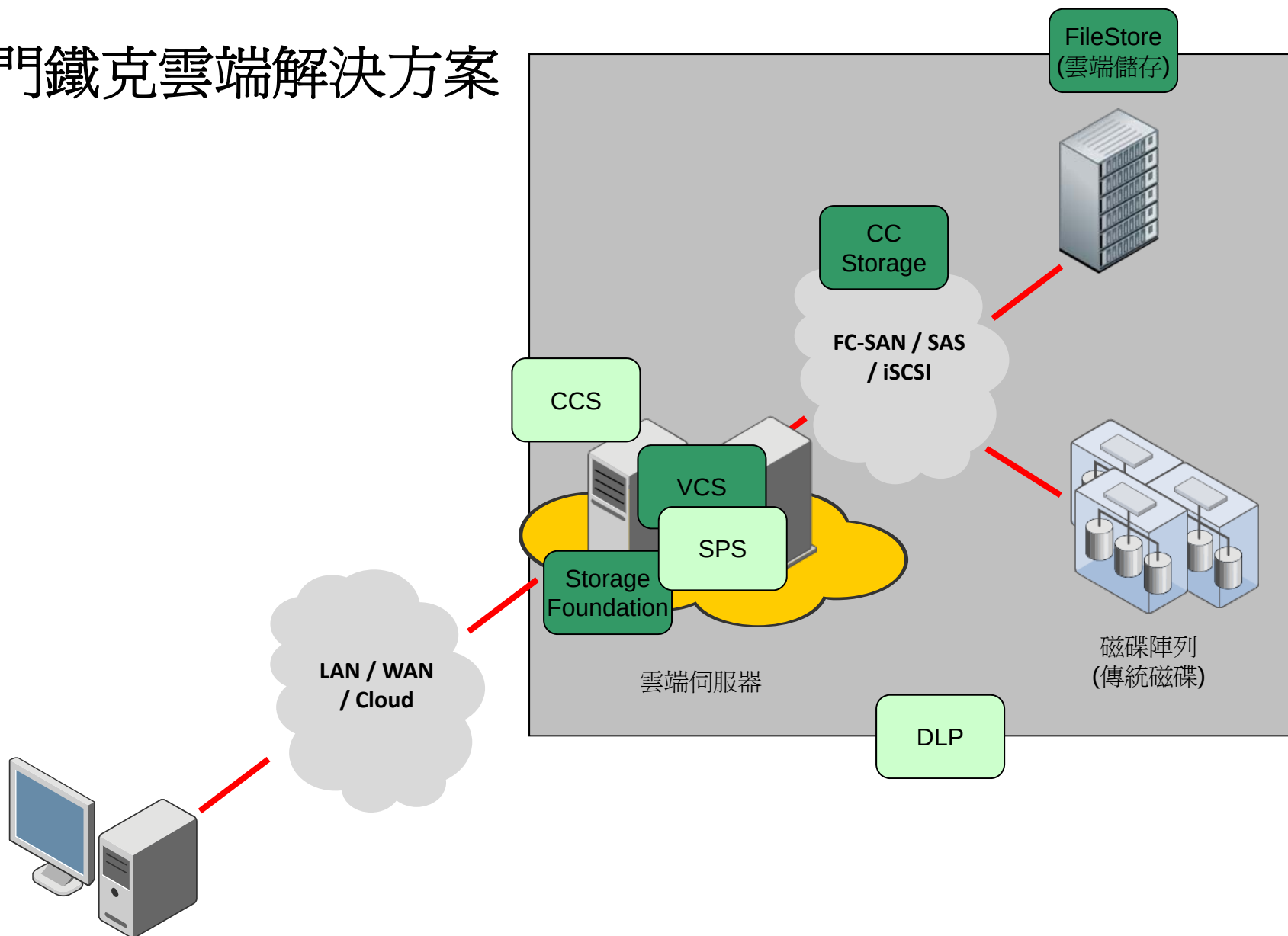
< Back Next> Cancel Help

Done

賽門鐵克針對雲端雲算的資料安全性

如何確保雲端服務資料安全性

賽門鐵克雲端解決方案



持續演進的 IT Landscape

“

所有人現在都開始關心資訊安全了. 特別是我老闆.

”

惡意的威脅

持續成長的複雜度

政策執行的困難度

有限的資源

資安威脅對於企業運作所造成的影響

客戶, 員工, 病患資料

法規遵循

- HIPAA, GLBA, PCI, State Data Privacy, Caldicott, PIPEDA
- SSN, Credit Card Numbers, Health Info

智慧財產權

競爭力

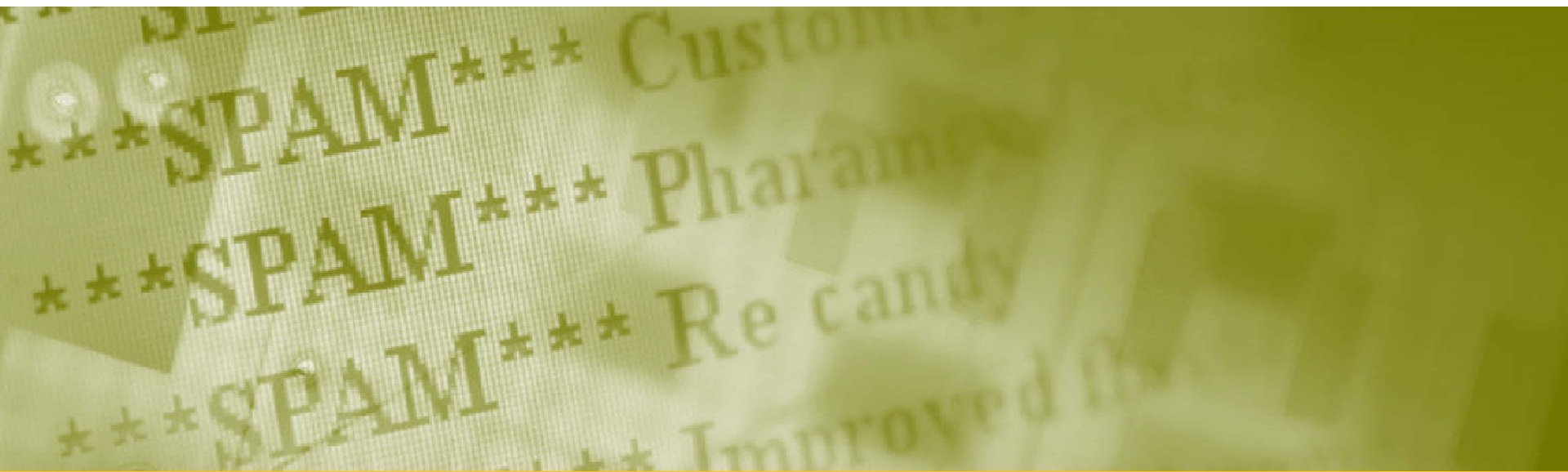
- Source Code
- Engineering Code
- Strategy Specs
- Pricing

公司敏感資料

信譽

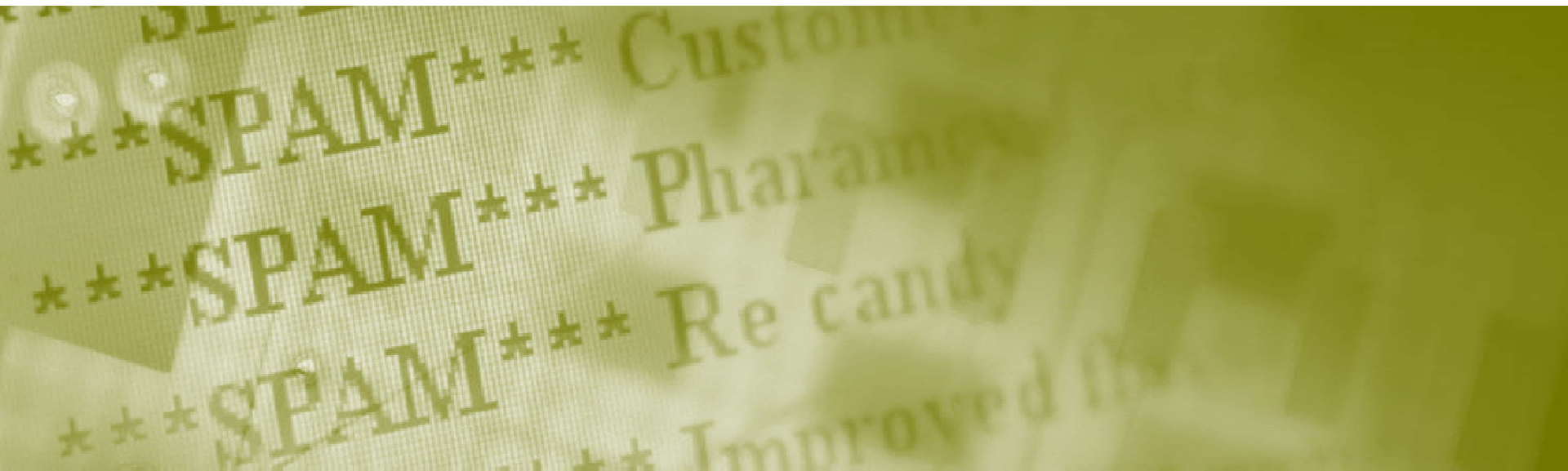
- Press Release
- Quarterly Earnings
- M&A
- CEO Internal Email

1 保護基礎架構



Symantec™
Protection
Suite

1 保護基礎架構



Symantec™ Protection Suite

- 保護端點的安全
- 保護電子郵件及網頁的存取
- 防禦重要的內部伺服器
- 備份及還原資料

Symantec Protection Suite

完整的保護

- 從端點到閘道
- 已被驗證的技術
- 保護不受到更多的威脅
- 保護智慧財產權
- 輕鬆的快速回復
- 依賴在可信賴的技術上

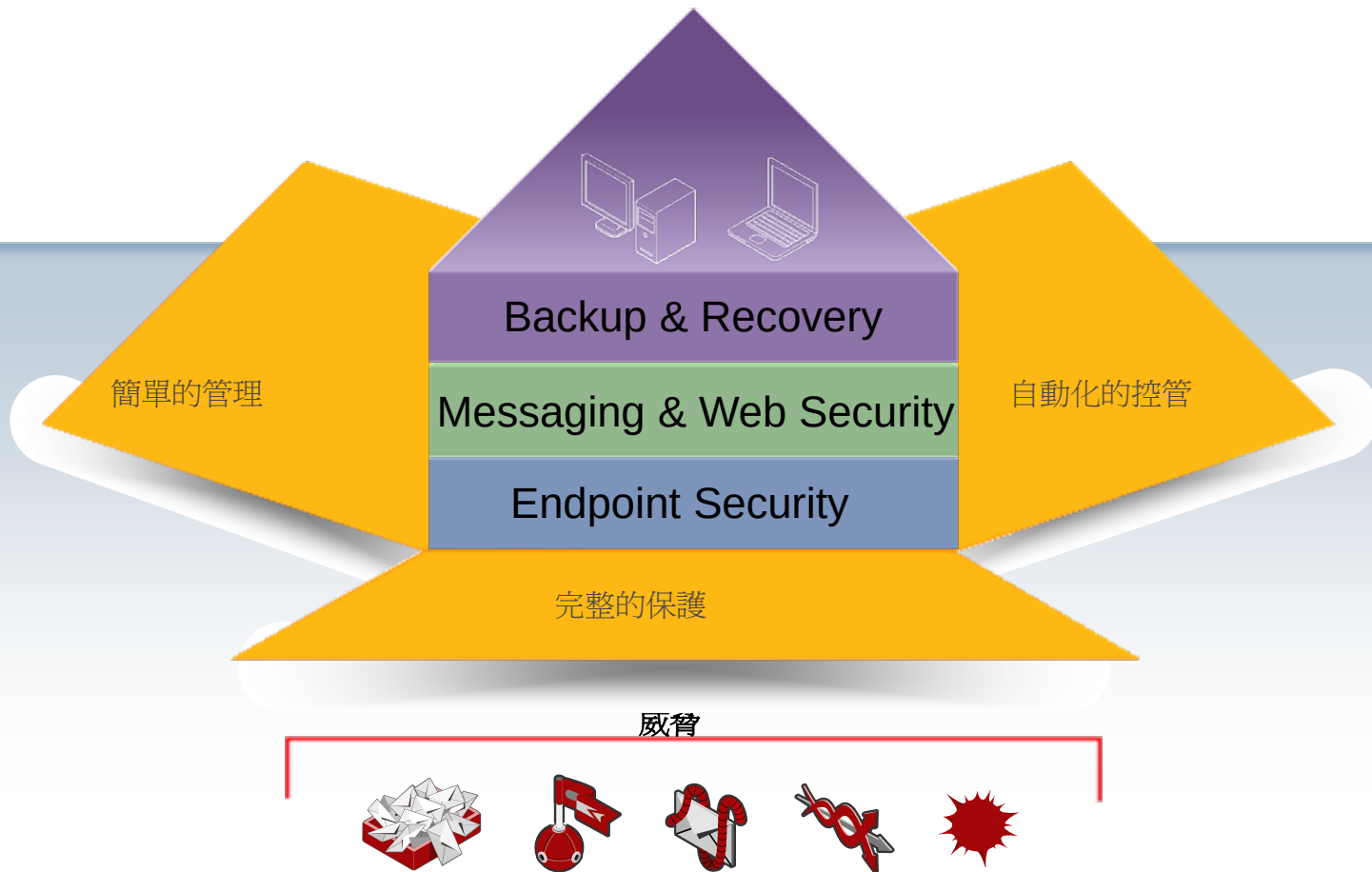
簡單的管理

- 簡化上線及運作
- 更簡單的管理
- 靈活及可擴充性的設定
- 移除環境的複雜度
- 降低運作的成本

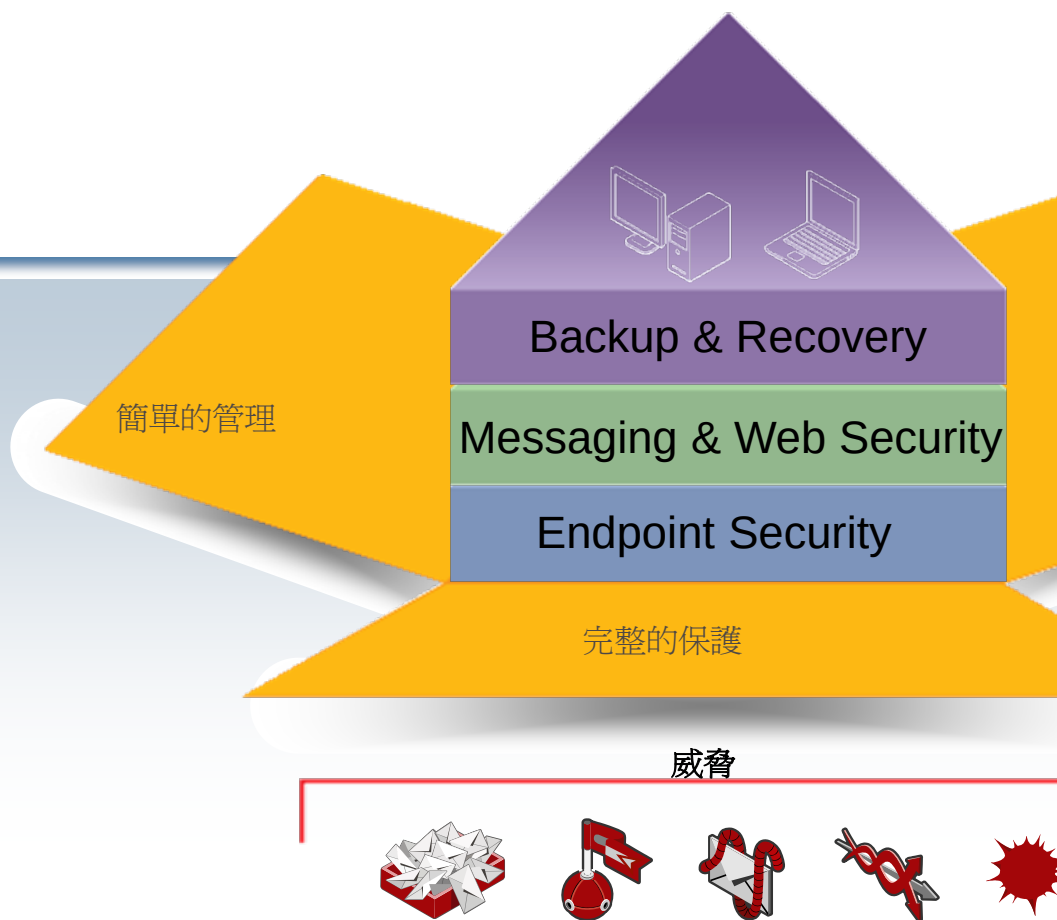
自動化的控管

- 確保法規的遵循
- 控管敏感的資訊
- 無負擔的升級
- 增加能見度
- 降低停機時間

Symantec Protection Suite



Symantec Protection Suite



Backup & Recovery

- 針對桌上型/筆記型/伺服器的備份
- 還原到任何硬體
- 執行因威脅而驅動的備份

Messaging & Web Security

- 防毒, 防垃圾郵件, 防釣魚, botnet 防護
- 信譽為主的垃圾郵件過濾
- 防資料外洩
- Exchange, Domino, Gateway

Endpoint Security

- 防毒, 防間諜程式
- 桌上型防火牆
- 入侵防禦
- 設備及應用程式控管
- 網路存取控管

Symantec Protection Suite Enterprise Edition



Backup & Recovery

- 針對桌上型/筆記型/伺服器的備份
- 還原到任何硬體
- 執行因威脅而驅動的備份

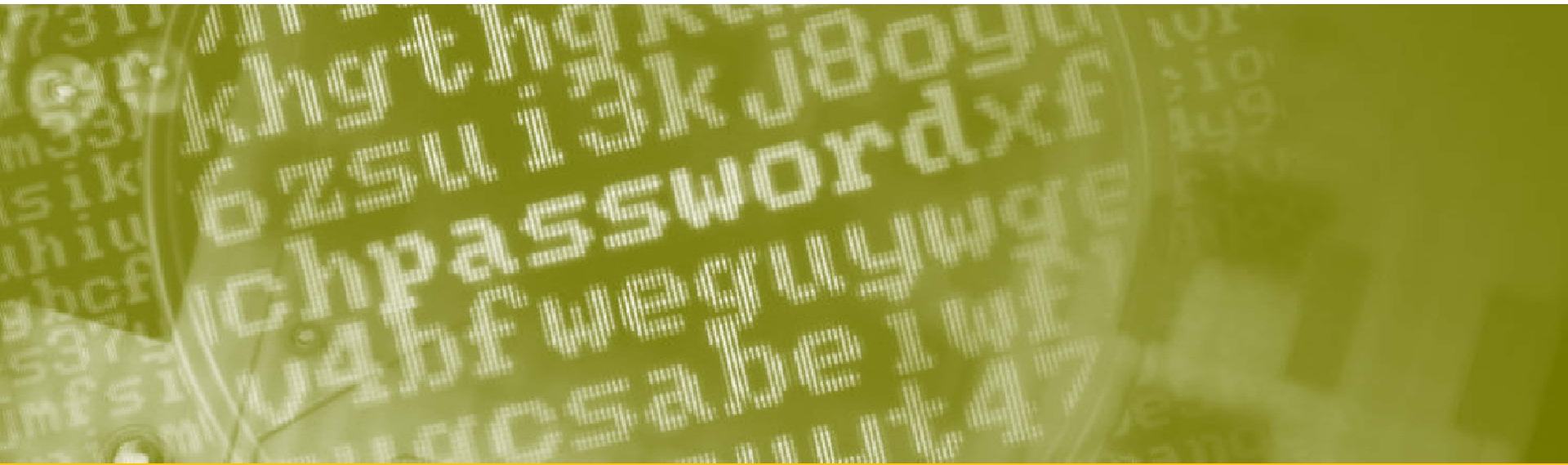
Messaging & Web Security

- 防毒, 防垃圾郵件, 防釣魚, botnet 防護
- 信譽為主的垃圾郵件過濾
- 防資料外洩
- Exchange, Domino, Gateway

Endpoint Security

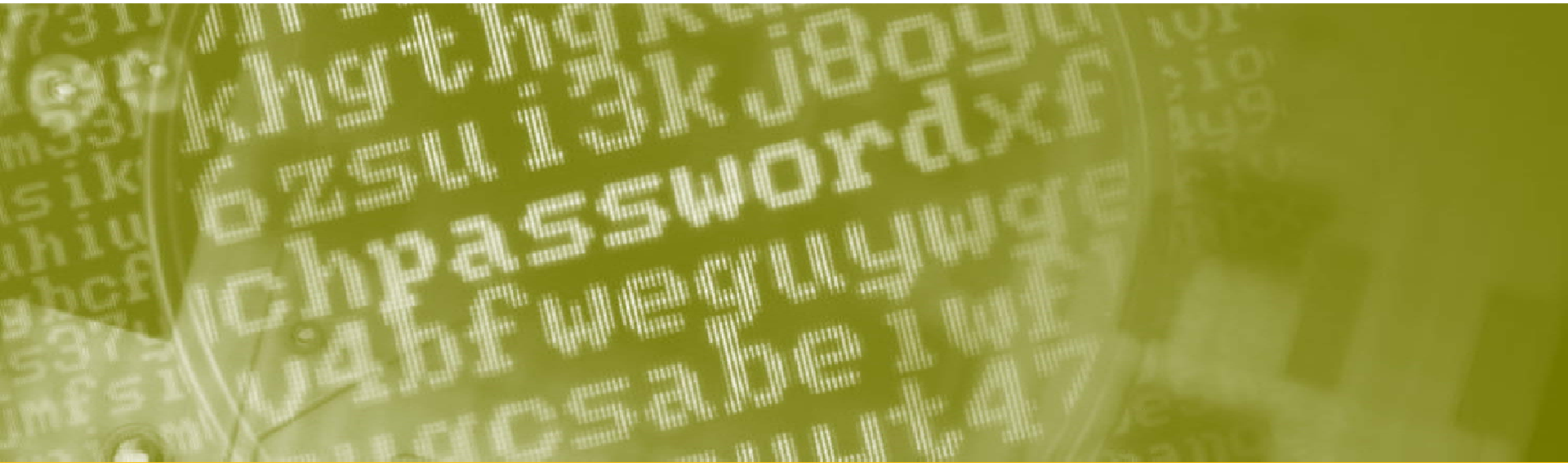
- 防毒, 防間諜程式
- 桌上型防火牆
- 入侵防禦
- 設備及應用程式控管
- 網路存取控管

2 制定及強制 IT 政策



Symantec™
Control
Compliance
Suite

2 制定及強制 IT 政策



Symantec™
Control
Compliance
Suite

- 定義危機並發展 IT 政策
- 評估基礎架構及程序
- 提供報表, 監控及找出需注意的地方
- 修復問題

確保環境符合資訊安全規範

選擇標準

產生報表

偵測偏差

進行矯正

Browse Standards

Compliance Center

Standards View Result

0 % Compliant

Evaluated on Wednesday, August 17, 2005 at 6:06

Object Name

AD-DOMAIN\HPOV-FW

AD-DOMAIN\W2K3.DC

Look For: Filter by Find Now Clear

Check Name

HKU\DEFAULT\Software\Microsoft\SystemCertificates\Root\Protected Registry Key Secured?

HTTP SSL Service Disabled?

HTTP SSL Service Permissions Restricted?

ICMP Redirects Ignored?

Idle Session Timeout 15 Minutes or Less?

IIS Admin Service Disabled?

IIS Admin Service Permissions Restricted?

To set permissions for %SystemRoot%\regedit.exe:

1. Select **Start>Run** to open the **Run** dialog.
2. Enter **mmc** in the **Open** text box.
3. Click **OK** to open the **Microsoft Management Console**.
4. Select **File>Add/Remove Snap-in** to open the **Add/Remove Snap-in** dialog.
5. Click **Add** on the **Standalone** tab to open the **Add Standalone Snap-in** dialog.
6. Select **Security Templates** from the **Available Standalone Snap-ins** list.

Express
Value: Automatic for IISADMIN

The following accounts are missing required permissions:
System, INTERACTIVE.

FAIL

IT 政策管理



3 保護重要的資訊



Symantec™
Data Loss
Prevention
Suite

3 保護重要的資訊



Symantec™
Data Loss
Prevention
Suite

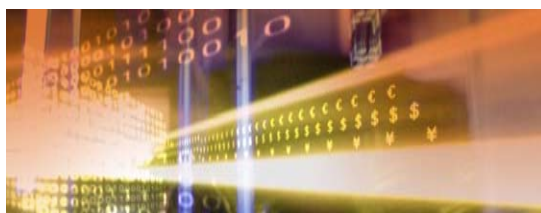
- 找出敏感資訊存放在哪裡
- 監控資料是如何被使用
- 保護敏感資訊不會遺失

一般企業有那些資料需要保護呢？



客戶、員工、隱私的數據

法規遵從
身分證號碼
信用狀號
聯繫資訊
健康資訊



智慧產權

核心競爭力
源代碼
工程技術規格
戰略計畫
設計文檔
價格



公司機密

重大決策
財務報表
併購戰略
CEO 郵件
會議摘要

防止資料外洩 (Data Loss Prevention) 的定義

機密資料存放在哪？



機密資料由哪些單位/人員經手、處理與負最終責任？



機密資料的流向為何？ 哪些是高風險的外洩管道？



應如何保護這些機密資料，並防止外洩？



如果發生了機密資料外洩，應如何處理？



賽門鐵克 DLP 可以幫助您...



Where is your
confidential data?



DISCOVERY



How is it
being used?



MONITORING



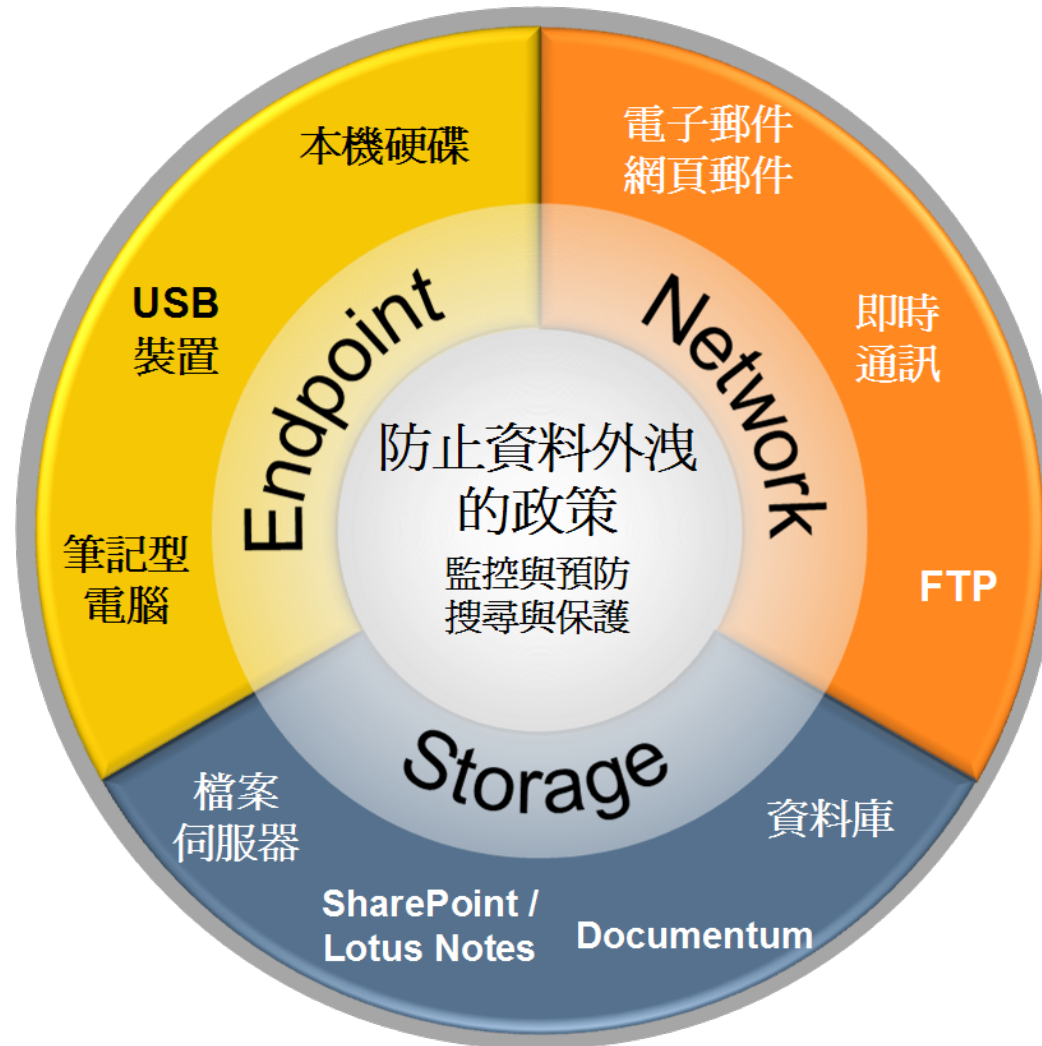
How to best
prevent its loss?



ENFORCEMENT

DATA LOSS PREVENTION

全方位防止資料外洩- 涵蓋足夠的威脅面向



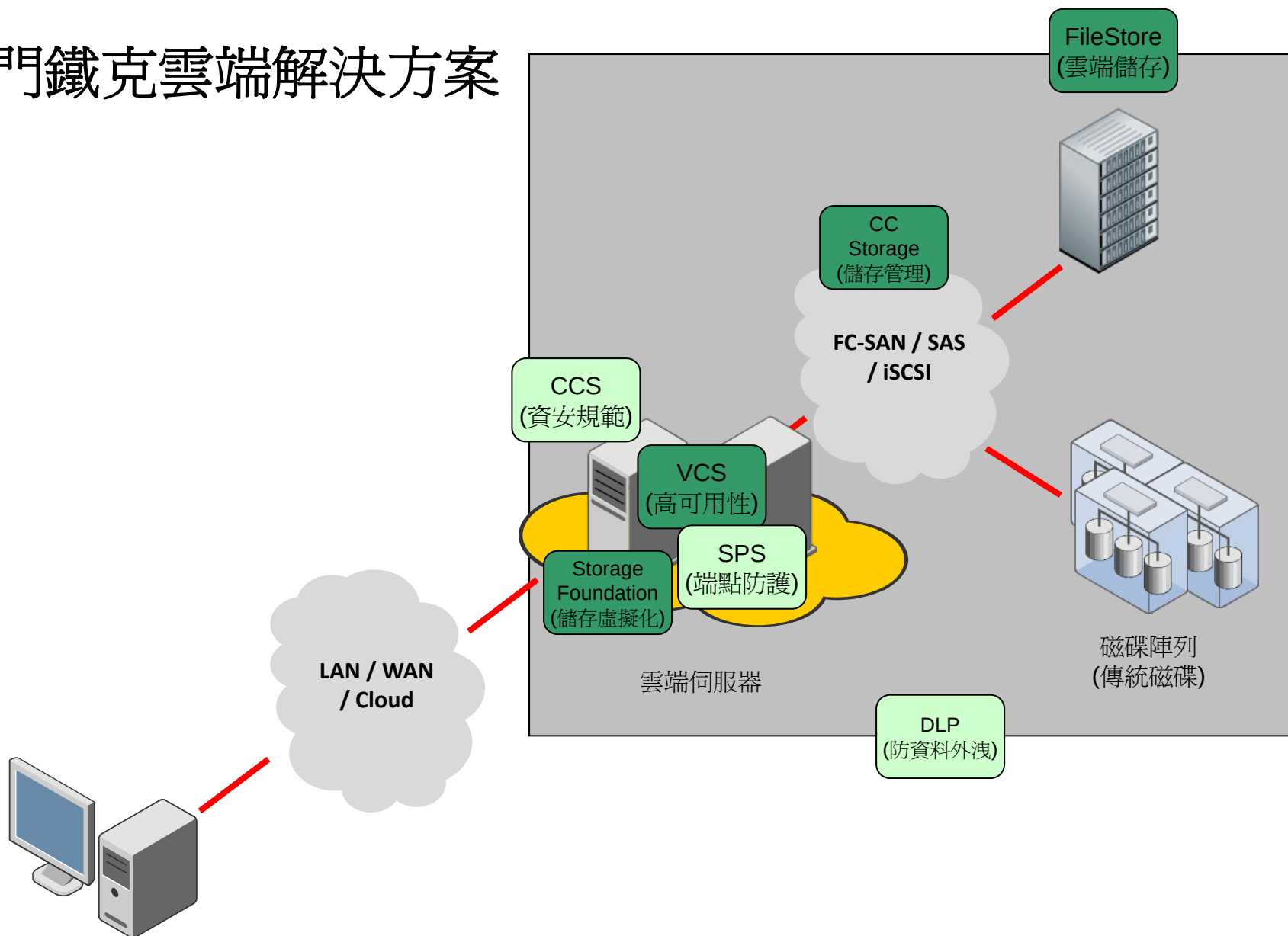
自動化強制執行- 賽門鐵克防止資料外洩解決方案

資料內容為核心



內容 (content) + 適用情況 (context) + 擴充性 (scale)

賽門鐵克雲端解決方案



賽門鐵克市場領導地位

	2008	2012	Market Position	Market Share
Consumer Security	\$3.4B	\$5.4B	#1	53%
Enterprise Security	\$2.9B	\$4.4B	#1	24%
Backup and Recovery	\$3.2B	\$4.3B	#1	40%
Compliance	\$1.6B	\$3.2B	#1	11%
SaaS	\$1.0B	\$2.8B	#1	-
Online Backup	\$0.8B	\$2.1B	#1	-
Storage Management	\$1.3B	\$1.8B	#1	52%
Archiving	\$0.5B	\$1.1B	#1	36%
Data Loss Prevention	\$0.2B	\$0.9B	#1	38%

Source: IDC



Thank you!

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