

HP New Style of IT for ATEN

透過完整儲存備援方案，
支援企業全球化品牌經營管理

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宏正自動科技
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Aten Company Information

- Founded in 1979, the only publicly listed KVM Company in the World (listed in the Taiwan Stock Exchange on October 2003)
- World's Top 3 leading KVM Switch and advanced connectivity solution provider and NO.1 in KVM sales volume
- Company Position: A total connectivity solutions provider
- Employees Worldwide: 1,500



Entry and mid-level solutions:
Personal / Small & Medium-sized enterprises



Enterprise Level / Data Center Solutions:
Large Multinationals / Information Centers



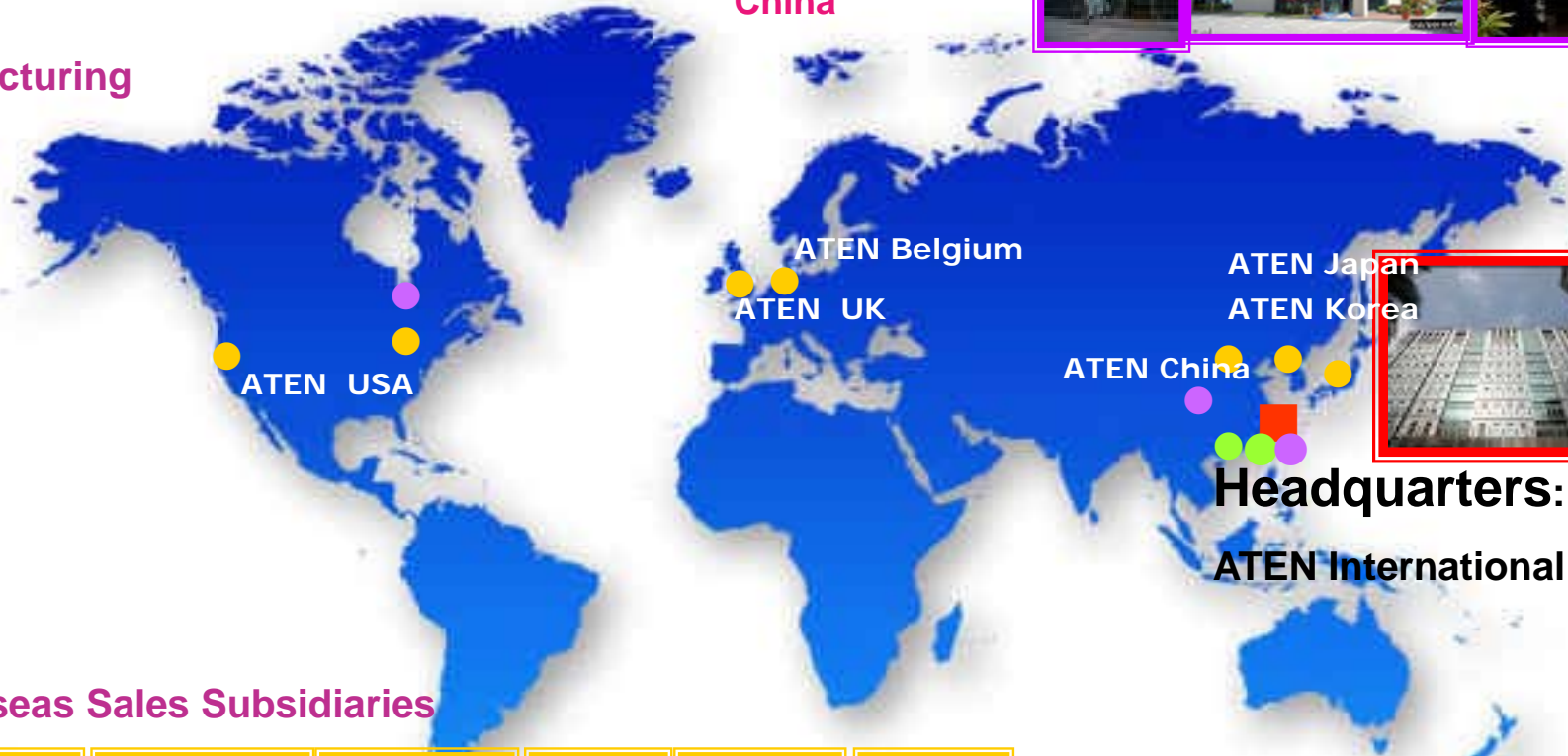
Professional Audio / Video Solutions:
Digital Signage / Pro AV / Education / Medical / Home Entertainment

Worldwide Presence



Manufacturing Center:
Taiwan, China

R&D Centers:
Taiwan, Canada, China



Overseas Sales Subsidiaries



USA (CA/NJ)

Belgium

UK

Japan

Korea

China (北京, 上海, 廣州等十處)

▶ **To Meet These Challenges,
ATEN Group Must...**

- ▶ **Think Globally** to make the right decisions
 全球化思考做出正確決策
- ▶ **Work Globally** to be more productive
 全球化讓工作更有效率
- ▶ **Manage Systems Globally** to lower cost and increase performance
 全球化系統管理降低成本與增加效率
- ▶ **Cash Flow Management Globally and Systematically** to reduce enterprise business risk
 全球化及系統化資金管理降低企業經營風險

ATEN Group IT Vision

Vision: **Corporate Information Center** play the role of integrated information services provider and business process improvement enabler to support ATEN global business growth timely.
 (資訊中心扮演整合資訊服務的提供者及企業流程改善的推動者角色以及時支援企業成長需求)

Mission: Focus on business process improving, Procedures Automation, Information integration, Value creation and Service innovation (聚焦流程改善、程序自動化、資訊整合、價值創造 與創新服務)

IT Objectives

- **Global service capabilities** (全球化服務能力)
- **Agilely react business growth of demand** (外速反映企業成長需求)
- **Business process and IT Professional competence**
(商業流程與資訊科技專業的能耐)
- **Customer service-oriented attitude** (客戶導向的服務態度)
- **Non-stop & high-quality IT service** (永不停頓與高品質的資訊服務)

Objective of Global IT Operation

宏正資訊架構優化

主機集中虛擬化

1. 降低實體主機採購頻率和數量
2. 簡化機架硬體管理(網路收容、機架空間節省、KVM、用電量及空調減降..)

儲存虛擬化

1. 磁碟空間管理虛擬化，透過軟體管理儲存設備
2. 核心資料管理集中化，以利備份策略和異地備援策略之規劃

備份集中化

1. 降低磁帶設備和媒體的重置成本
2. 提高資料保全風控標準(降低人為錯誤和稽核程序)
3. 備份和回存驗證程序一致化

管理主動化

1. 提高資訊系統監管工具IT SLA，降低User Help Desk處理時間和次數
2. 透過量化數據作到事先預警並可作為系統優化之參考資料

災備標準化

1. 災難備援程序簡易化，回復資料簡單化
2. 定期回存驗證

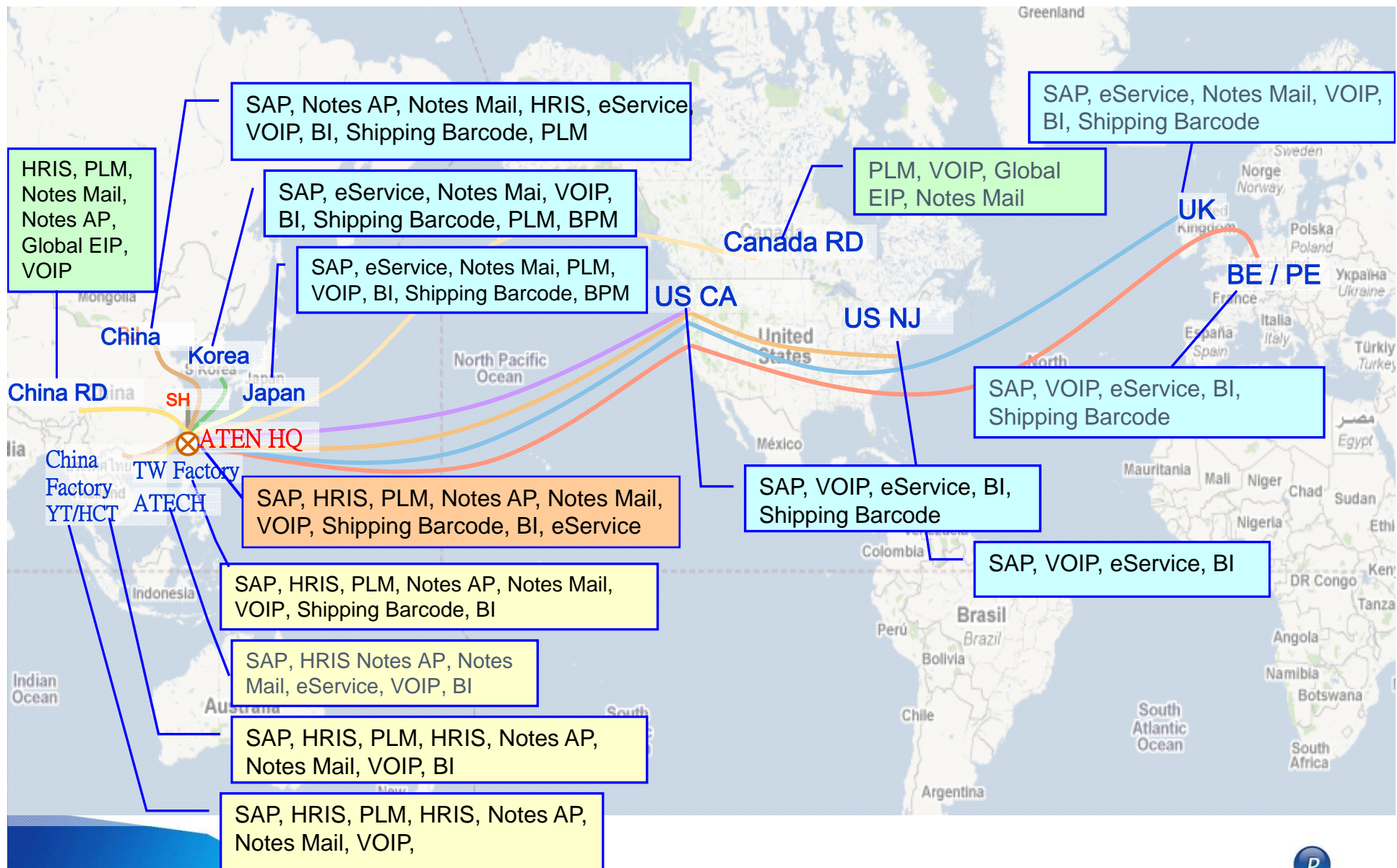
架構簡單化

1. 依專案需考量系統架構的關聯性
2. 降低系統架構規劃時間

資源彈性化

1. 主機資源依需求隨時調整，增加IT資源運用
2. 系統與網路資源全球化集中管理

ATEN Group Enterprise Cloud



邁向企業雲端之路 - 提昇伺服器運算儲存能力

Server

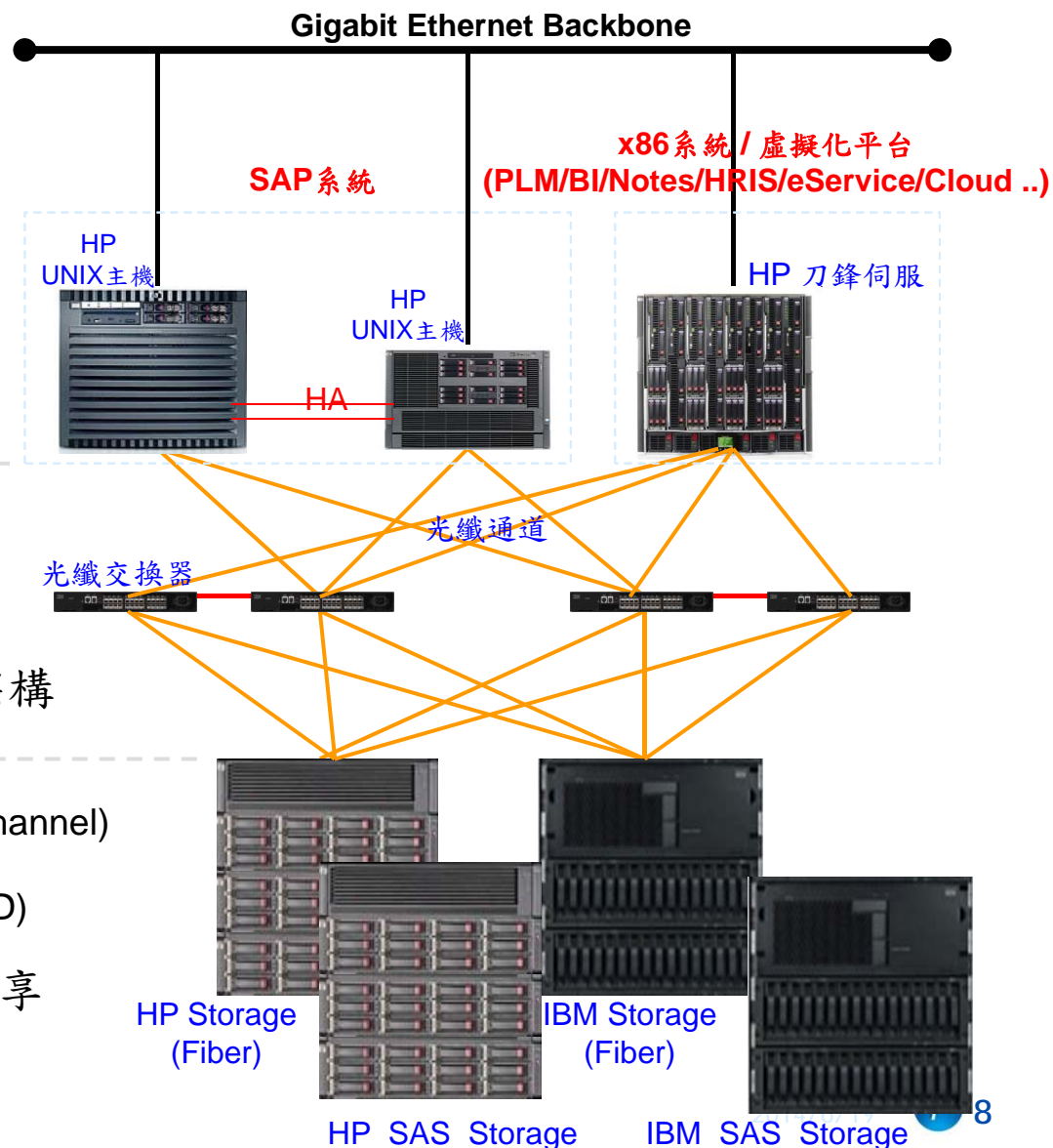
- 優秀的運算能力
- 可靠的硬體設計
- 節能的高密度刀鋒伺服器

Network (SAN)





- 高速的光纖傳輸網路
- 良好的I/O存取效能
- No Single Point Failure架構

Storage (SAN)

- 高效能的硬碟陣列(Fiber Channel)
- 高可靠度的資料保護 (RAID)
- 彈性的儲存資源配置與共享



邁向企業雲端之路 - 導入伺服器虛擬化

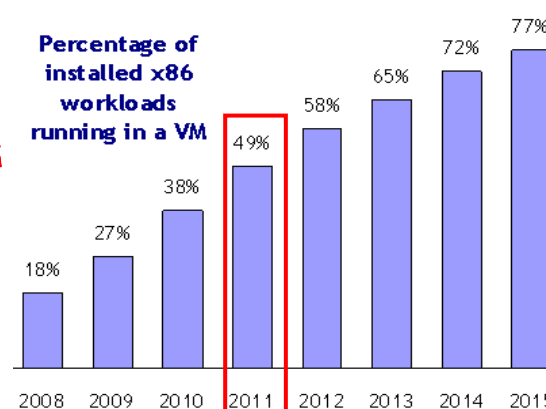
| 導入前 | 導入後 |
|--|---|
| <p>85% 運算資源閒置 平均高達 85% 的伺服器運算資源是閒置的</p> |  <p>更高的伺服器資源利用率</p> |
| <p>30% 電力浪費 大量的伺服器設備造成 30% 的電力浪費</p> |  <p>減少耗用電力、節能減碳</p> |
| <p>硬體成本高昂 大量的伺服器造成硬體採購及維護成本高昂</p> |  <p>大量減少實體伺服器數量</p> |
| <p>生產力低落 伺服器部署管理耗費大量人力時間</p> |  <p>快速部署、提高生產力 (On-demand provisioning of servers)</p> |

目前總公司伺服器虛擬化程度：

實體15刀刀鋒伺服器及10台Rack主機

運行120台以上虛擬機

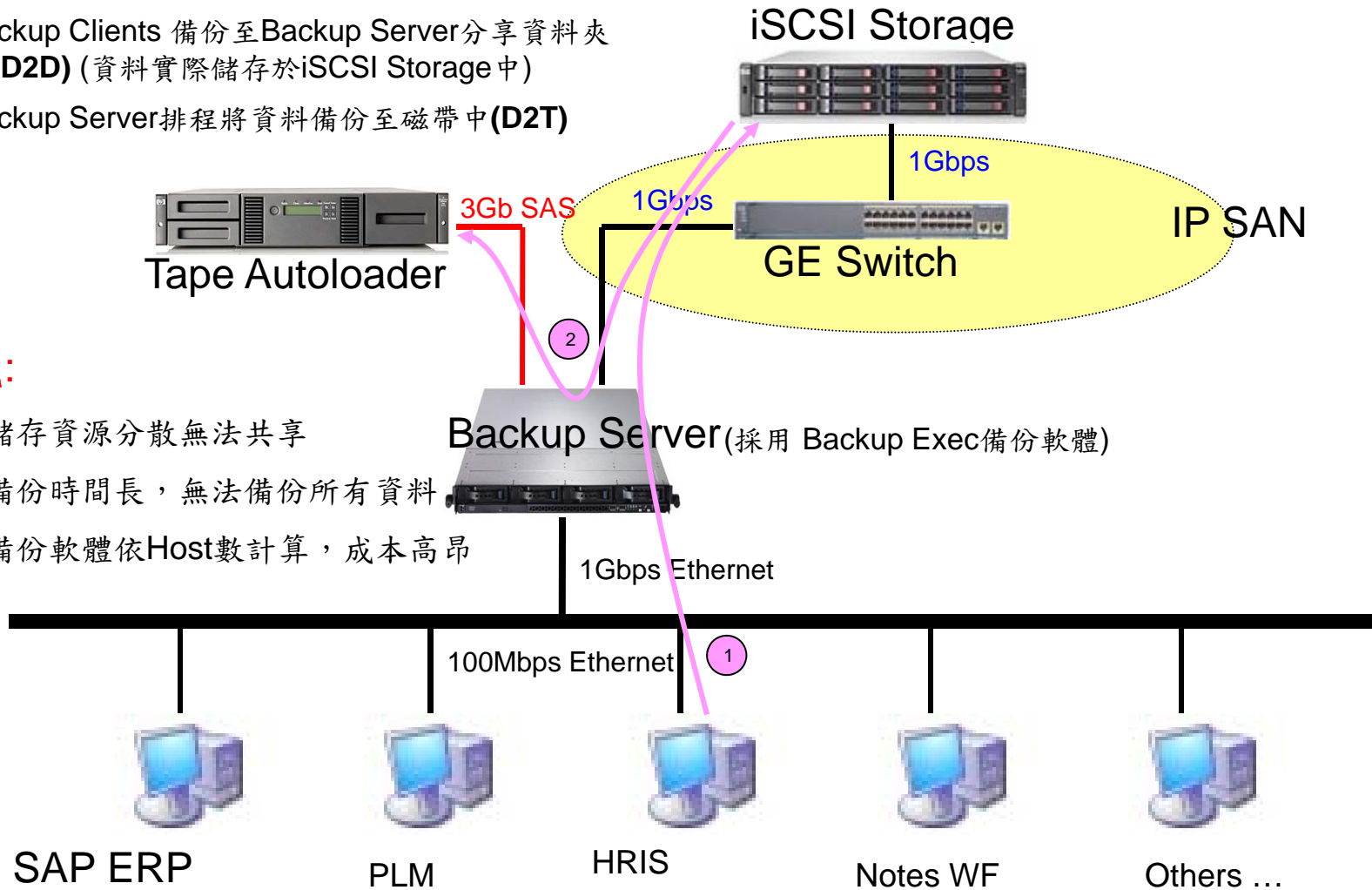
實體機器數量大幅縮減為1/5



Source: Gartner (May 2011)

ATEN 企業雲Backup Solution (Before Improvement)

- ① Backup Clients 備份至Backup Server分享資料夾中(D2D) (資料實際儲存於iSCSI Storage中)
- ② Backup Server排程將資料備份至磁帶中(D2T)

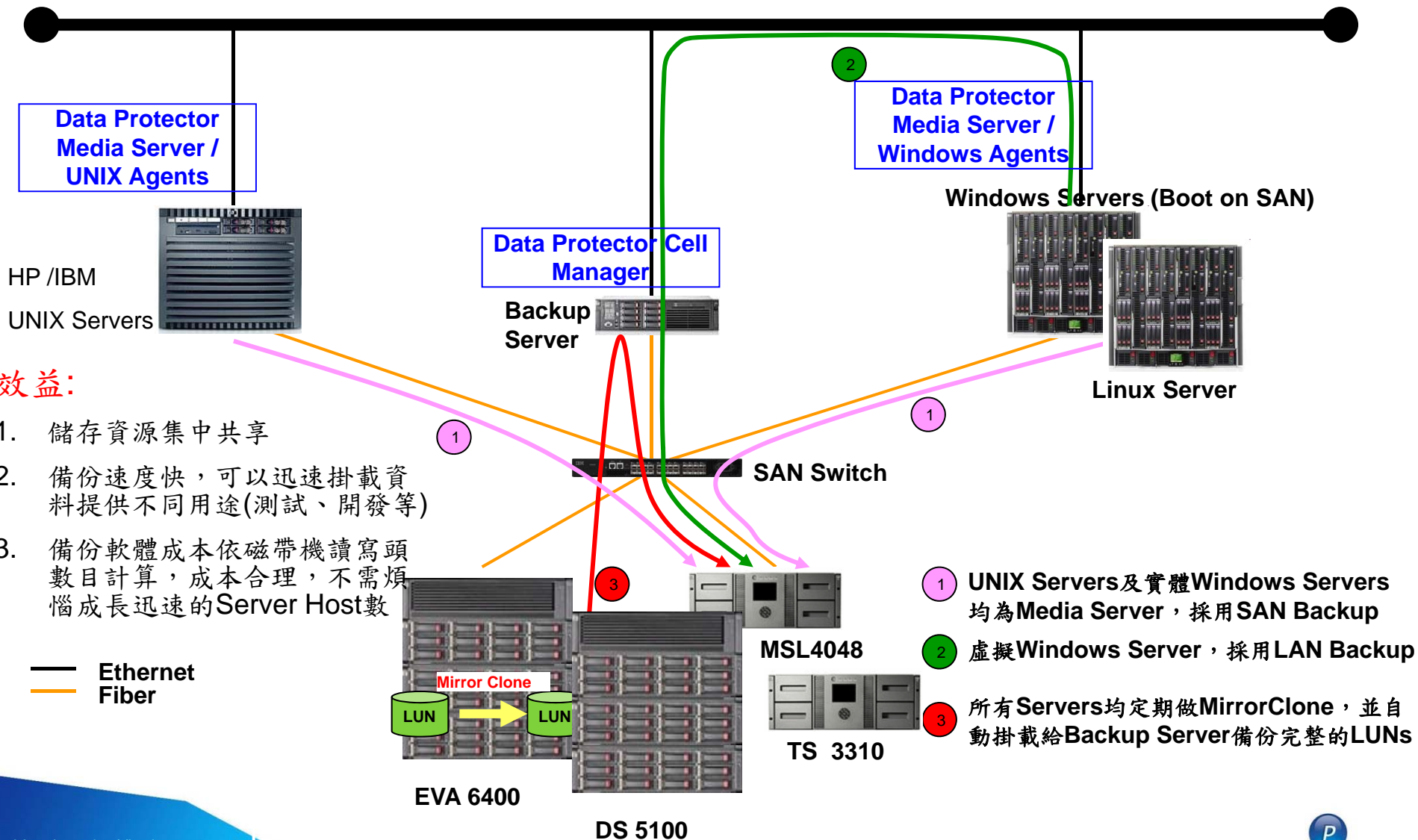


挑戰:

- 1. 儲存資源分散無法共享
- 2. 備份時間長，無法備份所有資料
- 3. 備份軟體依Host數計算，成本高昂

ATEN 企業雲 Backup Solution (After Improvement)

Gigabit Ethernet Backbone



效益:

1. 儲存資源集中共享
2. 備份速度快，可以迅速掛載資料提供不同用途(測試、開發等)
3. 備份軟體成本依磁帶機讀寫頭數目計算，成本合理，不需煩惱成長迅速的Server Host數

HP Data Protector親和的管理介面



Data Protector管理介面 – Client管理



需備份的 Clients

派送Agents或Patches至各個Clients

| Component | Version |
|--------------------|---------|
| Disk Agent | A.06.11 |
| Media Agent | A.06.11 |
| User Interface | A.06.11 |
| MS SQL Integration | A.06.11 |

顯示已安裝的Agent種類及版本

Data Protector管理介面 – 執行紀錄



備份作業執行紀錄

| Name | Status | Type | Specification | Backup Type | Start Time | End Time |
|---------------|-----------|--------|--------------------|-------------|------------------------|------------------------|
| 2010/10/27-11 | Completed | Backup | Oracle PLMDB_DB | incr1 | 10/27/2010 10:00:05 AM | 10/27/2010 10:04:15 AM |
| 2010/10/27-10 | Completed | Backup | SAP SAPPDR_ARCH | full | 10/27/2010 8:06:26 AM | 10/27/2010 8:06:26 AM |
| 2010/10/27-9 | Completed | Backup | DP_Daily | full | 10/27/2010 7:00:05 AM | 10/27/2010 7:03:09 AM |
| 2010/10/27-8 | Completed | Backup | MSSQL_BIDB_DB | full | 10/27/2010 6:30:05 AM | 10/27/2010 6:46:22 AM |
| 2010/10/27-7 | Completed | Backup | PLMFS_AP | incr | 10/27/2010 5:00:05 AM | 10/27/2010 5:03:05 AM |
| 2010/10/27-6 | Completed | Backup | NotesFS_AP | incr | 10/27/2010 4:00:05 AM | 10/27/2010 4:03:37 AM |
| 2010/10/27-5 | Completed | Backup | MSSQL_ATEN-TS-1_DB | diff | 10/27/2010 3:30:05 AM | 10/27/2010 3:36:40 AM |
| 2010/10/27-4 | Completed | Backup | MSSQL_EIP_DB | full | 10/27/2010 3:00:05 AM | 10/27/2010 6:28:53 AM |
| 2010/10/27-3 | Completed | Backup | MSSQL_APDB_DB | diff | 10/27/2010 1:00:05 AM | 10/27/2010 1:06:51 AM |
| 2010/10/27-2 | Completed | Backup | Lotus NS9_DB | full | 10/27/2010 12:00:05 AM | 10/27/2010 12:13:04 AM |
| 2010/10/27-1 | Completed | Backup | ATEN-TS-1_AP | incr | 10/27/2010 12:00:05 AM | 10/27/2010 12:13:47 AM |
| 2010/10/26-25 | Completed | Backup | Oracle PLMDB_DB | incr | 10/26/2010 11:00:05 PM | 10/26/2010 11:06:14 PM |
| 2010/10/26-24 | Completed | Backup | BIAP_AP | incr | 10/26/2010 10:30:05 PM | 10/26/2010 10:33:10 PM |
| 2010/10/26-23 | Completed | Backup | SAPPDR_Daily | full | 10/26/2010 10:00:05 PM | 10/26/2010 10:49:33 PM |
| 2010/10/26-22 | Completed | Backup | WEFFPS_AP | incr | 10/26/2010 9:00:05 PM | 10/26/2010 9:05:57 PM |
| 2010/10/26-21 | Completed | Backup | PLMDB_DB | incr | 10/26/2010 8:30:05 PM | 10/26/2010 8:49:23 PM |
| 2010/10/26-20 | Completed | Backup | SAPPDR_ARCH | full | 10/26/2010 8:00:05 PM | 10/26/2010 8:05:53 PM |
| 2010/10/26-19 | Completed | Backup | NAS_AP | incr | 10/26/2010 7:00:05 PM | 10/26/2010 7:06:57 PM |
| 2010/10/26-18 | Completed | Backup | Amly_AP | incr | 10/26/2010 7:00:05 PM | 10/26/2010 7:04:35 PM |
| 2010/10/26-17 | Completed | Backup | ntal_SYS | full | 10/26/2010 6:00:05 PM | 10/26/2010 6:18:22 PM |
| 2010/10/26-16 | Completed | Backup | SAPPDR_ARCH | full | 10/26/2010 4:00:05 PM | 10/26/2010 4:05:35 PM |
| 2010/10/26-15 | Completed | Backup | PLMDB_DB | incr2 | 10/26/2010 3:00:06 PM | 10/26/2010 3:06:00 PM |
| 2010/10/26-14 | Completed | Backup | SAPPDR_ARCH | full | 10/26/2010 12:00:06 PM | 10/26/2010 12:05:19 PM |
| 2010/10/26-13 | Completed | Backup | PLMDB_DB | incr1 | 10/26/2010 10:00:05 AM | 10/26/2010 10:05:59 AM |
| 2010/10/26-12 | Completed | Backup | SAPPDR_ARCH | full | 10/26/2010 8:00:05 AM | 10/26/2010 8:05:26 AM |
| 2010/10/26-11 | Completed | Backup | y | full | 10/26/2010 7:00:05 AM | 10/26/2010 8:05:07 AM |
| 2010/10/26-10 | Completed | Backup | BIDB_DB | full | 10/26/2010 6:30:05 AM | 10/26/2010 6:46:17 AM |

Data Protector管理介面 – Media管理



管理讀寫磁碟機

管理Media Pool

| Description | Quality | Protection |
|---------------------|---------|------------------------|
| [HSP621L4] HSP621L4 | Good | Expired |
| [HSP622L4] HSP622L4 | Good | Expired |
| [HSP623L4] HSP623L4 | Good | 11/1/2010 7:06:41 AM |
| [HSP624L4] HSP624L4 | Good | Expired |
| [HSP625L4] HSP625L4 | Good | 10/31/2010 11:02:37 PM |
| [HSP626L4] HSP626L4 | Good | 10/31/2010 7:07:41 AM |
| [HSP671L4] HSP671L4 | Good | Expired |
| [HSP672L4] HSP672L4 | Good | Expired |
| [HSP673L4] HSP673L4 | Good | 11/22/2010 12:02:53 AM |
| [HSP674L4] HSP674L4 | Good | 11/17/2010 5:47:01 AM |
| [HSP675L4] HSP675L4 | Good | 11/24/2010 10:02:50 AM |
| [HSP676L4] HSP676L4 | Good | 11/24/2010 6:26:56 AM |

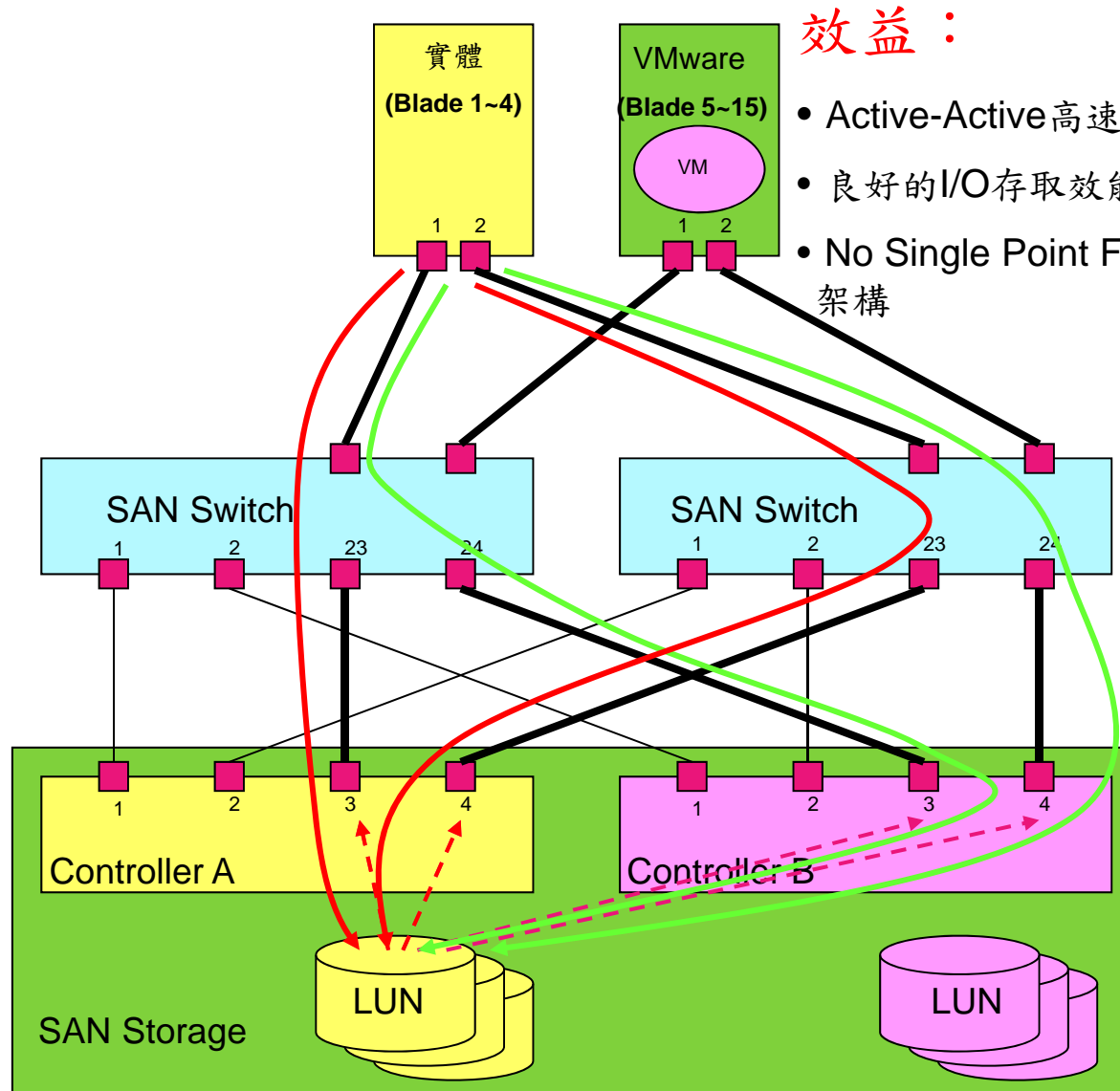
磁帶管理

Data Protector管理介面 – Job管理

管理備份作業

管理備份

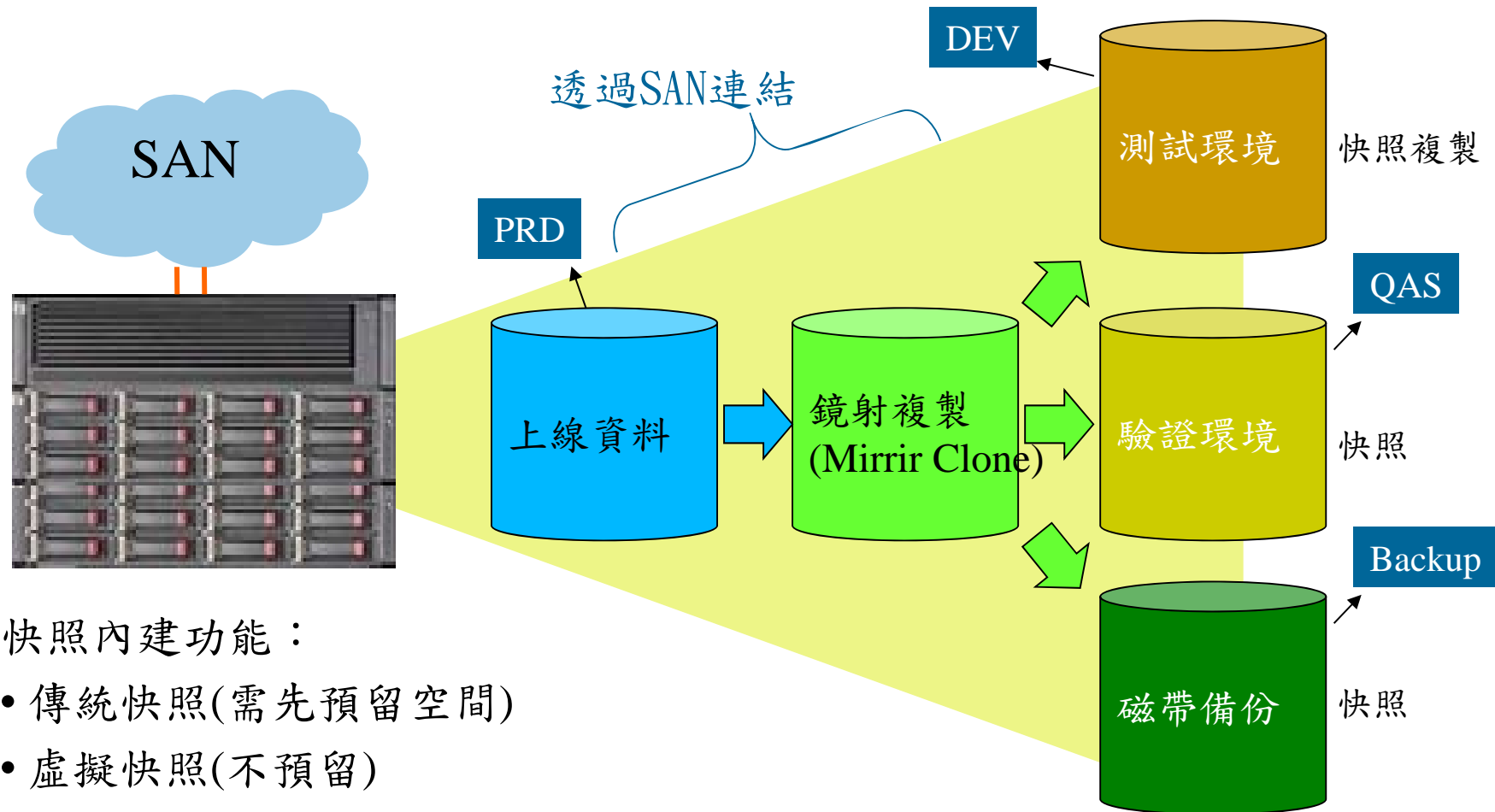
ATEN SAN Architecture (Blade System)



效益:

- Active-Active 高速的雙備援光纖傳輸網路
- 良好的I/O存取效能(Fiber Channel)
- No Single Point Failure 的高信賴度備援架構

ATEN ERP Backup & Restore Solution



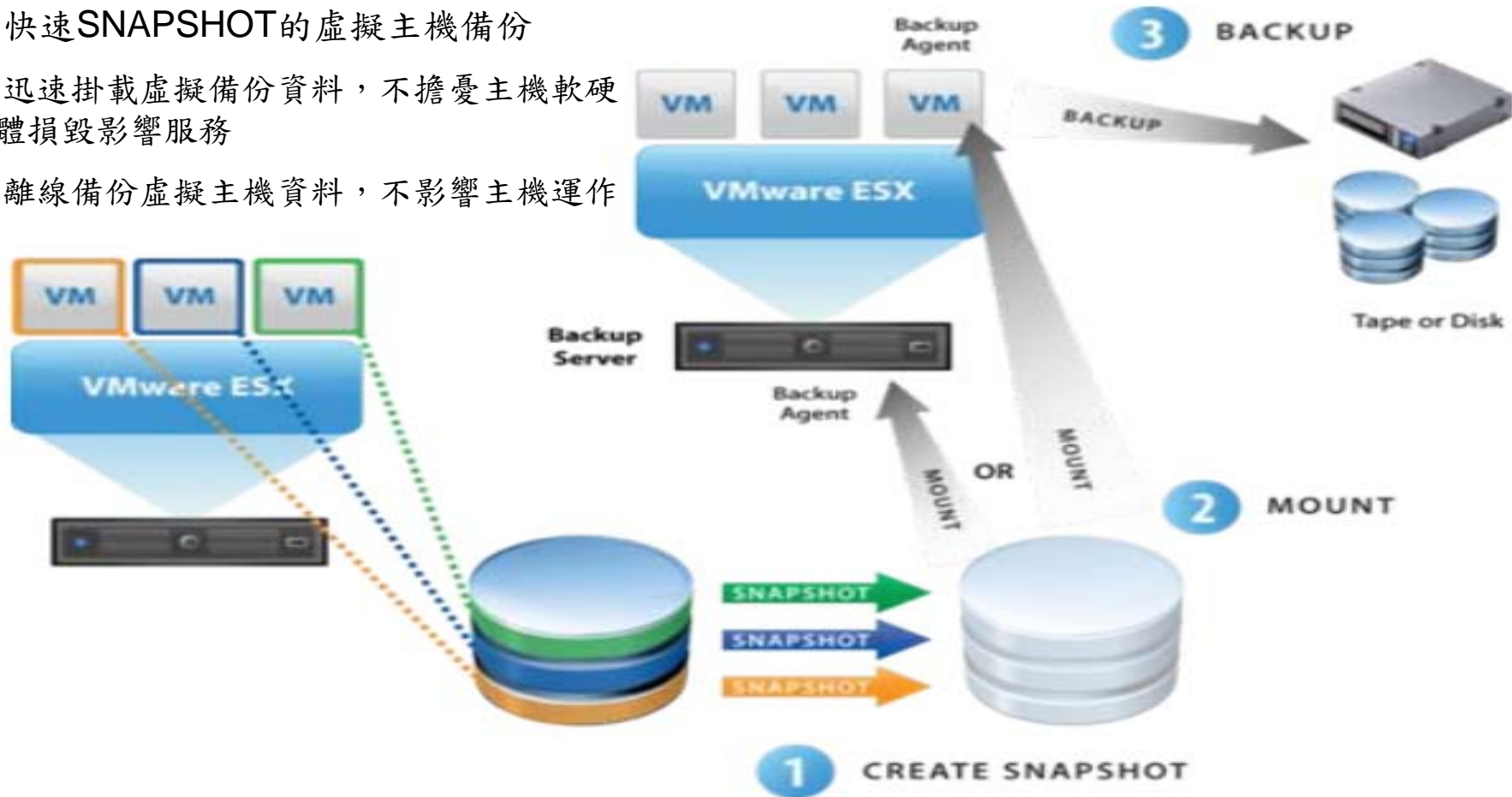
快照內建功能：

- 傳統快照(需先預留空間)
- 虛擬快照(不預留)
- 鏡射複製(MirrorClone)
- 快照複製(SnapClone) - Incremental

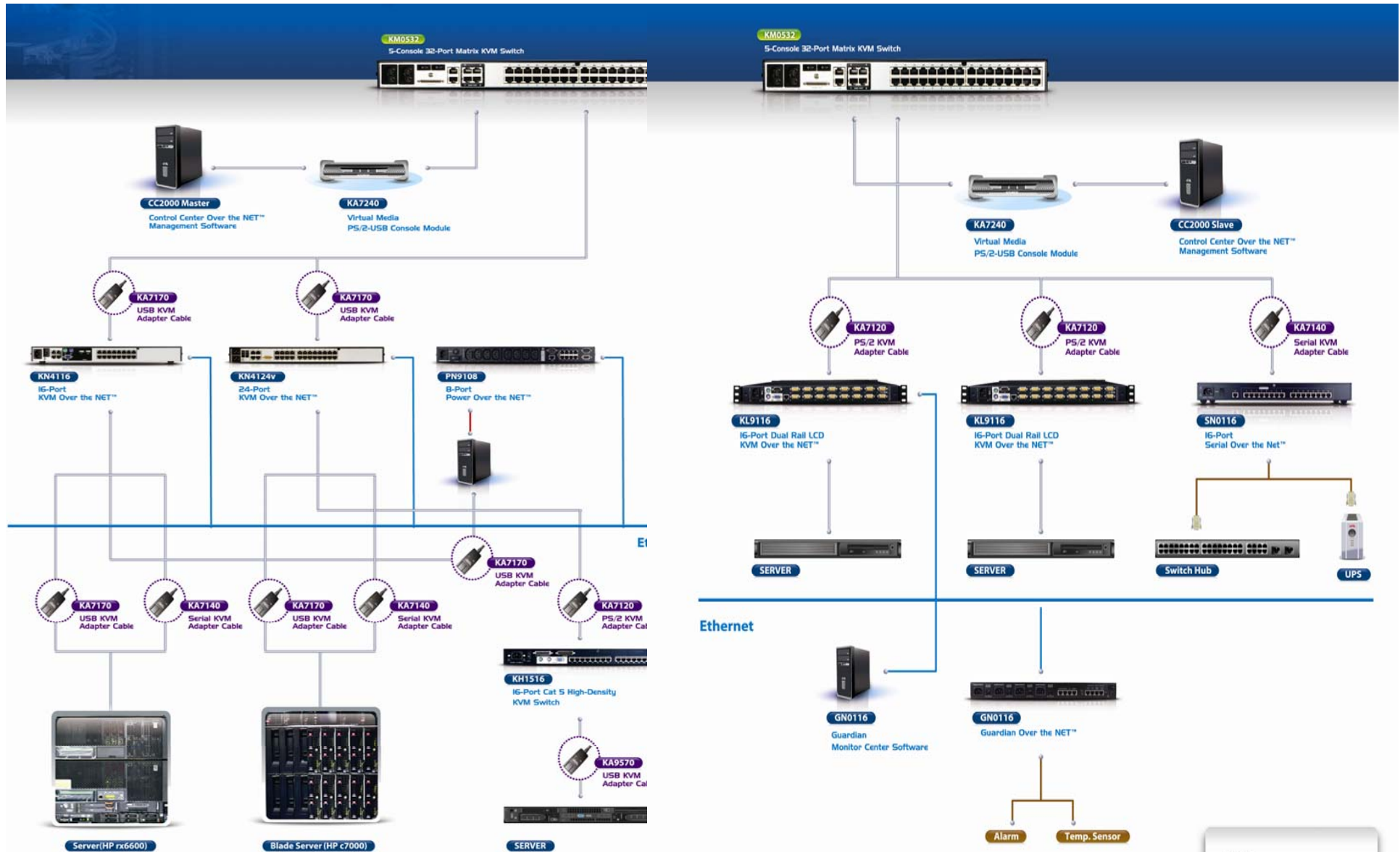
ATEN Virtual Platform Backup Solution

效益：

- 快速SNAPSHOT的虛擬主機備份
- 迅速掛載虛擬備份資料，不擔憂主機軟體損毀影響服務
- 離線備份虛擬主機資料，不影響主機運作



Server Management through KVM (ATEN KVM產品及統一介面實現遠端無縫管理)



Thank You!

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