

Microsoft

Microsoft[®]

MCloud

雲端建置的實務分享

Johnny Wang

Account Manager

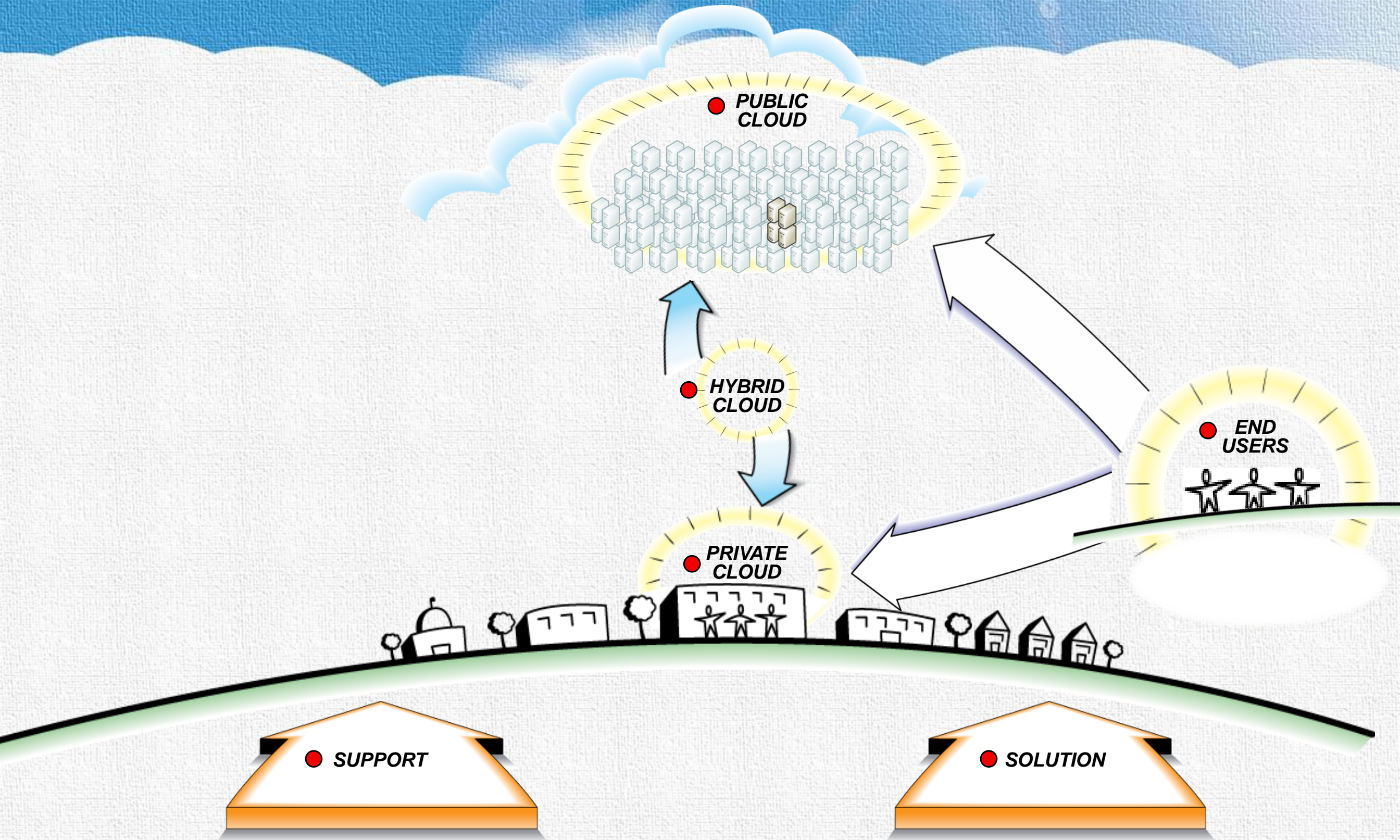
Microsoft Taiwan

Cloud Computing

Delivers IT as a Service...

Freeing You Up to Focus on Your Business

Microsoft Cloud Strategy



Microsoft Cloud Strategy

SERVICES

SERVICES

SOFTWARE
+
SERVICES

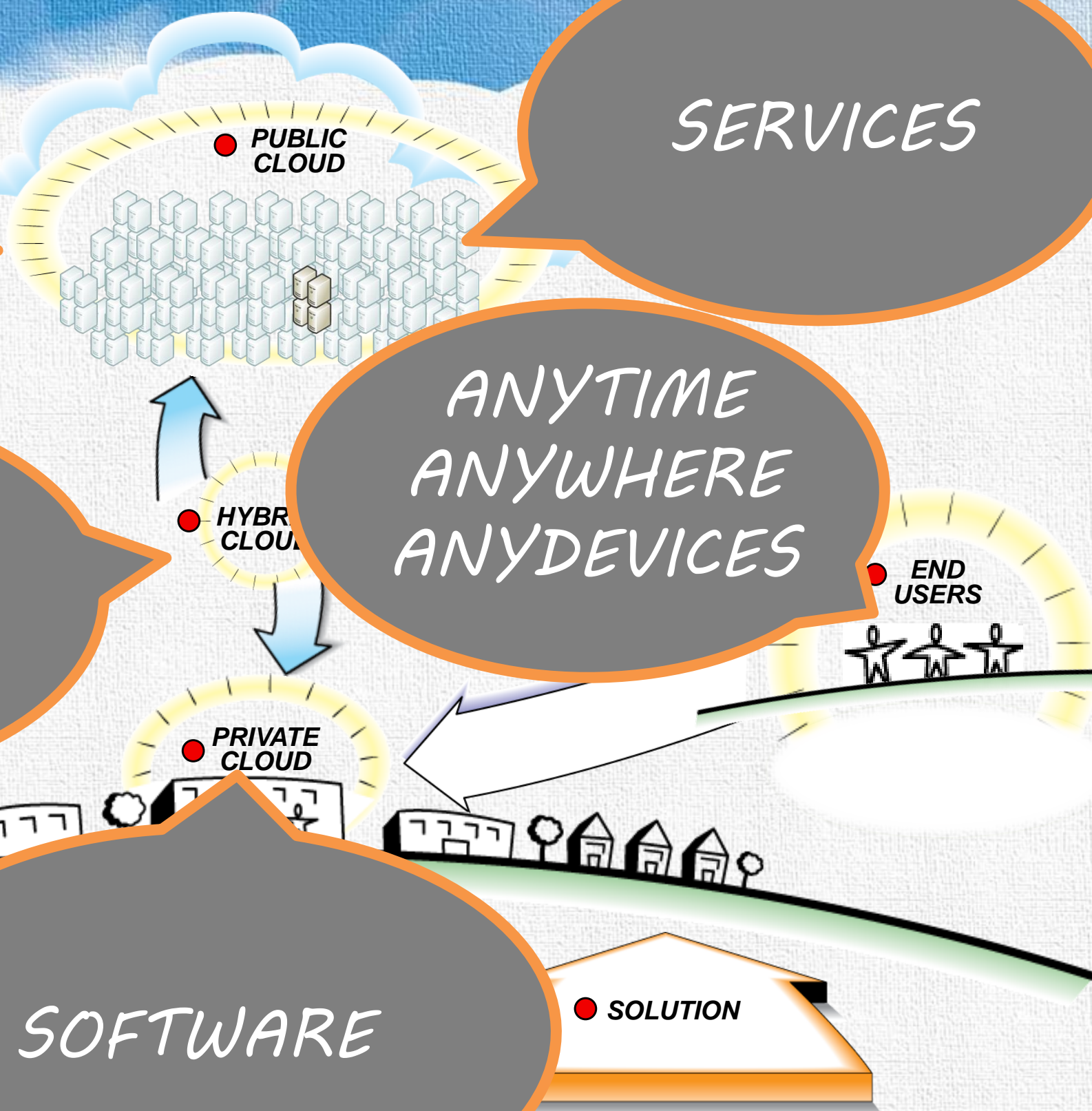
ANYTIME
ANYWHERE
ANYDEVICES

END
USERS

SOFTWARE

SUPPORT

SOLUTION



Microsoft Cloud Strategy

Azure[™] Services Platform

Live Services | .NET Services | SQL Services | SharePoint Services | Microsoft Dynamics CRM Services

Windows Azure

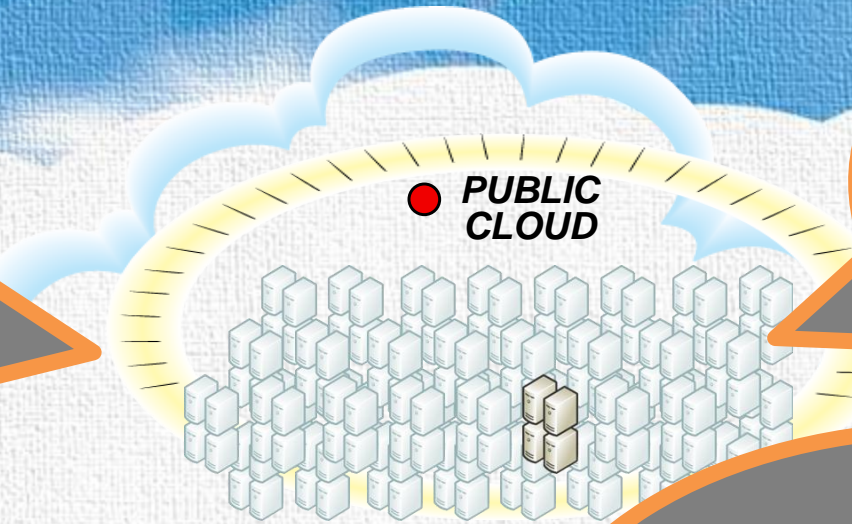
Office

Exchange | SharePoint 2010

Windows Intune

Microsoft Dynamics CRM Online

Office Communications Online



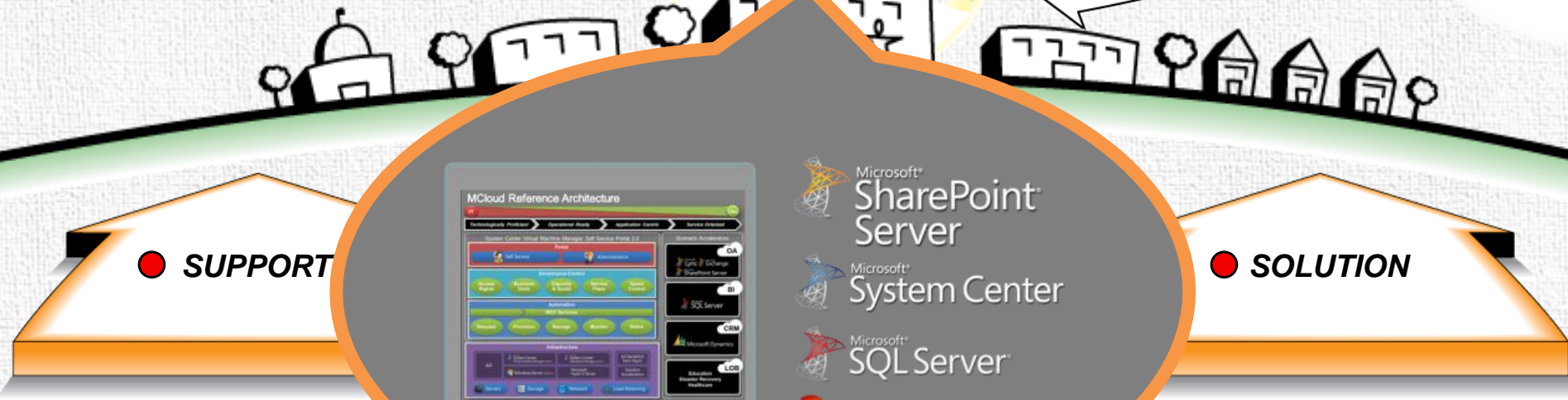
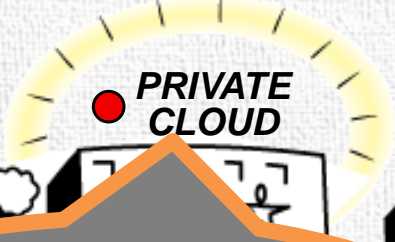
Windows Azure

Secure Cloud Federation

- SQL Sync
- App Fabric Svc Bus
- Security Federation
- Azure Connect

PC | Phone | TV

END USERS



MCloud Reference Architecture

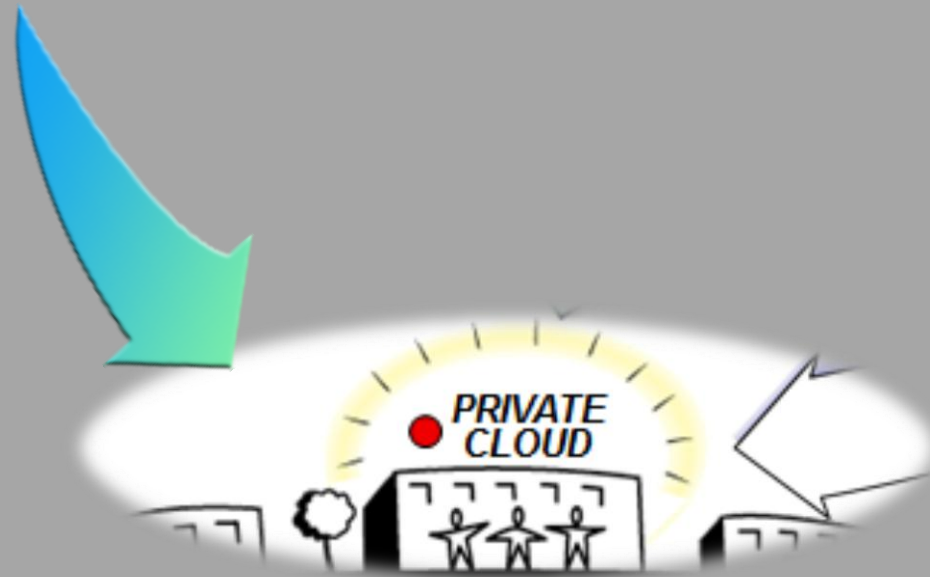
Microsoft SharePoint Server

Microsoft System Center

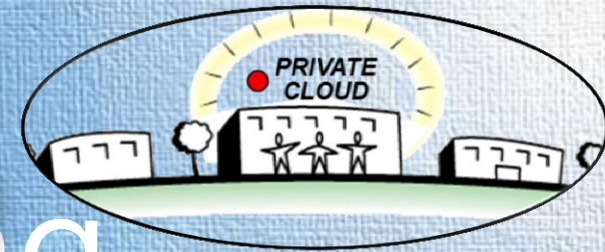
Microsoft SQL Server

Windows Server

Today's Focus !!

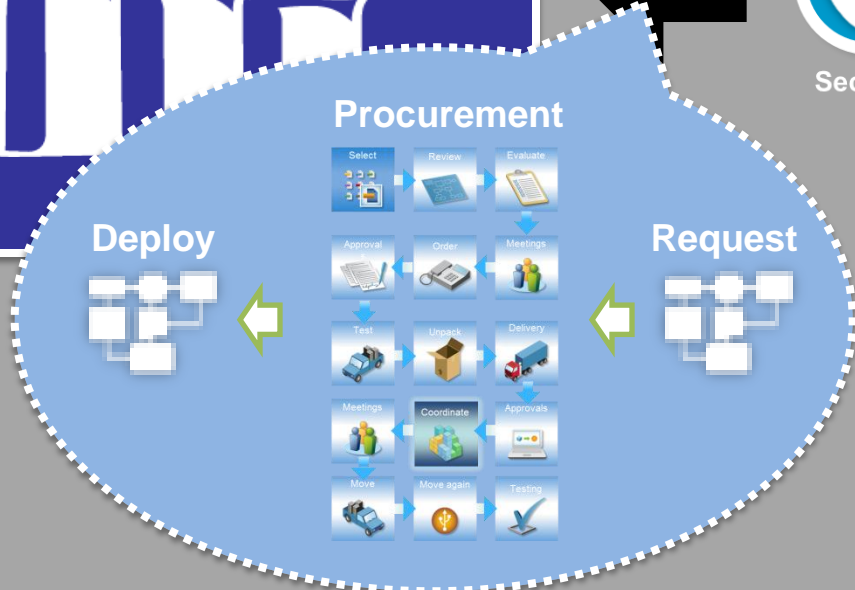


Evolution of Computing *... how we get to*



DAYS

Traditional Computing



... with these

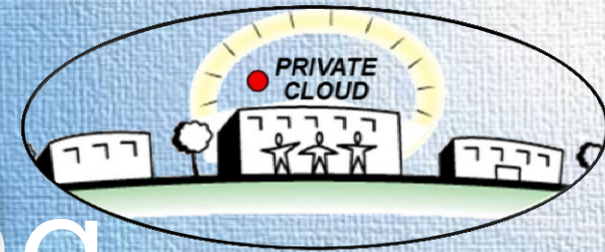


Increase business agility on a scalable and reliable virtualization platform.

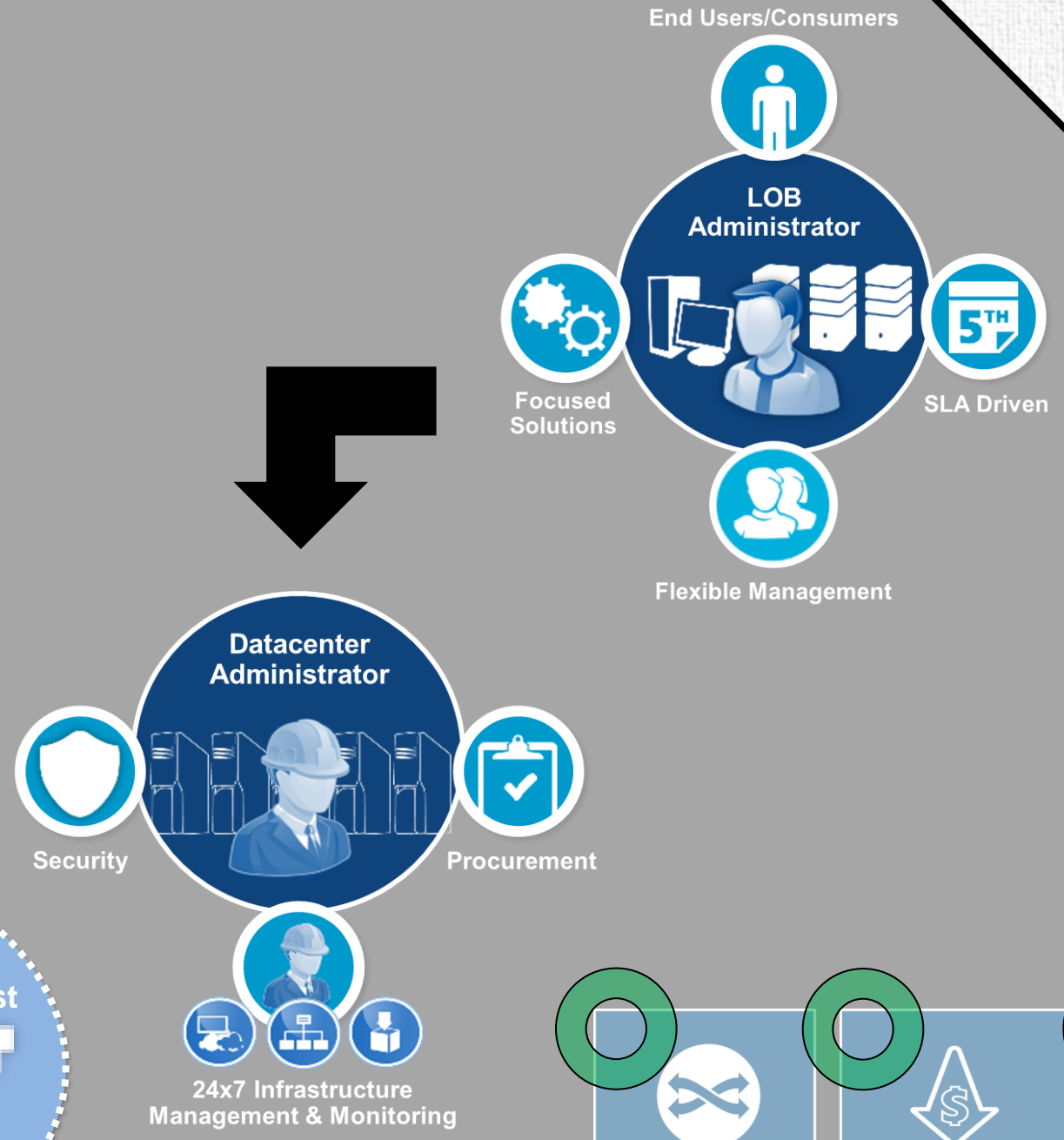
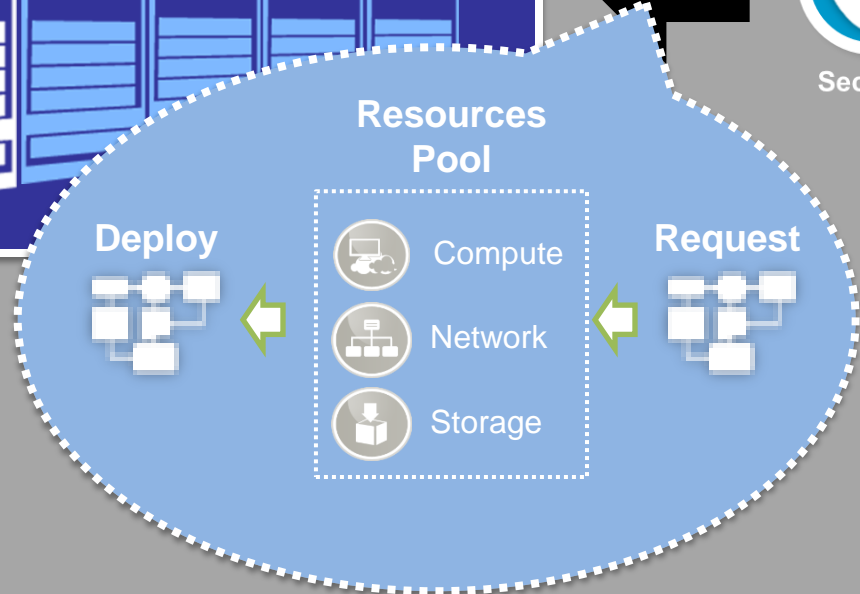
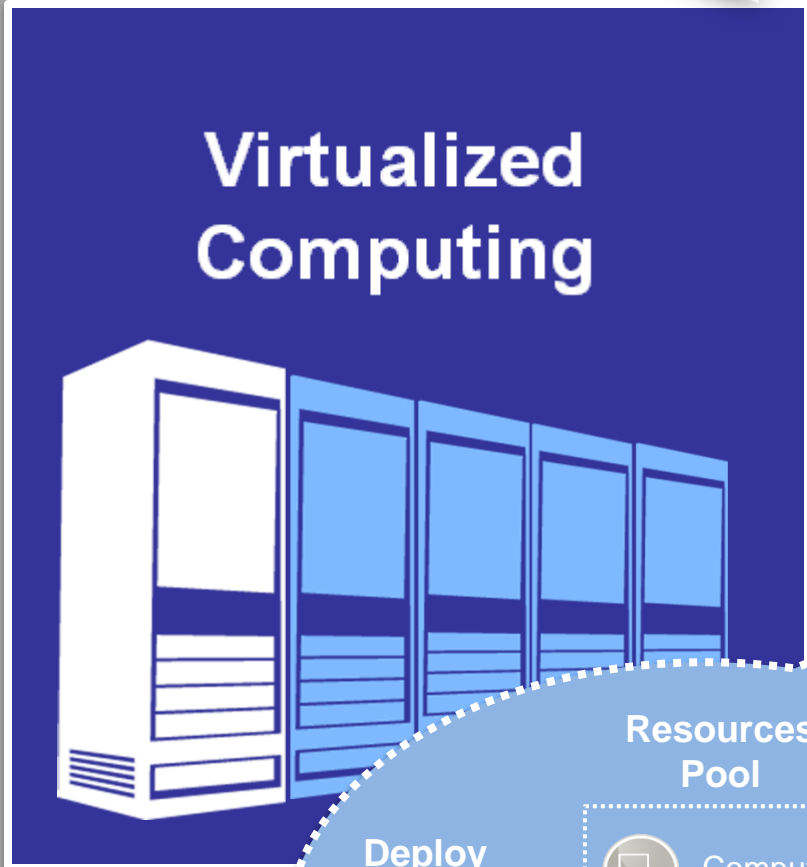
Achieve maximum utilization of shared and cost-effective resources.

Optimize control over physical, virtual, and hybrid infrastructure.

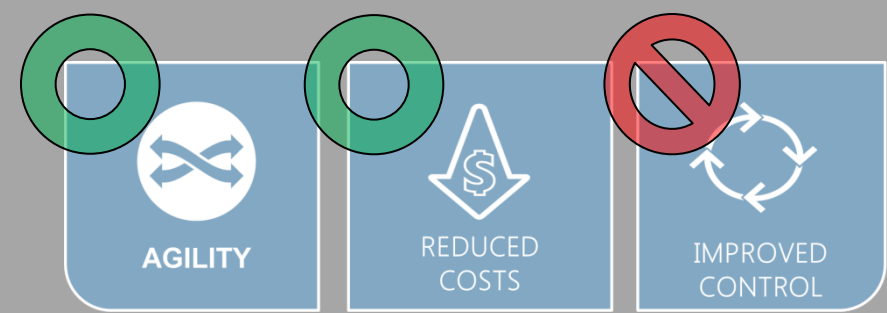
Evolution of Computing how we get to



HOURS

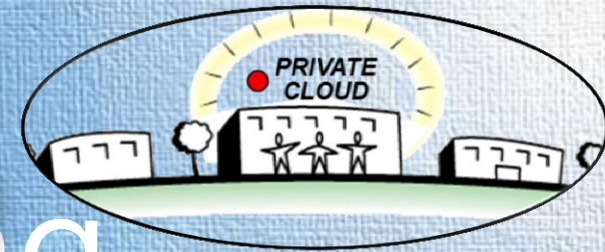


24x7 Infrastructure Management & Monitoring

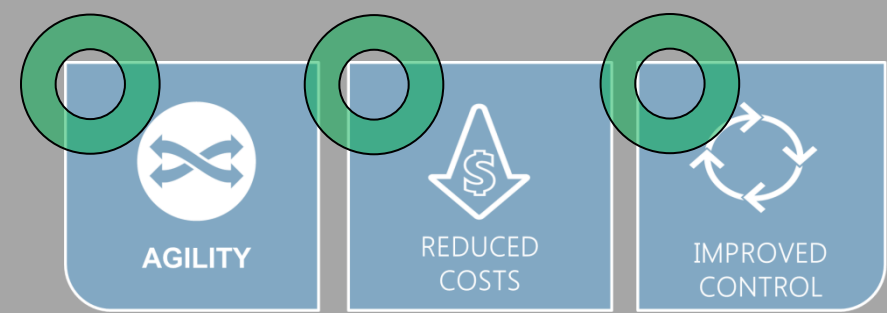
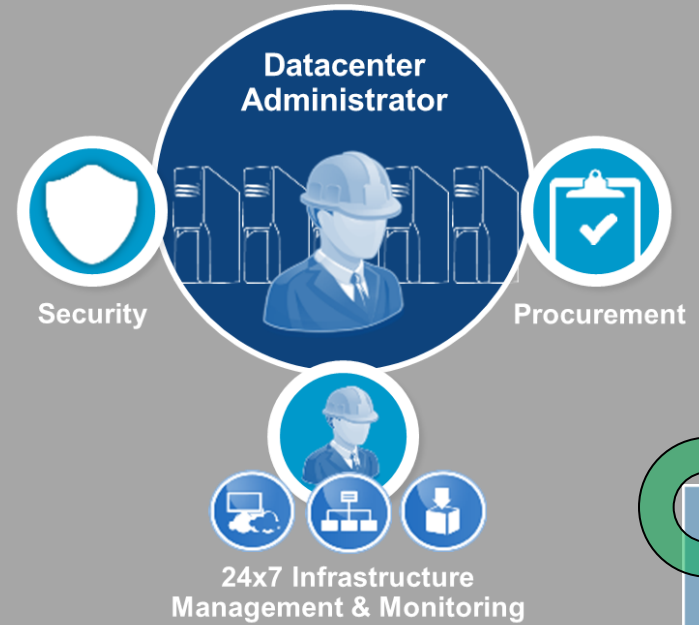
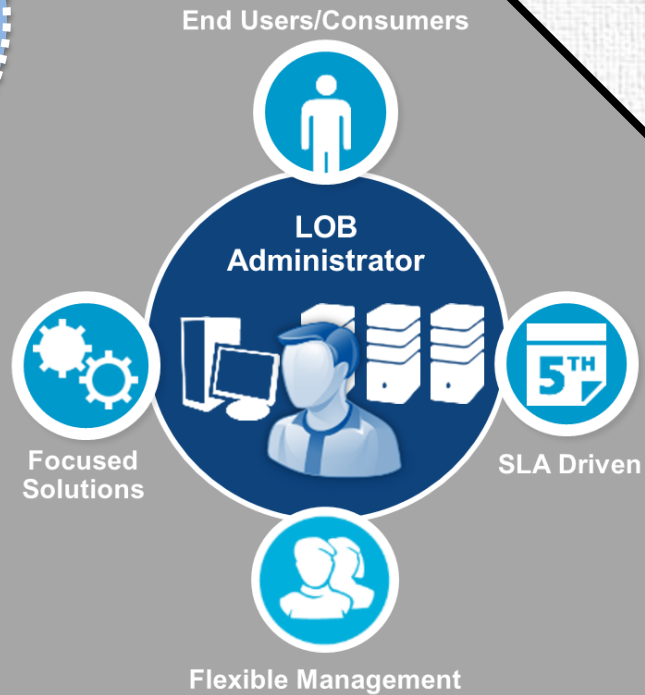
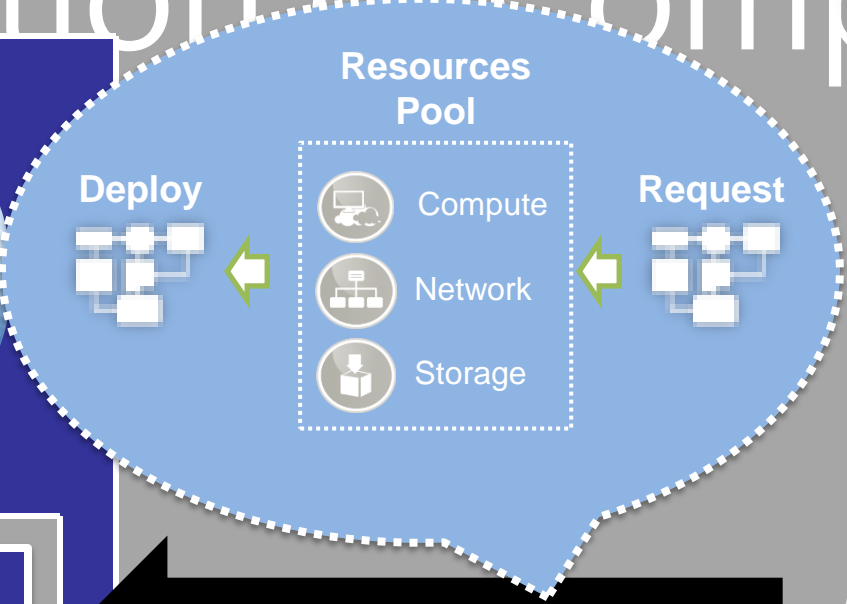


Increase business agility on a scalable and reliable virtualization platform. Achieve maximum utilization of shared and cost-effective resources. Optimize control over physical, virtual, and hybrid infrastructure.

Evolution of Computing *how we get to*

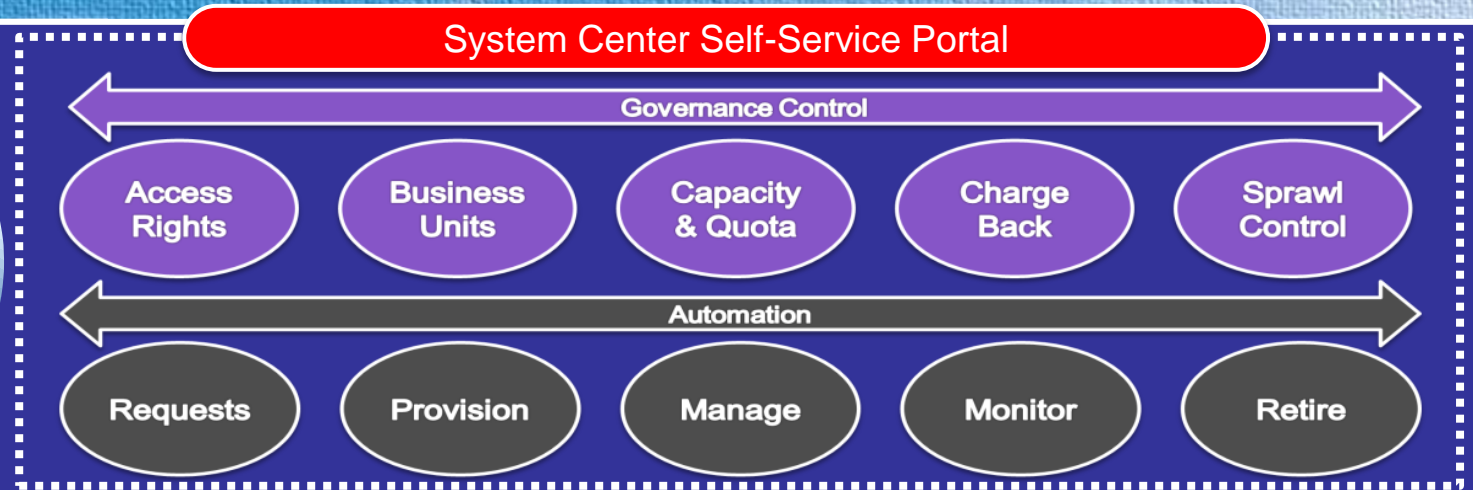


Cloud Computing
Private | Public



Increase business agility on a scalable and reliable virtualization platform. Achieve maximum utilization of shared and cost-effective resources. Optimize control over physical, virtual, and hybrid infrastructure.

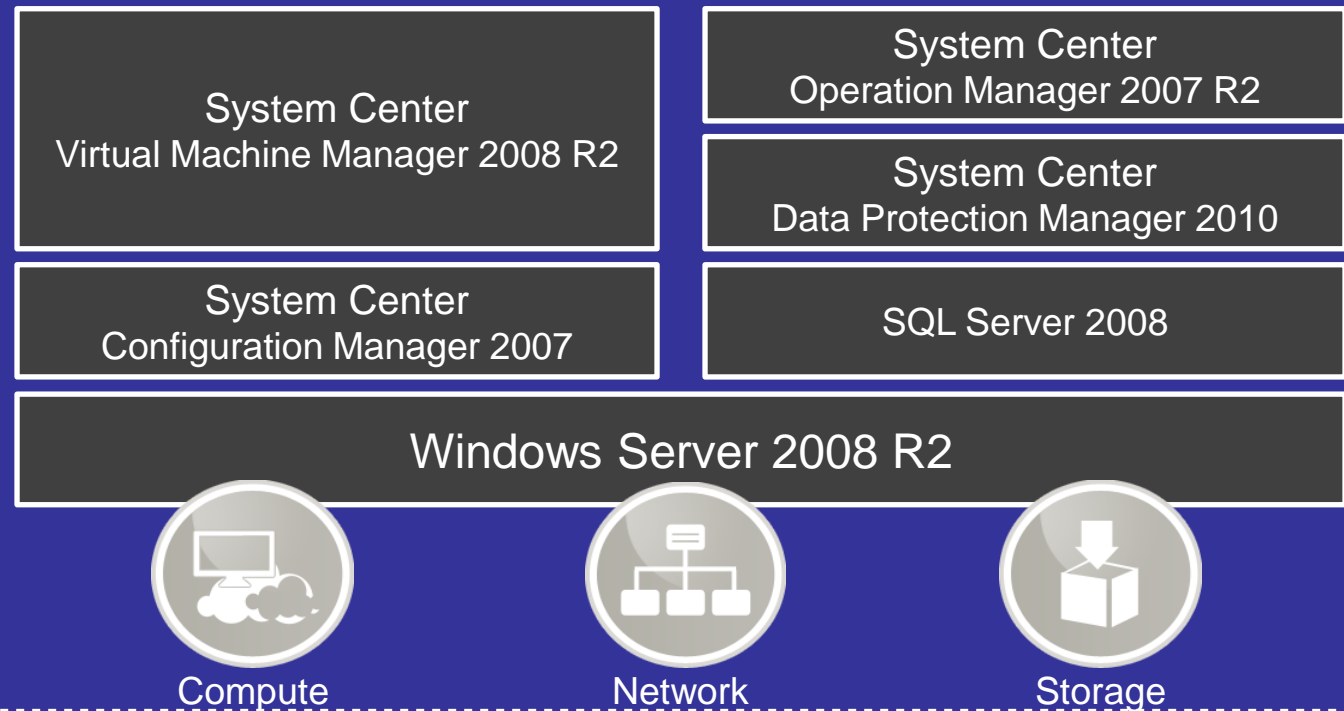
微軟MCloud雲端運算中心解決方案



Virtualized Computing



Microsoft Dynamic Datacenter



WHAT IS IT?

A turnkey solution providing:

- Infrastructure readiness guidance
- Portals
- Onboarding, admin, and self service
- Lightweight provisioning engine
- Extensibility authoring UI



微軟MCloud雲端運算中心解決方案

MCloud Administration	Business Unit	Custom Guest	Federation	Distributed DC
	Infra & Services Guest Grouping	Host Grouping	Storage Scrubbing	Business Analytics
	On-Boarding	Network Isolations	Instance Based Billing	Usage Based Billing
MCloud Service Consumption	Self-Service Provisioning	Schedule On/Off	Service Snap Shot	Content-based routing
	Guest Monitoring	Notifications & Alerts	Usage Analysis	Dynamic On/Off
	Account Management	Network Balances/Group	Virtual Private Cloud	Dedicate Cloud
MCloud Service Operations	Batch Provisioning	Backup/Restore	SAS - 70	Workflow Extension
	Operation Policies	Knowledge Base	Guest Patch Update	Zero-Day Deployment
	Service Monitoring & Alerts	Guest SLA	Incidents Ticket	Updates/Vulnerability Management
High-Level Capability	Basic	Standardized	Advanced	Dynamic

實際建置案例分享 – NTU Cloud

The screenshot displays the NTU Cloud website interface. At the top, the NTU logo and 'NTU Cloud' text are visible. A navigation menu includes '首頁', '宗旨', '服務方案', '服務計畫', '新手上路', '合作夥伴', '資源下載', and '聯絡我們'. The main content area is titled '服務方案' and lists four services:

- Virtual Machine (VM) Service**: 虛擬主機租用服務. This service is highlighted with a red border and a callout box that says '服務已經上線' (Service is online).
- NTU BOX-Storage Service**: 儲存空間租用服務. This service is marked as '即將推出' (Coming soon).
- Peak Load Service Quality Guaranteed Service**: 尖端負載效能品質保證服務. This service is marked as '規劃中' (Planning).
- Applications with Deadline Service**: 應用執行期限保證服務. This service is marked as '規劃中' (Planning).

On the right side, there is a section for '隨時隨到的IT資源' (Any Time Any Where Any Service On-Demand Any Device) with '購買' and '登入' buttons. Below it, a '最新消息' (Latest News) section mentions '2011.1.3 NTU Cloud 即將開始提供VM服務，敬請期待!' (NTU Cloud will start providing VM services, please look forward to it!).

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虛擬主機租用服務

Microsoft | MCloud Dynamic Datacenter

申請 基礎建設 控制中心 報表 使用者管理 系統設定

控制中心

虛擬機房

- MCloud
- Web Farm
- App Farm
- 測試機房
- 測試機房2
- 網路服務處虛擬機房
- Test2

資訊 虛擬伺服器 效能監控 動態設定 工作項目 帳務

名稱	狀態	事業單位	基礎建設	服務	服務角色	Age
TestV001	Running					True
TestV002	Saved					True

資訊 效能監控

名稱: TestV001
擁有者: Darren\CloudAdmin
CPU: 1
記憶體: 256.00
IP Address:
軟體更新需求: Test
備份需求: Test
CPU Usage: 0%

啟用 停止 關機 暫停 繼續 儲存 刪除

開通使用

Microsoft | MCloud Dynamic Datacenter

申請 基礎建設 控制中心 報表 使用者管理 系統設定

申請服務

1 Service Plan 2 Service Configuration 3 Charge Account

計劃名稱 說明

- Plan A: General Purpose Service. Provide user VMs to be a general usage.
- Plan B: Peak Load Service Quality Guaranteed Service. Example application: some web application may suffer from extremely heavy load in some situation
- Plan C: Applications with Deadline Service. Example application: a number of simulation runs to be completed with a time bound.
- 自訂. 自訂服務角色, 依據實際的系統架構, 區分多層 Service Role, 例如: WebFarm、AppFarm...

選擇服務方案

Microsoft | MCloud Dynamic Datacenter

申請 基礎建設 虛擬伺服器 工作項目 報表 使用者管理 系統設定

申請項目:

ID	申請日期	核可日期	事業單位	Type	緊急度	申請人	狀態
21	2010/5/24	2010/5/24	BU01	InfrastructureService	Medium	Darren\CloudAdmin	Approved
20	2010/5/24	2010/5/24	BU06	Onboarding	Medium	Darren\CloudAdmin	Approved
19	2010/5/23	2010/5/23	BU05	Onboarding	Medium	Darren\CloudAdmin	Approved
18	2010/5/23	2010/5/23	BU04	InfrastructureService	Medium	Darren\CloudAdmin	Approved
17	2010/5/23	2010/5/23	BU04	Onboarding	Medium	Darren\CloudAdmin	Approved
16	2010/5/20	2010/5/20	BU01	InfrastructureService	Medium	Darren\CloudAdmin	Approved

功能項目

- 核可
- 駁回
- 編輯
- 刪除

其他功能

- 申請 基礎建設
- 註冊 事業單位

預覽資訊
RequestID: 14

審核

Microsoft | MCloud Dynamic Datacenter

申請 基礎建設 控制中心 報表 使用者管理 系統設定

申請服務

1 Service Plan 2 Service Configuration 3 Charge Account

虛擬機器名稱: []
VM 範本: Windows Server 2008 R2 中文版
CPU Cores: 1
記憶體: 512
網路: Public Network
Applications: SQL Server 2005, SQL Server 2008, SQL Server 2008 R2

加入

虛擬機器名稱	VM 範本	CPU Cores	記憶體	網路	Applications
TestVM	Windows Server 2008 R2	2	1024		
	Windows Server 2003	2	2048		

設定服務內容

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申請 基礎建設 控制中心 報表 使用者管理 系統設定

申請服務

1 Service Plan 2 Service Configuration 3 Charge Account

Project ID	Name	Category	Start Date	End Date	Amount	Co-PI
<input type="radio"/> 99B1234	雲端系統使用模式之研究		2010/07/01	2011/12/31	50000	
<input checked="" type="radio"/> 99B1234	雲端系統研究		2010/07/01	2011/12/31	100000	

指定付費帳號

DEMO – NTU Cloud 虛擬主機租用服務購買

DEMO – NTU Cloud 虛擬主機租用服務使用

NTU Cloud 特色

- 設計完善的使用者介面
- 全自動化虛擬主機購買、審核、開通及使用
- 整合教授的科專計畫經費 (*Billing*)
- 提高服務品質降低維運成本
- 多項創新的服務應用概念

實際建置案例分享 – NCKU Cloud

成功大學 Dynamic Datacenter

申請 控制中心

mcloud\jason [重設密碼]

服務申請流程

1 服務選單 2 服務設定 3 服務計費

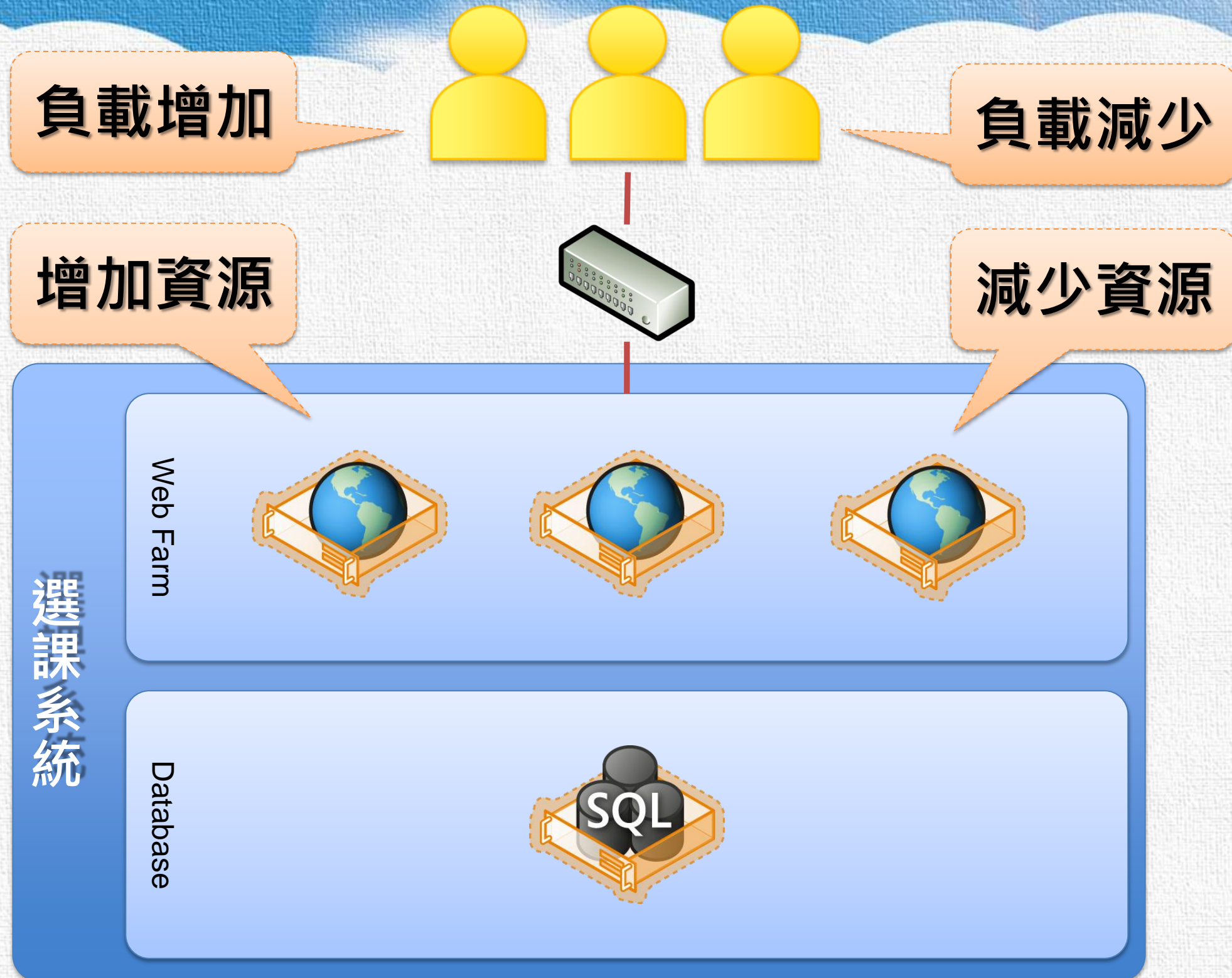
計劃名稱	說明	計費說明
<input checked="" type="radio"/> A方案: 經濟型 VM Service	1個 雲端運算核心、2 GB 記憶體、100 GB 儲存空間, 每天只要99元 <詳細說明>	依VM的規格、使用期間及個數計費。
<input type="radio"/> B方案: 進階型 VM Service	2個 雲端運算核心、4 GB 記憶體、200 GB 儲存空間, 每天只要120元 <詳細說明>	依VM的規格、使用期間及個數計費。
<input type="radio"/> C方案: 專業型 VM Service	4個 雲端運算核心、8 GB 記憶體、300 GB 儲存空間, 每天只要160元 <詳細說明>	依VM的規格、使用期間及個數計費。
<input type="radio"/> D方案: Peak Load Service Quality Guaranteed Service.	使用者可透過NCKU Cloud環境提供服務(例如網站服務), 並設定服務之品質要求(Qos), NCKU Cloud會提供資源以保證該服務品質要求。 <詳細說明>	依SLA中設定的Qos及使用期間計費。
<input type="radio"/> E方案: Applications with Deadline Service	使用者可申請NCKU Cloud服務以執行大量排程或繁重運算之應用程式(例如BLAST), 並指定運算起始及終止之時間, NCKU Cloud會提供資源以保證運算能在指定時間內完成。 <詳細說明>	依SLA中設定的Qos及使用期間計費。

服務已經上線

Microsoft

NCKU Cloud 尖峰負載效能保證服務

Peak Load Service Quality Guaranteed Service



NCKU Cloud 尖峰負載效能保證服務

Peak Load Service Quality Guaranteed Service

Microsoft | MCloud Dynamic Datacenter

MCloud\CloudAdmin [變更密碼] [登出] [English]

申請 控制中心 管理 報表 使用者 設定

控制中心

- 雲端研究專案
- 學生綜合資料系統
 - Web Farm
 - App Farm
- DefaultService
- 網路服務處
- Microsoft

虛擬機器 效能監控 資訊 動態設定 功能項目

新增項目 儲存

啟用

Stand

VM數量

! 項

X

X

X

新增項目 確定 取消

! 多項條件以And方式判斷

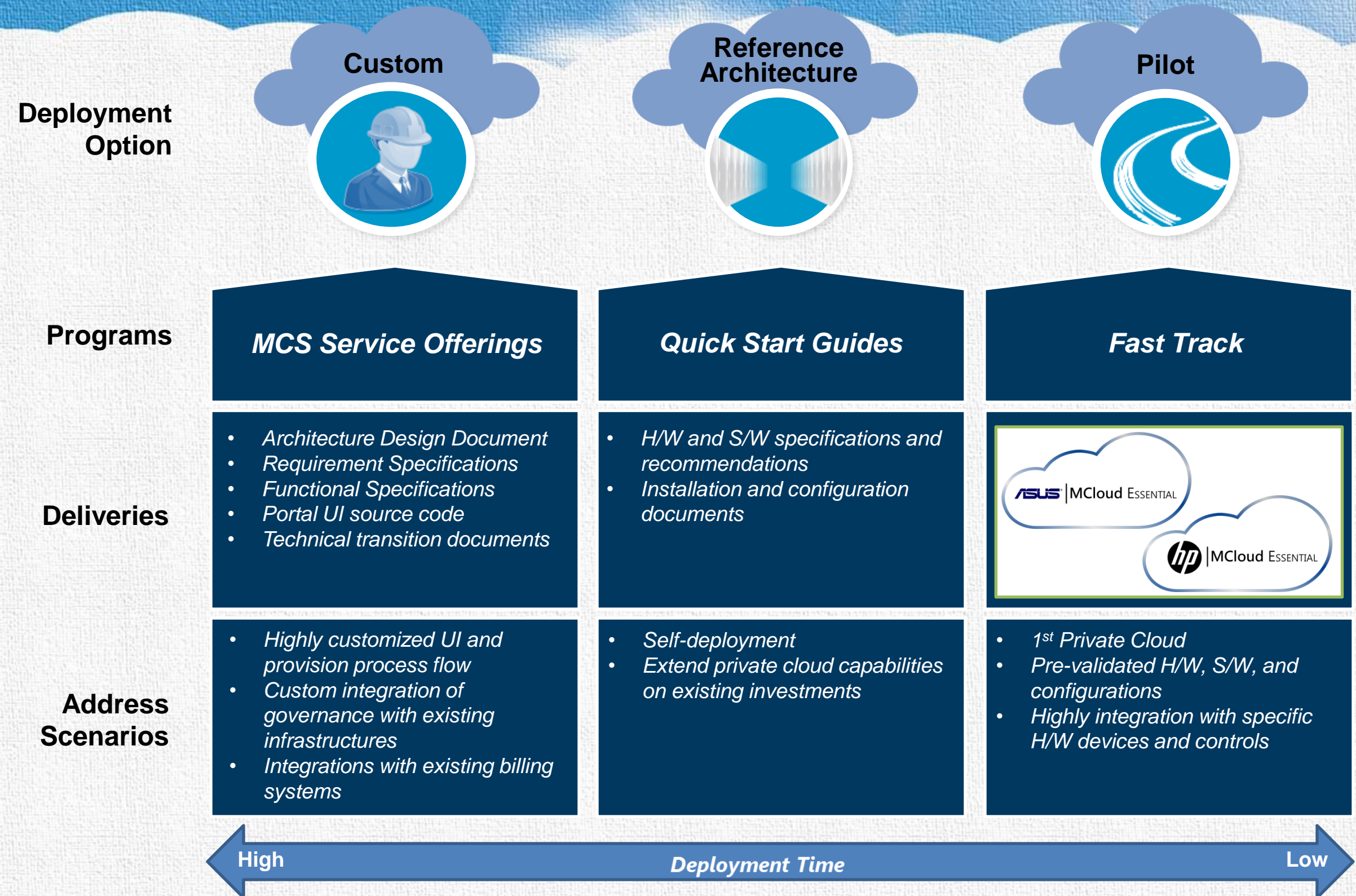
	Performance Counter	類型	運算元	值	持續時間(秒)	Enabled
X	% Processor Time	平均值		10	10	true
	% Processor Time					
	Available MBytes					
	% Free Space					
	Requests/Sec					
	Bytes Received/sec					

DEMO – NCKU Cloud 尖峰負載效能保證

NCKU Cloud 特色

- 使用微軟成熟解決方案快速啟動雲端服務
- 提供套餐式的虛擬主機服務方案
- 提供動態資源管理及配置
- 落實雲端服務概念並提供具體服務

微軟MCloud雲端運算中心解決方案



微軟MCloud雲端運算中心解決方案

IT

Usr

Technologically Proficient

Operational Ready

Application Centric

Service Oriented

System Center Self-Service Portal

Governance Control

Access Rights

Business Units

Capacity & Quota

Charge Back

Sprawl Control

Automation

Requests

Provision

Manage

Monitor

Retire

Microsoft Dynamic Datacenter

Microsoft System Center Virtual Machine Manager 2008 R2

Microsoft System Center Operations Manager 2007 R2

Windows Server 2008 Hyper-V

Microsoft SQL Server 2008

Windows Server 2008



Compute



Network



Storage

Scenario Accelerators

OA

Microsoft Lync Exchange
Microsoft SharePoint Server

BI

Microsoft SQL Server

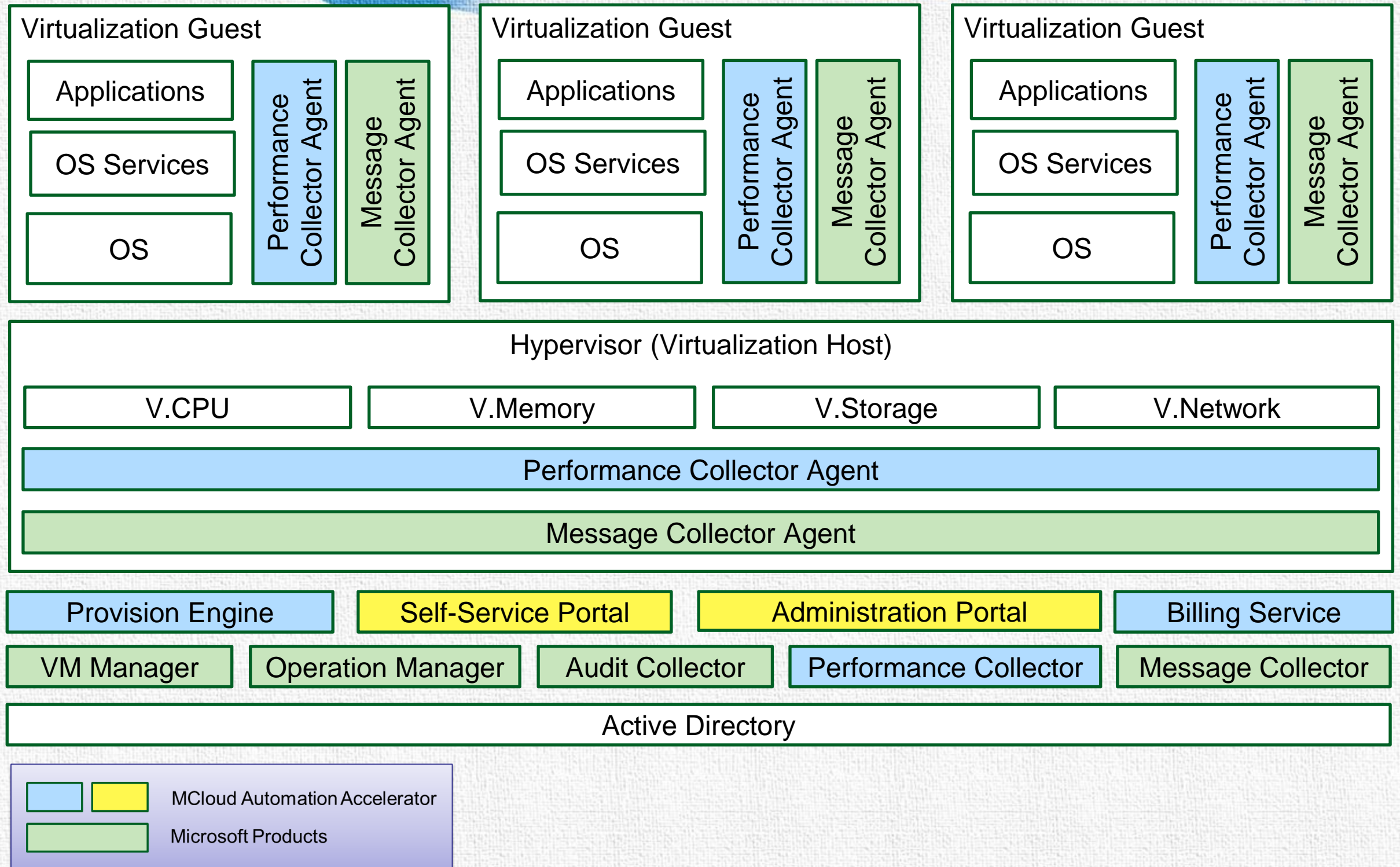
CRM

Microsoft Dynamics

LOB

Education
Disaster Recovery
Healthcare

微軟 MCloud 雲端運算中心解決方案 - Component Architecture



微軟 MCloud 雲端運算中心解決方案 – Call to Actions

1

瞭
解

- Microsoft Cloud Strategy Briefing @ MTC

2

體
驗

- MCloud Experience Center @ MTC

3

導
入

- MCloud Implementation
with Microsoft Consulting
Services



Microsoft[®] + CLOUD

= ∞ POSSIBILITIES