

## ● 參考依據 ●

*The NIST Definition of Cloud Computing*  
Authors: Peter Mell and Tim Grance  
Version 15, 10-7-09

美國國家技術標準局對雲端運算的定義  
作者：彼得米勒和提姆格朗司  
第 15 版，10-7-09

## ● 定義摘要 ●

Note 1: Cloud computing is still an evolving paradigm. Its definitions, use cases, underlying technologies, issues, risks, and benefits will be refined in a spirited debate by the public and private sectors. These definitions, attributes, and characteristics will evolve and change over time.

註 1：雲端運算是一個仍在蓬勃發展中的科技。其定義、使用案例、基礎技術、爭議、風險和效益均將重新定義，無論在公部門和私人企業。這些定義、屬性與特點均將隨時間發展而改變。

Note 2: The cloud computing industry represents a large ecosystem of many models, vendors, and market niches. This definition attempts to encompass all of the various cloud approaches.

註 2：雲端運算產業涵蓋一個龐大的產業供應鏈，由不同商業模式、供應商與市場區隔組成。這個定義試圖涵蓋所有各種不同的雲端運算解決方案。

## Definition of Cloud Computing:

## 雲端運算之定義

Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. This cloud model promotes availability and is composed of five **essential characteristics**, three **service models**, and four **deployment models**.

雲端運算是一個模式，能便利地隨需透過網路存取設定好的共享運算資源池（如網路、伺服器、儲存裝置、應用程式與各類服務）。可以最少的管理工作或服務供應商互動，進行快速配置和發佈。這種雲端模型提升了服務可用性，以下分就五個**基本特徵**、三個**服務模式**及四種**佈署模型**加以說明。

### Essential Characteristics:

- (1) *On-demand self-service.*
- (2) *Broad network access*
- (3) *Resource pooling*
- (4) *Rapid elasticity*
- (5) *Measured Service*

### 五大基礎特徵

- (1) 隨需自助服務
- (2) 廣泛的網絡接入
- (3) 共享資源池
- (4) 快速彈性
- (5) 測量服務

### Service Models:

- Software as a Service (SaaS)*
- Platform as a Service (PaaS).*
- Infrastructure as a Service (IaaS)*

### 三個服務模式

- (1) 軟體即服務
- (2) 平台即服務
- (3) 架構即服務

### Deployment Models:

- Private cloud*
- Community cloud*
- Public cloud*
- Hybrid cloud*

### 四個佈署模型

- (1) 私有雲端
- (2) 社群雲端
- (3) 公用雲端
- (4) 混合雲端