



## Singtel Managed Virtual Private Cloud powered by VMware. Fits Your Unique Business Needs Perfectly.

Looking for a way to benefit from IT adoption without managing your own IT systems? Singtel Managed Virtual Private Cloud, powered by VMware, is an Infrastructure-as-a-Service (IaaS) that enables you to do just that, while reducing your overall IT costs. As a flexible cloud offering, it delivers the IT resources that you need, when you need them, via our extensive and reliable carrier network.

# Managed Virtual Private Cloud powered by VMware

Businesses today are increasingly reliant on IT in all aspects of their operations –from process automation, to strategic planning, to decision-making. Yet, the constant juggling of dynamically changing requirements in today’s fast-paced environment, while maintaining existing IT systems and ensuring timely technology refresh puts a toll on IT.

That’s not all. High upfront costs of new IT infrastructure investments and the lengthy procurement of on-premise systems further drain limited business resources. Are you facing the same frustration?

## Greater Flexibility, Security and Convenience

Singtel Managed Virtual Private Cloud, powered by VMware, is a secure and flexible enterprise grade cloud that helps your business harness the power of IT - without worrying about procuring, deploying or managing your own IT systems. Delivering the computing resources that you need, when you need them, it frees you to focus on your core business, simplify your IT systems and speed up time-to-market.

We are the first service provider in ASEAN to provide an enterprise cloud platform based on VMware's Software Defined Data Centre (SDDC). It is the ideal architecture for private, hybrid and public clouds where all infrastructures are virtualised and delivered as a service, and the control of this data centre is entirely automated by software.

Use Singtel Managed Virtual Private Cloud powered by VMware when:

- You need to **avoid heavy CAPEX investment** associated with upgrading or replacing your servers that are reaching end-of-life.
- You **require scalable, cost-efficient IT resources** to support your enterprise applications.
- You plan to **set up a disaster recovery (DR) site in Singapore** - a natural disaster-free zone.
- You need the **ability to rapidly add extra IT infrastructure resources to meet short-term requirements**, such as business expansion or cyclical business operations.
- You need to **scale workloads from existing on-premise/private cloud to a compatible public cloud platform**.
- You **require a secure and resilient IT infrastructure to host your critical business workload**.

## Features and Benefits: Designed To Meet Your Cloud Computing Needs



### Flexibility

Flexible service schemes and a rich set of value-added services available to meet your needs and budgets.

**Choice of 2 flexible service schemes:** Shared or Dedicated Resource Pool to meet your usage requirements and optimise costs.

**A rich set of value-added services** including firewall, anti-malware, monitoring, network load balancing, SSL VPN/IPSec, and backup.



## Consultancy

Trusted cloud expertise with end-to-end capabilities to deploy, manage and optimise your enterprise cloud.

### Comprehensive professional services

Benefit from one-stop local expertise to customise your cloud with our comprehensive suite of professional services - from solution design, cloud system integration, cloud migration, maintenance and management of cloud services.

### 24x7 helpdesk support

Get the help you need – even if your business operates from multiple locations across different time zones. Our 24x7 helpdesk support ensures that expert technical assistance is just a phone call away - anytime, anywhere.



## Assurance

Our enterprise-grade cloud solutions ensure end-to-end security - extending from infrastructure and network protection, data assurance, to identity and access protection.

### Enterprise-level security

Multi-layered enterprise security from physical infrastructure to tenant resources ensures end-to-end security of your IT environment via enterprise-grade firewalls, Intrusion Prevention and Intrusion Detection Systems (IPS/IDS), isolation of individual virtual machines (VMs), secure multi-tenancy, anti-malware, and more.

Gain peace of mind, knowing that your IT resources are hosted in an enterprise-grade data centre, monitored 24x7 by Singtel's Security Operation Centre (SOC) and backed by service level guarantees. Enjoy smooth and uninterrupted use of your cloud resources, with secure and remote management of your VMs via SSL VPN/IPSec.

### Secure, world-class connectivity

Market-leading network infrastructure<sup>1</sup> gives you optimal efficiency, reliability and security when accessing our cloud services.

Enjoy superior coverage, network performance, reliability and value with our highly-reliable Internet connection and private network connection based on Multiprotocol Label Switching (MPLS) technology and Internet Protocol Virtual Private Network (IP VPN) both locally and globally.

### State-of-the-art data centre

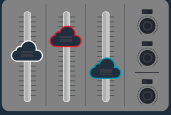
Protect your IT resources by hosting your mission-critical computer systems in our state-of-the-art, enterprise-grade green data centre. Built to TIA<sup>2</sup> Tier 4 specifications and ISO27001 information security standards, be assured of smooth service delivery with fully redundant power, cooling and subsystems, and backed by strict security controls.

### Active-active data centre

Hosted in two data centres in Singapore, Singtel's cloud offers near real-time high availability for business continuity assurance.

1. Market Leadership for International MPLS IP VPN Services APEJ and International Dedicated P2P Services (IPLC+E-Line) APEJ for 1H2010 to 1H 2013.  
Source: IDC APEJ Fixed Line Telecom Services Tracker, 1H2013

2. Telecommunication Industry Association, which publishes the Telecommunications Infrastructure Standard for Data Centres



## Simplicity

Our Cloud Orchestration Management Platform provides a single pane of glass that allows you to control and manage different cloud platforms for workload migration.

### User-friendly self-service portal

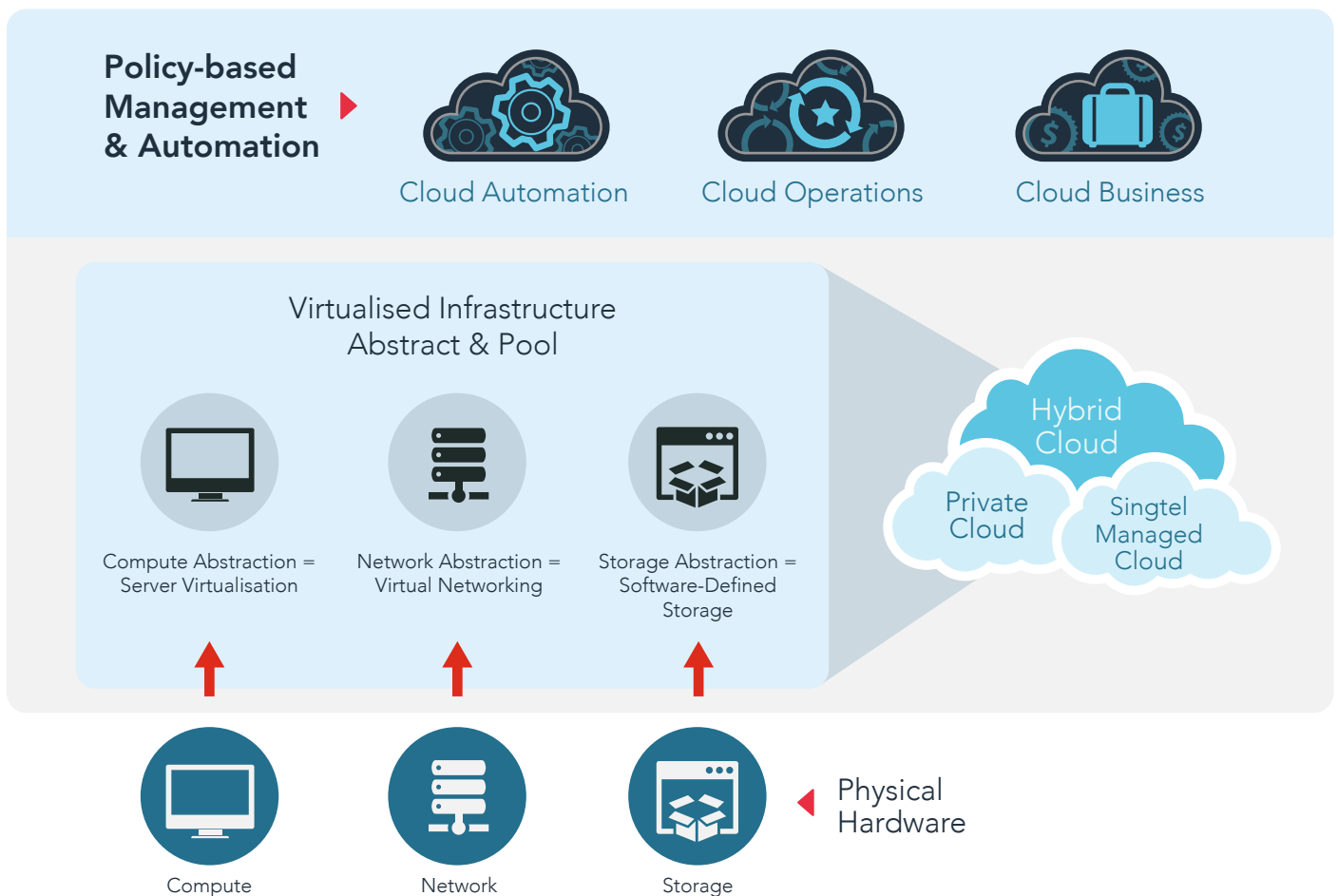
Gain greater visibility and control through a single pane of glass. Directly manage cloud resources (create or reduce IT capacity on the fly) and configure your virtual firewall and load-balancer within your virtual data centre in a single console.

## Software-Defined Data Centre (SDDC)

An agile architecture designed to deliver applications and services at speed and scale, redefining IT infrastructure for a new era. A data centre that is automated through software, the SDDC allows you to seamlessly deploy all applications across data centres and clouds for unprecedented levels of agility, speed, security and control.

Businesses worldwide are leveraging SDDC to simplify IT, automate workflow to reap these benefits of efficiency, control, agility and choice.

### Software-defined Data Centre



## Flexible Service Schemes

### Dedicated or Shared Resource Pool

- Offers a consolidated resource pool where business can carve out VMs of various configurations to run different applications.
- Deliver greater flexibility in managing IT resources to meet unique computing needs, with added freedom to scale the resources as business requirements change.
- Gives the option of Shared or Dedicated Pool options based on usage, technology and costs requirements.

### A rich set of value-added services to address your unique requirements:



**Firewall:** Empower businesses to control and configure physical and virtual firewalls based on infrastructure security requirements. The virtual firewall creates a separate zone within the cloud for more stringent security needs.



**Anti-malware:** Protect businesses by subscribing to anti-malware in the VMs, up-to-date patches and anti-virus definitions, to detect and remove computer viruses, worms, Trojans and other malware.



**Monitoring:** Enable businesses to monitor the health of their VMs by tracking CPU usage and more. Send alerts when pre-defined thresholds are breached, empowering timely action to boost resource capacity and ensure system availability.



**Network load balancing:** Distribute workloads across multiple VMs based on utilisation and availability to optimise resource usage, maximise throughput, minimise response time, and avoid overloading.



**SSL VPN/ IPsec:** Authenticate and encrypt Internet connection to ensure secure, end-to-end remote access to the VMs.



**Backup:** Enable fast and efficient backup and recovery of tenant VMs to disks via agent based file-level backup. Offering comprehensive backup services that include: disk-to-disk backup and restore: daily, weekly, monthly and yearly backup. Leverage deduplication technology to dramatically reduce network traffic and backup window.

# About Singtel

Singtel is Asia's leading communications group providing a portfolio of services including voice and data solutions over fixed, wireless and Internet platforms as well as infocomm technology and pay TV. The Group has presence in Asia, Australia and Africa with over 600 million mobile customers in 25 countries, including Bangladesh, India, Indonesia, the Philippines and Thailand. It also has a vast network of offices throughout Asia Pacific, Europe and the United States.

## Awards

### Asia Communication Awards

Best Enterprise Service - Connectivity as a Service (2013)  
Best Cloud Service (2011 & 2012)  
Project of the Year - G-Cloud (2014)

### Cloud & DevOps Awards 2016

Best Cloud Computing Adoption Project (G-Cloud)

### Computerworld SG Readers' Choice Awards

Best Data Centre and Hosting Services Provider  
(2007 & 2009 - 2013)  
Best Managed Connectivity Services Provider  
(2006 - 2013)

### Computerworld Singapore Customer Care Award

Cloud Services (2012 - 2013)

### Frost & Sullivan Asia Pacific ICT Awards

Telecom Cloud Service Provider of the Year (2012, 2016)

### IDC MarketScape in Asia Pacific 2013

A Leader for Datacenter and Hosted Cloud Services\*

### NetworkWorld Asia Readers' Choice Product Excellence Awards (2013)

Managed Infrastructure Services  
Cloud Infrastructure Provider

### Telco Cloud Forum Awards 2016

Telco Cloud of the Year

### 4th Annual Cloud & DevOps World Awards (2016)

Best Cloud Computing Adoption Project (G-Cloud)

\*Source: IDC MarketScape Asia/Pacific Next-Generation Telcos - Datacenter and Hosted Cloud Services 2013-2014 Vendor Analysis, Doc #AP3053513V, Dec 2013. Download report at [www.singtel.com/iaas](http://www.singtel.com/iaas)

