



IDA Call 6 for Cloud Computing

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> StarHub: Trusted Track Record

- StarHub is Singapore's fully-integrated information-communication company, offering a full range of information, communications and entertainment services for both consumer and corporate markets.
- Operates the fastest and most extensive networks and services:
 - Officially launched in April 2000
 - Operating revenue of over S\$2.15 billion (end 2009)
 - Net assets of S\$1.2 billion (end 2009)
 - Approximately 2,700 employees



Our majority shareholders:



Asia Mobile Holdings



Highly-resilient Network Infrastructure

Seamless integration of Next Gen NBN and fibre-optic fixed line network

- Offer island-wide coverage and scalable bandwidths
- Access to a wide array of solutions over a premium ultra-speed network
- Asia-America Gateway (AAG) submarine cables provide highly reliable international connectivity

4 key strengths as a trusted partner for the business community:



➤ Highly-resilient network infrastructure



➤ Leadership in content delivery



➤ Best-of-breed partnerships



➤ Full suite of smarter and faster solutions

- Infrastructure as a Service
- StarHub infrastructure, facilities and bandwidth
- On Demand Computing Resources
- Self Provisioning
- 24x7 Local Support Helpdesk
 - Phone and email
- 99.95% Availability (End to End)
- T1050 Cloud Service Provider

**Partners,
Customers**

- Application license
- Database license
- Anti-virus
- etc

Application

Database

**Partners,
Customers**

- OS/App security
- OS/App patching
- AV Updates
- Backups
- etc

Operating System
(Windows/Linux)

StarHub

- OS licensing
- Virtual machines
- etc

Infrastructure

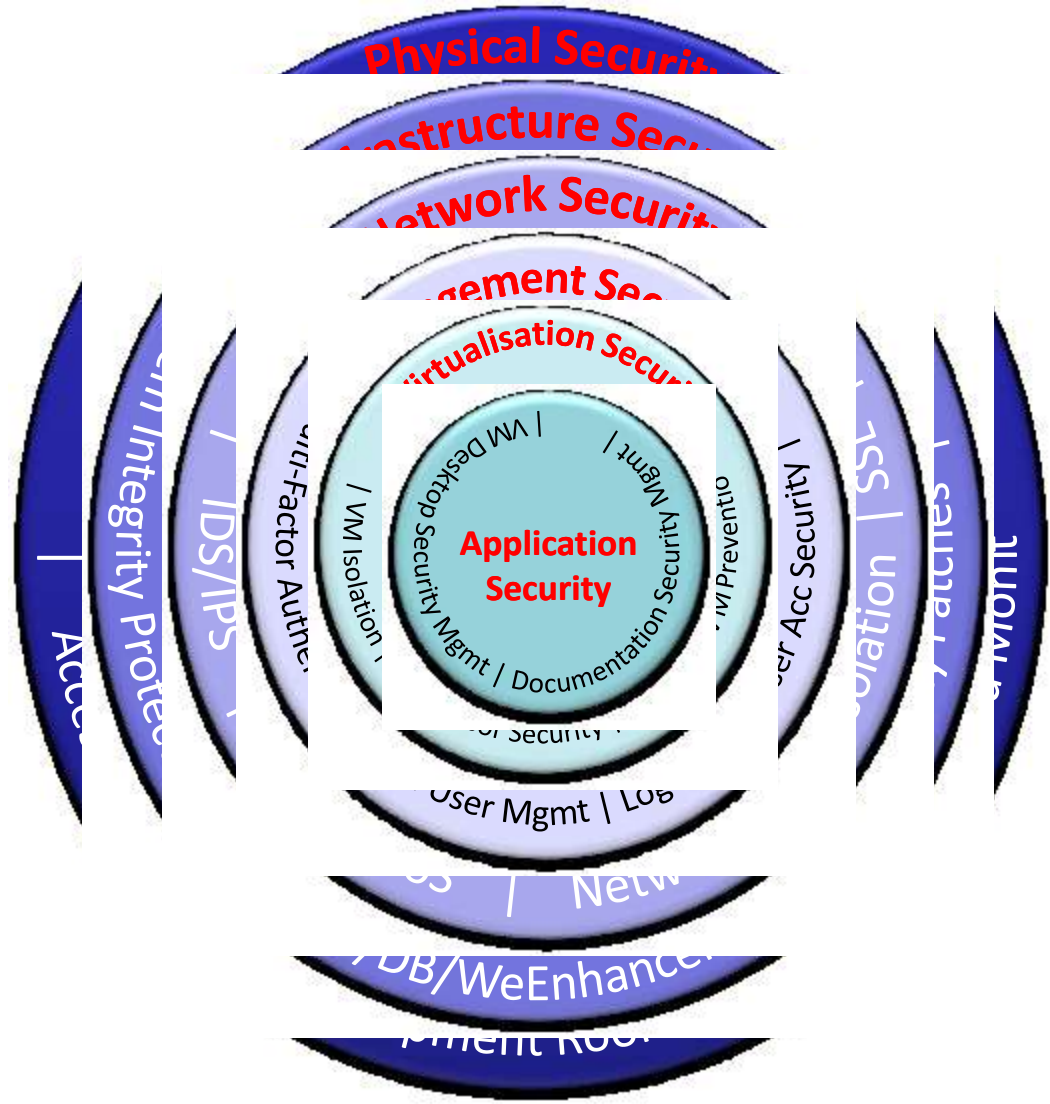
(vCores, storage, network,
firewall, IPS, bandwidth)

StarHub


- Admin portal
- Infra security
- etc

Security Elements





- Physical
- Infrastructure
- Network
- Management
- Virtualization
- Application
 - Customer Owned




Welcome, StarHub_Demo | Logout




StarHub
CLOUD SERVICE

- 
dashboard
- 
manage employees
- 
check log
- 
settings



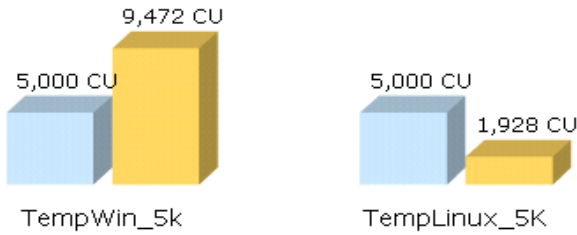
StarHub Cloud

Welcome StarHub_Demo! [Logout](#) | [Help](#)

Home Instance Storage Network User Account

Smart Compute Price Plan

(September 1, 2011 - September 30, 2011)




Instance Type	Bundled (CU)	Used (CU)
TempWin_5k	5,000	9,472
TempLinux_5K	5,000	1,928

● Bundled ● Used

Out of Plan


(September 1, 2011 - September 30, 2011)



Category	Usage
GB-Months	132.64
IP-Months	4.05

Data Transfer (GB)

(September 1, 2011 - September 30, 2011)



Category	Usage (GB)
Bundled	1.00
Used	5.65

Instance

Status	Count
Running	13
Stopped	1
Total	14

Shortcut

- [+ Create VM](#)
- [+ Add Volume](#)

Last Activity

StarHub_Demo started VM i-53110A0D [More>>](#)

Self-Help Services

Auto Provisioning

1 – 3 Minutes
Provisioning

S, M, L, XL, XL High
Mem

Support Multiple OS

Security Groups

VLAN Support

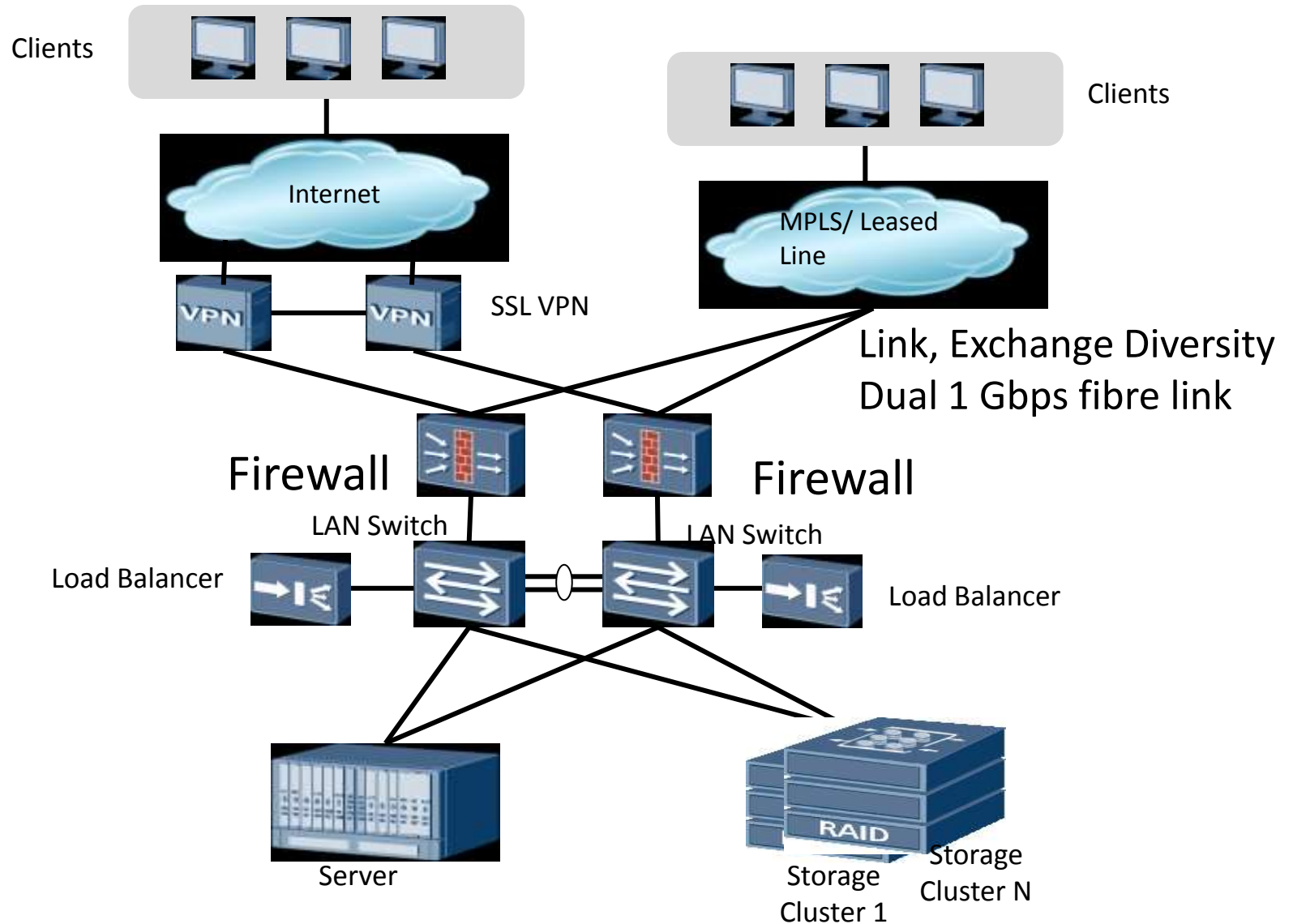
Support Multi User
Roles

Dashboard
View

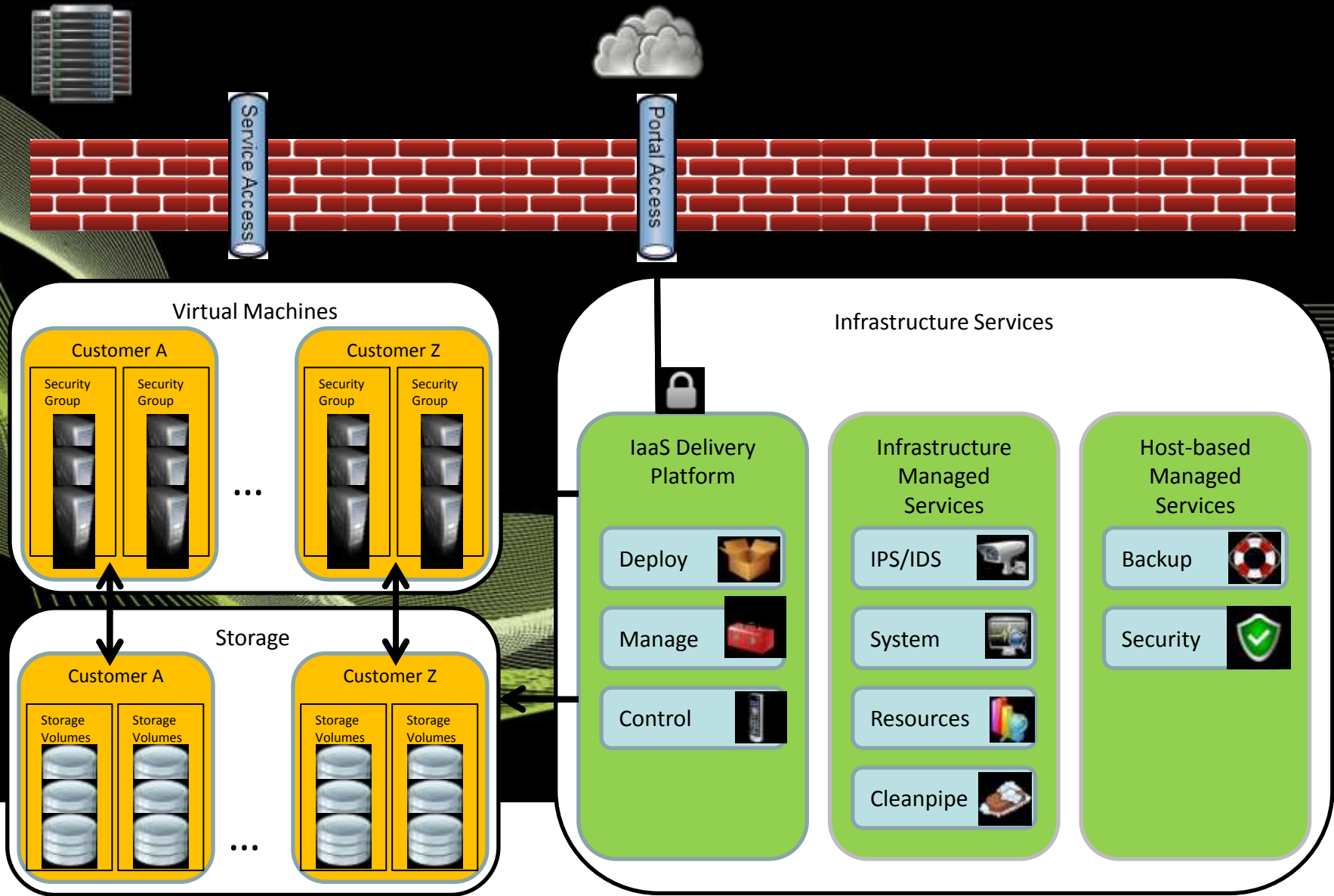
Audit Trail & Activities
Log

Cloud Usage Log

VM Management



> StarHub Cloud Services: Architecture



> StarHub Cloud Services: Service Definitions

Components	Metering Metrics
Virtual Machines*	Monthly Plans
Storage Volumes	GB-hours per month
Public IP Addresses	IP-hours per month
Data Transfer Out	GB Out per month
Data Transfer In	Free
Inter-VM Data Transfers	Free

Subscription Plan	Bundled CUs/month
Compute 7	744, (\$149.00)
Compute 14	1,488, (\$299)
Compute 29	2,976(\$599)
Compute 59	5,952(\$1299)
Compute 89	8,928 (\$1,899)
Custom	> 8,928

Virtual Machines	Virtual CPUs	Virtual RAM (GB)	Root Storage	CU Usage/month
Small	1	2	Included	744
Medium	2	4	Included	1,488
Large	4	8	Included	2,976
Extra large	8	16	Included	5,952
Extra large High Memory	8	32/40	Included	11,904/14,880

*Guest OS list is constantly being

Features	Benefits
Simple pricing model	Only has 4 pricing components compared with other IaaS providers which may charge in finer granularity, e.g. disk read/writes; means easier to budget for cloud expense with no surprises
Monthly subscription plan	Not charging by VMs means flexibility on VM sizes while on a predictable budget (fixed + flexible)
Fast provisioning	Quick deployment and test/development environment setup means higher productivity and more innovation
Local infrastructure	All data is kept within Singapore means compliant to data storage locality restrictions, if any
Telco cloud service provider	One-stop shop with services like mobility, devices, telco services and other communications needs means a total solution provider
VAS solution provider neutral	Open to working with different vendors for VAS e.g. managed OS/patching etc means freedom for customers to continue engaging with existing integrator

Thank You

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