Cloud Service Provider Disclosure

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The form is to be completed for each cloud service provided. For questions not applicable or not disclosed, indicate accordingly in the remarks.

Cloud Service Provide	er Contact Information		
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Certification Body Contact Information			
Company name:	Singapore ISC Pte Ltd	RE IS	
Web address:	http://isc-worldwide.com/ (from May 2015) http://www.isc-global.net	(Denoral	
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Cloud Service Provider Background

Overview of service offering:

Azure is Microsoft's cloud platform: a growing collection of integrated services—compute, storage, data, networking, and app - that help you move faster, do more, and save money.

The Microsoft Azure technology platform is an open and flexible cloud platform that companies can use to quickly build, deploy and manage applications across a global network of Microsoft-managed data centers. Organizations can build applications using any language, tool or framework. And they can also integrate public cloud applications with an existing IT environment.

Azure services in scope are: Virtual Machines (IaaS), Cloud Services (Web and Worker Roles), Batch, Web App

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twee Sites), mobile Services, Core (HUPE, Fabric and Service Management API), Nothication Hubs, Storage (includes blobs, queues, and tables), SQL Database, HDInsight, Virtual Network, Traffic Manager, Express Route, Service Bus, BizTalk Services, Backup, Site Recovery, Azure Active Directory, Multi-Factor Authentication Rights Management Service, Media Services, Scheduler, Azure Management Portal, SQL Server Virtual Machine. Please see http://azure.microsoft.com/en-us/services/ for Azure's full service offerings. Service model:
Service model: Virtual machine instances owned by the user Network facilities Compliance with applicable standards Deployment model: Private cloud Community cloud Network facilities Private cloud Public cloud Network facilities Private cloud Public clo
Network facilities Compliance with applicable standards Deployment model: Private cloud Community cloud Hybrid cloud Public cloud No. Criteria Description Memarks
Network facilities □ Compliance with applicable standards Deployment model: □ Private cloud □ Community cloud □ Community cloud □ Hybrid cloud □ Public cloud □ Level 1 □ Level 2 □ Level 3 No. Criteria Description Remarks
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□ Community cloud □ Hybrid cloud □ Public cloud □ Level 1 □ Level 2 □ Level 3
Image: No. Criteria Description Image: No. Criteria Description Remarks
Tier: Image: Level 1 Image: Level 2 Image: Level 3 No. Criteria Description Remarks
Tier:
□ Level 1 □ Level 2 □ Level 3 No. Criteria Description Legal and Compliance
□ Level 2 □ Level 3 No. Criteria Description Remarks
No. Criteria Description Legal and Compliance
No. Criteria Description Legal and Compliance
No. Criteria Description Remarks
Legal and Compliance
1. Right to audit The user has the right to audit: By providing customers
\boxtimes Virtual machine instances owned by the user independently verified
□ Network facilities Cloud services, Microsoft makes it
easier for customers to
□ Technical controls
□ Technical controls □ Technical controls □ Azure. □ Policies and governance □ Microsoft provides
□ Technical controls □ Technical controls application to the infrastructure and applications they run in Azure. □ Data centre facilities Microsoft provides Azure customers with detailed information
□ Technical controls □ Technical controls applications they run in Azure. □ Data centre facilities □ Others
Image: Standards Image: Standards <t< td=""></t<>



	 ☑ Virtual machine instances owned by the user ☑ Network facilities ☑ Compliance with applicable standards 	customers assess our services against their own legal and regulatory requirements.
		In addition, Microsoft has developed an
	Policies and governance	extensible compliance framework that enables
	Data centre facilities	it to design and build services using a single
	□ Others	set of controls to speed up and simplify
		compliance across a diverse set of regulations and rapidly
	Audit / assessment reports that can be made available on request:	adapt to changes in the regulatory landscape.
	\boxtimes Penetration test (Please see side remarks)	We provide financial
	\boxtimes Threat and vulnerability risk assessment (Please see side remarks)	sector customers with a Regulator Right to Examine, which
	⊠ Vulnerability scan (Please see side remarks)	includes access to a number of audit-related
	Audit reports (e.g. Statement on Standards for Attestation Engagements (SSAE) No. 16, Reporting on Controls at a Service Organisation)	materials and an opportunity to discuss with our auditor. Report and certification requests can be made through a Microsoft account representative.
		Microsoft has also established a policy for customers to carry out authorized penetration testing on their applications hosted in Azure. Because such testing can be indistinguishable from a real attack, it is critical that customers conduct penetration testing only after obtaining approval in advance from Azure Customer Support. Penetration testing must be conducted in accordance with our terms and conditions. Requests for penetration testing should be submitted with a minimum of 7 days advanced notice.



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			download the <u>Penetration Testing</u> <u>Approval Form</u> and then contact Azure Customer Support. Customers may also be interested in reading the document entitled "Microsoft Enterprise <u>Cloud Red Teaming</u> ". See Azure Trust <u>Center for details:</u> <u>http://azure.microsoft.c</u> <u>om/en-us/support/trust- center/compliance/</u> Penetration Test. TVRA
			and Vulnerability scanning reports are provided to auditors upon request as part of audit requirements.
2.	Compliance	The following guidelines / standards / regulations are adhered to: Singapore Personal Data Protection Act ISO / IEC 27001 ISO 9000 SCSA Open Certification Framework PCI-DSS Others SOC 1 and SOC 2 SSAE 16/ISAE 3402; CSA Cloud Controls Matrix; FedRAMP (U.S. only); HIPAA BAA and other listed in the Remarks	By providing customers with compliant, independently verified cloud services, Microsoft makes it easier for customers to achieve compliance for the infrastructure and applications they run in Azure. Microsoft provides Azure customers with detailed information about our security and compliance programs, including audit reports and compliance packages, to help customers assess our services against their own legal and regulatory requirements. Microsoft Azure is compliant to the following certifications: • ISO/IEC 27001:2013



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			and 27018:2014
		•	SOC 1 and SOC 2 SSAE 16/ISAE 3402 Type 1 and Type 2
		•	CDSA CPS
		•	CJIS
		•	CSA Cloud Controls Matrix 1.2 (Azure)
		•	FedRAMP/FISMA
		•	PCI DSS Level 1 (Azure)
		•	Australia I-RAP
		•	UK G-Cloud
		•	HIPAA / HITECH
		•	FDA 21 CFR Part 11
		•	FERPA
		•	FIPS 140-2
		•	Data Processing Agreements (DPAs)
		•	European Union (EU) Model Clauses
		•	US-EU Safe Harbor framework
		•	New Zealand GCIO
		•	Japan FISC
		•	PIPEDA
		•	GLBA
		Li M <u>ht</u> <u>C</u> e	st of Certifications for licrosoft Azure : <u>ttp://azure.microsoft.co</u> l/ <u>en-us/support/trust-</u> <u>enter/compliance/</u>
		M re	licrosoft's privacy





			Singapore can be reached at the following address: Microsoft Operations Pte Ltd Attn: Frederic Blanchi, Privacy Officer 1 Marina Boulevard, #22-01 One Marina
			Boulevard Singapore 018989
Data	Control		-
3.	Data ownership	All data on the cloud service is owned by the cloud user except for: <u>content the customer did not upload into or create within the</u> <u>service.</u> The cloud User retains the ownership on the derived data or attributes of cloud usage except for the following: Advertising or marketing Statistics analysis on usage	The following lists helpful information with regards to data ownership: <u>http://azure.microsoft.co</u> <u>m/en-us/support/trust- center/privacy/</u>
4.	Data retention	Data deleted by the user is retained as follows: ☑ Minimum data retention period is: <u>90 Days</u> ☐ Maximum data retention period is:	Customers may extract and/or delete Customer Data at any time. When a Subscription expires or terminates, we will retain any Customer Data you have not deleted for at least 90 days so that you may extract it, except for free trials, where we may delete Customer Data immediately without any retention period. You remain responsible for all storage and other applicable charges during this retention period. Following the expiration of this retention period, we will delete all Customer Data, including any cached or back-up conjes within 30 days



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			of the end of the retention period
		☐ Log data ☐ Other Log Data from VMs as well as diagnostic data from Azure	For technical details on how data is deleted,
		Diagnostic API	http://blogs.msdn.com/b /walterm/archive/2012/0 2/01/windows-azure- data-cleansing-and- leakage.aspx
			And
			http://go.microsoft.com/f wlink/?linkid=398382&cl cid=0x409
			On log data retention, this varies by type of log. Logs controlled by the user are retained for whatever period the user sets. Most, but not all, platform logs are retained 90 days.
			Users can download logs maintained within their own virtual machines.
5.	Data sovereignty	The primary data locations are:	Customers can choose their data locations and their data will stay within that location they
			of Azure data centre
		United States	locations here:
		The backup data locations are:	http://azure.microsoft.co m/en-us/regions/
		Singapore Singapore	For Azure services, all
		Asia Pacific (<u>Hong Kong)</u>	customer and app data remains in Singapore
			and the responsibility lies with the customer to
		United States	configure this requirement.
		No. of countries in which data centres are operated: 8	
			Also, the geo-replication



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		The user's data stored in the cloud environment will never leave the locations specified in item 5:	information from one datacentre to another as following:
		Yes	http://blogs.msdn.com/b /windowsazurestorage/ archive/2011/09/15/intro
		Yes, except as required by law	ducing-geo-replication- for-windows-azure- storage aspx
		Yes, except as noted: See Trust Center link for details	
		No	Azure Trust Center link: http://azure.microsoft.co
		User's consent is required prior to transferring data to a location not specified in item 5 or a third party:	<u>m/en-us/support/trust-</u> <u>center/</u>
		Yes	
		Yes, except as required by law: See Trust Center link for details	
		Yes, except as noted:	
		No Consent is obtained via service agreement and in privacy statement.	
		Note: Cloud users are responsible for determining the impact of data protection and data sovereignty laws on the locations where data is stored. In addition, users should understand the risks associated with relevant laws that may allow for law enforcement or other government access to data in-transit or storage with Cloud Service Providers.	
6.	Non- disclosure	 Non-disclosure agreement template can be provided by Cloud Service Provider Cloud Service Provider may use customer's NDA (pending legal review) 	Non-disclosure is addressed in the service agreement, which includes the following commitment:
			Microsoft will not disclose Customer Data to a third party (including law enforcement, other government entity, or civil litigant; excluding our subcontractors) except as Customer directs or unless required by law. Should a third party contact Microsoft with a demand for Customer



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			Data, Microsoft will attempt to redirect the third party to request that data directly from Customer. As part of that, Microsoft may provide Customer's basic contact information to the third party. If compelled to disclose Customer Data to a third party, Microsoft will promptly notify Customer and provide a copy of the demand, unless legally prohibited from doing so.
Provi	der Performance		
7.	Availability	 The committed network uptime is: <u>99.9 to 99.95</u>% ✓ Varies according to price plan The committed system uptime is: <u>99.9 to 99.95</u>% ✓ Varies according to price plan The cloud environment has the following single points of failure: ✓ None 	Minimum SLA for all Azure services in scope is 99.9%. There are some services provide higher SLA in specific context: • 99.95%: Cloud Services, Virtual Machines and Websites Please find the details and conditions of SLAs for different Azure services: http://www.windowsazu re.com/en- us/support/legal/sla/ No single point of failure since the underlying infrastructure is distributed.
8.	BCP / DR	 Disaster recovery protection Backup and restore service User selectable backup plans Escrow arrangements 	Microsoft does not provide escrow arrangements, but will provide process for SLA service credit claims.
		No BCP / DR is available	



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		RPO Managed by cloud user	
		RTO Managed by cloud user	
		Others, please specify:	
9.	Liability	The following terms are available for the users on failure of the provider to meet the service commitment:	Liability for outages is addressed in the
		⊠ Network failure	Agreements, available
		Liability:	http://www.windowsazu
		⊠ Infrastructure failure	<u>re.com/en-</u> us/support/legal/sla/
		Liability: Same as network failure	Liability not addressed in the SLAs is
		Virtual machine instance failure	addressed in the subscription agreement.
		Liability: Same as network failure	Microsoft Azure's subscription agreement
		Migrations	for Singapore is here:
		Liability:	http://azure.microsoft.co m/en-
		Unscheduled downtime	us/support/legal/subscription-
		Liability: <u>Same as network failure</u>	agreement/?country=sg
		⊠ Database failure	
		Liability: <u>Same as network failure</u>	
		Monitoring failure	
		Liability: <u>Same as network failure</u>	
Servi	ce Support		
10.	Change management	The Cloud Service Provider has established the following for changes, migrations, downtime, and other potential interruptions to cloud services:	Assistance in migration to new services when legacy solutions are
		\boxtimes Communication plan and procedures for proactive notification	provided via guidance documentations.
		Assistance in migration to new services when legacy solutions are discontinued	laaS: No need for
		imes Ability to remain on old versions for a defined time period	assistance from Microsoft, expected to
		Ability to choose timing of impact	be transparent to the customer.



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			PaaS: Will provide guidance for limited migration scenarios.
11.	Self-service provisioning and management portal	Provide self-service provisioning and management portal for users to manage cloud services: ☑ Yes □ No If yes, describe the functions of the self-service provisioning and management portal provided: ☑ Allow role-based access control (RBAC) ☑ Manage resource pools (e.g. VMs, storage, and network) and service templates ☑ Track and manage the lifecycle of each service ☑ Track consumption of services ☑ Others:	
12.	Incident and problem management	Delivery mode of support:	Please find the different support plans as follows: <u>http://www.windowsazu</u> <u>re.com/en-</u> <u>us/support/plans/</u> Customers have continuous access to their own virtual machines and other services. On Azure Virtual Machines (IaaS), Microsoft does not audit customer instances. Auditing of workloads, vulnerability assessment and penetration testing within the Virtual Machines or for their own virtual machines is the eventomer's
	Incident management assistance	responsibility.	



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		Incident response time: <u>Dependent on severity of incident and type</u> of support plan; between 15 minutes – 8 hours Mean time to repair on detection of faults:	
13.	Billing	 The following billing modes are available (please elaborate granularity of charges and measurement): ☑ Pay per usage <u>per hour</u> (up to per min/hour/day/month for compute/storage for laaS and PaaS) □ Fixed pricing (up to yearly/monthly/daily) ☑ Other pricing model <u>Enterprise Agreement for Azure</u> 	Other pricing model: Azure has a monthly committed spend model which offers discount to Pay-per-usage. Customers are able to see the entire billing history since the subscription starts.
		Not disclosed Available billing history:Months	Microsoft offers an Enterprise Agreement for Azure on a pre-paid commitment basis.
14.	Data portability	Importable VM formats: VHD - Virtual Hard Disk Downloadable formats: VHD - Virtual Hard Disk Supported operating systems: See side remarks Language versions of supported operating systems:	 VM Formats : VHD - Virtual Hard Disk Downloadable formats: same as above Supported OS: Windows (http://support.micro soft.com/kb/272167 2) Linux (http://www.window sazure.com/en- us/manage/linux/ot
		 Physical media Standard methods as described above Other methods <u>Physical-disk shipping subject to geographical availability</u> 	her- resources/endorsed -distributions/) Language versions of supported operating systems : See above URL Supported database formats : SQL, NoSQL API: Open Data standards, REST Management API, Web



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			Services, etc.
			Microsoft Azure has a service available for sending in your own hard drives for upload / download: <u>http://azure.microsoft.co</u> <u>m/en-</u> <u>us/documentation/articl</u> <u>es/storage-import-</u> <u>export-service/</u>
15.	Access	Type of access to the service is through: Public access Private access (e.g. VPN, dedicated link) IPv6 access is supported Other access methods Public access speed (shared bandwidth) in Mbps:	These services are constantly updated. Please contact Microsoft for the latest updates and roadmap, which is available under the terms of Microsoft's non- disclosure agreement.
16.	User management	 ☑ Identity management ☑ Role based access control ☑ Federated access model ☑ Integration with Identity management solutions □ Others 	RBAC for management portal functions is on near term roadmap. RBAC for user management could be done through an Identity Management system of choice, such as Forefront Identity Manager, and DirSync to Microsoft Azure AD Services OR the provisioning of an organization-owned AD through IaaS. Customer can implement RBAC through the utilization of Active Directory (AD). AD is a Commercial Off The Shelf (COTS) directory service implemented by Microsoft for Windows domain networks. O365



17.	Lifecycle	The cloud user may select the following for service upgrades and	MT uses Azure AD to implement Role Based Access Control (RBAC) via the use of AD groups. For the purposes of this control, the term "security group" references an Azure AD group which is used to enforce RBAC permissions.
		changes:	
		User customisable provisioning	
Secu	rity Configuration	IS	
18.	Security configuration enforcement	Security configuration enforcement checks are performed:	For more information, please see the following link:
	CNECKS	 Using automated tools How often are enforcement being performed to ensure all security configurations are checks applied? <u>External audits are done annually. Self-assessment is performed regularly.</u> 	http://www.windowsazu re.com/en- us/support/trust- center/compliance/
19.	Multi-tenancy	 Distinct physical hosts Distinct physical network infrastructure Virtual instance grouping User definable security domains User customisable firewall User definable access policies 	Fundamental to any cloud architecture is the isolation provided to customers. The distributed virtual firewall in Azure helps customer's private network traffic remain separated from other customers' data.
			In addition, a customer subscription can contain multiple logically isolated private networks: • Deployment network: Each



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			deployment can be isolated from others at the network level. Multiple VMs within a deployment can communicate with each other through private IP addresses.
			 Virtual network: Each virtual network is isolated from other virtual networks. Multiple deployments (inside the same subscription) can be placed on the same virtual network, and then allowed to communicate with each other through private IP addresses The Data Protection whitepaper is available here: http://go.microsoft.c om/fwlink/?linkid=3 98382&clcid=0x409
Servi	ce Elasticity		
20.	Capacity elasticity	 The following capacity elasticity options are available: Programmatic interface to scale up or down Mean time to start and end new virtual instances Alerts to be sent for unusual high usage Minimum performance during peak periods Minimum duration to scale up computing resources 	Programmatic interface to scale up or down - Yes Mean time to start and end new virtual instances - Can be automated through Powershell / SMA integration
		Minimum additional capacity guaranteed per account	Alerts to be sent for unusual high usage – Yes, performance



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			counters can be sent via Powershell cmdlets
			Minimum performance during peak periods – No.
21.	Network resiliency and elasticity	The following network resiliency and elasticity options are available: \[Redundant Internet connectivity links \[Redundant Internal connectivity	Defence-in-depth mechanisms, please specify: http://www.windowsazu re.com/en- us/support/legal/securit y-overview/ Microsoft Azure network security whitepaper: http://download.microso ft.com/download/4/3/9/4 3902EC9-410E-4875- 8800- 0788BE146A3D/Windo ws%20Azure%20Netwo
			rk%20Security%20Whit epaper%20-%20FINAL. docx



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22.	Storage redundancy and elasticity	 The following storage redundancy and elasticity options are available: ☑ Redundant storage connectivity links within each data centre ☑ Redundant storage connectivity links between data centres belonging to the same cloud ☑ Storage traffic isolation, please specify:	Microsoft Azure includes a "service" called Geo-Replication. It provides durability by constantly maintaining multiple healthy replicas of data both within and between data centres. With geo-replication, Azure Storage keeps data durable in two locations. It replicates customer data hundreds of miles between two locations (i.e., between North and South US, between North and West Europe, and between East and Southeast Asia) to provide disaster recovery in case of regional disasters.
		Quality of service storage traffic control services	
		Maximum storage capacity for entire cloud, please specify:	
		 Maximum storage capacity for single user, please specify: <u>100 TB per account for storage account created before 7</u> <u>June 2012</u> <u>200 TB per account for storage account created on 7 June</u> <u>2012 or later</u> 	Also the geo-replication information from one data centre to another as following: <u>http://blogs.msdn.com/b</u> /windowsazurestorage/
		Maximum expandable storage, please specify:	archive/2011/09/15/intro ducing-geo-replication-
			for-windows-azure- storage.aspx
		Minimum storage L/O performance during neak periods	Billing alert enables
		Minimum period to scale up storage I / O throughput	customer to get proactive email notifications when the bill goes above a certain monetary threshold that
			cusioniei coniguies.



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