

## Cloud service provider disclosure (SS 584:2020 MTCS)

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

Date of disclosure: **2022-09-01**

Applicable cloud service(s): **Microsoft Azure**

Cloud Service Provider Contact Information	
Company name: Microsoft Corporation Primary address: One Microsoft Way Redmond, WA 98052-6399 Web address: <a href="http://www.microsoft.com">http://www.microsoft.com</a> Contact name: Colin Yuen Contact number: +1 (425) 7064622 Contact email: <a href="mailto:coyuen@microsoft.com">coyuen@microsoft.com</a> MTCS certificate number: SCS 101056CS-1	
Certification Body Contact Information	
Company name: SOCOTEC Certification Singapore Pte Ltd Web address: <a href="http://www.socotec-certification-international.sg">www.socotec-certification-international.sg</a> Contact name: Agnes Wong Contact email: <a href="mailto:agneswong@socotec.com">agneswong@socotec.com</a>	 
Cloud Service Provider Background	
<p>Overview of service offering:</p> <p>Azure is Microsoft's cloud platform: a growing collection of integrated services—compute, storage, data, networking, and app service - that help you move faster, do more, and save money.</p> <p>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.</p> <p>Microsoft Azure scope includes,</p> <ul style="list-style-type: none"><li>○ <b>Compute:</b> Azure Core Services (RDPE Fabric and SMAPI), App Service, Batch, Cloud Services, Functions, Service Fabric, Virtual Machines (including SQL VM), Virtual Machine Scale Sets, Guest Configuration, Azure VMWare Solution, Azure Spring Cloud Service, Azure Arc enabled Servers, Azure Arc enabled Kubernetes, Planned Maintenance, Azure VM Image Builder</li><li>○ <b>Networking:</b> Application Gateway, Azure DDOS Protection, Azure DNS, Azure Firewall, Azure Front Door, Content Delivery Network, ExpressRoute, Load Balancer, Network Watcher, Traffic Manager, Virtual Network, VPN Gateway, Virtual WAN, Azure Bastion, Azure Private Link, Azure Firewall</li></ul>	

Manager, Azure Web Application Firewall, Azure Public IP, Virtual Network NAT, Azure Route Server

- **Storage:** Azure Data Box, Archive Storage, Backup, Azure Import/Export, Site Recovery, Storage (Blobs (including Azure Data Lake Storage Gen 2), Disks, Files, Queues, Tables, Ultra Disks) including Cool and Premium, Azure HPC Cache, StoreSimple, Azure File Sync, Azure NetApp Files.
- **Web:** Azure Cognitive Search, Azure SignalR Service, Azure Web PubSub, Azure Maps
- **Media:** Media Services
- **Containers:** Container Instances, Container Registry, Azure Container Service (ACS), Azure Kubernetes Service (AKS), Azure red Hat OpenShift (ARO)
- **Databases:** Azure Cosmos DB, Azure Database for MySQL, Azure Database for PostgreSQL, Azure Database for MariaDB, Azure Cache for Redis Cache (including Premium), Azure Database Migration Service, Azure API for FHIR, Azure SQL, SQL Server Registry, SQL Server Stretch Database, Azure Managed Instance for Apache Cassandra
- **Analytics:** Azure Analysis Services, Azure Data Explorer, Data Catalog, Data Factory, HDInsight, Power BI Embedded, Stream Analytics, Azure Synapse Analytics, Azure Data Share
- **AI + Machine Learning:** Azure Open Datasets; AI Builder, Azure Bot Service, Cognitive Services: Speech Services, Cognitive Services: Content Moderator, Cognitive Services: Custom Vision, Cognitive Services: Text Analytics, Cognitive Services: Computer Vision API, Cognitive Services: Face, Cognitive Services: Language Understanding Intelligent Service, Cognitive Services: Personalizer, Azure Machine Learning, Machine Learning Studio, Microsoft Genomics, Cognitive Services: Microsoft Translator, Cognitive Services: QnAMaker, Cognitive Services: Video Indexer, Cognitive Services: Anomaly Detector, Cognitive Services: Form Recognizer, Cognitive Services: Container Platform, Cognitive Services: Immersive Reader, Microsoft Bot Framework, Azure Applied AI Services, Azure Health Bot
- **Internet of Things:** Windows 10 IoT Core Services, Event Grid, Azure Maps, Event Hubs, IoT Hub, Azure IoT Central, Time Series Insights, Logic App, API Management, Notification Hubs, Microsoft Azure Peering Service; Azure Digital Twins
- **Integration:** Service Bus
- **Security + Identity:** Azure Active Directory (Free, Basic, Premium), Azure Active Directory (AAD) Domain Services, Azure Active Directory B2C, Azure Advanced Threat Protection, Azure Dedicated HSM, Azure Information Protection, Key Vault, Multi-Factor Authentication, Security Center, Azure Sphere, Microsoft Sentinel, Customer Lockbox for Microsoft Azure; Microsoft Azure Attestation; Azure Defender for IoT
- **Developer Tools:** Azure Lab Services, Azure App Configuration, Azure DevTest Labs, Azure for Education; Application Change Analysis;
- **Management and Governance:** Cost Management, Azure Lighthouse, Automation, Azure Advisor, Azure Blueprint, Azure Managed Applications, Cloud Shell, Azure Migrate, Azure Monitor, Azure Policy, Azure Resource Manager, Azure Resource Graph, Log Analytics, Microsoft Azure Portal, Microsoft Managed Desktop, Nomination Portal; Azure Signup Portal, Resource Move, Microsoft Purview
- **Azure Virtual Desktop:** Azure Virtual Desktop
- **Microsoft Online Services:** Power Virtual Agents, Microsoft Graph, Microsoft Power BI, Microsoft Cloud App Security, Power Automate, Microsoft Intune, Microsoft PowerApps, Microsoft Stream
- **Azure Supporting Infrastructure Services**
- **Mixed Reality:** Azure Spatial Anchors, Azure Remote Rendering

Service model:

- Virtual machine instances owned by the cloud service customer
- Network facilities
- Compliance with applicable standards

Deployment model:

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

Tier:

- Level 1
- Level 2
- Level 3

No.	Criteria	Description	Remarks
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Legal and Compliance

1.	Right to audit	<p>The cloud service customer has the right to audit:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Virtual machine instances owned by the cloud service customer</li> <li><input type="checkbox"/> Network facilities</li> <li><input checked="" type="checkbox"/> Compliance with applicable standards</li> <li><input type="checkbox"/> Technical controls</li> <li><input checked="" type="checkbox"/> Policies and governance</li> <li><input type="checkbox"/> Data centre facilities</li> <li><input type="checkbox"/> Others</li> <li><input type="checkbox"/> None</li> </ul> <p>Regulators recognised by Singapore law have the right to audit:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Virtual machine instances owned by the cloud service customer</li> <li><input type="checkbox"/> Network facilities</li> <li><input checked="" type="checkbox"/> Compliance with applicable standards</li> <li><input type="checkbox"/> Technical controls</li> <li><input checked="" type="checkbox"/> Policies and governance</li> <li><input type="checkbox"/> Data centre facilities</li> <li><input type="checkbox"/> Others</li> </ul>	<p>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.</p> <p>In addition, Microsoft has developed an extensible compliance framework that enables it to design and build services using a single set of controls to speed up and simplify compliance across a diverse set of regulations and rapidly adapt to changes in the regulatory landscape.</p> <p>We provide financial sector customers with a Regulator Right to Examine, which includes access to a number of audit-related materials and an opportunity to discuss with our auditor. Report and certification requests can be made through a Microsoft account representative.</p> <p>Microsoft has also established a policy for customers to carry out authorized penetration testing on their applications hosted in Azure. Please refer to <a href="https://docs.microsoft.com/en-us/azure/security/fundamentals/pen-testing">https://docs.microsoft.com/en-us/azure/security/fundamentals/pen-testing</a></p> <p>Customers may also be interested in reading the document entitled "Microsoft Enterprise Cloud Red Teaming".</p> <p>Penetration Test, TVRA and Vulnerability</p>
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		<input type="checkbox"/> None Audit / assessment reports that can be made available on request: <input checked="" type="checkbox"/> Penetration test (Please see side remarks) <input checked="" type="checkbox"/> Threat and vulnerability risk assessment (Please see side remarks) <input checked="" type="checkbox"/> Vulnerability scan (Please see side remarks) <input checked="" type="checkbox"/> Audit reports (e.g. Statement on Standards for Attestation Engagements (SSAE) No. 16, Reporting on Controls at a Service Organisation)	scanning reports are provided to auditors upon request as part of audit requirements.  See Azure Trust Center for details: <a href="https://www.microsoft.com/en-us/trust-center/">https://www.microsoft.com/en-us/trust-center/</a>
2.	Compliance	The following guidelines / standards / regulations are adhered to: <input checked="" type="checkbox"/> Singapore Personal Data Protection Act <input checked="" type="checkbox"/> ISO / IEC 27001 <input checked="" type="checkbox"/> ISO 9000 <input checked="" type="checkbox"/> ISO / IEC 20000 <input checked="" type="checkbox"/> CSA Open Certification Framework <input checked="" type="checkbox"/> PCI-DSS <input checked="" type="checkbox"/> 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.  List of Certifications for Microsoft Azure : <a href="https://www.microsoft.com/en-us/trustcenter/compliance/complianceofferings/">https://www.microsoft.com/en-us/trustcenter/compliance/complianceofferings/</a>
Data Control			
3.	Data ownership	All data on the cloud service is owned by the cloud service customer except for: content the customer did not upload into or create within the service.  The cloud service customer retains the ownership on the derived data or attributes of cloud usage except for the following: <input type="checkbox"/> Advertising or marketing <input checked="" type="checkbox"/> Statistics analysis on usage <input type="checkbox"/> Others	The following lists helpful information with regards to data ownership:  <a href="https://www.microsoft.com/en-us/trustcenter/privacy/">https://www.microsoft.com/en-us/trustcenter/privacy/</a>
4.	Data retention	Data deleted by the cloud service customer is retained as follows:	Customers may extract and/or delete Customer Data at any time. When a Subscription expires, or terminates, we will

		<p><input checked="" type="checkbox"/> Minimum data retention period is: 90 days</p> <p><input checked="" type="checkbox"/> Maximum data retention period is: 180 days</p> <p><input checked="" type="checkbox"/> Deleted immediately</p> <p>Log data is retained for a period of:</p> <p><input type="checkbox"/> Minimum data retention period as follows:</p> <p><input checked="" type="checkbox"/> Maximum data retention period is: 90 days (Please see side remarks)</p> <p><input type="checkbox"/> Not retained</p> <p>Cloud service customer data is retained for a period of:</p> <p><input checked="" type="checkbox"/> Minimum data retention period is: 90 days</p> <p><input type="checkbox"/> Maximum data retention period is:</p> <p><input type="checkbox"/> Not retained</p> <p>The following types of data are available for download by the cloud service customer:</p> <p><input checked="" type="checkbox"/> Log data</p> <p><input checked="" type="checkbox"/> Other: Log Data from VMs as well as diagnostic data from Azure Diagnostic API</p>	<p>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.</p> <p>After the 90-day retention period ends, Microsoft will disable Customer's account. No more than 180 days after expiration or termination of the customer's use of the service, Microsoft will disable the account and delete the data from the account.</p> <p>More information can be found in the <a href="#">Online Services Data Protection Addendum</a></p> <p>Log data retention 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.</p> <p>Users can download logs maintained within their own virtual machines.</p>
5.	Data sovereignty	<p>The primary data locations are:</p> <p><input checked="" type="checkbox"/> Singapore</p> <p><input type="checkbox"/> Asia Pacific</p> <p><input type="checkbox"/> Europe</p> <p><input type="checkbox"/> United States</p> <p><input type="checkbox"/> Other _____</p> <p>The backup data locations are:</p> <p><input checked="" type="checkbox"/> Singapore</p> <p><input checked="" type="checkbox"/> Asia Pacific: Hong Kong</p> <p><input type="checkbox"/> Europe</p> <p><input type="checkbox"/> United States</p> <p><input type="checkbox"/> Other</p>	<p>Most Azure services enable customers to specify the region where the customer data will be stored and processed. Microsoft may replicate to other regions for data resiliency, but Microsoft will not store or process customer data outside the selected Geo. Customer may move, copy, or access their data from any location globally.</p> <p>Non-regional services do not allow customer to specify region, please refer to the below website for data residency, <a href="https://azure.microsoft.com/en-us/global-infrastructure/data-residency">https://azure.microsoft.com/en-us/global-infrastructure/data-residency</a></p> <p>Please find the details of Azure data center locations and service availability in regions here:</p> <p><a href="https://azure.microsoft.com/en-us/global-infrastructure/regions/">https://azure.microsoft.com/en-us/global-infrastructure/regions/</a></p> <p><a href="https://azure.microsoft.com/en-us/global-infrastructure/services/">https://azure.microsoft.com/en-us/global-infrastructure/services/</a></p>

		<p>No. of countries in which data centers are operated:</p> <p>The user's data stored in the cloud environment will never leave the locations specified in item 5:</p> <p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> Yes, except as required by law</p> <p><input checked="" type="checkbox"/> Yes, except as noted: See link in remarks section for non- regional services.</p> <p><input type="checkbox"/> No</p> <p>User's consent is required prior to transferring data to a location not specified in item 5 or a third party:</p> <p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> Yes, except as required by law</p> <p><input type="checkbox"/> Yes, except as noted:</p> <p><input type="checkbox"/> No</p> <p>Note: Cloud service customers are responsible for determining the impact of data protection and data sovereignty laws on the locations where data is stored. In addition, cloud service customers 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.</p>	<p>Consent is obtained via service agreement and in privacy statement.</p> <p><a href="https://privacy.microsoft.com/en-us/privacystatement">https://privacy.microsoft.com/en-us/privacystatement</a></p>
6.	Non-disclosure	<p><input checked="" type="checkbox"/> Non-disclosure agreement template can be provided by Cloud Service Provider</p> <p><input type="checkbox"/> Cloud Service Provider may use customer's NDA (pending legal review)</p>	<p>Non-disclosure is addressed in the service agreement, which includes the following commitment:</p> <p>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 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</p>

			a copy of the demand, unless legally prohibited from doing so.
<b>Provider Performance</b>			
7.	Availability	<p>The committed network uptime is:</p> <p><input checked="" type="checkbox"/> 99.9 to 99.95%</p> <p><input checked="" type="checkbox"/> Varies according to price plan</p> <p>The committed system uptime is:</p> <p><input checked="" type="checkbox"/> 99.9 to 99.95%</p> <p><input checked="" type="checkbox"/> Varies according to price plan</p> <p>The cloud environment has the following single points of failure:</p> <p><input type="checkbox"/></p> <p><input checked="" type="checkbox"/> none</p>	<p>Minimum SLA for all Azure services in scope is 99.9%. There are some services provide higher SLA in specific context</p> <p>Please find the details and conditions of SLAs for different Azure services: <a href="https://azure.microsoft.com/en-us/support/legal/sla/">https://azure.microsoft.com/en-us/support/legal/sla/</a></p>
8.	3 <sup>rd</sup> party dependency	Highlight areas of critical dependency for service delivery: see side remarks	<p>Azure leverages several open sources and third-parties solutions, please refer to the below website for detail,</p> <p><a href="https://docs.microsoft.com/en-us/azure/architecture/guide/partner-scenarios">https://docs.microsoft.com/en-us/azure/architecture/guide/partner-scenarios</a></p>
9.	BCP / DR	<p><input checked="" type="checkbox"/> Disaster recovery protection</p> <p><input checked="" type="checkbox"/> Backup and restore service</p> <p><input checked="" type="checkbox"/> Cloud service customer selectable backup plans</p> <p><input type="checkbox"/> Escrow arrangements</p> <p><input type="checkbox"/> No BCP / DR is available</p> <p><input checked="" type="checkbox"/> RPO - Managed by cloud user</p> <p><input checked="" type="checkbox"/> RTO - Managed by cloud user</p> <p><input type="checkbox"/> Others, please specify:</p>	<p>Microsoft does not provide escrow arrangements but will provide process for SLA service credit claims.</p>
10.	Liability	<p>The following terms are available for the cloud service customers on failure of the provider to meet the service commitment:</p> <p><input checked="" type="checkbox"/> Network failure</p>	<p>Liability for outages is addressed in the Service Level Agreements, available here: <a href="https://azure.microsoft.com/en-us/support/legal/sla/">https://azure.microsoft.com/en-us/support/legal/sla/</a></p>

		<p>Liability:</p> <p><input checked="" type="checkbox"/> Infrastructure failure</p> <p>Liability: Same as network failure</p> <p><input checked="" type="checkbox"/> Virtual machine instance failure</p> <p>Liability: Same as network failure</p> <p><input type="checkbox"/> Migrations</p> <p>Liability:</p> <p><input checked="" type="checkbox"/> Unscheduled downtime</p> <p>Liability: Same as network failure</p> <p><input checked="" type="checkbox"/> Database failure</p> <p>Liability: Same as network failure</p> <p><input checked="" type="checkbox"/> Monitoring failure</p> <p>Liability: Same as network failure</p>	<p>Liability not addressed in the SLAs is addressed in the subscription agreement. Microsoft Azure's subscription agreement for Singapore is here:</p> <p><a href="https://azure.microsoft.com/en-us/support/legal/subscription-agreement/?country=sg&amp;language=en">https://azure.microsoft.com/en-us/support/legal/subscription-agreement/?country=sg&amp;language=en</a></p>
11.	Shared responsibility	<p>Communication of shared roles &amp; responsibilities for which CSC needs to implement and manage for use of this cloud service</p> <p>URL (or attach file):  <a href="https://azure.microsoft.com/en-us/resources/shared-responsibilities-for-cloud-computing/">https://azure.microsoft.com/en-us/resources/shared-responsibilities-for-cloud-computing/</a></p>	
<b>Service Support</b>			
12.	Change management	<p>The Cloud Service Provider has established the following for changes, migrations, downtime, and other potential interruptions to cloud services:</p> <p><input checked="" type="checkbox"/> Communication plan and procedures for proactive notification</p> <p><input checked="" type="checkbox"/> Assistance in migration to new services when legacy solutions are discontinued</p> <p><input checked="" type="checkbox"/> Ability to remain on old versions for a defined time period</p> <p><input type="checkbox"/> Ability to choose timing of impact</p>	<p>Assistance in migration to new services when legacy solutions are provided via guidance documentations.</p> <p>IaaS: No need for assistance from Microsoft, expected to be transparent to the customer.</p> <p>PaaS: Will provide guidance for limited migration scenarios.</p>
13.	Self-service provisioning and	<p>Provide self-service provisioning and management portal for cloud service customers to manage cloud services:</p>	



	management portal	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe the functions of the self-service provisioning and management portal provided: <input checked="" type="checkbox"/> Allow role-based access control (RBAC) <input checked="" type="checkbox"/> Manage resource pools (e.g. VMs, storage, and network) and service templates <input checked="" type="checkbox"/> Track and manage the lifecycle of each service <input checked="" type="checkbox"/> Track consumption of services <input type="checkbox"/> Others:	
14.	Incident and problem management	Delivery mode of support: <input checked="" type="checkbox"/> Access via email <input checked="" type="checkbox"/> Access via portal <input checked="" type="checkbox"/> Access via phone support <input checked="" type="checkbox"/> Direct access to support engineers Availability of support: <input checked="" type="checkbox"/> 24 x 7 <input checked="" type="checkbox"/> During office hours support, please specify the hours of operations: _____ <input checked="" type="checkbox"/> After office hours support, please specify the hours of operations: 24x7 support in English. Service response time: The following are available to cloud service customers upon request: <input type="checkbox"/> Permanent access to audit records of customer instances <input checked="" type="checkbox"/> Incident management assistance Incident response time: Dependent on severity of incident and type of support plan; between 15 minutes – 8 hours Mean time to repair on detection of faults: _____	Support plans as follows: <a href="https://azure.microsoft.com/en-us/support/plans/">https://azure.microsoft.com/en-us/support/plans/</a>

15.	Billing	<p>The following billing modes are available (please elaborate granularity of charges and measurement):</p> <p><input checked="" type="checkbox"/> Pay per usage per hour (up to per min/hour/day/month for compute/storage for IaaS/PaaS.</p> <p><input type="checkbox"/> Fixed pricing _____ (up to yearly/monthly/daily)</p> <p><input checked="" type="checkbox"/> Other pricing model Enterprise Agreement for Azure</p> <p><input type="checkbox"/> Not disclosed</p> <p><input type="checkbox"/> Available billing history: _____ Months</p>	<p>Other pricing model: Azure has a monthly committed spend model which offers discount to Pay-per-usage.</p> <p>Customers are able to see the entire billing history since the subscription starts.</p> <p>Microsoft offers an Enterprise Agreement for Azure on a pre-paid commitment basis.</p>
16.	Data portability	<p>Importable VM formats: VHD - Virtual Hard Disk</p> <p>Downloadable formats: VHD - Virtual Hard Disk</p> <p>Supported operating systems: See side remarks</p> <p>Language versions of supported operating systems:</p> <p>_____</p> <p>Supported database formats: See side remarks</p> <p>API:</p> <p><input checked="" type="checkbox"/> Common: See side remarks</p> <p><input checked="" type="checkbox"/> Customized: See side remarks</p> <p>Upon service termination, data is available through:</p> <p><input checked="" type="checkbox"/> Physical media</p> <p><input checked="" type="checkbox"/> Standard methods as described above</p> <p><input checked="" type="checkbox"/> Other methods: Physical-disk shipping subject to geographical availability</p> <p>_____</p>	<p>VHD formats: VHD - Virtual Hard Disk</p> <p>Downloadable formats: same as above</p> <p>Supported OS:</p> <ul style="list-style-type: none"> <li>•Windows <a href="https://support.microsoft.com/en-us/help/2721672/microsoft-server-software-support-for-microsoft-azure-virtual-machines">https://support.microsoft.com/en-us/help/2721672/microsoft-server-software-support-for-microsoft-azure-virtual-machines</a></li> <li>•Linux <a href="https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-backup-vm">https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-backup-vm</a></li> </ul> <p>Language versions of supported operating systems: See above URL</p> <p>Supported database formats: SQL, NoSQL</p> <p>API: Open Data standards, REST Management API, Web Services, etc.</p> <p>Microsoft Azure has a service available for sending in your own hard drives for upload <a href="https://docs.microsoft.com/en-us/azure/storage/storage-import-export-service">https://docs.microsoft.com/en-us/azure/storage/storage-import-export-service</a></p>
17.	Interoperability	<p>Use of industry standards and availability of APIs to support interoperability:</p> <p><input checked="" type="checkbox"/> Transport supported (e.g. REST based HTTPS/MQTT) : REST API</p>	

		<input checked="" type="checkbox"/> Format supported (e.g. JSON/XML) <input checked="" type="checkbox"/> APIs supported: Azure CLI <input checked="" type="checkbox"/> Other methods: PowerShell  Guide available: <a href="https://docs.microsoft.com/en-us/rest/api/azure/">https://docs.microsoft.com/en-us/rest/api/azure/</a> <a href="https://docs.microsoft.com/en-us/cli/azure/">https://docs.microsoft.com/en-us/cli/azure/</a> <a href="https://docs.microsoft.com/en-us/powershell/azure/">https://docs.microsoft.com/en-us/powershell/azure/</a>	
18.	Access	Type of access to the service is through:  <input checked="" type="checkbox"/> Public access  <input checked="" type="checkbox"/> Private access (e.g. VPN, dedicated link)  <input checked="" type="checkbox"/> IPv6 access is supported  <input type="checkbox"/> 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 nondisclosure agreement.  For more info on regions supported by IPV6 go to:  <a href="https://azure.microsoft.com/en-us/updates/ipv6-for-azure-vms/">https://azure.microsoft.com/en-us/updates/ipv6-for-azure-vms/</a>
19.	User management	<input checked="" type="checkbox"/> Identity management <input checked="" type="checkbox"/> Role based access control <input checked="" type="checkbox"/> Federated access model <input checked="" type="checkbox"/> Integration with Identity management solutions <input type="checkbox"/> Others _____	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.
20.	Lifecycle	The cloud service customer may select the following for service upgrades and changes:  <input checked="" type="checkbox"/> Automatic provisioning  <input checked="" type="checkbox"/> Cloud service customer customisable provisioning	
<b>Security Configurations</b>			
21.	Security configuration enforcement checks	Security configuration enforcement checks are performed:  <input type="checkbox"/> Manually  <input checked="" type="checkbox"/> Using automated tools	For more information, please see the following link:  <a href="https://www.microsoft.com/en-us/trustcenter/compliance/complianceofferings">https://www.microsoft.com/en-us/trustcenter/compliance/complianceofferings</a>

		<p>How often are enforcement checks being performed to ensure all security configurations are applied?</p> <p>External audits are done semi-annually. Self-assessment is performed regularly.</p>	
22.	Multi-tenancy	<input type="checkbox"/> Distinct physical hosts <input type="checkbox"/> Distinct physical network infrastructure <input checked="" type="checkbox"/> Virtual instance grouping <input checked="" type="checkbox"/> Cloud service customer definable security domains <input checked="" type="checkbox"/> Cloud service customer customisable firewall <input checked="" type="checkbox"/> Cloud service customer definable access policies	<p>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.</p> <p>In addition, a customer subscription can contain multiple logically isolated private networks:</p> <ul style="list-style-type: none"> <li>• Deployment network: Each deployment can be isolated from others at the network level. Multiple VMs within a deployment can communicate with each other through private IP addresses.</li> <li>• 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.</li> </ul>
23.	Hybrid cloud provision	<p>Ability to monitor, track, apply and enforce CSC's security &amp; privacy policies on its cloud workloads:</p> <input checked="" type="checkbox"/> Data protection and encryption key mgmt. enforcement geolocation-based/resource pools and secure migration of cloud workloads <input checked="" type="checkbox"/> Key mgmt. and keystore controlled by CSC <input checked="" type="checkbox"/> Persistent data flow segmentation before and after geolocation-based/resource pools secure migration <input checked="" type="checkbox"/> Compliance enforcement for regulated workloads between on-premises private and hybrid/public cloud <input type="checkbox"/> Others	
Service Elasticity			
24.	Capacity elasticity	<p>The following capacity elasticity options are available:</p> <input checked="" type="checkbox"/> Programmatic interface to scale up or down <input checked="" type="checkbox"/> Mean time to start and end new virtual instances _____	<p>Programmatic interface to scale up or down - yes</p> <p>Mean time to start and end new virtual instances - Can be automated through Powershell / SMA integration.</p>

		<input checked="" type="checkbox"/> Alerts to be sent for unusual high usage <input type="checkbox"/> Minimum performance during peak periods _____ <input checked="" type="checkbox"/> Minimum duration to scale up computing resources _____ <input type="checkbox"/> Minimum additional capacity guaranteed per account _____ (number of cores and GB memory)	Alerts to be sent for unusual high usage – Yes, performance counters can be sent via Powershell cmdlets  Minimum performance during peak periods – No.
25.	Network resiliency and elasticity	<p>The following network resiliency and elasticity options are available:</p> <input checked="" type="checkbox"/> Redundant Internet connectivity links <input checked="" type="checkbox"/> Redundant Internal connectivity <input type="checkbox"/> Selectable bandwidth up to _____ Mbps <input checked="" type="checkbox"/> Maximum usable IPs: Customers can use any IP address range defined in RFC1918. That means the entire 10.0.0.0/8 (16,777,216 addresses) <input checked="" type="checkbox"/> Load balancing ports _____ <input checked="" type="checkbox"/> Load balancing protocols _____ <input checked="" type="checkbox"/> Anti-DDOS protection systems or services <input checked="" type="checkbox"/> Defence-in-depth mechanisms, please specify: See side remarks _____ <input checked="" type="checkbox"/> Network traffic isolation, please specify: See side remarks _____ <input checked="" type="checkbox"/> Shared or dedicated bandwidth, please specify: Shared/Dedicated based on geographical availability. See side remarks. <input type="checkbox"/> QoS traffic control services <input checked="" type="checkbox"/> Alerts to be sent for unusual high usage <input type="checkbox"/> Minimum performance during peak periods _____ <input type="checkbox"/> Minimum period to scale up network throughput _____	Defense-in-depth mechanisms: <a href="https://azure.microsoft.com/en-us/services/defender-for-cloud/">https://azure.microsoft.com/en-us/services/defender-for-cloud/</a>  Microsoft Azure Cloud security whitepaper: <a href="https://servicetrust.officepe.com/Documents/TrustDocuments">https://servicetrust.officepe.com/Documents/TrustDocuments</a>

26.	Storage redundancy and elasticity	<p>The following storage redundancy and elasticity options are available:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Redundant storage connectivity links within each data centre</li> <li><input checked="" type="checkbox"/> Redundant storage connectivity links between data centres belonging to the same cloud</li> <li><input type="checkbox"/> Storage traffic isolation, please specify:</li> <li><input type="checkbox"/> Shared or dedicated storage network bandwidth, please specify:</li> <li><input type="checkbox"/> Quality of service storage traffic control services</li> <li><input type="checkbox"/> Maximum storage capacity for entire cloud, please specify:</li> <li><input checked="" type="checkbox"/> Maximum storage capacity for single user, please specify:</li> </ul> <p>A storage account can contain any number of containers, and a container can contain any number of blobs, up to the 500 TB capacity limit of the storage account.</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Maximum expandable storage, please specify: Refer to above for maximum storage account</li> <li><input checked="" type="checkbox"/> Alerts to be sent for unusual high usage</li> <li><input type="checkbox"/> Minimum storage I / O performance during peak periods</li> <li><input type="checkbox"/> Minimum period to scale up storage I / O throughput</li> </ul>	<p>Microsoft Azure includes a "service" called Geo-Replication. It provides durability by constantly maintaining multiple healthy replicas of data both within and between data centers. 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.</p> <p>Also the geo-replication information from one data center to another as following:</p> <p><a href="https://docs.microsoft.com/en-us/azure/sql-database/sql-database-geo-replication-portal">https://docs.microsoft.com/en-us/azure/sql-database/sql-database-geo-replication-portal</a></p> <p>Billing alert enables customer to get proactive email notifications when the bill goes above a certain monetary threshold that customer configures.</p>
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