



## Amazon Web Services Response to: Infocomm Media Development Authority of Singapore (IMDA)

---

21 September 2020

**Submitted By:**

Amazon Web Services, Inc.  
410 Terry Avenue North Seattle, WA 98109-5210  
Clara Lim  
claralim@amazon.com *clara*

**Submitted To:**

Infocomm Media Development Authority Of Singapore (IMDA)

This document is not legally-binding, and is not an offer to contract that can be accepted by either party. All responses in this document are informational and are provided solely for discussion purposes. Neither party will have any obligation or liability with respect to the matters described in this document. All obligations must be set forth in a separate definitive agreement executed by the parties addressing such matters, provided, however, that neither party will have any liability for any failure or refusal to enter into a definitive agreement for any reason. Amazon Web Services, Inc. (AWS) has provided responses based on its current knowledge, but these responses may change at any time due to a variety of factors, including without limitation, changes to your requirements, the capabilities of any third party you select to assist with implementation, and changes to AWS's service offerings. AWS does not make any representations or warranties of any kind in this document. Any use of the AWS service offerings will be governed by the AWS Customer Agreement available at <http://aws.amazon.com/agreement/> (or other definitive written agreement between the parties), not this document. AWS does not accept any terms or conditions included in this document that conflict with or are in addition to the terms and conditions set forth in the AWS Customer Agreement.



## Cloud service provider self-disclosure

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 Provider Contact Information	
Company name:	<u>Amazon Web Services, Inc.</u>
Primary address:	<u>410 Terry Avenue North Seattle, WA 98109, United States</u>
Web address:	<u>https://aws.amazon.com</u>
Contact name:	<u>Clara Lim</u>
Contact email:	<u>claralim@amazon.com</u>
MTCS Certificate Number:	<u>MTCS/R65/0308</u>
Company Chop _____	Company Representative Signature: <u>clara</u>
Certification Body Contact Information	
Company name:	<u>Certification Partner Global (Singapore) Pte Ltd</u>
Web address:	<u>https://www.cpg.global/</u>
Contact name:	<u>Sanjeev Gupta</u>
Contact email:	<u>singapore@cpg.global</u>
Company Chop _____	Lead Auditor Signature: 
	
Cloud Service Provider Background	

Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this response.



## Overview of service offering:

AWS is an on-demand delivery of compute power, database storage, applications, and other IT resources through a cloud services platform via the internet with pay-as-you-go pricing.

## Service model:

- Virtual machine instances owned by the user
- 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
Legal and Compliance			
1.	Right to audit	The user has the right to audit: <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Virtual machine instances owned by the user</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>	AWS adheres to a Shared Responsibility Matrix, in which AWS maintains responsibility for the physical controls at its data centres. Auditing for most layers and controls remains the responsibility of the customer. The definition of AWS-defined logical and physical controls is documented in the SOC1 Type II report (SSAE 16).  The SOC II report and other certifications are available for download and review via <a href="https://aws.amazon.com/artifact/">https://aws.amazon.com/artifact/</a> .  All documents are available under the terms of Amazon's non-disclosure agreement.



		<p><input type="checkbox"/> None</p> <p>Regulators recognised by Singapore law have the right to audit:</p> <p><input type="checkbox"/> Virtual machine instances owned by the user</p> <p><input checked="" type="checkbox"/> Network facilities</p> <p><input checked="" type="checkbox"/> Compliance with applicable standards</p> <p><input checked="" type="checkbox"/> Technical controls</p> <p><input checked="" type="checkbox"/> Policies and governance</p> <p><input checked="" type="checkbox"/> Data centre facilities</p> <p><input type="checkbox"/> Others _____</p> <p><input type="checkbox"/> None</p> <p>Audit / assessment reports that can be made available on request:</p> <p><input type="checkbox"/> Penetration test</p> <p><input type="checkbox"/> Threat and vulnerability risk assessment</p> <p><input type="checkbox"/> Vulnerability scan</p> <p><input checked="" type="checkbox"/> Audit reports (e.g. Statement on Standards for Attestation Engagements (SSAE) No. 16, Reporting on Controls at aService Organisation)</p>	<p>Please visit <a href="https://aws.amazon.com/compliance">https://aws.amazon.com/compliance</a> for more information.</p> <p>Customers can request permission to conduct scans of their cloud infrastructure as long as the scans are limited to the customer's instances and do not violate the AWS Acceptable Use Policy. Advance approval for these types of scans can be initiated by submitting a request via the AWS Vulnerability/ Penetration Testing Request Form.</p> <p>AWS Security regularly engages independent security firms to perform external vulnerability threat assessments.</p> <p>The AWS SOC1 Type II report provided additional details on the specific control activities executed by AWS are available for download and review via <a href="https://aws.amazon.com/artifact/">https://aws.amazon.com/artifact/</a>.</p>
--	--	---	---



2.	Compliance	<p>The following guidelines / standards / regulations are adhered to:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Singapore Personal Data Protection Act</li> <li><input checked="" type="checkbox"/> ISO / IEC 27001</li> <li><input checked="" type="checkbox"/> ISO 9000</li> <li><input type="checkbox"/> ISO / IEC 20000</li> <li><input type="checkbox"/> CSA Open Certification Framework</li> <li><input checked="" type="checkbox"/> PCI-DSS</li> <li><input checked="" type="checkbox"/> Others _____</li> </ul>	<p>The AWS cloud infrastructure has been designed and managed in alignment with regulations, standards, and best-practices including:</p> <ul style="list-style-type: none"> <li>• HIPAA</li> <li>• SOC 1/SSAE 16/ISAE3402 (formerlySAS7 0)</li> <li>• SOC 2</li> <li>• SOC 3</li> <li>• PCI DSS Level 1</li> <li>• ISO 27001</li> <li>• ISO 9001</li> <li>• ISO 27017</li> <li>• ISO 27018</li> <li>• FedRAMP(SM)</li> <li>• DIACAP and FISMA</li> <li>• ITAR</li> <li>• FIPS 140-2</li> <li>• CSA</li> <li>• MPAA</li> </ul> <p>Please visit <a href="https://aws.amazon.com/compliance/">https://aws.amazon.com/compliance/</a> for more information.</p>
Data Control			
3.	Data ownership	<p>All data on the cloud service is owned by the cloud user except for: _____</p> <p>The cloud User retains the ownership on the derived data or attributes of cloud usage except for the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Advertising or marketing</li> <li><input checked="" type="checkbox"/> Statistics analysis on usage</li> <li><input type="checkbox"/> Others _____</li> </ul>	<p>AWS customers own all right, title and interest in their content. Please review the following link for further information: <a href="https://aws.amazon.com/agreement">https://aws.amazon.com/agreement</a></p>



<p>4.</p>	<p>Data retention</p>	<p>Data deleted by the user is retained as follows:</p> <p><input type="checkbox"/> Minimum data retention period is: _____</p> <p><input type="checkbox"/> Maximum data retention period is: _____</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 is: _____</p> <p><input type="checkbox"/> Maximum data retention period is: _____</p> <p><input type="checkbox"/> Not retained (Customer data)</p> <p>User data is retained for a period of:</p> <p><input type="checkbox"/> Minimum data retention period is: _____</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 user:</p> <p><input type="checkbox"/> Log data</p> <p><input checked="" type="checkbox"/> Other _____</p>	<p>AWS provides customers with the ability to delete the customer's content. However, AWS customers retain control and ownership of their content so it is the customer's responsibility to manage content retention to their own requirements.</p> <p>Customers may store and retain log data associated with their use of AWS services by using a service called AWS CloudTrail. AWS CloudTrail is a web service that records API calls made on customer account and delivers log files to their Amazon S3 bucket.</p> <p>Customer control the retention policies for their AWS CloudTrail log files. By default, log files are stored indefinitely.</p> <p>Customer can use Amazon S3 object lifecycle management rules to define their own retention policy.</p> <p>90 days after a customer closes its account, any content remaining in customer account will be permanently deleted, and AWS services that aren't already terminated will be terminated. However, service attributes might be retained as long as necessary for billing and administration purposes. AWS retains account information, as described in the <a href="#">Privacy Notice</a>. Customer cannot reopen that account after 90 days post account closure and cannot create new AWS accounts using the email address that was associated with the customer's account at the time of its closure.</p> <p>Please to these links below:</p> <p><a href="https://aws.amazon.com/premiumsupport/knowledge-center/close-aws-account/">https://aws.amazon.com/premiumsupport/knowledge-center/close-aws-account/</a></p>
-----------	-----------------------	--	---



<p>5.</p>	<p>Data sovereignty</p>	<p>The primary data locations are:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Singapore</li> <li><input checked="" type="checkbox"/> Asia Pacific <u>Seoul</u></li> <li><input type="checkbox"/> Europe _____</li> <li><input checked="" type="checkbox"/> United States</li> <li><input type="checkbox"/> Other _____</li> </ul> <p>The backup data locations are:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Singapore</li> <li><input checked="" type="checkbox"/> Asia Pacific <u>Seoul</u></li> <li><input type="checkbox"/> Europe _____</li> <li><input checked="" type="checkbox"/> United States</li> <li><input type="checkbox"/> Other _____</li> </ul> <p>No. of countries in which data centres are operated: <u>25</u></p> <p>The user's data stored in the cloud environment will never leave the locations specified in item 5:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Yes</li> <li><input checked="" type="checkbox"/> Yes, except as required by law</li> <li><input type="checkbox"/> Yes, except as noted: _____</li> <li><input type="checkbox"/> No</li> </ul> <p>User's consent is required prior to transferring data to a location not specified in item 5 or a third party:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Yes</li> <li><input type="checkbox"/> Yes, except as required by law</li> <li><input checked="" type="checkbox"/> Yes, except as noted: <u>AWS Service Terms</u></li> </ul>	<p>AWS provides customers the flexibility to place instance and store data within multiple Geographic Regions. AWS customers designate in which physical region their data and their servers will be located. AWS does not move customer data and the customer has the complete control of their data.</p> <p>AWS has a Region in Singapore, Asia Pacific, Europe and the United States. For more information, please visit <a href="http://aws.amazon.com/about-aws/global-infrastructure/">http://aws.amazon.com/about-aws/global-infrastructure/</a>.</p> <p>Customer may specify the AWS regions in which Customer Content will be stored. Customer consents to the storage of Content in, and transfer of Content into, the AWS regions Customer selects, except as specified in the Customer Agreement or Service Terms.</p> <p>AWS will not access or use Customer Content except as necessary to maintain or provide the Service Offerings, as necessary to comply with the law or a binding order of a governmental body, or as specified in the Customer Agreement or Service Terms.</p> <p><a href="https://aws.amazon.com/agreement/">https://aws.amazon.com/agreement/</a></p> <p>Please refer to the link: <a href="https://aws.amazon.com/service-">https://aws.amazon.com/service-</a></p>
-----------	-------------------------	--	--



		<input type="checkbox"/> No  <i>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.</i>	<a href="#">terms/</a>
6.	Non- disclosure	<input checked="" type="checkbox"/> Non-disclosure agreement template can be provided by Cloud Service Provider  <input type="checkbox"/> Cloud Service Provider may use customer's NDA (pending legal review)	
Provider Performance			
7.	Availability	The committed network uptime is: <input type="checkbox"/> 100 % _____  <input type="checkbox"/> Varies according to price plan  The committed system uptime is: <input type="checkbox"/> 100 % _____  <input type="checkbox"/> Varies according to price plan  The cloud environment has the following single points of failure: <input type="checkbox"/> _____  <input checked="" type="checkbox"/> none	Please refer to the link: <a href="https://aws.amazon.com/legal/service-level-agreements/">https://aws.amazon.com/legal/service-level-agreements/</a>





<p>8.</p>	<p>BCP / DR</p>	<p><input checked="" type="checkbox"/> Disaster recovery protection</p> <p><input checked="" type="checkbox"/> Backup and restore service</p> <p><input checked="" type="checkbox"/> User selectable backup plans</p> <p><input type="checkbox"/> Escrow arrangements</p> <p><input type="checkbox"/> No BCP / DR is available</p> <p><input type="checkbox"/> RPO _____</p> <p><input type="checkbox"/> RTO _____</p> <p><input type="checkbox"/> Others, please specify: _____</p>	<p>The customer retains control of data and applications. The customer is responsible for architecting their own DR plans.</p> <p>AWS gives customer fine-grained control and many building blocks to build the appropriate DR solution given their DR objectives (RTO and RPO) and budget.</p> <p>Please visit <a href="https://aws.amazon.com/cloudendure-disaster-recovery/">https://aws.amazon.com/cloudendure-disaster-recovery/</a> for more architecture guidelines</p>
<p>9.</p>	<p>Liability</p>	<p>The following terms are available for the users on failure of the provider to meet the service commitment:</p> <p><input checked="" type="checkbox"/> Network failure</p> <p>Liability: _____</p> <p><input checked="" type="checkbox"/> Infrastructure failure</p> <p>Liability: _____</p> <p><input checked="" type="checkbox"/> Virtual machine instance failure</p> <p>Liability: _____</p> <p><input type="checkbox"/> Migrations</p> <p>Liability: _____</p> <p><input type="checkbox"/> Unscheduled downtime</p> <p>Liability: _____</p> <p><input checked="" type="checkbox"/> Database failure</p> <p>Liability: _____</p> <p><input type="checkbox"/> Monitoring failure</p> <p>Liability: _____</p>	<p>Please refer to these links:</p> <p><a href="https://aws.amazon.com/legal/service-level-agreements/">https://aws.amazon.com/legal/service-level-agreements/</a></p>



Service Support			
10.	Change Management	<p>The Cloud Service Provider has established the following for changes, migrations, downtime, and other potential interruptions to cloud services:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Communication plan and procedures for proactive notification.</li> <li><input type="checkbox"/> Assistance in migration to new services when legacy solutions are discontinued</li> <li><input type="checkbox"/> Ability to remain on old versions for a defined time period</li> <li><input type="checkbox"/> Ability to choose timing of impact</li> </ul>	<p>AWS SOC 1 Type II report provides an overview of the controls in place to manage change management in the AWS environment.</p> <p>In addition, refer to the ISO27001 standard, Annex A, Domain 12.5 for further details. AWS has been validated and certified by an independent auditor to confirm alignment with ISO 27001 certification standard.</p> <p>Changes are authorized, logged, tested, approved and documented.</p>
11.	Self-Service Provisioning and Management portal	<p>Provide self-service provisioning and management portal for users to manage cloud services:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Yes</li> <li><input type="checkbox"/> No</li> </ul> <p>If yes, describe the functions of the self-service provisioning and management portal provided:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Allow role-based access control (RBAC)</li> <li><input checked="" type="checkbox"/> Manage resource pools (e.g. VMs, storage, and network) and service templates</li> <li><input type="checkbox"/> Track and manage the lifecycle of each service</li> <li><input checked="" type="checkbox"/> Track consumption of services</li> <li><input type="checkbox"/> Others: _____</li> </ul>	<p>Most updates are done in a manner that will not impact the customer.</p> <p>AWS will communicate with customers, either via email, or through AWS Service Health Dashboard when there is a chance they may be affected.</p>



12.	Incident and Problem Management	<p>Delivery mode of support:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Access via email</li> <li><input checked="" type="checkbox"/> Access via portal</li> <li><input checked="" type="checkbox"/> Access via phone support</li> <li><input checked="" type="checkbox"/> Direct access to support engineers (via livechat)</li> </ul> <p>Availability of support</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> 24 x 7</li> <li><input type="checkbox"/> During office hours support, please specify the hours of operations: _____</li> <li><input type="checkbox"/> After office hours support, please specify the hours of operations: _____</li> </ul> <p>Service response time: _____</p> <p>The following are available to users upon request:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Permanent access to audit records of customer instances</li> <li><input checked="" type="checkbox"/> Incident management assistance</li> </ul> <p>Incident response time: _____</p> <p>Meantime to repair on detection of faults: _____</p>	<p>All AWS Support tiers offer customers of AWS Infrastructure Services an unlimited number of support cases with pay-by-the-month pricing and no long-term contracts. The four tiers provide developers and businesses the flexibility to choose the support tiers that meet their specific needs.</p> <p>Please visit <a href="https://aws.amazon.com/premiumsupport/">https://aws.amazon.com/premiumsupport/</a> for further details.</p> <p>Log data associated with AWS Infrastructure Services are stored and retained using a service called AWS CloudTrail. AWS CloudTrail is a web service that records API calls made on customer account and delivers log files to their Amazon S3 bucket.</p> <p>Customer control the retention policies for their AWS CloudTrail log files. By default, log files are stored indefinitely. Customer can use Amazon S3 object lifecycle management rules to define their own retention policy.</p>
13.	Billing	<p>The following billing modes are available (please elaborate granularity of charges and measurement):</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Pay per usage: <u>Minutes/Hourly/monthly</u> (up to per min/hour/day/month for compute/storage for IaaS/PaaS, and per user per hour/day/month/year for SaaS)</li> <li><input type="checkbox"/> Fixed pricing _____ (up to yearly/monthly/daily)</li> <li><input type="checkbox"/> Other pricing model _____</li> </ul>	<p>Please refer to the following links for pricing information:</p> <p><a href="https://aws.amazon.com/pricing">https://aws.amazon.com/pricing</a>  <a href="https://aws.amazon.com/pricing/services/">https://aws.amazon.com/pricing/services/</a></p> <p>AWS provides customer billing history as month-to-date.</p> <p><a href="http://docs.aws.amazon.com/awscountbilling/latest/aboutv2/view-billing-dashboard.html">http://docs.aws.amazon.com/awscountbilling/latest/aboutv2/view-billing-dashboard.html</a></p>



		<input type="checkbox"/> Not disclosed <input type="checkbox"/> Available billing history: _____ Months	
14.	Data portability	Importable VM formats: _____ Downloadable formats: _____ Supported operating systems: _____ Language versions of supported operating systems: _____ Supported database formats: _____ API: <input type="checkbox"/> Common _____ <input type="checkbox"/> Customised _____ Upon service termination, data is available through: <input type="checkbox"/> Physical media <input checked="" type="checkbox"/> Standard methods as described above <input type="checkbox"/> Other methods _____	<a href="https://aws.amazon.com/ec2/vmimport/">https://aws.amazon.com/ec2/vmimport/</a> Amazon Machine Images (AMIs) are preconfigured with an ever-growing list of operating systems. AWS work with its partners and community to provide customer with the most choices possible. Customer are also empowered to use AWS bundling tools to upload their own operating systems. The operating systems currently available to use with customer Amazon EC2 instances include: <ul style="list-style-type: none"> <li>• CentOS</li> <li>• Debian</li> <li>• SUSE Linux Enterprise</li> <li>• Amazon Linux</li> <li>• Ubuntu</li> <li>• Red Hat Enterprise Linux</li> <li>• Windows Server</li> <li>• Windows Server</li> </ul> Any database can be run on AWS as long as it runs on Linux or Windows. For managed database services, Amazon RDS gives customer access to the capabilities of a familiar MySQL, Oracle, Microsoft SQL Server, or PostgreSQL database engines.



15.	Access	<p>Type of access to the service is through:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Public access</li> <li><input checked="" type="checkbox"/> Private access (e.g. VPN, dedicated link)</li> <li><input checked="" type="checkbox"/> IPv6 access is supported</li> <li><input type="checkbox"/> Other access methods _____</li> </ul> <p>Public access speed (shared bandwidth) in Mbps:  <u>Contingent on customer network speeds.</u></p>	<p>AWS offers support for IPv6 across numerous regions, including Asia Pacific (Singapore).</p> <p><a href="https://aws.amazon.com/blogs/aws/aws-ipv6-update-global-support-spanning-15-regions-multiple-aws-services/">https://aws.amazon.com/blogs/aws/aws-ipv6-update-global-support-spanning-15-regions-multiple-aws-services/</a></p>
16.	User Management	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Identity management</li> <li><input checked="" type="checkbox"/> Role based access control</li> <li><input checked="" type="checkbox"/> Federated access model</li> <li><input checked="" type="checkbox"/> Integration with Identity management solutions</li> <li><input type="checkbox"/> Others _____</li> </ul>	
17.	Lifecycle	<p>The cloud user may select the following for service upgrades and changes:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Automatic provisioning</li> <li><input checked="" type="checkbox"/> User customisable provisioning</li> </ul>	
18.	Security configuration enforcement checks	<p>Security configuration enforcement checks are performed:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Manually</li> <li><input checked="" type="checkbox"/> Using automated tools</li> </ul> <p>How often are enforcement checks being performed to ensure all security configurations are applied?  <u>Continually</u></p>	<p>Security configuration at the OS level and up is the responsibility of the customer.</p> <p>AWS is responsible for patching systems supporting the delivery of service to customers, such as the hypervisor and networking services. This is done as required per AWS policy and in accordance with ISO 27001, NIST, and PCI requirements.</p> <p>Customers control their own guest operating systems, software and applications and are therefore responsible for patching their own</p>



			<p>systems. AWS SOC 1 Type II report provides an overview of the controls in place to manage change management in the AWS environment. In addition, refer to ISO 27001 standard, Annex A, domain 12.5 for further details. AWS has been validated and certified by an independent auditor to confirm alignment with ISO 27001 certification standard.</p>
19.	Multi-tenancy	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Distinct physical hosts Only for dedicated instances</li> <li><input checked="" type="checkbox"/> Distinct physical network infrastructure</li> <li><input checked="" type="checkbox"/> Virtual instance grouping</li> <li><input checked="" type="checkbox"/> User definable security domains</li> <li><input checked="" type="checkbox"/> User customisable firewall (Utilizing VPC customers can create their own security boundary)</li> <li><input checked="" type="checkbox"/> User definable access policies</li> </ul>	<p>On AWS, everything is virtual and the networking is software based. Please visit <a href="http://aws.amazon.com/vpc">http://aws.amazon.com/vpc</a> to learn about the networking feature.</p> <p>For dedicated hardware, please visit <a href="http://aws.amazon.com/dedicated-instances/">http://aws.amazon.com/dedicated-instances/</a>.</p>
Service Elasticity			
20.	Capacity elasticity	<p>The following capacity elasticity options are available:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Programmatic interface to scale up or down</li> <li><input checked="" type="checkbox"/> Mean time to start and end new virtual instances _____</li> <li><input checked="" type="checkbox"/> Alerts to be sent for unusual high usage</li> <li><input type="checkbox"/> Minimum performance during peak periods ____</li> <li><input type="checkbox"/> Minimum duration to scale up computing resources _____</li> <li><input checked="" type="checkbox"/> Minimum additional capacity guaranteed per account _____ dependent on Instance (number of cores and GB memory)</li> </ul>	<p>Auto Scaling allows customer to scale their Amazon EC2 capacity up or down automatically according to conditions they define.</p> <p>With Auto Scaling, customer can ensure that the number of Amazon EC2 instances they're using increases seamlessly during demand spikes to maintain performance, and decreases automatically during demand lulls to minimize costs.</p> <p><a href="http://aws.amazon.com/autoscaling/">http://aws.amazon.com/autoscaling/</a></p> <p>Minimum additional capacity guaranteed per account will depend on the instance type selected.</p> <p><a href="https://aws.amazon.com/ec2/instance-types/">https://aws.amazon.com/ec2/instance-types/</a></p>



<p>21.</p>	<p>Network resiliency and elasticity</p>	<p>The following network resiliency and elasticity options are available:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Redundant Internet connectivity links</li> <li><input checked="" type="checkbox"/> Redundant Internal connectivity</li> <li><input type="checkbox"/> Selectable bandwidth up to _____ Mbps</li> <li><input checked="" type="checkbox"/> Maximum usable IPs 5+ _____</li> <li><input checked="" type="checkbox"/> Load balancing ports _____</li> <li><input checked="" type="checkbox"/> Load balancing protocols _____</li> <li><input checked="" type="checkbox"/> Anti-DDOS protection systems or services</li> <li><input checked="" type="checkbox"/> Defence-in-depth mechanisms, please specify: _____ _____</li> <li><input checked="" type="checkbox"/> Network traffic isolation, please specify: _____ _____</li> <li><input checked="" type="checkbox"/> Shared or dedicated bandwidth, please specify: _____ _____</li> <li><input checked="" type="checkbox"/> QoS traffic control services</li> <li><input checked="" type="checkbox"/> Alerts to be sent for unusual high usage</li> <li><input type="checkbox"/> Minimum performance during peak periods _____</li> <li><input type="checkbox"/> Minimum period to scale up network throughput _____</li> </ul>	<p>The AWS network provides significant protection against traditional network security issues and the customer can implement further protection. See the AWS Security Whitepaper for more information on this topic, including a discussion of DDoS attacks:</p> <p><a href="https://d0.awsstatic.com/whitepapers/aws-security-whitepaper.pdf">https://d0.awsstatic.com/whitepapers/aws-security-whitepaper.pdf</a></p> <p>Please visit <a href="https://aws.amazon.com/vpc">https://aws.amazon.com/vpc</a> to understand how customer have complete control over their virtual networking environment, including selection of their own IP address range, creation of subnets, and configuration of route tables and network gateways.</p> <p>AWS Direct Connect provides 1 Gbps and 10Gbps connections, and customer can easily provision multiple connections if they need more capacity.</p> <p>Using Amazon VPC, customers are by default offered a minimum of 5 usable IPs, but may request more through the console if required.</p> <p><a href="http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Appendix_Limits.htm">http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Appendix_Limits.htm</a></p>
------------	--	---	---



<p>22.</p>	<p>Storage redundancy and elasticity</p>	<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 checked="" type="checkbox"/> Storage traffic isolation, please specify: _____ _____</li> <li><input checked="" type="checkbox"/> Shared or dedicated storage network bandwidth, please specify: _____ _____</li> <li><input checked="" type="checkbox"/> Quality of service storage traffic control services _____ _____</li> <li><input checked="" 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> <li><input checked="" type="checkbox"/> Maximum expandable storage, please specify: _____ _____ _____</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>Please visit the following links to understand the various storage options available on the AWS platform.</p> <p>Usage, SLA, performance, and scalability vary based on the storage options that customer choose.</p> <p><a href="https://aws.amazon.com/ebs">https://aws.amazon.com/ebs</a></p> <p><a href="https://aws.amazon.com/s3">https://aws.amazon.com/s3</a></p> <p><a href="https://aws.amazon.com/glacier">https://aws.amazon.com/glacier</a></p> <p><a href="https://aws.amazon.com/importexport/">https://aws.amazon.com/importexport/</a></p> <p><a href="https://aws.amazon.com/storagegateway/">https://aws.amazon.com/storagegateway/</a></p> <p>To read more about how AWS isolates customer storage traffic, please visit the following link:</p> <p><a href="http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Subnets.html">http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Subnets.html</a></p>
------------	--	--	--