



## Cloud service provider 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>Clearmanage Pte Ltd</u> Primary address: <u>29 Tai Seng Street, #04-05,</u> <u>Jackson Design Hub, Singapore 534120</u> Web address: <u>www.clearmanage.com</u> Contact name: <u>Alex Ng</u> Contact number: <u>+65 6635 6182</u> Contact email: <u>info@clearmanage.com</u>

Certification Body Contact Information
Company name: <u>Certification International (Singapore) Pte Ltd</u> Web address: <u>http://www.cert-ints.com.sg/</u> Contact name: <u>Mr Bhavesh Kumar</u> Contact email: <u>bhavesh@cert-ints.com.sg</u>

Cloud Service Provider Background
Overview of service offering: Provision of services using SaaS and IaaS model for cloud services including software, application, cloud infrastructure and cloud hosting for private, hybrid and public cloud service for government and enterprises. <input type="checkbox"/> Virtual machine instances owned by the user <input checked="" type="checkbox"/> Network facilities <input checked="" type="checkbox"/> Compliance with applicable standards Deployment model: <input checked="" type="checkbox"/> Private cloud <input checked="" type="checkbox"/> Community cloud <input checked="" type="checkbox"/> Hybrid cloud <input checked="" type="checkbox"/> Public cloud Tier: <input checked="" type="checkbox"/> Level 1 <input checked="" type="checkbox"/> Level 2 <input checked="" type="checkbox"/> Level 3

No.	Criteria	Description	Remarks
Legal and Compliance			
1.	Right to audit	<p>The user has the right to audit:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Virtual machine instances owned by the user</li> <li><input checked="" type="checkbox"/> Network facilities</li> <li><input checked="" type="checkbox"/> Compliance with applicable standards</li> <li><input checked="" type="checkbox"/> Technical controls</li> <li><input checked="" type="checkbox"/> Policies and governance</li> <li><input checked="" 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 user</li> <li><input checked="" type="checkbox"/> Network facilities</li> <li><input checked="" type="checkbox"/> Compliance with applicable standards</li> <li><input checked="" type="checkbox"/> Technical controls</li> <li><input checked="" type="checkbox"/> Policies and governance</li> <li><input checked="" type="checkbox"/> Data centre facilities</li> <li><input type="checkbox"/> Others _____</li> <li><input type="checkbox"/> None</li> </ul> <p>Audit / assessment reports that can be made available on request:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Penetration test</li> <li><input checked="" type="checkbox"/> Threat and vulnerability risk assessment</li> <li><input checked="" type="checkbox"/> Vulnerability scan</li> <li><input checked="" type="checkbox"/> Audit reports (e.g. Statement on Standards for Attestation Engagements (SSAE) No. 16, Reporting on Controls at a Service Organisation)</li> </ul>	<p>With cost</p> <p>Under some circumstances e.g. legal requirements or for tender compliance</p> <p>Due to the sensitivity of such reports only available when there is strong justification, criminal investigation and having direct impact to the specific customer.</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> </ul>	<p>Only pertaining to protection of the cloud infrastructure</p>

		<input type="checkbox"/> ISO 9000 <input type="checkbox"/> ISO / IEC 20000 <input checked="" type="checkbox"/> CSA Open Certification Framework <input type="checkbox"/> PCI-DSS <input checked="" type="checkbox"/> Others SS 584 : 2013 Tier 3 for IaaS, Tier 1 for IaaS and SaaS	in which customer personal data will reside on.
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> <input checked="" type="checkbox"/> Advertising or marketing <input checked="" type="checkbox"/> Statistics analysis on usage <input type="checkbox"/> Others _____	
4.	Data retention	<p>Data deleted by the user is retained as follows:</p> <input checked="" type="checkbox"/> Minimum data retention period is: <u>daily, 2 days retention</u> <input checked="" type="checkbox"/> Maximum data retention period is: <u>weekly</u> <input type="checkbox"/> Deleted immediately <p>Log data is retained for a period of:</p> <input checked="" type="checkbox"/> Minimum data retention period as follows: <u>3 months</u> <input checked="" type="checkbox"/> Maximum data retention period is: <u>12 months</u> <input type="checkbox"/> Not retained <p>User data is retained for a period of:</p> <input checked="" type="checkbox"/> Minimum data retention period is: <u>daily, 2 days retention</u> <input checked="" type="checkbox"/> Maximum data retention period is: <u>weekly</u> <input type="checkbox"/> Deleted immediately <p>The following types of data are available for download by the cloud user:</p> <input type="checkbox"/> Log data <input type="checkbox"/> Other _____	<p>Information is based on CSP backup policy, customer can opt for longer retention period and define backup policy</p> <p>Only applicable to cloud infrastructure log data only</p> <p>Information is based on CSP backup policy, customer can opt for longer retention period and define backup policy</p>
5.	Data sovereignty	<p>The primary data locations are:</p> <input checked="" type="checkbox"/> Singapore	

		<p> <input type="checkbox"/> Asia Pacific _____  <input type="checkbox"/> Europe _____  <input type="checkbox"/> United States  <input type="checkbox"/> Other _____ </p> <p>The backup data locations are:</p> <p> <input checked="" type="checkbox"/> Singapore  <input type="checkbox"/> Asia Pacific _____  <input type="checkbox"/> Europe _____  <input type="checkbox"/> United States  <input type="checkbox"/> Other _____ </p> <p>No. of countries in which data centres are operated: ____1____</p> <p>The user's data stored in the cloud environment will never leave the locations specified in item 5:</p> <p> <input checked="" type="checkbox"/> Yes  <input type="checkbox"/> Yes, except as required by law  <input type="checkbox"/> Yes, except as noted: _____  <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 checked="" type="checkbox"/> Yes  <input type="checkbox"/> Yes, except as required by law  <input type="checkbox"/> Yes, except as noted: _____  <input type="checkbox"/> No </p> <p><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></p>	
6.	Non-disclosure	<input checked="" type="checkbox"/> Non-disclosure agreement template can be provided by Cloud Service Provider <input checked="" type="checkbox"/> Cloud Service Provider may use customer's NDA (pending legal	

		review)	
Provider Performance			
7.	Availability	<p>The committed network uptime is:</p> <p><input type="checkbox"/> _____%</p> <p><input checked="" type="checkbox"/> Varies according to price plan</p> <p>The committed system uptime is:</p> <p><input type="checkbox"/> _____%</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>The infrastructure and software services are capable of supporting up to 99.9% SLA requirements for network and systems.</p>
8.	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"/> User 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 _____ 24 hour _____</p> <p><input checked="" type="checkbox"/> RTO _____ 40 mins _____</p> <p><input checked="" type="checkbox"/> Others, please specify: <u>User selectable DR service</u></p> <p>_____</p>	
9.	Liability	<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: <u>based on SLA terms</u></p> <p><input checked="" type="checkbox"/> Infrastructure failure</p> <p>Liability: <u>based on SLA terms</u></p> <p><input checked="" type="checkbox"/> Virtual machine instance failure</p> <p>Liability: <u>based on SLA terms</u></p> <p><input checked="" type="checkbox"/> Migrations</p> <p>Liability: <u>based on SLA terms</u></p>	

		<input checked="" type="checkbox"/> Unscheduled downtime Liability <u>based on SLA terms</u> <input type="checkbox"/> Database failure Liability: _____ <input checked="" type="checkbox"/> Monitoring failure Liability: <u>based on SLA terms</u>	
Service Support			
10.	Change management	The Cloud Service Provider has established the following for changes, migrations, downtime, and other potential interruptions to cloud services: <input checked="" type="checkbox"/> Communication plan and procedures for proactive notification <input checked="" type="checkbox"/> Assistance in migration to new services when legacy solutions are discontinued <input checked="" type="checkbox"/> Ability to remain on old versions for a defined time period <input checked="" type="checkbox"/> Ability to choose timing of impact	
11.	Self-service provisioning and management portal	Provide self-service provisioning and management portal for users to manage cloud services: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe the functions of the self-service provisioning and management portal provided: <input type="checkbox"/> Allow role-based access control (RBAC) <input type="checkbox"/> Manage resource pools (e.g. VMs, storage, and network) and service templates <input type="checkbox"/> Track and manage the lifecycle of each service <input type="checkbox"/> Track consumption of services <input type="checkbox"/> Others: _____ _____	
12.	Incident and problem management	Delivery mode of support: <input checked="" type="checkbox"/> Access via email <input 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 type="checkbox"/> During office hours support, please specify the hours of operations: _____ <input type="checkbox"/> After office hours support, please specify the hours of operations: _____ Service response time: <u>within 4-8 hours</u> The following are available to users upon request: <input type="checkbox"/> Permanent access to audit records of customer instances <input checked="" type="checkbox"/> Incident management assistance Incident response time: Within <u>2 hrs for P1 Incident</u> Mean time to repair on detection of faults: <u>2 hrs for P1 Incident</u>	Only for premium or selected services.
13.	Billing	The following billing modes are available (please elaborate granularity of charges and measurement): <input checked="" type="checkbox"/> Pay per usage _____ (up to per min/hour/day/month for compute/storage for IaaS/PaaS, and per user per hour/day/month/year for SaaS) <input checked="" type="checkbox"/> Fixed pricing _____ (up to yearly/monthly/daily) <input checked="" type="checkbox"/> Other pricing model <u>Partnership model with ISV</u> <input type="checkbox"/> Not disclosed <input type="checkbox"/> Available billing history: _____ Months	
14.	Data portability	Importable VM formats: <u>OVF</u> _____ Downloadable formats: <u>OVF</u> _____ Supported operating systems: <u>Windows, linux</u> _____ Language versions of supported operating systems: <u>English</u> _____ Supported database formats: <u>SQL, CSV</u> _____ API: <input type="checkbox"/> Common _____ <input type="checkbox"/> Customised _____	

		<p>Upon service termination, data is available through:</p> <p><input checked="" type="checkbox"/> Physical media</p> <p><input type="checkbox"/> Standard methods as described above</p> <p><input type="checkbox"/> Other methods _____</p> <p>_____</p>	Media to be provided by client
15.	Access	<p>Type of access to the service is through:</p> <p><input checked="" type="checkbox"/> Public access</p> <p><input checked="" type="checkbox"/> Private access (e.g. VPN, dedicated link)</p> <p><input checked="" type="checkbox"/> IPv6 access is supported</p> <p><input type="checkbox"/> Other access methods _____</p> <p>Public access speed (shared bandwidth) in Mbps:</p> <p>_____</p>	VPN + 2FA required
16.	User management	<p><input checked="" type="checkbox"/> Identity management</p> <p><input checked="" type="checkbox"/> Role based access control</p> <p><input type="checkbox"/> Federated access model</p> <p><input type="checkbox"/> Integration with Identity management solutions</p> <p><input type="checkbox"/> Others _____</p>	
17.	Lifecycle	<p>The cloud user may select the following for service upgrades and changes:</p> <p><input type="checkbox"/> Automatic provisioning</p> <p><input checked="" type="checkbox"/> User customisable provisioning</p>	Thru service requests for infrastructure components
Security Configurations			
18.	Security configuration enforcement checks	<p>Security configuration enforcement checks are performed:</p> <p><input checked="" type="checkbox"/> Manually</p> <p><input checked="" type="checkbox"/> Using automated tools</p> <p>How often are enforcement checks being performed to ensure all security configurations are applied?</p> <p>___Daily___</p>	
19.	Multi-tenancy	<p><input checked="" type="checkbox"/> Distinct physical hosts</p> <p><input checked="" type="checkbox"/> Distinct physical network infrastructure</p>	Only for private cloud customer



		<input checked="" type="checkbox"/> Virtual instance grouping <input type="checkbox"/> User definable security domains <input checked="" type="checkbox"/> User customisable firewall <input type="checkbox"/> User definable access policies	Only when client opt for dedicated vFirewall
Service Elasticity			
20.	Capacity elasticity	<p>The following capacity elasticity options are available:</p> <input type="checkbox"/> Programmatic interface to scale up or down <input type="checkbox"/> Mean time to start and end new virtual instances _____ <input checked="" type="checkbox"/> Alerts to be sent for unusual high usage <input type="checkbox"/> Minimum performance during peak periods _____ <input type="checkbox"/> Minimum duration to scale up computing resources _____ <input checked="" type="checkbox"/> Minimum additional capacity guaranteed per account <u>10% or 20%</u> (number of cores and GB memory)	With cost involved
21.	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 checked="" type="checkbox"/> Selectable bandwidth up to _____ Mbps <input checked="" type="checkbox"/> Maximum usable IPs _____ <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: <ul style="list-style-type: none"> <li>- <u>2-3 tiers of firewall</u></li> <li>- <u>Network IPS</u></li> <li>- <u>Host IPS</u></li> <li>- <u>IDA CWC</u></li> <li>- <u>24x7 security monitoring</u></li> <li>- <u>APT detection</u></li> <li>- <u>Breach detection and prevention</u></li> <li>- <u>Information leakage and defacement detection and prevention</u></li> <li>- <u>Inbound and outbound security</u></li> <li>- <u>Virtual patching</u></li> <li>- <u>Web application firewall</u></li> <li>- <u>Anti Malware</u></li> <li>- <u>Log monitoring</u></li> <li>- <u>File Integrity</u></li> <li>- <u>Web &amp; File Reputation</u></li> </ul>	Depends on customers' requirements

		<p>- <u>Software/application inventory monitoring</u></p> <hr/> <p><input checked="" type="checkbox"/> Network traffic isolation, please specify: <u>Isolated Customer Zones via VLAN and VRF</u></p> <hr/> <p><input checked="" type="checkbox"/> Shared or dedicated bandwidth, please specify: _____ <u>Base on customers' requirement</u></p> <p><input type="checkbox"/> QoS traffic control services</p> <p><input checked="" type="checkbox"/> Alerts to be sent for unusual high usage</p> <p><input type="checkbox"/> Minimum performance during peak periods _____</p> <p><input checked="" type="checkbox"/> Minimum period to scale up network throughput <u>1 working day.</u></p>	
22.	Storage redundancy and elasticity	<p>The following storage redundancy and elasticity options are available:</p> <p><input checked="" type="checkbox"/> Redundant storage connectivity links within each data centre</p> <p><input type="checkbox"/> Redundant storage connectivity links between data centres belonging to the same cloud</p> <p><input checked="" type="checkbox"/> Storage traffic isolation, please specify: <u>Dedicated Storage Private Network</u></p> <hr/> <p><input checked="" type="checkbox"/> Shared or dedicated storage network bandwidth, please specify: <u>Dedicated Storage Private Network</u></p> <hr/> <p><input type="checkbox"/> Quality of service storage traffic control services</p> <p><input type="checkbox"/> Maximum storage capacity for entire cloud, please specify: _____</p> <p><input type="checkbox"/> Maximum storage capacity for single user, please specify: _____</p> <p><input type="checkbox"/> Maximum expandable storage, please specify: _____</p> <p><input checked="" type="checkbox"/> Alerts to be sent for unusual high usage</p> <p><input type="checkbox"/> Minimum storage I / O performance during peak periods _____</p> <p><input type="checkbox"/> Minimum period to scale up storage I / O throughput _____</p>	Customizable based on customers' requirements