swisscom

Service Description

Enterprise Service Cloud

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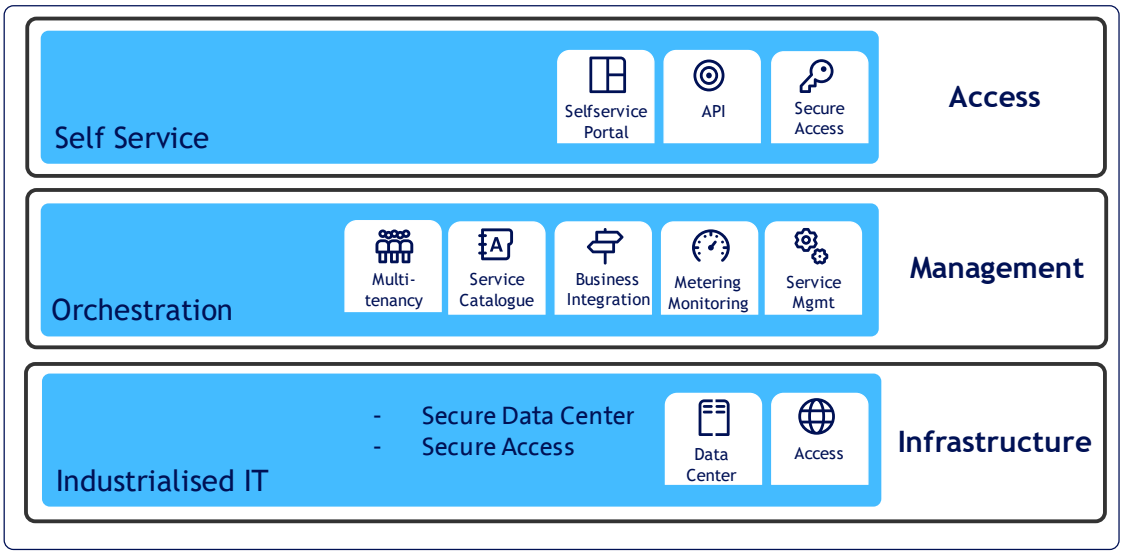
1 Service Overview

The Enterprise Service Cloud includes a platform making the Infrastructure as a Service (IaaS) model available for a wide range of applications.

Functional overview



Access

After the initial activation (onboarding) by Swisscom, the customer can manage and administer the Enterprise Service Cloud Services using self-service functionalities. The customer has access via a graphical user interface (UI) as well as an application programming interface (API). The authentication and authorization of cloud users is carried out via the connection to the customer's identity management system. To ensure a higher level of security, all Enterprise Service Cloud customers have access to the UI and API exclusively via a secure "Virtual Private Network Connection" (MPLS).

Management

The Enterprise Service Cloud architecture provides a multi-tenant platform. The consistently implemented logical separation of individual clients enables the secure operation of customer workloads on the shared underlying physical infrastructure. This ensures that direct cross-client data access can be excluded at any time.

The structured service catalogue offers the customer the simple possibility to parameterize and order IaaS services according to his needs. An ordered service is provided standardized and fully automated within minutes. The scope of the service refers to the main categories virtual servers, load balancers and networks. Instantiated services can be easily adapted at a later moment. For example, more computing power can be added to a virtual server.

Business Integration allows the integration of supplementary customer systems (e.g. a CMDB or a Service Management System). So-called hooks can be used to achieve further individualization and control of cloud workflows.

The platform is monitored 24 hours a day and appropriate alarms are triggered in the event of an error. The agreed availability is guaranteed by an integration into the Incident Management System and, if necessary, the involvement of the support organization.

Infrastructure

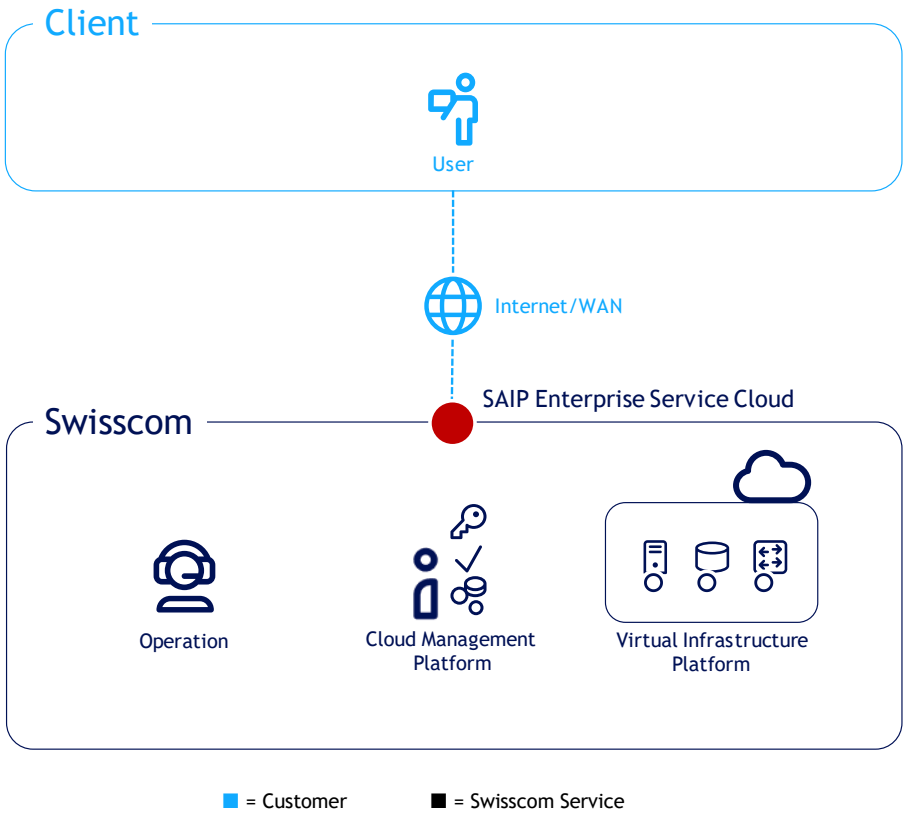
The service is operated on high-performance and scalable resources in Swisscom's secure data centers located in Switzerland[1]. The customer has the option of choosing whether the service is to be provided in a Gold (built to Tier 3 standard) or a Platinum (built to Tier 4 standard) data centre. The option of accessing the customer workload via virtual private networks (VPN via MPLS) additionally increases security.

2 Definitions

2.1 Service Access Interface Point (SAIP)

The Service Access Interface Point (SAIP) is the contractually agreed, geographical and/or logical point at which a service is delivered to the service user and at which a service is monitored. Additionally, it is also where the provided service levels are documented.

The following schematic diagrams are shown to illustrate the services and service components that determine the Enterprise Service Cloud Service:



[1] Some services have specific data centre location requirements, please refer to the relevant service descriptions for each service.

2.2 Service-specific definitions

Definitions and abbreviations are set out in the document entitled Swisscom Service Glossary. The following service-specific terms are used in this document.

Term	Explanation
Service Class Advanced	Suitable for business-critical applications. For the advanced service class, the variants are given priority in being put back into operation at an alternative data centre in the event of a disaster.
Service Class Basic	Suitable for development environments and non-critical applications. The basic service class is operated at a single data centre location (DC1, DC2, DC3 or DC4).
Service Class Standard	The use of the service class standard enables functions such as high availability and maximized performance for business applications. The computing capacity is retained redundantly. The standard service class is operated at a single data centre location (DC1, DC2, DC3 or DC4).
Tenant	A tenant represents an organizational and - with regard to data storage - separate unit within the Enterprise Service Cloud.

3 Service variants and options

Variants	Enterprise Service Cloud
Shared infrastructure platform	●
Multitenancy	●
Service Features Catalogue	●
Business Integration	●
Self Service Portal	●
Identity & Access	●
API Access	●
Audit & Log	●
Log Metering and Monitoring	●
Assurance Reports	○
Customer Business Orchestration	●
Options	
Data Centre Gold (Tier III standard)	●
Data Centre Platinum (Tier IV standard)	○
Licenses	
The license regulations for the Enterprise Service Cloud are described in chapter 4 of this document.	●

● = Standard (included in the price) ○ = For an additional fee

All service features and applications for the Enterprise Service Cloud are described in the separate document "Catalogue of services".

3.1 Definition of service specifications and options

Specification	Definition
Shared infrastructure platform	The Enterprise Service Cloud is based on a shared infrastructure. With tenant services, Swisscom can logically separate the shared infrastructure providing high level of security.
Multitenancy	The Cloud Platform and the Cloud Management is multitenancy aware. This means tenants do share resources but never data. Tenants are mapped hierarchically.
Service Features Catalogue	Different catalogues and service features are offered to the customer. The catalogues are entitled to roles and users. Customer can modify the catalogues upon their need. The role model defines who can see and use which catalogue. Customer can also create their own catalogue or modify entries in existing catalogues and make their own catalogue available to others.
Business Integration	Customer specific business processes can be integrated into the workflows during provisioning and changing cloud services.
Self Service Portal	Administration of the ordered and provided resources via management tool.
Identity & Access	The Customer's user directory or Identity Provider (IdP) is connected to the Swisscom IAM system. This provides the Customer with user authentication and role-based access to the Cloud Management Portal and APIs. The connection is established using IAM protocols, SAML v2 or OpenID Connect OIDC.
API Access	The programming interface (API) can be used to modify the basic parameters of catalogue entries and save them in new products.
Audit & Log	All changes made within the Enterprise Service Cloud by the customer via self-service are logged and are available to the tenants (own data only).
Log Metering and Monitoring	A central log documenting consumption and monitoring data allows customer to check the various services and components of the cloud (e.g. the audit log saves all activities of the admin, user and guest roles).
Assurance Reports	Swisscom runs an internal control system for general IT controls and controls in the IT operating processes used for the Enterprise Service Cloud in the Platinum data centres (Zollikofen and Wankdorf), which is audited annually by an independent auditing company approved under the Swiss Audit Supervision Act in accordance with an internationally recognised auditing standard (currently ISAE 3402). The Assurance Report ISAE 3402 ESC can be requested at a charge. The Gold data centers are not covered by the Assurance Report.
Customer Business Orchestration	Customer can define a separate approval process for each asset type. This workflow runs on one of the customer's external components and is connected to the process in the Enterprise Service Cloud via call-back.

Options	
Data Centre Gold	The Data Centres Gold correspond to Tier III. They are reserved for customer workloads.
Data Centre Platinum	The Data Centres Platinum correspond to Tier IV. They are reserved for customer workloads and the cloud management.

The Customer must initially decide whether the workload should be operated at a gold or platinum data centre. Simultaneous use of gold and platinum data centres by a single cloud tenant is not supported. The choice of data centre has no impact on the available service classes. The service classes Basic, Standard and Advanced are available at both gold and platinum data centres.

3.2 Definition of licenses

All definition of licenses for the Enterprise Service Cloud are described in the separate document "Software License Guide".

4 Service provision and responsibilities

Non-recurring services

Activities (S = Swisscom/C = Customer)	S	C
Provisioning of services		
1. Service objects (e.g. server vCPU and server memory) are to be ordered via the Self Service Portal. The customer must stipulate the required service class and additional product options for each service object when placing an order.		✓
2. The services are provided on a hardware unit used by several customers (shared infrastructure). Despite the multiple usage of the hardware (vCPU, RAM) and software components (hypervisor software, management software), the processing power, storage capacity and network of the individual customer are logically separated from one another. Swisscom takes the appropriate technical measures (virtualisation of infrastructure) to ensure that a customer cannot see or access the data of another customer without receiving the relevant authorisation.	✓	
3. The Customer agrees with Swisscom on the IP address range that may be used for operation of the Customer's cloud workload as well as any customer-specific cloud management systems and hands this over to Swisscom for administration. The Customer must ensure that the IP addresses in this agreed range are available explicitly to Swisscom and are not used for any other purpose on the Customer side.		✓
4. The Customer provides the integration point of its Identity Provider (IdP) with its customer directory.		✓
5. Administration and configuration: Swisscom provides the customer access to the Self Service Portal for the administration of services. To ensure a higher level of security, all Enterprise Service Cloud customers have access to the UI and API exclusively via a secure "Virtual Private Network Connection" (MPLS). The Self Service Portal allows the customer to develop, configure and operate its own IT environments.	✓	
Other non-recurring activities		
1. Onboarding: The activation of services by Swisscom based on the details provided by the customer during the activation process. The activation process is implemented with Journey to the Cloud Services (see separate service description).	✓	
Termination of service		
1. The customer shall be responsible for the timely backing up of its data prior to the termination of the agreement. The customer must also release the resources in the Self Service Portal prior to this date. After releasing the resources, the customer data will no longer be available. Data deleted by customer cannot be retrieved by Swisscom.		✓

Recurring services

Activities (S = Swisscom/C = Customer)	S	C
Standard services		
1. The platforms (IT infrastructure, network connection, virtualisation platform and Self Service Portal) are monitored on an ongoing basis (24/7 monitoring). The data centres and Enterprise Service Cloud platform operated and monitored by Swisscom are within the scope of the following certifications: ISO 9001, ISO 14001, ISO/IEC 20000, ISO/IEC 27001.	✓	
2. In order to carry out its operational duties, Swisscom may give external partners restricted access to the areas of the platform essential for operation. Swisscom takes the necessary technical, organisational and contractual measures to prevent the risk of unauthorised access to the data processed and stored by the Customer.	✓	

Activities (S = Swisscom/C = Customer)	S	C
3. Swisscom provides the customer with support services for the rectification of faults as well as in connection with the configuration and use of services. If the support service is not linked to a fault caused by Swisscom or if the customer requires special configuration support, the support service will be billed to the customer. If the fault does not affect the Enterprise Service Cloud Services (e.g. server outage at customer), Swisscom can refer the customer to an IT partner for further support. The costs for this on-site support are borne by the customer. If it is necessary for a fault to be rectified, the customer will, to the extent possible, actively participate in the analysis of the error. The customer is responsible for notifying users of faults.	✓	
4. The administration and configuration of the service is performed independently by the customer using the Self Service Portal or APIs.		✓
5. The customer is responsible for the accuracy and completeness of its data. The customer has also to perform the safe use of information and password access. The customer ensures that confidential information such as user identifications, passwords and keys are not made accessible to unauthorised third parties.		✓
6. The customer is responsible for the design, implementation, commissioning, decommissioning and migration of customer solutions (including configurations, network topologies, virtual machines, operating systems, middleware, applications).		✓
7. The customer is obligated to comply with applicable laws, rules and regulations relating to the management and administration of electronic data. The customer is responsible for the content of all data that is processed and saved using Enterprise Service Cloud. Illegal or objectionable contents as well as contents that lead to the distress or personal harassment of third parties are forbidden. Swisscom is authorised to immediately isolate virtual servers and/or storage areas of customer that deem, at its own discretion, to breach this requirement. It is also permitted to urge legally and contractually compliant used by customer/terminate agreements without notice and compensation and/or, where applicable, demand compensation for damage.		✓
8. The data is stored encrypted on the storage media (encryption "at rest"). Swisscom is responsible for key management. Further encryption mechanisms at VM level or virtual networks between VMs are the responsibility of the customer.		✓
9. The customer is responsible to perform for the complete operation (incl. maintenance, monitoring, patching, support) of its customer solution from and including the operating system level. This includes the required middleware, databases and applications. The customer is also responsible for the implementation and operation of corresponding security measures such as anti-virus software and firewall configurations. The customer should perform for backing up any application data (databases, etc.), as well as all matters relating to connectivity (e.g. domain names, DNS, SMTP).		✓
10. The customer provides Swisscom with a commercial and technical contact person. These contact persons maintain contact with Swisscom and represent the customer in accordance with the defined role (orders, configuration, operation and support). The customer informs Swisscom in advance of any extraordinary activities on its part such as load tests or hacking.		✓
11. The services require a network connection on the customer site with a sufficiently high bandwidth for the transmission of data. The required bandwidth depends on the customer solution. The cloud management components may be accessed only via a secure MPLS network connection.		✓
12. Swisscom has no influence on the quality, availability and safety of third-party services used by the customer (e.g. third-party networks, other cloud providers, software). Swisscom accepts no responsibility in this regard.		✓

Licenses

Provisioning obligations (S = Swisscom/C = Customer)	S	C
Provision of software licences		
1. Procurement of Microsoft and Linux operating system software via the Service Provider Licence Agreement.	✓	
2. The operating system is licensed by Swisscom for all Windows and Linux Red Hat instances operated in the cloud and billed to the customer accordingly. Two major releases per operating system variant are available in the Swisscom Standard Template Catalogue. The Customer's own Windows licences cannot be taken into consideration. A licence can be provided for Linux instances, which are based on the customer's own templates. It is the Customer's responsibility to ensure correct licensing and reporting in accordance with the specifications of the software manufacturer and to inform Swisscom of the provision of the respective instances. (See User Guide for details). Furthermore, the Customer bears full responsibility for correctly licensing additionally installed software components on VM instances.	✓	
3. Swisscom makes templates (blueprints) available in its Standard Service Catalogue, which can contain additional software components (e.g. Microsoft SQL Server). The respective templates show whether the Customer can provide a licence for the additional software components. If a licence is provided by the Customer, the Customer is responsible for correct licensing. (Also see Section 7.1). Licences provided by the Provider may only be used during the term of the Enterprise Service Cloud contract (the licencing terms and conditions of the respective manufacturer shall apply). Local or other installations (e.g. end-user devices or servers on the Customer's premises) are prohibited.		✓
4. Responsibility for ensuring the correct licensing of all software installed on the virtual servers (with the exception of the operating system licences for Windows or Linux as well as licences within the service templates) lies entirely with the Customer. The same applies to any maintenance fees that may arise. The applicable licence provisions of the respective manufacturer and software provider must be adhered to.		✓
5. Providing support to Swisscom during all license audits carried by the software manufacturer and making the required information available in a timely manner and free of charge. The customer must indemnify Swisscom for any use of the licence that breaches the agreement.		✓
6. No direct support for customer managed server for all operating system available through Swisscom.		✓

5 Service Level and Service Level Reporting

5.1 Service Level

The following service levels generally relate to the agreed Support Time. Definitions of terms (Operation Time, Support Time, Availability, Security and Continuity) and the description of the measurement method used and reporting are based on the other contract elements (i.e. "SLA Definitions").

The following service levels are available. If several service levels are possible for each variant, the service level is specified in the service contract.

Service level and target values			Enterprise Service Cloud Basic	Standard	Advanced
Operation Time					
Operation Time	Mo-Su	00:00-24:00		●	
Provider Maintenance Window	PMW-DC	Su 02:00-12:00 [2/3/4]		●	
	PMW-S	Weekly, Th 18:00-20:00 [5]			
Support Time					
Support Time	Mo-Fr	07:00-18:00	●	—	—
	Mo-Su	00:00-24:00	—	●	●
Fault Acceptance	Mo-Su	00:00-24:00	●	●	●
Availability					
Service Availability	99.9% -	Self Service Portal and cloud management portal	●	●	●
	99.5% -	Log Record Endpoint [6]	●	●	●
	99.5% -	Virtual Machine & Network	●	—	—
	99.9% -	Virtual Machine & Network	—	●	●
Security					
	Basic (ITSLB) [7]		●	●	●
Continuity [8]					
ICT Service Continuity (ICTSC) [9]	RTO Best Effort | RPO Best Effort		●	●	—
	RTO 4 h | RPO near 0 [10]		—	—	●

● = Standard ○ = For an additional fee — = not available

[2] The ESC maintenance work is performed on the specified dates for the Provider Maintenance Windows (Infrastructure and Connectivity) in the time window between Su 02:00 and 12:00.
[3] Access to cloud management components (UI and API) may be restricted or interrupted during the maintenance window.
[4] Usually no or only short interruptions to the customer workload. The customer is informed at least 28 days in advance about the type of interruptions and the planned duration if service interruptions occur to the customer workload due to planned maintenance work.
[5] Deployment window for new features. No impact on customer workload. One-time short interruption of up to 10 minutes on access to cloud management components (UI and API) possible.
[6] Security and audit-relevant information from log files to which the client has no direct access is forwarded to the log record endpoint (e.g. actions performed in the Cloud Portal by the Cloud user. Details on the log files that are forwarded are described in the Enterprise Service Cloud documentation). The provision of the log record endpoint must be initially ordered by the customer from Swisscom if it is to be used.
[7] ITSLB can be guaranteed for the cloud management components, but not for virtual servers managed by the Customer.
[8] ICT Service Continuity includes a regular IT Business Continuity Test of the platform and a generic instance of all products in the Advanced Service class. The customer instances are not tested. The test is carried out on the production line at least once a year. The customer instances can be secured by the ICT Business Continuity service. A customer-specific recovery plan for the solution is created and regularly subjected to a customer-specific ICT business continuity test in accordance with the agreed scope of services. The services for ICT Business Continuity are contractually regulated in addition to the scope of services of Enterprise Service Cloud.
[9] ICT Service Continuity for instantiated objects (e.g. VMs) requires that the customer has purchased the Backup option for the objects that need to be restored in the event of a disaster.
[10] To minimise data loss, a synchronously mirrored storage solution is used across two data centres. "RPO near 0" means that at the time of a disaster, ongoing storage actions could no longer be saved in the remote data centre.

5.2 Service Level Reporting

As part of the service, the customer receives the following standard service level reporting. Further reports can be provided for an additional charge with the advanced reporting service (subject to a feasibility study of the customer's requirements in advance).

Service Level Report		Enterprise Service Cloud All Service Classes	Reporting period
Availability	Availability of the service at the SAIP during the measurement period expressed as a %	●	monthly
Security	Customer notification in the event of security violations within Swisscom's provider infrastructure that cannot be corrected automatically.	●	In case of a breach of security

● = Standard

6 Billing and quantity report

6.1 Billing

Services are billed to the customer retroactively for the previous month. The values for the effectively used resources are calculated proportionately on an hourly basis and billed in accordance with the current price list.

6.2 Billing models

The effectively used resources are billed differently depending on the service object and resource procurement model. There are two resource procurement models (see 6.3), which differ in their handling of available and reserved resources. Product options like i.e. Server vCPU, server memory (RAM) or storage are all considered to be resources.

Price position [11]	Unit/period [12]	Billing for minimum usage [13]	Billing for maximum usage	Included volume
Data Centre Gold (Zurich and Olten)	All cloud capabilities/hour	1	unlimited	–
Data Centre Platinum (Bern and Zollikofen)	All cloud capabilities/hour	1	unlimited	–

6.3 Pay-as-you-go model

The resources ordered by the Customer via the self-service portal fall into two billing categories.

- "Running cost"-type product options:
  Product options that need only be provided for started assets. If an asset is stopped, the provider can immediately use it for other purposes.
  The following product options are categorised under "running costs": vCPU, memory, load balancers (T-shirt sizes), operating system licences, MS SQL licences, uplink topologies [14]
- "Non-running cost"-type product options:
  Product options provided by Swisscom independently of the operational status (stopped or started) of an asset (e.g. a virtual server) and which must be reserved in a fixed manner throughout the entire life cycle of the asset (e.g. storage). These product options are billed immediately after provision of the asset. Billing stops once the relevant asset has been deleted.
  All product options not listed under "running costs" are categorised as "non-running costs"

[11] During tenant onboarding, it is determined whether resources can be obtained in the Gold or Platinum data center. A tenant cannot simultaneously obtain resources from the Gold and Platinum data centres
[12] Please refer to the Catalogue of services for compute, network, database etc.
[13] Depending on the service purchased (blueprint), a minimum purchase of more than one unit per product option (e.g. vCPU) may be required. The minimum quantity is shown in the portal when ordering the respective service (blueprint)
[14] The Customer must order or delete uplink topologies via a service request to Swisscom. Billing starts after the creation of the uplink topology and ends after deletion.

6.4 Quantity report

A report containing the following data and information on the services performed within the scope of the Enterprise Service Cloud services is provided along with the monthly bill. Additionally, Swisscom provides the following report in electronic format (raw format, e.g. CSV):

Quantity Report **Product services/options**	**Reporting information with bill**
Data Centre Gold (Zurich and Olten)	All cloud capabilities/hour
Data Centre Platinum (Bern and Zollikofen)	All cloud capabilities/hour

Unless included in the service, one-time services (service rollout/setup) are billed at cost on a project basis and accordingly billed only once.

7 Special provisions

7.1 Licences

If licences are supplied by the customer, the customer will be responsible for the correct licensing of the software used in accordance with the applicable licence agreement provisions and the terms and conditions of use of the respective manufacturer. In the event of any changes to the system landscape, software etc., the licensing situation must be reassessed. The resulting measures required on the customer's side regarding the correct licensing are to be implemented by the customer.

If licences are included as part of the Swisscom services, Swisscom is solely responsible for the correct licensing. These regulations also apply to open source software.

7.2 Lifecycle management

Swisscom reserves the right to upgrade the virtualisation infrastructure hardware and software on a quarterly basis in line with the current releases and versions. The system costs will be borne by Swisscom. Expenses such as for any modifications to customer applications and upgrades to customer software are charged to the customer.

Swisscom reserves the right to perform standard patching for all infrastructure systems during the maintenance window. If third-party products form part of the services provided by Swisscom, the customer shall also accept the pertinent terms and conditions of use and the license conditions. Swisscom shall be entitled to enforce these terms and conditions vis-à-vis the customer.

7.3 Data protection regulation

7.3.1 Data processing by third parties in Switzerland or abroad

The data transmitted to Swisscom by the Customer (customer data) within the scope of service provision shall be stored by Swisscom in Switzerland. Customer data is not directly accessed in the provision of Enterprise Service Cloud. VMs, and thus potentially customer data, are only directly accessed after the Customer requests and approves this as part of a service request. Employees of Swisscom or a third-party manufacturer commissioned by Swisscom (namely Dell/EMC and VMware) may need to access technical system data of the cloud management components and the cloud infrastructure. They might access this data from within Switzerland or abroad. Direct execution of critical instructions by third parties is prohibited and can only be authorised by Swisscom. There is 24/7 monitoring to identify any attempts to execute critical instructions. If an attempt is identified, an alert is triggered and log information is sent to the central log management system for reasons of traceability.

7.4 Miscellaneous

- Unless these tasks are explicitly transferred to Swisscom, the customer is responsible for the setup of the virtual servers and full operation (including maintenance, monitoring, patching, support, etc.) of customer solutions from and at the level of the operating system. This includes any middleware, databases and applications that may be required.
- End-to-end availability measurements and availability guarantees for applications and appliances are not included.
- Swisscom is entitled to move virtual machines between ESX hosts that are in the same VMware cluster in the event of faults or maintenance work.
- Liability: Swisscom shall accept no liability for:
  - Restricted availability due to inadequate measurement of Customer-configurable resources.
  - Outages for which the provider is not directly responsible, in particular external DNS routing problems, virtual attacks on the provider's network infrastructure (DoS/viruses) and outages experienced by parts of the Internet outside the control of the provider which lead to misinterpretations by the customer.
  - Outages for which the customer is at fault, in particular outages caused by incoming/outgoing hacker attacks (DoS) owing to erroneous or insufficient maintenance of the customer software.
  - Outages due to the systems not having been installed, operated and maintained in accordance with the guidelines of the manufacturer or Swisscom (e.g. virus protection service).
- Direct or limited access to hardware interfaces (e.g. serial ports, parallel ports, firewire connections, USB, CD/DVD-ROM (available virtualised) or disk drives) is not possible.
- Swisscom reserves the right to amend this service description on a unilateral basis at any time. Amendments that are necessary due to the service being extended or that do not negatively affect contractual use of the service by the Customer shall be announced as part of the release notes sent to all subscribers by e-mail. Where an amendment negatively affects contractual use of the service by the Customer (esp. if functionalities cease to be available), Swisscom shall inform the Customer about the details of the amendment and the date on which it will take effect at least six months in advance. In this case, both parties agree to seek an amicable solution to the consequences of such amendment, and to do so in good faith. If the parties fail to come to an agreement regarding the consequences of the contractual modification, the Customer shall be granted the right to terminate the relevant service contract in writing with effect from the date on which the amendment is set to take effect, subject to two weeks' notice. No further claims may be made by the Customer.