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OVH

Service Organization Controls (SOCSM) 3 Report-Type II On OVH's Description of its Private Cloud System on the Suitability of the Design and Operating Effectiveness of its Controls Relevant to Security, Confidentiality, Availability and Privacy.

Period from December 1^{st,} 2016 to November 30^{th,} 2017



- 2018-06-30 - Confidential OVH Service Organization Controls (SOCSM) 3 Report-Type II Period from December 1st, 2016 to November 30th, 2017

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SECTION I

Independent Service Auditor's Report

provided by KPMG

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OVH



Independent Service Auditor's Report

To the Board of Directors of

OVH Groupe SAS, Roubaix, France -hereinafter also referred to as "OVH" or "Company"-

We have examined management's assertion that during the period December 1st, 2016 to November 30th, 2017, OVH Group SAS ("Service Entity") maintained effective controls over the Private Cloud Services System to provide reasonable assurance on the suitability of the design and operating effectiveness of controls to meet the criteria for the security principle set forth in TSP section 100, *Trust Services Principles, Criteria, and Illustrations for Security, Availability, Processing Integrity, Confidentiality, and Privacy issued by the American Institute of Certified Public Accountants and the Chartered Professional Accountants of Canada (applicable trust services criteria).*

OVH's management is responsible for this assertion. Our responsibility is to express an opinion based on our examination. Management's description of the aspects of the OVH Private Cloud Services System covered by its assertion is attached. We did not examine this description, and accordingly, we do not express an opinion on it.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants, CPA Canada and, accordingly, included

(1) Obtaining an understanding of OVH's relevant controls over the security of the Private Cloud Services System;(2) Testing and evaluating the operating effectiveness of the controls; and

(3) Performing such other procedures as we considered necessary in the circumstances. We believe that our examination provides a reasonable basis for our opinion.

Because of the nature and inherent limitations of controls, OVH's ability to meet the aforementioned criteria maybe affected. For example, controls may not prevent or detect and correct error or fraud, unauthorized access to systems and information, or failure to comply with internal and external policies or requirements. Also, the projection of any conclusions based on our findings to future periods is subject to the risk that changes may alter the validity of such conclusions.

In our opinion, management's assertion referred to above is fairly stated, in all material respects, based on the AICPA and CPA Canada trust services security criteria.

Paris, January 25th, 2018

KPMG S.A.

Laurent Gobbi

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Adel Bourenane Partner, IT Advisory

Partner, IT Advisory, Commissaire aux Comptes, Expert-Comptable (French Certified Public Accountant)





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Description of controls provided by OVH

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Service Organization Controls (SOCSM) 3 Report-Type II Period from December 1st, 2016 to November 30th, 2017

OVH

1. Management Assertion



The management of OVH Groupe SAS ("OVH") makes the following assertion pertaining to the Private Cloud Services:

OVH maintained effective controls over the Private Cloud Services system, during the period December 1st, 2016 to November 30th, 2017, in Montreal and France Data Centers delivering the service, based on the AICPA and CPA Canada Trust Services security, criteria set forth in TSP section 100, Trust Services Principles, Criteria, and Illustrations for Security, Availability, Processing Integrity, Confidentiality, and Privacy (AICPA, Technical Practice Aids) to provide reasonable assurance on the suitability of the design and operating effectiveness of controls. The attached description of the Private Cloud Services System identifies those aspects of the system covered by our assertion.

OVH Groupe SAS Miroslaw klaba Chief Executive Officer January 25th, 2018

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SAS au capital de 10069020 € − RCS LILLE-METROPOLE 424761419 − Code APE 26202 N° TVA : FR 22424761419 − Siège social : 2 rue Kellermann - 59100 ROUBAIX - FRANCE - TrisotechServicesConseilsenInformatiqueInc - 2018-06-30 - Confidential



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OVH

2. Company overview

2.1. Historical background and international expansion

The origins of OVH.com date back to 1999 when Octave Klaba, then a recent IT graduate from a leading French engineering school (ICAM Lille) acquired his first Server to host his own personal website. He quickly noticed the lack of any affordable webhosting solution for individuals and small businesses. By word of mouth, he received a growing demand from friends and other individuals to host their websites, so he decided to purchase additional units to meet this demand.

Octave and his family, all engineers, quickly understood the huge potential behind the idea and joined forces to develop the business. In 2003, the family embarked upon the design, assembly and commercialization of their own Servers and established first a Datacenter in Paris. At that time OVH.com engineered a unique and groundbreaking Watercooling system for Servers, now a proprietary technology providing OVH.com, with a distinct competitive advantage over its competitors, in terms of energy consumption and costs, a major expense for Datacenter operators.

The savings gained from vertical integration of Server production and the many innovations including Watercooling allowed OVH.com to offer a highly competitive value proposition for hosting solutions (little more than half the price of competitors at the time) combined with excellent levels of reliability and performance.





Since the first datacenter opened in Paris in 2003, OVH hasn't stopped innovating regarding the design, the deployment and the maintenance of its server. The company now counts a total of 27 datacenters around the globe, including 2 among the biggest in the world.

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OVH datacenters offer similar services with a minimum geographical distance of 200km between them to ensure redundancy and a continuity of service.

In 2004, OVH opened the first European subsidiaries in Poland and Spain. The same year, OVH kit out every Servers with water cooling.

In 2005, the company began to feel constrained by the relatively small Paris Datacenter that hosted its



servers and decided to move its headquarters to Roubaix called Roubaix Valley where the first self-designed Datacenter was built (RBX 1).

The Roubaix site continued to expand year after year to support OVH growth. Roubaix is now composed of seven

modern datacenters built with incremental technologies driven by the group's large investment in R&D over the years. The Roubaix 4 and 5 datacenters were built in 2011 and 2012 using an along with cutting-edge proprietary eco-room technology which allows the sites to operate in optimal condition with no recourse to any kind of active air conditioning.

In 2018, with the opening of the seventh datacenter in Roubaix (RBX7), Roubaix's datacenters host more than 170,000 servers along with their backups, infrastructures and the necessary systems to ensure the reliability, security and redundancy of Data stored, as well as best in class transmission speeds.

In 2006, OVH opened a new European subsidiary in Germany. At the same time, the company deployed its network infrastructure and managed to join up Paris and Roubaix with optic fiber. With





this network, OVH went from strength to strength and would shortly after have a unique infrastructure throughout the world: a connection on 33 points of presence, 3,000 Gbps bandwidth in Europe and eventually 8,000 Gbps in North America.

In 2007, OVH developed a new concept of EcoRooms. The air-conditioning units were replaced by a natural ventilation system that, thanks to hot and cold airflow, ensured that temperatures were regulated. This concept complemented the watercooling to participate in energy saving.

In 2008, OVH extended its deployment with the opening of two new subsidiaries in Italy and United Kingdom. At the same time, OVH launch VOIP telecommunication services.

In 2009, five new subsidiaries were created in Ireland, Holland, Lithuania, Finland and Czech Republic. OVH was present in 12 countries.

In 2010, 10 million euros was invested to launch the Private Cloud.

In 2011, OVH became the number one hosting provider in Europe. The same year, the company launched the public cloud offer and won the VMware vCloud Service Provider award for the Private Cloud offer.

By 2012, the company hosted more than 150,000 servers. The time had come for OVH to conquer America, with a highly ambitious project which was to build the largest datacenter in the world named BHS (Beauharnois, Canada). This first datacenters in Canada completed by a second datacenters 2014. These of 400 000 (BHS-2) in Datacenters have а capacity Servers

In 2013, OVH reached a symbolic milestone by passing the threshold of 150,000 hosted servers in its datacenters.

The same year, OVH launched GRA1 and GRA2, the largest datacenters in Europe, with a record capacity of 300,000 to 500,000 servers.

In 2014, OVH is turning 15 and, to celebrate, has revealed its new logo and slogan. The group has now 17 datacenters, manages 180,000 servers and more than 800 employees.

In 2015, OVH obtained the SOC 1 type I (SSAE 16 and ISAE 3402) and SOC 2 type I attestations for the Private Cloud offer.

In 2016, OVH launched the bug bounty program who helps to explore computer vulnerabilities. At the same time, OVH established a collaborative partnership with American funds KKR and Towerbook to finance a new investment plan of 1.5 billion euros over five years. The same year, the international expansion continued with the opening of three datacenters in Poland (WAW), Australia (SYD) and Singapore (SIN1)

In 2017, OVH created a new independent company to address the US market: OVH US. Russel REEDER is the CEO of this company. The same year, OVH bought VCloud Air, the cloud offer of VMware, to accelerate the implementation in the USA and throughout the world. OVH also adopted



OVH

the HCX technology which allows migrate Virtual Machine on a datacenter in another datacenter without service breakdown.

Last 2017, two datacenters will open in the US in the town of Vint Hill (East coast of US) and in Hillsboro (West coast of US) in addition of a datacenter in Germany near Frankfurt (LIM1) with a capacity of 45 000 Servers and another Datacenter in the United Kingdom (ERI1) with a capacity of 40 000 servers.

From 2020 to 2025, OVH.com expect to expand its international footprint with geographical presence in Spain, Italian, Japan, Russia, Brazil, Africa and India.

These installations will allow OVH to support its customers' needs for global presence and respond to the growing demand for outsourced digital infrastructures throughout the world.

Roubaix	Gravelines	Paris	Strasbourg	Beauharnois	Warsaw
RBX1 RBX2 RBX3 RBX4 RBX5 RBX6 RBX7	GRA1 GRA2	P19 DC1 GSW	SBG1 SBG2 SBG3 SBG4	BHS1 BHS2 BHS3	WAW1
Limburg	Singapore	Sydney	Erith	Vinthill	Hillsboro
LIM1	SIN	SYD	ERI1	VIN1	VIN2

All Datacenters



3. OVH.com offering

3.1. Dedicated Hosting

This Universe offers customers a secure dedicated infrastructure to host data as well as web services with high levels of performance and availability. Dedicated Servers offer better response time and higher processing performance than Shared Web Servers (see section 5.2).For Dedicated Hosting, the entire storage size of the Server is fixed, leased and billed to the customer whether it is used or not. Dedicated Servers nevertheless offer more flexibility to customers, as organizations have full control over the Server with the flexibility to choose custom operating systems and configurations.

Dedicated Servers can be optimized for enterprise, hosting, infrastructure storage or big data computing use, depending on the customer type and need.

The Dedicated Hosting offering is sold under three main brands providing customized performance and services from entry level to the most professional cutting edge services depending on the customer's budget and requirements:

- <u>"Kimsufi" brand</u>: The most simple and affordable Servers for students and dedicated Server apprenticeship;
- <u>"So you start" brand</u>: Cost efficient first-time work environment for SMEs, startups and System Administrators;
- <u>"OVH.com" brand</u>: The highest performance Servers optimized for professional use and sold with customized configurations in different price ranges. OVH.com dedicated Servers can be provided as such or along with management services such as professional Anti-DDoS protection, Server monitoring, IP load balancing, Disaster recovery, Database administration, firewall services ... ("Managed Dedicated Servers").



 Under Dedicated Hosting, OVH.com also offers <u>Housing services</u> to customers which choose to retain ownership of their Servers whilst seeking a secure and well supported Datacenter to



locate them in. OVH.com provides state of the art facilities in Paris to house customer Servers.

High Performance Computing ("HPC") / Big Data: Following strong market demand, OVH.com developed a specific Server offering for customers in need of intensive computing capabilities by acquiring Oxalya in September 2012. Oxalya was a pioneer startup in HPC, founded in 2005. Its 19 employees joined OVH.com's Paris office. OVH.com offers either a shared or dedicated computing cluster allowing for intensive computing capabilities provided as a service. For even more intensive needs, OVH.com is able to set up dedicated client clusters with OVH.com infrastructure located directly on the client's site.

3.2. Web Services

The Web Services universe comprises Shared Web Hosting as well as Domain Names registration and trading services:

<u>Shared Web Hosting</u>: The Web Hosting solution relies on locating web services and data structures for different customers on the same physical Server, thus offering a more economical solution than Dedicated Servers, as customers share the costs for Server maintenance and management. This type of offer is suited to customers with low traffic websites requiring limited resources.

OVH.com Shared Web Hosting offering is structured around three packages: "Perso", "Pro" and "Performance" which respectively feature increasing levels of allocated resources (RAM, disk storage space, SQL database size, priority to handle requests...). For example in the event of saturation, the "Pro" customers will get double priority over "Personal" customers on the handling of operations related to the site (requests, scripts, etc).

All Shared Web Hosting services benefit from either a standard or premium CDN ("Content Delivery Network") which allow certain static stored contents from customer's sites to be cached in multiple POPs around the globe, ensuring customer's website pages and data is loaded faster to the local end-user. Including this service in the basic web hosting package represents a genuine competitive advantage for OVH.com which benefits from its global footprint as a network operator unlike more local "data storage companies".

 <u>Domain Names</u>: OVH.com has the ability to sell, register and manage domain names such as ".com" ".fr", ".co.uk" ".org" or ".eu" and provides individual and corporate users with a simple web interface to verify in real time the availability or transferability of such domain names.

The registration of Domain Names is a historical activity of OVH.com, which is an ICANN ("Internet Corporation for Assigned Names and Numbers") accredited registrar since 2002. This accreditation enables OVH.com to manage and register domain names such as ".com" or ".org" on behalf of individuals and companies. OVH.com has later earned numerous other accreditations enabling it to offer today over 800 different extensions. In 2014 it is one of the first registrars to obtain its ICANN license to sell the new generic Top-Level Domains (gTLD)



added to alleviate pressure on .com and other unrestricted domains such as ".net". OVH.com has also applied and obtained permission to go live with its own gTLD: ".ovh".

The trading of Domain Names offers excellent opportunities for cross selling and usually goes in pair with the provision of Shared Web Hosting services and other Domain management and protection services to over 4 million customers which have transferred the management of their Domain Names to OVH.com.

Exchange Email: OVH.com is the first provider in France of Hosted Exchange and Private Exchange solutions for businesses. Emails transiting through the Microsoft Exchange system are stored on shared or private OVH.com Servers in France, ensuring utmost privacy and exemption from the US Patriot Act jurisdiction. All Exchange service is backed on a redundant Server once a day ensuring data remains safe even in the event of any hardware issue. Relying on the company's proven storage and network infrastructure, the strength of the OVH.com Exchange platform is such that even customers with their own SaaS Exchange platforms (such as Microsoft Azure) choose to host their French web services with OVH.com. OVH.com is part of Microsoft's narrow list of 25 preferred partners in Europe for Email hosting solutions ("Microsoft Cloud OS Network Partner"). Both companies have built a strong partnership over the years, based on mutual trust and reliability.

3.3. Cloud Solutions

The two traditional options for hosting: shared hosting and dedicated hosting have their limitations in terms of performance. In order to resolve such limitations the Cloud market came into being.

With Shared Web Hosting, one customer's website will be hosted on the same Server as websites belonging to other customers. This setup is not flexible and cannot cope with large peaks of traffic. Dedicated Hosting offers more capacity to deal with spikes, although the required capacity needs to be predicted, with enough resource and processing power to cope with expected traffic levels. If this is underestimated it can lead to a lack of necessary resource during busy periods, and if overestimated it will mean the customer paying for unnecessary capacity.

OVH.com's Cloud Solutions allow resource to be scaled up or scaled down in real time according to demand, making hosting more flexible and cost-effective. When there is more demand placed on the Servers, capacity can be automatically increased to match that demand without this needing to be paid for on a permanent basis.





Similarly to solutions offered in the Dedicated Hosting and Web Services universes, OVH.com offers both Public and Private Cloud Solutions:

<u>Public Cloud Infrastructure ("PCI")</u>: OVH.com's Public Cloud pools together the company's physical resources (Servers) and provides services to multiple customers using the same shared pool of infrastructure resources. The pool of Servers is virtualized to offer Cloud services as if they came from a single physical Server (hence the term "Virtualization"). A hypervisor controls the capacity of the Operating Systems installed on the cloud platform to allocate resources where needed.

Although storing data on a shared infrastructure may be perceived to be less secure than on a private Server, the Public Cloud offers customers scalability, reliability, redundancy, flexibility and accessibility, especially adapted to non-critically sensitive data.

OVH.com's Public Cloud solutions are designed to offer either Long, Mid or Short term storage facilities or high bandwidth / transfer capabilities depending on the use of the cloud platform.

Private Cloud ("PCC"): OVH.com's Dedicated Cloud offers the most secured Cloud Solution with guaranteed resources and the best cost-effectiveness on the market. With this service, the physical computing resources (the Servers) used for a given customer's web data are ring-fenced and isolated from other Servers: they will serve only for the customer's data, however the load from several customer services will be automatically balanced across the customer's private Cloud, allowing for optimal performance without the need to use different physical machines for each service. Services will instead be attributed one or more virtual machines to run on and more or less resources / hosts will be allocated to each service depending on the overall load. In order to offer the very best in Private Cloud virtualization, OVH.com has developed a strong partnership with VMware aiming to deliver complete Virtual Machines and Hypervisor platforms ready to run on OVH.com's Servers. This historical partnership is a strong entry barrier on the market for new entrants who would need to negotiate their own system configurations in order to offer customers turnkey solutions as integrated and easy to use as OVH.com's.

OVH.com also provides several related Cloud Services for both individual and corporate users:

Content Delivery Network (CDN): OVH.com's CDN consists of a group of locations around the world (20 POPs), which redistribute Server contents locally and store (or "cache") files that don't need to be updated regularly, using automatic or customized rules. Once a user loads a customer's webpage at any location across the world, requests are redirected to OVH.com's nearest POP which will directly send the content to the end user, if this content has previously been cached. This reduces the volume of requests sent to the Server accordingly while significantly speeding up the loading time for users located far away from the physical Server.



- <u>Virtual Private Servers (VPS)</u>: OVH.com's Virtual Private Servers are designed to offer Shared hosting solutions customers a level of Server management and flexibility comparable to that of a Private Server, but at the competitive cost comparable to a Shared solution. The VPS solution is available both for standard Shared Web Hosting customers ("VPS Classic") and for Public Cloud customers ("VPS Cloud").
- Hubic: Hubic is a personal file storage solution in the cloud. It allows saving files from multiple devices and locations (PC, smartphone, tablet, ...) in a single shared drive which is automatically synchronized across devices. The data is replicated in three Datacenters across France in Roubaix, Gravelines and Strasbourg, offering more speed and security. Files can be accessed through a web browser or dedicated apps. The service now accounts for some 800,000 user accounts.

Custom designed Datacenters implanted in strategic locations

Highly efficient proprietary Cooling technologies

Servers designed and assembled in-house

High speed international network

3.4. Telecom

OVH.com in France leverages off strong market awareness and presence to operate as an Internet Service Provider ("ISP") and telecom operator, targeting mainly SMEs. The offering is structured around the xDSL, VoIP, Fax and SMS products:

 <u>xDSL</u>: OVH.com offers new generation internet access services, including ADSL 2+, VDSL 2 and SDSL. Its key strengths are to constantly offer customers the maximum available bandwidth with unlimited usage (except for fair-use policies);

VDSL 2 is an improved version of ADSL, relying on the same technology but with higher frequencies allowing for download speeds of up to 92 Mbps (vs. c. 22 Mbps for ADSL). SDSL relies on a different copper line / cable than ADSL and offers symmetrical upload and download speeds of up to 20 Mbps (whereas ADSL upload speeds are far more limited);

 <u>VoIP, Fax and SMS</u>: OVH.com operates as a VoIP (Voice over IP) provider with phone plans including landlines and cellphone calls in over 40 countries. Enterprise plans include standard call monitoring, phone standard, conference call and voice Server services.





OVH

3.5. Other products

- <u>Global Solutions ("GS") / Support:</u> OVH.com provides on-demand custom consulting on complex data hosting solutions to large corporate accounts who use OVH.com Hosting or Cloud solutions. This offering represents a further growth driver for OVH.com by attracting the larger corporate customers who require value added advice on complex technical issues;
- <u>Retrofit</u>: OVH.com recycles its own used Servers through a team of 10 technicians which breaks them up and trades working components (RAM, CPU, cables...) to second hand electronics wholesalers.

3.6. A new organization structured around 3 brands

As seen previously, OVH is present with 5 brands on 2 types of product (Cloud IaaS & PaaS and Digital Retail)

Therefore, OVH has many battlefronts against a variety of global and local players which makes it harder to focus and be efficient.

Hence, OVH is competing on 3 very different markets with different global and local players:

Cloud hyperscalers (worldwide)

Best Value Cloud (Local)

Digital Retail

This situation leads OVH to work on a new strategy to reorganize the enterprise around 3 brands with a clear and adapted range of product, service levels and price levels for each:

3.7. OVHcloud

OVHcloud will address any Enterprise and Business customers who wants to embrace the digital transformation and need to leverage on the flexibility, security and resilience of public & dedicated cloud.

It is a worldwide scalable and resilient solution for all your cloud, storage and PaaS critical needs.

OVHcloud is accompanied with Professional Services, Solutions Architects and come with the non-Patriot Act option (if needed)

3.8. OVHspirit

OVHspirit will address any Small and Medium Enterprise customers who need to develop local applications and wants flexibility & security & efficiency

This is the best value, local, tailored cloud solution scalable and resilient solution for all your cloud, storage and PaaS critical needs

3.9. OVHmarket

OVHmarket will concern any Small and Medium Enterprise customers who need to develop their digital business

It is a digital one-stop shop for the best value Web & Telecom solutions.



OVH

All OVH offers described previously will be available under these different brands with a different range level for 2018 year. This availability is described on the schema below:



4. Definition of Services covered in the report

This report concerns the Dedicated Cloud Services provided by OVH to its final customers. The Dedicated Cloud Services are "Infrastructure As A Service" services. These services are delivered and operated from the Data Centers of Paris, Roubaix and Strasbourg for France.

Dedicated Cloud Services consist of machines (hosts, datastores) or resources (RAM, CPU) offered to customers on totally dedicated high availability infrastructures. Driven by VMware and Microsoft solutions in "as a Service" mode, clients build their Cloud by adding on demand physical resources to meet their needs and achieve business growth.

Virtual machines (VMs) are hosted in a virtual environment. Clients get the features of a physical server without having the actual hardware. Any OS can be installed on a VM and Clients can create as many VMs as they need on their Dedicated Cloud.

Once the VM has been installed as per the model, Clients can customize as they want (CPU, RAM, storage, software...), to obtain a final version which matches the initial requirement.

The hosts and datastores are interconnected via a high availability lossless network. The 100% guarantee also applies between the internet and the virtual machines.

Dedicated Cloud responds to numerous outsourcing requirements, as well as those of secure critical infrastructure construction. Total isolation and High Availability SLAs are guaranteed for the customers.



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5. Dependency on sub service organizations' controls

As part of OVH Groupe SAS's activities, some Data Center maintenance activities are subcontracted to a set of third party providers.

The control objectives and related controls executed by subcontractors are included in OVH Groupe SAS's description of its controls and are included within the scope of this report as the controls are the responsibility of OVH.

Subcontractor	Location	Activities
Securitas	France	Guarding activities
BES	France	Generators maintenance
CRTP	France	Local's maintenance Laying of fans Laying of metallic tubes Roofing, frame
EATON	France	UPS maintenance
Frigétec	France	Air conditioner maintenance
SEGA / TECFI / RMS	France	Electrical maintenance activities
FLIPO RICHIR	France	Generator Maintenance
EMERSON	France	Converter maintenance
SOCOTEC	France	Electrical maintenance activities
GROUPE SGM	Canada	Electrical maintenance activities
Securitas Canada - IPAS	Canada	Guarding activities
Les gicleurs du Sud Ouest	Canada	Sprinkler fitters
Prud'Homme Technologies Inc.	Canada	Chemical extinguisher maintenance



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Drumco Énergie Inc.	Canada	Generators maintenance Commissioning of generators and automatic inverters
Jr. Mécanique	Canada	Local's maintenance Roofing, frame
Réfrigération Inter- River	Canada	Air conditioner maintenance Generators maintenance
EATON Industries	Canada	UPS maintenance
Siemens	Canada	Fire detection system and fire extinguisher maintenance
Emerson (Liebert Canada, Emerson Network Power)	Canada	UPS maintenance
VERTIV CORP ULC((Liebert Canada, Emerson Network Power)	Canada	Maintenance of Liebert UPS



6. Relevant Aspects of the Control Environment, Risk Assessment, Information and Communication and Monitoring

6.1. Control environment

The control environment sets the tone of an organization, influencing the control consciousness of its people. It is the foundation for all other components of internal control, providing discipline and structure. Control environment factors include the integrity, ethical values, management's operating style, delegation of authority systems, as well as the processes for managing and developing people in the organization.

The teams, especially the one working on the Dedicated Cloud perimeter comprises only a small number of employees, and meetings are held, on demand, with the managers of the departments. Employees working on the Dedicated Cloud have a confidentiality clause in their contract, and they are aware that a breach of confidentiality is a cause for immediate dismissal. Every employee has several review meetings with his operational manager, and at least each two years with his hierarchical superior. The management has developed a revamping and completion of procedures, which mostly address the functioning or development of controls. Management also organizes the distribution of roles and responsibilities to combine at best the competences and experience of key staff between system and software development and maintenance skills. Dedicated Cloud junior operators are supervised and trained by senior operators, who have mostly been trained and promoted in-house on the Dedicated Cloud Solutions. Turnover of staff is considered particularly low for this business. Periodical, temporary, or permanent changes of distribution of roles and responsibilities to the quality control.

Definition of controls and possibility to implement, with due consideration to the cost versus importance of risk is the responsibility of the Board, who is assisted for technical issues by internal and external Technical Expert/Consultant.

Procedures are defined by the technical staff and approved by Quality and Internal Control and Top Management, with the participation of relevant managers when needed.

Monitoring of procedures is the responsibility of the Quality and Internal Control Manager and the Board. Regular external audits are performed by external auditors for the operational tasks and compliance with ISO 27001 security requirements.

For the Dedicated Cloud, Management periodically reviews with the managers the respect of procedures and results controls.



6.2. Risk Assessment

Every entity faces a variety of risks from external and internal sources that must be assessed. A precondition to risk assessment is establishment of objectives and thus risk assessment is the identification and analysis of relevant risks to achievement of assigned objectives. Risk assessment is a prerequisite for determining how the risks should be managed.

A structured and formalized risk assessment approach was initiated by OVH in 2013, aiming to identify the major risks on the core business processes and finance, legal, HR, purchasing and sales processes.

Operational and technical risk assessment for the Dedicated Cloud Solution was initiated in 2012 during the Information Security Management System (ISMS) implementation and is reviewed yearly prior to the ISO 27001 certification. Risks are identified at a detailed level and action plans are defined, implemented and monitored in order to mitigate those risks.

A process dealing with security breaches and incidents has been implemented within the ISMS in order to anticipate and handle properly, with the minimal impact on operations, the security incidents.

6.3. Information and Communication

Pertinent information must be identified, captured and communicated in a form and timeframe that enables people to carry out their responsibilities. Information systems deal not only with internally generated data, but also information about external events, activities and conditions necessary for informed business decision making and external reporting.

Effective communication also must occur in a broader sense, flowing down, across and up the OVH organization. All personnel receive a clear message from top management that control responsibilities must be taken seriously. They understand their own role in the internal control system, as well as how individual activities relate to the work of others. They have a means of communicating significant information upstream. There also needs to be effective communication with external parties, such as customers, suppliers, regulators and shareholders.

For any new procedure release or modification, all members of staff are informed by Email and have access to such procedure in the collaborative internal web site.

The CEO also communicates by Email to all members of staff for important subjects related to the life of the company, evolution of new contracts, start of new projects, introduction of new applications, etc.

In the case of new projects with new infrastructure or software, a special project team is formed and trained and a supervision program is established.

Technical and operational processes of the Dedicated Cloud Infrastructure are formalized and controlled by the Quality and Internal Control Manager, with many consistency and accuracy controls which have been designed over time, since the ISMS implementation in 2012 and the 1st ISO 27001 Certification.



6.4. Monitoring

Internal control systems are monitored by a process that assesses the quality of the system's performance over time. It is accomplished through both ongoing monitoring activities as well as periodic, separate evaluations. Monitoring controls operate at the entity level as well as at the process level.

Supervision of controls for the technical Dedicated Cloud infrastructure (hardware and software), is made directly by the Quality and Internal Control Manager and the Board. The Quality and Internal Control Manager reviews the respect of SLAs for technical processes, and is directly supervising the running and maintenance of the infrastructure on a day to day basis.

Data Center Managers are in charge of supervision of controls related to security and protection of premises, as well as direction and supervision of the providers in charge of administration of environmental controls.

Technical incidents and problems (breakdown, disruption of service, slow down, bugs, etc.) are subject to analysis and review in management meetings based on the event. Having in mind the transparency culture of the company towards its operations, these incidents are communicated in real time to final clients through a dedicated internet portal, access is not restricted.

The small number of incidents since the launch of the Dedicated Cloud Solution, as well as the results of SLA Compliance and technical partners' audits, is the best reward and motivation for this dedication.

7. Complementary User-Entity Controls

OVH's system was designed with the assumption that certain policies, procedures and controls would be in existence or implemented by user entities. These controls should be in operation at the user entities to complement OVH's controls to achieve the customer's security or business requirements in regard to the use of the System.

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