Webforum - Physical security

Webforum is a service that is available online every day and around the clock. Many of our customers store confidential and critical information using the service. To ensure that high demands on availability, reliability and security are met, the system relies on extensive physical security. This paper describes the physical security measures in detail .

Introduction

Webforum's operating partner Axians is responsible for the entire production environment. Axians is a leading player in the Swedish data hosting market and has been the Webforum operating partner since 2008. Axians is certified under IS0 27001.

The operating environment (Internet, firewalls, load balancing, web servers, database servers, application servers, file servers, routers, switches, etc.) is fully redundant to minimize the risk that the service is not accessible when a part of the environment does not function. The environment is set up in two geographic locations in order to maintain operations with a short downtime in case a major disaster event occurs. Monitoring of the environment and resulting mitigating actions are executed around the clock, every day.
The operating environment is located in Stockholm, Sweden. The computer centers meet EU requirement level VDMA 24991 The physical security is very high and is described in more detail below.

Physical security

The following physical security measures are taken to protect the physical operating environment:
- Site access control
- Power supply
- Fire protection
- Climate Control

Site access control

The operating facilities are divided into different security zones. Initial entry is through the operations center where the registration is done through an access con trol system. Only authorized people are given access to this location.

To enter the data center itself, access is required to an additional security zone. Entry to this zone is only granted to authorised technicians. Entry is only allowed with a personal pass and at some times even with a code. Logging of access control systems and video surveillance takes place around the clock on all doors.

An intruder alarm is linked to the staff and security guards in place at all times. The staff in the control center also has a panic alarm linked directly to the police.

Power supply

An uninterruptible power supply (UPS) is provided to the essential computer equipment and communications. The power supply is protected to handle power surges and short power outages of up to 30 minutes.

For longer outages a diesel unit that secures the power supply is activated. The diesel unit can handle long periods of outage and can be filled with fuel during operation. This system is automatic and has a monitoring system that alerts the staff in the central command centre when the power supply needs to switch to backup power. Procedures for the management of the uninterruptible power system, is done as a part of the regular monitoring of the system. There is also backup power for the air conditioner to avoid downtime caused by power outages directly or indirectly caused if any of the thresholds for heat and humidity are exceeded.

Cables are protected by wire trays under the floor.

To avoid any risk of interference from the network the network's physical routing is separate from other wiring. All connections are labeled to ensure that it is clearly visible where each cable terminates.

Fire prevention

The computer centers are safeguarded to fire class 90D. Smoke detectors are in place throughout the centre to promptly alert the emergency operators. The data center is designed to withstand fire from adjacent premises 90 minutes where the temperature is guaranteed not to exceed +55 degrees Celsius. This level ensures functionality for optical disks, tape and CD.

The triggering of the extinguishing system is automatic using a sensor-controlled fire alarm system with smoke detectors. Sensors with sprinklers in the floors and ceilings are in place to control and trigger the extinguishing systems. Manual fire extinguishers are available in the data centers with both carbonic acid and foam.

There is also a Hart system with pipes on the ceiling that contains holes where smoke can enter and the particles analyzed. For early detection of fire/smoke, the Hart system analyses particle density in the air. If the result of the analysis indicates smoke then the fire alarms are triggered.

Air ducts running into the computer room are equipped with automatic fire dampers. This applies to both incoming and outgoing air. In addition to Fire dampers in ventilation ducts, there is a damper located at one end of the data center that can be opened to release excess pressure. The Fire dampers close automatically and are controlled by the fire alarm system. Fire can be contained in localised ventilation systems.

Climate Control

Climate control and cooling units are situated together in the centre with an associated monitoring system. Refrigeration / air-conditioning units are combined in a system for the computer room and it is dimensioned according to cooling requirements as determined by the total power requirement for the computer equip-

ment in the room.

Temperature and relative humidity is kept within the following limits: Temperature 15-25 degrees (C) , Humidity: 30 to 70 %.

The data halls have a relative humidity within the range of 50 - 55%. In a fire the relative humidity is not to exceed 85%. The halls are smoke and gas tight and have meters that warn of possible particle levels that can be harmful to the disks and printed circuit boards. In the halls a constant pressure is maintained to avoid dust particles.

The Computer flooring is raised to protect against water damage from water penetration through the air conditioning system. All shut-off valves in the operating areas are signposted, so as to avoid inadvertant actions. Water is connected to the climate and cooling equipment and city water supply is available for emergency cooling. The plant turns on emergency cooling at 22 degrees (C). The Climate and cooling unit is in operation around the clock and all year round. In periods of extreme conditions they are being carefully controlled to keep moisture and excess heat away.

In addition to the climate and the cooling system there are temperature and humidity alarms. If the temperature and humidity limits would drop below or exceed the operating range there is an operating alarm on the climate and water facility. As there is a risk of flooding with any climate / cooling unit water systems, there is a flood alarm. Water-level detectors are located around the data center facility.

About Webforum

Webforum develops and sells a web service for document-intensive projects and collaborations. The service is flexible, user friendly, accessible and secure. It is a complete support for businesses and organizations to plan, implement and monitor projects and to manage information. Webforum also develops and sells a web service for efficient and secure Boardroom collaboration.

Webforum today has 700 corporate clients and over 50,000 users in 20 countries. Customers range from small businesses or project teams to multinational companies in various industries as well as a number of local governments. Customers include organizations such as the City of Stockholm Transportation Authority, The Royal Institute of Technology, Bisnode and Medisize.

The company was founded in 1997 and is based in Stockholm. Development takes place in Stockholm and Kiev. Webforum has distributors in Finland, Germany and England. For more info: www.webforum.com.