

Characteristics Data center operation

Fabasoft Folio Cloud

Copyright ©

Fabasoft Distribution GmbH, A-4020 Linz, 2010.

Alle Rechte vorbehalten. Alle verwendeten Hard- und Softwarenamen sind Handelsnamen und/oder Marken der jeweiligen Hersteller.

Diese Unterlagen sind streng vertraulich. Durch die Übermittlung und Präsentation dieser Unterlagen alleine werden keine Rechte an unserer Software, an unseren Dienstleistungen und Dienstleistungsergebnissen oder sonstigen geschützten Rechten begründet.

Die Weitergabe, Veröffentlichung oder Vervielfältigung ist nicht gestattet.

Aus Gründen der einfacheren Lesbarkeit wird auf die geschlechtsspezifische Differenzierung, z. B. Benutzer/-innen, verzichtet. Entsprechende Begriffe gelten im Sinne der Gleichbehandlung grundsätzlich für beide Geschlechter.

Inhalt

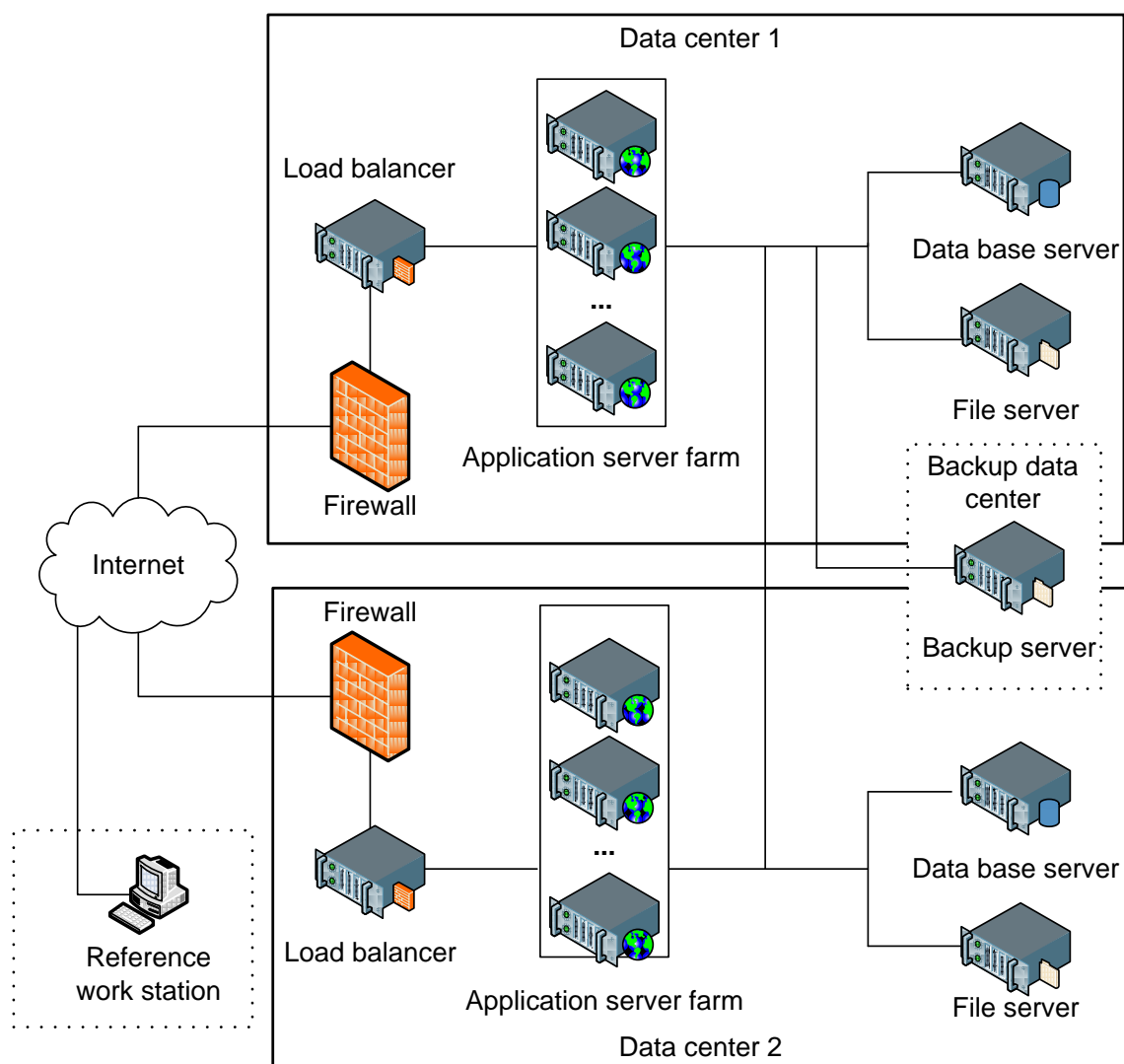
1 Hard- and software environment	4
1.1 Hard- and software environment in use	4
1.2 Required hard- and software environment	5
2 Service Levels	5
2.1 Security	5
2.2 Data security	7
2.3 High availability	7
2.4 Response time behaviour	8
2.5 Scalability	8
2.6 Transparency	8

1 Hard- and software environment

1.1 Hard- and software environment in use

Due to the high demands placed on the data center operation, the entire hard-and software environment is designed to provide high availability, reliability, scalability and high security, as well as simple maintenance. All third-party software products which are used in the data center are open source software products.

The components used for the operation of the software are pictured below:



The software in question operates in a total of three data centers. The active data centers (data center 1 and data center 2) are located at two different sites. The backup data center is located at the same site as data center 1.

Active data centers

The sites of the active data centers are about 2 km apart. Both centers are equipped with redundant air conditioning and network infrastructure. In case of power failure the UPS (Uninterruptible Power Supply) in data center 1 can supply power to the components for up to 15 minutes. Data center 2 has a UPS with an attached diesel emergency power generator. This can also maintain power supply to the components in case of longer interruptions.

Backup data center

The backup data center operates backup servers and a tape library to secure all data. The backup data center is equipped with its own access rules, redundant air conditioning and network infrastructure as well as emergency power supply.

1.2 Required hard- and software environment

In case of failure of a Fabasoft Folio Cloud Internet connection, firewall or load balancer, the network components employed by the client (in particular the proxy server) must support automatic failover to the public IP addresses available.

In addition, every registered user is to have a work station corresponding to the requirements of Fabasoft Folio Cloud (see www.fabasoft.com/cloud/spi).

2 Service Levels

2.1 Security

ISO 9001

The Fabasoft-group is ISO 9001 certified since February 2002. ISO 9001 is an international standard specifying requirements for corporate quality management. The standard aims to enhance customer satisfaction through ensuring that clients receive the highest quality of services. The standard is based on the following eight principles:

- Customer orientation
- Management responsibility
- Inclusion of parties concerned
- Process oriented approach
- System oriented management approach
- Continuous improvement
- Pertinent decision-making approach
- Mutually beneficial delivery terms

To Fabasoft, the introduction of a quality management system and the ensuing annual review by an external testing shop means transparent processes, rapid discovery of weak points and clarity of competency and responsibility. Living with continuous improvements warrants Fabasoft's permanent further development regarding quality and security.

ISO 27001

Fabasoft is ISO 27001 certified since July 2007. ISO 27001 is a globally recognized standard for the evaluation of the security of IT environments. Fabasoft's certification specifies the requirements for complete information security management relating to all IT and business processes as well as to all confidential corporate information.

As a service provider Fabasoft also holds confidential and business relevant client data. Confidentiality and availability of this information are important prerequisites for successful business operations and the base for trusted cooperation.

To the client, ISO-27001 certification means adherence to clearly defined technical and security related standards, and thus well defined service levels for the Fabasoft data centers.

Regular internal reviews of the processes and measures established in the course of ISO 27001 underpin the further development of internal IT standards and continuous adjustment to flexible framework conditions and tasks.

ISO certificates require high standards and are issued for one year at a time. Subject to satisfactory annual audits, the certificates are extended for another year. The Directives cover about 130 pages and include e.g. instructions for data storage, information management, backup and recovery as well as a risk assessment.

Security at user level

All communication via the Internet is encrypted. In the application itself data security is ensured by mapping via a tried and trusted ACL concept.

Security at network level

To avoid attacks on unprotected ports, Fabasoft Folio Cloud firewalls only permit HTTPS-data transfer on TCP-Port 443. In addition, network security is enhanced by address translation technology.

Physical security

All data centers are equipped with alarms which immediately alert the police in cases of attempted unauthorized entry. The data centers are also equipped with video surveillance and highly sensitive early fire detection. Naturally only authorized staff have access to the data centers.

Outlook

Fabasoft is planning to further extend its range of services, particularly in view of the expansion of Fabasoft Folio Cloud. As a first step Fabasoft will subject its audit-proof archiving to testing, to be performed by an external auditor before the end of the financial year 2009/2010 (i.e. before March 31, 2010). Furthermore Fabasoft will also apply for SAS 70 Type II certification before the end of the financial year 2009/2010.

Audit-proof

The term audit-proof primarily refers to archiving for electronic archives. It relates to financial auditing requirements as well as the corporate necessity of storing and saving documents and information. The term used in the context of electronic archiving not only encompasses technical components but the complete solution.

Essential characteristics of electronic archiving systems are:

- Content is saved in the original version and is fraud resistant
- Content can be searched and found again
- All activities in the archive are logged warranting traceability.

An audit-proof system must basically warrant corporate regulations regarding data security and data protection during the working life of the archive for the user.

Archiving systems, respectively commercial applications or document management systems with integrated archiving systems, are usually tested for individual certification by auditors on site. General certification of complete systems or hard- or software system components is not possible as individual usage, quality of processes and information as well as secure operation are of essential importance for the certification.

SAS 70 Typ II

The Statement on Auditing Standards Nr. 70 (SAS 70) is an internationally recognized standard developed by the AICPA (American Institute of Certified Public Accountants).

SAS 70 is a standard devised for targeting business outsourcing which reports on the implemented controlling activities and targets of the service provider. A report of this kind basically verifies that a corporation is successfully practising corporate control.

The report is written by an external auditor of the service provider. As the SAS 70 report exposes the internal controlling system of the service provider, the outsourcer is able to form an opinion about the means employed by the service provider in order to attain the needed assurance about the services being safely and reliably rendered.

The SAS 70 Standard differentiates between two tests and the ensuing SAS 70 Report:

- SAS 70 Type I describes the service organization's controls at a specific point in time and contains the summarized results of an independent auditing company.
- SAS 70 Type II not only includes the service organization's description of controls, but also includes detailed testing of the service organization's controls over a minimum six month period. The SAS 70 Type II Report hence contains the external auditing company's opinion on the service organization's controls; a description of the controls that were tested; an indication of the nature, timing, extent, and results of the tests supplied in sufficient detail to enable user auditors to determine the effect of such tests on their assessments of control risks.

2.2 Data security

When the software is in operation meta data and contents are saved. Meta data and contents are saved synchronously in both active data centers.

The backup data center saves all meta data and the complete content on a daily basis.

The complete saved data from the backup center is copied onto backup tapes and stored in a safe on a weekly basis.

The client is responsible for testing the content saved in Fabasoft Folio Cloud for software viruses, worms, Trojans or other harmful computer codes.

2.3 High availability

Fabasoft operates the software under this contract in a high-availability data center environment. All components are operated redundantly in both active data centers.

Each data center operates one load balancer, with one fixed public IP address, respectively. Should a load balancer, firewall, or Internet connection fail, the web browser automatically takes over the failover to the second public IP address of the other load balancer.

The data center operates around the clock, all year round. For the availability of data center operations, there is a distinction between core time and flex time. Core time means Austrian working days (Monday thru Friday) from 6 a.m. to 6 p.m., flex time covers the remaining time.

Two alternatives are foreseen for the availability of data center operations:

1. 99,7% core time availability per monitoring period (quarter-yearly) and client
2. 99,0% flex time availability per monitoring period (quarter-yearly) and client

Previously announced maintenance windows are exempt from the measured availability. The availability is measured from the reference work station.

The following time frame is currently reserved for maintenance:

- Saturday from 00.00 til Monday 07.00.
- In urgent cases and after prior announcement during flex time.

The reserved time frame will only be utilized in case of the need for maintenance. Should the need for maintenance work arise it will be announced at <http://www.fabasoft.com/cloud/monitoring-reports>.

A report on the availability of Fabasoft Folio Cloud will be established for every monitoring period (calendar week) and made available to the client electronically after a quarter-year at <http://www.fabasoft.com/cloud/monitoring-reports>.

2.4 Response time behaviour

The response time behaviour for all incoming requests is measured directly on the load balancers of Fabasoft Folio Cloud by means of the app.strudl Software-Telemetry. A request is identified as a HTTP request triggered by a web browser. Request size refers to the size of the request and the ensuing response.

Fabasoft Folio Cloud is designed for the following load per user:

- Average size of HTTP request: 100 KB
- Maximum document size: 100 MB
- Maximum number of HTTP requests per user per week: 5.000

In 97 percent of the HTTP requests, response time should be less than one second.

A report on the response time behaviour of Fabasoft Folio Cloud will be established for every monitoring period (calendar week) and made available to the client electronically after a quarter-year at <http://www.fabasoft.com/cloud/monitoring-reports>.

2.5 Scalability

All components required for the operation of the software expand easily in case of need. Load balancers and application server farms scale by adding further load balancers and application servers. The data base and file server also scale easily by adding further servers whilst simultaneously partitioning the data.

2.6 Transparency

The client can review information on Fabasoft Folio Cloud relating to response time behaviour, maintenance work and availability as well as reports on the adherence to service levels at <http://www.fabasoft.com/cloud/monitoring-reports>.