

Service package openInternetServices for Solaris™ on PRIMEPOWER - Apache and more

Introduction

The Fujitsu Siemens Computers product **openInternetServices** provides you with the basic Internet services required for e-business for PRIMEPOWER systems running under the Solaris operating system. FSC has put together a comprehensive, fully integrated product package based on best-in-class open source software to enable reliable and secure deployment of open source technology in the simplest way possible and appropriate to business-critical computing.

When you sign up to an openInternetServices service package you receive the license, a current product version, access to regularly updated product versions (via a download server), as well as the right to support for the open source products provided and the security patches.

This package is also on all major Linux platforms available.

OpenInternetServices consist of 4 components:

Secure Web server: Apache with PHP, Perl and Tomcat

Web Proxy Cache Server: Squid

Secure Mail Server: Sendmail and Cyrus withSSL

Secure FTP Server: ProFTPD

Scope of services

Acquiring a Servicepack you get the newest version of the openInternetServices CD, as well as the right to contact our call desk via a service number by telephone or via email during the service time (Mo – Fr, 8 – 17o'clock) to identify yourself. Then you will be contacted within 2 hours by our service. There will be done all possible for solving your problem concerning open source technology. Additional you get access to our download server with all security patches, updates etc. Once or twice a year there will be a new openInternetServices CD – free for you. So you can be sure to use always actual and debugged version.

The customer acquires for every 8 CPUs per machine one service pack. It is a 3 years contract with automatic extension.

openInternetServices brings you the following crucial advantages:

- Use of open standards and widely available open source technology
- Pre-evaluated product suite containing the most important add-on components for e-business eliminates the time-consuming search for suitable open source products.
- Pre-integrated product suite means no problems in the production, compilation and integration of disparate open source products, tools and base libraries.
- Maintenance for open source products delivers expert support in the event of a problem. The customer is not expected to possess in-depth know-how about the deployed open source products.
- Service agreement with notification of security problems, plus delivery of debugged current open source products when available, saves on tracking various mailing lists of the open source products used
- Provided in package form for easy installation and residue-free deinstallation.
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Example calculation for time saving/customer benefits when implementing a new project with web, email and FTP:

Average overhead for these evaluations on the customer site:

Finding, assessing and selecting the most powerful tools

4 weeks

Pre-integration/compilation and tests

8 weeks

one-time: 3 months

Incident support/security patches and project problems

12x2 days (annually)

Weekly monitoring of the security groups

12x2 days (annually)

(at FSC, 11 groups are polled daily: CERT, Internet Security Group, Suse, Apache Workgroup, etc.)

ongoing overheads: 2.5 months/year

The above calculation does not include the overhead involved in producing and integrating security patches and resolving project-specific problems.

Thus, the overhead is approx. 5.5 months in the first year, and 2.5 months in following years. All this and more is covered by the FSC openInternetServices service package. For more details, please contact the sales executive handling your account.

Functionality of openInternetServices**1. Secure Web server**

The requirements facing a web server in the e-business environment exceed the set of functions provided by a conventional HTTP server. In addition to providing static information, the server must also be capable of collating dynamic content of different complexity on an individual basis at the time of the request. This can be implemented by external scripts and programs via the CGI (Common Gateway Interface) basic mechanism or much more powerfully through the use of built-in script interpreters. Since new applications are mainly written in JAVA these days, support for JAVA servlets or JAVA server pages is essential. Operating an extensive website necessitates the use of a search engine; by using logfile analysis programs the operator obtains detailed overviews on the use made of his offering.

The Secure web server suite in openInternetServices is based on the use of the **Apache** web server, currently the world's most popular web server with a market share of approx than 70%. (Source is the Netcraft web server Survey: <http://news.netcraft.com/>) Apache is the out-and-out market leader. Microsoft's web server achieves a share of 20%. The advantage for you, the customer, is innovative open source technology, but with the support of one of the large IT companies. Apache is enhanced with the script languages **PHP** and **Perl**, as well as with **TOMCAT** for JAVA integration. The web technology-based document management system **WebDAV** (Web-based Distributed Authoring and Versioning) is ideally suited to managing web content. Secure transmission is ensured using **SSL** – a security protocol that guarantees data security on a layer sandwiched between the HTTP protocol and the TCP/IP transport protocol. It supports encrypted connections and authentication confirmations with server and client certificates conforming to the X.509 standard, as well as ensuring message integrity. For this, the open source implementation **openSSL** is used.

Now the WebTransactions coupling module for connecting WebTransactions and a Web server is also included in the Secure Apache Web Server. The module is a quality-assured "ready-to-use" package. The use of the coupling module eliminates the need for the customer to use coupling via CGI and supports better performance and scalability.

Functionality	Open Source Produkt	Provider	Link
HTTP-Server	Apache 1.3	Apache Software Foundation	http://httpd.apache.org/
Script Interpreter	PHP4	Apache Software Foundation	http://php.apache.org/
Script Interpreter	mod_perl	Apache Software Foundation	http://perl.apache.org/
	Perl	Perl Porters	http://www.perl.com/

JAVA-Servlets, JSP	TOMCAT	Apache Software Foundation	http://jakarta.apache.org/tomcat/index.html
Search Analysis	ht://Dig	The ht://Dig Group	http://htdig.sourceforge.net/
Logfile-Analysis	Analog	Stephen Turner	http://www.analog.cx
Logfile-Analysis	Webalizer	Bradford L. Barrett	http://www.mrunix.net/webalizer
SSL	openSSL	OpenSSL Project	http://www.openssl.org/
Web Cache	Squid	squid-cache.org	http://www.squid-cache.org/

2. Web Proxy Cache Server

To offload a heavily accessed web server, a web proxy cache server is used, usually configured as a front-end to the web server. Responses from the web server are stored in the largest possible cache area, which is used to service future requests.

The **Squid server** is provided as the web proxy cache server.

3. Secure Mail Server

A secure mail server must support the SMTP, POP3 and IMAP protocols so that standard clients like Netscape Messenger, Microsoft Outlook and Eudora can send and receive emails. Important add-on functionality includes ways of suppressing unsolicited advertising emails (spam). The encrypted transfer of emails is usually implemented on the client side via SMIME or PGP. However, **SSL encryption** is useful particularly when POP/IMAP is used for accessing the mailbox, since otherwise passwords are transmitted in plaintext. For sending emails, SSL provides end-to-end security only if all participating mail servers support SSL, something which can be guaranteed, for example, within the company's own corporate network.

Sendmail, the most popular mail server, is provided as the SMTP server. **Cyrus** is used as the POP/IMAP server. Both Sendmail and Cyrus have been enhanced with SSL encryption based on openSSL.

Functionality	Open Source Produkt	Provider	Link
SMTP-Server	Sendmail	Sendmail Consortium	http://www.sendmail.org/
IMAP-/POP3-Server	Cyrus	Carnegie Mellon University	http://asq.web.cmu.edu/cyrus/
SSL-Connections	Cyrus-Patches	Carnegie Mellon University	http://asq.web.cmu.edu/cyrus/
	Sendmail	Sendmail Consortium	http://www.sendmail.org/
	openSSL	OpenSSL Project	http://www.openssl.org/

4. Secure FTP Server

In order to organize secure exchange of files via the internet, a file transfer mechanism conforming to open standards and supporting encrypted transmission is required.

The product **ProFTPD** is used as a secure FTP server, enhanced with the openSSL-based extensions required for SSL. An SSL-capable client for Solaris is also supplied.

Functionality	Open Source Produkt	Provider	Link
FTP Server	ProFTPD	ProFTPD Project	http://www.proftpd.net/
FTP Client	ftp	OpenBSD Project	http://www.openbsd.org/
SSL-Connections	Runestig-Patch	Runestig	ftp://ftp.runestig.com
	openSSL	OpenSSL Project	http://www.openssl.org/

Single components of openInternetServices:

analog - fast, free web server log file analysis program
apache httpd server
bzip - high-quality data compressor
cronolog - flexible web log rotation program
cURL - a client that groks URLs
Expat XML Parser
ftp with TLS
ProFTPD with TLS
gdbm - GNU dbm library
ht://dig WWW Search Engine
Cyrus IMAP4rev1 Server
Berkeley libdb4
freetype2 - Truetype library
libgd - library for dynamic creation of images
libjpeg - JPEG image compression and decompression library
mm - shared memory abstraction library
libpng - PNG access library
t1lib - Type1 font rendering library
libxpm - image access library
zlib Compression Library
Sendmail SMTP Server
OpenSSL Crypto Libraries and Tools
Perl scripting language
PostgreSQL -- Object-Relational SQL DBMS
Cyrus SASLv2 Server
Squid Web Proxy Cache
Jakarta TOMCAT
webalizer - fast, free web server log file analysis program

All products are open source with their own licensing conditions.

Documentation:

The documentation is on the CD.

For more information see:

http://www.fujitsu-siemens.com/products/software/networking/internet_services/openinternet_solaris.html

http://www.fujitsu-siemens.com/products/software/networking/internet_services/apache_solaris.html

System requirements:

- Hardware: all PRIMEPOWER systems
- Operating system: Solaris 8 or 9