### Fujitsu Software

**Symfoware Server V12**

A high-performance, high-reliability and high-availability relational database that is quick to set up and easy to use.

### Features & Benefits

- Fully compatible with Open Source PostgreSQL
- Compatible with Oracle®
- High-reliability
- Vastly reduced installation and running costs
- Improved software integration
- Simple and intuitive operation
- Encrypted security
- Easy installation
- Efficient use of hardware
- High-level long-term support
- Database multiplexing
- Sequence of development options

### Supported Operating Systems

<table>
<thead>
<tr>
<th>Product</th>
<th>Server Operating System</th>
<th>Client Operating System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symfoware Server V12.1</td>
<td>Microsoft® Windows Server® 2012 R2</td>
<td>Windows® 8.1</td>
</tr>
<tr>
<td></td>
<td>Microsoft® Windows Server® 2012</td>
<td>Windows® 8</td>
</tr>
<tr>
<td></td>
<td>Microsoft® Windows Server® 2008 R2</td>
<td>Windows® 7</td>
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<tr>
<td></td>
<td>Microsoft® Windows Server® 2008</td>
<td>Windows Vista®</td>
</tr>
<tr>
<td></td>
<td>Microsoft® Windows Server® 2003 (Intel64)</td>
<td>Micro...</td>
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<tr>
<td></td>
<td>Red Hat Enterprise Linux 7 (Intel64)</td>
<td>Red Hat Enterprise Linux 6 (Intel64)</td>
</tr>
<tr>
<td></td>
<td>Red Hat Enterprise Linux 6 (x86)</td>
<td>Red Hat Enterprise Linux 5 (x86)</td>
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<td></td>
<td>Red Hat Enterprise Linux 5 (x86)</td>
<td>Red Hat Enterprise Linux 5 (Intel64)</td>
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<tr>
<td></td>
<td>Red Hat Enterprise Linux 5 (x86)</td>
<td>Red Hat Enterprise Linux 4 (Intel64)</td>
</tr>
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**Symfoware Server** is a relational database management system that delivers high performance and high reliability. It incorporates Fujitsu’s own database technology and Open Source PostgreSQL to provide an RDBMS that can be used with a wide range of applications where fast and effective data management is of paramount importance.

Symfoware Server leverages the technology of Open Source PostgreSQL, the world’s most advanced open-source database system. As a result, Symfoware Server is fully compatible with Open Source PostgreSQL and applications can run unchanged.

Fujitsu’s development team has introduced cutting-edge setup and recovery features that ensure seamless integration into any existing business system to provide hassle-free installation, along with easy and intuitive operation for the end user. System Managers now no longer have to meet the challenge of allocating specific database expertise. Enhanced compatibility with Oracle® databases has been achieved by using the SQL interface and Connectors of Open Source PostgreSQL.

A broad spectrum of development options are made available through the use of carefully considered software bundles, information utilization systems, development tools, and application runtime environments.

The improved high reliability and high performance along with the advantage of long-term support and a competitive price point has created substantial benefits to further compliment intelligent business data systems for enterprises.

### Symfoware Server provides effective solutions to common business challenges

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-cost of database migration</td>
<td>Easy migration from PostgreSQL / Oracle®</td>
</tr>
<tr>
<td>Increasing technical staff overheads</td>
<td>Easy setup technology</td>
</tr>
<tr>
<td>High risks associated with data loss or downtime</td>
<td>Database multiplexing</td>
</tr>
<tr>
<td>Inadequate or unreliable support mechanisms</td>
<td>One-click recovery technology</td>
</tr>
<tr>
<td>Fujitsu long-term support</td>
<td>Fujitsu long-term support</td>
</tr>
</tbody>
</table>

### Benefits

- Simplified setup and recovery
- Seamless integration into pre-existing systems
- Reduced staff overheads
- Cost-effective migration process
- Increased flexibility and scalability
- Increased transaction throughput
- Simplified queries
- Better scheduling ability
- Provision for ultra fine-grained query statistics for use with monitoring tools
- Proven product quality
- Guaranteed support
Easy Setup and Support

- Reduced database design and implementation expenditure
  Symfoware Server employs a minimal setup process based on optimized resource deployment. The setup process performs dynamic hardware resource detection during installation and the software is automatically tuned with the customer's server configuration. Using this method the parameter and backup settings are all completed during the deployment of the system. Fujitsu's innovative development methodology has been a key factor in producing an installation process that takes just 3 simple steps to perform:
  1. Launch the installer (the installation is completed using automatically tuned values)
  2. Launch WebAdmin (A web based administration client)
  3. WebAdmin can be used to create new instances and also to configure backup and recovery options.
This simplified installation and setup process allows Symfoware Server to be implemented within a very efficient time frame.

- One-click recovery technology
  If a database problem occurs or if data is accidentally deleted, recovery can be performed with a single click, so there is almost no need for technical user intervention.

- Database multiplexing (new feature for V12.1)
  Enables continuous job processing with no downtime when an error occurs, data is synchronized across the primary and secondary server.

- Performance monitoring (new feature for V12.1)
  Performance information is fully utilized as it is based on the Symfoware support knowledge base so that performance issues can be quickly identified to improve performance. This is done by using the information in the view table.

Easy Migration

- Easy and cost-effective migration
  Symfoware Server has been designed to be fully compatible with Open Source PostgreSQL databases, and also offers enhanced compatibility when migrating from existing Oracle® systems.
  Previously, migration has proved problematic and in many cases has been avoided due to the high workload and expenditure required. This problem is resolved by significantly reducing migration time so that budget restraints and business disruption are no longer a concern; the migration process has now become much more streamlined.

  - Enhanced system integration
    PostgreSQL technology enables integration with a wide range of software bundles, information utilization systems, development tools, and application runtime environments. Investing in additional software systems in addition to any migration costs is no longer a consideration. User disruption is also avoided due to the ability to retain software products that users are already familiar with.

  - PL/ExtJava (new feature for V12.1)
    By supporting development of stored procedures using Java the same programming language can be used for both client and server applications.

Fujitsu Support

- Fast and effective support
  The Symfoware Server Development Division works in unison with the Support Division to provide a permanently aligned best-of-breed support service.

  - Long-term support
    Long-term standard support is provided for a period of five years, starting from the end of the sales phase for the product release. In addition, an extended support option is available for ongoing assurance, so that future support and system confidence is a guaranteed business outcome.

- Support
  High quality long-term support
  Guaranteed

Symfoware Server

POSTGRES Item Symfoware Server V12

Max. number of columns in table 1,600
Max. row length in table Up to 400 GB
Max. number of rows in table Unlimited
Max. number of indexes per table Unlimited
Index storage format in table btree
max
hash
GIN
Char types
CHARACTER
CHARACTER VARYING
NCHAR
NCHAR VARYING
etc
text
Basic architecture
Numeric types
smallint
integer
double precision
bigint
serial
decimal
numeric
smallserial
Datetime types
timestamp
interval
date
time
timestamp with time zone
Binary data types
bytea
XML
Yes
Character set
UNICODE
Yes
(149 locales)
Multilingual support
Yes
Data Encryption
Yes
Reliability
Standby
Yes
Security
SQL standard
Compliant with ANSI/ISO SQL: 2011
Oracle compatible SQL
Outer join operator
DUAL table
Functions (SUBSTR / NVL / DECODE)
Built-in packages (UTILITY / DBMS_OUTPUT / DBMS_SQL)
Language
C
Yes
CLOBL
Yes
ODBC
Yes
JDBC
Yes
.NET Framework
Yes
Additional standard interfaces
Yes
Development environment (Eclipse, Visual Studio, etc)
Yes
StoredProcedure / Functions
Yes
Access control
Deadlock automatic detection
Yes
Query by other transactions during updates
Yes
Multi version control
Yes
Application development

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