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# Document History

Table 1:

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Change:</th>
</tr>
</thead>
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<tr>
<td>1.0</td>
<td>25-06-2012</td>
<td>Initial version</td>
</tr>
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</table>
| 1.1     | 18-09-2012 | • New chapter on SAP Adaptive Server Enterprise licensing options: SAP ASE Licensing Options [page 6]  
• Additional chapter on migration of SAP NetWeaver BW Systems: Migration of SAP NetWeaver BW Systems [page 26]  
• Release-specific SAP Notes for the DBA Cockpit (chapter Operations [page 22]).  
• New chapter Online Information for SAP Business Suite on SAP ASE [page 30] |
| 1.2     | 07-12-2012 | • New FAQ on SAP ASE 15.7 compression: SAP Note 1750510  
• Chapter Configuration: Important SAP Notes for Configuration [page 19]  
• SAP Landscape Virtualization Management (LVM) is available for SAP on ASE, see chapter Virtualization [page 24]  
• Best practice - Migration to SAP ASE: SAP Note 1680803 |
| 1.3     | 28-01-2013 | HP Serviceguard Solutions for Linux, see chapter Database High Availability/Failover: OS Level Cluster (Cold Standby) Database High Availability/Failover: OS Level Cluster (Cold Standby) [page 11] |
| 1.4     | 20-01-2014 | Change in terminology: The term SAP Sybase Adaptive Server Enterprise (SAP Sybase ASE) has been replaced with SAP Adaptive Server Enterprise (SAP ASE). |
| 1.5     | 02-06-2014 | New database release: SAP Adaptive Server Enterprise 16.0 SAP Note 1973241 |
| 1.6     | 17-12-2014 | Minor changes                                                                                                                          |
| 1.7     | 09-06-2015 | Updated version                                                                                                                          |
| 1.8     | 03-02-2016 | Updated version                                                                                                                          |
| 1.9     | 20-10-2016 | Database Disaster Recovery: Synchronous Data Replication with the SAP Replication Server (Hot Standby) – SAP ASE 16.0 SP02 PL04 |
| 2.0     | 20-04-2017 | Updated version                                                                                                                          |
| 2.1     | 14-11-2017 | Correction of links                                                                                                                      |
2 Introduction

This document gives you an overview of the setup for database installation and administration of an SAP Adaptive Server Enterprise (SAP ASE) database that is run with the SAP system. The aim is to help you get started as quickly as possible by providing you with concise information and links to further details.

To avoid error situations or bottlenecks in the database, you need to know where to find extra information that goes beyond the scope of this documentation.

SAP ASE has been certified to run SAP Business Suite applications. In addition to providing optimizations for SAP applications delivered as part of SAP ASE, SAP is committed to SAP ASE as the go-to-platform for delivering new database optimizations and features including database administration for SAP Business Suite.

SAP ASE is the preferred database for transaction environments, especially for SAP ERP and other SAP Business Suite applications, including the SAP Solution Manager. SAP ASE is also often used for SAP NetWeaver Business Warehouse.

Solution schedules for SAP Business Suite and the database releases are synchronized through joint roadmaps and the maintenance periods follow the supported solutions.

SAP on ASE is available for the following solutions:

<table>
<thead>
<tr>
<th>Solution:</th>
<th>Availability:</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP NetWeaver (incl. SAP NetWeaver Business Warehouse SAP NetWeaver Process Integration SAP Enterprise Portal)</td>
<td>SAP NetWeaver 7.02 and higher</td>
</tr>
<tr>
<td>SAP ERP</td>
<td>SAP ERP 6.0 EHP5 and higher</td>
</tr>
<tr>
<td>SAP CRM</td>
<td>SAP CRM 7.0 EHP1 and higher</td>
</tr>
<tr>
<td>SAP SRM</td>
<td>SAP SRM 7.0 EHP1 and higher</td>
</tr>
<tr>
<td>SAP SCM</td>
<td>SAP SCM 7.0 EHP1 and higher</td>
</tr>
<tr>
<td>SAP Solution Manager</td>
<td>SAP Solution Manager 7.1 and higher</td>
</tr>
</tbody>
</table>

For more information on released platforms, refer to Product Availability Matrix and SAP Note 1554717.

Constraints:

SAP supports ASE-SMP (or ASE classic). The SAP ASE Cluster Edition is not supported.
3 SAP ASE Licensing Options

SAP offers a runtime and stand-alone license for the SAP Adaptive Server Enterprise Edition. The runtime license is the recommended option to run SAP Business Suite and fully supports automated installations, upgrades and migrations. The runtime license includes all ASE options and is required to install SAP Replication Server for Disaster Recovery / High Availability. To run SAP Business Suite with a stand-alone license, you need to buy all available options to stay compliant. However, it is not recommended to run SAP Business Suite with a stand-alone license and operations issues caused by the usage of a stand-alone license are not supported.

Note

Stand-alone and runtime licenses for SAP Business Suite applications have different license keys. A runtime license is always limited to one SAP installation number. For more information on Disaster Recovery, refer to chapter High Availability and Disaster Recovery [page 11].
4 SAP ASE Features

4.1 Compression

SAP ASE for Business Suite uses a number of compression strategies to achieve high compression ratios. This includes compression within a single row to remove empty space and zeroes in fixed length columns. At page/block level, this includes both page dictionary and page index compression strategies. Repeated data items and repeated sets of data items are replaced by a single reference - resulting in dramatic savings for duplicate data.

SAP ASE for SAP Business Suite also supports LOB compression. Given that LOBs can be very large in size (up to 2GB), compression can result in very significant space savings. FastLZ and ZLib compression techniques are supported. While the first provides lower CPU usage and execution times, the latter provides higher compression ratios.

Data and LOBs are also buffered in compressed form in ASE’s data cache(s), reducing the memory resources required to run SAP applications on ASE. Default compression settings are applied to all tables during SAP installation.

Index compression has been introduced with SAP ASE 16.0. For more information, see Compression Advisor for SAP Adaptive Server Enterprise.

4.2 In-Row LOBs

SAP pool and cluster tables make heavy use of text (CLOB) and image (BLOB) data types. SAP ASE supports in-row LOBs for situations where LOBs are fairly small and can readily fit within the corresponding data row. This helps in reducing I/O while accessing small LOBs and also further decreases the overall database size. The in-row LOB size is freely configurable. Proper defaults are applied to all tables during SAP installation.

4.3 Data Partitioning

SAP ASE supports several data partitioning types (range, hash, list, round-robin). As for other DBMSs supported by SAP, partitioning can be selectively used to reduce contention on hot tables. In SAP BW, partitioning is used to optimize lifecycle management tasks. For more information, refer to Partitioning Types.
4.4 Task Scheduler

In contrast to most other DBMSs, ASE controls decisions regarding which user task to run in its own tasks scheduler. This provides maximum throughput by minimizing the time needed to perform user context switches and by rendering it possible to optionally separate user workloads according to business priorities. User tasks are organized in engine run queues, where the number of engines can be configured up to the number of processor cores or hardware threads available.

The threaded kernel introduced with SAP Sybase ASE 15.7 enhances ASE scalability on systems with a very large number of processors, processor cores, and hardware threads.

For more information on the threaded mode, see New Features in Adaptive Server Version 15.7 -> New Adaptive Server Kernel.

4.5 Resource Configuration Limits

SAP ASE is capable of managing up to 4 TB of physical memory and up to 1024 engines. The maximum number of user connections is 2 billion, which is also true for the number of data partitions configurable.

The following document describes recommended ways how to tweak the runtime operation of an SAP system running on SAP ASE: Best Practices for Migration and Runtime.

For more information on SAP ASE features, see New Features in Adaptive Server Version 15.7 and New Features in Adaptive Server Version 16.0.
5  Installation

The SAP ASE package provided by SAP includes the ASE server as well as the JDBC and ODBC drivers for database connectivity. SAP ASE is installed silently as part of the installation of the respective SAP product. Do not install the ASE software separately prior to the SAP installation.

You normally obtain the installation media as part of the installation package from SAP. However, you can also download installation media from the Software Center using the following paths:

https://launchpad.support.sap.com/#/softwarecenter\mrg Databases \mrg Database and Database Patches \mrg SAP Adaptive Server Enterprise \mrg Database \mrg SAP ASE for Business Suite

The SAP ASE database patches are available under:

https://launchpad.support.sap.com/#/softwarecenter\mrg Databases \mrg Database and Database Patches \mrg SAP Adaptive Server Enterprise \mrg Database Patches \mrg SAP ASE for Business Suite

Download ASE versions and patches with the extension for Business Suite. Only these versions are subject to special SAP quality measures!

Do not download updates for the ASE server, or for the JDBC and ODBC drivers from other websites!

For more information on updating SAP ASE in the context of SAP Business Suite products, refer to SAP Note 1590719\mrg.

<table>
<thead>
<tr>
<th>Solution:</th>
<th>Installation Guides:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software Logistics Toolset 1.0</td>
<td><a href="http://support.sap.com/sitoolset">http://support.sap.com/sitoolset</a></td>
</tr>
<tr>
<td>\mrg Software Logistics Toolset 1.0 \mrg System Provisioning \mrg Installation Option of Software Provisioning Manager \mrg Installation Guides - Application Server Systems \mrg SAP Application Server Systems Based on SAP NetWeaver</td>
<td></td>
</tr>
<tr>
<td>Select the database and product release via the filter function.</td>
<td></td>
</tr>
<tr>
<td>SAP ERP</td>
<td><a href="http://help.sap.com/erp">http://help.sap.com/erp</a></td>
</tr>
<tr>
<td>\mrg &lt;Release&gt; \mrg Installation and Upgrade</td>
<td></td>
</tr>
<tr>
<td>SAP CRM</td>
<td><a href="http://help.sap.com/crm">http://help.sap.com/crm</a></td>
</tr>
<tr>
<td>\mrg &lt;Release&gt; \mrg Installation and Upgrade</td>
<td></td>
</tr>
<tr>
<td>SAP SRM</td>
<td><a href="http://help.sap.com/srm">http://help.sap.com/srm</a></td>
</tr>
<tr>
<td>\mrg &lt;Release&gt; \mrg Installation and Upgrade</td>
<td></td>
</tr>
</tbody>
</table>
The following SAP Notes serve as a collection of corrections for the ABAP Dictionary for SAP Adaptive Server Enterprise (SAP ASE). The notes include corrections of database platform-specific coding for SAP ASE:

<table>
<thead>
<tr>
<th>Note Number:</th>
<th>Title:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1946164</td>
<td>SYB: Dictionary patch collection for SAP NetWeaver 7.02</td>
</tr>
<tr>
<td>1965664</td>
<td>SYB: Dictionary patch collection for SAP NetWeaver 7.30</td>
</tr>
<tr>
<td>1965754</td>
<td>SYB: Dictionary patch collection for SAP NetWeaver 7.31</td>
</tr>
<tr>
<td>1965755</td>
<td>SYB: Dictionary patch collection for SAP NetWeaver 7.40</td>
</tr>
</tbody>
</table>

Important SAP notes for the installation:

<table>
<thead>
<tr>
<th>Note Number:</th>
<th>Title:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1554717</td>
<td>SYB: Planning Information for SAP on ASE</td>
</tr>
<tr>
<td>1748888</td>
<td>SYB: Inst. Systems Based on NW 7.3 and higher: SAP ASE</td>
</tr>
<tr>
<td>1799291</td>
<td>SYB: Inst. Systems Based on NW 7.0 incl. EHPs: SAP ASE</td>
</tr>
<tr>
<td>1599814</td>
<td>SYB: Installing Service Packs for SAP ASE (UNIX + Linux)</td>
</tr>
<tr>
<td>1607816</td>
<td>SYB: Installing Service Packs for SAP ASE (Windows)</td>
</tr>
<tr>
<td>1729176</td>
<td>SYB: Changing the listener port of SAP ASE</td>
</tr>
<tr>
<td>1590719</td>
<td>SYB: Updates for SAP Adaptive Server Enterprise (SAP ASE)</td>
</tr>
</tbody>
</table>
6 High Availability and Disaster Recovery

6.1 Database High Availability/Failover: OS Level Cluster (Cold Standby)

In the cold standby setup of SAP ASE, you use two database servers, a primary database server and a standby database server ("cold standby"). The database is located on a disk that is shared by the two database servers. Since the database servers share a disk, this setup is sometimes also referred to as "shared disk scenario". The cold standby setup uses operating system clustering to ensure high availability. The secondary ASE host is started when the primary host is not available. It takes over the complete database from the shared disk. The database software and configuration files can either be installed on the shared disk or on a local disk if the access path is the same on all cluster nodes. The advantage of the local software and configuration installation is that it is possible to configure ASE differently on each cluster node and to reduce database downtime in case of software maintenance. This solution requires the same hardware for the primary and secondary hosts to avoid a mismatch in the configuration of the Adaptive Server.
To make your database server highly available, you can use one of the following high availability strategies that are built into SAP ASE:

- Database High Availability/Failover: OS Level Cluster (Cold Standby) [page 11]
- Database Disaster Recovery: IO System Data Replication Custom Based (Cold Standby) [page 14]
- Database Disaster Recovery: Log File Shipping Custom Based (Warm Standby) [page 15]
- Database Disaster Recovery: Synchronous Data Replication with the SAP Replication Server (Hot Standby) [page 16]

Challenges:

- System not available during failover and database recovery
- In-flight transactions are lost
- Risk of I/O level corruption
- Database software maintenance requires downtime

Figure 1: Database High Availability / Failover: OS Level Cluster (Cold Standby)
The following partner solutions support the SAP ASE HA cluster scenario:

<table>
<thead>
<tr>
<th>Platform:</th>
<th>HA Offering:</th>
</tr>
</thead>
</table>
SAP ASE resource agents are available for several platforms, see [https://sort.veritas.com/agents](https://sort.veritas.com/agents) |
### 6.2 Database Disaster Recovery: IO System Data Replication Custom Based (Cold Standby)

In a data replication scenario both servers are kept in sync. In the event of a failure, the standby database server takes over the workload without any loss of data. The cold standby setup uses synchronous transfer of transaction data using the Logical Volume Manager (LVM) or storage replication.

**Challenges:**
- System not available during failover and database recovery
- In-flight transactions are lost
- Risk of I/O level corruption despite separate disks for data storage
6.3 Database Disaster Recovery: Log File Shipping Custom Based (Warm Standby)

In a warm standby setup database transactions are transferred asynchronously (log file shipping). The standby host works in continuous recovery mode. The warm standby solution provides the option to distribute data to distant locations. Separated disks for data storage, provide protection against IO level data corruption.

**Challenges:**
- Data loss possible
- Most recent changes (transactions) have to be checked by end users
- Undefined downtime in case of failover

For more information, see attachment of SAP Note [1650511](#).
More information on High Availability Offerings for SAP ASE:

- SAP Note 1650511: High Availability Offerings for SAP on ASE

6.4 Database Disaster Recovery: Synchronous Data Replication with the SAP Replication Server (Hot Standby)

Solution:

- Uses synchronous transfer of database transactions
- SAP Replication Server manages synchronous log transfer
- Option to distribute data to distant locations
- Separated disks for data storage, provides protection against IO level data corruption
- No data loss in synchronous replication mode
For more information, see SAP Note 1891560 and the blog [HADR Availability on SAP Adaptive Server Enterprise 16.0](https://blogs.sap.com/2020/04/15/hadr-availability-on-sap-adaptive-server-enterprise-16-0/).
7 Configuration

7.1 Dynamic Configuration

Most of the configuration parameters are dynamic; there is no need to reboot the ASE server for changes to take effect. The dynamic configuration allows easy reconfiguration, even in production environments.

7.2 Configuration of Physical Memory

The total physical memory that ASE uses is limited by the max memory configuration parameter. This memory is assigned for different use cases inside the DBMS. In SAP ASE, the most important memory pools are:

- Caches for storing data and index pages
- Table, index and partition metadata caches
- Procedure cache, which is used to compile, execute, and cache query access plans
- Lock list used for row and table locks
- Memory required for user connections

7.3 Number of CPU Cores

The number of CPU cores that SAP ASE is allowed to use can be configured by the maximum number of ASE engines and the number of threads in the ASE thread pools.

7.4 Alphabetical Listing of Configuration Parameters

For detailed information about each configuration parameter, refer to the following Info Center: Alphabetical listing of configuration parameters.
7.5 Important SAP Notes for Configuration

Configure the database after the installation: *SAP Note 1539124*

Sizing and tuning of production systems *SAP Note 1680803*

Mandatory requirement to turn off the *plan sharing* feature in SAP ASE: *SAP Note 1940536*
8 Backup and Recovery

It is of prime importance for your business that you define your recovery objectives and that you develop and test a backup and recovery process that meets these defined objectives. Your business depends on its ability to recreate the database of your SAP system in the case of a failure.

A full disaster recovery of an SAP ASE database system requires to recreate the ASE software installation, rebuild the ASE server and to load the SAP database into the ASE server.

The ASE software installation and the ASE database server can be recreated from external sources, while the SAP database must be recovered from a database backup. To speed up recovery, it is recommended that you perform a backup not only for the SAP database, but also for the ASE server and the ASE software installation.

8.1 Backup of the SAP ASE Software Installation

Refer to your OS vendor’s documentation regarding how to ensure recoverability of the OS system with all its file systems.

8.2 SAP ASE Server Backup

The ASE server stores information about databases, devices, ASE logins, and ASE server roles in the master database. It is recommended that you generate frequent backups of the master database.

8.3 Backup of Databases

The backup of the SAP ASE databases consists of two tasks:

- Backing up the database
- Backing up the transaction logs (mandatory for production databases)

8.3.1 Backing up Databases

SAP ASE provides two different means for backing up a database:
• DUMP DATABASE command and
• an external backup method

The DUMP DATABASE command is an online operation - that is, users can stay connected to the system and continue to work. Databases backed up with the DUMP DATABASE command have to be restored using the LOAD DATABASE command.

The external backup method relies on the ability to suspend write access to a database and back up a consistent copy of the database devices using an external mechanism, such as splitting off disk mirrors. The copies of the database devices can be used to recover the database using the MOUNT command.

**8.3.2 Backing up the Transaction Log**

For a production system it is mandatory to be able to recover the SAP database up to the latest possible point in time. This requires that the transaction log of the database is backed up with the DUMP TRANSACTION command.

To recover information in the transaction log, you must load the transaction log dumps with the LOAD TRANSACTION command.

For general recommendations regarding recoverability of SAP applications using SAP ASE, refer to SAP Note 1585981 - SYB: Ensuring Recoverability for SAP ASE.

Information on backup and recovery of an SAP system on SAP ASE:

<table>
<thead>
<tr>
<th>Note Number:</th>
<th>Title:</th>
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</thead>
<tbody>
<tr>
<td>1611715</td>
<td>SYB: How to restore an SAP ASE database server (Windows)</td>
</tr>
<tr>
<td>1618817</td>
<td>SYB: How to restore an SAP ASE database server (UNIX)</td>
</tr>
<tr>
<td>1588316</td>
<td>SYB: Configure automatic database and log backups</td>
</tr>
<tr>
<td>1801984</td>
<td>SYB: Automated management of long running transactions</td>
</tr>
<tr>
<td>1887068</td>
<td>SYB: Using external backup and restore with SAP ASE</td>
</tr>
<tr>
<td>1841993</td>
<td>SYB: How to schedule backups in DBA Cockpit</td>
</tr>
</tbody>
</table>


9 Operations

The monitoring and administration of an SAP ASE database can be performed in many ways. There are native tools provided in the form of stored procedures. MDA tables provide easy and direct access to monitoring data (see the Entity Relationship Diagram of the monitoring tables for SAP Adaptive Server Enterprise). With the DBA Cockpit SAP provides a modern, browser-based and centralized monitoring and administration tool for small and large landscapes of SAP ASE systems:

![DBA Cockpit](image)

The DBA Cockpit is part of every SAP NetWeaver-based system. You can run the DBA Cockpit locally by calling transaction DBACOCKPIT. Alternatively, you can run the DBA Cockpit on your SAP Solution Manager system, where you can access all databases in your system landscape using remote connections. If you use the DBA Cockpit as part of the SAP Solution Manager system, this allows you to update and administer all databases.
from a central system rather than having to log on to each individual system separately. With SAP Solution Manager 7.1, SAP customers receive an Enterprise Management Tool, including components like alerting, Performance Warehouse, a ticketing system, and so on.

SAP additionally provides the SAP Control Center (SCC), an application-agnostic, centralized monitoring and administration tool. It also covers other products like SAP IQ or SAP Replication Server.

**Maintenance Tasks**

With regard to other DBMSs, changes to the database content will necessitate maintenance of table statistics as well as the physical data store. SAP ASE provides lightweight utilities to update table statistics and to reorganize objects without any business downtime. A complete rebuild of objects is possible without business downtime.

The DBA Cockpit for SAP ASE provides a framework that allows automation of tasks like statistics update or object reorganization. Details are available at [DBA Cockpit: Automatic Table Maintenance for SAP ASE](http://example.com). For more information, see the Database Administration Guide: [SAP NetWeaver Guide Finder](http://example.com).

- Select the filter *Operate my System* in column *I want to*.
- Select the filter *SAP Adaptive Server Enterprise* in the column *my database*.

The following SAP Notes provide release-specific information on the DBA Cockpit:

<table>
<thead>
<tr>
<th>Note Number</th>
<th>Title:</th>
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</thead>
<tbody>
<tr>
<td>1757924</td>
<td>SYB: DBA Cockpit Release Notes 7.02 SP10, 7.30 SP5, 7.31 SP1</td>
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<tr>
<td>1757928</td>
<td>SYB: DBA Cockpit Release Notes 7.02 SP11, 7.30 SP6, 7.31 SP2</td>
</tr>
<tr>
<td>1758182</td>
<td>SYB: DBA Cockpit Release Notes 7.02 SP12, 7.30 SP8, 7.31 SP5</td>
</tr>
<tr>
<td>1758496</td>
<td>SYB: DBA Cockpit Release Notes 7.02 SP13, 7.30 SP9, 7.31 SP7, 7.40 SP2</td>
</tr>
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<td>1814258</td>
<td>SYB: DBA Cockpit Release Notes 7.02 SP14, 7.30 SP10, 7.31 SP9, 7.40 SP4</td>
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<td>1922555</td>
<td>SYB: DBA Cockpit Release Notes 7.02 SP15, 7.30 SP11, 7.31 SP11, 7.40 SP6</td>
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<td>1956005</td>
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<td>2065842</td>
<td>SYB: DBA Cockpit Release Notes 7.02 SP17, 7.30 SP13, 7.31 SP16, 7.40 SP11</td>
</tr>
<tr>
<td>2041812</td>
<td>SYB: DBA Cockpit Release Notes 7.40 SP9</td>
</tr>
</tbody>
</table>
10 Performance

10.1 SQL Query Optimization

Query execution in SAP ASE is performed using a cost-based optimizer. Query plans are dynamically generated on the basis of available indexes, data statistics, CPU and memory resources. The query optimizer can be configured to achieve different optimization goals, allowing optimization of query execution for different workloads like OLTP vs. OLAP.

Query execution plans generated by the optimizer can be easily analyzed using system procedures or the DBA Cockpit. Optimization hints allow database administrators to tweak questionable query access plans in a more efficient way.

10.2 Database Scalability

SAP ASE provides many ways of making use of parallel resources.

Today’s SMP system offers:

- Threaded kernel within ASE-internal task dispatcher
- Parallel object reorganization
- Parallel index build
- Parallel query execution
- Parallel backup and restore

10.3 Virtualization

Since customer demands for support of virtualization are rapidly growing, SAP offers support for running its applications in virtualized cloud environments. SAP ASE can be used in a virtual environment.

SAP Landscape Virtualization Management (LVM) is available for SAP Business Suite on SAP ASE.

For more information, refer to SAP Note 1630050 and SAP Note 1492000.
11 Security

SAP ASE provides many features for securing database access and data stored in the database:

- Strong password encryption
- Encrypted client-server communication (SSL)
- Encrypted storage (column level encryption)
- Logon trigger for blocking access from unwanted networks
- Flexible build-in auditing system

SAP Business Suite applications on SAP ASE use the standard procedures for user management and authentication provided with the SAP NetWeaver Application Server ABAP and Java:


For information on special security procedures for SAP applications on SAP ASE, refer to the Security Guide for SAP Adaptive Server Enterprise:

SAP NetWeaver Guide Finder

- Select the filter Operate my System in column I want to.
- Select the filter SAP Adaptive Server Enterprise in the column my database.

You need to ensure:

- the security of operating system users, database logins, and SAP system users
- the deletion of the installation directory after the installation of an SAP application on ASE
- a well-defined network topology to eliminate security threats based on software flaws or network attacks such as eavesdropping

Network and Transport Layer Security:


Connectivity and Interoperability Technologies:

12 Migration

12.1 Basics for Migration of SAP NetWeaver Systems

To support migrations, SAP provides Migration Services. These include services, tools, and documentation. The services provided include help in planning the migration (checking the project plan) as well as support for the SAP tools and a GoingLive-Migration Check. In this way SAP offers delivery of services to support you in all the phases of your migration project. The project plan check ensures that you have not overlooked any important steps during planning and that the time frame for the project is reasonable. SAP tools enable you to check that your data is complete and consistent.

Migration to SAP ASE is supported by various offerings from SAP:

- Engineering Services from SAP Active Global Support for SAP MaxAttention® and SAP ActiveEmbedded customers. Visit www.sap.com/services to learn about SAP ActiveEmbedded® and the overall SAP Services portfolio.
- Rapid Deployment Solutions®
- Heterogenous System Copy®

For more information, see SAP Note 1680803.

12.2 Migration of SAP NetWeaver BW Systems

Migration procedures for SAP NetWeaver BW, and applications like SCM (APO), SAP SEM, or SAP Solution Manager that include SAP NetWeaver BW, are usually more complex than other migrations. In order to achieve optimum performance on different database platforms, SAP NetWeaver BW uses special database-specific features that cannot easily be mapped to each other and that are not explicitly represented in the ABAP Dictionary. BW implementations are very much optimized for the underlying database exploiting its specific features for OLAP processing. Often even the customer data model is adapted to the current database to achieve best performance.

If a customer decides to migrate to another database, it is required to optimize the BW system to the new database and its specific features for good performance.

It is strongly recommended to run a test drive of the migration under production conditions to make sure the final productive database switch is as successful as expected.

See SAP Note 2103871® to prepare a database migration on the different SAP code levels!

Carefully follow the instructions in SAP Note 888210® NW 7.**: System copy (supplementary note) before you start the migration.
Database migrations with SAP ASE as the target database require special attention if F fact tables are to be created without partitions in the target database. Perform additional configuration steps in the source system of the migration before performing any other migration steps.

For more information, refer to SAP Note 1691300 (SYB: Unpartitioned F fact tables for InfoCubes)
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Online Information for SAP Business Suite on SAP ASE

More information is available online:

- SAP Adaptive Server Enterprise Community
- SAP Help Portal - SAP Adaptive Server Enterprise
Important Disclaimers and Legal Information

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