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IT Asset Management 2023 R2.3

FlexNet Manager for SAP Applications Sizing Guidelines

Legal Information

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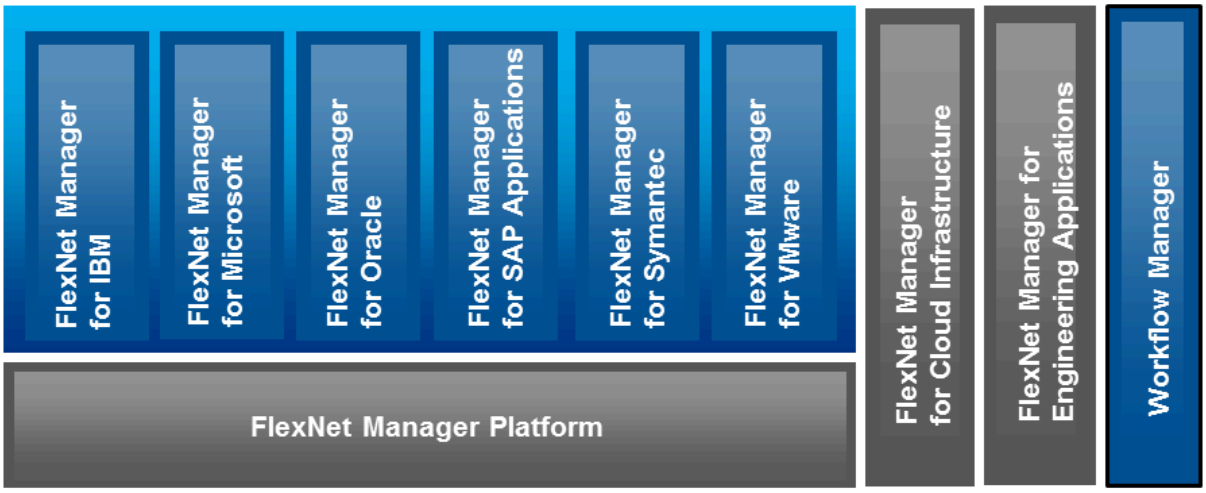
Introduction

This document provides guidelines for sizing server hardware to be used for implementations of FlexNet Manager for SAP Applications.

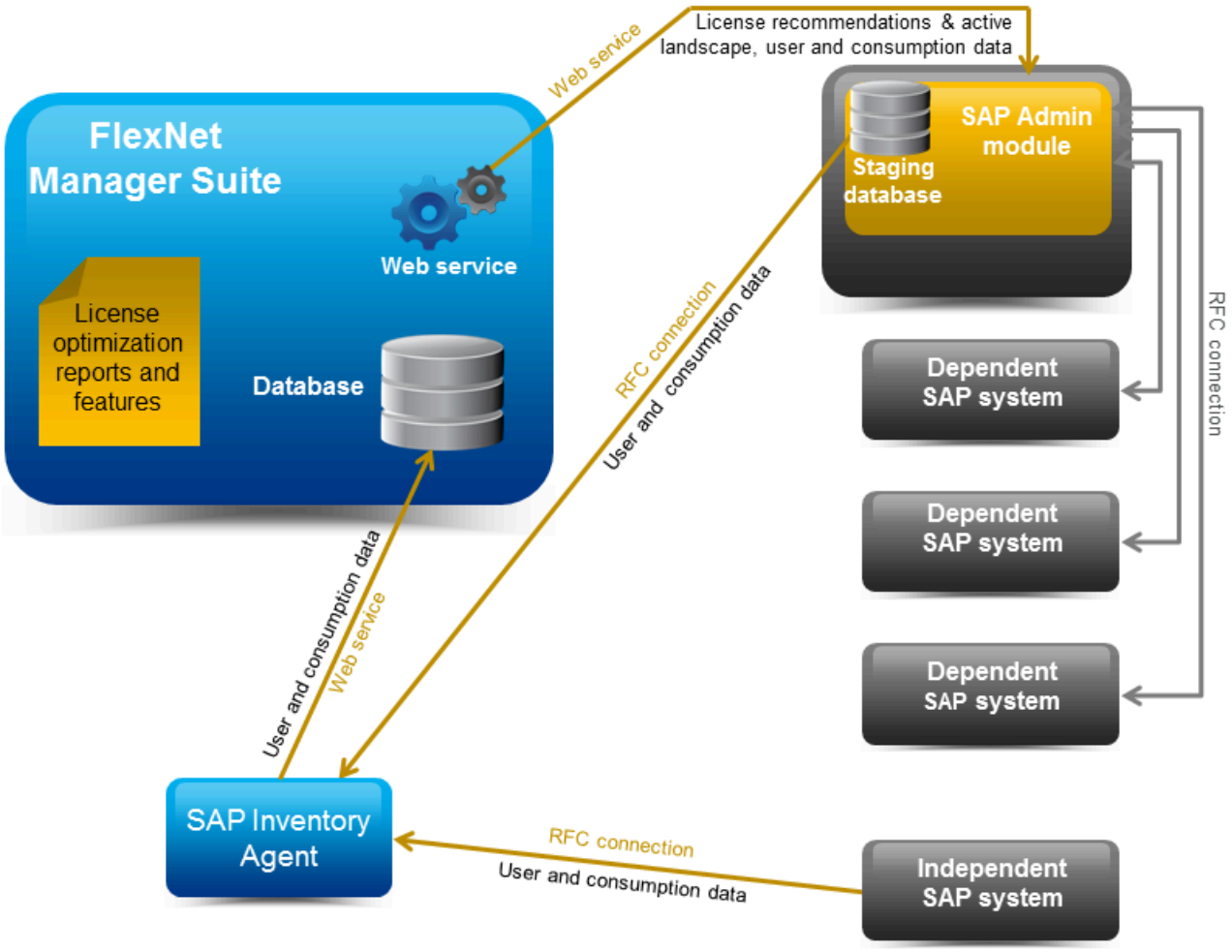
Important: *These guidelines only apply in instances where no other functionality of IT Asset Management is used other than the SAP-related functionality. If the full functionality of IT Asset Management is used, then different sizing guidelines are available.*

IT Asset Management

IT Asset Management is a comprehensive software asset management and license compliance and license optimization solution. FlexNet Manager Platform is the foundation of IT Asset Management and provides the core SAM (Software Asset Management) functionality. Additional solutions are available for automated license optimization of, for example, IBM, Microsoft, Oracle, SAP, Symantec, and VMware software.



Architecture of FlexNet Manager for SAP Applications



Components of a typical FlexNet Manager for SAP Applications installation:

1. FlexNet Manager Platform provides the basis for using FlexNet Manager for SAP Applications. The required hardware is a Windows server. The database server can be a separate server or the same physical server as the FlexNet Manager Platform server.
2. The SAP Admin module of FlexNet Manager for SAP Applications requires an SAP system with release 7.00 or later (minimum Basis support package 14).
3. The Satellite transport of FlexNet Manager for SAP Applications is an optional component. Release 4.6C or later is required; no sizing is necessary. The Satellite transport must be installed if any of the following statements are true:
   - You want to collect SAP package data and run activity checks and you do not want to execute the USMM to collect user data and license data

- You do not want to use the RFC function RFC_READ_TABLE or its corresponding authorization, SDTX
- You want to collect activity check data for a system that runs an SAP Basis release older than 7.0
- You use a CUA central system that is not installed on the same system as the SAP Admin module
- You want to retrieve the module hierarchy from an independent SAP system. The module hierarchy is used to provide information on modules and sub-modules in the Module Usage report. The data from the Module Usage report can be used to create transaction profiles.

If any of the above statements apply to you, the Satellite transport must be installed on all SAP systems with SAP packages, to enable the optimization of the relevant package licenses and execution of activity checks. If the Satellite transport is not used, the USMM must be executed to collect license data and user data.

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Sizing for Inventory Beacons

An inventory beacon is a computer located within your enterprise that gathers software inventory and uploads the data to IT Asset Management.

Minimum hardware requirements for an inventory beacon:

- Processors: dual-core CPU
- Memory: 8 GB
- System drive: 40 GB.

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Database Server Sizing

The database server runs an instance of SQL Server to host the IT Asset Management database, the Cognos content store, and the data warehouse. The following guidelines are based on sizing a server that will not host other databases. If the planned server is expected to host databases for other products, its sizing should be increased appropriately to cope with the expected additional resource requirements of those products. The assumption is that, on average, an SAP user has 30-50 rows of consumption per month (number of transactions used).

Table 1: Database server sizing

Resource	Recommendation	Comments
Processors	1 x quad-core CPU per 10 concurrent users	Processor resources are used to service concurrent database queries stemming from remote consoles, report generation and importing inventory data.
Memory	2 GB per 100,000 SAP user accounts	Key IT Asset Management functions whose performance may be affected by the amount of memory available to SQL Server are the inventory import, loading of data for console views, and generation of reports. Although it is possible for SQL Server to service all of these functions using a minimal amount of memory, memory should be sized to ensure a significant proportion of the inventory data in the IT Asset Management database and temporary database can be cached in RAM, so that paging is minimized.
System Drive	40 GB	Allow 10 GB for IT Asset Management components on top of base operating system requirements.

Resource	Recommendation	Comments
Data Drives	**IT Asset Management database data:** 10 GB for IT Asset Management system data, plus 5 GB per 100,000 SAP user accounts **IT Asset Management database logs:** 50 GB **tempdb data:** 20 GB for IT Asset Management system operations, plus 5 GB per 100,000 SAP user accounts **tempdb logs:** 20 GB for IT Asset Management system operations, plus 10 GB per 100,000 SAP user accounts.	These estimates can be used to calculate how much disk drive space should be allocated for various files. The actual files on disk will be smaller than these figures. These metrics are calculated such that data file sizes should be up to roughly 50% of the allocated disk space, while log file sizes should be up to roughly 67% of the allocated disk space. The simple database recovery model should be used for the IT Asset Management database, meaning that the transaction log should only grow to not much larger than the largest single transaction. Use of the full database recovery model will result in more database log space being used than is specified here. See Database Disk Recommendations for additional guidelines about the management of data drives.
Operating System	Windows Server 2012 Standard or later	A 64-bit operating system is strongly recommended for the database server in order to get the best SQL Server performance. Windows Server 2012 Enterprise may be typically required for larger servers with more memory.
Other Software	Microsoft SQL Server 2012 Standard Edition (64 bit) or later IIS (version as supplied with OS) Other prerequisites as per release notes	SQL Server Enterprise Edition is required if this server has more than 4 CPUs or more than 64 GB of RAM.

Database Disk Recommendations

Careful consideration should be given to the physical disks on which database files are stored in order to maximize performance. For IT Asset Management implementations managing more than around 200,000 SAP users, data files and transaction log files should be stored on separate physical disks (or a disk subsystem that performs equivalently) to maximize overall throughput to the disk subsystem.

IT Asset Management Database Disks

For best performance, the IT Asset Management database data and transaction log files should be placed on physically different disks. If a storage area network (SAN) is available for storage, seriously consider using the SAN for IT Asset Management, the database data, and log files to simplify data storage administration, support disaster recovery operations, and improve reliability.

tempdb Disks

"tempdb" is the temporary database used by Microsoft SQL Server to hold temporary data.

For best performance, the tempdb data and transaction log files should be placed on physically different disks, and not on the same disks as used by the IT Asset Management database files.

tempdb files can be placed on local disks or on a SAN.

If RAID disks are used for tempdb, RAID 1 or RAID 10 should be used. Do not use RAID 5, because the relatively slow write speed will negatively impact performance, and the added reliability provided by RAID 5 is not needed.

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SAP Admin Module Sizing

Each SAP Admin module collects data from its dependent SAP systems. The collected data is stored in a staging database. The SAP Inventory Agent connects to the staging database and loads the data into the IT Asset Management database. If required, your implementation can contain several SAP Admin modules that are connected to IT Asset Management. Each SAP Admin module has its own set of dependent SAP systems.

Table 2: SAP Admin module sizing

Category	Description	Peak Memory (GB)	Disk Space (GB)
Small	10 systems	1.6	2.8
Medium	50 systems	2	14
Large	100 systems	4	28

Important: *The sizing guideline is based on the estimation of 40,000 users per system and an average of 30 consumptions per user, in the last three months.*

The following factors can have an effect on performance:

- The number of SAP systems
- User master data volume
- The number of SAP roles and their allocations
- SAP Consumption data volume
- The number of SAP transactions, programs and jobs
- SAP user activity data volume
- SAP Engines list and usage.