This document will list the best practices to be followed by the users of ManageEngine Applications Manager

1. Hardware and Software requirements
2. Starting and Shutting Down Applications Manager
3. Configuring Applications Manager
4. Securing Applications Manager
5. Fault Management
6. Log file Management
7. Applications Manager Database Management
8. Crash & Recovery

1. Hardware and Software requirements

Performance of Applications Manager depends considerably on the CPU and memory of the system. The following table describes the configuration of the system required for various deployments. We strongly recommend having a dedicated server for Applications Manager when going into production. Each deployment of Applications Manager can have up to 500 monitors.

The hardware configuration (dedicated resource) for Stand Alone and Enterprise Edition setup is mentioned below.

<table>
<thead>
<tr>
<th>Edition</th>
<th>Number of Monitors</th>
<th>Processor</th>
<th>Memory*</th>
<th>Hard Disk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Professional Edition/Plugin</strong></td>
<td>1 to 100</td>
<td>2 Core / 2.0 GHz and above</td>
<td>4 GB RAM</td>
<td>100 GB &amp; above</td>
</tr>
<tr>
<td><strong>Professional Edition</strong></td>
<td>101 to 250</td>
<td>2 Core / 2.0 GHz and above</td>
<td>8 GB RAM</td>
<td>150 GB &amp; above</td>
</tr>
<tr>
<td><strong>Professional Edition</strong></td>
<td>251-500</td>
<td>4 Core / 2.0 GHz and above</td>
<td>12 GB RAM</td>
<td>200 GB &amp; above</td>
</tr>
<tr>
<td><strong>Enterprise Edition/Plugin</strong></td>
<td>251 to 1000</td>
<td>4 Core / 2.0 GHz and above</td>
<td>12 GB RAM</td>
<td>200 GB &amp; above</td>
</tr>
<tr>
<td></td>
<td>1 Admin &amp; 2-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Managed servers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Enterprise Edition</strong></td>
<td>1001 to 10000</td>
<td>4 Core / 2.0 GHz and above</td>
<td>16 GB RAM</td>
<td>200 GB &amp; above</td>
</tr>
<tr>
<td></td>
<td>1 Admin &amp; 2-20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Managed servers</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The above mentioned memory does not include memory used by OS which should account for another 4 GB
*If the number of Managed Servers is high, 16 GB RAM for the Admin Server is recommended.
Performance of Applications Manager is also influenced by the other factors such as

- Type of monitors configured and amount of telemetry data being collected.
- Polling interval set
- Number of reports enabled attributes, scheduled reports configured, duration of reporting data present
- Number of thresholds and actions configured
- Network Speed
- Number of concurrent users connected to the system

When you are going for large deployments, we recommend adding the monitors in the range of 25 – 50 at a time and determine the performance before adding more monitors. When the threshold is reached and when you find that Applications Manager system is slow to handle requests, then you may need to add the remaining monitors to another Managed Server.

Recommended Operating Systems and Browsers:

The following table lists the recommended software requirements for an AppManager installation.

<table>
<thead>
<tr>
<th>Software</th>
<th>Evaluation</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linux OS</td>
<td>Cent OS 7 / CentOS Stream 8 and above/ Debian/ Fedora/ openSUSE/ Oracle Linux/ RHEL 7 and 8/ SUSE Linux Enterprise/ Ubuntu 14 to 20.04</td>
<td>CentOS Stream 8 and above/ Debian/ Fedora/ openSUSE/ Oracle Linux/ RHEL 7 and 8/ SUSE Linux Enterprise/ Ubuntu 14 to 20.04</td>
</tr>
<tr>
<td>Browsers</td>
<td>Chrome/ Firefox/ Edge For all browsers, enable JavaScript, cookies, working with iframes and third-party cookies.</td>
<td>Chrome (preferred)/ Firefox/ Edge For all browsers, enable JavaScript, cookies, working with iframes and third-party cookies</td>
</tr>
</tbody>
</table>

- Using VMware or Hyper-V virtual machines is supported for all the supported operating systems.
- Can be installed on Amazon Elastic Compute Cloud (Amazon EC2) or Azure Virtual
Machines (VM) or Google Compute Engine or Oracle Cloud Infrastructure – Compute or similar Cloud Virtual Machines on the operating on the operating versions listed above.

- **User Privilege:** In Windows, Administrator privileges are required for Applications Manager installation.
- **Note:** Applications Manager is optimized for 1024 x 768 resolution and above.
- **Note:** Do take a look at the Windows vs Linux Downloads page. Compare the capabilities of Windows and Linux before proceeding to download the product.

### Supported Database Backends

Applications Manager supports PostgreSQL and MS SQL database backends for storing all the configuration information and data collected.

**Note:** Support for Applications Manager with MySQL database has been deprecated from March 31, 2017. Existing customers, refer [this post](#) for details.

#### PostgreSQL Server

PostgreSQL comes bundled with your download of Applications Manager from Build 11000. We support PostgreSQL versions up to **11.16** (for 64-bit installation) for the backend. For Applications Manager with PostgreSQL database backend, there will be two more additional users *(dbuser and rouser)* created along with the existing PostgreSQL user.

<table>
<thead>
<tr>
<th>Username</th>
<th>Description</th>
<th>Required Privileges</th>
</tr>
</thead>
</table>
| dbuser   | Used in case users do not want to use the SUPERUSER privilege for the Applications Manager database. | • CREATE DB  
• LOGIN  
• REPLICATION  
• NO ROLE CREATION |
| rouser   | Used to query the database from Applications Manager Query Tool option, in order to avoid users from executing UPDATE, DELETE, INSERT and ALTER type of queries. | • LOGIN/CONNECT  
• SELECT PRIVILEGES |

For normal installations, user account of *'dbuser'* will be used in the `database_params.conf` file instead of *'postgres'* user. However, for service pack installations, *'postgres'* user will be used by default and other two users will be created on very first startup of Applications Manager after service pack upgrade.
Microsoft SQL Server

The supported Microsoft SQL database versions that you may use are: **64-bit version of Microsoft SQL Servers 2019/ 2017/ 2016/ 2014 (SQL Standard / Enterprise Edition)**. It is also recommended that the SQL server and Applications Manager are in the same LAN.

From Applications Manager v15000 onwards, **Microsoft JDBC driver** will be used to establish connection with SQL database server from Applications Manager (except Plugin) by default. However, you can choose between **Microsoft JDBC** and **jTDS JDBC drivers** for establishing connection by selecting the required driver under **Settings -> Server Settings -> Database Configuration**. For SQL server version 2008 alone, only **SQL authentication** can be used to establish connection through **Microsoft JDBC driver**.

**Prerequisites for using SQL AlwaysOn Availability Groups as database backend:**
Applications Manager also supports **SQL AlwaysOn Availability Groups** as database backend. To connect to the SQL AlwaysOn, you will need to provide the SQL availability group's **DNS name** and **listener port** (usually 1433) in the place of the database details specified during installation.

**Note:** For proper functionality, we recommend that you create a separate account for Applications Manager in your MS SQL database server. [Learn more.](#)

**SQL Server Collation:** Any case-insensitive collation. By default:

- English with collation setting (SQL_La_n1_General_CP1_CI_AS)
- Norwegian with collation setting (Danish_Norwegian_CI_AS)
- Simplified Chinese with collation setting (Chinese_PRC_CI_AS)
- Japanese with collation setting (Japanese_CI_AS)
- German with collation setting (German_PhoneBook_CI_AS)

**Notes:**

- Windows Authentication mode and mixed mode (when using SQL authentication) are supported
- Ensure that latency between Applications Manager and Microsoft SQL server is low for better performance (preferred less than 100ms)
- Use SQL Server Express only for evaluations or small environments (up to 25 monitors)
- You can also use JDBC driver for data collection if you choose Microsoft SQL Server as your database back end.
2. Starting and Shutting Down Applications Manager

Starting Applications Manager:

In Windows:

Click Start → Programs → ManageEngine Applications Manager XX → Applications Manager Start (or)
Invoke the batch file startApplicationsManager.bat file located in the <Applications Manager Home> directory.

Once the server is initialized, a tray icon is placed in the Windows system tray. After the server has
started completely, the icon changes to and a message "Server Ready for Monitoring!" is displayed over the
icon. Right-click on the Applications Manager tray icon to connect to the web client or stop Applications Manager.

Starting Applications Manager as a Windows Service:

In Windows, you can start Applications Manager as a service. With this feature you can start the Applications
Manager server automatically when the Windows system starts.

By default, during product installation, you can choose to install it as a service (More on Installation). If you have
not enabled it then, use the following option to setup Applications Manager as a service.

1. Go to <AppManager Home>/bin directory, execute the installservice.bat file. On executing this file,
'ManageEngine Applications Manager' service is added in Windows Services and the startup type is set as
'Automatic', by default. (To ensure if it is installed as a service, check for the 'Services' under 'Windows
Administrative Tools').

   Note: For installing Applications Manager as service, you need to have administrative privileges in that
   system usage.

2. Now, when you start Windows system, Applications Manager is automatically started. You can swap
between Automatic and Manual modes.

To uninstall this service, go to <AppManager Home>/bin directory and execute the uninstallservice.bat file.

In Linux:

Execute the startApplicationsManager.sh file in the <AppManager Home> directory. It is recommended that you
execute the script in the below mentioned format:
nohup sh startApplicationsManager.sh &

Starting Applications Manager as a Linux service:

You can start Applications Manager as a Linux service. With this feature, you can start the Applications Manager
server automatically when the system starts. Follow the steps mentioned below to install AppManager as a service
on a Linux box:

1. Copy the attached AppManageLinuxService file to /etc/init.d directory as the file "AppManager".

2. Edit the MDIR variable in this file which should point to the Home folder of AppManager Installation
directory. Typically, the default installation folder on a Linux box will be /opt/ME/AppManager_Home. Hence the value for MDIR will be: MDIR=/opt/ME/AppManager_Home.

3. Provide executable permissions for this script using: chmod 755 /etc/init.d/AppManager.

4. Use chkconfig command to add "AppManager" as a service: chkconfig --add AppManager or use update-rc.d AppManager defaults

```plaintext
Note: Tested for Ubuntu 10.04 & above Build No: 11 & above.
```

## Shutting down Applications Manager:

### In Windows:

- Click Start → Programs → ManageEngine Applications Manager XX → Applications Manager Shutdown (or)
- In Applications Manager’s Admin tab, under Tools, click on Shut Down Applications Manager icon (or)
- Invoke shutdownApplicationsManager.bat file located in the <Applications Manager Home> directory (or)
- Execute shutdownApplicationsManager -force from <Applications Manager Home> directory (or)
- Right-click on the Applications Manager tray icon and click Stop Applications Manager (or)
- Go to Start → Run → services.msc → opens up Services console → stop ManageEngine Applications Manager. [If Applications Manager is running as service]

### In Linux:

Use shutdownApplicationsManager.sh script located in the <AppManager Home> directory to shutdown Applications Manager.

You can also use the Shut Down Applications Manager tool under Admin tab in Applications Manager.

## 3. Configuring Applications Manager

Performance of Applications Manager can be improved by configuring the following attributes.

### Enterprise Edition Setup:

Each installation of Applications Manager can normally support monitoring up to 500 monitors. This could go higher based on the hardware configuration of the server on which Applications Manager is deployed and based on the load of the monitored server.

When you need to monitor more monitors (greater than 500), for the above given system configuration, then it is recommended to move to distributed setup supported through Applications Manager Enterprise Edition setup. It works by supporting an Admin Server and Managed Server environment.
Refer the following link for more information on Enterprise Edition:


The below table gives the number of Managed Servers required for given number of monitors:

<table>
<thead>
<tr>
<th>Total No. of Monitors</th>
<th>Managed Servers</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>1</td>
</tr>
<tr>
<td>750</td>
<td>2</td>
</tr>
<tr>
<td>1000</td>
<td>2</td>
</tr>
<tr>
<td>2000</td>
<td>4</td>
</tr>
</tbody>
</table>

*Better numbers are possible with better hardware supporting over 500 monitors per server.*

**Increase data collection threads:**

Applications Manager uses different types of threads for data collection of different monitors. Applications Manager uses a separate thread for every data collection of monitors; the default number of threads used is controlled by the respective schedulers specified under

Applications Manager -> Admin Tab -> Server Settings (Under Product Settings column) -> Threads Configuration Tab

However, the default value may need to be increased/adjusted according to the number of monitors. The details for the same have been given in the table below:

<table>
<thead>
<tr>
<th>Total No. of Monitors</th>
<th>Number of threads (Recommended)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 50 Monitors</td>
<td>25</td>
</tr>
<tr>
<td>100 Monitors</td>
<td>30</td>
</tr>
<tr>
<td>200 Monitors</td>
<td>40</td>
</tr>
<tr>
<td>300 Monitors</td>
<td>50</td>
</tr>
<tr>
<td>400 Monitors</td>
<td>60</td>
</tr>
<tr>
<td>500 Monitors and above</td>
<td>70</td>
</tr>
</tbody>
</table>

**Note:** Setting the schedulers from the web-client in the Admin Server will affect all its respective Managed Servers. Increase in the 'Data Collection' thread will lead to slight increase in CPU usage.
Alternate Method

You can also configure the default number of threads used by configuring the respective schedulers specified in the following file:

\( \text{AppManager\_Home/working/conf/threads.conf} \)

The maximum number that can be given in \text{threads.conf} is 99..

The table lists the types of threads and the respective modules they affect along with the default values:

<table>
<thead>
<tr>
<th>Thread Pool Name</th>
<th>Default number of threads</th>
<th>Monitor types using this thread pool</th>
</tr>
</thead>
<tbody>
<tr>
<td>CustomMonitor Thread</td>
<td>4</td>
<td>JMX Applications, JMX/SNMP Dashboard, and SNMP/Network Device.</td>
</tr>
<tr>
<td>DataCollection Thread</td>
<td>25</td>
<td>DB2, IBM i, Java Runtime, Microsoft .NET, MS SQL, MySQL, Oracle Application Server, PHP, SAP Server, Servers, Siebel Enterprise Server, Web Server, WebLogic Cluster, WebLogic Integration, and WebLogic Server</td>
</tr>
<tr>
<td>Monitor Type</td>
<td>Thread Count</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>MQSeriesMonitor Thread</td>
<td>2</td>
<td>IBM Websphere MQ</td>
</tr>
<tr>
<td>QueryMonitor Thread</td>
<td>5</td>
<td>Database Query monitor</td>
</tr>
<tr>
<td>WebService_Monitor Thread</td>
<td>5</td>
<td>Web services</td>
</tr>
<tr>
<td>URLMonitor Thread</td>
<td>5</td>
<td>HTTP(s) URLs, HTTP(s)-URL Sequence, SAP-CCMS</td>
</tr>
</tbody>
</table>

**Increase number of connections in database connection pool:**

You can configure the no. of non-transaction connections to be established with the database under

*Applications Manager -> Admin Tab -> Server Settings (Under Product Settings column) -> Database Params Configurations*

When the number of monitors is **greater** than 100, connection pool can be increased by editing the **No. of Database Connections**. The default value of 6 can be set to 90 percent of the number of data collection threads.

**Alternative Method**

When the number of monitors is greater than 100, connection pool can be increased by editing the **NON_TRANS_CONNECTIONS** field in

*AppManager_Home/working/conf/database_params.conf*

**Note:**
- *Increase in the ‘Data Collection’ thread will lead to slight increase in CPU usage.*
- *Setting the Number of Database Connections in the Admin Server will affect all its respective Managed Servers.*

**Poll Intervals:**

When performance polling is set only the availability and health check will happen at every polling event while other performance data will be collected only at the end of scheduled number of polls. This will reduce the load on the system when you want to monitor only health and availability.

This option is available under ‘Admin’ - ‘Performance Polling’ where you can set the number of polls before collecting performance data for server monitors. We recommend having a Poll Interval of 10 minutes for every monitor and a performance poll value of 3.

**PostgreSQL database configuration:**
• **To reduce disk space, to repair/reindex the database:**

VACUUM FULL VERBOSE ANALYZE;

**Note:**

This script should to be executed in Applications Manager’s database (AMDB).

You can also choose to do this using the option in the GUI. It can be accessed by navigating to: Support -> Database Information.

![Database Information](Image)

• **Fine Tuning in Postgres_ext.conf**
  - effective_cache_size - This can be set of 1/2 of total memory up to 3/4 of memory. We have kept this as 512MB.
  - work_mem = 12MB
  - maintenance_work_mem = 100MB
  - checkpoint_segments = 15
  - checkpoint_timeout = 11min
  - checkpoint_completion_target = 0.9
  - seq_page_cost = 1.0
  - random_page_cost = 2.0
  - synchronous_commit=off
  - temp_buffers = 8MB

• **Fine Tuning in Postgresql.conf**
  - checkpoint_segments = 15
  - checkpoint_timeout = 11min
  - checkpoint_completion_target = 0.9
  - shared_buffers = 512MB - A reasonable starting value for shared_buffers is 1/4 of the memory in your system.

**Note:**

The Postgresql.conf and Postgres_ext.conf files can be found under the AppManager_home/working/pgsql/data/amdb folder.
MS SQL database configuration:

- **To repair the database:**
  
  DBCC CHECKDB WITH ALL_ERRORMSGS, NO_INFOMSGS;

- **To reindex/reduce size:**
  
  EXEC sp_MSforeachtable @command1="print '?' DBCC DBREINDEX ('?', ' ', 80)";
  
  EXEC sp_updatestats;

**Note:**

*This script should be executed in Applications Manager’s database (AMDB), preferably through SQL Server Management Studio (SSMS)*

Set the Space Allocated size for both the log and the data file to be much larger than the initial database. Consider how much the database can grow over a year. Ideally, the log and data files are allocated in a contiguous extent so that data does not end up fragmented all over the disk.

**Memory settings**

Change the minimum memory allocation to as large a number as possible. If the database is running on a separate computer, use all the memory. The default settings do not aggressively allocate memory, which hinders performance on almost any database. You should be most aggressive in allocating memory on production machines.

**Processor settings**

Modify the processor settings and, most importantly, select the Boost SQL Server Priority on Windows check box so that the server uses as many cycles as possible. The Use NT Fibers setting is less important, but you may want to select it too.

**Database settings**

The most important setting is Recovery Interval, which specifies the maximum amount of time to wait for recovery after a crash. The default setting is one minute. Using a larger value, from 5 to 15 minutes, improves performance because it gives the server more time to write changes from the database log back into the database files.

**Note:**

*This setting does not compromise the transactional behavior because it changes only the length of the log file replay that must be done on startup.*
Increase AM JVM heap size

Java memory fine-tuning helps users achieve greater throughput and optimizes the performance of applications. We recommend the following java memory allocation for Applications Manager based on the number of monitors:

<table>
<thead>
<tr>
<th>Total No. of Monitors</th>
<th>VM Heap Size (Recommended)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 50 Monitors</td>
<td>2 GB</td>
</tr>
<tr>
<td>100 Monitors</td>
<td>3 GB</td>
</tr>
<tr>
<td>200 Monitors</td>
<td>4 GB</td>
</tr>
<tr>
<td>300 Monitors</td>
<td>5 GB</td>
</tr>
<tr>
<td>400 Monitors</td>
<td>6 GB</td>
</tr>
<tr>
<td>500 Monitors and above</td>
<td>8 GB</td>
</tr>
</tbody>
</table>

You can configure the JVM Heap Size by going to:

*Applications Manager -> Admin Tab -> Server Settings (Under Product Settings column) -> JVM Params Configurations*

**Alternative Method**

Applications Manager JVM heap size can be increased according to your environment by editing the `-Xms` and `-Xmx` parameters in the files:

- `AppManager_Home/startApplicationsManager.sh` for Linux
- `AppManager_Home/startApplicationsManager.bat` for Windows

**Applications Manager installed as Windows service**

On such cases memory tuning can be achieved by editing the following parameters in `wrapper.conf` file available under the directory

- `AppManager_Home/working/conf`

- `wrapper.java.initmemory` – Initial Java Heap Size
- `wrapper.java.maxmemory` – Maximum Java Heap size

**Load Factor**

The load factor can be determined by navigating to `AppManager > Support Tab > Load Factor`.

The load factor is represented in the format `x.y`, where

- `x` = The Java Heap Memory Load (Range is 0-9)
- `y` = The database load (Range is 0-9)

It is recommended that you check the load factor before adding a monitor to ensure optimal performance of Applications Manager.
If \( x \) and \( y \leq 5 \), you can add the monitor, else you will have to choose a different managed server.

4. Securing Applications Manager

When moving Applications Manager to Production environment, some of the configuration details have to be taken care.

**Installation Configuration**

Have a dedicated OS User (System) account for installing Applications Manager. This OS user account needs full permissions on all folders and sub-folders in the installation root of Applications Manager only. Also make sure this OS User account is fully secure. It is NOT necessary to install Applications Manager in a root (in Linux) or administrator (windows) OS User account. But make sure the whole installation is done using the same OS user account. Do not install using root and try to run using an OS user account. That will fail.

**User configuration**

- Make sure you change the password for the default 'admin' Web Client User within Applications Manager. You will be prompted to force change the password when you login for the first time.

- You can configure Password Expiry under Admin -> User Management -> Account Policy -> Enforce password expiry for user accounts.

- If you want to give full ‘Read-Only’ privileges to certain Web Client Users in your organization, and then ensure that you create a client login with ‘USER’ role.

- If you want to give restricted ‘Read-Only’ privileges to certain Web Client Users in your organization, and then make sure you create a client login with ‘Operator’ role. ‘Operator’ can view only servers that they own.

- You can also restrict user operations for Administrator accounts by navigating to Admin -> User Management -> Account Policy -> Restrict User Operations for Administrator Accounts

**File upload configuration**

By default, uploading binaries, MIBs, scripts are allowed in Applications Manager. This may be required in the initial stages while using Applications Manager for uploading MIBs, action scripts etc.

5. Fault Management

These sections list the steps to prevent false alarms that are generated in Applications Manager due to overloaded network.
Socket Timeout
Increasing the socket timeout values AppManager_Home/conf/AMServer.properties by changing the 'am.sockettest.timeout' value from 5 to 10 will help to eradicate false alerts generated.

Network Availability check
When the Applications Manager is out of the network or is not connected to the network, the status of all the Monitors that are currently been monitored will be shown as 'Down'. You can avoid this by enabling the 'Check for Network Availability' option.

When this option is enabled, Applications Manager will generate alerts for the unavailability of resources only if the specified host is reachable in the network. For example, let us assume that the system/host which runs the Applications Manager has been isolated from the network. Enable this option and specify a hostname in the network (preferably not the hostname where Applications Manager runs). Now, Applications Manager tries to ping that machine for its availability in the network. If not available, alerts are not generated and resources are not shown as down.

You can also specify the IP of your routers, gateways, etc., to check the system/host which runs the Applications Manager is present in the network.

URL Availability check
When the Applications Manager is out of the network or if external proxy settings are not configured, the status of all the URLs that are currently been monitored will be shown as 'Down'. You can avoid this by enabling the 'Check URL Availability' option.

When this option is enabled, Applications Manager will generate alerts for the unavailability of URL only if the other specified URL is down. For example, let us assume that the system/host which runs the Applications Manager has been isolated from the network. Enable this option and specify another URL which is expected to be up always. Now, Applications Manager tries to monitor URL for its availability. If not available, alerts are not generated and URL is not shown as down. Further a mail is sent to the configured mail address intimating the same.

Consecutive polls check
You can use this option to determine the number of consecutive polls the error exists before reporting the error to system. Consecutive polls count in 'Admin' - Action / Alert Settings can be increased from default value of 1 to 2. So that alerts will be generated after two consecutive polls which would eradicate false alarms.
6. Log File Management

Applications Manager logs the data collection details, error traces under the
AppManager_Home/logs
You can also access the logs from the following location: http://APM_Host:port/viewLogs.do

Default size and number for log file rotation can be changed in the file
AppManager_Home/working/class/log4j_conf.xml

7. Applications Manager Database Management

Data backup

It is very important to take a backup of the Applications Manager data in database every month, so that data is not
lost in case of any disaster. Refer the following link on how to take a backup of the data:

It is also it is recommended to upgrade Applications Manager to latest stable version mentioned in Service Packs
page.

8. Crash & Recovery

Under 'Admin'-‘Global Settings’, 'Restart the product in case of serious server error' checkbox is provided to
automatically restart Applications Manager in case of any serious errors. Make sure that the option is checked so
that Applications Manager can recover automatically on error.

Other General Guidelines

• Refer the Security/Firewall Requirements documents given in below link to understand what changes are
required in the firewall.

  https://www.manageengine.com/products/applications_manager/help/secure-configuration.html

• You can install Applications Manager as a Windows Service or configure a cron job on Linux to start on server
  start up. Refer the below link for more information:


• If you are planning to use the Enterprise Edition, fully understand the EE architecture
To change the default HTTP port used by Applications Manager, refer the Server Settings document given in the following link:


It is recommended to restart Applications Manager every fortnight.

It is recommended to use SNMP or WMI mode for monitoring Windows machine and SSH or Telnet for monitoring UNIX machine.

Addendum

AppManager_Home refers to the directory in which you have installed the Applications Manager product. This directory location is specified by you when you install the product.
For example, let us assume that you have installed Applications Manager under the default Program Files directory of C drive in your system. In this case, AppManager_Home denotes:

C:\Program Files\ManageEngine\AppManager16

In Linux, if Applications Manager is installed under the home directory, then

AppManager_Home denotes ~/opt/ME/AppManager16