

OMEGAMON XE and Tivoli Management Services on z/OS: Pre-installation requirements and instructions

Primary References:

[OMEGAMON XE Shared Documentation](#) Version 6.3.0 fix pack 6 and above
[Tivoli Monitoring](#) Version 6.3.0 fix pack 6 and above
[OMEGAMON XE Family of Products](#)

[OMEGAMON XE Quick Start Guide](#)

[Program Directory for IBM Service Management Suite for z/OS V1.4.1](#)
[Program Directory for IBM OMEGAMON Performance Management Suite for z/OS V5.4.1](#)
[Program Directory for OMEGAMON for z/OS Management Suite V5.4.1](#)
[Program Directory for IBM Tivoli Management Services on z/OS V6.3.0](#)
[Program Directory for IBM Tivoli OMEGAMON on z/OS V5.3.0](#)
[Program Directory for IBM OMEGAMON for JVM V5.4.0](#)
[Program Directory for IBM Tivoli OMEGAMON for CICS on z/OS V5.3.0](#)
[Program Directory for IBM Tivoli OMEGAMON for DB2 Performance Expert on z/OS V5.4.0](#)
[Program Directory for IBM Tivoli OMEGAMON for DB2 Performance Monitor on z/OS V5.4.0](#)
[Program Directory for IBM Tivoli OMEGAMON for IMS on z/OS V5.3.0](#)
[Program Directory for IBM Tivoli OMEGAMON for Mainframe Networks V5.3.0](#)
[Program Directory for IBM Tivoli OMEGAMON for Messaging for z/OS V7.3.0](#)
[Program Directory for IBM OMEGAMON for Storage on z/OS V5.4.0](#)

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Introduction

Gathering certain information and accomplishing certain tasks even before you acquire and install your software can make your deployment go much more quickly and smoothly. For example, some changes to system data sets and to security settings might require a longer lead time due to your change control policies. This checklist will help you schedule your OMEGAMON deployment.

This document is directed towards both the architect who will decide how OMEGAMON will be deployed and the installer who will get OMEGAMON running. A brief OMEGAMON overview is provided below in the Architecture section, but a better understanding of OMEGAMON should begin with the documented [Overview](#).

For more information about implementation, you should look at the [Quick Start Guide](#) section of the Shared Documentation, at the [Planning](#) section for a first-time deployment or an upgrade, and at the [First time deployment guide](#) for step by step instructions to get up and running quickly. Then use this document as a handy way to keep track of the information you need and the up-front tasks you need to complete.

Use this checklist to best suite your needs. Some of the items will already be clear if you are upgrading or are already familiar with the OMEGAMON products. However, scanning the checklist is a good reminder regardless of experience.

Architecture

The OMEGAMON products and other products use a shared framework comprised of a number of components to give you broad flexibility in your implementation [\(more details are here\)](#). You need to be familiar with the framework architecture to make decisions about where to install and configure components.

This common framework allows comprehensive end to end monitoring of multiple platforms, or it can be focused specifically on z/OS monitoring. You need to determine your scope so that you know where to install components and who maintains these components.

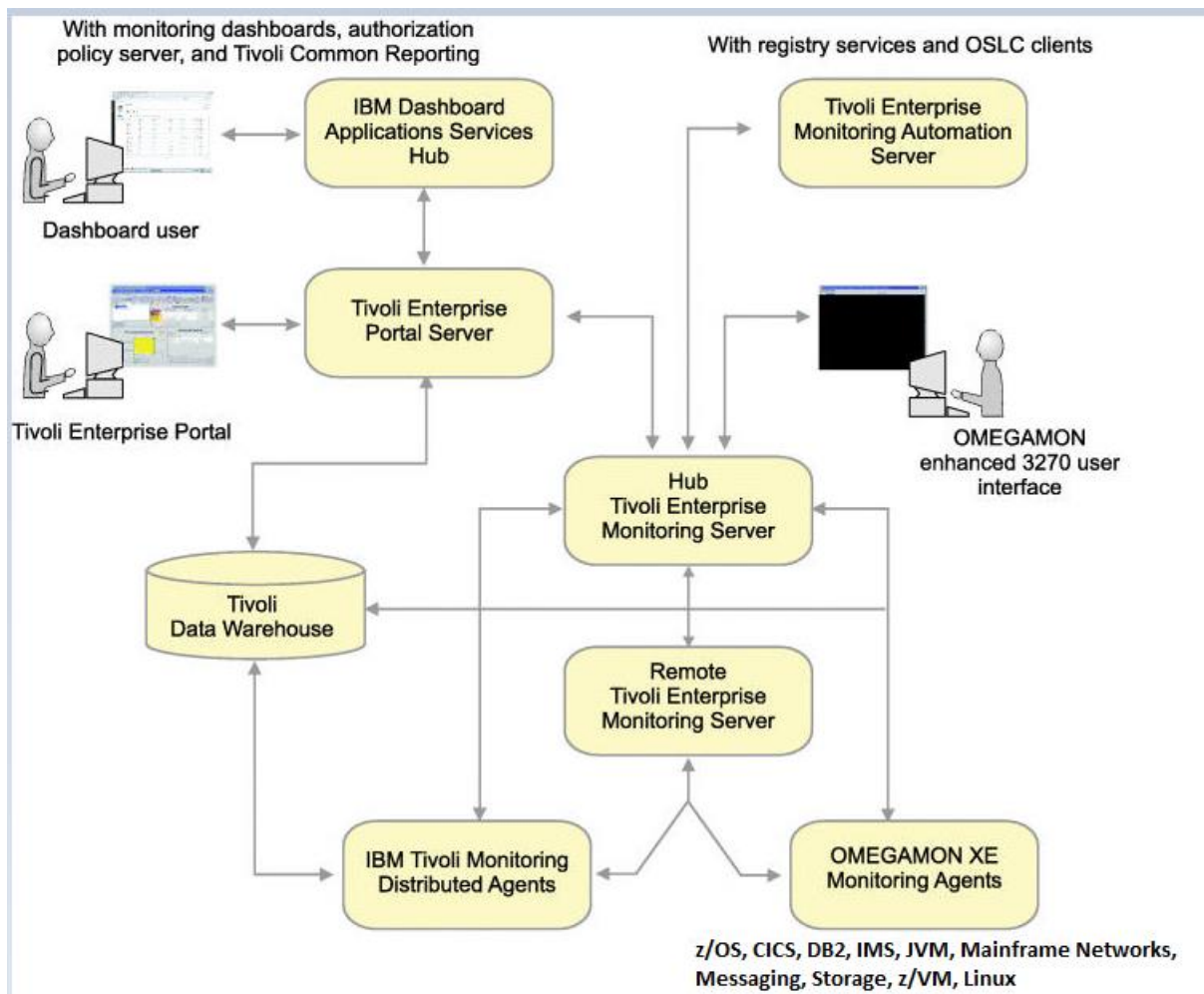


Figure 1 OMEGAMON architecture

Non-z/OS components

The framework which supports OMEGAMON uses components which do not run on z/OS. To get the full benefit of your OMEGAMON products, you will want to plan for the distributed products below:

The [Tivoli Enterprise Portal Server](#) (also called the portal server) runs on a distributed platform.

- The portal server provides a graphical interface which can be easily customized. This interface integrates displays across multiple systems and platforms. Management tools make it easy to create custom data queries for the OMEGAMON monitors, to customize situations to alert Operations or invoke automation when problems occur, and to easily distribute alerts to any or all monitors.

[Tivoli Enterprise Monitoring Server](#) (the monitoring server) can run on z or distributed.

- The monitoring servers aggregate data from multiple monitors, allowing plex-wide queries and supplying data to both the portal server and the enhanced 3270 user interface. One server acts as a hub for other monitoring servers, allowing broad access to multiple systems from one connection. The monitoring servers for OMEGAMON typically run on z/OS because they also contain the OMEGAMON for z/OS monitor. The hub monitoring server can run on a distributed platform. This is typically done if the hub aggregates data from monitors across platforms or to move a few MIPS off of z/OS. The hub monitoring server can also run on z/OS. This is typically done if the installation will serve only OMEGAMON and other z/OS-based products. A hub on z/OS will get user logon security for the portal server from the z/OS SAF, such as RACF, so users need an ID on any LPAR where the hub can run.

The [Tivoli Data Warehouse](#) runs on a distributed platform.

- The data warehouse provides powerful insight into the monitor history data. To keep the size of the warehouse under control, you will need the [Summarization and Pruning Agent](#)

<input type="checkbox"/>	Will both a test environment and a production environment be configured? Any others, such as a stand alone “sandbox” system for initial product installation?
<input type="checkbox"/>	What specific systems (LPARs, sysplexes, and distributed systems) will be part of the monitored architecture?
<input type="checkbox"/>	What products will be used on each system?
<input type="checkbox"/>	<p>Where will any distributed architectural components be placed?</p> <p>These distributed components might include the Tivoli Enterprise Portal Server (also called the portal server), Tivoli Data Warehouse, and Tivoli Enterprise Monitoring Server (also called the monitoring server). Your environment might need more than one server image depending on the number of monitoring environments you establish (one environment per hub monitoring server). Has at least one server image been designated for the portal server on a supported distributed platform (certain flavors of Windows, UNIX, or Linux)?</p>
<input type="checkbox"/>	<p>Where will the hub monitoring server be placed?</p> <p>The monitoring servers aggregate data from multiple monitors, allowing plex-wide queries. One server acts as a hub for other “remote” monitoring servers and Agents, allowing broad access to multiple systems from one connection for the portal server GUI and the enhanced 3270 user interface.</p> <p>A “remote” monitoring server for OMEGAMON typically runs on each z/OS LPAR because they also contain the OMEGAMON for z/OS and Storage monitors.</p> <p>The hub monitoring server can run on a distributed platform. This is typically done if the hub aggregates data from monitors across platforms or if you want to move a few MIPS off of z/OS. The hub monitoring server can also run on z/OS. This is typically done if the installation will serve only OMEGAMON and other z/OS-based products. A hub on z/OS can get user security for the portal server from the z/OS SAF, such as RACF. If this security approach is implemented, users need an ID on any LPAR where the hub can run.</p>
<input type="checkbox"/>	<p>Will a high availability monitoring hub be required? Will it run on distributed or on z/OS?</p> <p>A high availability hub can be switched to an alternate system when needed. Since monitors are often used during critical system problems, an available hub monitoring server may be appropriate.</p>
<input type="checkbox"/>	<p>Will the enhanced 3270 user interface be used? Where will it be placed?</p> <p>The enhanced 3270 user interface is designed to address complex problems across all z/OS systems and subsystems. You will need a minimum of one address space per Sysplex but preferably not on the same LPAR using the same run time environment (RTE) as the hub monitoring server.</p>

Ordering

- Identify the required level of Tivoli® Management Services on z/OS®.

If products are ordered through ShopZ, the latest version of Tivoli Management Services (TMS) is included. Be sure to download TMS along with the SMP/E files. ([link to Quick Start Guide](#)) If products are ordered from CBPDOs, ensure that the minimum level of Tivoli Management Services that Agents require is included. See the Planning and Upgrading topics for minimum required level.

- Order the required components:

- Monitoring Agents for all systems and subsystems to be monitored
- The common components of Tivoli Management Services on z/OS
- The distributed components of Tivoli Management Services (IBM Tivoli Monitoring)

See the [Program directory](#) for details

Gathering information

Configuring the OMEGAMON suite of monitoring tools will require coordination amongst several experts to establish network communication, security, and system updates. Decisions about naming conventions, servers, and administration can be made ahead of time to allow sufficient time to implement changes. Record the answers to the following questions and check off each question after it has been answered.

Organizational Coordination

Determine how your organization will install, support, and use the OMEGAMON monitors. See [Planning your Deployment](#) and the [IBM Tivoli Monitoring: Installation and Setup Guide](#) for more details.

<input type="checkbox"/>	What are the z/OS change control requirements and lead times? Installation will require several changes to systems and subsystems. You will also need to know who will make these changes (described in other sections in this checklist)
<input type="checkbox"/>	Who will be the OMEGAMON users? What systems, subsystems, and functionality should each user or group of users access?
<input type="checkbox"/>	How will users of the product be trained? If needed, speak with your IBM representative about IBM training for OMEGAMON
<input type="checkbox"/>	Who are the system, subsystem, security, and network experts who will participate in configuration and customization tasks?
<input type="checkbox"/>	What are the internal change requirements for notifying staff of new or updated tools?
<input type="checkbox"/>	Who placed the software order, and who will receive the software? Is this the same person or team that will install and deploy the software on all platforms?
<input type="checkbox"/>	Who is the administrator for each OMEGAMON XE product? Will this be the same person or group for all products or will it be distributed to subject matter experts in each product area?
<input type="checkbox"/>	If you will install distributed components (the portal server and monitoring server if it is not on z/OS), who is the administrator for these servers? For the data warehouse?
<input type="checkbox"/>	Who are the z/OS and distributed security administrators? Network administrators?
<input type="checkbox"/>	If you use Netcool®/OMNIBus, Impact, Tivoli Business Service Manager (TBSM), NetView, System Automation for z/OS, or other tools, what integration tasks are required, and who will

perform them? Who will turn on EIF for easy communication from OMEGAMON?

See [Whether and how to enable event forwarding](#)

- Do you need to clarify any roles, responsibilities, and paths of communication?
- If this installation will displace other products, configure OMEGAMON to reproduce current site specific customization. Determine if any of the following items apply to your site:
 - What exceptions are being monitored by each product to be displaced? Is reflex automation configured for these exceptions?
 - What are the existing monitoring thresholds?
 - What reports are being generated?
 - What screens are being monitored actively by Operations and by Systems Support?
 - Is there a dedicated monitoring terminal?
 - If CICS is being monitored, are “kill” thresholds defined for CPU time or elapsed time? If so, record the transaction names.

Network information

Topology

- Where are firewalls located?
See [Firewall support](#) for more information.
- Is NAT (network address translation) required between network segments?
- Is there sufficient bandwidth between the hub monitoring server and the other infrastructure components?
- How many Agents are located across WAN links?

See the topics in [How to set up communications between components](#) in the OMEGAMON XE shared publications V6.3.0.2. Also see Appendix C: Firewalls in the [IBM Tivoli Monitoring:](#)

[Installation and Setup Guide.](#)

Connectivity

You can save time by verifying or acquiring and recording the following information.

- Is there network connectivity between all LPARs?
- Is there network connectivity between each LPAR and distributed systems where components will be installed?
- Are ports available between all components? For example, are default ports TCP 1918/TCP 3660/UDP 1918 (or the chosen port number) available between all LPARs and the LPAR where the hub will be located? If the default port is not available, what port will be used?

SNA information

- What are the naming standards for new logmode, major nodes, and APPLIDs?
Each OMEGAMON node and APPLID has requirements built into the name. You can specify a prefix up to three characters long. See [naming conventions here](#).
- Has the VTAM® administrator agreed to names and APPLIDs for new VTAM major nodes for products and provided a process to install the changes?

If you are upgrading, you need to include new VTAM definitions for the OMEGAMON Subsystem (defaults: major node = CTDCNN, Applid = CTDCNAP).

APPLID definitions are created during the PARMGEN configuration process and can be installed in the system VTAMLST by PARMGEN KCIJPSYS "Copy runtime members to SYS1-type libraries" job. If a manual update is preferred, the definitions can be copied from this job.

=====

```
Complete list of product VTAM APPLIDs generate by PARMGEN in the CTDNODE  
Global VTAM major node and in the product-specific VTAM major nodes:
```

```
-----  
Tailored VTAM major nodes - Product  
-----
```

```
**CTDNODE - Global VTAM major node  
CTDCNN - OMEGAMON Subsystem  
CTDDSN - Tivoli Enterprise Monitoring Server (TEMS)  
CTDOBN - OMEGAMON Enhanced 3270 User Interface (Tivoli OMEGAMON)  
CTDC20N - OMEGAMON for CICS (Classic/CUA)  
CTDC5N - OMEGAMON for CICS (Agent)  
CTDGWN - OMEGAMON for CICS TG (Agent)  
CTDD2N2 - OMEGAMON for DB2 PE/PM (OMPE Classic)
```

CTDD5N - OMEGAMON for DB2 PE/PM (Agent)
 CTDOI0N - OMEGAMON for IMS (Classic)
 CTDI2N - OMEGAMON for IMS (CUA)
 CTDI5N - OMEGAMON for IMS (Agent)
 CTDJVN - OMEGAMON for JVM (Agent)
 CTDM2N - OMEGAMON on z/OS (Classic/CUA)
 CTDMVN - OMEGAMON DE on z/OS (OMEGAVIEW Agent)
 CTDMCN - OMEGAMON for Messaging (MQ Configuration Agent)
 CTDMQN - OMEGAMON for Messaging (MQ Monitoring Agent)
 CTDQIN - OMEGAMON for Messaging (Message Broker / Integration Bus Agent)
 CTDONN - OMEGAMON for Mainframe Networks (CUA)
 CTDN3N - OMEGAMON for Mainframe Networks (Agent)
 CTDYNN - ITCAM for Application Diagnostics (TEMA/Agent)
 CTDAHN - System Automation Monitoring Agent
 CTDNAN - NetView for z/OS Agent
 CTDRGN - Advanced Audit for DFSMSShsm Agent
 CTDRHN - Advanced Reporting for DFSMSShsm Agent
 CTDRJN - Advanced Allocation Management Agent
 CTDRKN - Automated Tape Allocation Manager Agent
 CTDRNN - Advanced Catalog Management Agent
 CTDRVN - Advanced Backup and Recovery for z/OS Agent
 CTDRWN - Tape Optimizer for z/OS Agent
 CTDDON - Tivoli Decision Support for z/OS Agent
 CTDD4N - ITCAM for SOA Agent

Notes: 1. Naming convention is typically CTDppxx

====

(where CTD = your RTE_VTAM_APPLID_PREFIX parameter value
 (default is CTD)
 pp = 2-character product code extracted from "Kpp"
 ==
 xx = optional low-level suffix)

2. VTAM references with %&rte_vtam_applid_prefix% means the product that requires the VTAM elements is not configured in this RTE.

****Tip:** CTDNODE Global VTAM major node is automatically VARY activated in the IBMSTRT composite started task startup PROC. Use it as an alternative to the product-specific VTAM major nodes.

 2A. Common VTAM members:

 Tailored VTAM APPLIDs - Product

CTDCNAP - OMEGAMON Subsystem
 CTDOBAP - OMEGAMON Enhanced 3270 User Interface (Tivoli OMEGAMON)
 CTDDSLB - TEMS Hub global location broker
 CTDDSLB - TEMS Hub/Remote local location broker (KDCFC_ALIAS)
 CTDDSDS - TEMS Hub/Remote KDS VTAMID / REMOTE APPLID

CTDDSOR - TEMS Hub/Remote NODE
CTDDSOP - TEMS Hub/Remote DIALOG KLVLOGON
CTDDSVF - TEMS Hub/Remote VPO
CTDDSMQ - TEMS Hub/Remote DIALOG KMQDSTRT

2B. OMEGAMON Performance Management Suite for z/OS product VTAM members:

All common VTAM members plus:

Tailored VTAM APPLIDs - Product

%Kpp_AGT_VTAM_APPL_KppINVPO% - any standalone Agent VPO
%Kpp_AGT_VTAM_APPL_NCS% - any standalone Agent's KDCFC_ALIAS
%Kpp_AGT_VTAM_APPL_OPERATOR% - any standalone Agent Operator
%Kpp_AGT_VTAM_APPL_AA% - any standalone Agent Alert Adapter
(where Kpp = KC5, KD5, KGW, KI5, KJJ, KMC, KMQ, KQI, KMV, KN3, KYN)

CTDOC0 - OMEGAMON for CICS (Classic logon)
CTDC20 - OMEGAMON for CICS on z/OS (CUA logon)
CTDC200 - OMEGAMON for CICS (CUA Operator)

CTDD2C - OMEGAMON for DB2 PE/PM (Classic logon)

CTDOI0 - OMEGAMON for IMS (Classic logon)
CTDI2AP - OMEGAMON for IMS (CUA logon)
CTDI2VP - OMEGAMON for IMS (VPO)
CTDI2IC - OMEGAMON for IMS (I/CF)
CTDI2OP - OMEGAMON for IMS (CUA Operator)

CTDM2RC - OMEGAMON on z/OS (Classic logon)
CTDM2AP - OMEGAMON on z/OS (CUA logon)
CTDM2OP - OMEGAMON on z/OS (CUA Operator)
CTDM2VP - OMEGAMON on z/OS (VPO)
CTDM2EQ - OMEGAMON on z/OS (CUA-to-TEMS)
CTDM2ED - OMEGAMON on z/OS (CUA dedicated)
CTDM2EP - OMEGAMON on z/OS (Epilog)
CTDM2EZ - OMEGAMON on z/OS (Zoom-to-Epilog)

CTDMVAP - OMEGAMON DE on z/OS (OMEGAVIEW Agent logon)
CTDMVOR - OMEGAMON DE on z/OS (OMEGAVIEW Operator)
CTDMVOP - OMEGAMON DE on z/OS (OMEGAVIEW CUA OPER)
CTDMVVP - OMEGAMON DE on z/OS (OMEGAVIEW VPO)
CTDMVSD - OMEGAMON DE on z/OS (OMEGAVIEW Agent SDM)
CTDMVNC - OMEGAMON DE on z/OS (KDCFC_ALIAS)

CTDONAP - OMEGAMON for Mainframe Networks (CUA logon)
CTDONOP - OMEGAMON for Mainframe Networks (CUA Operator)
CTDONSP - OMEGAMON for Mainframe Networks (CUA CNM)
CTDONCO - OMEGAMON for Mainframe Networks (NCPCPATH)
CTDONNC - OMEGAMON for Mainframe Networks (NCPCACBN)
CTDONLO - OMEGAMON for Mainframe Networks (NDMTPATH)

2C. Service Management Suite for z/OS product VTAM members:
Note: This suite includes OMEGAMON Performance Management Suite
product VTAM members plus the following:

Tailored VTAM APPLIDs - Product

%Kpp_AGT_VTAM_APPL_KppINVPO% - any standalone Agent VPO
%Kpp_AGT_VTAM_APPL_NCS% - any standalone Agent's KDCFC_ALIAS
%Kpp_AGT_VTAM_APPL_OPERATOR% - any standalone Agent Operator
%Kpp_AGT_VTAM_APPL_AA% - any standalone Agent Alert Adapter
(where Kpp = KAH, KNA)

2D. Advanced Storage Management Suite for z/OS product VTAM members:
All common VTAM members plus:

Tailored VTAM APPLIDs - Product

CTDDFAP - OMEGAMON for Storage (CUA)
CTDDFOR - OMEGAMON for Storage (CUA)
CTDDFR1 - OMEGAMON for Storage (CUA)
%Kpp_AGT_VTAM_APPL_KppINVPO% - any standalone Agent VPO
%Kpp_AGT_VTAM_APPL_NCS% - any standalone Agent's KDCFC_ALIAS
%Kpp_AGT_VTAM_APPL_OPERATOR% - any standalone Agent Operator
%Kpp_AGT_VTAM_APPL_AA% - any standalone Agent Alert Adapter
(where Kpp = KRG, KRH, KRJ, KRK, KRN, KRV, KRW)

2E. Additional product VTAM members:

Tailored VTAM APPLIDs - Product

%Kpp_AGT_VTAM_APPL_KppINVPO% - any standalone Agent VPO
%Kpp_AGT_VTAM_APPL_NCS% - any standalone Agent's KDCFC_ALIAS
%Kpp_AGT_VTAM_APPL_OPERATOR% - any standalone Agent Operator
%Kpp_AGT_VTAM_APPL_AA% - any standalone Agent Alert Adapter
(where Kpp = KDO, KD4)
=====

Tip: In the PARMGEN LPAR RTE profile, do an EXCLUDE FIND (use XF
macro) on all "_VTAM" parameters to filter on VTAM major node
and APPLID parameters. The values they point to are the names
used in the RTE.

What are the network IDs from VTAMLST(ATCSTRxx)?

TCP/IP information

- Have the TCP/IP requirements been reviewed?

See [Requirements for TCP/IP communication](#) for details.

- What are the host names and primary IP addresses of all affected systems?

Note: Dynamic Virtual IP Address (DVIPA) resources must be defined for the high availability (HA) z/OS hub monitoring server and any monitoring servers which are candidates to take over as the hub.

- What are the protocol and port preferences?

The default is IP.PIPE, port 1918 for the monitoring server. See [Port number assignments](#) for details

- What are the port preferences for the DB2 Performance Expert client, 1 per subsystem. (default: 6000). Authority to open a TCP/IP port for the DB2 Classic Collector will be needed, if the Performance Expert Client will be used.

- What is the procedure and lead time for creating new DNS alias names?
(Creating a private host name for the hub monitoring server makes moving the hub easier.)

SMP/E Considerations

- Select a high level qualifier for SMP/E.

A naming convention for SMP/E data sets and zones will be needed during configuration

See:

[Whether to install into a shared CSI](#)

[Product Packaging](#)

The *Program Directory* for each of your monitoring Agents.

- The following are the CALLLIBS data set names for SMP/E target zone definitions:

Note: See "**SMP/E CALLIBS Processing**" section of the Program Directory.

CSSLIB	SYS1.CSSLIB (MVS callable services)
SCEEBIND	CEE.SCEEBIND (LE/370 C support - resident routines)
SCEEBND2	CEE.SCEEBND2 (LE/370 C support - XPLINK LP64 library)
SCEECPP	CEE.SCEECPP (LE/370 C support - CPP class library)
SCEELIB	CEE.SCEELIB (LE/370 C support - side-deck library)
SCEELKED	CEE.SCEELKED (LE/370 C support - non-XPLINK, short names)
SCEELKEX	CEE.SCEELKEX (LE/370 C support - non-XPLINK, long names)
SCSQLOAD	CSQ.SCSQLOAD (WebSphere MQ libraries - Load library)
SCTGSID	CTG.SCTGSID (CICS TG - SideDeck library)
SDFSRESL	DFS.SDFSRESL (IMS RESLIB library)
SDSNLOAD	DSN.VAR1M0.SDSNLOAD (DB2 load library)
SISPLOAD	ISP.SISPLOAD (ISPF load library)
SCCNOBJ	CBC.SCCNOBJ (XL C Compiler object library)
SCLBSID	CBC.SCLBSID (LE/370 C support - XPLINK LP64 IOS library; XL C/C++ - side-deck library)
SEZACMTX	EZA.SEZACMTX (TCP/IP libraries – Load)

- If you are installing the z/OS Discovery Library Adapter (DLA) FMID (HIZD310) for the PARMGEN z/OS DLA integration feature introduced in PARMGEN PTF UA83283 (and later maintenance), review the following documentation:

- (SMP/E Installation) Program directory from the latest versions of these z Management Suites ([IBM Service Management Suite for z/OS V1.4.1**](#), [IBM OMEGAMON Performance Management Suite V5.4.1**](#), and [IBM OMEGAMON z/OS Management Suite V5.4.1**](#) . The program directories may be obtained from the IBM Knowledge Center.

** Refer to the various product announcements as to the availability of these respective suites, by navigating to this link: (URL: <http://www.ibm.com/common/ssi/cgi-bin/ssialias?subtype=ca&infotype=an&supplier=897&letternum=ENUS216-345>)

- (System Preparation, Installation, Configuration) Section C1 “What's New in 4Q16 PARMGEN IF?” of the [master PARMGEN technote](#). Section A1 covers deployment considerations such as *important z/OS DLA SMP/E Requirements (FMID HIZD310)*, *important PARMGEN z/OS DLA System Requirements* and overall PARMGEN configuration usage how the **new PARMGEN KCIJPDLA** autodiscovery job works to enhanced the current “*Customize PARMGEN configuration profiles*” processing by using the autodiscovery functions of z/OS DLA (FMID HIZD310). The PARMGEN z/OS DLA integration enhancement enables self-discovery of product parameter values during the PARMGEN configuration phase of z Management Suites deployment, thus increasing customer TTV (Time-to-Value) and ease of use.

If you are installing OMEGAMON for CICS, read the [program directory](#) sections 6.1.9 and 6.1.10 for file system information

File Requirements on z/OS

The configuration tools provide default names for datasets, but your site may have naming conventions that require customizing these values.

- | | |
|--------------------------|---|
| <input type="checkbox"/> | <p>Select a high-level qualifier for VSAM, non-VSAM, and base runtime data sets. What SMS management, if any, is required for these files?</p> <p>See dataset naming conventions for details.</p> |
| <input type="checkbox"/> | <p>Select a high-level qualifier for historical data sets. What SMS management, if any, is required for these files?</p> <p>See the section on Historical data collection requirements in this document for information relevant to sizing the history files.</p> <p>See also: Names of exported data sets and How much space to allocate</p> |
| <input type="checkbox"/> | <p>If runtime environments will be enabled for variables mode, is enough space allocated to your temporary space volume to accommodate variable resolution processing? By default, each started task will allocate 15 cylinders of temporary space (twice that for each OMEGAMON for DB2 Classic started task)</p> |
| <input type="checkbox"/> | <p>Is sufficient DASD available for monitoring Agents and shared components (configuration tools, TMS:Engine, Tivoli Enterprise Monitoring Servers).</p> <p>The Installation Job Generator (JOBGEN) utility provided by the configuration tools can help allocate sufficient storage for the mix of products and components you install. See the Program Directory for IBM Tivoli Management Services on z/OS, and the Program Directory for each of your monitoring Agents for more information on JOBGEN and required DASD for Agents and components.</p> <p>See the section on Historical data collection requirements in this document for information on sizing the history files.</p> |

z/OS system changes

If dynamic changes are not allowed, an IPL may be required for some security changes and for the first-time start of the subsystem interface (SSI). Configuration changes to IEFSSNxx, IKJTSOxx, and CSFPRMxx may also require an IPL or restart of components being affected. Coordinating these changes will make the installation easier.

General

- | | |
|--------------------------|---|
| <input type="checkbox"/> | <p>Will you change the started task naming convention from the default? If so, what should the name prefix be? Which system procedure library will be used? What is the process for moving the procs into a system procedure library?</p> <p>See Predefining and managing OMEGAMON started tasks for examples of started task names using IBM as the task prefix.</p> <p>See Product codes for information on the codes used as part of the started task names.</p> <p>See also the default Started Task names in the Automation considerations section of this document</p> |
| <input type="checkbox"/> | <p>What is the procedure for setting the service class for batch jobs in Work Load Manager ? The SMP/E installation jobs and PARMGEN product configuration jobs used to deploy the products run as batch jobs. Ensure that these batch jobs will run in a service class with a high priority.</p> |
| <input type="checkbox"/> | <p>What is the procedure for setting the service class for started tasks in Work Load Manager ? Make sure the started task for each monitoring Agent will run in a service class equal to or higher than that of the object it is monitoring.</p> <p>See Workload Manager (WLM) settings for started tasks for details.</p> <p>Also see Work Load Manager settings for the OMEGAMON tasks at the end of this document</p> |
| <input type="checkbox"/> | <p>Does IEASYMxx have all the system symbols needed if you are enabling variables mode?</p> <p>Note if you are upgrading: Enabling variables mode in a runtime environment requires a system procedure refresh of your product started tasks. Symbolic substitution steps and DDNAME updates to point to the temporary datasets that house the resolved values are required in the product started tasks. Be sure you are familiar with the procedure for updating the started task procedure library. Plan for time to refresh the runtime members and system procedure started tasks.</p> <p>See Whether and where to use variables for help deciding if you want to use variables.</p> |



Has IEFSSNxx been updated to define and start the OMEGAMON subsystem and OMEGAMON for Messaging subsystem?

Create a subsystem ID entry in your system PARMLIB member IEFSSNxx. The default subsystem name generated by PARMGEN is CNDL. This is set in the parameter, "RTE_KCNSTR00_SSID". The default started task proc is IBMCN. An example of the default SSN entry to bring up the OMEGAMON subsystem at IPL would therefore be:

```
SUBSYS SUBNAME(CNDL) INITRTN(KCNDLINT) INITPARM('SSPROC=IBMCN')
```

Be sure that the subsystem proc has been moved to the appropriate system procedure library (default SYS1.PROCLIB) prior to IPL.

If you do not want the subsystem started at IPL, the entry would be:

```
SUBSYS SUBNAME(CNDL) INITRTN(KCNDLINT)
```

Note: If OMEGAMON for Messaging is being installed, also add the WebSphere MQ Monitoring Subsystem to SSN (default name is KMQ1)

See [Complete the configuration for the OMEGAMON subsystem](#) for additional details.



Have UNIX System Services file systems been created and mounted?

SMP/E Installation:

The OMEGAMON for CICS TG on z/OS (FMID HKGWvvv), OMEGAMON for JVM (FMID HKJJvvv), OMEGAMON for DB2 Performance Expert on z/OS (FMID HKDBvvv) , ITCAM for Web Resources (FMIDs HAADvvv/HKYNvvv) , and z/OS Log Forwarder (FMID HGLAvvv) components of the IBM OMEGAMON Performance Management Suite for z/OS (Program Number 5698-AA8) are installed into a file system, either HFS or zFS. Before installing these components, you must ensure that the target system file system data sets are available for processing on the driving system. OMVS must be active on the driving system and the target system file datasets must be mounted on the driving system. If you plan to install these components in a zFS file system, this requires that zFS be active on the driving system. Information on activating and using zFS can be found in z/OS Distributed File Service zSeries File System Administration, SC24-5989.

Planning for Configuration:

For certain product features such as self describing Agent (SDA) for Tivoli Management Services dependent products that exploit the SDA feature, review the zFS directory requirements.

A zFS file system has to be created and mounted read/write. A sample KCIUSSJB job is provided in the SMP/E target dataset (*&gbl_target_hilev.TKANSAM*). In addition, one zFS

home directory is required with enough space to accommodate the SDA jar files per Agent. A working Java home directory path is also required during configuration (IBM-supplied default is "/usr/lpp/java/J7.1"), and the name of the z/OS USS CLIST/EXEC library name (IBM-supplied default is SYS1.SBPXEXEC).

If you do not already have a user ID with superuser authority (TSO ID with an OMVS segment defined to it), then set-up one. Product configuration USS jobs (KCIJ%USP/KCIJ%USS) that use the RTE_USS_RTEDIR home directory parameter must be run by a user ID that has superuser authority (UID=0) or read access to resource BPX.SUPERUSER under the FACILITY profile and superuser authority must be activated. Both the user ID of the KCIJPUS* USS job submitter and the %KDS_TEMS_STC% Tivoli Enterprise Monitoring Server (TEMS) started task name (if your TEMS will be deployed on the z/OS platform), must have superuser authority.

As you are defining users, you might want to define some of them with appropriate superuser privileges. There are three ways to assign superuser authority.

1. Using the UNIXPRIV class profiles, the preferred way. See "Using UNIXPRIV class profiles."
2. Using the BPX.SUPERUSER resource in the FACILITY class. See "Using the BPX.SUPERUSER resource in the FACILITY class."
3. Assigning a UID of 0.

For more information, see "Superusers in z/OS UNIX" publication:
http://www.ibm.com/support/knowledgecenter/SSLTBW_2.2.0/com.ibm.zos.v2r2.bpxb200/seca.htm?lang=en

The following components will need access to the UNIX System Services CLIST library: The monitoring server (if SDA is used), the OMEGAMON for Messaging QI Broker Agent, and ITCAM for SOA. You will need the CLIST library name during the configuration process.

See the paragraph on SDA in [Before you begin](#) for more details.
Current Java requirements can be found in [Required software](#)

- Are Java Virtual Machine (JVMs) running on z/OS enabled for OMEGAMON monitoring?

IBM OMEGAMON for JVM on z/OS monitoring Agent focuses on discovering and solving resource-level problems within JVMs running on z/OS. With OMEGAMON for JVM, the Java virtual machines (JVMs) that you want to monitor must be configured to run the OMEGAMON for JVM Java Agent. The OMEGAMON for JVM Agent uses the Health Center instrumentation in IBM JVMs. Use OMEGAMON for JVM with a version of Java that includes the Health Center Agent V3.0.11 or above.

With OMEGAMON for JVM, you can monitor the performance of all JVMs found in different environments on z/OS, such as in CICS, IMS, or DB2 subsystems, or in pure Java application servers like the WebSphere Application Server or those utilizing the WebSphere Liberty Profile such as z/OS Connect. OMEGAMON for JVM Agents that are installed on LPARs in your enterprise collect data from Java agents that are deployed on monitored JVMs. The Java agents provide JVM-level performance information that affects application response time and throughput such as garbage collection rates, general-purpose processor usage, and specialized processor usage.

After the PARMGEN LPAR RTE configuration work, review the tailored PARMGEN *“Perform post configuration steps”* on-line README to perform the post-configuration work to enable the OMEGAMON for JVM Agent options in your various JVM-based applications.

- Is Integrated Cryptographic Services Facility (ICSF) set up and running? If so, the name of the ICSF load library is needed for configuration (for encrypting passwords, for exploitation of zAware, and for encryption of tokens for Take Action command requests).

- PARMGEN configuration jobs have SUBMIT steps within batch job which submit another job. Does your site have special SUBMIT user exits which might affect this?

- Has APF authorization been done for the runtime load libraries in the PROGxx member of SYS1.PARMLIB (or equivalent system parameter library)?

See [APF-authorize the runtime load libraries](#) for details.

- Have you performed the authorization steps for the user ID that will run the PARMGEN KCIJPDLA or KCIJPD11 autodiscovery jobs?

If you installed the z/OS Discovery Library Adapter (DLA) FMID (HIZD310) to exploit the PARMGEN z/OS DLA integration feature introduced in PARMGEN PTF UA83283 (and later maintenance), review the following documentation:

- (System Preparation, Installation, Configuration) “What’s New in PARMGEN”>[“PARMGEN PTF UA83283 for APAR OA51503 \(4Q16 Interim Feature\)”](#) in the [OMEGAMON shared publications](#) in IBM Knowledge Center. The autodiscovery

function of z/OS Discovery Library Adapter (DLA) is integrated in the PARMGEN configuration method to simplify the configuration process. During the configuration phase of the OMEGAMON for z/OS Management Suite deployment, you can run the PARMGEN z/OS DLA jobs to automatically discover and fill in the values of some product parameters before you start to edit the configuration profiles. For more information about running the PARMGEN z/OS DLA jobs, see [Preparing the configuration profiles by running the KCIJPDln jobs](#).

Have KPDDSCO, KEPSTCTO, KOBROUTr and KOBSPFAU programs been TSO authorized?

The programs are authorized by adding them to the system PARMLIB member IKJTSONn under the AUTHPGM section and refreshing this member by issuing the set command:
(T IKJTSONn)

You might request your site's authorized system programmers to perform this step so it can be scheduled with the LPAR's change control processes.

See [Enable maintenance of the historical data store](#)

Also see [Authorizing OMEGAMON libraries for TSO and ISPF](#)

Has the VTAM administrator has been informed of names and APPLIDs for new VTAM major nodes for products (see SNA info in the network section of the checklist)? What is the time frame for getting these updates installed?

Has linklist been updated?

The *&rte_hilev.&rte_name.xKANMOD* library must be added to the linklist if you maintain a separate list instead of using the configuration software list. Otherwise, add the following modules to an APF-authorized library in the IPL linklist so that they are available during system IPL.

- **KCNDLINT** module (OMEGAMON Subsystem) in load library (TKANMOD SMP/E target or read-only RTE RKANMOD dataset)
- **KM5EXIT3** and **KM5CSFSX** ICSF modules (OMEGAMON on z/OS) in load library (TKANMOD SMP/E target or read-only RTE RKANMOD dataset). To provide sufficient storage to allow the monitoring exit to run, modify the ICSF subsystem JCL to increase the REGION limit to REGION=0M.
- **KMQASSIN**, **KMQAMHST**, **KMQAMHSD**, **KMQAMHSE** modules (OMEGAMON for Messaging) in load library (TKANMOD SMP/E target or read-only RTE RKANMOD dataset), if Application Statistics feature (MQI Monitoring), will be enabled.

See [Complete the configuration for the OMEGAMON subsystem](#) if you want additional details.

What accounting class should be used in your jobcards. Does your site use job cards for started tasks? If so, the started task jobcards must be added as well.

Product- and component-specific preparation

OMEGAMON on z/OS

Add new modules to IPL linklist:

KCNDLINT
KM5EXIT3, KM5CSFSX (if ICSF is used)

To provide sufficient storage to allow the monitoring exit to run, modify the ICSF subsystem JCL to increase the REGION limit to REGION=0M.

See [Add the KM5EXITn, KM5CSFSX to the ICSF Configuration](#)

OMEGAMON for CICS® on z/OS

- JCL changes for CICS regions (pre-V5.3.0 only)
- Table changes for CICS regions (PCT, PPT, and MCT)
- If you are installing OMEGAMON for CICS, read the [program directory](#) sections 6.1.9 and 6.1.10 for file system information

See [Completing the configuration for CICS](#)

OMEGAMON for IMS® on z/OS

- JCL changes for IMS regions (starting in V5.3.0 only)
- For each subsystem, determine the following:

Subsystem ID.

IMS region names and data set names (RESLIB, CONNECT extensions), versions

Primary and alternative systems where IMS can run if it moves. Consider preconfiguring IMS subsystems on the alternative LPARs

Relative level of activity

For more information, please refer to the "Implement IMS user exits" topic in the OMEGAMON for IMS Planning and Configuration Guide (URL:

http://www.ibm.com/support/knowledgecenter/SSXS8U_5.3.0/com.ibm.omegamon_ims.doc_5.3.0/p_c/pcg_complete_exits.htm)

OMEGAMON for Storage on z/OS

Consider how you will tune the monitoring Agent to ensure an appropriate amount of data collection. See the [OMEGAMON for Storage on z/OS: Tuning Guide](#)

OMEGAMON for DB2® on z/OS

Get authority to issue BINDs and GRANTs in DB2 subsystems

Resource Recovery Services (RRS) must be running and [authorized](#): OMEGAMON for DB2 PE uses Resource Recovery Services Attachment Facility (RRSAF) for connecting to DB2 subsystems.

For each subsystem, you will need to know:

- Subsystem ID
- SDSNLOAD / SDSNEXIT / RUNLIB data set names
- DB2 Connect: IP, server name or alternative libraries, versions
- Datasharing group membership? BINDs affect all DB2s in a Datasharing group. This makes a difference in rolling out maintenance
- Primary and alternative systems where DB2 can run if it moves. Consider preconfiguring DB2 subsystems. Plan to use configuration software to configure DB2 for each region on each LPAR, and activate the monitor only if the DB2 region is moved to that system.
- Relative level of activity.

For OMEGAMON for DB2 Performance Expert:

- DB2 access for creating tables
- DB2 UDB Administration Client or a complete installation of DB2 UDB on the workstation for access to the Performance Warehouse
- User ID or group ID DB2PM for the IBMO2 address space, with DB2 Administration rights

For DB2 Explain: creation of a database for Explain.

For DB2 Connect monitoring: a non-expiring user ID with DB2 Administration rights.

For DB2 Data Sharing: which DB2 will be the Performance Warehouse database?

For the Performance Warehouse: creation of a STOGROUP.

Ensure the availability of DBAs for configuration tasks.



OMEGAMON for Mainframe Networks

- Determine the name of the profile TCPIP dataset
- Enable the z/OS Communications Server network management interface
- Enable SNMP manager functions
- Start the OSA adapter SNMP subAgent
- Verify the z/OS environment setup
- Define monitoring access to the NMI and commands

For detailed instructions, see the *IBM Tivoli OMEGAMON for Mainframe Networks: [Planning and Configuration Guide](#)*.



OMEGAMON for Messaging for z/OS

For WebSphere® MQ monitoring Agent determine the following:

- SCSQAUTH and SCSQANLE library names
- The number of MQ objects being monitored (such as queues and channels)
- The users authorized for take action commands and the account used
- If application statistics collection is required:
 - New subsystem name (default is KMQ1)
 - New linklist load modules KMQASSIN, KMQAMHST, KMQAMHSD and KMQAMHSE (if Application Statistics feature, also called MQI Monitoring, will be enabled).
 - The relative workload of the queue managers

For WebSphere MQ configuration Agent determine the following:

- SCSQAUTH and SCSQANLE library names
- If DB2 is used as the configuration database:
 - DB2 subsystem name
 - DB2 location name
 - DB2 SDSNLOAD library name
 - SAF general resource class name if implementing multilevel security for configuration database

For WebSphere Message Broker monitoring Agent determine the following:

- SCSQAUTH and SCSQLOAD library names

LE SCEERUN and SCEELKED library names

SBPXEXEC library name

HFS/zFS path for /CandleHome directory

For each monitored broker:

- The broker name
- The HFS/zFS path of ENVFILE

For each queue manager determine the following:

QMGR name

New subsystem name (default is KMQ1)

New linklist load modules KMQASSIN, KMQAMHST, KMQAMHSD and KMQAMHSE (if Application Statistics feature, also called MQI Monitoring, will be enabled).

SCSQAUTH and SCSQLOAD linkedit library names

LE C static and dynamic routines libraries

Primary and alternative systems where MQ can run if it moves: KMQSTART and KMQUSER

Relative level of activity and size (number of channels and queues)

Distributed Components

OMEGAMON uses Tivoli Management Services (known as [Tivoli Monitoring](#) on distributed platforms) to provide monitoring integration across OMEGAMON Agents and with other IBM products. [Supported distributed platforms](#) include certain flavors of Windows, UNIX, and Linux. Check the Tivoli Monitoring [Installation Roadmap](#) for a guide. The following components run on distributed systems:

- Tivoli Enterprise Portal Server (required for the Tivoli Enterprise Portal interface) (distributed systems only)
- Tivoli Enterprise Monitoring Server (distributed or z/OS)
- Tivoli Data Warehouse (distributed systems only)

<input type="checkbox"/>	Verify that the installer has administrator authority on the systems where distributed components will be installed.
<input type="checkbox"/>	Determine how the installer of the distributed components will create and authorize other User IDs. At a minimum, two permanent IDs are required for the DB2 database. One of these IDs requires administrator authority.
<input type="checkbox"/>	Decide upon the authorization processes to be required for requesting access to the portal client user interface. <ul style="list-style-type: none">• Who will authorize users of the portal GUI?• Who will create user accounts in the client interface?• Will the users be authenticated? How? (RACF? LDAP? Etc.)• What functionality will the users or groups of users need?
<input type="checkbox"/>	If the Tivoli Enterprise Portal user interface will be used, determine, who will create and manage workspaces, situations, policies, and reports. Will customization of production portal servers be centralized in a single person or group, or will it be distributed to subject matter experts?
<input type="checkbox"/>	Decide upon the authorization processes to be required for requesting access to the portal client user interface.
<input type="checkbox"/>	Decide who will maintain the server running the Portal server and any other distributed servers. Who will maintain the portal server software and potentially the distributed monitoring server and data warehouse software?
<input type="checkbox"/>	Define the cross-system requirements for updates. For example: application support is installed on a distributed system and then applied to the monitoring servers on z/OS. Change control procedures might differ between platforms or between systems.

Note: If the self-describing Agent (SDA) feature is enabled, application support only needs to be installed under specific conditions.

Before you can begin using the monitoring Agent to collect data, you must complete the installation and configuration of distributed components and their Fix Packs (if they are not installed already).

The TEMA on z/OS includes Tivoli Management Services (TMS), which provides the distributed components for all products included on the image that use the Tivoli Enterprise Portal (TEP). Your TMS environment must meet the minimum Fix Pack requirements.

Add application support (predefined workspaces and situations, online help, expert advice, and Agent data for the TEP) from the appropriate application support media. These steps are described in the product's configuration guide.

If you have enabled the Self-Describing Agent (SDA) feature in your Tivoli Enterprise Portal Server and your Tivoli Enterprise Management Server, you do not need to install this DVD unless:

- You are using the "Tivoli Enterprise Portal Desktop Client"
- You are installing the Tivoli OMEGAVIEW II for the Enterprise (KWO) Agent. If you are installing Tivoli Dashboard Edition but you are not installing its OMEGAVIEW II for the Enterprise component, then you do not need to install Tivoli Dashboard Edition from the DVD.

If you are using the "Tivoli Enterprise Portal Desktop Client", you will need to install only the desktop client component from the DVD wherever you have previously installed the "Tivoli Enterprise Portal Desktop Client".

Whether SDA is enabled in the TEMS or not, you will always need to add application support manually if one of these conditions is true:

- you are using the TEPS Desktop Client
- you are configuring any of these Agents that do not exploit the SDA feature:
 - OMEGAMON WebSphere MQ Configuration (KMC) Agent
 - OMEGAVIEW II for the Enterprise (KWO) Agent
 - ITCAM for Application Diagnostics (KYN) Agent
- you are installing language support

Check for encrypted messages or special security components that might interfere with communications between components or with creation of administrator and user accounts.

Do you have at least one of the supported platforms for each component?

For up-to-date information about required and supported hardware and software for the components of Tivoli Management Services, see the IBM Tivoli Monitoring [Installation and](#)

[Configuration](#) guides and see the [Software Product Compatibility Reports \(SPCR\)](#).

- What is the level of Java on the distributed systems where you intend to install a monitoring server, portal server, data warehouse, or portal client? If the version is not supported, can the supported version be installed?

Java Certificate for some Tivoli products will expire April 2016. After 16th of April, clients may get prompted to accept a valid, but expired certificate. The solution is to accept the certificate "Always" to eliminate the warning message.

See [Required software](#) and Flash Technotes listed:

- *"Recommended Maintenance Service Levels for Tivoli OMEGAMON XE and Tivoli Advanced Reporting products on ITM V6.x"* technote:
<http://www.ibm.com/support/docview.wss?uid=swq21290883>
- If you use TEP Browser or TEP Java Webstart Clients, review:
 - *"Tivoli Enterprise Portal (TEP) client jar file certificates expire April 2016"* technote:
<http://www.ibm.com/support/docview.wss?uid=swg21972841>
 - *"Failed to validate expired certificate affecting all TEP browser TEP webstart"* technote:
<http://www.ibm.com/support/docview.wss?uid=swg21269613>
 - *"Master list of ITM TEP/Java issues"* technote:
<http://www.ibm.com/support/docview.wss?uid=swg21672459>

- What level of database is installed on the system where you intend to install a portal server? If that version is not supported, will your system allow the supported version to be installed during installation of the portal server?

See

[Supported databases for Tivoli Enterprise Portal Server](#)

[Supported databases for Tivoli Data Warehouse](#)

Security Requirements

- | | |
|--------------------------|---|
| <input type="checkbox"/> | <p>Define the OMEGAMON started tasks to the Started Task Security class.</p> <p>User IDs for new started tasks must be defined to the security facility and granted necessary access. "<i>Predefining and managing OMEGAMON started tasks</i>" in the Reference section of the OMEGAMON XE shared publications.</p> |
| <input type="checkbox"/> | <p>The enhanced 3270UI address space and the OMEGAMON subsystem must be authorized to read any data set in the runtime environment. To edit profiles and workspaces, user IDs for the enhanced 3270UI must have update/write authorization to writeable data sets such as the data sets concatenated in the UKANWENU and RKOBPFSV DDNAMEs for the runtime environment.</p> <p>In general, user IDs for the enhanced 3270UI and other OMEGAMON started tasks must have update/write authorization to writeable data sets such as the data sets concatenated in DDNAMEs that follow this naming convention:</p> <ol style="list-style-type: none">1. *RKppPCSV DDNAME2. *RKppPFSV DDNAME <p>*where <i>pp</i> = the two letter product code. See Product codes for a complete list.</p> |
| <input type="checkbox"/> | <p>Integrated Cryptographic Services Facility (ICSF) is set up and running and the name of the ICSF load library is available for configuration (for encrypting passwords, for exploitation of zAware, and for encryption of tokens for Take Action command requests).</p> <p>If ICSF is not used on the hub management server, remember to set the portal server to use a less secure schema, EGG1.</p> |
| <input type="checkbox"/> | <p>Decide how internal OMEGAMON capabilities will be secured.</p> <p>Typically, resource classes are defined in the system authorization facility (SAF) for OMEGAMON classic components and the OMEGAMON enhanced 3270 user interface. Users or groups of users are granted access to facilities which are appropriate for their jobs. This may require the use of the security exit. If so, who will code and maintain the exit?</p> |

Is security preparation complete?

For example, if your SAF is RACF®, you can save time by setting up stubs of the runtime libraries for your products, and submitting these security requests in advance:

Request ALTER access to the runtime data sets for all OMEGAMON started tasks.

OMEGAMON for DB2:

- Request CONTROL access to the DB2 Classic address space (IBMO2) for the SYSUTIL DB2 data set.
 - Request authority to open a TCP/IP port for the DB2 Classic Collector, if the Performance Expert Client will be used.
 - Request authorization for the IBMO2 started task to use RRS.
 - The user ID/group ID DB2PM, which is used by the OMEGAMON started tasks, needs to be created and connected to the started tasks.
 - SYSCTRL authority will be needed to bind several DB2 packages and plans. If necessary, a new user ID for OMEGAMON may be needed in DB2
- OMEGAMON for Messaging for z/OS:

For WebSphere MQ monitoring Agent:

- Access to the monitored queue managers
- Access to the command queue, event queues and the queues for message manipulations
- Authorization to issue MQSC and PCF commands

For WebSphere MQ configuration Agent:

- Access to the queue managers
- Authorization to issue MQSC commands
- Access to DB2 subsystem if DB2 database is used as the configuration database
- SAF resource profiles if implementing multilevel security for configuration database

For WebSphere Message Broker monitoring Agent

- Access to HFS directories of CandleHome and broker ENVFILE
- Access to the queue manager of the broker
- Access to the system queues for the broker
- Access to the SUPERUSER.PROCESS.GETPSENT profile of UNIXPRIV class
- OMEGAMON on z/OS:
 - Define an OMVS segment with a UNIX UID with superuser authority (0) with a default UNIX System Services user group for the address space where the OMEGAMON on z/OS product is defined (the Tivoli Enterprise Monitoring Server address space) to collect UNIX data and relay UNIX commands.
- OMEGAMON enhanced 3270 user interface:
 - Define an OMVS segment with a UNIX UID to the address space.
 - Identify or define an SAF general resource class and access profiles
- OMEGAMON for Mainframe networks:

Define an OMVS segment with a superuser UNIX UID to the address space.

Access permission changes for any SAF resources have been made.

OMVS segment with SUPERUSER or equivalent access for the Tivoli Enterprise Monitoring Server and for the Mainframe Networks monitoring Agent has been created; an OMVS segment with a user ID has been created for the other stand-alone Agents (Agents in their own address space) and the OMEGAMON enhanced 3270 user interface:

```
RDEFINE STARTED stcname STDATA(USER(userid) GROUP(SYS1))
```

Here is a list of the default task names that need an OMVS segment defined:

=====

**Complete list of product started tasks created by PARMGEN
based on products configured:**

A. Common started tasks:

- IBMSTRT - Composite started task startup PROC (/S)
- IBMSTOP - Composite started task shutdown PROC (/P)
- IBMAPF - Composite INCLUDE INAPF member
- *IBMCN - OMEGAMON Subsystem
- *IBMTOM - OMEGAMON Enhanced 3270 User Interface (Tivoli OMEGAMON)
- IBMETE - End-to-End
- *IBMDS - Tivoli Enterprise Monitoring Server (TEMS)
- IBMPD1 - Common Persistent Datastore (PDS)
- maintenance procedure

*Needs SUPERUSER
*Needs SUPERUSER

*Needs SUPERUSER

**B. OMEGAMON Performance Management Suite for z/OS
product started tasks:**

- IBMOCx - OMEGAMON for CICS (Classic/Menu System) [where x = 0-16; 1 x can monitor up to 50 CICS regions]
- IBMC2x - OMEGAMON for CICS on z/OS (CUA) [where x = 0-16; 1 x can monitor up to 50 CICS regions]
- IBMC5 - OMEGAMON for CICS (Agent)
- IBMGW - OMEGAMON for CICS TG (Agent)
- IBMD2 - OMEGAMON for DB2 PE/PM (CUA)
- IBMO2 - OMEGAMON for DB2 PE/PM (OMPE Classic)
- IBMPWHx - OMEGAMON for DB2 PE/PM (Performance Warehouse) [where x = 0-99; 1 x per KD2_PFxx_* DB2 profile assigned to 1 or more DB2 subsystems monitored]
- IBMD5 - OMEGAMON for DB2 PE/PM (Agent)
- IBMOIx - OMEGAMON for IMS (Classic/Menu System) [where x = 0-99; 1 x per IMS subsystem monitored]
- IBMI2 - OMEGAMON for IMS (CUA)
- IBMI5 - OMEGAMON for IMS (Agent)
- IBMJJ - OMEGAMON Monitoring for JVM (Agent)
- IBMJT - OMEGAMON Monitoring for JVM (Collector)
- IBMM2 - OMEGAMON on z/OS (CUA)
- IBMM2RC - OMEGAMON on z/OS (Classic/Menu

System)

- IBMM2CS - OMEGAMON on z/OS (CSA Analyzer)
- IBMM2HI - OMEGAMON on z/OS (Epilog)
- IBMM2HD - OMEGAMON on z/OS (Historical Data Interface)
- IBMM2EZ - OMEGAMON on z/OS (Zoom to Epilog)
- IBMM2HP - OMEGAMON on z/OS (Historical Maintenance - Primary)
- IBMM2HS - OMEGAMON on z/OS (Historical Maintenance - Secondary)
- IBMM2BA - OMEGAMON on z/OS (Historical Batch Reporter)
- IBMMV - OMEGAMON DE on z/OS (OMEGAVIEW Agent)
- IBMMC - OMEGAMON for Messaging (MQ Configuration Agent)
- IBMMQ - OMEGAMON for Messaging (MQ Monitoring Agent)
- IBMQI - OMEGAMON for Messaging (Message Broker Agent)
- IBMDF - OMEGAMON for Storage (CUA)
- IBMDFDS - OMEGAMON for Storage (DFDSS Service Requests)
- IBMON - OMEGAMON for Mainframe Networks (CUA)
- *IBMN3 - OMEGAMON for Mainframe Networks (Agent)
- IBMYN - ITCAM for Application Diagnostics (TEMA)
- IBMYNSA - ITCAM for Application Diagnostics (SubAgent)

*Needs SUPERUSER

C. Service Management Suite for z/OS product started tasks:

Note: This suite includes OMEGAMON Performance Management Suite product started tasks plus the following:

-
- IBMAH - System Automation Monitoring Agent
 - IBMNA - NetView for z/OS Agent

D. Tivoli Advanced Storage product started tasks:

-
- IBMRG - Advanced Audit for DFSMSHsm Agent
 - IBMRH - Advanced Reporting for DFSMSHsm Agent
 - IBMRJ - Advanced Allocation Management Agent
 - IBMRK - Automated Tape Allocation Manager Agent
 - IBMRN - Advanced Catalog Management Agent
 - IBMRV - Advanced Backup and Recovery for z/OS Agent

- IBMRW - Tape Optimizer for z/OS Agent

E. Additional product started tasks:

- IBMDO - Tivoli Decision Support for z/OS Agent
- IBMD4 - ITCAM for SOA Agent

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Historical data collection requirements

OMEGAMON provides different mechanisms to collect historical data. [Short Term History](#) data is kept on z/OS, as is other specific data ([Epilog data](#) , [DB2 near term history](#) , [CICS transaction history](#)). The [Tivoli Data Warehouse](#) will store longer term monitor data that can be summarized.

- | | |
|--------------------------|--|
| <input type="checkbox"/> | <p>How much storage needs to be allocated for historical data in the persistent data store on z/OS?</p> <p>For short-term history in the Tivoli Enterprise Portal, at least 24 hours of data should be collected. For near-term history in the Enhanced 3270UI, at least 3 days of data should be collected. See How much space to allocate for suggestions on how to determine the space needed for the persistent data store.</p> |
| <input type="checkbox"/> | <p>(Optional) Collect near-term history data from Resource Measurement Facility (RMF) DDS.</p> <p>Starting in OMEGAMON on z/OS V5.3.0, this version supports the capability to collect near-term history data from the RMF Distributed Data Server (DDS). This is in addition to, and separate from, use of RMF DDS to collect real-time coupling facility (CF), cross-system coupling facility (XCF) and system lock data. Read "Configuring the OMEGAMON on z/OS Agent to use RMF data" and "Enable RMF data collection to configure and enable collection of RMF near-term history data" in the OMEGAMON for z/OS "Planning and Configuration Guide" topic.</p> |
| <input type="checkbox"/> | <p>Estimate and allocate space for the following Classic 3270 OMEGAMON historical data components, if applicable:</p> <ul style="list-style-type: none">• OMEGAMON for MVS: Epilog.• OMEGAMON for DB2: near term history.• OMEGAMON for CICS: task history data sets (the default is to use the data space). Use the following formula to calculate the size of the task history datasets:
$2\text{KB} * \text{transactions per minute} * \text{minutes of history required}$ |
| <input type="checkbox"/> | <p>Do you intend to store long term historical data in the TDW? What distributed database software do you intend to use for storing long-term historical data in the Tivoli Data Warehouse?</p> <p>Note: if you intend to use the TDW, you must also install the TEP, so you can configure TDW storage.</p> |
| <input type="checkbox"/> | <p>How large can you expect the Tivoli Data Warehouse database to become ?</p> <p>A spreadsheet to help you estimate the answer to this question is posted in the Integrated Service Management Library at http://www.ibm.com/software/brandcatalog/ismlibrary/details?catalog.label=1TW10TM1Y</p> |

How will data be categorized by shift, including vacations and weekends?

What values should be used for the [Summarization and Pruning Agent](#) to prevent runaway data warehouse?

What reports do you need to be able to create?

Automation considerations

Automation can be used to start the OMEGAMON tasks and to act on alerts generated by OMEGAMON. If you are using System Automation for z/OS, make sure the automation rules are defined to start and manage the OMEGAMON started tasks. System Automation comes with an OMEGAMON policy that predefines these rules. The following information is also found in [Predefining and managing OMEGAMON started tasks](#).

To easily enable automation to act on OMEGAMON alerts, also see [Whether and how to enable event forwarding](#).

For additional detail on using System Automation and NetView to automatically handle alerts, see [Triggering automation](#).

- Automation dependency on VTAM (VTAM must be running and the major node must be active):

IBMM2RC	OMEGAMON Classic for z/OS
IBMM2	OMEGAMON II for z/OS
IBMOCx	OMEGAMON Classic for CICS *
IBMC2x	OMEGAMON II for CICS
IBMOIx	OMEGAMON Classic for IMS
IBMI2	OMEGAMON II for IMS
IBMO2	OMEGAMON Classic for DB2
IBMDS	Tivoli Enterprise Monitoring Server on z/OS
IBMETE	OMEGAMON End to End
IBMM2HI	OMEGAMON Epilog Historical Collector
IBMM2EZ	OMEGAMON Epilog Zoom
IBMDf	OMEGAMON II for Storage
IBMMV	OMEGAVIEW
IBMON	OMEGAMON II for Mainframe Networks
IBMTOM	OMEGAMON Enhanced 3270 User Interface

- Automation dependency on TCP/IP (TCPIP must be started, ready to accept binds, and able to resolve DNS names; this usually requires OMPROUTE):

IBMDS	Tivoli Enterprise Monitoring Server on z/OS
IBMM2	OMEGAMON II for z/OS
IBMC5	OMEGAMON for CICS
IBMD5	OMEGAMON for DB2
IBMI5	OMEGAMON for IMS
IBMJJ	OMEGAMON Monitoring for JVM (Agent)
IBMJT	OMEGAMON Monitoring for JVM (Collector)
IBMN3	OMEGAMON for Mainframe Networks
IBMMQ	OMEGAMON for Messaging - MQ
IBMMC	OMEGAMON for Messaging – MQ Configuration
IBMQI	OMEGAMON for Messaging – WebSphere Message Broker (Integration Bus)

IBMYN	ITCAM for Application Diagnostics on z/OS
IBMTOM	OMEGAMON Enhanced 3270 User Interface

- Automation dependency on IMS subsystem:

IBMOIx	OMEGAMON Classic for IMS
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- Dependency on IBMDS (These tasks retry if they do not succeed in connecting to IBMDS, so the dependency is optional):

IBMC5	OMEGAMON for CICS
IBMD5	OMEGAMON for DB2
IBMI5	OMEGAMON for IMS
IBMJJ	OMEGAMON Monitoring for JVM
IBMM2HI	OMEGAMON Epilog Historical Collector
IBMDF	OMEGAMON II for Storage
IBMMQ	OMEGAMON for Messaging - MQ
IBMMC	OMEGAMON for Messaging – MQ Configuration
IBMQI	OMEGAMON for Messaging – WebSphere Message Broker
IBMYN	ITCAM for Application Diagnostics on z/OS
IBMM2	OMEGAMON II for z/OS
IBMN3	OMEGAMON for Mainframe Networks
IBMTOM	OMEGAMON Enhanced 3270 User Interface

- Dependency on End to End Response Time Feature:

IBMON	OMEGAMON II for Mainframe Networks
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- No dependencies:

IBMCN	OMEGAMON Subsystem Task
IBMM2CS	OMEGAMON CSA Analyzer

* IBMOCx must come up before the CICS regions, or the OMEG INIT fails. Tip: Implement the INITPARM initialization parameter.

Work Load Manager settings for the OMEGAMON tasks

- Here are the [OMEGAMON tasks and associated PARMGEN parameters with WLM recommendations](#)
- **Group 1: Collector tasks** need high priority. For example, the priority of IBMOCx must be at least as high as that of CICS, and IBMM2RC is typically at the same level as JES2/3. SYSSTC is fine for these.

IBMCN
IBMO2
IBMOCx
IBMOIx (one for each IMS subsystem)
IBMON
IBMM2HI
IBMM2RC
IBMM2
IBMM2CS
IBMETE
IBMDF

- **Group 2: OMEGAMON XE tasks** also need high priority. SYSSTC or STCHIGH is generally fine for these.

IBMDS
IBMTOM
IBMC5
IBMD5
IBMI5
IBMJJ
IBMJT
IBMN3
IBMMQ
IBMMC
IBMQI
IBMYN

- **Group 3: OMEGAMON II presentation tasks** need less priority, because they display data but do not collect it.

IBMI2
IBMC2
IBMD2
IBMMV
IBMM2HD
IBMM2EZ

- **Group 4: Maintenance tasks for historical data sets** can be low-priority, because they are started only when needed and they run for a short time.

IBMM2HP

IBMM2HS

IBMPD1 or KPDPROC1 (original default)

IBMM2BA

IBMDFS or KDFDSPR (original default)

Note:

1. The “IBM” prefix is a newer naming convention for the IBM-supplied default started task names. The global started prefix used to be “CANS” by default. The default started task prefix and names are customizable to your preferred naming convention.

What to do next:

Depending on how you want to install OMEGAMON,

1 Complete the installation using the Quick Start Guide and program directories

2 Read the planning section to decide how you want to implement the product

3 Configure (or upgrade) the first RTE:

A general overview of PARMGEN configuring, read Configuring

Follow the First Time User’s Guide to get up and running quickly

If you know your specific configuration scenario, see Scenarios and How To topics

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