

Initializing SAS[®] Environment Manager Service Architecture Framework for SAS 9.4M2

Last revised September 26, 2014



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Pre-Initialization

Overview

SAS Environment Manager offers an integrated, operationally focused, collection of administration and monitoring tools. This guide covers the initialization of the SAS Environment Manager Service Architecture framework. Designed to augment the basic capabilities of SAS Environment Manager, this package extends and automates many of the monitoring, auditing and user activity logging activities consistent with the operational requirements of a Service Oriented Architecture (SOA). However, this document is only the initialization guide for the Service Architecture framework. For detailed instructions and usage information on either the core functionality of SAS Environment Manager or the Service Architecture framework, refer to *SAS Environment Manager User's Guide*. For updates, enhancements, and a look to future offerings, visit our website at support.sas.com/rnd/emi.

The SAS Environment Manager Service Architecture framework is an operationally oriented collection of tools, settings, process automations, reports, and data mart. The following outline depicts the framework and its components:

- **SAS Environment Manager Service Architecture Framework**
 - *Extended Monitoring* – this component configures SAS Environment Manager to implement specific monitoring best practices that have been identified for SAS deployments and to allow SAS Environment Manager to exchange events with other applications.
 - **Best Practices**
 - *Alerts* – a number of alert definitions related to various SAS resources are included in the framework. This allows SAS Environment Manager to alert administrators to issues and potential problems as they are detected.
 - *Additional Resources* – the framework also defines additional resources that allow administrators to better monitor their SAS deployment. For example, a set of “HTTP check” resources are defined and regularly ping various SAS web applications to monitor their health and response time.
 - *Additional Resource Groups* – the framework also defines new resource groups that allow administrators to monitor logical collections of resources together.
 - *Metric Collection Tweaks* – the framework adjusts the metrics associated with various types of SAS resources for which data is collected; these tweaks can include enabling/disabling specific metrics or adjustments to how often a metric is collected.
 - **Event Integration**
 - *Event Export* – the framework’s event export capabilities allows SAS Environment Manager to generate events to be consumed by third-party monitoring products.
 - *Event Import* – the framework’s event import capabilities provide a command line interface for generating events to appear in SAS Environment Manager. This

interface can be called from both internal SAS solutions and external applications.

- **Data Mart** – the data mart components of the framework provide a standardized data repository for data collected by the SAS Environment Manager agents and other monitoring tools.
 - Agent-Collected Metrics (ACM) – this data stream populates the data mart with the data collected by the SAS Environment Manager agent technology. This is the same data that drives the SAS Environment Manager web application. However, the data mart extends the length of time the data is stored and restructures the data to make it easier to work with for reporting and analysis.
 - Audit, Performance Measurement (APM) –this data stream provides the data mart with data extracted from the various SAS server log files. These log files provide information on resource consumption, usage of SAS artifacts (e.g. servers, programs, reports, etc.) and metadata activity.
 - Kits – this data stream provides the data mart with data generated and collected by any of the Solution Kits that have been installed and deployed in the environment.
- **Report Center** – this component extends the SAS Environment Manager web application to provide access to a rich set of out-of-the-box reports. These reports leverage the data stored in the data mart to provide both a set of usable reports and examples of the types of reports organizations may want to implement on their own using the preferred SAS reporting and analysis solutions.
- **Solution Kits** – the framework is designed to be extensible through solution kits provide the mechanism that allows SAS solutions to leverage the other capabilities of SAS Environment Manager. These solutions kit allow administrators to better manage and monitor the operational health of these solutions. For example, a solution kit might define additional resources to be monitored, adjust the metrics that are collected for a given resource or generate events to be surfaced in the SAS Environment Manager web application. Solution kits can also extend the data mart to support reporting and analysis of the operational health of a SAS solution.
- **Visual Analytics Autofeed** - Ability to auto feed Data Mart tables into the SAS Visual Analytics auto loading capability.

The SAS Environment Manager Service Architecture framework installation and configuration process has been completed by your SDW installation. However, an additional initialization process is required before the SAS Environment Manager Service Architecture is fully enabled. For most of the framework’s capabilities, initialization is accomplished by executing a simple command.

To enable the APM capabilities of the framework, the initialization process will involve running some additional scripts. If your deployment spans multiple machines, a script will need to be run on each of the machines in the deployment, and you will need to edit a file to identify the location of log files in your deployment. In addition, in multi-machine deployments, you will need to decide on an approach for bringing log files from all of the machines to a single landing zone directory for the APM ETL to process. This can involve copying the files or locating them in a shared file system available to all of the machines. Consult your SAS Environment Manager 2.4 User’s Guide for additional information. By default, the APM ETL process expects you to supply NFS mounts or Windows Shares of the <levelroot> directory (e.g. - /usr/local/SAS/config/Lev1) on each of the remote machines.

For multi-machine SAS deployments, the SAS Environment Manager Service Architecture package will be installed on one machine in one SAS Application context and is considered a singleton for a deployment. The selected Application context for the Service Architecture package cannot be a load balanced SAS Application context. Consult the user's guide for more information.

A final consideration is the location, protection, and backup practices associated with the service architecture log archive. The **Archive** directory, located in the **emi-framework** directory, is the archive of all logs gathered by the master_apm_etl process. Best practices would suggest the copying of the zip'ed logs to some form of shared network storage or tape media depending on your IT organizations requirements for protection of access and activity historical records.

Terminology

Throughout this document **<levelroot>** will be used as a placeholder for the fully-qualified location of the LevN directory within your SAS Configuration directory (e.g. /opt/SAS/Config/Lev1). When used in commands in the following instructions, replace instances of **<levelroot>** with that full (absolute) path.

The machine on which the framework is deployed is called the SAS Environment Manager Enablement Kit Server. This is often the same machine to which the SAS Environment Manager Server is deployed but that is not always the case. The framework is deployed in the **emi-framework** directory under the **<levelroot>/Web/SASEnvironmentManager** and only the SAS Environment Manager Enablement Kit Server machine should have a directory with that name.

Pre-Initialization Checklist

Note: The SAS Environment Manager Service Architecture Framework requires that SAS be fully configured and running on all participating hosts before initialization can proceed.

Before beginning the initialization process, ensure that you have access to the following:

1. Your SAS deployment configured with a functioning Stored Process Server (common for most installations) . If unsure, validate via SASMC console.
2. Your SAS installer ID and password (external host credentials). This account will be used for the Service Architecture ETL processing.
3. The path to your SAS Environment Manager Solution Architecture framework directory. The machine on which the framework is deployed is called the SAS Environment Manager Enablement Kit Server.
4. The name of your SAS Application Server context(s) on all hosts in your deployment
5. Your SAS administration ID and password (e.g. sasadm@saspw).
6. On UNIX, a valid X11 Windows System server with the DISPLAY environment variable.
7. For multi-machine deployments, by default, the APM ETL will expect remote access (NFS mounts/Windows Shares) to the SAS **<levelroot>** directories on each of the remote machines so that it can fetch logs from those machines.
8. AIX users will need to manually add sasevs@saspw account to the SAS Environment Managers Super User Role prior to initializing the Service Architecture, see Appendix C.

Initialization Process

Overview

Configuration of the package is broadly defined in three phases or stages. The main phases of configuration are:

1. Pre check, validation of the initial deployment of SAS and SAS Environment Manager.
2. Validation of the SAS Environment Manager Service Architecture framework and the initialization of the enhanced monitoring bundle.
3. Enabling the ACM, Kit, and APM ETL's including an addition initialization step for the APM ETL which requires the running of a script on each machine in the deployment (script constructed by the initialization process). All ETL processes are optional and can be enabled at any time after the framework has been initialized. However, one or more ETL's are required to construct the Data Mart.

Administrators may choose to modify various facets of the package (e.g. – changing the default reports, data retention windows, etc.). SAS recommends that this customization be performed only after initial installation, configuration, and validation of the package using the supplied configuration recommendations. This will ensure that the supplied package capabilities are operating properly and will allow a site to retain a base level of capability as a functional foundation.

Initialization Steps

The following sections describe the steps necessary to initialize the various components of the package.

SAS recommends that all SAS configuration files and the SAS Metadata repository be backed up and archived before configuring the SAS Audit, Performance and Measurement environment. Refer to the SAS 9.4 Intelligence Platform: System Administration Guide for additional details.

1. Change directory (cd) to the bin subdirectory of the emi-framework. This will be `<levelroot>/Web/SASEnvironmentManager/emi-framework/bin` (UNIX), `C:\<levelroot>\Web\SASEnvironmentManager\emi-framework\bin` (Windows). All subsequent references to the execute commands will assume your current working directory is the bin directory of the frameworks installation unless instructed otherwise.

SAS Environment Manager Service Architecture Initialization

Framework Validation Pre-Check

2. **Validate framework:** Change directory (cd) to the bin subdirectory of emi-framework. Run the validate script.

On UNIX:

```
$ ./validate.sh --level 2
```

On Windows:

```
validate.bat --level 2
```

Successful validate indicates service architecture framework installed.

Framework Initialization

3. **Initialize Framework:** Change directory (cd) to the bin subdirectory of emi-framework. (*UNIX requires setting the DISPLAY environment variable to an X11 server*). (AIX users will need to manually add sasevs@saspw account to the SAS Environment Managers Super User Role, see Appendix C).

Use **-h** option to show help

Invoke script as follows.

On UNIX:

```
$ ./emi_init.sh -i
```

On Windows:

```
emi_init.bat -i
```

Review log messages for successful execution.

4. Restart your SAS Object Spawner

On UNIX:

```
$ <levelroot>/ObjectSpawner/ObjectSpawner.sh restart
```

On Windows:

```
C:<levelroot>\ObjectSpawner\ObjectSpawner.bat restart
```

Final Validation and Operational Health Check

5. **Validate framework:** Change directory (“cd”) into the **emi-framework/bin** (UNIX) **emi-framework\bin** (Windows) directory. Run Validate script with level 3 diagnostics.

On UNIX:

```
$ ./validate.sh --level 3
```

On Windows:

```
validate.bat --level 3
```


6. Correct any reported errors including file modifications, ownership errors, server operational status and invalid file permissions. Re-run `emi_init.sh` with `-f` option to force replacement. Then revalidate. Consult your admin guide for more details.
7. Details associated with the framework initialization can be located in the log `emi-framework/Logs/emiInit.<datetime>.log` (UNIX) `emi-framework\Logs\emiInit.<datetime>.log` (Windows).

Enabling ACM and/or KITS ETL Process

1. Run the `emi_init.sh` (UNIX) `emi_init.bat` (Windows) script using the `-enable` option and specify one of the following: `<[ACM or KITS]>` (Note: The other valid values, `APM` and `ALL`, require initialization prior to enabling, see Initializing and Enabling APM section below). Any of ETL processes can also be disabled by using the `-disable <[ACM,KITS,APM,ALL]>`

Use `-h` option to show help

Invoke script as follows with the enable ACM or KITS option.

On UNIX:

```
$ ./emi_init.sh --enable ACM,KITS
```

On Windows:

```
emi_init.bat --enable ACM,KITS
```

Review log messages for successful execution.

2. Repeat the step **Final Validation and Operational Health Check** completed earlier.

Initializing and Enabling APM ETL

1. Verify that your SAS Metadata Server is running, then invoke the `./apm_init.sh` (UNIX) or `apm_init.bat` (Windows) script. (If you have a host alias you will need to add it to the `apm_init` invocation with `-hostAlias` option override, not common)

On UNIX:

```
$ ./apm_init.sh
```

On Windows:

```
apm_init.bat
```

Logs will be generated in the **Logs** subdirectory under the `emi-framework` root directory

(`apmInit_[datetime].log` and `configureAPM_[datetime].sas.log`). Check these log files for ERROR messages. This script will create one or more new scripts in the 'apm' subdirectory with a name using the name pattern `configureAPMlocal_<machine>.sh` (UNIX) `configureAPMlocal_<machine>.bat` (Windows) where `<machine>` represents the name of a machine in your deployment.

- Change directory (cd) to the apm subdirectory of emi-framework. Run `configureAPMlocal_<machine>.sh` (UNIX) `configureAPMlocal_<machine>.bat` (Windows): Invoke the script to create various server log directories and to enable additional SAS server logging as shown below:

On UNIX: (from the apm subdirectory of emi-framework)

```
$ configureAPMlocal_<machine>.sh
```

On Windows: (from the apm subdirectory of the emi-framework)

```
configureAPMlocal_<machine>.bat
```

For multi-machine deployments, there will be a `configureAPMlocal_<machine>.sh` (UNIX) `configureAPMlocal_<machine>.bat` (Windows) for each machine associated with this SAS deployment under the apm directory. Using FTP in ASCII mode, or a similar method, copy each `configureAPMlocal_<machine>.sh` (UNIX) `configureAPMlocal_<machine>.bat` (Windows) to its associated machine. After copying, make sure that the script has execute permissions on the remote machine. Invoke the script, following any additional instructions that the script reports.

- Restart SAS Application Servers:** For each machine in your deployment, restart the SAS Metadata Server, Object Spawner, OLAP Server, and Connect Server to load the new logging configurations. **DO NOT RESTART** the SAS Environment Manager Server (by default, `sas.servers restart` will restart the SAS Environment Manager Server). Ensure that no other users are working in this SAS Server environment, then invoke:

On UNIX:

```
$ <levelroot>/SASMeta/MetadataServer/MetadataServer.sh restart
$ <levelroot>/ObjectSpawner/ObjectSpawner.sh restart
$ <levelroot>/ConnectSpawner/ConnectSpawner.sh restart
$ <levelroot>/SASApp/OLAPServer/OLAPServer.sh restart << Repeat for each App Context >>
```

On Windows:

For Windows, the SAS EBI servers are typically deployed as Windows Services. As a Windows Administrator User, use Windows Start -> Control Panel -> Administrative Tools -> Services to bring up a services control panel. Scroll through the window to the entries that start with the pattern 'SAS [Config-'. Find the Metadata Server and click Restart. This will automatically restart all dependent SAS Foundation Servers and restart the Metadata Server.

SAS [Config-Lev1] SASMeta - Metadata Server

4. **SAS Management Console:** Validate that your SAS deployment is working properly. Use the Server Manager Plugin in the SAS Management Console, then validate each supported server (right-mouse click on each server name and select “Validate” if available). The validation step will cause the servers to generate some initial records in their associated Logs or PerfLogs directories.

5. **For multi-machine deployments:** Some SAS Application Servers (commonly called SASApp) are defined on separate machines in a deployment. By default, the APM ETL process expects you to supply NFS mounts or Windows Shares of the <levelroot> directory (e.g. - /usr/local/SAS/config/Lev1) on each of the remote machines that contains a SAS Application Server (i.e OLAPServer, Workspace Server, etc.). Confirm that you have read/write access to the SAS <levelroot> directories on each machine, then on the emi-framework hosted machine, create a file mount or network share pointing to each <levelroot> on each remote.

Edit the **log_definitions.json** file in

<levelroot>/Web/SASEnvironmentManager/emi-framework/Conf (UNIX),

C:\<levelroot>\Web\SASEnvironmentManager\emi-framework\Conf (Windows). The APM ETL uses this JSON file to determine what logs to process and where to find them. For required logs on remote hosts, there will be entries labeled:

“levRoot” :“DEFINE_THIS_MOUNT_POINT”,

Immediately above each of those lines will be a description of the remote host’s name and the definition for the path to that **levRoot** directory *as seen on the remote host*. You need to change the “DEFINE_THIS_MOUNT_POINT” string to be the path of that **levRoot** directory *as mounted on, and as seen from the APM ETL host*. For example, if you have a two-machine deployment with the EMI Framework deployed on host “alpha.example.com”, and additional SAS resources on a second host “beta.example.com”, your **log_definitions.json** file on “alpha” will have one or more entries similar to this:

```

"name": "SAS - Logical Pooled Workspace Server",
"hostname": "beta.example.com",
"hostLevRoot": "/usr/local/SAS/config/Lev1",
"levRoot": "DEFINE_THIS_MOUNT_POINT",
"contextName": "SASApp",
"logLocation": "PooledWorkspaceServer/PerfLogs",
"baseFilename": "arm4_PooledWSServer",
"operation": "Move"
    
```

The **hostLevRoot** shows the path to the SAS configuration from the perspective of the specified **hostname** host, in this case “beta.example.com”. If “beta” uses NFS to export that directory, “alpha” might have it mounted under a different local path, such as “/remote/beta/Lev1”. You would change the **levRoot** entry to use that mounted path:

“levRoot” : “/remote/beta/Lev1”,

You need to supply similar definitions for each entry that says “DEFINE_THIS_MOUNT_POINT”. A later validation process will check that you have defined entries for each of these.

6. Enable APM ETL

Run the **emi_init.sh** (UNIX) **emi_init.bat** (Windows) script using the **-enable** option selecting **APM** or **ALL** (Note: Any, or all, ETL processes can later be disabled by using the **-disable** <[ACM,KITS,APM,ALL]> option.)

Use -h option to show help

Invoke script as follows.

On UNIX:

```
$ ./emi_init.sh --enable APM
```

On Windows:

```
emi_init.bat --enable APM
```

- Repeat the step “**Final Validation and Operational Health Check**” completed earlier.

This completes the initialization of your SAS Environment Manager Service Architecture framework, enhanced monitoring bundle and selected ETL processes. Please consult the SAS EV Administration User and the SAS Environment Manager Framework Users guide for additional information. For OLAP server best practices, review Appendix A.

Troubleshooting Guide

Below is a listing of the most common problems with SAS Environment Manager Service Architecture including a brief explanation and description of their possible resolutions. Consult the SAS Environment Manager User’s Guide for additional details or contact our Technical Support Department <http://support.sas.com> or consult our website <http://support.sas.com/rnd/emi>. Most service architecture framework commands can be re-executed with a -f (force) option. However, some specific commands will re-initialize the Data Mart, wiping the data.

Issue/Error Message	What it means/Resolution
Unable to connect to the SAS Environment Manager Server	Confirm SAS Environment Manager server is running. Connect to the SAS Environment Manager web application; it should be available via a URL like this: http://myserver:7080 .
[program] failed with return code [rc]	All service architecture framework logs are stored in the emi-framework/Logs directory. Review specific log for detailed associated with the reported error.

Initialization requires X11 Display host target	On Unix, initialization requires the DISPLAY environment variable to be set to an operational X11 Windows Systems server. Correct DISPLAY value by setting the DISPLAY variable by typing [export DISPLAY=<hostname_to_X11_display>:0.0]
SAS plugins were not found in SAS Environment Manager	Confirm sas-servers plugin has been installed via SAS Environment Manager Plug-in Manager (not common) . Contact Technical Support for additional instructions.
SAS EMI Framework plugin is not loaded	Confirm emi-framework plugin has been installed via SAS Environment Manager Plug-in Manager. (not common). Contact Technical Support for additional instructions.
[user] is not a member of the Super Users Role	Confirm [user] is a member of the SAS Environment Manager Super Users Role, Logon to SAS Environment Manager, select Manage -> List Roles. If it is not a member, follow Appendix C instructions for adding sasevs@saspw to the Super User Role as described for AIX users.
Local SAS Environment Agent is not properly initialized	Confirm that on the local and host machines, SAS Environment Manager agent is running properly. Restart if necessary. Logon SAS Environment Manager via port 7080 or access <levelroot>/Web/SASEnvironmentManager/agent-5.8.8-EE/bin. hq-agent.(sh/bat) restart.
The script [scriptname] failed to compile	[scriptname] has been edited/corrupted locally. Contact Technical Support for a replacement/remove edits.
SAS Metadata server [servername] failed gyByName query.	Metadata server did not response to a “ping” request to its IP address. Run sas.servers start or run MetadataServers.(sh/bat).
Error: rc = [] running master_acm_etl.(sh/bat) or master_apm_etl.(sh/bat) or master_kits_etl.(sh/bat). Check log and return initialization with -f	Error detected in one of the etl processes. Review log message in the emi-framework/Logs directory for the etl process reporting the error. Correct error. Each etl can be executed separately to confirm status. Possibly causes could be inadequate storage, permissions, or operational status of SAS Environment Manager server or SAS Metadata server.
Request to enable APM with APM Initialized = false	APM ETL must be initialized prior to enabling. Consult documentation, then run apm_init.(sh/bat).
APM is not initialized/There was a problem validating external APM files	Issue with the APM ARM enablement. Rerun bin/apm_init.(sh/bat) with -f option.
APM has not been fully initialized. The file {...}/emi-framework/Conf/log_definitions.json needs to be updated (line nm).	For multi-machine deployments, edit the emi_framework/Conf/log_definitions_json file to specify local paths to mount points for the SAS <levelroot> directories on remote machines. This is described in 5. <i>For multi-machine deployments</i> , in section <i>Initializing and Enabling APM ETL</i> of this document.

Appendix A: Update SAS OLAP Server to Use RollingAppender

The Audit, Performance, and Management (APM) ETL process supports the parsing and analysis of ARM enabled OLAPServer ARM log files. However, as of 9.4M2, the included OLAPServer logconfig.apm.xml log definition file configures a “fixed” FileAppender. Best practices are to configure a RollingFileAppender to allow the nightly ETL process to copy and process the previous day’s OLAP log entries.

A sample OLAPserver logconfig.apm.xml file, configured with a RollingFileAppender has been provided in the emi-framework/ConfigureFiles directory with a OLAP.(unx/win) extension. This is a sample and MUST be edited to match your deployment with site specific paths as follows:

Copy the appropriate logconfig.apm.xml.OLAP.(unx/win), template version, located in the emi-framework/ConfigureFiles directory to the <Levn>/<SASApp>/OLAPServer directory. Edit this file, substituting 3 instances of <DEFINE_THIS_VALUE> with the site pathname for the OLAPServer. You can use the constructed OLAP logconfig.apm.xml located in your OLAPServer directory for the exact substitution value. Rename the logconfig.apm.xml file to include a .orig or .bak extension as a backup. Then rename the edited logconfig.apm.xml.OLAP.(unx/win) to logconfig.apm.xml, replacing the existing file. Restart your OLAPServer, then validate the OLAPServer has been successfully restarted with the validate command in your SASMC console.

On UNIX:

```
$ <levelroot>/SASApp/OLAPServer/OLAPServer.sh restart
```

On Windows:

```
$ C:<levelroot>\ObjectSpawner\OLAPServer.bat restart
```

Appendix B: Loading Data Mart Tables into Visual Analytics

In addition to the reporting tools and reports available in the Report Center, the data in the SAS Environment Manager Data Mart can be used with other SAS reporting and analysis tools. This includes analyzing and reporting on the data with SAS Visual Analytics. The **emi_init** script can be used to enable an automatic feed of the data mart data to SAS Visual Analytics. When enabled, this feed will copy the data mart data to a specific location, the VA autoloading dropzone, after the regular ETL processing has completed. Refer to the *SAS Visual Analytics: Administration Guide* for more information about how to enable its autoloading capabilities to make the data that has been copied to the drop zone available for analysis.

IMPORTANT: Please be sure the Visual Analytics autoloading drop zone location is accessible from the machine on which SAS Environment Manager Enablement Kit Server is running and on which the data mart ETL processes run. This is especially important if your deployment includes multiple machines providing compute servers.

For example, if your deployment includes both SAS Visual Analytics and another SAS solution, the SAS Environment Manager Enablement Kit Server *may not* be located on the same machine as SAS Visual Analytics. Since the Visual Analytics autoloading drop zone *will be* located on the SAS Visual Analytics server machine, it is important to ensure it is also available to the SAS Environment Manager Enablement Kit machine as well. If that is not the same machine, the drop zone location could be made available via NFS mounts or Windows Shares.

This is similar to the requirements for making log files available across machines discussed earlier in the section on enabling APM.

If you need to determine the path to the Visual Analytics autoloading drop zone, do the following:

1. Launch the *SAS Management Console* and sign in.
2. Navigate to the *Data Library Manager* plugin and expand the folder structure to see the list of libraries
3. Select the library labeled “*Environment Manager Data Mart LASR*”, right-click on it and select Properties.
4. Click on the tab labeled “*Extended Attributes*” in the “*Environment Manager Data Mart LASR Properties*” dialog.
5. The Visual Analytics autoloading drop zone location is shown as the value associated with the field named “*VA.AutoLoad.Location*”.
6. This is the path that the data mart ETL processing will use as the destination when copying over data mart data. The copy operation is executed as a file copy. If this destination is not accessible from the SAS Environment Manager Enablement Kit Server machine, the copy will fail and data will not be available for use with SAS Visual Analytics. If this destination is not accessible from the SAS Visual Analytics server machine, then the autoloading task will fail to import the data.
7. Specify a path that is accessible from both the SAS Environment Manager Enablement Kit Server machine and the SAS Visual Analytics server machine, then click the OK button to close the dialog.
8. If a new path was specified, be sure that path and the following subfolders exist: Append, Formats, Logs, Unload

To enable the data feed for SAS Visual Analytics, follow these steps:

1. If your deployment includes multiple SAS solutions or multiple compute server machines, confirm the drop-zone is accessible as described above. Even if your deployment does not include multiple compute server machines, you may want to confirm the drop zone is accessible.
2. Change directory into the **emi-framework/bin** (UNIX) **emi-framework\bin** (Windows) directory.
3. Run the **emi_init.sh** (UNIX) **emi_init.bat** (Windows) script using the **-vafeed** option and specifying a value of **ON**.
4. Note: To later disable this feature, run the same command and but specify **OFF** for the **-vafeed** option.

Appendix C: Special Considerations for AIX

SAS Environment Manager Service Account

On AIX systems, the SAS Environment Manager Service Account (sasevs@saspw) needs to be granted the special permission of the SAS Environment Manager Super User Role. To do this, complete the following steps:

- Logon to SAS Environment Manager, select tab **Manage**
- select **List Roles**
- select **Super User Role**
- In the Assigned Users section, middle of the page, select **Add to List**
- select choice box next to the sasevs@saspw account, select **+** arrow button,
- select **OK**