Vantage Agentless Monitoring
Documentation Requirements for Issue Resolution

It can be difficult to determine the cause when VAM component (AMD, VAS or AWDS) does not perform as expected. Documentation is required to help resolve these issues. Here are some guidelines regarding the types of documents required for various scenarios. Individual cases may require additional documentation, and these guidelines should provide a good start. Be sure to include the information asked for in 'All issues' regardless of type of issue.

- **All issues**
  1. Release number (including service pack level)
  2. Problem / error message specifics (screen shot is OK)
  3. Log files
  4. Configuration files
  5. Steps already tried and results

- **Installation /upgrade of a report server (VAS, AWDS)**
  1. Install log files
  2. Server log files
  3. Server hardware specifics
  4. SQL Server information
  5. Screen shot of the problem

- **Installation /upgrade of an AMD**
  1. Details of installation / upgrade package used
  2. Error message specifics
  3. AMD log files
  4. AMD hardware specifics

- **AMD software restart issues**
  1. AMD log files
  2. AMD configuration files
  3. Debug core dump (if available)
  4. AMD hardware specifics

- **AMD performance issues**
  1. AMD log files (including AMD performance monitor log)
  2. AMD configuration files
  3. AMD hardware specifics

- **AMD kernel panic issues**
  1. Screen print of AMD system console
  2. AMD log files
  3. AMD configuration files
  4. Debug core dump (if available)
  5. AMD hardware specifics

- **VAS / AWDS reporting issues**
  1. /ExportConfig (zipped configuration and server log files)
  2. Text export of the report in question
  3. [Raw data files from AMD(s)] – if/when requested later

- **VAS / AWDS performance issues**
  1. /ExportConfig (zipped configuration and server log files)
  2. Server hardware specifics
  3. Data processing status report
  4. Memory usage report

- **AWDS Business Transactions (BT) related issues**
  1. Set of BT configuration files from AMD(s)
  2. A set of corresponding raw data files from AMD(s)
  3. DMI report with the problem and/or just a screen shot

The following provides detailed descriptions of the steps required for attaining all information listed in previous pages. Be sure to include the information asked for in **All issues** regardless of the type of issue.

Compress collected documentation data before sending. In case compressed content exceeds 5 MBs use FTP server (details below) to upload the documentation.

- **All Issues**

1. Release number of product

   To determine the release number, log in to a web GUI component of the product (VAS/AWDS) and select Help->Product Information->About from the menu bar.

   Typically we would also need a product version of the AMD component, for each of the AMD(s) attached to the VAS and/or AWDS. To get this version, open select Tools->Diagnostics->System Status from the menu bar, then click on "Advanced Settings" hyperlink at the very bottom of the report. In the report scroll down to "Testing AMD" section, then at the bottom of the diagnostic data paragraph look for

   Version: ND-RTM v. ndw.xx.yy.zzzz Cop right (C) 1999-2007 Compuware Corp.

   Note, in case of multiple AMDs attached to VAS/AWDS, please get the version number for each single AMD. There will be a separate 'Testing AMD' section for every single AMD attached.

2. Problem / error message specifics (screen shot is OK)

   Please provide as much details as you can about the problem customer encountered. Describe steps to reproduce it, if possible. For error messages grab a screen shot and save it as PNG or JPEG format. To make a screen capture simple use PRINT SCREEN keyboard button and later "Microsoft Paint" graphics program to paste it and save it. Please do not save the screen captures as windows bitmap file (BMP), which is default format when saving files in MS PAINT. That is due to no graphics compression used in bitmap format and thus enormous size of BMP files. The same screen capture saved in BMP format will be 20x bigger than the same one saved in PNG format.

   If a screen print is not possible, write down all information on the error message.

3. Log files

   a. AMD log files

      AMD log files reside in /var/log/adlex/ folder. Old logs are archived and rotated. AMD keeps last 10 archive logs, typically that covers circa about last two weeks of history.

      Rotated logs are gzipped and rotated as : logname.log.X.gz

      Most important AMD log files are:
      - **rtm.log** – AMD's core engine operational log – primary log file for AMD
      - **rtm_perf.log** – AMD's performance monitor log – AMD's resources utilization & traffic stats
      - **rtmgate.log** – AMD's RTMGATE service log – covers VAS/AWDS <-> AMD communication (raw data files exchange, time synchronization, configuration changes). This log may also cover incoming events from Vantage VTCAM (Thin client) agent (logging of VTCAM debug info is disabled by default).

      In most cases (by default) we need : **rtm.log & rtm_perf.log** files to start with. Sometimes we also need main Linux OS system log that is **/var/log/messages** file.

b. VAS/AWDS log files

VAS/AWDS log files reside in a <product installation>\log\ folder, that is typically:

C:\Program Files\Compuware\[VAS/AWDS]\log\ on a tier2 (64-bit) VAS/AWDS servers
OR
C:\Program Files (x86)\Compuware\[VAS/AWDS]\log\ on a tier1 (32-bit) VAS/AWDS servers

Note, typically VAS/AWDS operates on a 64-bit version of Windows (2003) Server, but VAS/AWDS software can either run as 32-bit application on servers with less than 6 GBs of RAM OR as 64-bit application on servers with more than 16 GBs of memory

Old logs are archived and rotated : server.log, server.1.log, …., server.10.log

server.log is always the most recent (current) log file.

The quickest and easiest way to obtain the logs is via product GUI interface. You need to access VAS/AWDS as superuser (or some other user account with administrative rights).

Access Control Panel by opening : http://<vas_awds_ip/ATSConbase link, then click on "Export Configuration" link. As a result you will get an ExportConfig.zip file with VAS/AWDS log files, VAS/AWDS configuration as well as main configuration files from all AMDs.

Alternatively, one can obtain just the log files by accessing:

http://<vas_awds_ip/root/log/ link (log-in as superuser)

In some cases, we might also need **watchdog.log** file, that resides in a different location:
C:\Program Files\Common Files\Compuware\Watchdog\ folder on 64-bit VAS/AWDS
OR
C:\Program Files (x86)\Common Files\Compuware\Watchdog\ folder on 32-bit VAS/AWDS

4. Configuration files

a. AMD configuration files

AMD configuration files reside in /usr/adlex/config/ folder.
Most important configuration files are:
- **rtm.config** – main AMD configuration file. That is what we need in all cases
- rtm.userdef.config – if exists and not empty
- rtm.config.protomap – transaction monitoring configuration file
- rtm.userdef.config – if not empty, includes external definitions of user-defined apps
- rtm-synchro.properties – contains time synchronization settings

b. VAS/AWDS configuration

Vast majority of VAS/AWDS configuration resides in a database only some configuration is still kept in plain text files on a disk (alarms settings for instance).

To export configuration settings from both the database and plain text configuration files:
- access VAS/AWDS gui interface (log-in a superuser or other user with admin rights)
- open up "Control Panel" report by accessing : http://<vas_awds_ip/ATSConbase URL
- click on "Export Configuration" link. As a result you will get an ExportConfig.zip file with VAS/AWDS log files, VAS/AWDS configuration as well as configuration files from all AMDs.

Configuration files reside in a <product installation>\config\ folder, typically in:

C:\Program Files\Compuware\[VAS/AWDS]\config\ on a tier 2 (64-bit) VAS/AWDS servers
OR
C:\Program Files (x86)\Compuware\[VAS/AWDS]\config\ on a tier 1 (32-bit) VAS/AWDS servers

5. Steps already tried and results

   In case there were already any troubleshooting efforts made to diagnose and/or resolve the issue on customer side, list specific steps attempted. The more information you give us, the less we will ask you to try.

- **Installation /upgrade of a report server (VAS, AWDS)**

1. Install log files

   VAS/AWDS install log files reside in a <product installation>\log\install\ folder, that is typically:

   C:\Program Files\Compuware\[VAS/AWDS]\log\install on a tier2 (64-bit) VAS/AWDS servers
   OR
   C:\Program Files (x86)\Compuware\[VAS/AWDS]\log\ on a tier1 (32-bit) VAS/AWDS servers

2. Server log files – as provided in 'All issues' section

3. Server hardware specifics

   Please provide hardware specifics : server model, i.e. HP DL 585 G2 or IBM x3755, amount of memory (RAM), CPU info (number of CPUs and their speed [GHz]), amount of free disk space on a drive where VAS/AWDS database exists (typically that is E:\ drive).

4. SQL Server information

   The SQL server information (i.e. SQL Server 2005 SP1) is included in install.log file already.

5. Screen shot of the problem

   Make a screen shot of the installation dialogue that displays the error message.
   To obtain a screen print:
   - Press Print Screen on the keyboard.
   - Open Paint
   - Select Edit from menu and then select paste
   - Select File/Save as… and save the file in a PNG or JPG format (i.e. not in BMP format).

- **Installation /upgrade of an AMD**

1. Details of installation / upgrade package used

   Please provide the whole name of the upgrade-xxxx.bin script used for upgrade. In case only the core RTM package (adlexrtm-XXXX.rpm) was used, provide the whole name of the rpm package.

2. Error message specifics

   Please provide the exact error message displayed. Best would be a copy of all messages printed by upgrade process on Linux console. To grab that, select the entire output with a mouse, press ENTER to copy it to a clipboard and then paste it (CTRL+V) in a notepad and save as txt file.

3. AMD log files - as provided in 'All issues' section

4. AMD hardware specifics

   Please provide hardware specifics : server model, i.e. HP DL 585 G2 or IBM x3755, amount of memory (RAM), CPU info (number of CPUs and their speed [GHz]), HDD info (df –h command)

- **AMD software restart issues**

1. AMD log files - as provided in 'All issues' section

2. AMD configuration files - as provided in 'All issues' section

3. Debug core dump (if available)

   A core file is a dump of what was in AMD's memory (RAM) when the AMD experienced an unexpected stop due to an abnormal stop. The restart can either be due to overload conditions or a problem in the code. In most cases it is possible to save a core file when AMD gets restarted (not always however). In order for AMD to store the core dump on a disk, the following settings need to be present first in /usr/adlex/config/rtm.config

   debug.core.enabled=1
   debug.core.watchdog=true

   Core dumps are saved in /usr/adlex/rtm/bin/ folder as **core.XXXX** file, where XXXX is the current "RTM" process ID. Typically these are large files (up to 3.5 GBs) so before uploading these on FTP server, you must compress it first. Best results gives bzip2 compression utility, so do this:

   bzip2 core.XXXX file
   and then upload core.XXXX.bz2 file.

4. AMD hardware specifics

   Please provide hardware specifics : server model, i.e. HP DL 585 G2 or IBM x3755, amount of memory (RAM), CPU info (number of CPUs and their speed [GHz]), HDD info (df –h command)

- **AMD performance issues**

  1. AMD log files - as provided in 'All issues' section
  2. AMD configuration files - as provided in 'All issues' section
  3. AMD hardware specifics – see (4) in '**Installation /upgrade of an AMD'** section

- **AMD kernel panic issues**

  1. Screen print of AMD system console

     When the AMD goes down (kernel panic in Linux – sth like 'blue screen of death' in Windows) the last thing the Linux OS can do is to print some debug information writing directly to graphics card memory – that is only visible on the local screen console. To capture this one way is to simply take a photo of the screen, or alternatively grab the screen output if the AMD is equipped with an iLO board (HP AMDs only) and if the iLO is configured properly.

  2. AMD log files - as provided in 'All issues' section
  3. AMD configuration files - as provided in 'All issues' section
  4. Debug core dump (if available) – see (3) in '**AMD software restart issues'** section
  5. AMD hardware specifics – see (4) in '**Installation /upgrade of an AMD'** section

- **VAS / AWDS reporting issues**

  1. /ExportConfig (zipped configuration and server log files) – as provided in 'All issues' section
  2. Text export of the report in question

     On every report – either canned report (built-in on standard reports) or a DMI report – there is a little computer icon to the very left of a report/table header row [top left corner of the report]. Click on it and the browser will open the same report in a new window with a text representation (coma separated) of the report displayed in the formatted table. Save if in a txt file and provide.

  3. [Raw data files from AMD(s)] – if/when requested later

     By raw data files we mean the raw data aggregators that AMD generates every reporting interval (typically every 5 minutes). Those files are stored on AMD in **/var/spool/adlex/rtm/** folder.

     For troubleshooting reporting issues on the VAS we would typically need (if/when requested): /var/spool/adlex/rtm/zdata* files for a given time frame

     For troubleshooting reporting issues on the AWDS we would typically need (if/when requested):
     - /var/spool/adlex/rtm/vdata* files – these are httplog data files, per hit analysis data
     - /var/spool/adlex/rtm/pagedata* files – these are per-page analysis data files
     - /var/spool/adlex/rtm/transdata* files – these are business transactions data files

     All of the above for a given time frame, as requested later on, during troubleshooting process.

- **VAS / AWDS performance issues**

1. /ExportConfig (zipped configuration and server log files) – as provided in 'All issues' section

2. Server hardware specifics

   Please provide hardware specifics : server model, i.e. HP DL 585 G2 or IBM x3755, amount of memory (RAM), CPU info (number of CPUs and their speed [GHz]), amount of free disk space on a drive where VAS/AWDS database exists (typically that is E:\ drive).

3. Data processing status report

   Log-in as superuser to VAS/AWDS gui and choose from main menu:
   Tools->Diagnostics->Processing Status report

   Save this report as .html file and provide.

4. Memory usage report

   Access Control Panel by opening : http://<vas_awds_ip/ATSConbase link, then click on "Memory Usage" link in 'Diagnostics' section. Click on a text export icon in the top left corner of the report header and export the report to a txt file. Save the file and provide it.

- **AWDS Business Transactions (BT) related issues**

1. Set of BT configuration files from AMD(s)

   To troubleshoot BT issues we need the following configuration files from each AMD. All files reside in /usr/adlex/config/ folder on AMD(s):
   - rtm.config
   - v2page.properties
   - page2trans.properties
   - page2trans.xml

2. A set of corresponding raw data files from AMD(s)

   Next to the set of configuration files we would also need a set of raw data files from AMD(s) for the period of time when the problem was observed. Raw data files reside in /var/spool/adlex/rtm/ folder on AMD(s):

   - vdata_* files
   - pagedata_* files
   - page2trans_* files
   - transdata_* files
   - headerdata_* files [if exist]

   You can use MC (Midnight Commander) to easily select the files for the given time frame, when you set the order by modification time. In MC main menu : [Left/Right]->Sort order… then select Modify Time and [x] in Reverse order to sort descending by modification time (newest files first), or regular order (oldest first).

3. DMI report with the problem and/or just a screen shot.