HP OpenView Internet Services

OVIS Migration White Paper

Who should use this document?

OVIS users, software implementers, and others who are interested in migrating to BAC will benefit from this document which highlights many of the questions and techniques required for a successful migration.

This document provides a recommended path from OVIS to Business Availability Center and includes an overview of methodologies, solutions, and available processes to migrate most of the OVIS functionality to BAC-related components. Where relevant and possible, this document will define limitations or additional work users might experience with this migration.

Introduction

With the acquisition of Mercury Interactive in 2006, Hewlett-Packard (HP) acquired a variety of technologies which extended product offerings for End User Monitoring (EUM) and Business Service Management (BSM). HP has consolidated its EUM and service monitoring offerings to technologies provided in Business Availability Center (BAC). Specifically, this includes replacing HP OpenView Internet Services (OVIS) with BAC technologies.

Replacing your OVIS monitoring solution will require planning and effort. To assist you in this, HP is providing generous license conversion, free computer based training on migration-targeted technologies, and a lengthy time period for migration. In addition, we offer this guide as a starting point to help you prepare.

There are two recommended components for OVIS users to take advantage of in the BAC suite: SiteScope (SiS) and Business Process Monitor (BPM). SiS and BPM are not one-for-one replacements for OVIS functionality. Some features in OVIS will not be available in BAC, BPM, or SiS. Although when SiS and BPM are used in conjunction with BAC these products offer OVIS users a significant expansion of monitoring capabilities and functionality.

Before starting the migration, a solid understanding of the features and technology of SiS and BPM is important. This guide does not contain the entirety of the information required for OVIS Migration users to be successful with BAC, SiS, or BPM. We recommend customers and implementers take advantage of the materials provided with these products along with available training.

OVIS users should consider employing professional assistance in their initial BAC deployment. If you are unfamiliar with BAC or the deployment process, obtaining assistance from professional services is highly encouraged.

The OVIS 'Migration Pack' Includes
- Business Availability Center product CD including BPM and SiS
- OVIS to BAC Conversion Utility
- Links to free on-line computer based training for BAC, SiS, and BPM

SiS Usage Recommendation: SiS can be used independently of the BAC framework. For cross-location views, BAC should be used in conjunction with SiS. This type of usage is called SiS Systems Availability Management (SAM). It is recommended that all OVIS users utilize this feature since it most closely emulates the monitor conventions that exist in OVIS.

License Information

License Entitlement
Each OVIS Logical Target will be replaced with one BPM Target AND one SiteScope point.
- A BPM target is defined as a script running on a given host and can include as many measurements and steps as you like. This means that a BPM target is counted just like an HTTP_TRANS or custom probe target.
- A SiteScope point is one monitor (CPU, DNS, Oracle, etc.) from one location.

Since OVIS functionality spans across that contained in both SiteScope and BPM, both products may be necessary in a replacement solution. This is especially true if you are using all of the extensibility features in OVIS. BPM is particularly necessary for complex business transaction monitoring which was accomplished with OVIS WebRecorder and Probe Builder functionality.

Key Points about Licensing
- Support costs are maintained at your current levels.
- You can expand monitoring, service level management, and discovery capabilities with BAC.

Available BAC and SiS items not included with the OVIS conversion
- SiteScope Solution Templates
- BAC Real User Monitor
- BAC Client Monitor
- BAC Diagnostics
- BAC Service Level Manager
- BAC Problem Management
- BAC Application Mapping
- Quick Test Professional

Additional features may require licensing but are not listed above.

Your HP Sales Representative or HP Partner can assist you with further questions regarding licensing.

Introducing BAC

BAC enables you to measure and manage critical business processes to ensure intended business outcomes are delivered. It offers an innovative top-down approach to integrating business, end-user, and system perspectives, while providing a clear picture of the complex infrastructure that underlies key applications.

With BAC you can:

- Manage IT from a business perspective to improve service levels.
- Translate business goals into IT operational level agreements (OLAs).
- Ensure alignment between Lines of Business (LOBs) and IT by measuring service levels from an end-user perspective and supplying summary and analytical reports.
- Dynamically map the application and infrastructure environment.
- Proactively identify, triage, and diagnose problems to prevent application downtime and minimize impact to your enterprise.
- Assess change impact before deployment to minimize business risk.

BAC includes integrated applications and a business dashboard for performance and application monitoring, end user management, system availability management, service level management, configuration management, application mapping, diagnostics, and problem isolation. You can also choose to have BAC delivered as a managed service.

Benefits to OVIS Users

For OVIS users new to BAC there are some key features that you should consider when reviewing your deployment options.
- Sophisticated SLA management
- A wider range of monitors
- True modeling capabilities and more than two group levels (n levels) in a service hierarchy
- Advanced discovery
- The capability to record transactions for a wide spectrum of applications, middleware and protocols
- Central configuration of all monitor types
- Automatic deployment of BPM scripts to remote locations based upon profiles
- Flexible and custom reporting options with export capabilities

NOTE: Some of these capabilities require purchase of additional licenses.

Documentation Library

BAC includes an extensive Documentation Library accessible from the BAC console (select Help > Documentation Library) as well as from the customer support web site. Some suggested topics are listed below. The suggested topic and document were downloaded from the following customer support website http://support.mercury.com/cgi-bin/portal/CSO/index.jsp. After logging into the customer support web-site select the 'Documents' link and choose the desired product documentation set that you are interested in (Business Availability Center).

Document Name	Document Topic and Focus
GettingStarted.pdf	Provides a basic step-by-step roadmap to getting up and running
Deploy.pdf	
GettingStarted.pdf	Getting Help (lists resources available to help you in planning and deploying BAC)
GettingStarted.pdf	BAC Architecture (gives an architectural diagram and describes the servers, data collectors, scripting tools and other components that you set up in your environment)
GettingStarted.pdf	Deployment Planning (checklist to review basic issues you should consider when planning BAC deployment)
GettingStarted.pdf	Quick Installation Guide (outlines the installation steps with references to installation guides)
IntroConfigDataColl.pdf	Data Collector Overview (provides an overview of the various data collectors available in Business Availability Center and how they work with their various monitored environments)
BPMAdmin.pdf	Business Process Monitor Administration (describes how to deploy and administer the Business Process Monitor data collector)
UsingVuGen.pdf	Using Virtual User Generator (describes how to use Vugen)
UsingSAM.pdf	Using System Availability Management (gives information on creating reports)

Things to Consider before Deploying BAC

Depending on your current OVIS probe system deployment, consider the following options for your BAC implementation:

Probe and Configuration Considerations

OVIS Management Server – It is recommended to keep the OVIS server up for some time in order to allow access to configuration information and archived hourly and daily measurement data. If you delete a customer in OVIS it will not be visible in the dashboard after deletion. Additional data maintenance options are available and should be reviewed by the OVIS administrator, please review the <u>OVIS Measurement Data</u> section for more information.

Probe Configuration – Some of the OVIS probe configuration can be migrated to one or multiple SiS or BPM collectors using the OVIS to SiteScope conversion tool. Probe configurations that cannot be migrated due to significant differences in the underlying implementation will have to be re-created in SiS and/or BPM.

WebRecorder – Transactions recorded with the OVIS WebRecorder (HTTP_TRANS) are recommended to be re-recorded with VuGen and run with VuGen. See the section titled <u>HTTP_TRANS Re-Recording Procedure</u>.

Probe Builder Probes – VuGen and SiteScope support more than 60 application types. Most of the application types monitored with Probe Builder probes can now be monitored with either BPM (VuGen, QuickTestPro(QTP)) or SiS. Users of Probe Builder will have to migrate their custom monitors to either BPM (VuGen or QTP) or SiS (Application specific monitor, custom Script, or Web Script monitor).

Custom Probes with the OVIS API – Custom probes created with the OVIS C API are not compatible in their current form with BPM or SiS. Either utilize the existing application types in SiS, VuGen, or QTP to re-create the monitoring or create a script that can be called directly by SiS. BPM is recommended for multi-location transaction scripts and if there is an associated need for SLM or CMDB functionality.

Script Probes – OVIS script probes can be reworked to be called by SiteScope. For more information on how to configure a Script Monitor in SiteScope please go to either the SiteScope help or the online help associated with the Script Monitor page.

Load Balancing – If multiple probe systems are used to load balance monitoring it is recommended to collapse these to fewer SiS or BPM systems, if possible. The SiS and BPM scalability numbers are generally higher than that of OVIS. For more information on scalability of SiS and BPM please see the SiS/BPM documentation.

BPM and SiS Monitoring Systems – BPM and SiS are <u>not</u> recommended to be run on the same system. If you are planning to convert existing probe systems to both BPM and SiS you will require an additional system. However some additional utilization of systems can be found. The resource intensive HTTP_TRANS IE probes are replaced by the more lightweight approach that VuGen/BPM provides, allowing higher concurrency. NOTE: It is also

recommended that SiS not be installed on the same system as OVIS due to potential port conflicts.

Manual Configuration Items – Some of the other OVIS functionality such as reports, views, users and Service Level Agreements will need to be configured manually in BAC. Additional information is found in the OVIS Server Side Features Requiring Manual Migration section of this document.

Multiple Probe Systems – If multiple probe systems are used to monitor certain segments of the infrastructure (for example, a probe system is installed in a branch office and used to monitor only applications and infrastructure related to the specific branch office) then up to two systems (one SiS and one BPM) per segment have to be installed. It is recommended to review the overall deployment of monitors at this point.

If multiple probe systems are used to monitor the same target, then multiple SiS or BPM systems are required, depending on the probe type that is used to monitor the target. For example, if the target is monitored with a HTTP_TRANS probe, then only multiple BPM systems are required (see Appendix C for more details on which probes are converted to BPM and which are converted to SiS).

Multiple Monitor Groups – For OVIS systems with multiple probe locations, the conversion utility will create multiple Monitor groups with the same name.

For example, on the test server OVRNTT159 there is customer HTTP1. The Service group in this customer is also called HTTP1. The Service group HTTP1 has 3 Probe locations, therefore the conversion tool will create 3 monitor groups in SiteScope, and all named HTTP1. Although these are all named the same, each monitor group may be different depending on whether the probe locations have different Timeouts etc. It is recommended that you select the one you want to keep and delete the other copies.

Manual Probe Configuration – You have the option not to use the OVIS conversion utility and instead move your monitoring to BPM alone or SiS alone rather than both BPM and SiS. This alternative requires you to implement (configure) new monitors. The complete OVIS configuration can be obtained in XML format by running "iopsload –save" on the OVIS server.

If you require location information, it is recommended that you set up monitoring in BAC/BPM.

BAC Server and Hardware Considerations

Depending on your current OVIS Management system deployment, consider the following options for your BAC implementation:

Hardware

*It is recommended that you always check with the BAC documentation that you are installing, for the up-to-date sizing and system requirements.

General - BAC is generally a linearly scalable product - meaning that you can add more servers and it will increase its scalability more than purchasing one large system. For example BAC has 1, 2, 3, and 5 server options; each one allows for more processing and transaction load to be shared across all of the systems through dedicating systems to specific tasks. For SiS, if you need to increase of the number of targets, then you can add another SiS system.

Single Server – Generally for OVIS customers with less than 2000 logical targets a single server BAC 6.7 implementation would support those associated demands. Although long term, a two system deployment would allow for more growth, scalability and performance.

Dual-Server – For BAC 7.0, at the time this white paper was prepared, the recommendation for BAC was at least a two server deployment: one server for your core deployment and a second server with Core and Centers server.

Highly Available – HA is available with BAC, please review the BAC deployment guide or the on line help for getting started to see if it will fit your needs. It is generally recommended to get some assistance when considering BAC HA, please talk with your hp sales representative or solution architect for more guidance.

Database SiS – SiS can forward its data to a database but a database is not required. SiS is designed to work with data in files rather than a database so it can operate with a smaller form factor.

Database BAC – BAC requires an external database either SQL Server or Oracle. It is recommended to install the database on another system. Keep in mind that a high latency due to poor network connection between the BAC servers and the remote database will impact performance. (For specific support versions please see the BAC documentation).

Migration Process Overview

There are several factors to consider in migrating from OVIS to BAC. The section below contains an overview of the steps you may use in the migration from OVIS to BAC.

1) Learn about BAC (including SiteScope, BPM and VuGen components) before attempting to do the migration.
   a) Online training from hp education services will be available for introducing VuGen, SiteScope, BAC, and BPM. Information on how to access these free resources is in the migration letter that you should have received. If you do not still have that letter please contact your hp sales representative or hp support.
   b) Consider: Virtual User Generator (VuGen) is available in OVIS 6.20. Use it there first before trying it with BPM; this will give you the opportunity to learn in an environment that you are familiar with and the scripts created with VuGen in OVIS 6.20 are compatible with BPM.

2) Evaluate your OVIS implementation.

   Create an inventory of your monitoring.
   a) IopsLoad –info can provide a count and system name.
   b) IopsLoad –save will export a complete xml list of your OVIS configuration. (For help with IopsLoad please see the OVIS Users Reference Guide).
   c) Document the types and numbers of probes so you can plan for BAC/SiS System needs.
      i) Identify the HTTP_TRANS probes. They will need to go through a manual process of conversion with VuGen. For more information please see the section HTTP_TRANS Re-Recording Procedure.
      ii) Identify custom probes. These probes will have to be modified or re-created.
      iii) Identify the Script probes. These probes will need to be updated to work properly.
   d) Document special application monitoring needs. For example dependant resources, run as user, or special permissions.

3) Review your monitoring needs.
   a) Have your monitoring needs changed?
   b) Have systems moved to secondary status or have new applications come online?
   c) Would the additional monitoring capabilities in SiS and BPM alter your monitoring choices?

4) Create the system requirements for SiS and BAC.
   a) Define BAC requirements.
   b) Define SiS Requirements.
   c) Document all special needs for application monitoring and systems implementation.
   d) Define security requirements.
   e) Define staging requirements.

5) Design and plan your implementation.
   a) Create BAC (and Component BPM, SiS) Architecture.
   b) Create High Availability (HA) and Disaster Recovery (DR) plans, if necessary.
   c) Plan your deployment process, including key milestones.
   d) Plan your verification process.
   e) Plan training for your operators.

6) Implement
   a) Install new software
      i) BAC.

      ii)   BAC Components (BPM, Patches).

      iii) BPM on remote stations.

      iv) Install SiS on a system other than the BAC system.

      v)   Install SiS on remote locations for additional monitoring.

      vi) Attach SiS systems to BAC installation.

b) Convert to SiS – Full instructions listed in the [OVIS Probe Configuration Conversion Utility](#) section.

      i)   Create Monitor Configuration Files using the ovis2sis.exe utility.

          Once your SiS deployment is set up, you can use the ovis2sis conversion utility provided with your OVIS Migration Pack to convert many of the standard OVIS probe configurations into SiS monitors. If technically possible the tool will also convert the schedules, response time thresholds, and scheduled downtimes that correspond to the converted target.

          There are additional features in BAC that provide a good opportunity to make some adjustments to the configuration hierarchy and deployment. For example, BAC and SiS allow an n-level hierarchy for the grouping of monitors which is more flexible than the two level hierarchy of OVIS. SiS also has more flexibility with scheduling monitors.

      ii) Review the output files (.mg) created with ovis2sis and alter the monitor configurations.

      iii) Copy the output files from the 'output' directory you specified in the OVIS conversion utility to the appropriate SiS system and perform any manual configuration needed.

      iv) Verify each migrated target for accuracy.

      v)   For probe types that aren't supported in the conversion utility, manually configure similar types of monitoring using BAC components found in either VuGen or SiS.

          For example, use VuGen to re-record HTTP_TRANS probe web transactions or create a SiS Windows Resource monitor to replace a SYS_BASIC_WMI probe.

      vi) Create alarm thresholds and notifications the way you want them in BAC.

      vii) Configure scheduling options as needed in BAC.

c) Configure Transactions in BPM.

      i)   Load existing VuGen Scripts.

      (1) Export VuGen scripts with zip using VuGen and load them into the BAC scripts repository. For additional information on how to load BPM targets see the BPM help.

      ii) Convert HTTP_TRANS probes to BPM. See the instructions titled [HTTP_TRANS Re-Recording Procedure](#).

      iii) Create alarm thresholds and notifications the way you want them in BAC.

      iv) Configure scheduling options as needed in BAC.

7) Create SiS and BAC views and reports.

8) Setup SiS users or BAC users for restricted access views and dashboards.

OVIS Probe Configuration Conversion Utility

Introduction

The ovis2sis.exe utility is used to create SiS configuration by inspecting the OVIS database and exporting SiS monitor configuration files (extension .mg). The OVIS Customer/Service group structure is preserved in the conversion to SiS and can be further modified by making changes to the converted configuration files before copying to the SiS system or through the SiS configuration interface directly after import. Most OVIS probes can be converted using the ovis2sis.exe conversion utility, probes that fail to convert are noted with a warning in the ovis2sis utility and disabled in SiS.

The installation of the ovis2sis.exe utility must be on the OVIS Management Server since it requires access to the Reporter database. The ovis2sis utility reads the OVIS configuration and creates output files. It does not alter any aspect of the OVIS server or configuration.

Version and Internationalization

The ovis2sis conversion utility is internationalized and will work for those using Japanese versions of OVIS. It can be used for conversion from OVIS 6.x versions to BAC 6.5 and following versions. NOTE: Customers using the Japanese version of OVIS and wishing to continue to use Japanese language products are advised to migrate to BAC 7.0. This is the next translated version of the BAC product.

Installation

1. Copy ovistosissetup.exe to your OVIS Management Server. The ovis2sis conversion utility must be installed on the OVIS server.

2. Run the ovistosissetup.exe program on your OVIS Management Server, it will install the ovis2sis utility.

   OVIStoSiSsetup.exe installs ovis2sis.exe into the <OVIS Install>\bin directory. The installer also adds the utility to the 'Start → Programs → HP OpenView → Internet Services → OVIS Migration Tools' menu.

   An entry is added to Add/Remove Programs so the utility can be easily removed. The remove only removes the utility and leaves the OVIS installation untouched.
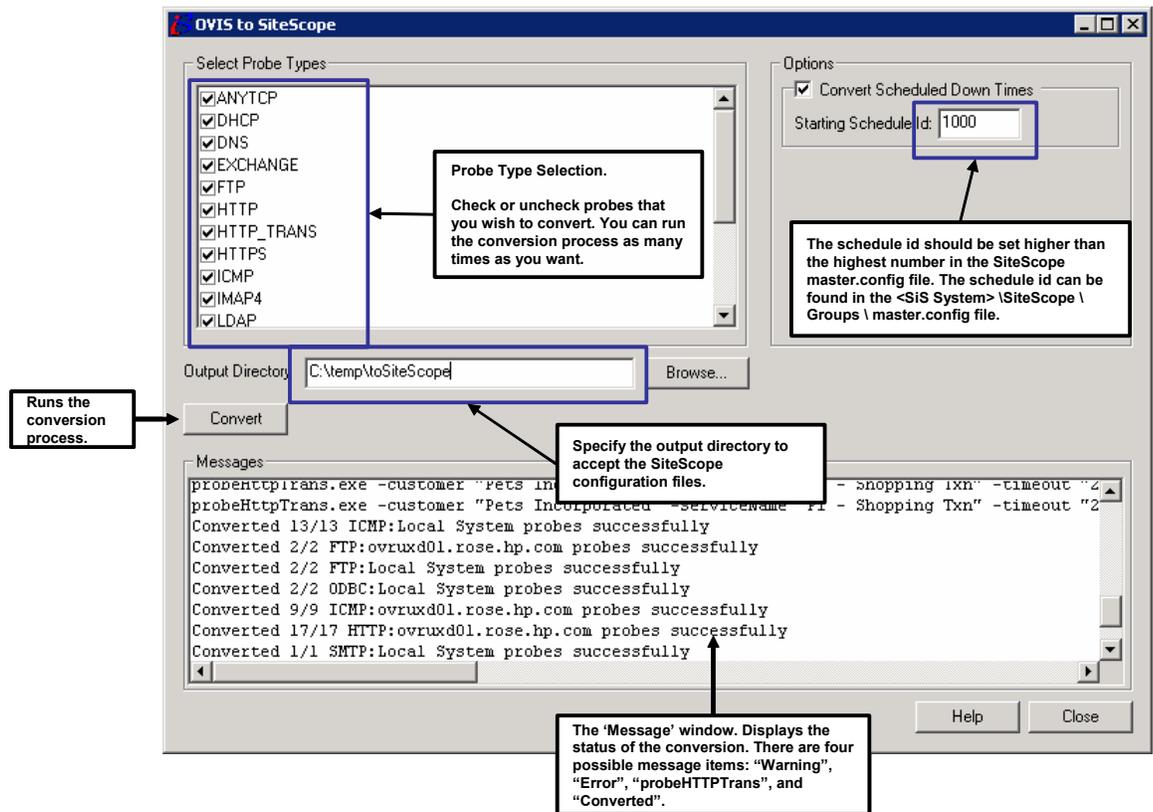
OVIS to SiS Conversion Steps

1. Select the probe types that you wish to convert. By default all probe types are selected.

   a) Note: You can re-run this tool as many times as you want. This allows you to break down some of the OVIS probe systems into groupings by probe. Keep in mind, however, that the probe output file names do not change. If you output to the same directory each time you could overwrite existing files.

2. You can choose to convert the Scheduled Downtime configurations to a SiS Schedule. To do this you should check the "Convert Scheduled Down Times" check box. You may also have to adjust the "Schedule Id" field to be higher than the "_nextAdditionalScheduleID" in the <SiteScope System> \ <SiteScope Directory> \ <Groups> \ master.config file. Usually there are less than 1000 schedules in SiS so generally 1000 is high enough to avoid a conflict.

   a) OVIS downtimes that contain a date setting will be converted to an enable/disable monitor setting. OVIS recurrence downtimes are converted to a range schedule. Scheduled downtimes of type "every n day", "every n weeks", "where n is greater than 1", "monthly" are not converted. For more information please see the Scheduler Items section on Scheduled Downtime.

3. Select an output directory for the new SiS configuration files.

4. Once you have the probe types, schedule id, and output directory set, click the **Convert** button. This will take your selections and generate the SiS configuration files. This may take a few minutes depending upon the configuration size, complexity, and system performance. A completion message is displayed in the message window when the conversion program has finished.

   After pressing the **Convert** button, the utility inspects the OVIS database and creates the configuration files in the specified output directory on the OVIS management server.

   The format of the converted files is the following:

<OVIS probe location>_<customer>.mg

<OVIS probe location>_<service group>.mg

to_master.config

http_trans.txt

5. When the conversion is complete, review the messages in the 'Message' field. '

   a) Pay close attention to items of "Warning", "Error", "probeHttpTrans". These items will require follow-up to configure in SiS or BPM (probeHttpTrans). It is recommended that you copy the complete message text out of this screen and view it in a separate editor. This will give you the ability to track and fix the changes.

6. The configuration files for the converted probes and schedules are in the specified 'Output' directory. The ovis2sis conversion utility creates an mg file for each customer and service group for each probe location.

   a) Review the output files and check for items that could not be migrated. Review the messages in the ovis2sis conversion utility window and take corrective action to resolve the problem.

      i) Review the Probe Types Converted with the ovis2sis Conversion Utility section for per probe items that you will need to be adjusted in SiS after importing.

      ii) Probe targets that were automatically converted, but with issues, are disabled in SiS.

      iii) HTTP_TRANS is not automatically converted.

   b) Please review the Scheduler Items section on Scheduled Downtime for downtime and scheduling feature that are not converted.

   c) For probes that require manual configuration please see the section OVIS Probes Requiring Manual Migration for details.

   d) For HTTP_TRANS probes the command line to run the probe is captured by the ovis2sis utility and displayed in the messages field. This command line is also saved in the http_trans.txt file. You will need to re-record the transactions in VuGen. You can use the http_trans.txt file to get the command line for the probe and paste it into VuGen to re-record the transaction.

7. To Import to the SiS system

   a) Stop SiS.

   b) Service groups (or the whole grouping structure) can be collapsed or modified by pasting individual monitoring sections into new mg files. Please make sure that the _nextID and _id attributes do not contain duplicates. In addition, changes can be made inside the BAC (or SIS) GUI through copy, paste and delete.

   c) Copy the converted .mg files to the <SIS install directory>/groups directory on your SiS system. Append the contents of the to_master.config file, which contains the converted downtime schedules, to the <SIS install directory>/groups/master.config file.

   d) Restart SiS. By first stopping and then restarting SiS, this will allow some configuration checking that only occurs upon startup of SiS.

Additional Steps

If you are using SiS attached to BAC, resynchronize SiS with BAC by clicking on the **Synchronize** button under Admin/CMDB/Adapters. This step will help regenerate the monitoring views so the newly added items will be displayed in the views.
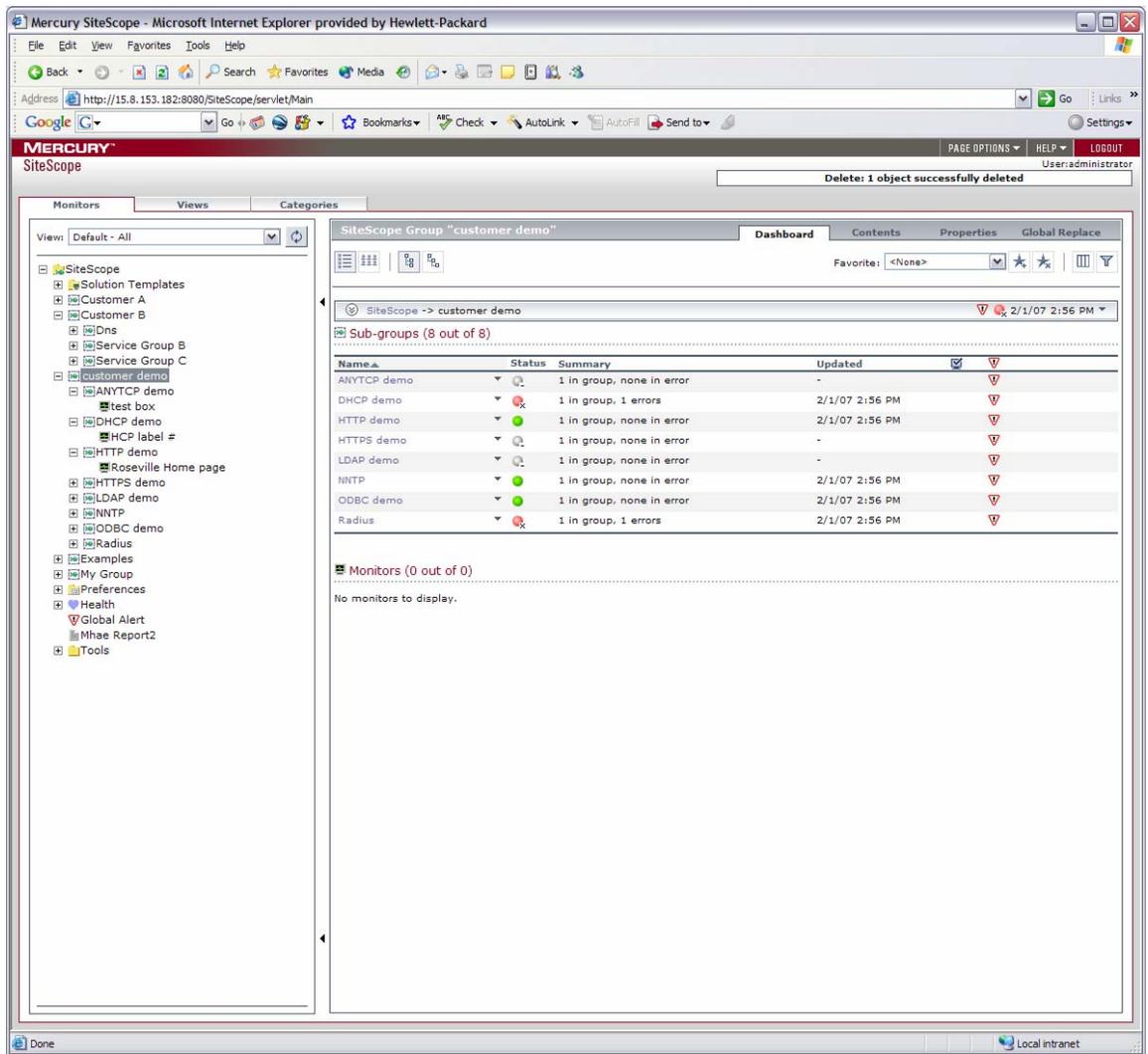
Note: Passwords are shown in clear text in the .mg files generated by the ovis2sis conversion utility. Once the .mg files are read into SiteScope the passwords are automatically encrypted and written back out to the filesystem. The files should be deleted from the OVIS system once you are finished with them because they will still have the passwords in clear text.

Probe Types Converted with the ovis2sis Conversion Utility

The following table lists the probe types whose configuration information can be converted using the ovis2sis conversion utility and the SiS monitor configuration resulting from conversion. Also any caveats for options that may not be fully converted are noted in the comments section.

Note: If a probe can't be fully converted to a SiS monitor, it will show up as disabled in SiS.

OVIS Probe Type	SiS Monitor	Comment
ICMP	PingMonitor	The "Number of packets" option is not converted but can be configured globally in master.config (_pingPacketsInitial and _pingPacketsRetry) An OVIS response time objective will be converted to a SiS threshold (roundTripTime).
HTTP / HTTPS	URLMonitor	The following options are not converted: • Pattern matching containing multiple operators (e.g. +hp +software –error) • HTTP User-agent header field override • HTTP Host header field override • HTTP Content-Type field override • "No Cache (Proxy)" option • Cookie file handling (set cookies in SiS POST data field; see the URLMonitor configuration documentation for more information) • Client certificate files (copy the certificates into the SiS certificate directory; see the URLMonitor configuration documentation for more information. An OVIS response time objective will be converted to a SiS threshold (roundTripTime).
FTP	FTPMonitor	The following options are not converted: • Changing of the FTP Port. • Mode values "automatic" and "active" are ignored. An OVIS response time objective will be converted to a SiS threshold (roundTripTime).
DNS	DNSMonitor	An OVIS response time objective will be converted to a SiS threshold (roundTripTime). The following options are not converted: • Retries The following options are not converted and will cause the monitor to be disabled: • DNS port not set to 53. • Pattern containing a host name to verify a reverse lookup. • Pattern containing a '-' operator. • Pattern matching containing multiple '+' operators. • Pattern configuration containing AND, OR. Note:

		• DNS server name will be converted to its IP address An OVIS response time objective will be converted to a SiS threshold (roundTripTime).
ANYTCP	PortMonitor	The following options are not converted: • Pattern Match Settings • Pattern matching containing multiple operators and any negative pattern (e.g. +hp +software –error) • Pattern configuration containing AND, OR An OVIS response time objective will be converted to a SiS threshold (roundTripTime).

DHCP	DHCPMonitor	The following options are not converted:
		• Retries
		• Client Port
		The following options are not converted and will cause the monitor to be disabled:
		• DHCP Server port
		• Client MAC Address
		• Relay Agent Options check box allowing the follow options:
		    o Relay Agent
		    o Agent Circuit Id
		    o Agent Remote Id
		• Accept Offer (Yes value)
		• Any Pattern matching
		• Any Pattern configuration
		
		An OVIS response time objective will be converted to a SiS threshold (roundTripTime).
		
		*SiS requires a third party Java DHCP library for SiS to support a DHCP monitor type. See the SiS help (Configuration > Configuring SiteScope Monitors > SiteScope Monitors > DHCP Monitor).

LDAP	LDAPMonitor	The following options are not converted:
		• Scope of the search
		• Timeout
		The following options are not converted and will cause the monitor to be disabled:
		• Enable Authentication check box allowing the following options:
		    o Authentication Type
		    o User
		    o Domain
		• Pattern containing a '-' operator.
		• Pattern matching containing multiple '+' operators.
		• Pattern configuration containing AND, OR.
		• Enable LDAPS support check box
		• Certificate File for LDAPS
		
		An OVIS response time objective will be converted to a SiS threshold (roundTripTime).

Exchange	MAPIMonitor	Note: • Please follow the steps in the SiS documentation for configuring the MAPI Monitor system, user accounts, etc. • Unlike the OVIS Exchange Probe, the SiS MAPI Monitor always sends and receives messages to measure round trip time. As a result OVIS Exchange Probes configured to measure mailbox read time only, mailbox read and message send time, message send time only will be converted to round trip MAPI monitors in SiS. The following options are not converted: • Display Name • E-mail Address • Message Size The following configuration are not converted and will cause the monitor to be disabled: • Reader's mailbox name and Exchange server are specified in a profile. • Sender's mailbox name and Exchange server are specified in a profile. An OVIS response time objective will be converted to a SiS threshold (roundTripTime).
ODBC	DatabaseMonitor	The following options are not converted and will cause the monitor to be disabled: • Pattern containing a '-' operator. • Pattern matching containing multiple '+' operators. • Pattern configuration containing AND, OR. Note: • The SiS default ODBC driver, sun.jdbc.odbc.JdbcOdbcDriver, will be used. • The user will need to create a new ODBC connection entry on the SiS system, if the SiS installation is on a different system then the OVIS system. An OVIS response time objective will be converted to a SiS threshold (roundTripTime).
SMTP	MailMonitor	The following options are not converted and will cause the monitor to be disabled: • Port not set to 25. The following options are not converted: • Sender • Message Size An OVIS response time objective will be converted to a SiS threshold (smtpTime).
POP3	MailMonitor	The following options are not converted and will cause the monitor to be disabled: • Port not set to 110. SiS Mail Monitors can be configured to only read from a mailbox, similar to the POP3 OVIS probe. Both the OVIS

		POP3 probe and the SiS Mail Monitor attempt to login and read the contents of a mailbox. However, unlike the POP3 probe, the Mail Monitor reports success only if it finds a message containing the user specified search text. The Mail Monitor deletes a matched message. In order for the Mail Monitor to mimic the POP3 probe, it is configured to send and read messages. Or else, the user would have to manually feed messages to the Mail Monitor. The SiS monitor requires a destination email address in order to send the message. SAM compatible names such as 'ovrtest\admin' are not accepted. The conversion utility attempts to convert the SAM name 'ovrtest\admin' to a User Principle name 'admin@ovrtest.adapps.hp.com'. If this fails, the monitor is disabled. An OVIS response time objective will be converted to a SiS threshold (receiveTime).
IMAP4	MailMonitor	The following options are not converted and will cause the monitor to be disabled: • Port not set to 143. SiS Mail Monitors can be configured to only read from a mailbox, similar to the IMAP4 OVIS probe. Both the OVIS IMAP4 probe and the SiS Mail Monitor attempt to login and read the contents of a mailbox. However, unlike the IMAP4 probe, the Mail Monitor reports success only if it finds a message containing the user specified search text. The Mail Monitor deletes a matched message. In order for the Mail Monitor to mimic the IMAP4 probe, it is configured to send and read messages. Else, the user would have to manually feed messages to the Mail Monitor. The SiS monitor requires a destination email address in order to send the message. SAM compatible names such as 'ovrtest\admin' are not accepted. The conversion utility attempts to convert the SAM name 'ovrtest\admin' to a User Principle name 'admin@ovrtest.adapps.hp.com'. If this fails, the monitor is disabled. An OVIS response time objective will be converted to a SiS threshold (receiveTime).
NNTP	NewsMonitor	The following options are not converted and will cause the monitor to be disabled: • Port not set to 119. The following options are not converted: • Maximum bytes to receive Note: • The SiS name is made up of the news group plus "@" plus the server (e.g. comp.lang.perl.misc@news.corp.hp.com) An OVIS response time objective will be converted to a SiS threshold (roundTripTime).

RADIUS	RadiusMonitor	The following options are not converted and will cause the monitor to be disabled: • Network Access Port • Called Station Id • Calling Station Id • Password Protocol other then the default value PAP (Password Authentication Protocol) The following options are not converted: • Retries Note: • The SiS name is made up of the user name plus "@" plus the Radius server (e.g. admin@ovrntt79.hp.com) An OVIS response time objective will be converted to a SiS threshold (roundTripTime).
MAILROUNDTRIP	MailMonitor	The following options are not converted and will cause the monitor to be disabled: • Send port not set to 25. • Read port not set to 143 or 110. The following options are not converted: • Sender • Message Size An OVIS response time objective will be converted to a SiS threshold (roundTripTime).

OVIS Probes Requiring Manual Migration

The following OVIS probe types will not be converted by the ovis2sis conversion utility and require manual configuration for monitoring in SiS or BPM (also may require the use of VuGen).

OVIS Probe	SiS or BPM	Comment
SAP	SiS or BPM	Use VuGen to re-record the SAP transaction or SiS monitor (requires an additional license).
WMI	SiS Server Monitor	Configure a Windows Resource monitor with the specific performance metrics that you are interested in or use multiple Server Monitors (e.g. CPU, Network, etc).
DialUp	SiS Windows Dialup	Configure a Windows Dialup monitor and select the monitors that should be run over the established dial up connection.
SOAP	SiS Web Service	Configure a Web Service monitor.
Streaming Media	SiS Real Media Player Or Windows Media Player	Configure a Real Media or Windows Media Player monitor.

Script Probe	SiS Script	Convert the OVIS script to a SiS script. The main task for the conversion is to change the output from a multi-line format that OVIS uses to a single line output format that SiS uses. For example:
		
		OVIS output:
		`Target=Drive(c)`
		`ResponseTime=0`
		`Metric_1=600`
		`Metric_2=383`
		`Metric_3=63.92`
		`Availability=1`
		
		Needs to be changed to a single line and a corresponding match pattern has to be created:
		Output:
		`Target=Drive(c) Metric_1=600 Metric_2=383`
		`Metric_3=63.92`
		Pattern:
		`/Target=(.*) Metric_1=(\d+) Metric_2=(\d+)`
		`Metric_3=(\d*\.{0,1}\d*)/`
		
		Note, availability and response time is automatically captured by the SiS script monitor and doesn't need to be returned.

WAP	SiS or BPM	Use VuGen to record the WAP transaction.
SMS		Not available in SiS or BPM.
NTP		Not available in SiS or BPM.
Network Bandwidth		Not available in SiS or BPM. Some information available in the Network Bandwidth monitor.
TFTP		Not available in SiS or BPM. Use VuGen to record tftp application on socket basis.
Custom Probe SDK	SiS or BPM	Convert the custom probe to a VuGen C User script or wrap the custom probe code in a SiS script.

Custom or Probe Builder Script	SiS script or VuGen monitor or BPM	Re-record the transaction with VuGen. Probe Builder probes such as Citrix can be re-recorded in BPM.
HTTP_TRANS	BPM "Web (HTTP/HTML)" or "Click and Script" script	The HTTP_TRANS probe requires a re-recording of the web application (see below). The commands needed for the re-record will be written to the http_trans.txt file located in the Output Directory.

HTTP_TRANS Re-Recording Procedure

Due to the differences in the OVIS WebRecorder (HTTP_TRANS probe type) scripting language and the VuGen scripting language, the recommended migration process is to either re-record the transaction or playback the WebRecorder probe in VuGen which will capture the transaction in a VuGen script.

Note: depending on the features used in WebRecorder (e.g., availability check script and cookie handling), additional scripting in VuGen's scripting language may be required.

To run the WebRecorder probe in VuGen, please follow these steps:

1. Install VuGen on the probe system (either on a OVIS remote probe system or OVIS management server) that is able to run the WebRecorder transaction (typically, the measurement server can run all the transactions but if special RunAs account or IE user settings have been created on a particular probe system, it may be necessary to run the transaction on this remote probe system).

2. Set the following registry key:
   Under
   `Software\Hewlett-Packard\Internet Services\CurrentVersion`
   Create DWORD `TraceConfig` and set it to 1

3. The ovis2sis conversion utility will show the command line for all transactions. These commands are also written to the http_trans.txt file located in the ovis2sis conversion utility's Output Directory, like:
   ```
   probeHttpTrans2.exe -customer "SF" -serviceName "T2" -timeout "180"
   -port "80" -serviceid "0;0;0;" -transFile "httptrans.dat"  -embedded
   "1"  -ignore "1"  -version "2"  -interval 300 -print
   ```

4. Run VuGen and specify the above command line in the "Web (HTTP/HTML)" or "Click and Script" script. The screen shot below shows a Start Recording dialog with the probeHttpTrans2.exe as the "Program to record" and the parameters for the executable in "Program arguments".
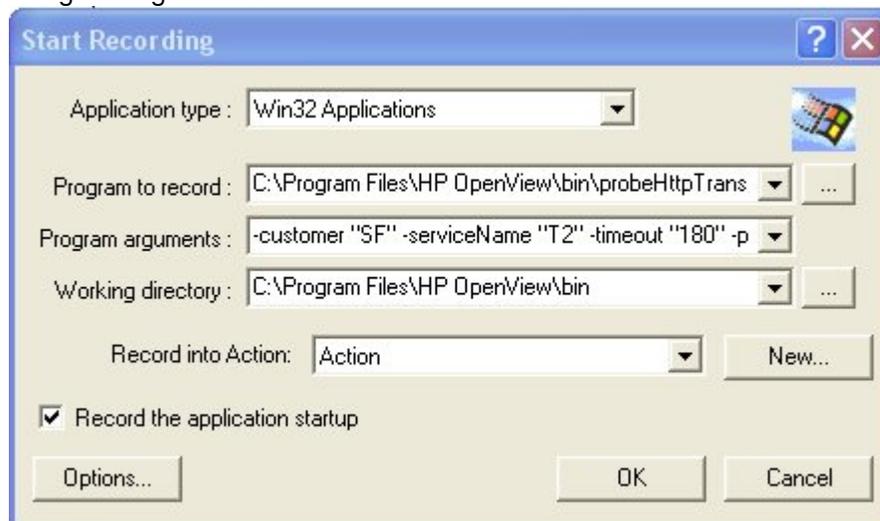
Make sure to select "Win32 Applications" application type and use the correct probe executable (probeHttpTrans2.exe or probeHttpTrans.exe).
In order to visually see the end of the recording for IE mode transactions, add the –showgui command line argument to the above "Program arguments" list.

5. Follow the VuGen manual for identifying transaction steps and the BPM manual for uploading the VuGen scripts into BAC.

Scheduler Items

OVIS scheduled downtimes are converted to either SiS

> Enable/Disable Monitor

Or

> Range Schedules

OVIS downtimes that contain a date setting will be converted to an enable/disable monitor setting. OVIS recurrence downtimes are converted to a range schedule.

The ovis2sis conversion utility tries to combine multiple OVIS recurrence downtimes to a single SiS range schedule if a target has multiple schedule assignments.

For example, if a target has a daily downtime called "Outage1" from 10:00pm-11:00pm and another downtime called "Outage2" every Sunday from 11:00pm to 11:30pm, the utility combines these two downtimes to a single SiS range schedule "Outage1Outage2" which covers both OVIS downtimes.

The following OVIS downtimes are not converted:

> Every n day
> Every n weeks, where n is greater than 1
> Monthly

OVIS Probe Scheduling Features

Probe Delay, Network Connection and Target Priority are not available in BAC or SiS but can be emulated with their available features. For example you can create a SiS Range Schedule to distribute the load or use the SiS 'Depends On' feature.

OVIS Server Side Features Requiring Manual Migration

The following OVIS server side features have to be migrated manually:

OVIS	SiS or BAC	Comment
Standard Reports	SiS Reports	Create a SiS Management Report which has various selection, grouping and display options. BAC Systems Availability Monitors (SAM) contains reports and views that are useful for multi-location SiS reporting. BAC End User Monitoring (EUM) contains views and reports that are useful for BPM multi-location reporting.
Custom Reports	BAC Reports	Custom crystal reports that are integrated in Reporter can not be migrated. SiS and/or BAC offer additional out of the box reports and custom reporting capabilities that should cover most needs. In addition, some data can be exported

		for further processing.
SLA	BAC SLA	BAC provides sophisticated SLA and Service Level Management (SLM) capabilities. This includes a robust SLA creation and metric evaluation mechanism .
Profiles/Restricted Views	SiS Users or BAC Users	Manually migrate the OVIS profile/restricted view users and configuration to SiS or BAC users. Note, it is recommended to do this after the OVIS probe migration which provides a good opportunity to review the monitor hierarchy.
Notifications	SiS Alerts or BAC Alarms	OVIS Notifications have to be converted manually to SiS alerts. Or if using BPM Alarm notifications will have to be configured.
Objective Thresholds	SiS or BAC BPM Thresholds	Only response time thresholds for migratable probe types are converted. So thresholds on non-response time based metrics will have to be manually created by the user in either BAC or SiS.
Objective Alarms	SiS or BAC Alerts	Alarms have to be converted manually to SiS and BAC.
Notifications	SiS or BAC Alerts	OVIS Notifications have to be converted manually to SiS alerts.

OVIS Integrations

OVIS	SiS or BAC	Comment
OVO/U, OVO/W	SiS	SiS→OVO Integration available May 2007. For information please see http://h20229.www2.hp.com/products/ss/download_0001.html.
OVO/U, OVO/W	BAC	BAC BPM alarms can be configured to execute an OpcMsg command with message substitution for integration with OVO. For an example see Appendix B along with the BAC BPM online help for addition options. OVO Event integration with BAC [OVO→BAC] integration is available with BAC 6.6. See BAC 6.6 guides on how to perform the integration.
NNM	SiS	Configure a SNMP trap and assign it to groups and/or monitors by creating a new alert.
OVPM (full and embedded)	SiS	Create a SiS Quick Report.
SIP	N/A	No migration.
Reporter (full)	N/A	No migration.
OVPI (reporting)	N/A	No migration.
OVTA	Diagnostics/BAC	No migration. Replace OVTA with Diagnostics. Configure integration of Diagnostics with BAC.
SIM	SiS	
Service Desk	SiS/BAC → OVO	

OVIS Measurement Data

OVIS measurement data is not migrated to BAC due to the differences in the data format and some of the metrics reported by each probe.

To allow for a smoother transition it is recommended to keep the OVIS server up for some time in order to allow access to archived hourly and daily measurement data.

Note: It is critical to note that data is automatically purged in OVIS based upon the data retention intervals. If you wish to maintain your data for a period longer than the data retention window you have a few options.

1. Set the retention windows in OVIS to be longer than the time window required. This can be accomplished in the OVIS Configuration Manger → File [menu] → Configure [menu] → Database → Options.

2. Set the Reporter Service to Manual in the Windows Services Control Panel.

3. Export the data out of the Reporter database that OVIS is configured to use.

OVIS Troubleshooting Insight Packages Functionality

OVIS contained the ability to run commands on user demand or trigged by alarm. These commands are referred to Troubleshooting Insight Packages (TIPs). The primary purpose is to allow operators the ability to rerun a failing target from a failing remote location to verify its' current status. This use case of re-running targets also exists in SiteScope. When a target is re-run from the SiS interface it will show the resulting output from the test. This execution will also cause a sample to flow through the standard alarming and data collection process. This allows for alarms to clear immediately rather than with OVIS where it waited for the measurement interval execution to clear the alarm.
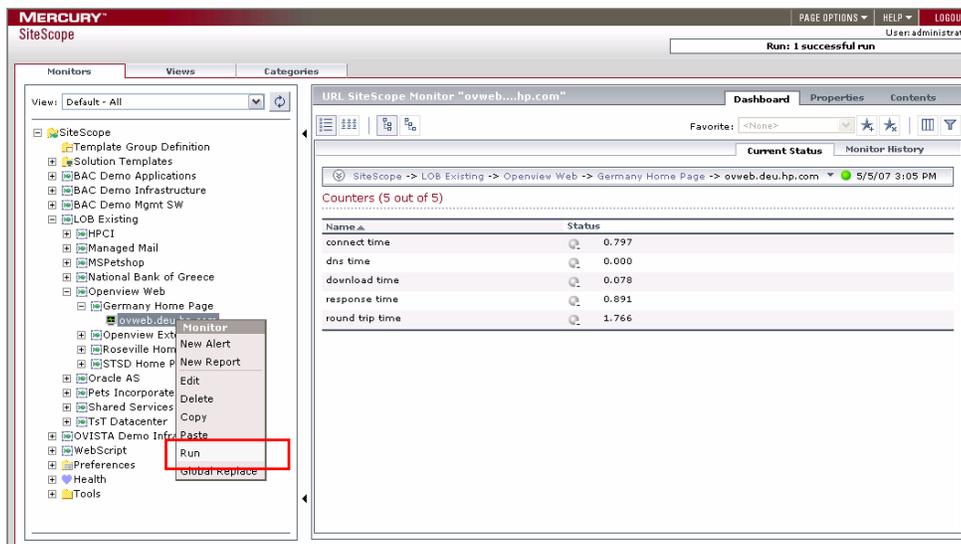
The image above is an example of the 'Run' selection for a HTTP type monitor.
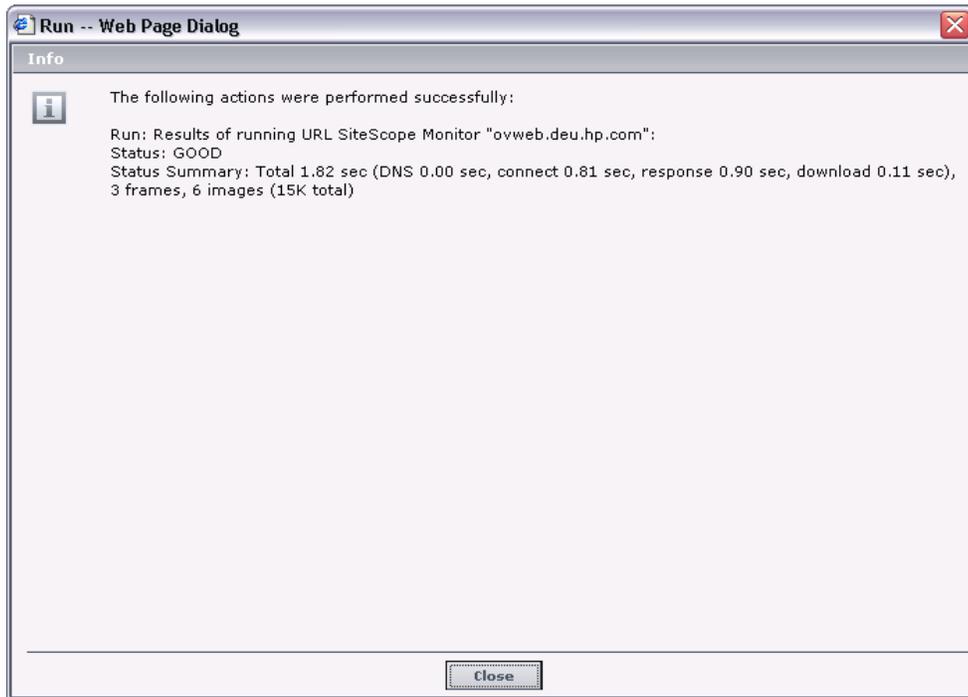
The image above is an example of the output from the re-execution of the target.

Additional on demand features are available from the Classic SiS interface under Tools.

Appendix A

BAC Architecture

BAC architecture is made up of servers, data collectors, scripting tools and other components that you set up in your enterprise network environment.

BAC Servers

BAC Servers are responsible for facilitating system management, data handling, reporting, and alerting. You install the following BAC servers on one or more Microsoft Windows or Sun Solaris machines in your enterprise network environment. Please check with the help or release notes for the specific BAC version to get the complete supported platforms list.

Centers Server
- Hosts all Web Applications including Reporting and Administration Console.
- Responsible for all user interaction with applications

Core Server
- Handles all data samples from data collectors
- Does simple data transformation and parsing
- Responsible for inserting the data into the data store
- Publishes relevant data on the bus where the other BAC consumers access the data.

Data Processing Server
- Data processing and aggregation
- running the Business Logic Engine
- Responsible for running scheduled tasks
- Hosts Memory or CPU intensive components
- controlling the Universal CMDB

BAC Data Collectors

BAC Data Collectors are responsible for collecting performance data from various points throughout the infrastructure, as well as from external locations, and feeding it into a central repository. The data collected is used to monitor and analyze the performance of your business applications and IT infrastructure. You install the following data collectors to machines in your enterprise network environment or remote locations:

Business Process Monitor (BPM) Emulates the end-user experience by running transactions and collecting availability and response time data. BPM supports monitoring of most end user facing application from green screen terminal applications, through Client/Server applications, to the very latest in Web and Wireless applications out of the box. BPM is based on the industry leading Virtual User Generator technology from HP and enables easy sharing of scripts back and forth with pre-production testing.

Virtual User Generator (VuGen) Used to create custom recordings that emulate end-user experiences. VuGen works on a record and playback principle, creating scripts that can be used with BPM to model and emulate real world situations. VuGen scripts can also be used with other components such as LoadRunner.

System Availability Monitoring SiteScope (SiS SAM) Supports easy agentless systems monitoring with out of the box application/system monitors including Oracle, SAP, Windows, UNIX, and Linux. Use SiS SAM to collect key performance measurements on a wide range of back-end infrastructure components, including Web, application, database, and firewall servers.

Real User Monitor Measures the end-user experience of real users from a network/server perspective, by monitoring real user traffic and collecting network and server performance data in real time.

Client Monitor Tracks the user experience as perceived by key personnel or clients, as they use your application, and collects "last-mile" availability and response time data.

Deployment Architecture

Choosing the appropriate deployment architecture is a key step in the creation of your BAC environment. Below is the generalized list of choices when selecting your deployment configuration, you can use the table as a starting point for determining which deployment type is most suited to your needs. Additional materials regarding sizing are available in the BAC help. These sizing recommendations are based upon BAC 6.X architecture. For specifics on your version please refer to the BAC deployment recommendations in the help.

Section	1 server	2 / 3 servers	5 servers
Dashboard Users	3	20	30
Dashboard CIs	10K	50K	215K
Dashboard KPIs	20K	75K	300K
Views	50	200	500
Events Per Second	35	200	400

Users – Concurrent logged in users.
Views – Active views, including the ones coming out of the box with BAC.

Single server BAC deployment
- All BAC components excluding the data collectors (SiS, BPM) on one system.
- Good for small deployments.
- Difficult to break apart a single server deployment into 2 or 3 server deployment.

Two Server Deployments
- The most common deployment
- Combined Center/Core Server (Gateway Server)
- Data Processing Server

Two Server BAC Deployment

Gateway Server (Core + Center) — Comm / BUS Comm — Processing Server
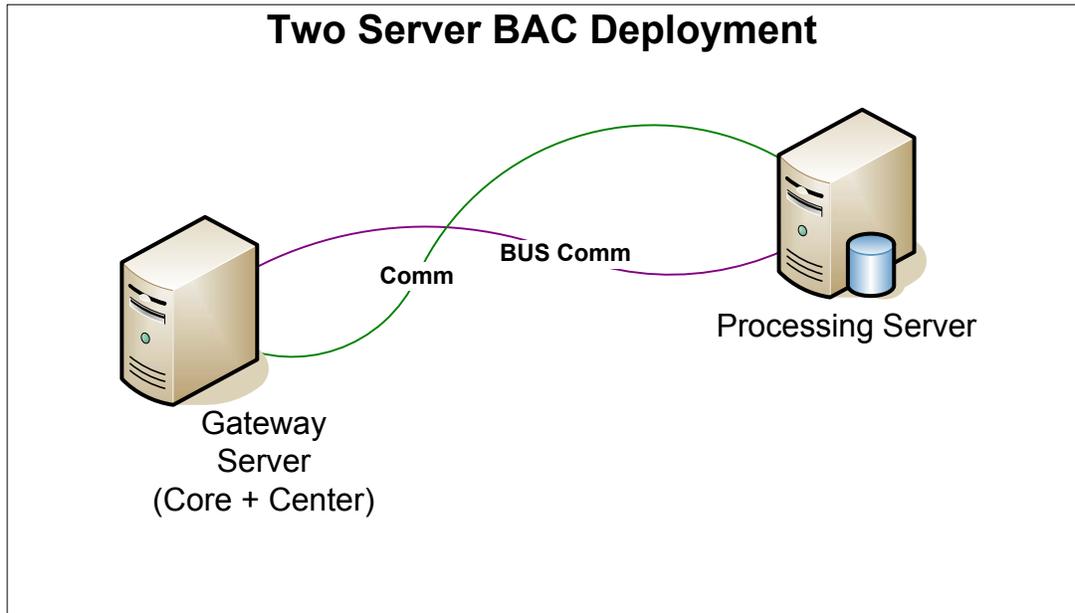
Three Server Deployments
- Center Server
- Core Server
- Data Processing Server

Five Server Deployments
- Center Server
- Core Server
- 3 Data Processing Servers
- Modeling Server
- Online Server
- Offline Server

* **Typical server configuration:**
- Dual Processor 2.4 Ghz or faster (HT or dual core recommended)
- 4 GB of Memory (with /3GB switch)

*All deployments recommend a remote database.

Appendix B

BAC BPM Alarm Integration Example with OVOW

The integration of BAC BPM with OVO can be accomplished through the 'Run Executable File' alarming option in the alarm Actions properties. There are several methods available but this example demonstrates using a perl script 'ov_command.pl' that formats and calls opcmsg.
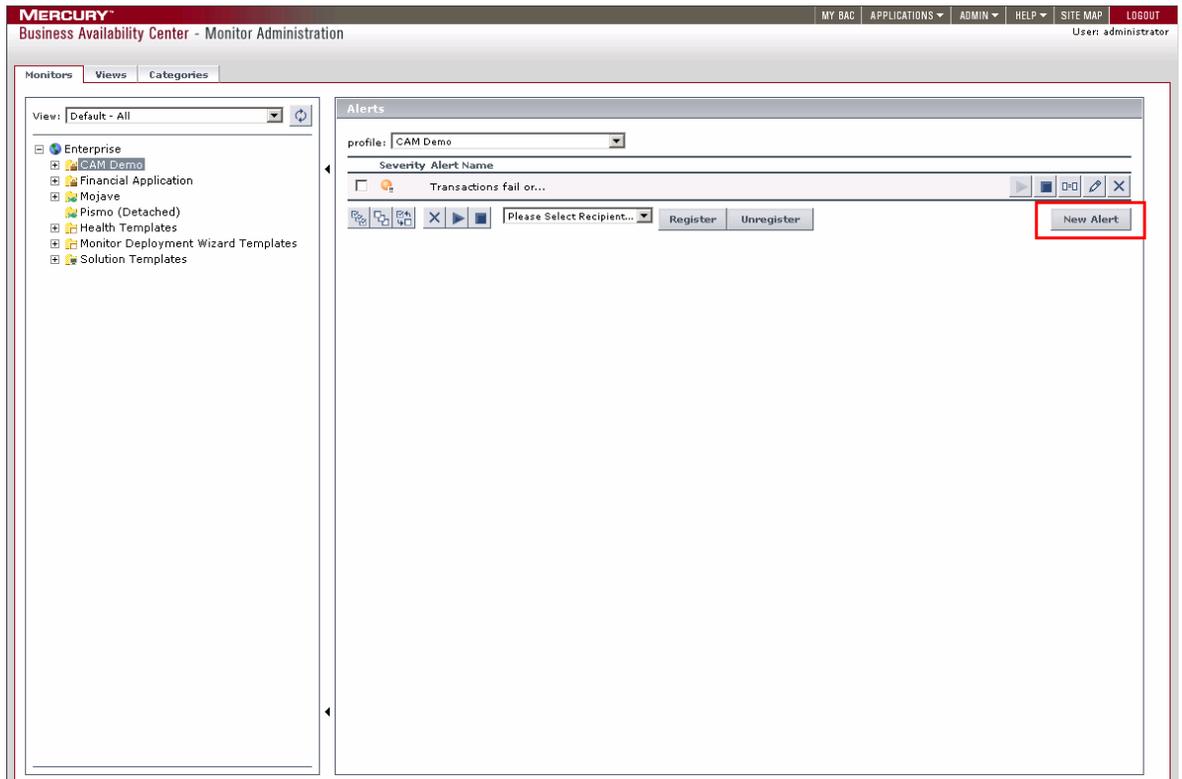
The above image is of the BAC 6.6 BPM alarm management page. To get to this page right-click on your BPM profile and select 'Alerts Management'. To add a new alert click 'New Alert' on the Alarms Management page and the alarm configuration dialog will open.

Alert Wizard

Trigger Criteria   Filters   Actions   Settings

Event-Based Triggers

☑ Transactions fail

☐ Transaction response time

☑ Transaction response time relative to threshold

Time-Based Triggers

☐ Availability

☐ Transaction response time for specified percentage of transactions

☐ Transaction response time relative to threshold for specified percentage of transactions

☐ Average transaction response time

Alert description (click the underlined value to edit it):

Profile: CAM Demo
Alert triggers:
    Transactions fail
    or Transaction response time relative to threshold is <u>as specified</u>

    Send alert if trigger conditions occur <u>even once</u>
Alert actions:
    Send alert to <u>Dan Haller</u>
    and Run executable file <u>V:\PROGRA~1\MKSTOO~1\mksnt/perl.exe c:\temp\ov_script\ov_com...</u>

Finish   Cancel   Help

The 'Alert Wizard' dialog contains the information settings necessary to configure alarms for BPM profiles. The above example trigger events are Transaction Failure and Transaction Response Time. So for this example, for each failure and response time failure, an alarm will be sent. There are multitudes of alarming configuration features available, only a few were selected for this example. Please review the alarming online help available from the Alarm Wizard dialogs.
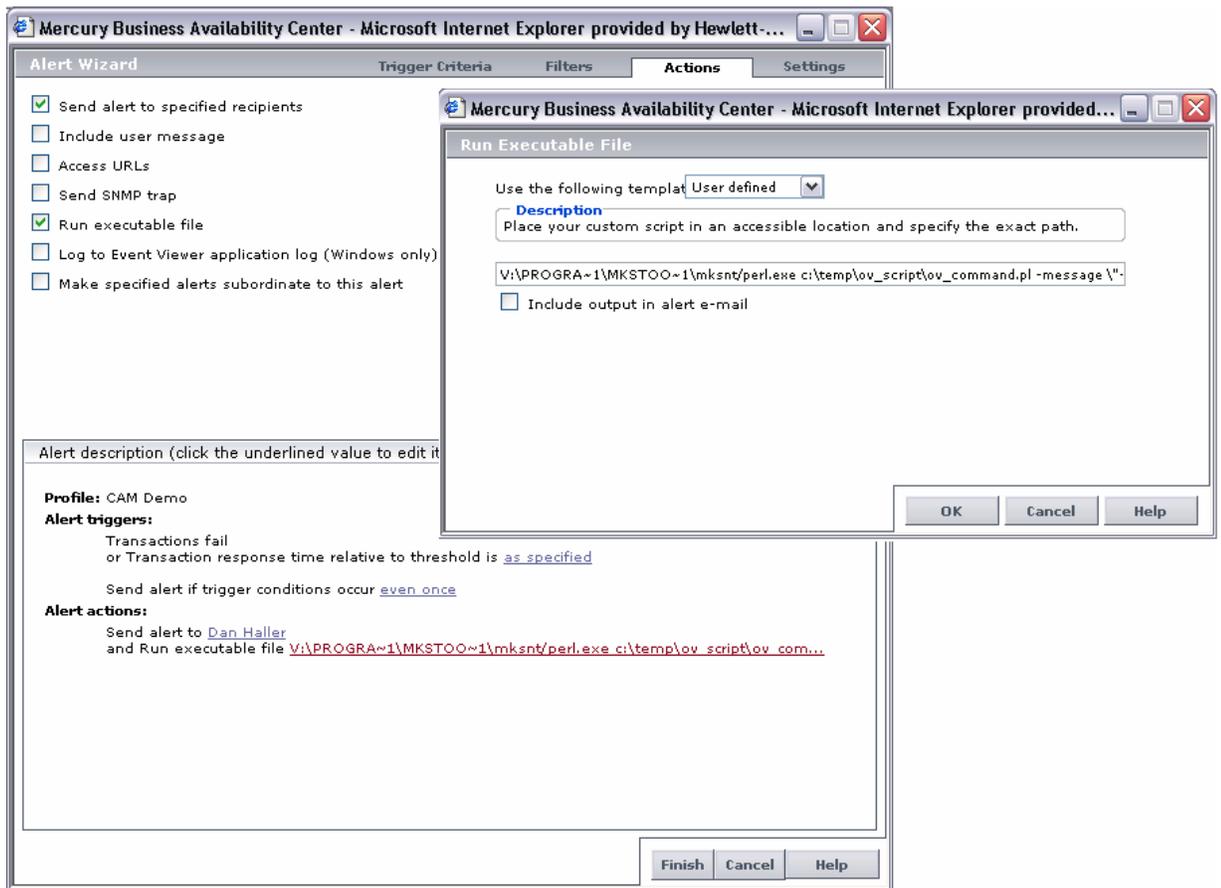
Example Command Line String

C:\Progra~1\HPOpen~1\Instal~1\{790C06B4-844E-11D2-972B-080009EF8C2A}\bin\OpC\opcmsg.exe o=BPM a=BPM severity=CRITICAL msg_text="<ProfileName> with <txn_name> at <loc_name> running <script_name> reported <TriggerCause> with description <AlertDescription> <txn_err>. alarmid <AlarmID>"

The command line above uses variable subsitiution available from the BAC alarm engine to call opcmsg.exe when a threshold is exceeded. The alarm created with this execution is of severity Critical. You can set the object, application, severity, and msg_text parameters to values that best match your environment.

The above command line string only uses some of the available variable strings from the BAC BPM alarm engine. For additional information on the additional variable strings please go to the BAC BPM Alarm Wizard online help from the 'Run Executable File' screen.

Mapping OVIS Probes to BPM or SiS

The following table provides a mapping of OVIS probes to their corresponding product, BPM or SiS.

Email	SiS	BPM
MS Exchange (MAPI)	✔	
IMAP4 (Internet Message Access)	✔	
Mail Roundtrip	✔	
POP3 (Post Office Protocol)	✔	
SMTP (Simple Mail Transfer)	✔	
Web		
FTP (File Transfer)	✔	
HTTP (Web Servers) & HTTPS (Secure HTTP)	✔	
HTTP_TRANS (Multi-URL Web Transactions)		M
NNTP (News Service)	✔	
SOAP (Simple Object Access Protocol)	M	
STREAM_MEDIA (Real or Win)	M	
Extensibility Options		
Script Probe	M	
Probe Builder – Jscript	M	M
Custom Probes SDK - C/C++	M	M
Basic Services	**SiS**	**BPM**
DHCP (Dynamic Host Config.)	✔	
DNS (Name Resolution)	✔	
ICMP (Network Response Time)	✔	
LDAP (Lightw. Directory Access)	✔	
NTP (Network Time)		
ODBC (Open Database Connectivity)	✔	
TCP (user-defined port)	✔	
TFTP (Trivial File Transfer)		M
Remote Access & Others		
DIALUP (Dial Up)	M	
Radius (Authentication)	✔	
MMS (partner probe)		
SAP (Basis transactions)	M*	M
SMS (Short Messaging Service)		
WAP (Wireless Data)	M	M
WMI System Collector	M	
Network Bandwidth	*	

✔ Automatic conversion
M Manual conversion
M* Manual conversion and additional LTU required
* Some info in Network Bandwidth monitor

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