IBM® Tivoli® Netcool/OMNIbus Probe for HTTP Server Error Log
4.0

Reference Guide
March 31, 2011

SC23-6068-02

Note

Before using this information and the product it supports, read the information in Appendix A, “Notices and Trademarks,” on page 7.

Edition notice

This edition applies to version 4.0.5108 of IBM Tivoli Netcool/OMNIbus Probe for HTTP Server Error Log (SC23-6068-02) and to all subsequent releases and modifications until otherwise indicated in new editions.

This edition replaces SC23-6068-01.

Contents

Document control page

Use this information to track changes between versions of this guide.

The IBM Tivoli Netcool/OMNIbus Probe for HTTP Server Error Log documentation is provided in softcopy format only. To obtain the most recent version, visit the IBM® Tivoli® Information Center:

https://www.ibm.com/support/knowledgecenter/SSSHTQ/omnibus/probes/common/Probes.html

Table 1. Document modification history

Document version	Publication date	Comments
01	December 31, 2008	First IBM publication.
02	January 31, 2011	Installation section replaced by “Installing probes” on page 2.

Chapter 1. Probe for HTTP Server Error Log

The HTTP Server Error Log is used by the majority of Web servers to log all errors that occur on the Web server. The log file contains a separate line for each error. The Probe for HTTP Server Error Log reads the error messages stored in this log file.

This guide contains the following sections:

Summary

Each probe works in a different way to acquire event data from its source, and therefore has specific features, default values, and changeable properties. Use this summary information to learn about this probe.

The following table provides a summary of the Probe for HTTP Server Error Log .

Table 2. Summary

Probe target	Any HTTP server with standard error log (for example, Netscape Enterprise Server or Apache Server)
Probe executable name	`nco_p_httperrlog`
Package version	4.0
Probe supported on	For details of supported operating systems, see the following Release Notice on the IBM Software Support Website: https://www-304.ibm.com/support/docview.wss?uid=swg21410566
Properties file	`$OMNIHOME/probes/`*`arch`*`/httperrlog.props`
Rules file	`$OMNIHOME/probes/`*`arch`*`/httperrlog.rules`
Requirements	A currently supported version of IBM Tivoli Netcool/OMNIbus. `probe-compatibility-3.x` (for IBM Tivoli Netcool/OMNIbus version 3.6 only)
Connection method	Log file
Remote connectivity	No

Table 2. Summary (continued)	
Internationalization	Not available **Note :** The probe supports internationalization on IBM Tivoli Netcool/OMNIbus V7.3.0, 7.3.1 or 7.4.0.
Peer-to-peer failover functionality	Available
IP environment	IPv4 and IPv6 The probe is supported on IPv6 when running on IBM Tivoli Netcool/OMNIbus V7.3.0, 7.3.1 and 7.4.0 on all UNIX and Linux operating systems.
Federal Information Processing Standards (FIPS)	IBM Tivoli Netcool/OMNIbus uses the FIPS 140-2 approved cryptographic provider: IBM Crypto for C (ICC) certificate 384 for cryptography. This certificate is listed on the NIST website at http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/1401val2004.htm. For details about configuring Netcool/OMNIbus for FIPS 140-2 mode, see the *IBM Tivoli Netcool/OMNIbus Installation and Deployment Guide*.

Installing probes

All probes are installed in a similar way. The process involves downloading the appropriate installation package for your operating system, installing the appropriate files for the version of Netcool/OMNIbus that you are running, and configuring the probe to suit your environment.

The installation process consists of the following steps:

1. Downloading the installation package for the probe from the Passport Advantage Online website.

   Each probe has a single installation package for each operating system supported. For details about how to locate and download the installation package for your operating system, visit the following page on the IBM Tivoli Knowledge Center:

   http://www-01.ibm.com/support/knowledgecenter/SSSHTQ/omnibus/probes/all_probes/wip/reference/install_download_intro.html
2. Installing the probe using the installation package.

   The installation package contains the appropriate files for all supported versions of Netcool/OMNIbus. For details about how to install the probe to run with your version of Netcool/OMNIbus, visit the following page on the IBM Tivoli Knowledge Center:

   http://www-01.ibm.com/support/knowledgecenter/SSSHTQ/omnibus/probes/all_probes/wip/reference/install_install_intro.html
3. Configuring the probe.

   This guide contains details of the essential configuration required to run this probe. It combines topics that are common to all probes and topics that are peculiar to this probe. For details about additional configuration that is common to all probes, see the *IBM Tivoli Netcool/OMNIbus Probe and Gateway Guide*.

Data acquisition

Each probe uses a different method to acquire data. Which method the probe uses depends on the target system from which it receives data.

The IBM Tivoli Netcool/OMNIbus Probe for HTTP Server Error Log acquires event data from the Server Error Log file generated by most of the HTTP servers, including, Netscape Enterprise Servers and Apache

servers. The probe connects to such a server, reads the log file specified by the **LogFile** property, and sends the parsed events to the ObjectServer.

On disconnection from the device, the probe stores the recovery information in the recovery file specified by the **RecoveryFile** property. However, the probe ignores the recovery file and reads from the beginning of the log file if the **ReplayFile** property is set to 1. If the **CleanStart** property is set to 1, the probe ignores the recovery file, but reads from the end of the log file.

Peer-to-peer failover functionality

The probe supports failover configurations where two probes run simultaneously. One probe acts as the `master` probe, sending events to the ObjectServer; the other acts as the `slave` probe on standby. If the master probe fails, the slave probe activates.

While the slave probe receives heartbeats from the master probe, it does not forward events to the ObjectServer. If the master probe shuts down, the slave probe stops receiving heartbeats from the master and any events it receives thereafter are forwarded to the ObjectServer on behalf of the master probe. When the master probe is running again, the slave probe continues to receive events, but no longer sends them to the ObjectServer.

Example property file settings for peer-to-peer failover

You set the peer-to-peer failover mode in the properties files of the master and slave probes. The settings differ for a master probe and slave probe.

Note : In the examples, make sure to use the full path for the property value. In other words replace $OMNIHOME with the full path. For example: `/opt/IBM/tivoli/netcool`.

The following example shows the peer-to-peer settings from the properties file of a master probe:

```
Server      :    "NCOMS"
RulesFile   :    "master_rules_file"
MessageLog  :    "master_log_file"
PeerHost    :    "slave_hostname"
PeerPort    :    6789 # [communication port between master and slave probe]
Mode        :    "master"
PidFile     : "master_pid_file"
```

The following example shows the peer-to-peer settings from the properties file of the corresponding slave probe:

```
Server      :    "NCOMS"
RulesFile   :    "slave_rules_file"
MessageLog  :    "slave_log_file"
PeerHost    :    "master_hostname"
PeerPort    :    6789 # [communication port between master and slave probe]
Mode        :    "slave"
PidFile     : "slave_pid_file"
```

Properties and command line options

You use properties to specify how the probe interacts with the device. You can override the default values by using the properties file or the command line options.

The following table describes the properties and command line options specific to this probe. For information about default properties and command line options, see the *IBM Tivoli Netcool/OMNIbus Probe and Gateway Guide,* (SC23-6373).

Table 3. Properties and command line options		
Property name	**Command line option**	**Description**
CleanStart *integer*	`-cleanstart` *integer*	Use this property to specify whether the probe performs a clean start on start up: `0`: The probe uses the recovery file to determine the position within the log file from which to start reading. `1`: The probe ignores any recovery files that you may have specified and starts reading the log file from the end. The default is `0`.
LogFile *string*	`-logfile` *string*	Use this property to specify the path to the log file from which the probe reads events. The default is `""`.
RecoveryFile *string*	`-recoveryfile` *string*	Use this property to specify the name of the recovery file in which the probe stores the file position and header details required to avoid reading the entire log file when the probe restarts. The default is `$OMNIHOME/var/httperrlog.reco`.
ReplayFile *integer*	`-replay` *integer*	Use this property to specify whether the probe reads the entire log file from the beginning: `0`: The probe checks the recovery file and reads events starting from the last event previously read. `1`: The probe reads events from the beginning of the log file, creating events for each one. The default is `1`.

Elements

The probe breaks event data down into tokens and parses them into elements. Elements are used to assign values to ObjectServer fields; the field values contain the event details in a form that the ObjectServer understands.

The following table describes the elements that the Probe for HTTP Server Error Log generates. Not all the elements described are generated for each event; the elements that the probe generates depends upon the event type.

Table 4. Elements	
Element name	**Element description**
$Msg	This element displays an error message.
$Time	This element displays the date and time of the error.

Error messages

Error messages provide information about problems that occur while running the probe. You can use the information that they contain to resolve such problems.

The following table describes the error messages specific to this probe. For information about generic error messages, see the *IBM Tivoli Netcool/OMNIbus Probe and Gateway Guide,* (SC23-6373).

Table 5. Error messages		
Error	**Description**	**Action**
Unable to open recovery file *recovery file name - reason* Unable to update recovery file *reason* Unable to obtain status of recovery file *reason* Unable to obtain status of event log - *reason* Unable to seek to beginning of recovery file - *filename*	The probe cannot open, read, or reset the recovery file.	Check that the file exists and that the permissions are set correctly.
Unable to seek to position of next event offset event log - *filename*	The log file has been changed since the last time the probe read from it and the next event the probe expects to read is not there.	Check the log file.
Unable to open event log *log file - reason*	The probe cannot open the log file.	Check that the file exists and the file permissions are set correctly.

ProbeWatch messages

During normal operations, the probe generates ProbeWatch messages and sends them to the ObjectServer. These messages tell the ObjectServer how the probe is running.

The following table describes the raw ProbeWatch error messages that the probe generates. For information about generic ProbeWatch messages, see the *IBM Tivoli Netcool/OMNIbus Probe and Gateway Guide*, (SC23-6373).

Table 6. ProbeWatch messages

ProbeWatch message	Description	Triggers/causes

`Unable to access recovery file`
`Unable to open recovery file`
`Unable to update recovery file`
	The probe is unable to write to the recovery file specified by the **`RecoveryFile`** property.	Either the recovery file does not exist, has been locked, or the probe does not have permission to access it. The probe continues functioning as normal, but without updating the recovery file.

`Unable to open event log`	The probe is unable to open the log file.	Either the log file does not exist or has been locked, or the probe does not have permission to access the file.

Appendix A. Notices and Trademarks

This appendix contains the following sections:

- Notices
- Trademarks

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