IBM® Tivoli® Netcool/OMNIbus FIFO Probe 4.0

Reference Guide
March 31, 2011

SC23-6081-02

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 of IBM Tivoli Netcool/OMNIbus FIFO Probe (SC23-6081-02) and to all subsequent releases and modifications until otherwise indicated in new editions.

This edition replaces SC23-6081-01.

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

The IBM Tivoli Netcool/OMNIbus FIFO Probe 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
SC23-6081-01	December 31, 2008	First IBM publication.
SC23-6081-02	March 31, 2011	Installation section replaced by “Installing probes” on page 2.

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Chapter 1. FIFO Probe

The FIFO Probe acquires event data from a pipe called the FIFO file. The FIFO Probe is used for general purpose applications on UNIX platforms and does not require any special hardware.

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 FIFO Probe.

Table 2. Summary	
Probe target	FIFO
Probe executable name	`nco_p_fifo`
Patch number	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=swg21414841
Properties file	`$OMNIHOME/probes/`*`arch`*`/fifo.props`
Rules file	`$OMNIHOME/probes/`*`arch`*`/fifo.rules`
Requirements	A currently supported version of IBM Tivoli Netcool/OMNIbus
Connection method	Reads FIFO file
Remote connectivity	No
Multicultural support	Available
Peer-to-peer failover functionality	Not available

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Table 2. Summary (continued)	
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 Protocol 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 FIFO Probe acquires event data from a pipe called the FIFO file. When it reads event data from the FIFO, it processes the data, one line at a time, as events. If the FIFO specified by the **FifoName** property does not exist, the probe will not create the FIFO file.

The probe can also be configured to recognise the beginning (header) and the end (footer) of an event. Data can be added to the header and footer of an event by setting the **Header** and **Footer** properties.

The tokens are separated according to the characters specified in the **BreakCharacters** property and any spaces that appear in the message section of the alarm.

The probe contains two parsers: the old parser and the new parser. The new parser differs from the old parser in the way tokens from the data stream are given element names.

Old Parser

In the old parser the data stream was formatted as: `<new line>1:Mini:2:Florida:3:Movie:... etc. <new line>giving $1="Mini", $2="Florida", $3="Movie".`

New Parser

The new parser expects the data stream to be formatted as follows (without the element names in the data stream): `<new line>Mini:Florida:Movie:... etc.`

The new parser automatically gives each token a sequential element name (starting with $1 and incrementing with each token) so that the element names no longer need to be in the data stream.

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
BreakCharacters *string*	-break *string*	Use this property to specify the expected constant break characters. The default is ,=.
FifoName *string*	-fifo *string*	Use this property to specify the name of the FIFO file. The default is /tmp/probefifo.
Footer *string*	-footer *string*	Use this property to specify the footer of each event. The default is "".
Header *string*	-header *string*	Use this property to specify the header of each event. The default is "".
NewParser *integer*	-newparser *integer*	Use this property to specify whether the probe use the new parser or the old parser: 0: The probe uses the old parser. 1: The probe uses the new parser. The default is 0.

Table 3. Properties and command line options (continued)		
Property name	**Command line option**	**Description**
QuoteCharacters *string*	`-quote` *string*	Use this property to specify constant quote characters expected. The default is `\'\"`.
WhiteSpaces *string*	`-white` *string*	Use this property to specify constant white spaces expected. The default is `' \t'`.

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 4. Error messages		
Error	**Description**	**Action**
`RegComp failed for Header`	The compilation of the regular expression for the header failed.	Check that the probe is running correctly.
`RegComp failed for Footer`	The compilation of the regular expression for the footer failed.	Check that the probe is running correctly.
`Header defined, but no footer. Please define/ undefine both`	The probe has found a header above the data, but no footer.	You must have either none or both defined.
`Footer defined, but no header. Please define/ undefine both`	The probe has found a footer below the data, but no header.	You must have either none or both defined.
`Failed to open FIFO file name`	The properties or command line options for the FIFO file are pointing to a file which cannot be opened.	Check the command line options or properties and set them to refer to the correct FIFO file that has been created.
`Failed to re-open FIFO fifo_name`	The FIFO file that was open has disappeared and thus the probe cannot re-open the FIFO file.	Check whether the file exists and that the command line options are set correctly.
`Failed to parse data between header and footer`	The probe was trying to parse the data between the header and footer but it had failed.	Contact IBM support.
`SessionProcess failed errtype`	The probe has tried to process the data before sending it on to the Object Server, but the processing has failed.	Contact IBM support.

Table 4. Error messages (continued)		
Error	**Description**	**Action**
`SendAlert failed errtype`	The probe has tried to send the data on to the Object Server, but it has failed.	Check whether the ObjectServer is available.
`CreateAndSet failed`	The probe failed when trying to add and set an element to a session alert.	Contact IBM Support.
`Failed to create and set: header`	The probe failed when trying to add and set the header element to a session alert.	Contact IBM Support.
`Received Incomplete Event`	A header has been found before finding a footer, so an incomplete event has been received.	Check whether the system is running correctly.
`File fifo_name is NOT a FIFO`	The probe is using a file that is not a FIFO, this could cause problems	Ensure that the probe is using a FIFO file.

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 5. ProbeWatch messages		
ProbeWatch message	**Description**	**Triggers/causes**
`FIFO disappeared, reopening`	The FIFO file that was opened has disappeared, so the probe is trying to re-open the file.	The probe encountered a problem while opening the FIFO file.

Appendix A. Notices and Trademarks

This appendix contains the following sections:

- Notices
- Trademarks

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