



EMC® Watch4net®

Version 6.4u2

APG FailOver Filter Administration Guide

P/N: pending

Rev : 40032

EMC²

Copyright ©2010 - 2014 EMC Corporation. All rights reserved. Published in the USA.

Published October, 2014

EMC believes the information in this publication is accurate as of its publication date. The information is subject to change without notice.

The information in this publication is provided as is. EMC Corporation makes no representations or warranties of any kind with respect to the information in this publication, and specifically disclaims implied warranties of merchantability or fitness for a particular purpose. Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

EMC², EMC, and the EMC logo are registered trademarks or trademarks of EMC Corporation in the United States and other countries. All other trademarks used herein are the property of their respective owners.

For the most up-to-date regulatory document for your product line, go to EMC Online Support (<https://support.emc.com>).

Contents

Preface	iii
Purpose	iii
Intended Audience	iii
Document Organization	iii
Where to get help	v
1 Product Overview	1
2 FailOver filter	3

Preface

Purpose

This guide describes the configuration and usage of the APG FailOver Filter.

Intended Audience

This guide is meant to be read by any person who will configure and/or use the APG FailOver Filter.

Document Organization

1. Product Overview	This section quickly describes the product
2. FailOver filter	This section describes the configuration and usage of the filter

Where to get help

EMC support, product, and licensing information can be obtained as follows:

PRODUCT INFORMATION - For documentation, release notes, software updates, or information about EMC products, go to EMC Online Support at:

<https://support.emc.com>

TECHNICAL SUPPORT - Go to EMC Online Support and click Service Center. You will see several options for contacting EMC Technical Support. Note that to open a service request, you must have a valid support agreement. Contact your EMC sales representative for details about obtaining a valid support agreement or with questions about your account.

Product Overview

This filter is used as a buffer between a collecting component and a connector. It minimizes data losses in the event of a connection failure between the collector and connector components by storing all raw values on disk while polling the connection until it is re-established. The raw values are then sent to the connector as quickly as possible.

Another use for this component is to allow database shutdown for maintenance without interrupting the raw value collecting process. Again, raw values will be stored on disk while the connector is unavailable and sent as quickly possible once it is back to running status. In this case, please note that the cache, usually started via the run-cache script, must be shutdown manually to prevent data loss. This shutdown may be done by contacting the cache via telnet, usually on port 2001, and issueing the STOP command at the prompt.

2

FailOver filter

To use this filter, simply declare it in the collecting configuration file as shown in the following example:

```
<filter enabled="true" name="..." next="..."  
  conf="FailOver-Filter/Default/conf/failover.xml" />
```

Note: In order to optimize performance, the APG FailOver Filter should be declared last in the Data Collecting Filter (DCF) order, right before the first Data Collecting Adapter (DCA).

The *failover.xml* configuration file contains the following information:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE config SYSTEM "failover.dtd">
<config>
  <availability-check period="5000" />
  <local-queue size="10000" buffer-compensation="5000" />
  <file-transfer buffer-size="32768" />
  <temporary-storage path="tmp" file-size="100000" max-capacity="0" />
</config>
```

The *availability-check* element deals with the availability detection of the next element in the collecting components chain. The *period* attributes is the period of availability detection in milliseconds. When the collector switches to failover mode, then the next element in the chain begins to be checked every period ms.

The *local-queue* deals with the failover queue that contains real-time values that have been received. The *size* attribute here is the number of values to be kept in memory before flushing them to the disk. The *buffer-compensation* attribute is the buffer size to add in order to compensate the size of the I/O buffers.

The *file-transfer* element contains information about the way data is transferred from and to files. The *buffer-size* attribute specifies the size of the buffer used for file transfers. This may be changed to increase disk I/O performance.

The *temporary-storage* element contains information about the way data are kept on disk while the failover is running.

- The *path* attribute is the relative path to the location where data files (which are created on failover mode) will be written. On windows systems, it is a good practice, although not necessary, to end it with a `character`.
- The *file-size* attribute specifies the maximum number of raw values per temporary file.
- The *maximum-capacity* attribute specifies the maximum number of raw values to be kept on disk. A value of 0 here means that an unlimited number of raw values may be stored on disk, and therefore that an unlimited number of temporary files may be written to disk while the fail-over mode is active. Setting the *maximum-capacity* attribute to a positive value ensures that disk usage will not grow indefinitely when the fail-over mode is activated. See the note below or further explanation.

Note: A typical raw value with properties uses approximately 650 bytes of disk space (depending on the data being collected) Therefore, if the *maximum-capacity* attribute is set to a value other than 0, it is possible

to estimate disk usage for a given fail-over filter. Under this assumption, setting *maximum-capacity* to 100000 would result in approximately 65 megabytes maximum disk usage.

WARNING: Each failover filter running on the same server should have its own temporary-storage path. If not, there is likely to be some unexpected behaviors.

Please note that the queue dump files (inQDumpFile*.qdf) already present in the temporary storage directory will not be deleted when shutting down the collector. These files will be sent first to the connector when restarting the collector.

A delay in collection may occur, depending upon the number of files to send first, connection bandwidth and disk I/O performance, but newly collected raw values will not be lost as they are stored on disk while the older ones are pushed to the connector (unless the `max-capacity` attribute in `temporary-storage` is set to a positive value).

It is also normal that one queue dump file may be present after the collector shutdown. This is to ensure that raw values which may not have had the time to reach the DCA will be resent on DCF startup.