

HPE OSS UTM V4

UMB Collector & Populator
Configuration Guide

For the Red Hat Linux Operating System
Edition 1.0


Hewlett Packard
Enterprise

Notices

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Contents

Notices	1
Preface	4
Audience	4
Software Version	4
Associated Documents	4
Support	4
Document history	4
Chapter 1 UMB Collector Configuration	65
1.1 Configuration File Cluster-config.xml	65
1.2 Configuration File UMB_Collector.conf	75
1.3 GUI configuration	76
Chapter 2 UMB Populator Configuration	97
2.1 Configuration File Cluster-config.xml	97
2.2 Configuration File UMB_Populator.conf	97
2.3 Configuration File XXX_Adapterconfiguartion.xml	107
2.4 GUI configuration	108

List of tables

Table 1 Software Version	45
Table 2: Document history	45

Preface

This guide describes how to configure the UMB Collector & Populator of UTM (Unified Topology Manager) V4.0.

Audience

This Configuration guide is for anyone who is responsible for configuring the UMB Collector & Populator of UTM.

The readers are assumed to have understanding of Linux shell concepts and the knowledge of oracle, [UMB](#).

Software Version

The supported software referred to in this document is as following:

Table 1 Software Version

Software	Version	OS	Database
UTM Server	4.0	Red Hat Enterprise Linux Server release 7.x	Oracle 12c R2/ PostgreSQL Plus Advanced Server 9.3
UMB			

Commented [LC(C1)]: PDB version to be updated

Associated Documents

The following documents contain useful reference information:

- UTM V4.0 User Guide
- UTM V4.0 Release Notes

Support

Please visit our HP Software Support Online Web site at www.hp.com/go/hpsoftwaresupport for contact information, and details about HP Software products, services, and support.

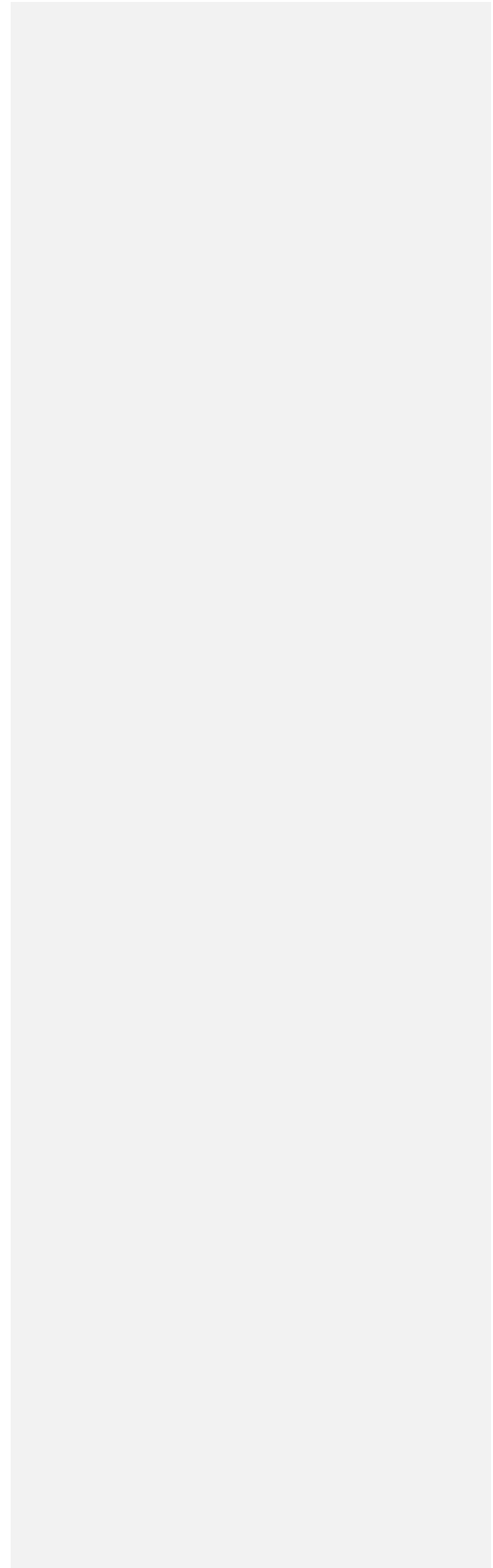
- Troubleshooting information
- Patches and updates
- Problem reporting
- Training information
- Support program information

Document history

Table 2: Document history

Edition	Date	Description
1.0	Dec 2018	Initialized version

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Chapter 1 UMB Collector Configuration

1.1 Configuration File Cluster-config.xml

Commented [LC(C2)]: Where is it?

It will be referenced by hazelcast.xml in adapter kit, and it defines how to connect to the UMB Hazelcast® Central Repository.

Change the IP address item:

- If the Collector uses local UMB server, you can change the IP or keep it as default `as localhost`;

```
<tcp-ip enabled="true">
  <interface>16.17.100.137</interface>
</tcp-ip>
```

- If it uses remote UMB server, need to add the IP.

Here is a sample configuration of UTM server with IP 16.17.100.137_ and remote UMB server with IP 16.17.98.199. [This first interface value is the IP address of UTM server, and the second one is the IP address of UMB server.](#)

```
<tcp-ip enabled="true">
  <interface>localhost</interface>
  <interface>16.17.98.199</interface>
</tcp-ip>
```

Notes:

- The path should be \$UTM_DATA/conf
- ~~Don't change the file name. File name should not be changed.~~
- ~~This configuration file# will be used by all the -UMB-DataSource using UMBCollector and -UMB-DataTarget- using UMB Populator.~~
- Please refer to the "[R1] Unified Mediation Bus installation and configuration Guide" for details on how to configure the hazelcast.xml file.

UMB doc:

The cluster network configuration is done in the <network> section of the cluster-config.xml file.

This section defines how an adapter can connect to Hazelcast:

Network protocol: IP multicast or TCP IP

Port ranges

On Linux the oss installer installation process covers this configuration phase and there is no additional configuration to perform:

On HP UX or Windows the following must be performed:

Network protocol IP Multicast

To connect to Hazelcast using IP multicast, you need to define a <multicast>...</multicast> section inside the <join>...</join> section of the <network>...</network> section. For example:

```
<multicast enabled="true">
  <multicast-group>224.2.2.3</multicast-group>
  <multicast-port>54327</multicast-port>
</multicast>
```

Network protocol TCP IP

To connect to Hazelcast using TCP IP, you need to define a <tcp-ip>...</tcp-ip> section inside the <join>...</join> section of the <network>...</network> section. For example:

```
<tcp-ip enabled="true">
  <interface>host1.domain</interface>
  <interface>host2.domain</interface>
```

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```
-----<interface>host3.domain</interface>
</tcp-ip>
```

NOTE: The default configuration comes with the single 'localhost' interface defined. On distributed configurations (adapters that do not stand on the same system), you will have to define your local system plus the list of remote systems hosting adapters of this group.

Example:

```
<tcp-ip enabled="true">
-----<interface>192.168.0.1</interface><!-- localhost -->
-----<interface>192.169.0.2</interface><!-- remote host2 -->
-----<interface>192.169.0.3</interface><!-- remote host3 -->
</tcp-ip>
```

Port ranges

The <network>...</network> section also defines what ports to use in the <port>...</port> section. By default, Hazelcast cluster members (each UMB Adapter is a Hazelcast cluster member) use port numbers starting at 5701: 5701-5702-5703.

```
<port auto-increment="true" port-count="100">5701</port>
```

NOTE: with UMB clusters you must keep auto-increment set to 'true'

CAUTION: If your UMB solution is made up of several adapters running on different hosts, please think about configuring your firewall for opening the port range used by the Adapters

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如果UMB server 是远程的话，我们需要配置本机和远程IP

如果本地UMB server，默认配置即可。

1.2 Configuration File UMB_Collector.conf

Commented [LC(C3)]: Where is it?

It defines properties for the adapter including connection information for Kafka/ZooKeeper

Change-Configure the IP address and port of UMB services:

Commented [LC(C4)]: Default port value is ?

- If it's local UMB server, keep it as default, localhost;
- If it's remote UMB server, need to change the IP the value should be the UMB server IP address

```
consumer.bootstrap.servers=16.17.100.137:9092
zookeeper.connect=16.17.100.137:2181
```

Commented [LC(C5)]: UMB service is bootstrap and aookeeper?

Default value

```
consumer.bootstrap.servers=localhost:9092
zookeeper.connect=localhost:2181
```

It defines properties for the adapter including connection information for Kafka/ZooKeeper

如果UMB server 是远程的话，我们需要配置远程IP

如果本地UMB server，默认localhost 即可。

1.3 GUI configuration

Add-When creating a new UMB DataSource a data source, the below parameters about UMB must be properly set. Such as

- consumerIdentifier [value:rtConsumerDynamicFlow]
- targetAdapterName [value:RealtimeProducerAdapter]

- targetFlowName [value:RealtimeDynamicFlow]
- parameters (Not mandatory)

Commented [LC(C6): Need to list all parameters and explain

Configuration Key	Description	Recommended Value
consumerIdentifier	identifies the requester	rtConsumerDynamicFlow
targetAdapterName	target Adapter's name	RealtimeProducerAdapter
targetFlowName	target producer flow name	RealtimeDynamicFlow
parameters	parameters map, Not mandatory	

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Chapter 2 UMB Populator Configuration

2.1 Configuration File Cluster-config.xml

Commented [LC(C7)]: Where is it?

Change-Configuring the IP address item:

- If the UMB Populator uses local UMB server, you can [configure the interface with](#) change the IP address or keep it as default, localhost;

```
<tcp-ip enabled="true">
  <interface>16.17.100.137</interface>
</tcp-ip>
```

- If ~~it~~ the UMB populator uses remote UMB server, ~~need to add the its~~ IP address must be configured.

Here is a sample configuration of UTM server with IP 16.17.100.137 and remote UMB server with IP 16.17.98.199.

```
<tcp-ip enabled="true">
  <interface>localhost</interface>
  <interface>16.17.98.199</interface>
</tcp-ip>
```

Notes:

- The path should be \$UTM_DATA/conf
- File name should not be changed.
- ~~The path should be This configuration file is located at \$UTM_DATA/conf.~~
- ~~Don't change the The configuration file name should not be changed.~~
- This configuration file will be used by all the DataSource using UMBCollector and UMB DataTarget using UMB Populator.
- ~~It should be used by This configuration file will be used by all the UMB DataSources and DataTargets.~~

Commented [LC(C8)]: ?

如果UMB server 是远程的话，我们需要配置本机和远程IP

如果本地UMB server，默认配置即可。

2.2 Configuration File UMB_Populator.conf

Commented [LC(C9)]: 同上

Change the IP address and port of UMB services:

- If it's local UMB server, keep it as default, localhost;
- If it's remote UMB server, need to change the IP

```
bootstrap.servers=16.17.100.137:9092
producer.bootstrap.servers=16.17.100.137:9092
zookeeper.connect=16.17.100.137:2181
```

Default value

```
bootstrap.servers=localhost:9092
producer.bootstrap.servers=localhost:9092
zookeeper.connect=localhost:2181
```

如果 UMB server 是远程的话，我们需要配置远程 IP

如果本地 UMB server，默认 localhost 即可。

2.3 Configuration File ~~XXXXXX~~_Adapterconfiguration.xml

[AdapterConfiguration.xml](#) that defines the flows and actions provided by the adapter.

Here is the sample content of UMBPOP_Adapterconfiguration.xml.

```
> <flow name="UMBPopAdapterDynamicFlow" type="Dynamic" collectorClass="com.hpe.ngoss.utm.umb_populator.adapter.UMBPopCollector"
  serializerClass="com.hp.umb.adapter.internal.utilities.JavaClassSerializer">
  > <parameters>
  ..... <parameter key="taskName" defaultValue="UMBPop"/>
  > > <parameter key="processIndex" defaultValue="2"/>
  ..... </parameters>
> </flow>
```

Notes:

- It used to define the data flow of UMB for different DT.
- All UMB DataTargets share the same configuration file.
- The default file is UMBPOP_AdapterConfiguration.xml.
- The name is configured in GUI. Don't change it for now.
- The path should be \$UTM_DATA/conf
- Need to modify it before start DS and DT.

Commented [LC(C10)]: 在哪儿，用来干嘛的，命名规则？

Commented [LC(C11)]: 需要解释 parameters

Commented [LC(C12)]: 这是一个 sample? 用户可以建自己的？

Commented [LC(C13)]: 不能改名何来 XXX?

Commented [LC(C14)]: Modify 啥

2.4 GUI configuration

Add a new data target, the parameters about UMB must be set. Such as [Below snapshots](#) shows how to add a new UMB populator.

Configuration Items	Description	default Value	Remark
Adapterconfiguration	The file name of Adapter configuration.	UMBPOP_Adapterconfiguartion.xml	Refer to Chapter section 2.3

Here is the sample content of UMBPOP_Adapterconfiguration.xml.

```
> <flow name="UMBPopAdapterDynamicFlow" type="Dynamic" collectorClass="com.hpe.ngoss.utm.umb_populator.adapter.UMBPopCollector"
> <parameter key="taskName" default="UMBPop"/>
> <parameter key="processIndex" default="2"/>
> </parameters>
> </flow>
```

cluster-config.xml 如果 UMBCollector 配置了之后, UMBPopulator 与其公用。

Commented [LC(C15)]: 需要解释 parameters