



## APPENDIX **C**

# Configuration Files Descriptions

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## Introduction

This appendix describes each of the configuration files used by the Collection Manager along with the configuration parameters in each file.

Each configuration file is divided into sections. A heading identifies each section, for example, [**config**].

You can comment out any parameter that is not required in your configuration by placing a # at the start of the line.

If you modify the configuration file, restart the Collection Manager to enable the changes to take effect.



### Note

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The configuration files supplied with the Collection Manager software installation contain tested valid settings. You are not expected to change the settings. If it is necessary to change the configuration settings, be careful when you modify a configuration file.

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# General Configuration Files

This section describes the **cm.conf** and **queue.conf** configuration files.

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- [CM:NetFlow Queue Configuration, page C-5](#)
- [CM:NetFlow Adapter Configuration Files, page C-6](#)

## Collection Manager Configuration

This section describes the Collection Manager configuration file **nf.conf**.

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- [\[adapter\\_start\\_timeout\] Section, page C-3](#)
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### [adapter] Section

The **[adapter]** section contains the following parameters:

- **automatic\_start**  
Defines whether starting or resetting the Collection Manager starts the adapters automatically.  
Possible values for this parameter are **true** and **false**. The default value is **true**.
- **port**  
Defines the adapter manager server port number. Possible values for this parameter are 1024-65535.  
The default value is **33002**.
- **timeout**  
Defines the timeout value in seconds for client adapters. Setting this parameter to **0** disables the timeout.
- **connections**  
Defines the maximum number of client connections per adapter.  
Possible values for the parameter are 2-100. The default value is **20**.
- **directory**  
Defines the location to which you want to save buffered NetFlow Record data. You can use the **~/** prefix for this parameter. The default value is **~/cm/adapters/netflow**.
- **adapter.<number>**

Defines the full class name of the adapter, where **<number>** is a unique ID number. The adapter definitions must match the **adapter\_id** parameters of the queues defined in the queue configuration file.

- **parestart\_start**

Defines the time in 24-hour format at which to restart the adapters periodically. An example value for this parameter is **23:30**. The default value is **03:45**.

- **parestart\_interval**

Defines the interval in minutes between periodic adapter restarts. Possible values for this parameter are 0-2147483647 (0 to  $2^{31} - 1$ ), where **0** disables this functionality. The default value for this parameter is **10,080** minutes (18 hours).

## [adapter\_start\_timeout] Section

The **[adapter\_start\_timeout]** section contains the following parameter:

- **<Adapter class name>**

Defines the number of seconds that the Collection Manager waits for a specific adapter to start. The default value is 200 seconds.

## [buffer] Section

The **[buffer]** section contains the following parameters:

- **size**

Defines the minimum number of accumulated bytes in the queue before a buffer dequeue.

Possible values for this parameter are 1-262,144. The default value is **128,000**.

- **time**

Defines the minimum number of milliseconds between buffer dequeues.

Possible values for this parameter are 0-10,000. The default value is **1,050**.

- **file\_limit**

Defines the maximum number of files to store in each adapter queue.

Possible values for this parameter are 1-10,000. The default value is **10,000**.

## [queue] Section

The **[queue]** section contains the following parameters:

- **upper\_hysteresis**

Defines the upper hysteresis level as a fraction of the total queue size.

Possible values for this parameter are in the range 0-1. The default value is **0.11**.

- **lower\_hysteresis**

Defines the lower hysteresis level as a fraction of the total queue size.

Possible values for this parameter are in the range 0-1. The default value is **0.12**.

- **config**

Defines the queue configuration file. The default value is **queue.conf**.

## [server] Section

The **[server]** section contains the following parameters:

- **port**  
Defines the internal NetFlow port number for the Collection Manager.  
Possible values for this parameter are 1024–65,535. The default value is 2055.
- **connections**  
Defines the maximum number of client connections.  
Possible values for this parameter are 1–50. The default value is 50.
- **timeout**  
Defines the client timeout in seconds. The default value is 600.
- **allow\_multi**  
Defines whether to allow concurrent connections from the same IP.  
Possible values for this parameter are **true** and **false**. The default value is **false**.

## [collector] Section

The **[collector]** section contains the following parameters:

- **notification\_level**  
Defines the length of time in milliseconds between successive UM notifications.  
Possible values for this parameter are 0–60,000. The default value is 10.
- **log\_directory**  
Defines the directory in which to store log files. You can use the ~/ prefix for this parameter. The default value is ~/cm/logs.

## [csv\_adapter] Section

The **[csv\_adapter]** section contains the following parameter:

- **csvdir**  
Defines the parent directory for CSV files. The default value for this parameter is `csvdir=~/.cm/adapters/netflow/CSVAdapter/csvfiles`.

## [nf-type] Section

The **[nf-type]** section contains the following parameters:

`<id>.NetFlow Queue Tag` : Defines the Netflow queue tags and its unique field ID's

Ex: 10.Transaction=280,8,12

`unknown type` : Defines the default NetFlow type, if above mentioned types was not matched

The Cisco Collection Manager processes NetFlow IPv4 traffic records by default. To enable IPv6 support please update the Transaction field ids as **280,27,28** and restart the Cisco Collection Manager.

## CM:NetFlow Queue Configuration

This section describes the queue configuration file. The name of the queue configuration file is provided in the `[queue]` section of the `cm.conf` configuration file.

Each section of the queue configuration file defines a queue. The section names, and hence the queue names, are all user defined. Each queue section has the following parameters:

- `adapter_id`  
Defines a unique adapter ID number. The ID number must match the adapters defined in the `adapter.<number>` parameter in the `[adapter]` section of the `nf.conf` configuration file.
- `priority`  
Defines the priority level of the queue. Possible values for this parameter are 1–3. This parameter is deprecated. Do not change it.
- `warning_size`  
Defines the number of NFRs that can be present in the queue before a warning is sent.
- `maximum_size`  
Defines the maximum size of the queue.
- `tags`  
Defines a list of NFR tag numbers sent to this queue by the categorizer. The same tag can be sent to multiple queues.

The following is an example of a queue definition in the queue configuration file:

```
# JDBCAdapter
[dbase-hi]
adapter_id=1
priority=3
warning_size=40000
maximum_size=50000
tags=Usage,Transaction,GlobalUsage
```

# CM:NetFlow Adapter Configuration Files

This section describes the configuration files for all of the possible adapters.

- [CSV Adapter](#)
- [JDBC Adapter](#)

## CSV Adapter

This section describes the CSV adapter configuration file **nf-csvadapter.conf**.

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- [\[bench\] Section, page C-6](#)

### [csvadapter] Section

The **[csvadapter]** section contains the following parameters:

- **maxCSVFiles**  
Defines the maximum number of entries in a CSV file. When the count reaches this number, the counting wraps back to 1.  
Possible values for this parameter are 1–9,999. The default value is **9,999**.
- **nflimit**  
Defines the maximum number of NFRs that can be written to a single file.  
Possible values for this parameter are 1–1,000. The default value is **1,000**.
- **backupPreviousFiles**  
Defines whether to back up existing CSV files before overwriting them.  
Possible values for this parameter are **true** and **false**. The default value is **false**.
- **includeRecordSource**  
Defines whether to include the record source (the Cisco ASR 1000 IP) in each NFR line.  
Possible values for this parameter are **true** and **false**. The default value is **false**.
- **escapeNonPrintables**  
Defines whether to escape characters that cannot be printed.  
Possible values for this parameter are **true** and **false**. The default value is **false**.



#### Note

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Setting **escapeNonPrintables** to **true** can negatively affect adapter performance.

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### [bench] Section

The **[bench]** section contains the following parameter:

- **rate\_period\_msec**  
Defines the time period in milliseconds between write rate updates. The default value is **5,000**. Set this parameter to **0** to disable.

- `Option_template_timeout`: Defines how many seconds between processing of the option template. The default value is 10. Set this parameter to 0 to disable it.

## JDBC Adapter

This section describes the JDBC adapter configuration file `nf-jdbcadapter.conf`.

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- [\[db\] Section, page C-7](#)
- [\[app\] Section, page C-8](#)

### [bench] Section

The **[bench]** section contains the following parameter:

- `rate_period_msec`  
Defines the time period between insert rate updates in milliseconds. The default value is 5,000. Set this parameter to 0 to disable the insertions.

### [db] Section

The **[db]** section contains the following parameters:

- `db_template_dir`  
Defines the location of the main database configuration template relative to the Collection Manager config directory. The configuration file contains default values for each of the three possible databases; however, only one database can be configured at a time. The possible values are:
  - Oracle: **dbpacks/oracle/9204e**
  - Sybase: **dbpacks/sybase/ase12.5.1**
  - MySQL: **dbpacks/mysql/4.0.20**

The default value is **dbpacks/sybase/ase12.5.1**.

- `db_template_file`  
Defines the name of the main database configuration template. The default value is **nf-main.vm**. Do not change this parameter.
- `batch_size`  
Defines how many inserts can be made in a single batch. The default value is 10.
- `transaction_size`  
Defines how many batches can be made in a single transaction. The default value is 15.
- `commit_interval`  
Defines the maximum time in seconds between database commits. The default value is 6.
- `operations_timeout`  
Defines the maximum time in seconds allowed for the completion of database operations such as connecting, insertion, and so on. The default value is 60.
- `blocking_connects`

Defines whether to block connection attempts to the DB.

Possible values for this parameter are **true** and **false**. The default value is **true**.

## [app] Section

The **[app]** section contains the following parameters:

- **app\_conf\_file**  
Defines the name of the application configuration XML file. The default value is `dbtables.xml`.
- **app\_dtd\_file**  
Defines the name of the application configuration DTD file. The default value is `dbtables.dtd`.
- **app\_conf\_dir**  
Defines the location of the application configuration XML and DTD files relative to the Collection Manager configuration directory. The default value is `apps/scasbb/latest`.