MQCCI
Overview

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1 Introduction

1.1 Overview

MQ Channel Connection Inspector (MQCCI) is a new solution that allows a company to track and/or audit what information a client application or remote queue manager is exchanging with the local queue manager when a connection is made.

MQCCI is comprised of an MQ Channel Security Exit. A channel security exit is ONLY invoked/called by the queue manager's MCA (Message Channel Agent) for MQCONN/X and MQDISC API calls (so it is very light-weight).

MQCCI will operate with IBM MQ v7.1, v7.5, v8.0, v9.0, v9.1 and v9.2 in Windows, Unix, IBM i and Linux environments. It works with Server Connection, Receiver, Requester, Sender, Server, Cluster-Sender and Cluster-Receiver channels of IBM MQ queue manager.

MQCCI is designed to provide the MQAdmin with any or all of the fields of the MQCD and MQCXP structures in a "human readable" format. Human readable implies that it will convert binary fields into their MQ defined names (i.e. SSLClientAuth=MQSCA_REQUIRED). The user can control the fields that are outputted for each of the following MQ structures: MQCD and MQCXP.

MQCCI is designed to output 1 line per API call (1 long line). The output information is written to plain text CSV (Comma Separate Value) files. The user can choose to have the output information written to a local or remote queue rather than to a file.

On AIX, HP-UX, Linux, Solaris and Windows, MQCCI can be configured and used with a non-default installation of MQ in a multi-install MQ environment.

Note: Raspberry Pi is a Linux ARM 32-bit OS (Operating System). Hence, simply follow the Linux 32-bit instructions for installing and using the solution on a Raspberry Pi.

1.2 Executive Summary

The MQ Channel Connection Inspector solution contains a channel security exit.

The channel security exit is available in 3 forms:
- Windows DLL
- Shared library for AIX, HP-UX, Linux, and Solaris.
- IBM i exit module

The major features of MQ Channel Connection Inspector are as follows:
- Output information related to MQCONN/X and MQDISC API calls for remote connections
- MQCCI is designed to provide the user with all of the information in "human readable" format.
- Provides the output files in an easy to manage CSV (Comma Separated Value) format
- The user can select to have the CSV data written to a queue rather than a file

1.3 Prerequisites

This section provides the minimum supported software levels. These prerequisites apply to server-side installations of MQ Channel Connection Inspector.

1.3.1 Operating System

MQ Channel Connection Inspector can be installed on any of the following supported servers:

1.3.1.1 IBM AIX
➢ IBM AIX 6L version 6.1 or higher

1.3.1.2 HP-UX IA64
➢ HP-UX v11.23 or higher

1.3.1.3 IBM i (OS/400)
➢ IBM i V6R1 or higher

1.3.1.4 Linux x86
➢ Red Hat Enterprise Linux v5, v6, v7
➢ SuSE Linux Enterprise Server v10, v11, v12

1.3.1.5 Linux x86_64 (64-bit)
➢ Red Hat Enterprise Linux v5, v6, v7
➢ SUSE Linux Enterprise Server v11, v12, v15

1.3.1.6 Linux on POWER
➢ Red Hat Enterprise Linux v5, v6, v7
➢ SUSE Linux Enterprise Server v11, v12, v15

1.3.1.7 Linux on zSeries (64-bit)
➢ Red Hat Enterprise Linux v5, v6, v7
➢ SUSE Linux Enterprise Server v11, v12, v15

1.3.1.8 Raspberry Pi (Linux ARM 32-bit)
➢ Raspberry Pi OS v9 or higher

1.3.1.9 Sun Solaris
➢ Solaris SPARC v10 & v11
➢ Solaris x86_64 v10 & v11

1.3.1.10   Windows
➢ Windows 2008, 2012 or 2016 Server (32-bit & 64-bit)
➢ Windows 7, 8, 8.1 & 10 (32-bit & 64-bit)

1.3.2 IBM MQ

➢ IBM MQ v7.1, v7.5, v8.0, v9.0, v9.1 and v9.2 (both 32-bit and 64-bit)

Operating System	MQ v7.1, v7.5, v8.0, v9.0, v9.1 and v9.2
AIX v6.1 or higher	64-bit
HP-UX IA64 v11.23 or higher	64-bit
IBM i (OS/400)	64-bit
Linux x86	32-bit
Linux x86_64	64-bit
Linux on POWER	64-bit
Linux on zSeries	64-bit
Raspberry Pi ARM	32-bit
Solaris SPARC v10 & v11	64-bit
Solaris x86_64 v10 & v11	64-bit
Windows 2008, 2012, 2016, 7, 8, 8.1 & 10	32-bit & 64-bit

1.3.3 Windows 64-bit

The following is the software prerequisite for Windows 64-bit:

- Microsoft Visual C++ 2010 Redistributable Package (x64)
  https://www.microsoft.com/en-ca/download/details.aspx?id=14632