

WebSphere MQ Connector

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Contents – WebSphere MQ Connector

Contents – WebSphere MQ Connector	2
Introducing WebSphere MQ Connector	3
Overview – WebSphere MQ Connector	3
Requirements – WebSphere MQ Connector	5
How to get Connected – WebSphere MQ Connector	6
How to conduct the Loopback Test – WebSphere MQ Connector	8
Access from a Programmatic Client - WebSphere MQ Connector.....	9
Appendix – WebSphere MQ Connector	10
Channel Request Form.....	10
Glossary	11

INTRODUCING WEBSPHERE MQ CONNECTOR

The purpose of this document is to provide a high-level user guide to plug in to the Covisint Connect messaging hub using the MQ/IPT communication channel. Due to the nature of the protocol, Covisint and each trading partner will jointly design and perform most of the configuration steps. The target audience for this document is IBM WebSphere MQ (formerly MQ Series) developers, system administrators and network engineers.

Overview – WebSphere MQ Connector

Trading partners can connect to Covisint using WebSphere MQ and/or WebSphere MQ via MQIPT (WebSphere MQ Internet Pass-thru).

Once communication channels have been established between a trading partner's MQ queue manager and Covisint's MQ queue manager, trading partners can complete the following tasks:

- Send transactions to Covisint that are routed to their trading partners.
- Receive business documents from their trading partners via the Covisint Connect messaging hub.

WebSphere MQ Queue Manager

Due to security considerations, Covisint supports this connectivity option over ANX, ENX or public Internet VPN.

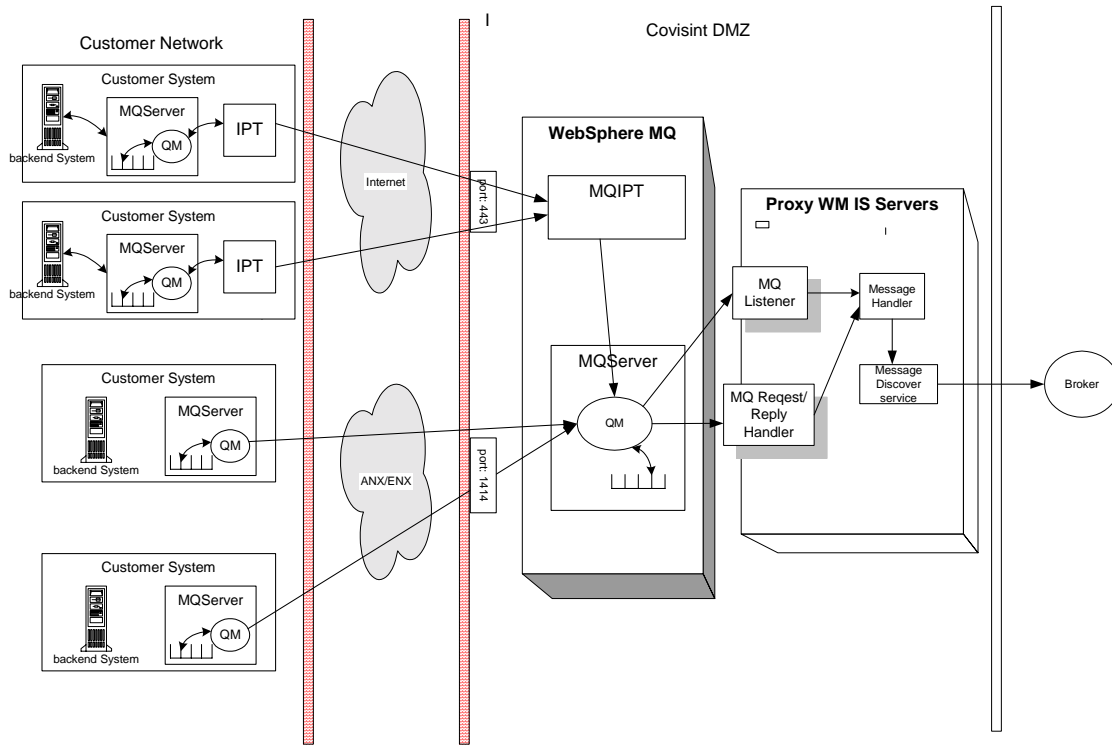
WebSphere MQ Queue Manager and MQ Internet Pass-Thru

MQ Internet pass-thru is a WebSphere extension that can be used to implement a messaging integration solution between two remote sites across the Internet.

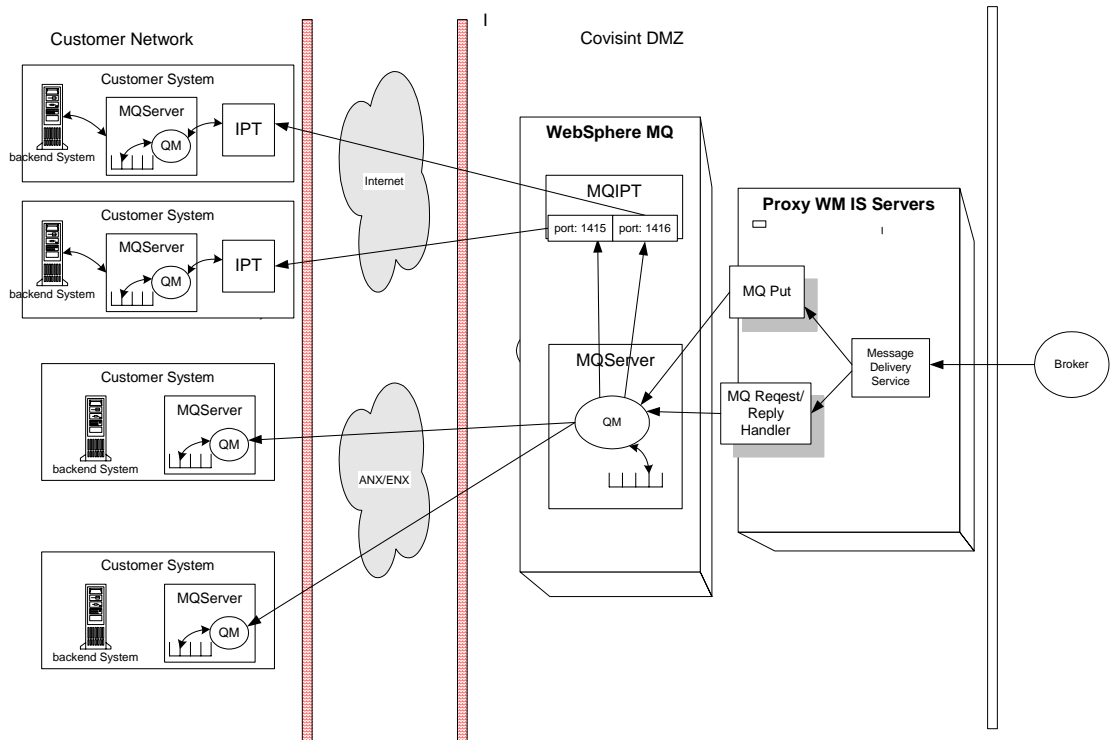
Covisint supports this connectivity option over the public Internet. Covisint recommends using the following protocols and security settings:

- MQ native or HTTP tunneling
- SSL encryption
- Client certificate authentication

Send a message to Covisint



Receive a message from Covisint



Requirements – WebSphere MQ Connector

Our requirements assume that trading partners have WebSphere MQ 5.x and/or MQIPT 1.x and an MQ client program capable of sending and receiving messages. For the safety of the message, we recommend that trading partners configure MQ channels as ***normal*** type and only send ***persistent*** and ***non-expire*** messages to Covisint.

Trading partners who use MQIPT with SSL and client authentication must provide their Certificate Authority. Covisint uses VeriSign as its certificate authority.

Obtain the VeriSign certificate at <http://www.verisign.com/>.

How to get Connected – WebSpere MQ Connector

To establish an MQ communication channel, Covisint and members of its trading community must perform, agree upon and communicate a set of system configurations. The following list outlines the process steps to provide and obtain the necessary configuration information to connect to the Covisint Connect messaging hub.

1 Request an MQ Send channel and/or Receive channel from Covisint

Go to the Covisint Connect Web site at <https://connect.covisint.com> to request an MQ channel setup. You must provide the following information:

- MQ or MQIPT
- Network preference (ANX, ENX, VPN or public Internet)
- Channel direction (SEND, RECEIVE channel or both)
- Your WebSphere MQ Queue Manager name
- Your WebSphere MQ or MQIPT IP and port
- Your network and firewall administrator's contact information
- Your WebSphere MQ and/or MQIPT system administrator's contact information

On the same Web site (<https://connect.covisint.com>) you can obtain Covisint's network and system information necessary to set up your system.

2 Work with Covisint administrator to establish channels

You will be contacted by a Covisint administrator to verify your channel request. You will jointly design and implement a solution. You will:

- Agree on MQ network protocols.
- Configure necessary network and firewall rules.
- Agree on the MQ/IPT send and receiver channels.
- Agree on and set up local queue and remote queue on both sides.

If you are using MQIPT, you need to provide your CA's certificate for client authentication. Covisint uses Verisign as its certificate authority. Obtain the Verisign certificate at <http://www.verisign.com/>.

3 Test the Connectivity

You will work with a Covisint administrator to test your connectivity channel. Test cases usually consist of the following steps:

- Network dial tone to test network and firewall configurations
- MQIPT start-up test without SSL and client authentication configuration to test the MQIPT route configuration
- MQ Channel ping to test MQ connectivity between the two queue managers
- Message flow test to test message integrity
- MQIPT SSL test to test MQIPT server authentication and communication channel encryption
- MQIPT Client authentication test with SSL to test sender channel authentication

How to conduct the Loopback Test – WebSphere MQ Connector

If you are using WebSphere MQ, you need to set up both Send and Receive channels and test with Covisint

Test with the Roundtrip Document

- 1 Prepare a valid EDI business document with your ID as both sender and receiver.

Note:

For the clarity of the test, the business document should be an atomic EDI transaction with single ISA, GS and ST segments. (Request a set of test documents at connectsupport@covisint.com).

- 2 Use the *mqput* command or an MQ client program to put the document on the remote queue on your queue manager.
- 3 You should see a message on your local queue sent from Covisint.
- 4 Retrieve the message using the *mqget* command or an MQ client program and save to disk.
- 5 Compare this document to the document you just sent.

The loopback test is considered a success when you get the initial document back unchanged.

Access from a Programmatic Client - WebSphere MQ Connector

Typically, trading partners write their own MQ client program to send and retrieve messages from Covisint. If your client program requires Covisint to do special processing, (e.g., to manipulate MQMD or RFH headers), please contact Covisint to jointly design and implement a solution.

APPENDIX – WEBSPHERE MQ CONNECTOR

Channel Request Form

Request Information	Explanation
Network Preference	ANX/Internet/VPN
Your ANX IP	Only applicable if using ANX
Software Protocol	MQ Server/MQ Server+MQIPT
IP and Port	This is the IP and port of your MQ Queue manager or IPT
Queue Manager Name	~
Preferred MQ Send Channel Name	Usually this is determined jointly with Covisint
Preferred MQ Receive Channel Name	Usually this is determined jointly with Covisint
Preferred MQ local Queue Name	Usually this is determined jointly with Covisint
Preferred MQ remote Queue Name	Usually this is determined jointly with Covisint
Your Network Administrator Contact info	Name /e-mail/phone
Your MQ/MQIPT Administrator Contact Info	Name/e-mail/phone

Glossary

The following terms are used in the guide:

ANX - Automotive Network Exchange.

Client Certificate Authentication – A secure method of authentication over SSL, in which the server and, optionally, the client authenticate each other with Public Key Certificates

EDI - The Electronic Data Interchange group of standards.

ENX - European Network Exchange.

ISA, GS, ST - EDI standard definitions for the specific parts of a business document.

MQ Connector – A component that provides access to Covisint Connect messaging hub services using the MQ Connector protocol.

Programmatic MQ Connector Client – A software component in the custom application that implements the HTTP protocol RFC and uses it to communicate with WebSphere MQ servers in automatic mode.

SSL - Secure Socket Layer protocol that provides data encryption, server authentication, message integrity and optional client authentication for TCP/IP connections.

TCP – A transport-level protocol widely used on IP networks, including the Internet.

VPN - Virtual Private Network.