DDS Recipient Setup Procedures
Real-time MQ, Batch Push, Batch Pull

DDS Transmission Recipient Types

There are three types of recipients that can be setup to get DDS transmissions from the OCC:

a) **Real-Time** recipients – allows your organization to receive data in **real time** fashion from OCC via IBM's real time messaging system – Websphere MQ.

b) **Push** recipients and **Pull** recipients. Simply put, the OCC delivers (pushes) data to Push customers and Pull customers retrieve (pull) data from the OCC.

DDS batch transmissions are initiated by the OCC after the recipient environment is configured, tested, and:

- One or more Packages are defined (e.g. grouping that is scheduled daily, expiration only)
- One or more DDS Transmissions are assigned to each package
- A Recipient Output Profile is created
- The Recipient Output Profile is associated with one or more Subscription Packages.

The information in this document provides instructions for setting up the recipient environment to receive DDS transmissions generated by the ENCORE system.

Before You Begin

Before you can successfully set up a new DDS recipient, you must provide information to the OCC so that both the recipient and the OCC have the file and connection details necessary to successfully create and maintain data service.

The method for communicating these details to the OCC is the **DDS Content & Technical Specifications Form**. Firms that are "non-clearing" organizations, such as a vendor, use a different version of the Technical Specifications Form. The DDS Technical Specifications Form must be completed before the OCC can set up and configure DDS for a Recipient.

Prepare Your Business Processing Environment

When you work with the OCC to create the transmission packages that will be delivered to recipients, you should consider your business day and the ENCORE business day. There will be logical processing dependencies when creating DDS packages. These dependencies are based on when you need certain transmissions and when they are available from the OCC.

For instance, if you need a certain report that is completed and available early in the day, you should make sure you do not package that DDS batch transmission with another transmission that is not available until much later in the business day.

Complete the DDS Content & Technical Specifications Form

Both versions of the DDS Technical Specifications Form is may be downloaded from www.theocc.com under **Membership > DDS & Inbound FIXML Reference > DDS Reference**. Contact your Clearing Member representative once you are ready to complete and submit the form.

The OCC uses the DDS Content & Technical Specifications Form to gather details necessary to configure your DDS environment. After the information from this form is provided to OCC Member Services, you will receive the configuration files and documentation necessary to set up DDS. You may work with multiple groups within OCC to complete DDS configuration and setup.

Setup Procedure for MQ Recipients*

The prerequisites necessary to establish real-time connectivity with OCC to receive real-time DDS messages are:

- A dedicated and secure leased line from the recipient to OCC.
- Websphere MQ manager installed on recipient's host server.

The MQ DDS messages will be delivered to your host through a push mechanism: the messages will be generated on OCC's server, put into the queue on the OCC's server and then delivered into the queue that resides on your host.

The technical details related to the information needed in order to setup the connectivity are covered in the DDS Content & Technical Specifications form.

Setup Procedure for Push Recipients*

Push recipients receive batch transmissions from OCC Tier 3 servers via dedicated and secure leased lines. The firewall rules for the Tier 2 and Tier 3 OCC network environment are specifically configured to ensure security for sending batch transmissions to the recipient's host server.

Considering that InTRACS Outbound Data Service (ODS) relies on dedicated and secure leased lines, the majority of customers should have the following already installed in their recipient environment:

- A dedicated and secure leased line from the recipient to OCC.
- Connect:Direct (or NDM) installed on the recipient's host server.

The configuration elements above must be present before the recipient can receive Push batch transmissions from the OCC.

Refer to the following steps to configure the recipient host environment for Push transmissions.

1. Complete the DDS Technical Specifications Form.
2. Add the public address of the OCC Tier 3 server to the `netmap.cfg` file on the recipient's host server. This file should be present if the recipient receives existing ODS transmissions.
3. Provide OCC with the target directory location where files will be pushed to the recipient's host server. This directory location is provided on the DDS Technical Specifications Form.
4. Provide OCC with the host server login username and password required to push files to the recipient's host server. The username is provided on the DDS Technical Specifications Form. The password can be communicated via the network-in-charge on the recipient side to the network-in-charge at OCC.
5. Coordinate with the OCC to receive a test push file or troubleshoot connection issues.

*MQ and Push recipient types are not available to non-clearing organizations, unless data is processed for one or more active OCC Clearing Members. Only the Pull recipient type is approved for non-clearing organizations.

Setup Procedure for Pull Recipients

Pull recipients connect and get DDS transmissions from OCC servers via SFTP. SFTP servers run behind a load balancer for high availability.

The load balancer redirects recipient requests to one of the two SFTP data servers. These two data servers have a shared directory structure that allows the clients to access either physical server to access their DDS transmissions home directory.

SFTP runs on all servers with zlib Compression enabled. If a connecting SFTP client supports zlib compression, the SFTP server will force compression.

The following basic configuration elements must be present before a recipient can configure and pull DDS transmissions from the OCC:

- A method for connecting and moving data from an OCC server to the recipient host server (for example, ISDN).
- SFTP client to connect and transfer files from OCC.
- Public SSH key to be paired with the corresponding private key for SSH handshake authentication.
- A user ID and password will be supplied by OCC technical staff.

Any SSH v3 compliant SFTP client should work with OCC's SFTP servers.

If the basic configuration elements are in place, refer to the following steps to configure the recipient host environment for Pull transmissions.

1. Complete the DDS Content & Technical Specifications Form.
2. After the form is completed and returned to the OCC, you will receive a user ID and password to be used for the connection.
3. You must submit your SSH public Key to OCC technical staff.
4. Coordinate with OCC Middleware Services to pull a test file from OCC or troubleshoot connection issues.