

TN Concepts Overview

Trading Networks



Introduction

- ⑩ This course will help participants to understand the basics about webMethods Trading Networks.
- ⑩ Participants will understand the overview and architecture of webMethods Trading Networks platform.
- ⑩ Participants learn the Trading Networks in My webMethods Server and how to use them.

Objectives

- ⑩ Describe the architecture and components of the Trading Networks Platform
- ⑩ Get a hands on experience on Trading Networks with different perspectives.

Trading Networks Concepts

Using My webMethods Server

Software versions

- 10 This class focuses on the webMethods suite

Broker /UM

Software AG Designer

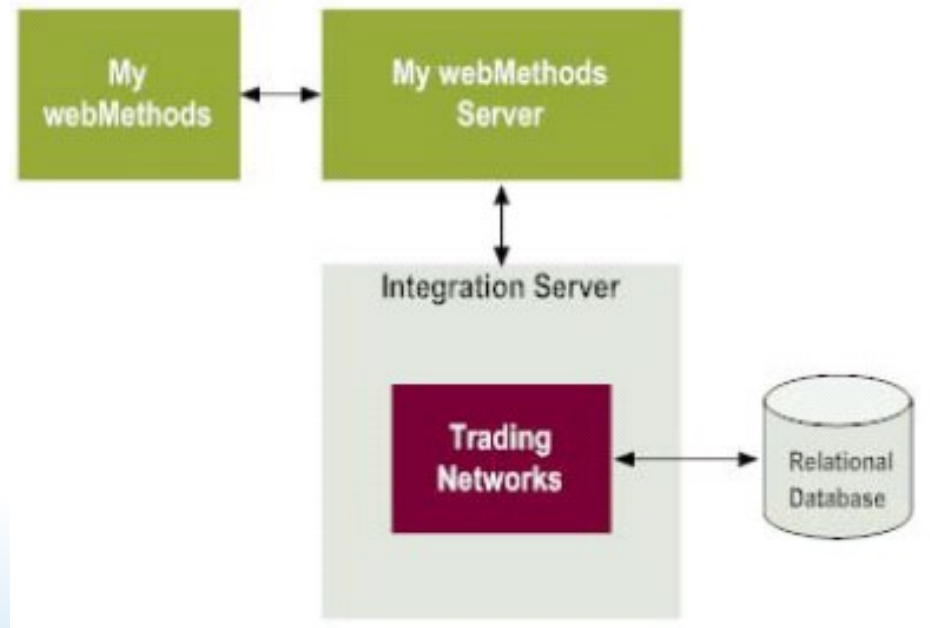
webMethods Integration Server

webMethods Trading Networks

TN Concepts Overview

What is Trading Network?

- Set of Organizations that have agreed to exchange Business Documents. This is also Known as Business to Business Communication.
- Organizations or Participants: Can be Partners, Buyers, Suppliers, and Marketplaces.
- Trading Network is a format-neutral, business document gateway that can recognize and process multiple XML and Flat File formats that flow between distributed Trading Partners.
- Trading Partner may be any System, within or without the Enterprise.
- Trading Networks is a Package (WmTN) that resides in Integration Server.



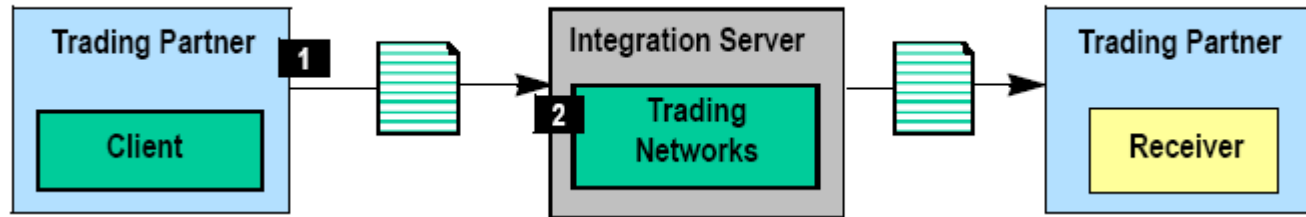
TN Components

- ⑩ **My webMethods server:** Used to monitor and administrate the Trading Network components. When a user monitors a transaction, MywebMethods Server handles the request by interacting with Trading Networks to perform the function and return information to the user.
- ⑩ **Trading Network:** Wm TN package runs within the Integration Server. The package provides the logic to handle the management of partners on your network and the exchange of documents
- ⑩ **RDBMS:** Trading Networks uses to store all information about the trading network: partner information, the types of documents to process, how to process business documents, information about business documents that pass through the network, log information.
- ⑩ **Integration Server:** The hosts packages that contain services and related documents.

TN Document Processing

10 Overview of TN Processing

Overview of Processing



Step	Description
1	A client sends a document to Trading Networks.
2	Trading Networks receives and processes the document. For example, Trading Networks might be instructed to deliver the document to another trading partner.

Document processing by TN is composed of

- Design time Actions
- Run time Actions

TN Document Processing

- ⑩ Actual Processing of the Doc happens at Run Time.
 - TN Receives a doc from a backend or client
 - Processes the doc
 - Depending on the processing rule, it can deliver the doc to another partner.

- ⑩ Run time activities are defined through TN Objects at Design Time.
Various Trading Networks Objects defined during this phase
 - Profiles (Prev. Page)
 - TN Document Types (Prev. Page)
 - Document Attributes
 - Information important for processing and analyzing a doc.
 - Processing Rules (Prev. Page)

TN Document Processing

- ⑩ TN uses information provided at design time to process documents at run time. It include the following.
- ⑩ **Sender's Profiles** :- To ensure that user sending the document is an active partner.
- ⑩ **Receiver's Profiles**:- Info specific to the receiver – HTTP host name and port number if document is being delivered.
- ⑩ **TN Document Types**:- To recognize the type of the document sent and determine the doc attributes.
- ⑩ **Processing Rules**:- To determine the action that must be performed upon the document.

10 Administration

The screenshot displays the 'My webMethods Administrator' interface. The left sidebar contains a navigation menu with categories like Business, Integration, Administration, and B2B. The 'Partner Profiles' option under 'Integration' is selected. The main content area shows the 'Partner Profiles' management page. At the top, there's a 'TN Server' dropdown set to 'Localhost' and a 'My Enterprise' button. Below this is a search bar with tabs for 'Keyword', 'Advanced', 'Saved', and 'Options'. The 'Partner Profiles' table lists various profiles, each with a checkbox, a name, an 'Enabled' status (indicated by a green gear icon), and an 'Action' column with edit and delete icons. The table is currently empty, showing '0 selected' items. At the bottom of the table, there are pagination controls: '< Previous | 1 | Next >'. The 'Partner Profiles' section also includes buttons for 'Add Profile...' and 'Delete'.

My webMethods Administrator | My Profile | Help | About | Logout

Navigation: Business, Integration, B2B, Transactions, Tasks, Activity Log, User Preferences, Services, Documents, Administration, Messaging, System-Wide, Analytics, Business, Integration, ESB, B2B, Archive Schedules, Document Types Administration, Document Types, Document Attributes, Partner Administration, **Partner Profiles**, Partner Groups, Partner Certificates, Public Queues, Trading Partner Agreements, Processing Rules, Asset Management, Business Monitoring, B2B Settings, Configure Properties, Submit Documents, Control Numbers.

Partner Profiles

TN Server: Localhost [My Enterprise]

Search

Keyword | Advanced | Saved | Options

Keywords: [?] [Search] [Save]

Partner Profiles

Add Profile... Delete

0 selected [Export Table...] 1 - 12 of 12

Corporation Name (Organization Unit)	Enabled	Action
<input type="checkbox"/> COE_BTP(COE)	⚙️	[Edit] [Delete]
<input type="checkbox"/> COE_BTP_2(COE)	⚙️	[Edit] [Delete]
<input type="checkbox"/> COE1(Center Of Excellence)	⚙️	[Edit] [Delete]
<input type="checkbox"/> COE2(Center Of Excellence)	⚙️	[Edit] [Delete]
▶ CTS(CTS)	⚙️	[Edit] [Delete]
<input type="checkbox"/> flatfilePOC(flatfilePOC)	⚙️	[Edit] [Delete]
<input type="checkbox"/> new POCFF(new POCFF)	⚙️	[Edit] [Delete]
<input type="checkbox"/> POC(FF)	⚙️	[Edit] [Delete]
<input type="checkbox"/> POC_San	⚙️	[Edit] [Delete]
<input type="checkbox"/> POC_Staples(test)	⚙️	[Edit] [Delete]
<input type="checkbox"/> TestingPartner1	⚙️	[Edit] [Delete]
<input type="checkbox"/> TestingPartner2	⚙️	[Edit] [Delete]

< Previous | 1 | Next >

10 Monitoring

software My webMethods My webMethods Administrator | My Profile | Help | About | Logout

Navigation | Tools

Applications

- Monitoring
 - System-Wide
 - Business
 - Integration
 - B2B
 - Transactions**
 - Tasks
 - Activity Log
 - User Preferences
- Services
- Documents

Administration

- Messaging
- System-Wide
- Analytics
- Business
- Integration
 - ESB
 - B2B
 - Archive Schedules
 - Document Types Administration
 - Document Types
 - Document Attributes
 - Partner Administration
 - Public Queues
 - Trading Partner Agreements
 - Processing Rules
 - Asset Management
 - Business Monitoring
 - B2B Settings
 - Configure Properties
 - Submit Documents
 - Control Numbers
 - My webMethods
- Workspaces

Transactions New

Transactions TN Server: Localhost

Datasource ▼

Data Source: Production Data

Search ▼

Basic | Advanced | Saved | Options

Query Fields

Field	Operator	Value
<Select A Field>		

Date Range ▼

Start Date: Time: 12 : 00 AM ↑ 1ST

End Date: Time: 11 : 59 PM ↓

Show SQL...

Search Condition: AND Search Save Clear

Transactions ▼

Reprocess... Resubmit...

0 selected Export Table... 1 - 20 of 20+

Date Received	Document Type	Sender	Receiver	Processing Status	User Status	Related Documents	Details	Action
06/12/2013 03:24:42.833 AM	POC_Staples	POC_Staples (test)	CTS (CTS)	QUEUED				
06/12/2013 03:21:31.173 AM	POC_Staples	POC_Staples (test)	CTS (CTS)	QUEUED				
06/12/2013 03:20:53.570 AM	POC_Staples	POC_Staples (test)	POC (FF)	DONE	IGNORED			
06/12/2013 03:19:46.330 AM	POC_Staples	POC_Staples (test)	Unknown	DONE W/ ERRORS	IGNORED			
06/12/2013 03:12:17.283 AM	POC_Staples	Unknown	Unknown	DONE W/ ERRORS	IGNORED			
06/12/2013 03:03:11.440 AM	POC_Staples	Unknown	Unknown	DONE W/ ERRORS	IGNORED			
06/12/2013 03:00:35.860 AM	POC_Staples	Unknown	Unknown	DONE W/ ERRORS	IGNORED			
06/12/2013 02:58:49.760 AM	POC_Staples	Unknown	Unknown	DONE W/ ERRORS	IGNORED			
06/12/2013 02:52:48.050 AM	POC_Staples	Unknown	Unknown	ABORTED				
06/12/2013 01:46:21.547 AM	POC_San	POC_San	CTS (CTS)	ABORTED				
06/12/2013 01:08:39.153 AM	Unknown	Unknown	Unknown	DONE	IGNORED			

All times IST (UTC +5:30) powered by webMethods

TN Document Processing

⑩ Profiles

- Required for all partners in a TN
- To add a partner to the TN, we define its Profile
- TN is aware of those partners that has a profile stored in it.

⑩ Trading Partner Agreements (TPAs)

- Defined for a pair of partners
- Contain specific info about both partners
- One is sender and other receiver
- TPA info can be used for defining how docs are processed.
- webMethods EDI module uses TPA to perform processing

TN Document Processing

The screenshot displays the 'My webMethods' web application interface. The top navigation bar includes the 'software' logo, the text 'My webMethods', and user information '220588 220588' with links for 'My Profile', 'Help', 'About', and 'Logout'. A left-hand navigation pane contains a tree view with categories: 'Applications' (Monitoring, Integration, B2B), 'Administration' (System-Wide, B2B Permissions), and 'Integration' (B2B). The 'Partner Profiles' option under the B2B Integration section is highlighted in orange. The main content area is titled 'Partner Profiles > Partner Profile' and features a 'Partner Details' form. This form includes input fields for 'Corporation Name' (containing '220588'), 'Organization Unit', a 'Status' dropdown (set to 'Active'), and a 'Preferred Language' dropdown (set to 'Root Locale'). Action buttons 'Save', 'Save & Close', and 'Cancel' are located to the right of the form. Below the form is a tabbed interface with tabs for 'External IDs', 'Addresses', 'Contacts', 'Partner Group Membership', 'Delivery Settings', 'Extended Fields', 'Users', 'Certificates', 'Permissions', and 'Control Number'. The 'External IDs' tab is active, showing a table with columns 'Id Type' and 'Value'. The table contains one entry: 'DUNS' with the value '3131'. Above the table are buttons for 'Add ID...', 'Delete', and 'Add ID Type...'. The status '0 selected' is displayed above the table header.

software[®] My webMethods 220588 220588 | My Profile | Help | About | Logout

Navigate Tools

My Folders Partner Profiles New

Partner Profiles > Partner Profile

Partner Details

Save Save & Close Cancel

Corporation Name: 220588

Organization Unit:

Status: Active

Preferred Language: Root Locale

External IDs Addresses Contacts Partner Group Membership Delivery Settings

Extended Fields Users Certificates Permissions Control Number

Add ID... Delete Add ID Type...

0 selected

Id Type	Value
<input type="checkbox"/> DUNS	3131

10 TN Document Types

- Types of documents that you expect to come in to your TN.
- Categorizes based on formatting type and business purpose.
- Can be anything from a popular Internet standard (Ariba cXML PO, FIXML quote request etc) to Custom standard like a PO Format that has been agreed between you and your TP.
- Specify exactly what attribute of a matching document type must be extracted in this.
- Include the following information
 - Identification Information : how TN should recognize a document type.
 - Extraction Information : What info must be extracted from an inbound doc type after it matches with one of the TN doc types
 - Preprocessing options : What needs to be done on a particular doc type by TN before it applies processing rules.

TN Document Processing

software **My webMethods**

My webMethods Administrator | My Profile | Help | About | Logout

NavigateTools

Applications

Monitoring

System-Wide

Business

Integration

B2B

Transactions

Tasks

Activity Log

User Preferences

Services

Documents

Administration

Messaging

System-Wide

Analytics

Business

Integration

ESB

B2B

Archive Schedules

Document Types Administration

Document Types

Document Attributes

Partner Administration

Partner Profiles

Partner Groups

Partner Certificates

Public Queues

Trading Partner Agreements

Processing Rules

Asset Management

Business Monitoring

B2B Settings

Configure Properties

Submit Documents

TransactionsPartner ProfilesDocument TypesNew

Document Types

TN Server: Localhost

Search

KeywordAdvancedSavedOptions

Keywords: Search Save

Document Types

Add Document Types...DisableEnable

0 selectedExport Table...1 - 20 of 32

Name	Status	Description	Type	Last Modified	Extracted Attributes	Action
<input type="checkbox"/> ODETTE Group			EDI	06/13/2013 03:32:06.067 AM		
<input type="checkbox"/> EANCOM Group			EDI	06/13/2013 03:32:06.063 AM		
<input type="checkbox"/> UCS Group			EDI	06/13/2013 03:32:06.057 AM		
<input type="checkbox"/> VICS Group			EDI	06/13/2013 03:32:06.047 AM		
<input type="checkbox"/> UNEDIFACT Group			EDI	06/13/2013 03:32:06.037 AM		
<input type="checkbox"/> X12 Group			EDI	06/13/2013 03:32:06.027 AM		
<input type="checkbox"/> ODETTE Envelope			EDI	06/13/2013 03:32:06.020 AM		
<input type="checkbox"/> EANCOM Envelope			EDI	06/13/2013 03:32:05.987 AM		
<input type="checkbox"/> UCS Envelope			EDI	06/13/2013 03:32:05.963 AM		
<input type="checkbox"/> VICS Envelope			EDI	06/13/2013 03:32:05.953 AM		
<input type="checkbox"/> UNEDIFACT Envelope			EDI	06/13/2013 03:32:05.943 AM		
<input type="checkbox"/> X12 Envelope			EDI	06/13/2013 03:32:05.927 AM		
<input type="checkbox"/> VDA Envelope			EDI	06/13/2013 03:32:05.913 AM		
<input type="checkbox"/> TRADACOMS Batch			EDI	06/13/2013 03:32:05.457 AM		
<input type="checkbox"/> TRADACOMS Transmission			EDI	06/13/2013 03:32:05.130 AM		
<input type="checkbox"/> X12 4010 850			EDI	06/13/2013 02:44:31.210 AM		
<input type="checkbox"/> FlatDoc		FlatDoc	Flat file	06/12/2013 04:57:16.437 AM		
<input type="checkbox"/> POC Staples		POC for Staples	XML	06/12/2013 03:20:37.460 AM		
<input type="checkbox"/> POC_San		POC by sanjeevini	XML	06/11/2013 08:12:33.850 AM		
<input type="checkbox"/> ffDoctype		ffDoctype	Flat file	06/11/2013 07:56:38.177 AM		

< Previous | 12 | Next >

Summary of Extracted Attributes

No document type selected.

TN Document Processing

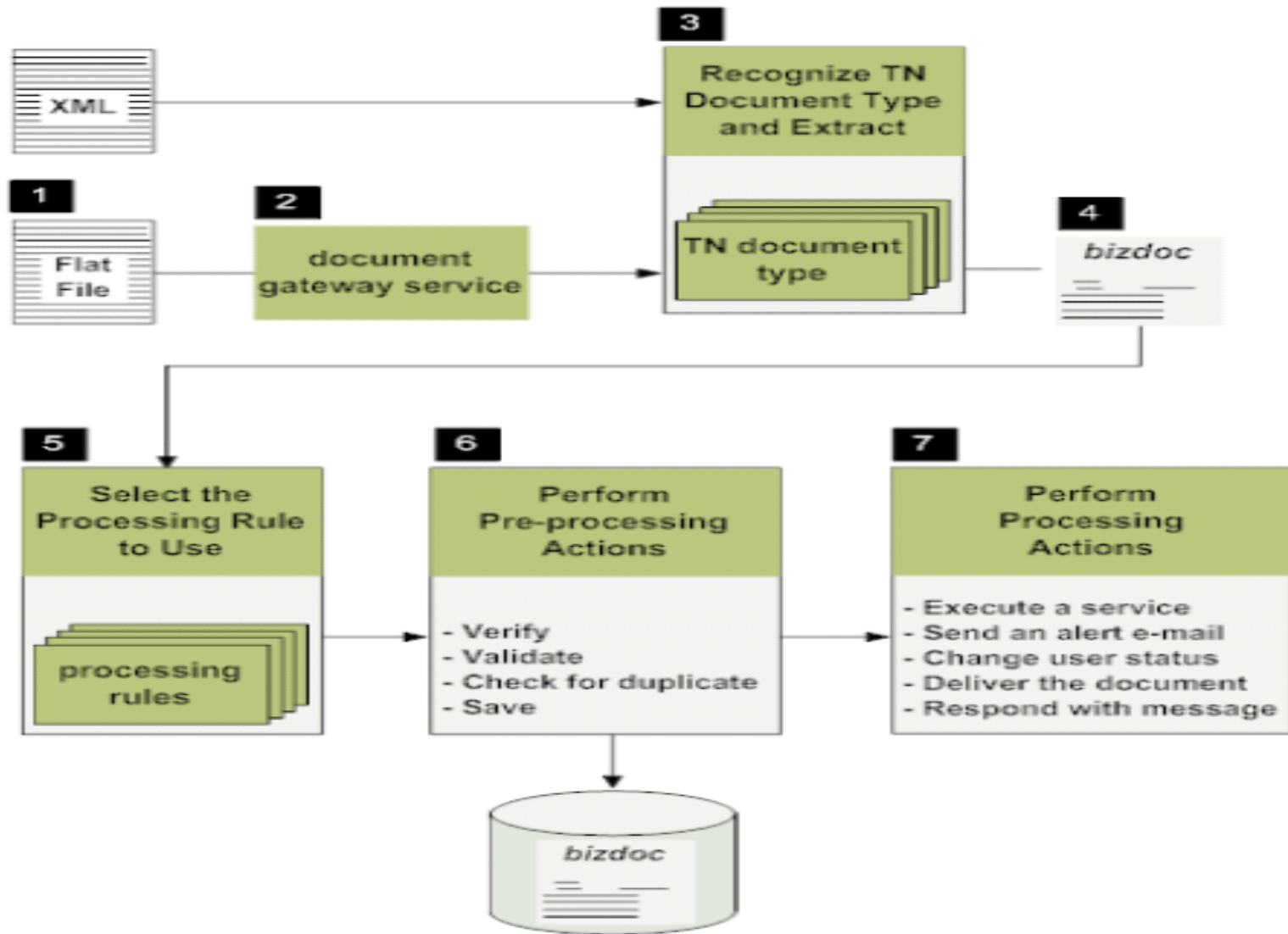
10 Processing Rules

- Actions that TN should perform on a document type; like deliver the doc to a partner, or invoke a service to process the document etc...
- Whenever there is a doc type to be processed, TN will perform a Processing Rule lookup to find matching rule that can be used to process this doc.
- Info from doc is matched against the criteria specified in the PR.

The screenshot displays the 'My webMethods Administrator' web application. The left sidebar contains a navigation tree with categories like Business, Administration, and Integration. The 'Processing Rules' option is highlighted. The main content area shows the 'Processing Rules' configuration page. At the top, there's a search bar with tabs for 'Keyword', 'Advanced', 'Saved', and 'Options'. Below this is a table listing 18 processing rules. Each row includes a checkbox, an ordinal number, the rule name, senders, receivers, document types, user status, last modified date, and status/action icons. The table is currently empty, showing 0 selected rules. At the bottom, there's a 'Processing Rule Summary' section indicating 'No Processing Rule selected.'

Ordinal	Rule Name	Senders	Receivers	Document Types	User Statuses	Last Modified	Status	Action
0	testEDIRule	EDITest	Enterprise (CTS (CTS))	X12 4010 850	Any	06/13/2013 02:45:57.227 AM	Green	Icons
1	flatfileNor	flatfilePOC (flatfilePOC)	Enterprise (CTS (CTS))	FlatDoc	Any	06/12/2013 05:22:00.823 AM	Green	Icons
2	POC_Staples	POC_Staples (test)	Enterprise (CTS (CTS))	POC_Staples	Any	06/12/2013 02:38:26.210 AM	Green	Icons
3	POC_San	POC_San	Enterprise (CTS (CTS))	POC_San	Any	06/11/2013 08:19:12.413 AM	Green	Icons
4	PurchaseOrderRule	POC(FF)	Enterprise (CTS (CTS))	PurchaseOrder	Any	06/12/2013 12:41:41.217 AM	Green	Icons
5	HL7 2.x XML Message Acknowledgement	Any	Any	HL7 XML Acknowledgement	Any	06/03/2013 05:35:44.863 AM	Green	Icons
6	HL7 2.x XML Message Default	Any	Any	HL7 XML Default	Any	06/03/2013 05:35:44.847 AM	Green	Icons
7	HL7 2.x Message Acknowledgement	Any	Any	HL7 Acknowledgement	Any	06/03/2013 05:35:44.830 AM	Green	Icons
8	HL7 2.x Message Default	Any	Any	HL7 Default	Any	06/03/2013 05:35:43.787 AM	Green	Icons
9	EDIINT Send MDN Message	Any	Any	EDIINT MDN	SendMDNMsg	06/03/2013 05:35:42.047 AM	Green	Icons
10	EDIINT Process MDN Message	Any	Any	EDIINT MDN	ProcessMDNMsg	06/03/2013 05:35:41.540 AM	Green	Icons
11	EDIINT Process Message	Any	Any	EDIINT	ProcessMsg	06/03/2013 05:35:41.427 AM	Green	Icons
12	EDIINT Send Message	Any	Any	EDIINT	SendMsg	06/03/2013 05:35:41.273 AM	Green	Icons
13	Profile Validation Standard Fields	Any	Any	PROFVAL_stdFields	Any	06/03/2013 05:35:31.307 AM	Green	Icons
14	Profile Validation Profile	Any	Any	PROFVAL_Profile	Any	06/03/2013 05:35:31.307 AM	Green	Icons
15	Profile Validation Extended Fields	Any	Any	PROFVAL_extFields	Any	06/03/2013 05:35:31.310 AM	Green	Icons
16	Gateway	COE_BTP (COE)	COE_BTP_2 (COE)	FLATFILE_TEST	Any	06/11/2013 07:41:45.223 AM	Green	Icons
17	FFprocessing	flatfilePOC (flatfilePOC)	Enterprise (CTS (CTS))	ffdoctype	Any	06/11/2013 07:58:52.070 AM	Green	Icons
18	Default rule	Any	Any	Any	Any	06/03/2013 05:35:31.313 AM	Green	Icons

TN Document Processing



TN Document Processing

- 📄 TN uses information provided at design time to process documents at run time. It includes the following.
- 📄 Actions mentioned in the Processing Rule.
- 📄 Tells how TN should process the inbound document.
- 📄 There are five different types of actions. Any one or more will be performed depending on what is defined in the Processing Rule for a particular document.
- 📄 If any actions fail, TN continues to execute others in the sequence and logs the error in activity log.
- 📄 During the execution of these actions, TN will make use of various data available in the pipeline at that point of time.

What have we learnt ?

- Introduction to TN, Architecture of TN, TN Perspectives
- Over view of document processing in TN

Q & A

- ❖ What is the use of TN?
- ❖ What are the packages required for TN in webMethods?
- ❖ What are the components of TN?
- ❖ What is a partner profile?
- ❖ What is the significance of document types?
- ❖ What are processing rules?

Overview of Trading Partner Profiles

Adding a Trading Partner Profile

Adding Delivery Methods

Using Partner Profiles to deliver documents

Trading Partner Agreements

Overview of Trading Partner Profiles

- Every corporation in a network, including your own corporation, requires a profile in the Trading Networks system.
- A *profile* is a summary of information about a corporation that is a part of a trading network.
- Your profile (**Enterprise**) contains information that you define about your corporation.
- A *partner's profile* is information about a partner in your trading network.
- To add a partner to your network, you add a profile for the partner.
- You add profiles for those partners with which you want to exchange documents. Trading Networks is only aware of partners for which it has a profile.

Adding a Trading Partner Profile

- Before adding the partner profile the organization should have its own profile that is Enterprise profile.
- Creating Enterprise Profile/Trading Partner Profile:
- In My webMethods: **Administration > Integration > B2B > Partner Profiles.**
- Click **Add Profile.**
- In the partner details panel you should enter the below details:
- **Corporation Name, Organization Unit, Status, Preferred Language, External IDs, Address Details, Contact Details**

Adding a Delivery Method

- A method for delivering a document to a trading partner, e.g., HTTP, HTTPS, FTP, FTPS, e-mail (SMTP). Trading Networks supports, immediate delivery methods, scheduled delivery methods, and queue for polling.
- To add a delivery method, go to Delivery Settings tab and click on Add Delivery Method

The screenshot shows a software interface with several tabs at the top: External IDs, Addresses, Contacts, Partner Group Membership, **Delivery Settings**, and Extended Fields. Below the tabs is a 'Permissions' section. The main content area is titled 'Settings' and contains the following fields:

- Delivery Maximum Retries:** A text input field.
- Wait Between Retries:** A text input field followed by the unit 'milliseconds'.
- Retry Factor:** A text input field.
- Polling Method:** A dropdown menu.
- Polling Frequency:** A text input field followed by the unit 'minutes'.
- ☐ **Suspend Delivery** (All documents will be queued up until delivery is un-suspended)

Below the settings section is a 'Delivery Methods' section. It contains a button labeled 'Add Delivery Method...' which is circled in blue, and a 'Delete' button. At the bottom, it shows 'Preferred Protocol: Queue for Polling'.

Using partner profiles to deliver documents 1/2

- Now the Partner profiles created can be thus used to deliver the documents from one partner to another partner.
- To transfer a document from one partner to another partner, The document must contain the sender and receiver details
- The document thus received in Trading Networks will be recognized and will be delivered to the partner defined in the processing rule.
- You can select the sender and receiver profiles in processing rules and the document type too.
- So, whenever the Trading Networks recognizes a particular document type, it will verify the sender and receiver profile and deliver it to the appropriate partner.

Using partner profiles to deliver documents 2/2

▼ Applications

▼ Monitoring

▶ System-Wide

▼ Business

Collaboration Processes

Process Analytics

Process Instances

▼ Tasks

▶ NewBizInsuranceTask

My Inbox

Task List Management

Task Charts

Six Sigma Summary

▼ Integration

▼ B2B

Transactions

Tasks

Activity Log

User Preferences

Services

Documents

▼ Administration

▶ Messaging

▶ System-Wide

▶ Analytics

▶ Business

▼ Integration

ESB

▼ B2B

Archive Schedules

Processing Rules > Processing Rule Details

Processing Rule Details

*Name:

Ordinal: LAST

☒ Enabled

Description:

Criteria

Extended Criteria

Action

Pre-Processing

Sender:

☒ Any

☐ Enterprise

☐ Unknown

☐ Selected

Partners

Profile Group

Receiver:

☒ Any

☐ Enterprise

☐ Unknown

☐ Selected

Partners

Profile Group

Document Type:

☒ Any

☐ Unknown

☐ Selected

Document Types

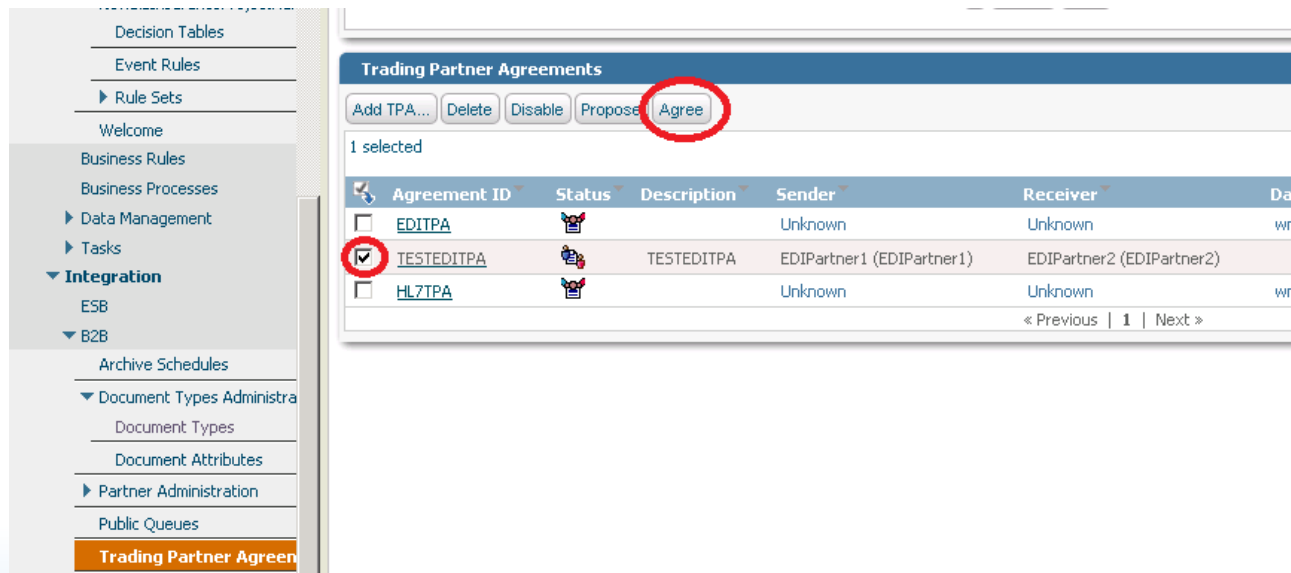
Trading Partner Agreements 1/2

- A Trading partner Agreement (TPA) is an optional set of parameters that you can define and use to tailor how documents are exchanged between two trading partners
- Each TPA must have a unique combination of the following
 - Partner that represents the sender
 - Partner that represents the receiver
 - Type of TPA, represented by the "Agreement ID"
- The data which TPA contains is different from a profile information.
- TPAs contain transaction dependent information such as configuration information, encryption information etc.

Trading Partner Agreements 2/2

Adding Trading Partner Agreements in Trading Networks:

- To Add trading Partner Agreements go to **Administration > Integration > B2B > Trading Partner Agreements**
- Click on Add TPA and you will get a popup, give Agreement ID, sender and receiver IDs for this TPA and fill in all the required fields.
- After creating the TPA, to accept the agreement select the TPA which needs to be agreed and click on agree.



The screenshot displays the 'Trading Partner Agreements' management interface. On the left is a navigation menu with options like Decision Tables, Event Rules, Rule Sets, Welcome, Business Rules, Business Processes, Data Management, Tasks, Integration, ESB, B2B, Archive Schedules, Document Types Administration, Document Types, Document Attributes, Partner Administration, Public Queues, and Trading Partner Agreements (highlighted). The main area shows a table of agreements. The 'Agree' button in the top toolbar is circled in red. The table has columns for Agreement ID, Status, Description, Sender, Receiver, and Date. Three agreements are listed: EDITPA, TESTEDITPA (which is selected with a checked checkbox), and HL7TPA. The status for all is 'Unknown'. The sender and receiver for TESTEDITPA are EDIPartner1 and EDIPartner2 respectively. Navigation links at the bottom of the table include '< Previous', '1', and 'Next >'.

Agreement ID	Status	Description	Sender	Receiver	Date
<input type="checkbox"/> EDITPA	Unknown		Unknown	Unknown	wn
<input checked="" type="checkbox"/> TESTEDITPA	Unknown	TESTEDITPA	EDIPartner1 (EDIPartner1)	EDIPartner2 (EDIPartner2)	
<input type="checkbox"/> HL7TPA	Unknown		Unknown	Unknown	wn

What have we learnt?

- What are Partner Profiles
- What are different fields in a Partner Profile
- How are partner profiles useful in receiving/delivering the documents in Trading Networks
- What are delivery methods.

- ❖ What is a partner profile?
- ❖ What is an Enterprise Profile?
- ❖ What are Different types of IDs?
- ❖ What is the use of External IDs in partner Profiles?
- ❖ Where do we specify the sender and receiver details for a document in Trading Networks?
- ❖ What are different delivery methods available for a document in Trading Networks?
- ❖ What is a Trading Partner Agreement?

Document Types

XML

Flat File

EDI

summary

There are 3 Types of Document Type namely:

1. XML
2. Flat File
3. EDI

XML:

- ⑩ TN XML document types define how Trading Networks recognizes XML documents, where to locate attributes within an XML document, and how to pre-process the XML documents.

Flat File:

- ⑩ Flat file documents present data in a record-based storage format.

XML Document Type

To define TN XML document types, you specify the following types of information:

- Identification information
- Extraction information
- Namespace mappings
- Options

Trading Networks checks XML documents against the identification information to determine whether the document matches a defined TN XML document type.

- ⑩ Root tag that the XML document must have to match the TN XML document type.
- ⑩ Identifying queries, which are XQL queries that Trading Networks performs against the XML document to locate specific nodes in the XML document.
- ⑩ Pipeline variables that must be present when Trading Networks is determining the TN XML document type to use.

Identification Information

Sample XML:

```
<?xml version="1.0" encoding="UTF-8" ?>
<root>
  <sender>Chandrakanth</sender>
  <receiver>Ajay</receiver>
  <data>Hello World</data>
</root>
```

*Name: COE_XML_DOCTYPE

Description: XML Document Type

Status: Enabled

Identify

Extract

Namespaces

Options

File: Choose File root.xml Upload

Query: /root[0]/sender[0]

Value: Chandrakanth

Name	Value	Action
xml	version="1.0" encoding="UTF-8"	
root		
sender	Chandrakanth	
receiver	Ajay	
data	Hello World	

ROOT Tag: Set

DOCTYPE Identifier: Set

Identifying Queries

Add... Delete

Query	Value	Actions
/root[0]/sender[0]	Chandrakanth	
/root[0]/receiver[0]	Ajay	

1 - 2 of 2

Extraction Information

- Specifies the attributes (system attributes and custom attributes) that you want Trading Networks to extract from XML documents.
- XQL is used to locate the attributes within the XML documents.
- Optionally, in the extraction information, you can specify built-in transformation or invoke a custom transformation service against the attribute value to alter the value of the extracted attribute.

*Name: COE_XML_DOCTYPE

Description: XML Document Type

Status: Enabled

Identify

Extract

Namespaces

Options

File: Choose File No file chosen Upload

Query: /root[0]/sender[0]

Value: Chandrakanth

Name	Value	Action
DOCUMENT_		
xml	version="1.0" encoding="UTF-8"	
root		
sender	Chandrakanth	
receiver	Ajay	
data	Hello World	
body	Hello	

Add... Delete Document Attributes

Attribute Name	Actions
SenderID	

Namespace Mapping

- ⑩ If the XML documents use namespaces, you should specify namespace mappings to describe the namespaces that XML documents might use.
- ⑩ *Namespaces* are used in an XML document to distinguish between elements that come from different sources.
- ⑩ A set of elements (or tags) from a specific source is assigned to a specific namespace.
- ⑩ Each namespace is associated with a URI, which is used to uniquely identify the namespace.
- ⑩ *Namespace mappings* map the prefixes used by namespaces to the URIs used by those namespaces

Options:

You can use the options to define items for later processing

- ⑩ An IS document type that defines the structure of the XML document and that can be used to parse the XML document into an IData object.
- ⑩ An IS schema that defines the structure of the XML document.
- ⑩ Whether you want Trading Networks to perform any or all of the pre-processing actions.
- ⑩ Whether you want Trading Networks to process a document using a processing rule or want to prevent Trading Networks from performing processing rule actions.

Options

Document Type Details

*Name:

COE_XML_DOCTYPE

Description:

XML Document Type

Status:

Enabled

Identify

Extract

Namespaces

Options

Format as an IS Document Type:

Settings:

☒ Enable Processing Rule Routing

☐ Verify Digital Signature

☐ Validate Structure

Check for Duplicate Document:

☐ Check for Duplicate Document

Built-in-Service

Document ID only

Save Document To Database:

☒ Save

All documents

☒ Content

☒ Attributes

☒ Activity Log

Flat Files

- Flat file is any file or document with a format that is non-describing, that is, a document that does not contain metadata.
- Flat file documents present data in a record-based storage format.
- Unlike XML files, flat files do not have structural information embedded within the data.

In order to define a corresponding TN flat file document type that Trading Networks will use, when it receives the document is to specify:

- ⑩ Pipeline Matching Criteria Used to Identify the TN Document Type
- ⑩ Extract attributes from Documents
- ⑩ Pre-Processing Actions in the TN Flat File Document Type

In order to define a corresponding TN flat file document type that Trading Networks will use, when it receives the document is to specify:

- ⑩ Pipeline Matching Criteria Used to Identify the TN Document Type
- ⑩ Extract attributes from Documents
- ⑩ Pre-Processing Actions in the TN Flat File Document Type

Pipeline Matching

- Specify pipeline matching criteria that Trading Networks uses to determine whether to use the document type for the incoming flat file document.
- The pipeline matching criteria is one or more key/value pairs that identify a document.
- Specifying values for the variables is optional.
- If you specify both a key and a value, Trading Networks ensures that the variable (key) is in the *TN_parms* variable and Networks ensures that the variable (key) is in the *TN_parms* regardless of its value.

Flat File Document Type Details




***Name:**

Description:

Status:

Configure **Options**

Pipeline Matching

	Name	Value	Edit
<input type="checkbox"/>	SenderID	353180	
<input type="checkbox"/>	ReceiverID	353177	

1 - 2 of 2

Pipeline Matching : Example

Suppose you defined a document type named `Acme_XYZ_Invoices` to receive all documents from Acme's Billing department with the service code XYZ. You would have defined the following criteria:

Key	Value
<i>Department</i>	Billing
<i>Service_code</i>	XYZ

- ⑩ A document would match this document type only if it contains both of those variables within *TN_parms* and the variables have those values.

Extract Attributes

- Specify the attribute values to extract from the document's *TN_parms* variable.
- Extract system attributes as well as custom attributes (the document data).
- Transform extracted attribute values before Trading Networks stores them in the BizDocEnvelope, using built-in or custom transformations.

Continuing with the example document type *Acme_XYZ_Invoices*, suppose your trading network expects to receive a document whose *TN_parms* will contain the following attributes:

Attribute	Value
<i>TN_parms/SenderID</i>	[some value]
<i>TN_parms/ReceiverID</i>	[some value]
<i>TN_parms/DocumentID</i>	[some value]
<i>TN_parms/Department</i>	Billing
<i>TN_parms/Service_code</i>	XYZ
<i>TN_parms/Invoice_number</i>	123
<i>TN_parms/Amount</i>	1000.00

- ⑩ You can extract any of these attributes.
- ⑩ Trading Networks always extracts the system attributes *SenderID* and *ReceiverID*.
- ⑩ Extracting all other system attributes is optional.

Pre-Processing Actions

Trading Networks executes pre-processing actions before executing the processing rule that you associate with the TN flat file document type. All actions are optional. Trading Networks executes them in the following order:

- Verifying the Digital Signature of Flat File Documents
- Validating the Structure of Flat File Documents
- Checking for Duplicates of the Flat File Document
- Saving Flat File Documents to the Database

What have we learnt?

- TN XML Document Type
- TN Flat File Document Type
- Creating TN XML Document Type
- Creating TN Flat File Document Types

Q & A

- ❖ What is are the TN Document Types?
- ❖ differentiate between TN XML Document Type and TN Flat File Document type?
- ❖ What is the use of TN XML Document Type?
- ❖ What is the use of TN Flat File Document Type?
- ❖ How to make sure trading network accepts only the documents that have a particular SenderID/Receiver ID?

Agenda

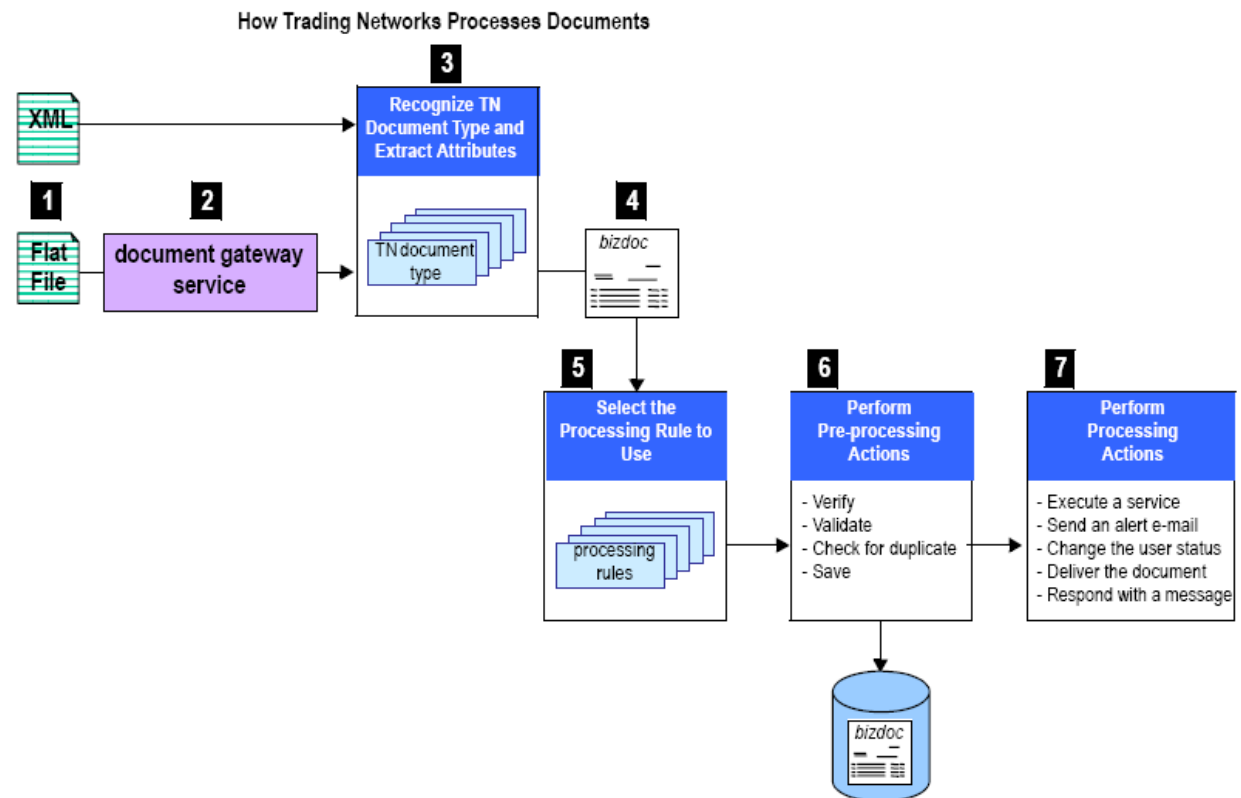
Processing Rules

Pre-Processing Rules

Processing Rule Actions

Processing Rules

- ⑩ Trading Networks matches information from the inbound document against the criteria you specify in processing rules. The information from the document that you can use as processing rule criteria is:
 - ⑩ Sender identified in the inbound document.
 - ⑩ Receiver identified in the inbound document.
 - ⑩ Whether Trading Networks encountered errors during recognition processing.
 - ⑩ Values of the custom attribute values that Trading Networks extracted from the document.



Processing Rule Selection

- ⑩ TN looks for a match between various criterion mentioned in a Processing Rule to the corresponding information within an incoming document in order to select one.
- ⑩ Various Criterion are – Sender, Receiver, TN Doc type, User Status, Recognition Errors – For a specific rule, any one or more of these criterion are selected.
- ⑩ If there are multiple rules matching, the very first one encountered is selected. Hence, all the rules must be kept in the order required.

Processing Rules > Processing Rule Details

*Name: Gateway	
Ordinal: 22	
<input checked="" type="checkbox"/> Enabled	
Description: Gateway Service Test	

Criteria	Extended Criteria	Action	Pre-Processing
----------	-------------------	--------	----------------

Sender:

☐ Any
☐ Enterprise
☐ Unknown
☒ Selected

Partners	Profile Groups
COE_BTP (COE)	

Receiver:

☐ Any
☐ Enterprise
☐ Unknown
☒ Selected

Partners	Profile Groups
COE_BTP_2 (COE)	

Document Type:

☐ Any
☐ Unknown
☒ Selected

Document Types
"FLATFILE_TEST"

User Status:

☒ Any
☐ Specified

User Status

Recognition Errors:

☒ May have errors
☐ Has no errors
☐ Has errors

Pre - Processing Actions

TN performs pre processing after selecting the processing rule.

Actions mentioned in Processing Rule can do :

- ⑩ Perform what is mentioned in the TN Doc.
- ⑩ Perform regardless of what is mentioned in TN Doc.
- ⑩ Not perform regardless of what mentioned in TN Doc.

Pre-processing Actions Are :

- ⑩ Verify Digital Signature
- ⑩ Digital signature of the inbound doc is verified to Make sure that the content is unchanged.
- ⑩ Confirm that sender is correct as mentioned in the cert in the TN profile.

Validate Structure

- ⑩ Here, TN verifies the structure of the inbound doc against that of the IS Schema using the 'pub.schema:validate' built in service.

Check for Duplicate

Here TN determine whether a doc received is a duplicate or not. Can be done in Two ways.

- ⑩ Built in Services and Custom services
- ⑩ Built in Services
- ⑩ Provides duplicate check options like – Doc ID, Doc ID and Sender, Doc ID, Sender and Receiver, Doc ID, Sender and Document Type – These will be checked in the TN DB and make sure that such docs exist only once.

Pre - Processing Actions

Custom Services

- ⑩ Can be created by us.
- ⑩ TN Saves the results of this service to the pipeline and can make use while defining the pre processing actions.
- ⑩ Also TN make use of the saved result while performing the Pre Processing 'Save Document To DB' step.

Save Document to Database

- ⑩ Document content, attributes, and / or activity log is saved to the DB in this action.
- ⑩ When document must be delivered via a queue, even though not specified among the actions, this is done automatically by TN.
- ⑩ Can specify TN to perform this only if doc is not a duplicate.
- ⑩ Whether or not one of the above actions fails, TN execute rest of the actions. Error info will be written to activity log.

Pre-Processing

Processing Rule Details

*Name: Gateway

Ordinal: 22

☒ Enabled

Description: GatewayService Test

Criteria

Extended Criteria

Action

Pre-Processing

Verify Digital Signature:

- ☒ Defer to Document Type
- ☐ Verify Digital Signature
- ☐ Do not verify Digital signature

Validate Structure:

- ☒ Defer to Document Type
- ☐ Validate Structure
- ☐ Do not validate structure

Check for Duplicate Document:

- ☒ Defer to Document Type
- ☐ Use built-in service to check for duplicate document Document ID only
- ☐ Use custom service to check for duplicate document
- ☐ Do not check for duplicate document

Save Document to Database:

- ☒ Defer to Document Type
- ☐ Save all documents
- ☐ Content
- ☐ Attributes
- ☐ Activity Log
- ☐ Do not save

Processing Rule Actions

The purpose of the actions in a processing rule is to specify how Trading Networks is to process a document. Trading Networks can be instructed to either ignore the document (that is, do nothing) or to perform one or more of the following actions in the order listed below:

- ⑩ Execute a Service
- ⑩ Send an E-Mail alert
- ⑩ Change user status action
- ⑩ Deliver the document to the receiver
- ⑩ Respond with a message
- ⑩ Large Document Handling

The screenshot shows the 'Processing Rule Details' dialog box. It has tabs for 'Criteria', 'Extended Criteria', 'Action', and 'Pre-Processing'. The 'Action' tab is selected. In the background, the 'Processing Rule Details' form has fields for '*Name:', 'Ordinal: LAST', a checked 'Enabled' checkbox, and a 'Description:' text area. An 'Add Action...' button is visible. In the foreground, the 'Add Action' sub-dialog is open. It features a dropdown menu for 'Action:' set to 'Execute a service', a 'Select Service:' field with a folder icon, and an 'Execution Mode:' section with three radio buttons: 'Synchronous' (selected), 'Asynchronous', and 'Service execution task'. 'OK' and 'Cancel' buttons are at the bottom right of the sub-dialog.

Processing Rule Details

*Name:

Ordinal: LAST

☒ Enabled

Description:

Criteria Extended Criteria **Action** Pre-Processing

Add Action...

Add Action

Action:

Select Service:

Execution Mode:

☒ Synchronous

☐ Asynchronous

☐ Service execution task

OK Cancel

Execute a Service

Use the Execute a service action to have Trading Networks invoke a service that you specify. The service can perform any action you want.

Before you can use the Execute a service action, the service that you want to invoke must exist on the Integration Server.

To specify that you want Trading Networks to execute a service synchronously or asynchronously, you select one of the following:

- ⑩ Synchronous.
- ⑩ Asynchronous.
- ⑩ Service execution task

Synchronous: Trading Networks attempts to synchronously execute the service a single time.

Asynchronous: Trading Networks attempts to asynchronously execute the service a single time.

Service Execution Task: Trading Networks sets up a service execution task for the asynchronous execution of the service. Trading Networks uses reliable execution to re-execute the service one or more times if the service fails.

What does Trading Networks return to the caller?

Synchronous

- ⑩ If you do not select the Respond With processing action, the results of the service are returned unmodified to the caller that sent the document for processing.
- ⑩ If you do select the Respond With processing action, Trading Networks does not return the results of the service to the caller. It returns only the message that you specify with the Respond With action.

Asynchronous and service execution task

- ⑩ If you do not select the Respond With processing action, Trading Networks returns no additional information to the caller.
- ⑩ If you do select the Respond With processing action, Trading Networks returns the message that you specify with the Respond With action.
- ⑩ Trading Networks cannot return the results of the service because the service might not be complete.

Processing Rule

Processing Rule Details

*Name: Gateway

Ordinal: 22

☒ Enabled

Description: GatewayService Test

Criteria

Extended Criteria

Action

Pre-Processing

Add Action...

Add Action

Action: Alert e-mail

Email To: Alert e-mail
Change user status

Subject: Deliver document by
Respond with

Mail Body:

OK Cancel

Processing Rule Actions

Send An Alert E-mail

⑩ Use the Alert e-mail action to send an e-mail message to a specified contact.

⑩ Recipient of the E-mail Message

You can use one of the following as the recipient of the e-mail message:

⑩ Sender

⑩ Receiver

⑩ webMethods Administrator

Change User Status Action

⑩ Use the User Status action to change the user status that is associated with a document.

⑩ Here User Status system attribute is changed.

⑩ This is associated with a document in processing.

⑩ Indicate the status of the document in the processing.

⑩ Eg:- If a PO requires approval, then an email is sent to the concerned person and User Status is changed to 'Pending Approval'.

Deliver The Document To The Receiver

Deliver The Document To The Receiver

When a processing rule includes the Deliver Document By processing action, Trading Networks attempts to deliver a document to the receiver that is identified in the document. In the processing rule, you can specify one of four ways to deliver Mainly :

- ⑩ Immediate Delivery
- ⑩ Scheduled Delivery
- ⑩ Queued for polling
- ⑩ Preferred protocol

By default, TN uses reliable delivery – Message is delivered to the receiver until it is successful.

Respond with a Message

- ⑩ Here, TN will return the message mentioned to the sender of the document.
- ⑩ We must mention the message and its content type.

What have we learnt?

- Processing Rules
- Pre-Processing
- Processing Rule Action
- Creation of Processing Rule
- Configuring Processing rule action

Q & A

- ❖ What is Processing Rule?
- ❖ What is the use of Pre-Processing Rule?
- ❖ What is Processing Rule Action?
- ❖ Which parameters is used to avoid duplicate documents ?
- ❖ what happens when none of the processing rule match the document type?

A decorative graphic in the top right corner consisting of a cluster of small, overlapping squares in various shades of blue, green, and grey, arranged in a pattern that suggests movement or a digital trail.

Thank You