

# **BizTalk Server 2006 R2: AS2**



# Objectives

What is AS2

AS2 Implementation in R2

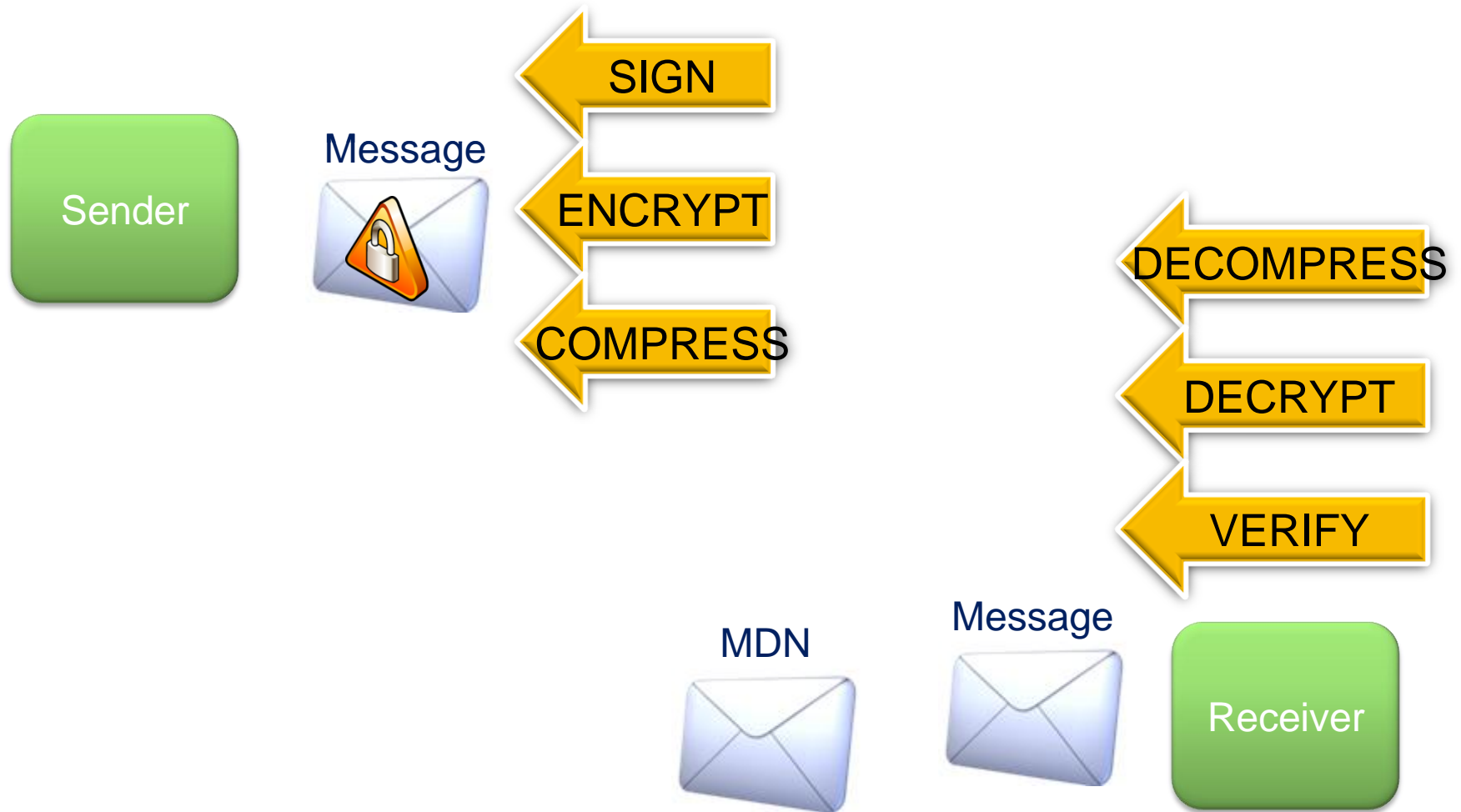
How to configure Parties

How to configure Certificates

# AS2

- **EDI over the internet (EDIINT)**
- **W3C specification (rfc4130) for mime-encoding, encrypting, and signing of message over HTTP**
  - Built for EDI – but doesn't limit itself to EDI messages
- **BizTalk Server 2006 has fully Drummond Group compliant implementation**
  - Doesn't limit itself to EDI messages
  - Is limited to HTTP Receive and Send Adapters
  - HTTPS can be used
- **Key settings for BizTalk**
  - Party configuration
  - Certificate management (in both Windows Certificate Stores and BizTalk configuration)

# What does an AS2 implementation do?



# AS2 Pipelines

- **One each for EDI messages**
  - AS2EDIReceive
  - AS2EDISend
- **One each for non-EDI messages**
  - AS2Receive
  - AS2Send
- **AS2 processing in R2 done by pipelines (not adapters)**
  - Pipelines require HTTP Receive and Send Adapters be used

# AS2 and Parties

- Every AS2 partner must be configured as a party
- Must set Party level properties
  - AS-From must be set for inbound message recognition
  - Certificate (assuming encryption/signing is configured)

AS2PartyIamReceivingFrom - Party Properties

**General**

Parties represent a trading partner or backend application with which a business process can interact.

Name: AS2PartyIamReceivingFrom

Aliases: ✖ Delete

	Name	Qualifier	Value
	Organization	OrganizationName	AS2PartyIamReceivingFrom
	AS2-From	AS2-From	TradingPartnerName

# AS2 Properties

- Right-click on Party in MMC and select “AS2 Properties”
- Defaults are set to common AS2 settings

AS2TradingPartner - AS2 Properties

**General**

Party as AS2 Message Sender  
Party as AS2 Message Receiver

BizTalk Server Party ID: 8

☐ Activate AS2 reporting  
☐ Check Certification Revocation List  
☐ Ignore SSL Certificate Name mismatch  
☒ HTTP expect 100 continue  
☒ Keep HTTP connection alive  
☒ Unfold HTTP headers

Agreement details

Text 1:

Text 2:

Agreement:

# Party as AS2 Message Sender

- For when you are  
\*receiving\*  
messages  
from this  
party
- Default is to  
accept  
inbound  
message as-  
is
- Override  
inbound  
message  
properties

The screenshot shows a software window titled "AS2TradingPartner - AS2 Properties". On the left is a tree view with "General" and "Party as AS2 Message Sender" (selected). The main area displays settings for the selected tab. Under "General", there are four checkboxes: "Override inbound message properties" (checked), "Store inbound AS2 messages in non-repudiation database" (unchecked), "Store inbound decoded AS2 messages in non-repudiation database" (unchecked), and "Store outbound MDN in non-repudiation database" (unchecked). Under "Incoming AS2 message", there are three checkboxes: "Message should be signed" (unchecked), "Message should be compressed" (unchecked), and "Message should be encrypted" (unchecked). Below these is a "Generate MDN" section with "Sign MDN" checked and "Transmit MDN asynchronously" unchecked. A text field for "Receipt-Delivery-Option (URL):" is empty. At the bottom, there is an unchecked checkbox for "Sign requested MDN if Disposition-Notification-Option header is not present or if Signed-Receipt-Protocol header is set to optional" and an "MDN Text" label above a text area.

AS2TradingPartner - AS2 Properties

General

Party as AS2 Message Sender

Party as AS2 Message Receiver

General

- ☒ Override inbound message properties
- ☐ Store inbound AS2 messages in non-repudiation database
- ☐ Store inbound decoded AS2 messages in non-repudiation database
- ☐ Store outbound MDN in non-repudiation database

Incoming AS2 message

- ☐ Message should be signed
- ☐ Message should be compressed
- ☐ Message should be encrypted

Generate MDN

- ☒ Sign MDN
- ☐ Transmit MDN asynchronously

Receipt-Delivery-Option (URL):

☐ Sign requested MDN if Disposition-Notification-Option header is not present or if Signed-Receipt-Protocol header is set to optional

MDN Text



# Receiving AS2 Messages

- **R2 looks at the AS2-From HTTP header of the incoming message to resolve the Party**
  - First look for AS2-From qualifier in the Party configuration – tries to match value
  - If not found – will try to match value of AS2-From against the names of each Party configured
  - If Party is not found – message will be rejected
  - Once party is resolved - AS2 Properties kick in for processing
- **Create a subscription for the incoming message using any valid Message Context properties**

# Message Disposition Notification (MDN)

- **AS2 Pipelines generate MDN if configured**
  - Can be synchronous or asynchronous
- **Synchronous MDNs**
  - Requires Request-Response Receive Port
  - MDN send as HTTP response to trading partner
- **Asynchronous MDNs**
  - One way Receive Port
  - MDN sent to Message Box
  - Create a Send Port with the correct subscription (one-way dynamic Send Port)
  - URI comes from Receipt-Delivery-Option (from message or properties)
  - `EdiIntAS.IsAS2AsynchronousMDN` can be used in the Send Port subscription
  - Can be passed through an Orchestration

# Party as AS2 Message Receiver

- For when you are **\*sending\*** messages to this party
- **AS2-From & AS2-To** settings configured here are used in outbound message

The screenshot shows the 'AS2TradingPartner - AS2 Properties' dialog box. The left pane has two tabs: 'General' and 'Party as AS2 Message Receiver'. The right pane is titled 'Party as AS2 Message Receiver' and contains the following settings:

- General**
  - ☐ Store outbound encoded AS2 messages in non-repudiation database
  - ☐ Store outbound decoded AS2 messages in non-repudiation database
  - ☐ Store inbound MDN in non-repudiation database
  - ☐ Process inbound MDN into MessageBox for routing/delivery options
- Outbound AS2 Message**
  - ☒ Sign Message
  - ☒ Compress Message
  - ☒ Encrypt Message: DES3
  - Default content type: text/plain
  - AS2-From: BizTalk
  - AS2-To: AS2TradingPartner
- Request MDN**
  - ☒ Request signed MDN
  - ☐ Request asynchronous MDN
- Receipt-Delivery-Option (URL):
- Disposition-Notification-To:
- Signed-Receipt-MICalg: MD5

# Sending AS2 Messages

- **Requirements**

- Send Port configured with the HTTP Send Adapter
- AS2Send or AS2EDISend pipeline configured

- **AS2 pipelines determines the Party by (in order)**

- Looks for AS2To Message Context property (must be set in Orchestration or via custom pipeline component)
- Looks for AS2-To HTTP header in Http.UserHttpHeaders context property
- Tries to match Send Port against Send Port associated with Parties

- **Uses Party AS2 settings to generate AS2 message**

- EDI settings will also be used if AS2EDISend is configured
- Processing fails if no Party found

# Certificates

- **Implementation of AS2 requires certificates**
- **Your certificate**
  - Public and Private key needed for decryption and signing
- **Partner's certificate**
  - Public key needed to for encryption and signature verification
- **Certificates must be in the proper Windows Certificate Store**
- **Certificates must be configured in the proper place in BizTalk**

# Certificate Management

Msg	Direction	Type	Owner	Public or Private	Location	Configure
Message	Outbound	Signing	Home Org	Private	Personal certificate store of in-proc host user	BizTalk Group / Properties / Certificate
Message	Outbound	Encryption	Partner	Public	Other People certificate store of local computer	Send port / Certificate
Message	Inbound	Signing	Partner	Public	Other People certificate store of local computer	Party / Certificate
Message	Inbound	Encryption	Home Org	Private	Personal certificate store of in-proc host user	Isolated Host / Certificates
MDN	Outbound	Signing	Home Org	Private	Synch MDN: Personal certificate store of isolated host user  Asynch MDN: Personal certificate store of in-proc host user	BizTalk Group / Properties / Certificate
MDN	Inbound	Signing	Partner	Public	Other People certificate store of local computer	Party / Certificate

# Non-repudiation and reporting

- **AS2 reporting is enabled on a per-party basis**
  - Disabled by default
- **AS2 reporting requires BAM**
- **AS2 reports:**
  - AS2 Message and Correlated MDN Status Report
  - AS2 Message Content Status Reports (requires messages sent to non-repudiation database)
- **Report is found at bottom of Group Hub page in the BizTalk Server Administration Console MMC**
  - Data can be pulled for custom reporting as well

# Summary

- **BizTalk Server 2006 R2 has a Drummond Group certified AS2 implementation**
- **Need to configure**
  - Certificates
  - Parties
  - Pipelines
- **HTTP adapters only**