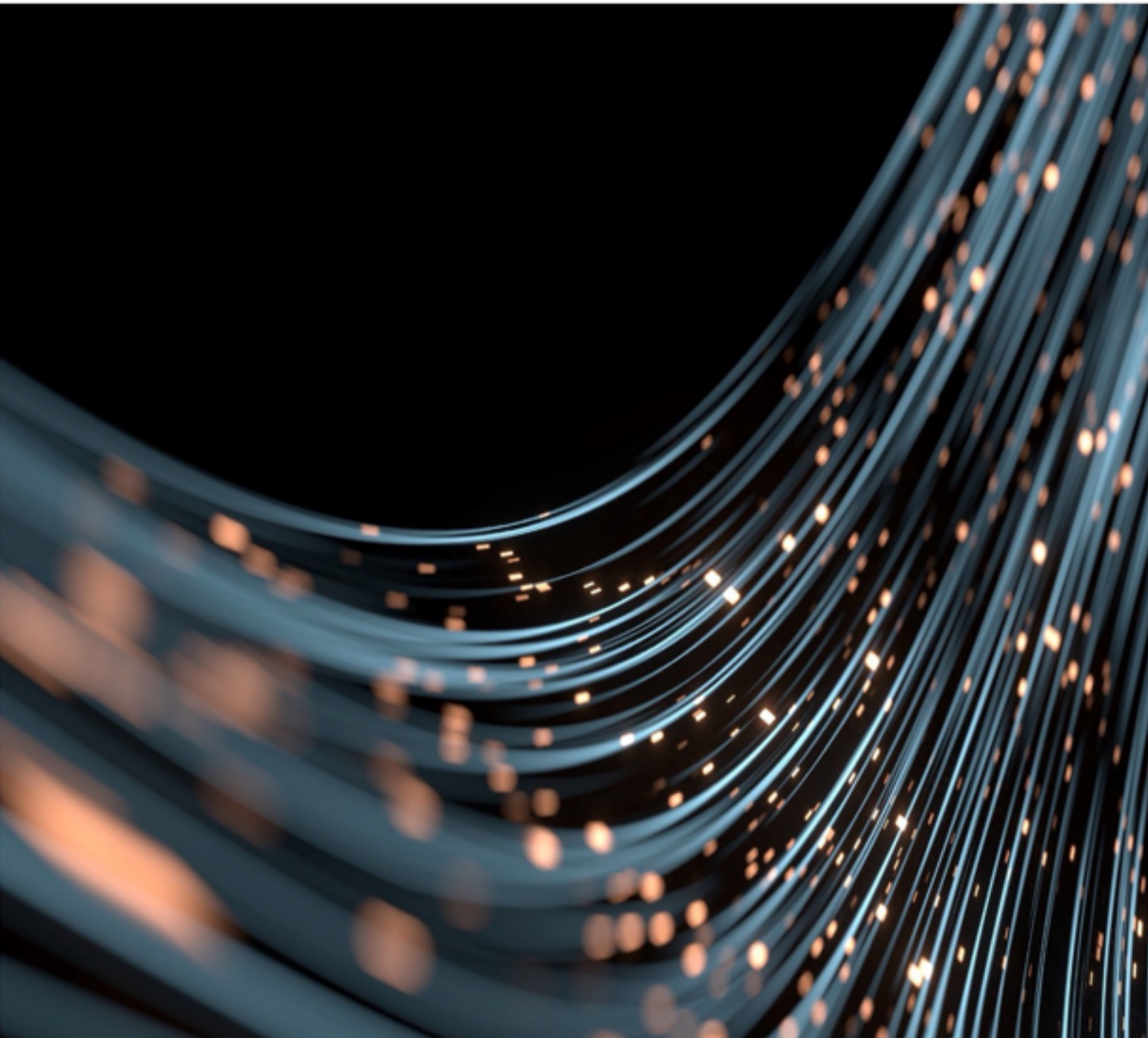


# AS4 Profile

Version 1.0

July 2023



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## 2 Version History

Revision date	Version	Change description	Editor
07/20/2023	1.0	Initial version	BPC Market Pilot Technical Committee

## 3 Introduction

### 3.1 Scope

*This specification is a profile of the OASIS AS4 Interoperability Profile for Four-Corner Networks Version 1.0 Committee Specification 01 (BDXR AS4) published here:*

<https://docs.oasis-open.org/bdxb/bdx-as4/v1.0/cs01/bdx-as4-v1.0-cs01.html>.

AS4 is used in the DBNAlliance network for the transmission of asynchronous messages between Access Points (Corners 2 and 3). Together with the BDXR AS4 specification, this document specifies how AS4 is used in the DBNAlliance network. All Access Points MUST conform to all normative conformance statements in this document and MUST conform to all conformance clauses in sections 7.1 and 7.3 of the BDXR AS4 specification.

### 3.2 Conformance

The keywords 'MUST', 'MUST NOT', 'REQUIRED', 'SHALL', 'SHALL NOT', 'SHOULD', 'SHOULD NOT', 'RECOMMENDED', 'MAY', and 'OPTIONAL' in this specification are to be interpreted as described in RFC2119 and RFC 8174 when, and only when, they appear in all capitals, as shown here.

### 3.3 Terms and Definitions

For the purpose of this specification, all terms shall have the definitions defined in the document Terms and Definitions of the DBNAlliance version 1.0.

### 3.4 Disclaimers and Copyright

Views expressed here are not necessarily those of, and should not be attributed to, any particular DBNAlliance participant or organization. They are not intended to provide business or legal advice, nor are they intended to promote or advocate a specific action, payment strategy, or product. Readers should consult with their own business and legal advisors.

This specification is the work product of the DBNAlliance, and readers are free to republish this specification in whole or in part without further permission, as long as the work is attributed to the DBNAlliance, and in no way suggests the DBNAlliance sponsors, endorses or recommends any organization or its services or products. Other product names and company names referenced within this document may be either trademarks or service marks of their respective owners.

## 4 PMode Parameters

### 4.1 General

An Access Point **MUST** implement all PMode parameters exactly as specified in the OASIS AS4 Interoperability Profile for Four-Corner Networks Version 1.0 Committee Specification 01 (BDXR AS4) as published here:

<https://docs.oasis-open.org/bdxr/bdx-as4/v1.0/cs01/bdx-as4-v1.0-cs01.html>

PMode parameters and network policies specific to the DBNAlliance are specified in this document and **MUST** be implemented exactly as specified in section 4.2 below.

### 4.2 DBNAlliance specific PMode parameters and configurations

#### 4.2.1 PMode.Agreement

<b>Parameter</b>	PMode.Agreement
<b>Type</b>	Constant
<b>Description and usage</b>	Uniquely identifies that the message exchange is governed by the DBNAlliance network agreements and policies.
<b>Value</b>	<a href="https://dbnalliance.org/agreements/access_point.html">https://dbnalliance.org/agreements/access_point.html</a>

#### 4.2.2 PMode[1].ReceptionAwareness.Retry

<b>Parameter</b>	PMode[1].ReceptionAwareness.Retry
<b>Type</b>	Constant
<b>Description and usage</b>	Specifies that Access Points in the DBNAlliance network <b>MUST</b> retry sending messages if the first attempt(s) failed.
<b>Value</b>	True

#### 4.2.3 PMode[1].ReceptionAwareness.Retry.Parameters

<b>Parameter</b>	PMode[1].ReceptionAwareness.Retry.Parameters
<b>Type</b>	Constant
<b>Description and usage</b>	Specifies the parameters and requirements when retrying sending a message in the DBNAlliance network.
<b>Value</b>	<i>Access points <b>MUST</b> retry at least 5 times over 6 hours with no fewer than 15 seconds between attempts and <b>MUST NOT</b> continue retrying for longer than 12 hours, at which point they <b>SHOULD</b> throw a missing receipt error as specified in the AS4 Profile of ebMS 3.0 Version 1.0 specification.</i>

#### 4.2.4 PMode[1].ReceptionAwareness.DetectDuplicates.Parameters

<b>Parameter</b>	PMode[1].ReceptionAwareness.DetectDuplicates.Parameters
<b>Type</b>	Constant

<b>Description and usage</b>	Specifies the parameters and requirements for detecting and handling duplicate messages in the DBNAlliance network.
<b>Value</b>	<i>A receiving Access Point MUST detect if a received message is a duplicate of a message already received within 30 days.</i>

#### 4.2.5 PMode[1].ErrorHandling.Report.MissingReceiptNotifyProducer

<b>Parameter</b>	PMode[1].ErrorHandling.Report.MissingReceiptNotifyProducer
<b>Type</b>	Constant
<b>Description and usage</b>	Specifies that a sending Access Point in the DBNAlliance network MUST notify the calling application in case of permanent message delivery failure.
<b>Value</b>	True

#### 4.2.6 PMode[1].Security.X509.Encryption.Encrypt

<b>Parameter</b>	PMode[1].Security.X509.Encryption.Encrypt
<b>Type</b>	Constant
<b>Description and usage</b>	Specifies whether to encrypt AS4 messages in the DBNAlliance network.
<b>Value</b>	True

#### 4.2.7 PMode[1].Security.X509.Encryption.Algorithm

<b>Parameter</b>	PMode[1].Security.X509.Encryption.Algorithm
<b>Type</b>	Constant
<b>Description and usage</b>	Specifies the encryption algorithm used for AS4 message encryption in the DBNAlliance network. Only AES-256 with GCM mode is allowed in the DBNAlliance network.
<b>Value</b>	<a href="http://www.w3.org/2009/xmlenc11#aes256-gcm">http://www.w3.org/2009/xmlenc11#aes256-gcm</a>

## 5 Referencing This Profile

When referencing this profile, such as from the `Endpoint/TransportProfileID` element of an SMP record, the following identifier MUST be used:

```
bdxr-as4-1.0#dbnalliance-1.0
```