

**STANDARD-RELATED DOCUMENT**

**ADatP-4778.3**

**BINDING PROFILE MODIFICATION  
PROPOSAL MANAGEMENT**

**Edition A Version 1**

**OCTOBER 2022**



**NORTH ATLANTIC TREATY ORGANIZATION**

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**NATO LETTER OF PROMULGATION**

17 October 2022

1. The enclosed Standard-related Document ADatP-4778.3, Edition A, Version 1 BINDING PROFILE MODIFICATION PROPOSAL MANAGEMENT, which has been approved in conjunction with ADatP-4778 by the nations in the CONSULTATION, COMMAND AND CONTROL Board (C3B), is promulgated herewith.
2. ADatP-4778.3, Edition A, Version 1 is effective upon receipt.
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4. This publication shall be handled in accordance with C-M(2002)60.



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Major General, GRC (A)  
Director, NATO Standardization Office

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## CHAPTER 1 INTRODUCTION

### 1.1. BACKGROUND

The Primary Directive on Information Management (PDIM) prescribes the application of metadata and markings in accordance with NATO policies and directives to facilitate sharing and control of NATO information.

The PDIM defines metadata as structured information that describes, explains, locates, and otherwise makes it easier to retrieve and use an information resource. The structure consists of 'elements', each of which will contain 'values'. The values relate to the resource itself, there may be controls over what the actual values can be.

Metadata is a key enabler for the effective and efficient management of information. Modern automated information systems require information resources to be labelled with metadata.

### 1.2. Objective

The NATO Core Metadata Specification (NCMS) defines a set of core metadata elements to support information management in the Alliance.

This document recognizes the existence of communities of interest's specific metadata standards and aims at steering their evolution in the mid to long term and at providing a single mediation standard in the short term to achieve sharing of information among different communities of interest.

### 1.3. Scope

NCMS applies to all NATO information and to any information resource handled or processed by NATO's communications and information systems. NCMS describes information resource and supports its consistent and appropriate handling.

All NATO civil and military bodies are mandated to use NCMS.

Allies and Partners must also use NCMS when handling NATO information.

### 1.4. NATO Metadata Regulatory Standards

NATO has the following metadata standards:

- **ADatP-5636** NATO Core Metadata Specification defines the core set of metadata elements that must be used to support interoperable information exchange

- **ADatP-4774** Confidentiality Metadata Label Syntax provides support for the Security Layer metadata elements
- **ADatP-4778** Metadata Binding Mechanism describes how to consistently bind metadata (of any sort) to a finite data object

Standard-related Documents (SRDs) are complementing those three standards by providing implementation and other guidance.

## NATO Labelling STANAGs

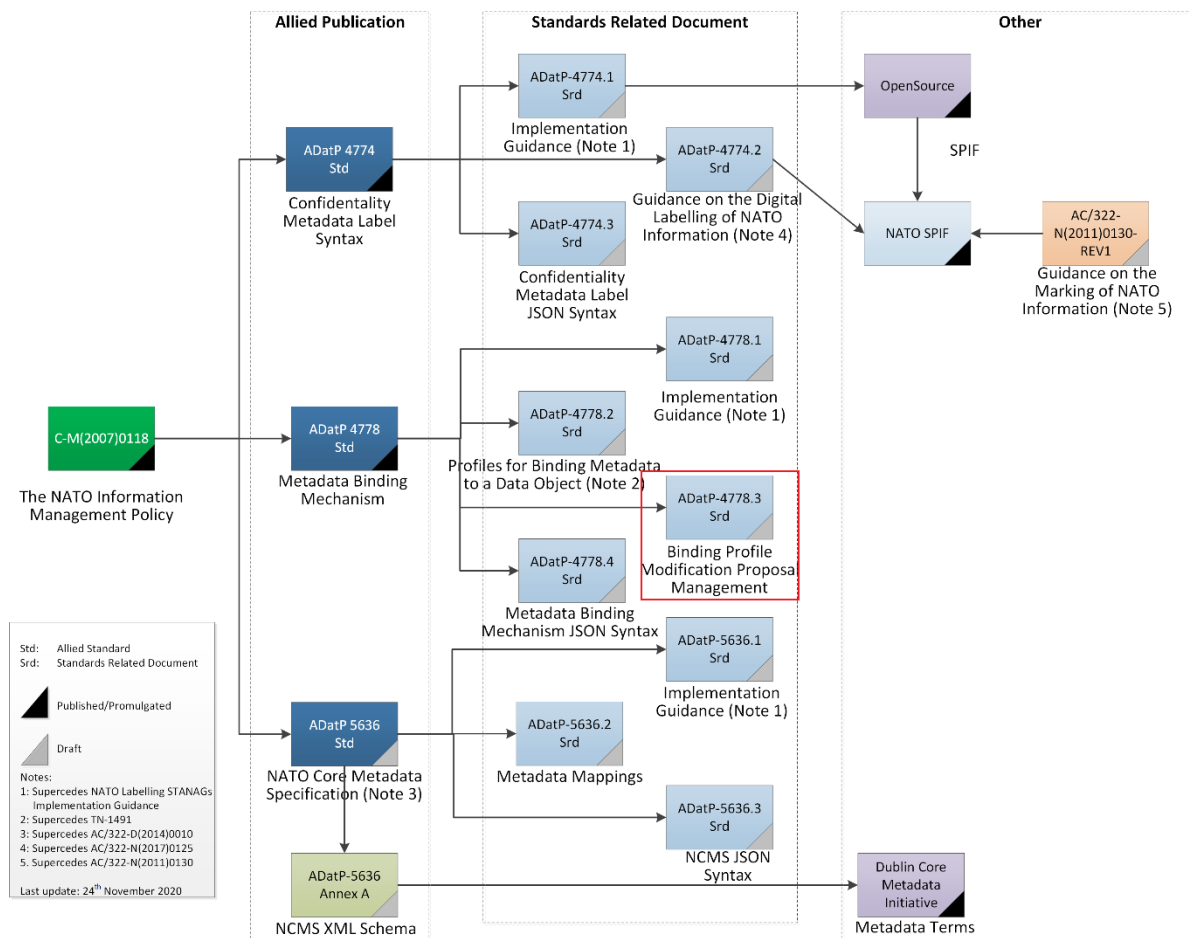


Figure 1: NATO Labelling STANAGs

This document (SRD) is Binding Profile Modification Proposal Management (highlighted in a red, dashed box in Figure 1).

### 1.5. Summary

ADatP-4778 - Metadata Binding Mechanism specifies a method for binding metadata information (including confidentiality metadata labels) to finite data objects.



There is a need for complementary profiles (Binding Profiles, ADatP-4778.2 SRD) that define how metadata should be bound to specific data object types and where the resulting binding should be located with respect to the data object.

These profiles reduce the risks to capability procurement for common funded programmes in the NATO Enterprise by ensuring that all data objects of a given type and labelled in a consistent manner and that the metadata binding can be located.

As technology evolves new data formats and protocols emerge whilst others are deprecated. Therefore, profiles may also need to evolve. As such, Binding Profiles needs to be regularly reviewed for applicability and new profiles specified to support evolving technologies.

This Standard-related Document (SRD) captures the modification proposal management process required to support the evolution of Binding Profiles.

## **1.6. References**

- [1] AAP-03, "Directive for the Production, Maintenance and Management of NATO Standardization Documents"

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<b>CHAPTER 2      MODIFICATION PROPOSAL MANAGEMENT</b>
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### **2.1. Binding Profiles Modification Proposal Process**

The Binding Profiles Modification Proposal Process follows the Directive for the Production, Maintenance and Management of NATO Standardization Documents, Ref. [1].

It provides specific details on the Review and Maintenance Phase (Phase 7) of the NATO Standardization Process (see section 2.8 of Ref. [1]).

The Binding Profiles (ADatP-4778.2 SRD) will be updated every 12 months to account for the evolution of standards and technology, along with validation efforts as a result of yearly testing at CWIX.

Each profile specified in Binding Profiles should be reviewed every five years by their originators to ensure their accuracy and continued relevance.

Three types of modification proposals are supported:

- New binding profile: captures major changes to existing binding profiles or profiles for data formats or application-level protocols currently not supported;
- Modified binding profile: captures minor backwards compatible changes to existing profiles; and,
- Deprecated binding profile: captures existing profiles not deemed relevant or required.

Modification Proposals to the Binding Profiles will follow the process illustrated in Figure 2.

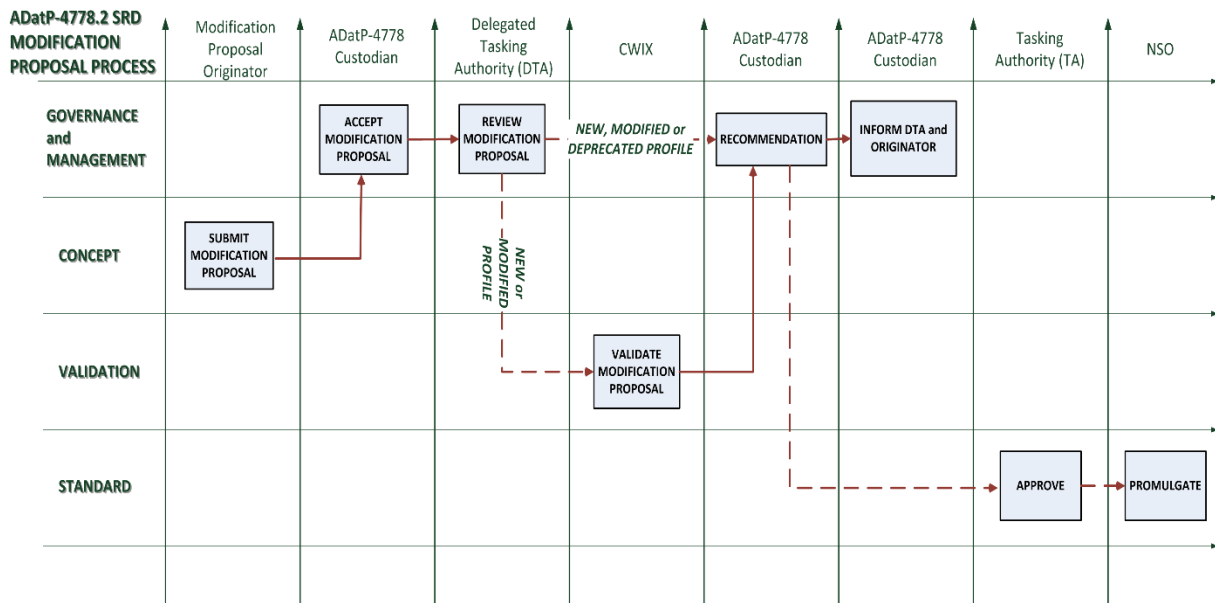


Figure 2: Binding Profiles Change Proposal Management Process

A cover form for the modification proposal is provided in ANNEX A. The cover form provides the necessary information for managing the modification proposal.

A template for submitting a new profile is provided in ANNEX B.

The primary point of contact for Modification Proposal submissions is the NATO Information Management Authority (NIMA). The cover form and completed profile template (if required for a new profile) shall be submitted via email to:

[mailboxNIMA@hq.nato.int](mailto:mailboxNIMA@hq.nato.int)

NIMA will coordinate the modification proposal with the Custodian and for review with the appropriate subject matter experts (SMEs).

Based on the review and the type of modification proposal (i.e. new, modified or deprecated binding profile) the modification proposal shall then be either:

- put forward to be validated by three separate implementations at appropriate interoperability events (e.g. CWIX);
- recommended for approval as a new, modified or deprecated profile;
- returned to the originator for additional clarification or details; or
- rejected.

A successful modification proposal shall be incorporated into a new version of the Binding Profiles.

An amendment of the Binding Profiles shall be submitted to the Tasking Authority for approval.

Once approved by the Tasking Authority the new version of Binding Profiles shall be passed to the NATO Standardization Office (NSO) for promulgation.

## **2.2. Interoperability Standards and Profiles Update**

NIMA shall inform the Custodian and the Originator (of each modification proposal included in the new version of the Binding Profiles) that the new version of the Binding Profiles has been approved.

ADatP-4778.2 is an SRD and by its nature is only informative. Profiles are only mandatory to implement if referenced from NATO organisations or nations interoperability standards and profiles and explicitly made normative.

It is recommended that NATO organisations and nations update their interoperability standards and profiles to refer to the new version of Binding Profiles, where applicable.

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<b>ANNEX A      Modification Proposal Cover Form</b>
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<b>Date:</b>	Click or tap to enter a date.
<b>Type of Modification Proposal:</b>	Choose an item.
<b>Originator:</b>	<i>[Please insert the name of your organization. E.g. NATO Command Structure element, NATO staff, national staff, etc.]</i>
<b>Title:</b>	<i>[Please insert the name of the Binding Profile.]</i>
<b>Version Identifier</b>	urn:nato:stanag:4778:profile:<profile>:<version>
<b>Rationale for proposed modification:</b>	<i>[Please provide details of your modification proposal and the desired effect on the related Binding Profile.]</i>
<b>Additional Comments:</b>	<i>[Please report any other information you consider relevant.]</i>
<b>Contact Information:</b>	
<b>Name and signature:</b>	Name:  Signature:

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**ANNEX B      Binding Profile Template****<Name> Binding Profile****B.1. Introduction****B.2. Identification**

The profile for <name> is uniquely identified by the Canonical Identifier shown in Table 1.

Type	Identifier
Canonical Identifier	urn:nato:stanag:4778:profile:<name>
Version Identifier	urn:nato:stanag:4778:profile:<name>:1:0

*Table 1: Profile Identifiers*

It is recognized that this profile may evolve during its review cycle. For example, a review might identify:

- changes to the base <name> standard
- improvements to the existing profiles based upon operational feedback

Therefore this version of the profile is uniquely identified by the Version Identifier shown in Table 1.

Subsequent versions of this profile will maintain the same Canonical Identifier, but define a new Version Identifier

**B.3. Standards**

- [1] STANAG 4774, Confidentiality Metadata Label Syntax, Brussels, Belgium
- [2] STANAG 4778, Metadata Binding Mechanism, Brussels, Belgium
- [3] AAP-03, Directive for the Production, Maintenance and Management of NATO Standardization Documents, Edition K, Version 1, February 2018
- [4] IETF RFC 2119, "Key words for use in RFCs to Indicate Requirement Levels", S Bradner, Harvard University, March 1997

**B.4. Notational Conventions**

- The keywords "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in Reference [4].

- Words in *italics* indicate terms derived from Reference <XXXX> and this profile.
- `Courier font` indicates syntax derived from References <XXXX>.

## B.5. <Binding Profile> Structure

## B.6. Cryptographic Artefacts Profile

The Cryptographic Artefacts binding profile **<Select Cryptographic Artefact Profile>** SHALL be adhered to for the use cases that cryptographic bindings are required to provide a higher level of integrity protection, authenticity and non-repudiation of the binding specified in this profile.

Unless otherwise stated, all statements that apply to the Cryptographic Artefacts binding profile **<Select Cryptographic Artefact Profile>** also apply to this profile for generating and validating cryptographic bindings.

It is RECOMMENDED that the requirements specified in Cryptographic Artefacts binding profile URI Schemes are adhered to.

**<Additional cryptographic artefacts requirements specific to this profile?>**

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