Architecting Profile

Formalism

This profile mandates NAFv4 as the conceptual foundation for architecting in NATO.

Services	Architecture Management Application
Standards	*Mandatory* Organisations will have to select one of the two agreed Meta Models either either Archimate from Open Group or UAF from OMG. NATO Architecture Framework v4, C3B AC/322-N(2018)-0002 ● ArchiMate 3.1 Specification, Open Group, C197, Nov 5, 2019 ● Unified Architecture Framework 1.0 (UAF) Domain Meta-Model (DMM) (OMG formal/2017-10-01:2017) *Optional* ● Systems and software engineering - Architecture description, ISO/IEC/IEEE 42010, Dec 1, 2011

Standard Language

The following standards describe both a modelling language and a notation for developing models. UAF and Archimate for modelling NAF 4 compliant architecture descriptions.

Services	Architecture Management Application
Standards	*Mandatory* Depending on the Meta Model used the following specifications apply ● Unified Architecture Framework Profile 1.0 (UAF) (OMG formal/2017-10-01:2017) ● ArchiMate 3.1 Specification, Open Group, C197, Nov 5, 2019

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Optional

- Elipse, Arcadia/Capella 1.4, Jan 17, 2014
- Function Modeling Method, IDEF IDEF0, Dec 21, 1993
- Data Modeling Method, IDEF IDEF1X, Dec 21, 1993
- Service-Oriented Architecture Modeling Language 1.0.1 (SOAML), OMG formal/12-05-10, May 2012

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Process

When developing architectures the adapted ADM methodology from TOGAF as described in NAF 4 chapter 2 should be followed. It is also recommended to be familiar with ISO 42020 as it covers aspect not included in NAF 4.

Services	Architecture Management Application
Standards	*Mandatory* ● NATO Architecture Framework v4, C3B AC/322-N(2018)-0002 *Recommended* ● Enterprise, systems and software - Architecture processes, ISO/IEC/IEEE 42020, July 2019
Implementation Guidance	Chapter 2 in NAF should always be followed. 42020 may be used as well

Evaluation

ISO 42030 describes how architecture evaluations are performed for many reasons, including – determining if a system of interest has been or is being architected in such a way that it fulfils its intended purpose, evaluating the architecture's effectiveness and suitability towards particular needs of stakeholders, identifying risks for mitigation and identifying opportunities for its improvement.

Stakeholders involved in architecture governance are often accountable for these and they have a need to conduct or commission recurring architecture evaluations which can be executed in a systematic fashion.

Services	Architecture Management Application
Standards	*Mandatory* For evaluation of Architecture Products use ISO/IEC/IEEE 42030 ● Enterprise, systems and software - Architecture Evaluation, ISO/IEC/IEEE 42030, July 2019 *Recommended* ATAM as evaluation method for architecture products ● ATAM: Method for Architecture Evaluation, CMU/SEI-2000-TR-004, Aug 2000 *Mandatory* ● Enterprise, systems and software - Architecture processes, ISO/IEC/IEEE 42020, July 2019

Architecture Product Exchange

Services	Architecture Management Application

Standards	*Mandatory* Architecture products shall be exchanged in accordance with the Archimate Model Exchange File Format using a pivot meta model. ● Archimate Model Exchange File Format for the ArchiMate Modelling Language 3.1, Open Group C19C, Nov 15, 2019
ImplementationGuidance	This requires a new guidance document to be developed by the AcaT.

Management

Ensure execution of directives for development of the architectures, to ensure that the development runs according to these directives, to the expected timetables, to the assigned budgets, and that the architecture satisfies its objectives.

Services	Architecture Management Application
Standards	*Mandatory* ● Enterprise, systems and software - Architecture processes, ISO/IEC/IEEE 42020, July 2019 ●
Implementation Guidance	For service quality aspects - should be partially or totally compliant.

Governance

Establish standards and policies related to one or more architectures of interest and their development, and to monitor and facilitate the alignment of the architecture(s) to stakeholder concerns, policies and standards, including organizational and

environmental constraints.

Services	Architecture Management Application
Standards	*Mandatory* ● Enterprise, systems and software - Architecture processes, ISO/IEC/IEEE 42020, July 2019
Implementation Guidance	For methodology and quality aspects, architecture governance should be partially or totally compliant with ISO 42020