

# The MODAF Technical Standards Viewpoint

## Viewpoint Summary



The Technical Standards Viewpoint details the standards, rules, policy and guidance that are applicable to aspects of the architecture.

The Technical Standards Viewpoint provides 2 Technical Standard Views (TVs) that present both technical and non-technical standards - i.e. TVs apply to systems (e.g. standards, and protocols), AND operational activities (e.g. operational doctrine and Standard Operating Procedures (SOPs)). In addition they can be used for other non-technical standards, e.g. those associated with industry process.

The elements contained in the TVs will come from a number of sources including the policy setting organisations in MOD, and interoperability standards from the Sponsor of the architecture activity. The TVs should then be managed and updated throughout the acquisition lifecycle by the standardisation officers within Delivery Teams.

## Views

There are 2 TVs that make up the Technical Standards Views Viewpoint:

- 1  [TV-1 Standards Profile](#) Page 2  
Defines the technical and non-technical standards, guidance and policy applicable to the architecture.
  
- 2  [TV-2 - Standards Forecast](#) Page 4  
Describes the expected changes in technology-related standards and conventions which are documented in the TV-1 Product

## **TV-1 - Standards Profile**

TV-1 defines the technical and non-technical standards, guidance and policy applicable to the architecture. The standards specified in TV-1 may be traced to elements elsewhere in the architecture to indicate those elements conform to the standards.

### **Background**

Standards are essential to the coherent running of businesses and to the delivery of reliable, interoperable systems. The TV-1 lists all the currently ratified standards that have been used throughout the architecture, and so acts as a checklist to help the architect ensure conformance.

A TV-2, Standards Forecast, should additionally be used if emerging standards have been identified and used in the architecture.

### **Usage**

- Application of standards (informing project strategy).
- Standards compliance.

### **Data objects**

The data in a TV-1 can include:

- Standard.
- Protocol.
- Ratification Body (the organisation that ratified the standard).
- Spectrum Allocation (standard ranges of RF spectrum, e.g. national frequency tables).

### **Representation**

- Tabulation.

### **Detailed Product Description**

A TV-1 view is typically a table showing the standards used throughout the architecture. Apart from the standard itself, the table may optionally show:

- The version identifier of the standard (e.g. v1.1).
- The ratification body responsible for the standard (e.g. ISO, NATO, MOD DEFSTAN, etc.).
- The ratification date of the standard.
- The URI of the website where the standard can be found.
- The publisher of the standard, if different to the ratification body.
- The elements in the architecture which conform to the standard.
- Any other supporting information (e.g. service area), which would be captured as a comment on the standard in M3<sup>1</sup>.

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<sup>1</sup> MODAF Meta Model.

The standards need not be technical, and may be related to business or military doctrine, best practice, or even legislation.

Name	Version	Date	Ratification Body	Website
XMI	2.1	Sept 2005	Object Management Group	www.omg.org
UML	2.1	Apr 2006	Object Management Group	www.omg.org
IEEE1471	2000	Sept 2000	IEEE	www.ieee.org
MODAF	1.2	Apr 2008	UK MOD	www.mod.uk/modaf

*Example of a Standards Profile (Technical)*

Service Area	Service	Applicable Elements	Standard / Policy
ISTAR Governance	Operations	All fielded capability	SOPs
	Acceptance	All fielded capability	ISTAR Acceptance Procedure
MOD Strategy	Systems Engineering	SPECS 2 & interfaces	MOD Systems Engineering Management Plan (SEMP)
US Interoperability	Communications / Networking	SPECS 2 external US communications network interfaces	US Guidance Notes
Sustainment & Logistics	Ability to sustain capability	SPECS 2 & DLoD support	MOD Sustainment guidelines

*Example of a Standards Profile (Operational)*

The protocols referred to interface and communications descriptions (see SV-2) are examples of standards and these should also be included in the TV-1 listing, irrespective of which views they appear in, or are referred from.

## **TV-2 - Standards Forecast**

The Standards Forecast is identical to a TV-1 Standards Profile except that the standards listed in TV-2 are not yet ratified (i.e. they are emerging or draft standards).

### **Background**

The time from initial concept to fielded capability may be very long. It is therefore necessary to be able to refer to standards which, although not ratified at the time of producing the architecture, will have an impact on the capability. This could be anything from expected changes in legislation around spectrum management to future environment and safety standards. Being able to refer to emerging standards also enables the architect to mitigate the risk of outmoded specifications - so called "designed obsolescence".

### **Usage**

- Forecasting future changes in standards (informing project strategy).
- Specifying standards that will have an impact on the architecture and the capability it is to deliver.

### **Data objects**

The data in a TV-2 can include:

- Standard.
- Protocol.
- Ratification Body (the organisation that ratified the standard)
- Spectrum Allocation (standard ranges of RF spectrum, e.g. national frequency tables).

### **Representation**

- Tabulation.

### **Detailed Product Description:**

The TV-2 presents a table of draft or emerging standards that are likely to have a bearing on the architecture or the capability being architected. As with TV-1 the standards may be technical or business related, and may include future legislation. All the same information that TV-1 presents may also be shown:

- The version identifier of the standard (e.g. v1.1).
- The ratification body responsible for the standard (e.g. ISO, NATO, MOD DEFSTAN, etc.).
- The ratification date of the standard (in the case of TV-2, this is the forecast ratification date).
- The URI of the website where the standard can be found.
- The publisher of the standard, if different to the ratification body.
- The elements in the architecture which conform to the standard.
- Any other supporting information (e.g. service area), which would be captured as a comment on the standard in M3.

So, for all intents and purposes, most TV-2 products will look very similar to TV-1. It may, however be useful to present the TV-2 according to the dates (e.g. corresponding to Enterprise Phases) in which the standards are expected to be ratified. An example of this is shown below:

TRM Category	Standards Forecast		
	Short Term (1 Year)	Mid Term (3 Years)	Long Term (5 Years)
<b>Application Platform</b>			
Data Interchange Document Interchange	Security Marking DTD – in CAPCO coordination (proposed IC standard)		
Mapping	Geography DTD 2.0 – accepted by GIS Consortium	Commercial products that use the standard become available	
	Geospatial XSD – in coordination Open GIS		Geospatial XSD – accepted by Open GIS
Communications Electronic Mail		IETF RFC2060 Internet Mail Access Protocol (IMAP) – accepted, replaces <i>de facto</i> standard	
World Wide Web Services	IETF – Common Gateway Interface (CGI) 1.2 – becomes proposed standard		IETF – Common Gateway Interface (CGI) 1.2 – becomes <i>de facto</i> standard
			IETF – RFC 2818 HTTP Over TLS – accepted, replaces RFC 2616
Communications Transport Services		IETF – Wireless Extensions to TLS – becomes proposed standard	
		IETF – RFC 2002 IP Mobility Support – accepted	IETF – Ipv4 Mobile IP Protocol – becomes proposed standard
Security			IETF – RFC 2246 The Transport Layer Security (TLS) Protocol Version 1.0 – accepted; replaces SSL

Example Standards Forecast