MODAF Reference Guide MODAF-M10-010

Industry / Supplier Liaison Workstream

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Prerequisites	1. Establish Intended Use	2. Define Architecture Scope	3. Develop Data Requirements	4. Capture Architecture	5. Conduct Analyses	6. Document Results
MODAF Governance		Inform Central Reg.	Query of Avail. Data Sources	Provide Extant Arch. Data; Publish Baseline to MODAR		Publish Final Arch. to MODAR
MODAF Users User training - MODAF principles	Workshop - Determine Architecture Usage Architectural Use Doc.	Workshop - Bound Architecture Scope Workshop - Determine Use Cases Plan of Time & Resources Architectural Scope Doc.	Workshop - Establish Data Needs Data Gathering Plan Tool Selection	Tool-specific Training Baseline Arch. Review Baseline Architecture	Analysis Review Initial Analysis Final Analysis	Finalised Arch. Review Finalised Architecture
MODAF Resources MODAF Baseline MODAF Training Material	MODAF Tiger Teams MODAF Help Desk	MODAF Tiger Teams MODAF Help Desk Hybrid View Development	MODAF Tiger Teams MODAF Help Desk Certified Tool List Tool Advice	MODAF Tiger Teams MODAF Help Desk MODAF Taxonomy ERM / M3	MODAF Tiger Teams MODAF Help Desk	MODAF Tiger Teams MODAF Help Desk

The approach to developing a MODAF-compliant architecture is shown in the diagram above. This shows how a MODAF user within any community in the MOD goes about establishing the intended use, scope and data requirements, developing the architecture, using this to conduct the required analyses and documenting the results. A more detailed description of this six-stage architecture development process is provided in the Overview of MODAF (MODAF-M09-002).

2

Involve Industry – High Level Capability

OV-1a

OV-1b

To identify the target, PJHQ directly task SPECS 2 to identify the target. SPECS 2, having then identified the target returns the identification data to both PJHQ and the common base station.

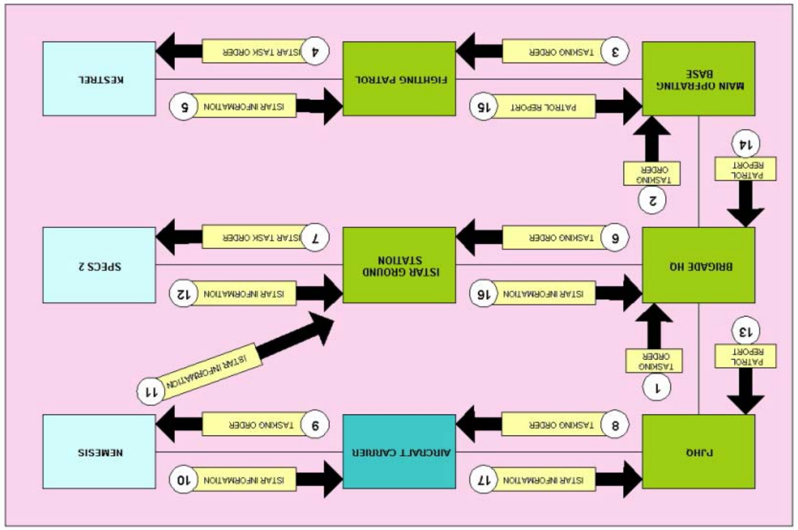
The Operational Viewpoint is particularly useful in the initial engagement with Industry in identifying the operational context and use cases for the new capability. OV-1 and OV-2 (where available from Customer 1) shall be used for industry involvement during the Concept Stage.

Customer 1 provides the OV-1 within the URD. It gives the high-level background to the system.

3

Involve Industry - Interoperability

OV-2



OV-2 Operational Node Connectivity Description, also provided by Customer 1 within the URD, shows the IERs for the new system, within the operational context, thereby providing industry with a high-level view of the interoperability requirements

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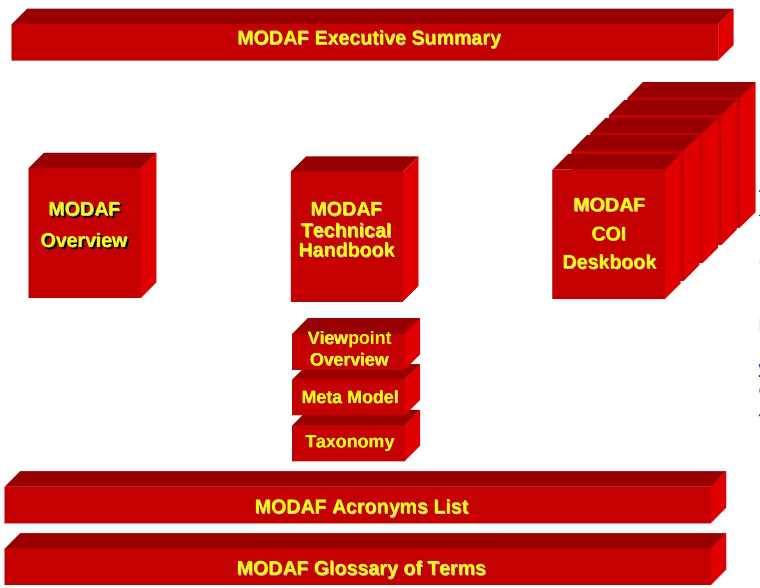
MODAF Document Hierarchy



This guide intends to provide the key information about the MOD Architectural Framework (MODAF) Views required for Industry / Supplier Liaison. More detailed information can be found in the Acquisition Deskbook, by referencing www.modaf.com, or by contacting the DPA Integration Authority

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OV-1c

Attribute	Measure	2025	2026	2027	2028	2029	2030	Target
SPECS 2 Flight Time	Maximum number of hours for a single flight	24	24	24	36	36	36	48
SPECS 2 Range	Maximum number of km from ISTAR base station	300	300	300	300	500	600	1200
SPECS 2 Downtime	Number of days required for maintenance	10	8	7	6	5	5	5
SPECS 2 Video Support	Number of individual video channels provided	2	2	4	4	4	4	6
SPECS 2 Video Delay	Maximum time delay (seconds) viewing tasked location	30	25	15	10	5	5	1

Attribute	Measure	2025	2026	2027	2028	2029	2030	Target
SPECS 2 Flight Time	Maximum number of hours for a single flight	20	20	24	36	36	36	48
SPECS 2 Range	Maximum number of km from ISTAR base station	300	300	300	300	500	600	1200
SPECS 2 Downtime	Number of days required for maintenance	10	8	7	6	5	5	5
SPECS 2 Video Support	Number of individual video channels provided	4	4	4	4	4	4	6
SPECS 2 Video Delay	Maximum time delay (seconds) viewing tasked location	30	25	15	10	5	5	1

Involve Industry – Balance cost and performance

Industry opinions on the practicality of the performance requirements in OV-1c, and their resultant effect, should be sought prior to formalising these as requirements. There may be a significant cost saving in reducing the requirements, where such a reduction will still deliver the required capability. Similarly, technology boundaries may mean that higher performance levels can be attained for similar cost.

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TV-2

	STANDARDS FORECASTS		
	SHORT TERM (1 year)	MID TERM (3 years)	LONG TERM (5 years)
Application Platform			
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 *de facto* standard	
World Wide Web Services	IETF - Common Gateway Interface (CGI) 1.2 – becomes proposed standard		IETF –Common Gateway Interface (CGI) 1.2 – accepted, replaces CGI 1.1, the *de facto* 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 propose standard
Security			IETF - RFC 2246 The Transport Layer Security (TLS) Protocol Version 1.0 – accepted; replaces SSL

SV-9

	TECHNOLOGY FORECASTS		
	SHORT TERM (0-6 Months)	MID TERM (6-12 Months)	LONG TERM
Application Software			
Support Applications	Microsoft Office 2000 available (for Windows 2000)	Microsoft Office 2000 stable enough for full-scale implementation	Microsoft Office available for Linux E-mail on wireless PDAs commonplace
Application Platform			
Data Management	Oracle 9i available MySQL (Open Source DBMS) available		
Operating System		Next MS Windows desktop upgrade expected Next Red Hat Linux major release expected	Next MS Windows server upgrade expected
Physical Environment			Intel IA-64 becomes standard processor for desktops Initial use of quantum computing technologies
External Environment			
User Interface		Thin screen CRT monitors for PC desktops become price competitive	Thin screen LED monitors become price competitive for desktops Conventional CRT technology monitors for desktops become obsolete
Persistent Storage	5G PCMCIA type 2 card available		Disk storage capacity doubles again
Communications Networks		Cable modem service available for most telecommuting staff	Fiber optic connections available for most telecommuting staff

System Synthesis

System prototypes may be developed during the Assessment Stage by the IPT in partnership with Industry to identify the most appropriate solution in support of the Main Gate business case. These prototypes will feed into the more detailed work during the Demonstration Stage

Inputs to this process are:

- The SRD Views, developed by the Requirements workstream
- SV-9 Systems Technology Forecast, to provide insight into how technology is evolving in relation to this system, developed by the Systems and Technology Workstream
- TV-2 Technical Standards Forecast, which, as discussed in the Concept Stage, shows how the system needs to be 'future-proofed' for the new accepted standards, also developed by the Systems and Technology Workstream

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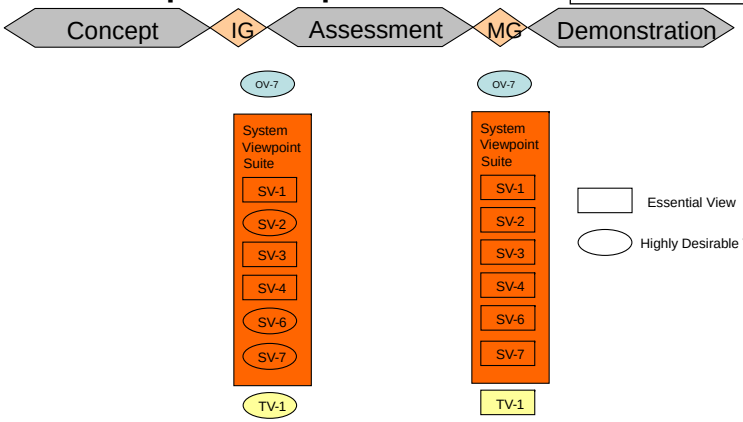
Negotiate Contract & Deliver the Solution

SRD Development Sequence



The architectural model developed alongside the URD and SRD will assist the IPT in their contract negotiations. Not only will this provide industry with a clearer system context and set of assumptions but it will also identify the required system interfaces and standards. The SRD may be updated as a result of the negotiations to reflect any trade-offs made, with the SRD Views maturing through the lifecycle.

The supplier will have responsibility to deliver the solution in accordance with the contract and SRD. As part of the solution delivery, the supplier may find it helpful to use some of the MODAF Views as part of their detailed design work, although this is not essential and will depend on both the supplier, supporting tools and nature of the system to be developed

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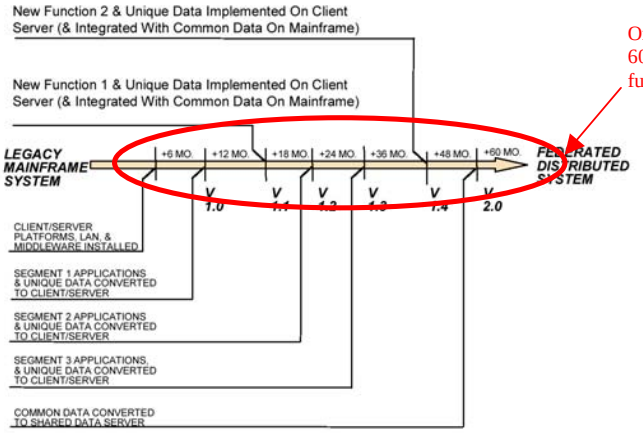
SV-8

Carry out Upgrades / Improvements



Ongoing investment required over 60 months to implement full functionality

Upgrades and improvements are identified by Customer 2, and fed back into the EP for management by Customer 1. These will usually spawn a new CADMID cycle within the responsible IPT.

The need for upgrades or improvements are informed by SV-8, the Systems Evolution Description, essential in the TLMP, that shows the planned upgrade path for the system