SIPG 2nd Working Session – SWIM Timeline Proposal

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Prioritization of SIPG Tasks

- SWIM TF/10 asked SIPG to prioritize our task
  - To help identify which tasks have greater importance for APAC SWIM
  - To gauge the maturity of the different tasks
  - Split the work of SIPG into different groups to be developed in parallel.
- Current SIPG Tasks
  - SWIM Architecture
    - Routing Mechnisms
    - GEMS construction
    - Edge EMS connection and testing
    - Request / Reply MEP
  - SWIM Security
  - SWIM Registry Interoperability
  - AMHS protocol conversion
  - Testing of the APAC SWIM prototype
  - Measurement of the performance metrics
  - Conditions for SWIM operationalization.

Additional Tasks from SWIM TF/10 Meeting

- Define the functionalities and requirements of Edge and Gateway EMS
  - Availability of 99% to be deliberated
  - Completed requirements document based on template in SWIM TF /10 WP/29
- Internet connectivity for the APAC SWIM
- Revised hierarchical architecture review
  - Consider the reuse of ATN network topology to distribute Edge and Gateway EMS
- Use of CRV residual bandwidth or CRV test network (if provisioned)
- Develop guidance on the difference between Async Req/Rep and Sync Req/Rep MEP

Suggested priority

Task	Priority
Define Functionality and requirements for Edge and Gateway	1
Review of revised hierarchical architecture	2
SWIM Architecture – Req/Rep MEP and guidance for Async and Sync	3
Use of CRV Residual Bandwidth or CRV Test network (If Provisioned)	4
SWIM architecture construction	5

Task	Priority
SWIM Security Implementation – Self signed certs	6
SWIM Registry Interconnection	7
AMHS Protocol converters	8
Testing of the APAC SWIM Prototype	9
Measurement of performance metrics	10
Conditions for SWIM Operationalization	11

Proposal for SWIM Timeline

1. Two overlapping Phases

2. SWIM Architecture: Requirements on Gateway EMS Providers
   i. Limits on the total number of Gateway EMS providers
   ii. Minimum latency and throughput requirements
   iii. Runtime governance for Gateway EMS
   iv. Common set of message queues for Gateway EMS
   v. Testing requirements and procedures for onboarding Gateway EMS

3. SWIM Architecture: Routing Mechanisms
   i. Message headers, message properties or Topics?

4. SWIM Architecture: PKI requirements for APAC SWIM Use Case

Timeline

May 2025 - Aug 2026
SWIM Development Phase

Oct 2025 - Dec 2026
SWIM Testing Phase

Apr-25 | May 25 | Jun 25 | Jul 25 | Aug 25 | Sep 25 | Oct 25 | Nov 25 | Dec 25 | Jan 26 | Feb 26 | Mar 26 | Apr 26 | May 26 | Jun 26 | Jul 26 | Aug 26 | Sep 26 | Oct 26 | Nov 26 | Dec 26 | Dec-26

May 2025 - Oct 2025
Architecture Building

May 2025 - Dec 2025
Security Implementaiton

Sep 2025 - Mar 2026
Message Routing Setup

Dec 2025 - May 2026
Inter-Registry Comms

Dec 2025 - Aug 2026
SWIM Services Implementation

Oct 2025 - Feb 2026
Testing SWIM Architecture

Jan 2026 - May 2026
SWIM Security Testing

Apr 2026 - Jul 2026
Message Routing Setup

Apr 2026 - Jul 2026
Inter-Registry Testing

Apr 2026 - Dec 2026
SWIM Services Testing