

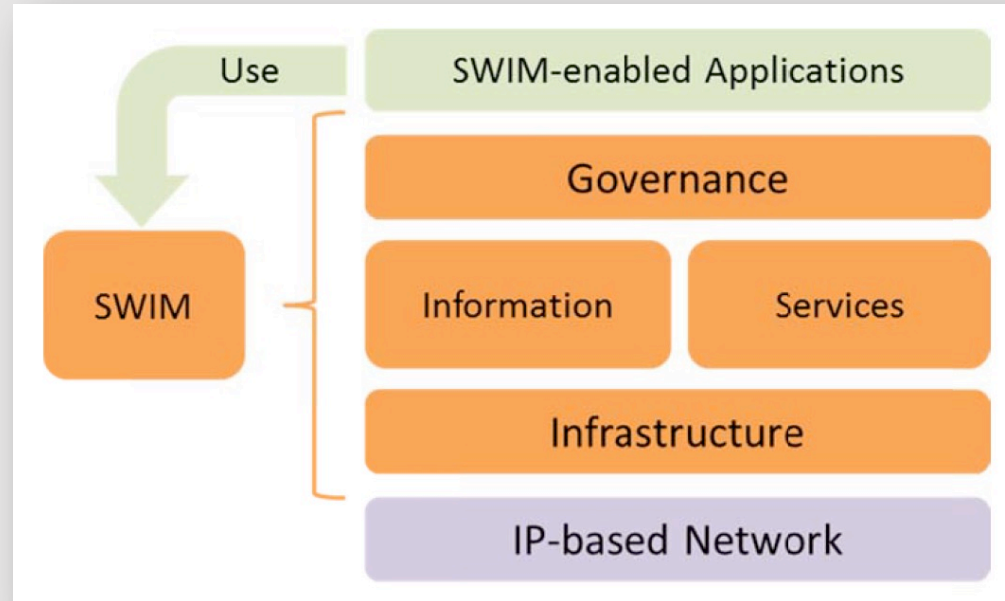


SWIM: an FF-ICE Building Block

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Policy and Strategy Management Bureau



SWIM

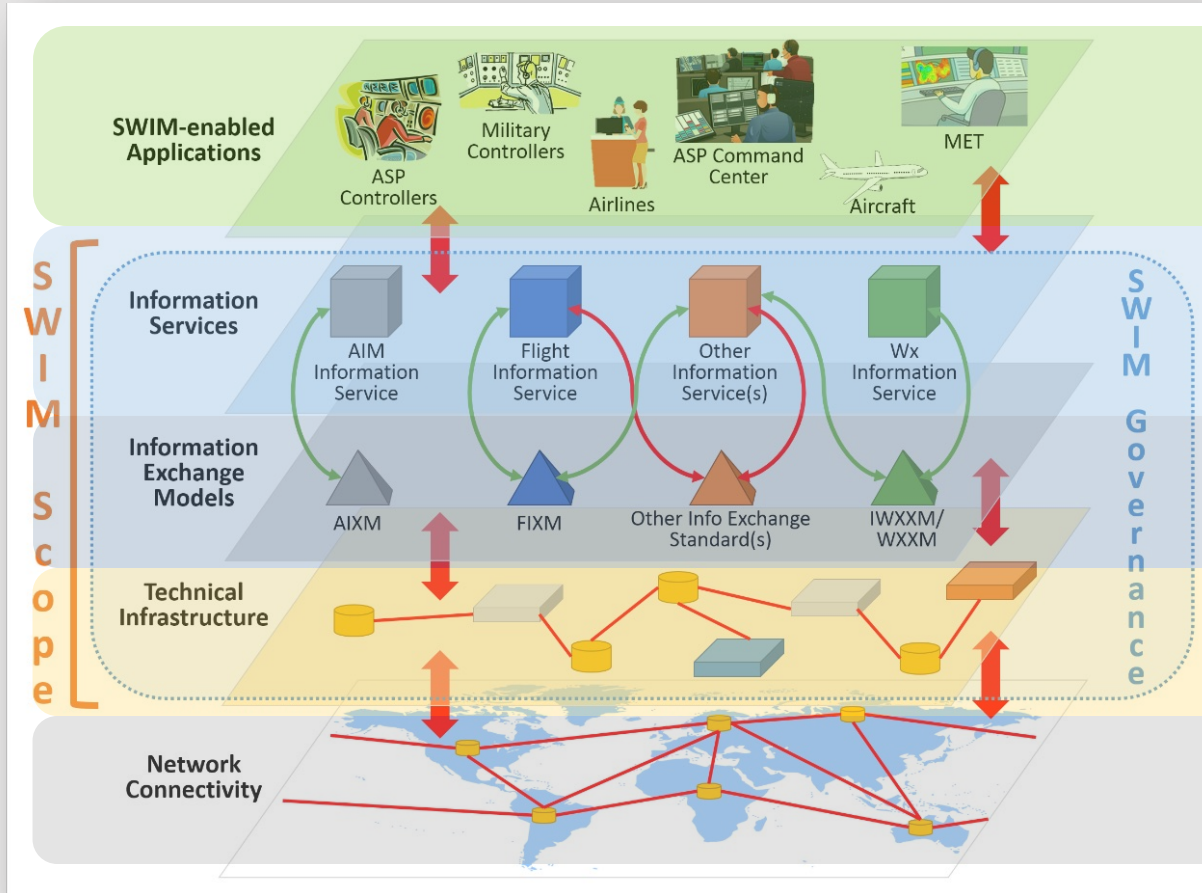


System-Wide Information Management

- Consists of **standards**, **infrastructure**, and **governance**
- Enabling **the management of ATM-related information** and its **exchange**
- Between **qualified parties** via **interoperable services**



SWIM Global Interoperable Framework



Consume from or provide data to information services to enable users to interact

Perform information exchanges

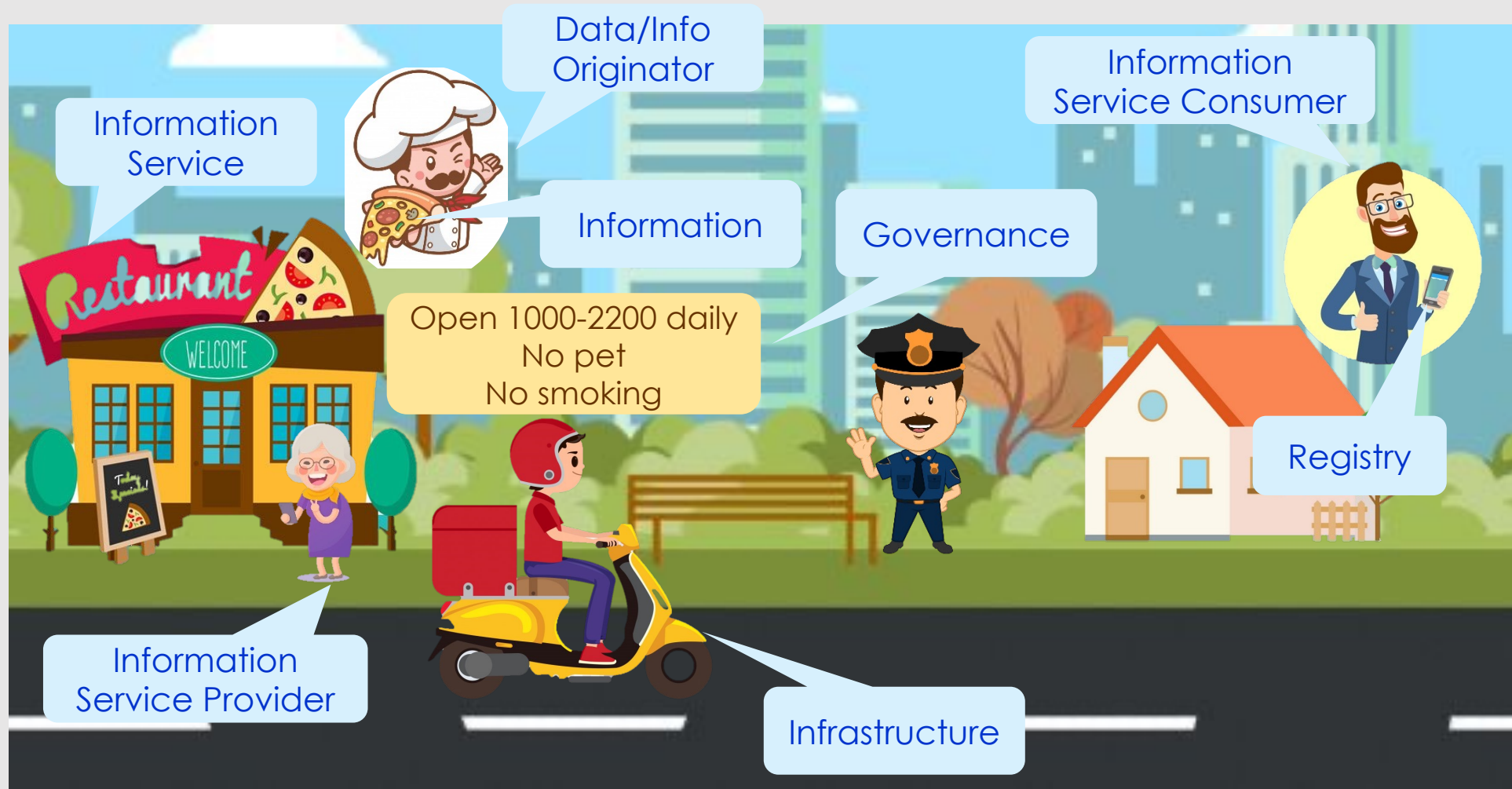
Define the syntax and semantics of the information service payloads

Provide infrastructure services, e.g. interface management, messaging, security

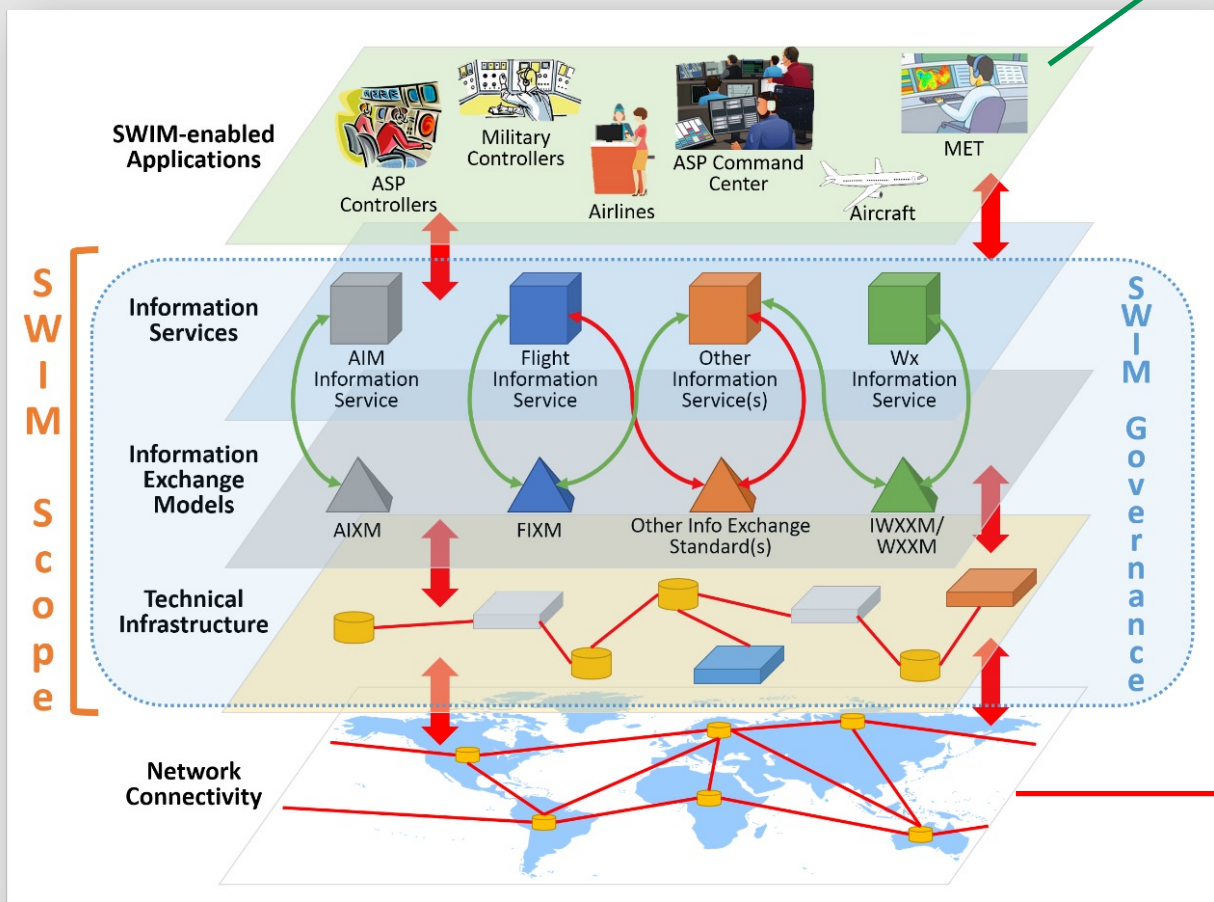
Provide consolidated telecommunications services



SWIM in Real-Life Example



SWIM & FF-ICE



FF-ICE

- Automated process
- Rich information
- Machine readable



SWIM

- Service-Oriented Architecture
- Message exchange pattern: PUB/SUB, REQ/REP
- Support extensible standardized information exchange models

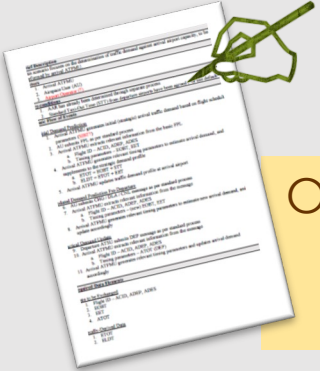
IP-based Network

- CRV
- Internet



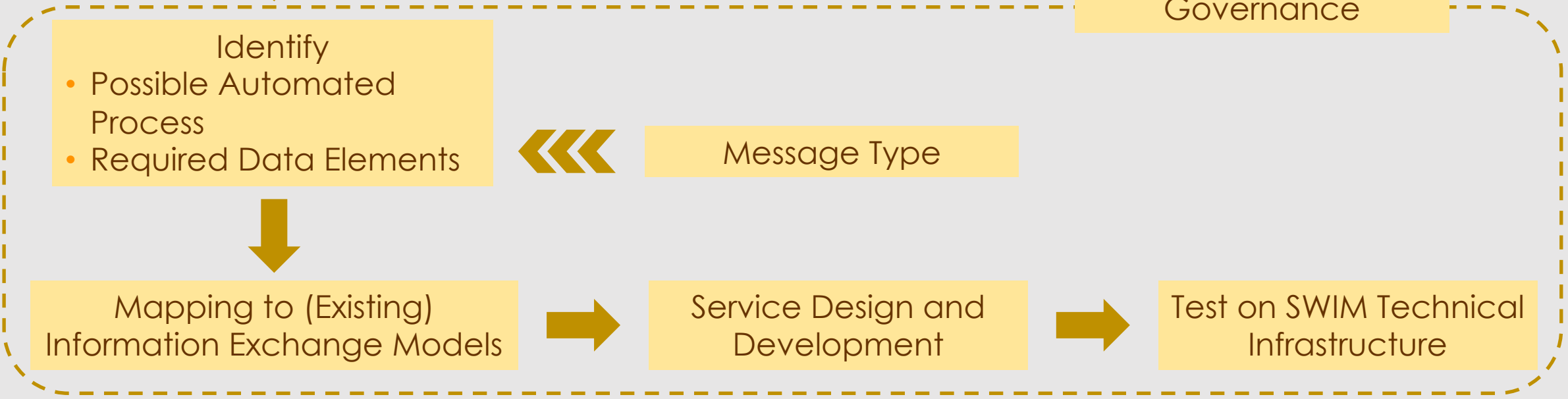
Implementation Practice Example

User Need Analysis



Operational Scenarios
(Operational Requirements)

Why / When / How ?





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Conclusion APANPIRG/33/9 (CNS SG/26/06 (SWIM TF/06/02, SWIM TF/06/04)):
The Asia-Pacific SWIM Implementation Timeframe and inclusion of the Asia/Pacific SWIM Implementation in the Asia/Pacific Seamless ANS Plan

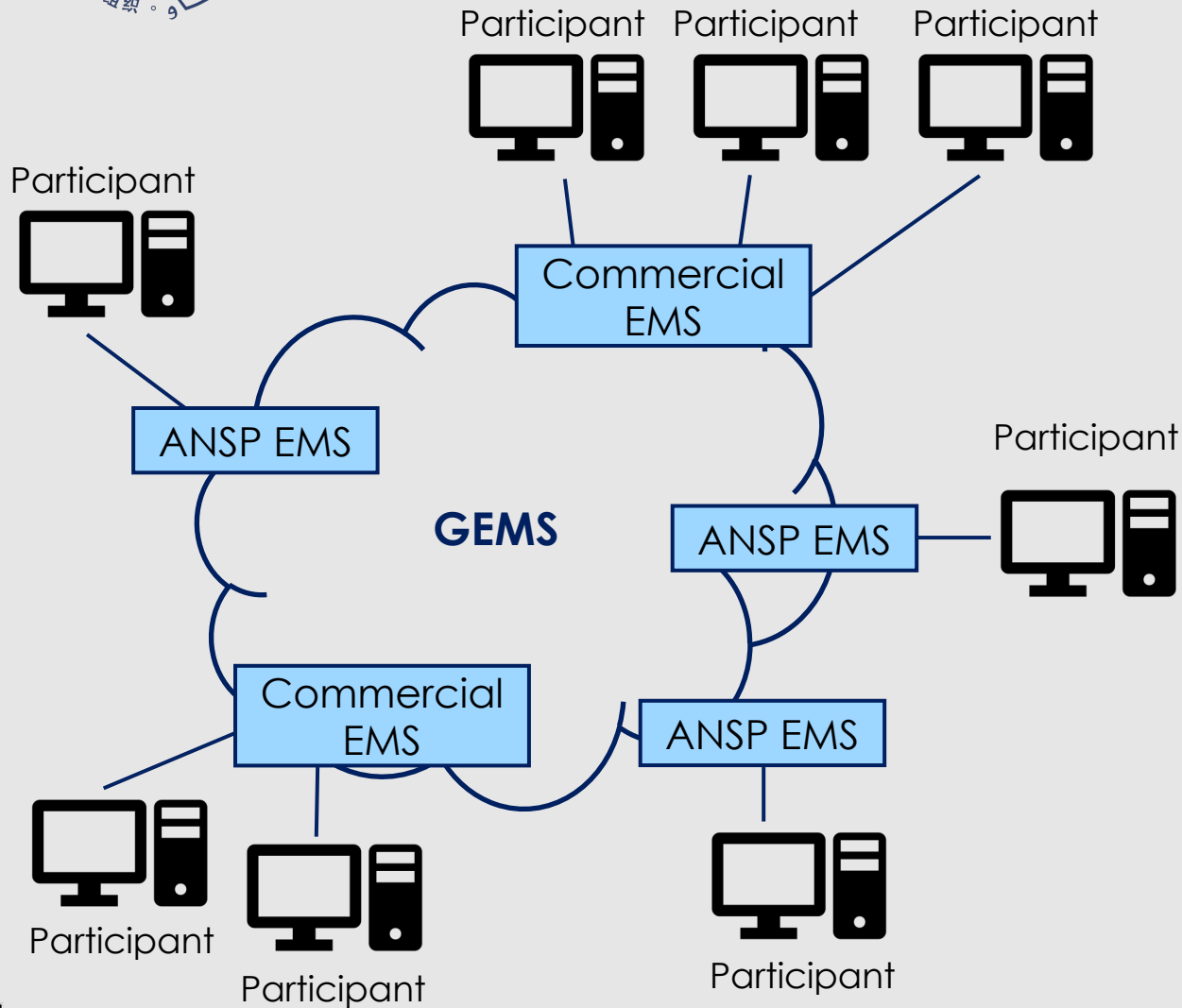
<p>What:</p> <ol style="list-style-type: none"> To set the timeframe for the implementation of SWIM in the Asia-Pacific region to be between 2024 and 2030, with 2030 being the target timeline for implementation completion. To include SWIM implementation in the next edition of the Asia/Pacific Seamless ANS Plan. 	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input checked="" type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: This is to set the concrete target implementation of the Asia-Pacific regional SWIM to assist States in harmonizing their implementation plans in order to achieve the seamless information exchange across the region <u>in time for future operations, e.g. FF-ICE</u>. Additionally, to ensure that SWIM, <u>a key building block to achieve the vision outlined in ICAO Doc 9854 Global ATM Operational Concept (GATMOC)</u>, is captured in the Asia/Pacific Seamless ANS Plan, providing an overall framework for Asia/Pacific States to plan their implementations to meet the future performance requirements.</p>	<p>Follow-up: <input checked="" type="checkbox"/></p> <p>Required from States</p>
<p>When: 24-Nov-22</p>	<p>Status: Adopted by PIRG</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: SWIM TF</p>	

2024 – 2030 Asia/Pacific SWIM Implementation Timeframe

- Principally over CRV
- Other IP-based network
 - Use of internet for MET information services in regional SWIM architecture
- Inclusion of SWIM in the Asia/Pacific Seamless ANS Plan (SWIM-B2/1, SWIM-B2/2)



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- Philosophy and roadmap
- SWIM Technical Infrastructure specifications
 - Global Enterprise Messaging Services (GEMS) architecture
- Information exchange model
 - APAC FIXM v4.1 Extension
 - APAC FIXM v4.2 Extension
- Regional governance framework
- Interoperable SWIM registry model
 - SWIM Discovery Service (SDS)
- APAC Service Level Agreement (SLA) template
- APAC service overview specifications





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Decision SWIM/TF/07/03 – Formation of the SWIM Implementation Pioneer Ad-hoc Group	
<p>What: To establish a SWIM Implementation Pioneer Ad-hoc Group to develop an initial version (prototype) of the Asia/Pacific regional SWIM with ToR provided in Appendix D.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: To kick-start the SWIM implementation for the Asia/Pacific region in accordance with Conclusion APANPIRG/33/9 The Asia/Pacific SWIM Implementation Timeframe.</p>	<p>Follow-up: <input type="checkbox"/> Required from States</p>
<p>When: 12-May-23</p>	<p>Status: Adopted by SWIM TF</p>
<p>Who: <input type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: SWIM TF</p>	

SWIM Implementation Pioneer Ad-Hoc Group

- Initial version (prototype) of the Asia/Pacific regional SWIM
- Target: June 204





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- Number of EMSs
- Number of registries
- CRV requirements
- Regional security framework

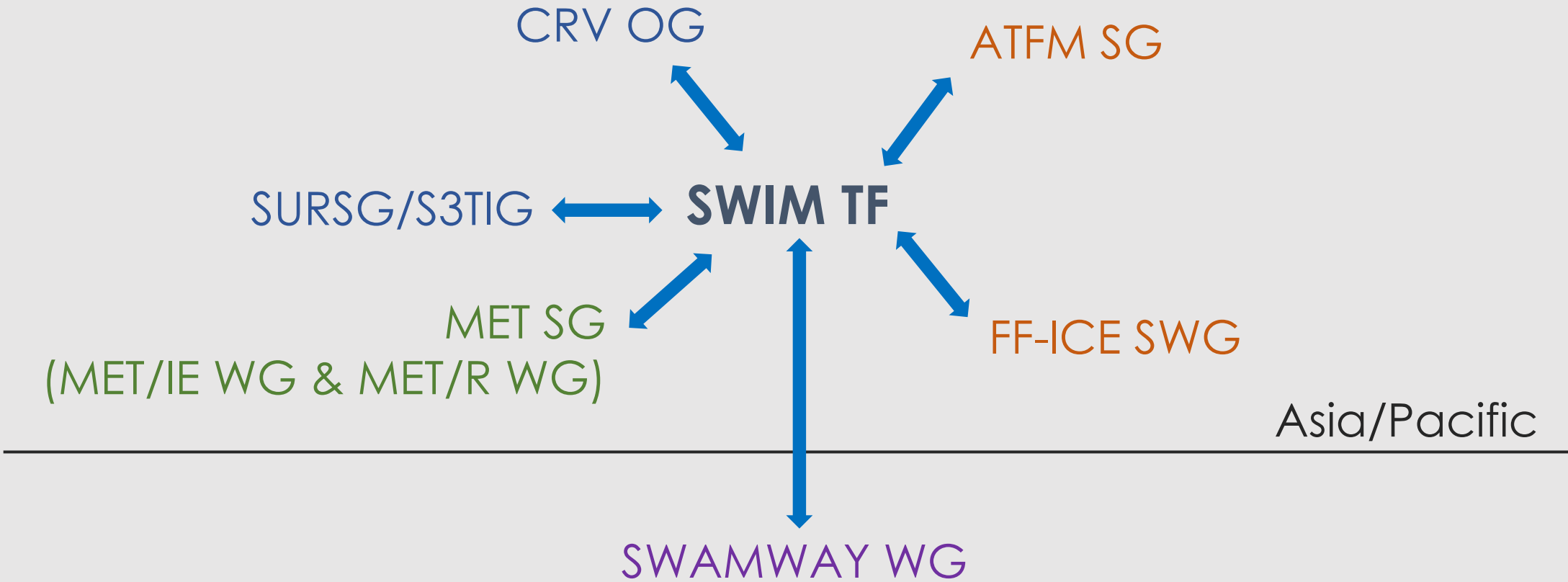




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Working with Sister Bodies





Thank You

