SWIM in ASEAN Demonstration

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Introduction

- SWIM – A key driver for greater ATM system interoperability
  - An integral part of the ICAO's Global Air Navigation Plan (GANP)
  - Important building block of Seamless ASEAN Sky
  - Akin to internet for aviation, enabling seamless ATM connectivity for ASEAN

Major initiative in ASEAN ATM Master Plan

USA proposed to work with AMSs in SWIM development by providing assistance to conduct a SWIM demonstration involving all AMSs

On behalf of ASEAN, Singapore and Thailand met with US-FAA, IATA and Harris Corporation to plan out activities and milestones for the demonstration.

ATWG/34

Inaugural Planning Session

| Oct 2016 | Mar 2017 | May 2017 | Aug 2017 |

ATTC/14

ICAO APAC SWIM TF/1

Singapore and Thailand presented a general information of the demonstration
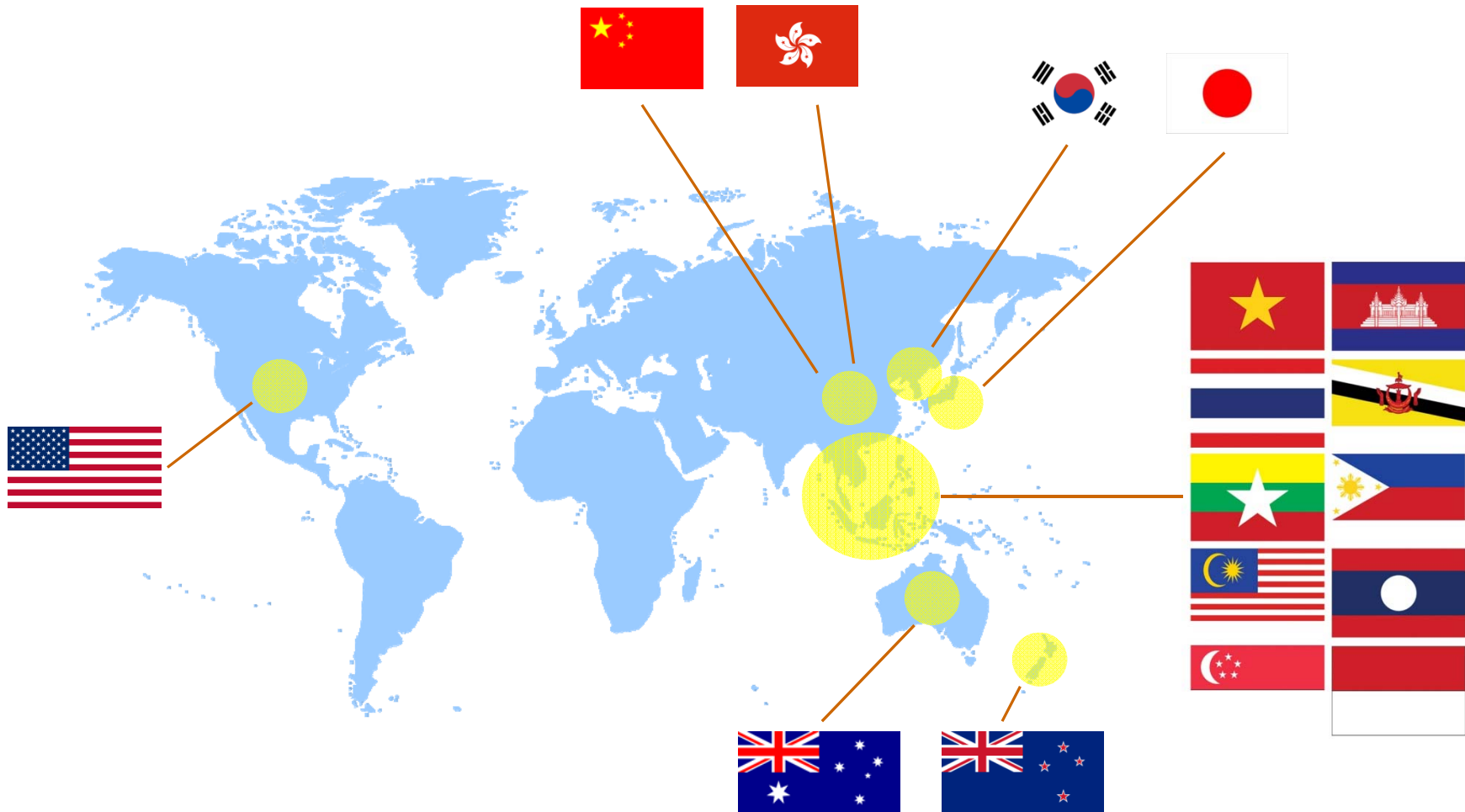
Purpose of the Demonstration

To demonstrate the principles of SWIM

To show the potential benefits of SWIM

To demonstrate a possible model of SWIM implementation for ASEAN

Scope of the Demonstration

Goals of the Demonstration

- Construct an ASEAN Enterprise Messaging Service (EMS) network

- Achieve broad participation by ASEAN aviation community

- Demonstrate operational benefits of SWIM using Distributed Multi-Nodal ATFM Network-based scenarios as an anchor demonstration scenarios

- Generate greater discussion among participants on SWIM and SWIM implementation in the region
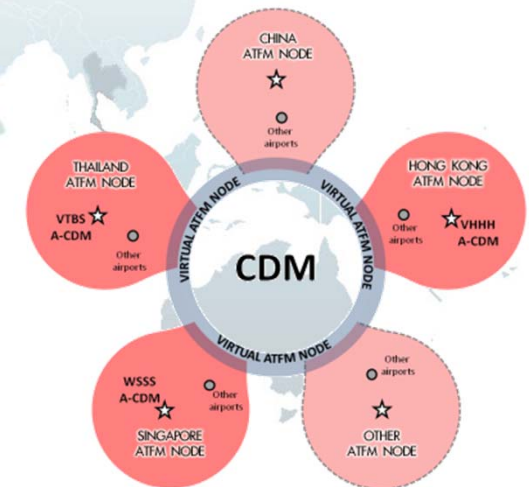
High-Level Architecture
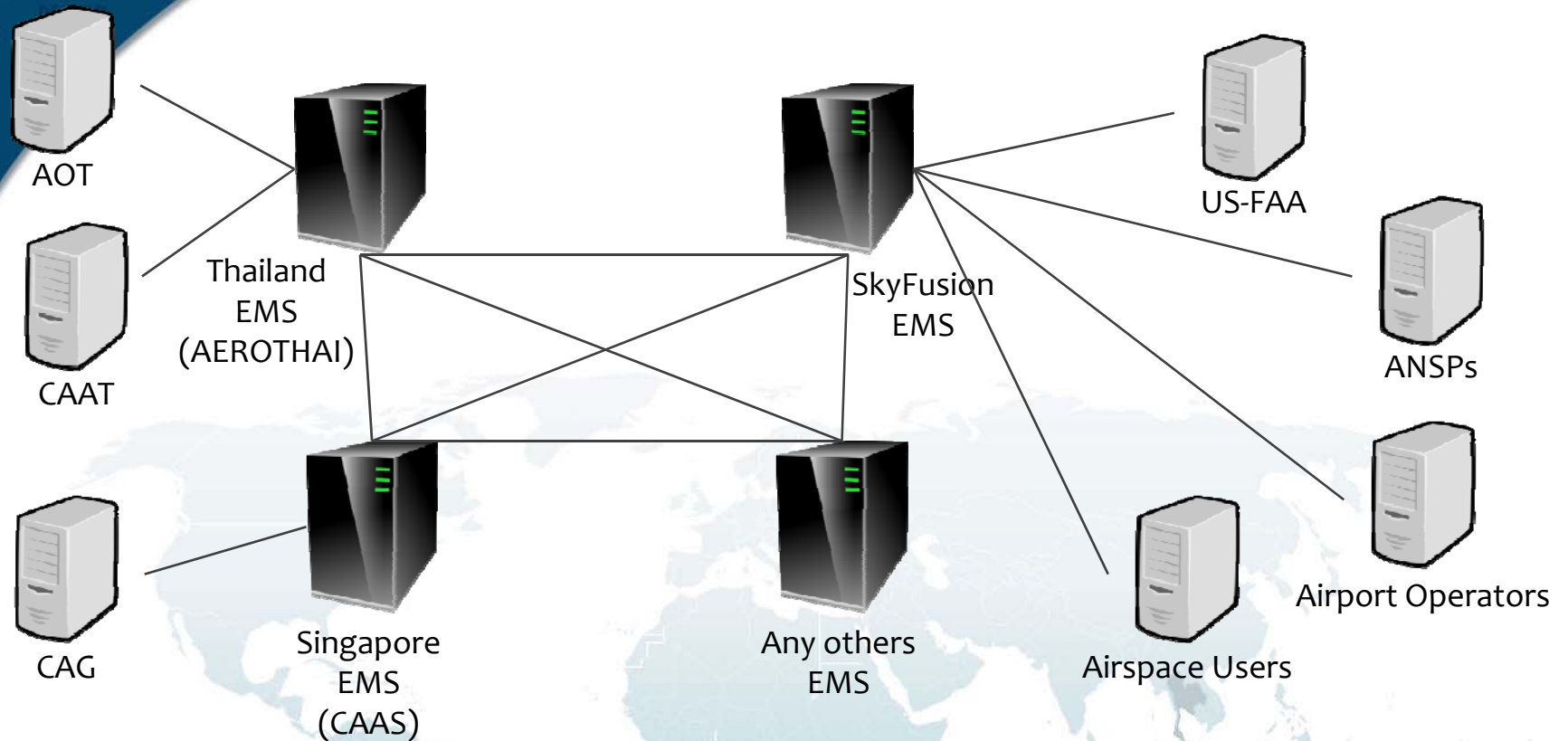
- Data will be exchanged through an Enterprise Messaging Service (EMS).
- Both pre-recorded and simulated data can be used.
- To showcase operational benefits of SWIM, use cases involving aeronautical information, flight information, and weather information sharing among stakeholders will be demonstrated.

Operational Benefits of Implementing SWIM in ASEAN

Safety
- Augmented decision making process
- Greater automation of ATM information exchange

Cost Efficiency
- Reduction in duplication of information management
- Utilization of a streamlined system

Environmental Benefits
- Optimization of resource usage
- Reduction of fuel burn and emission

Participation Model
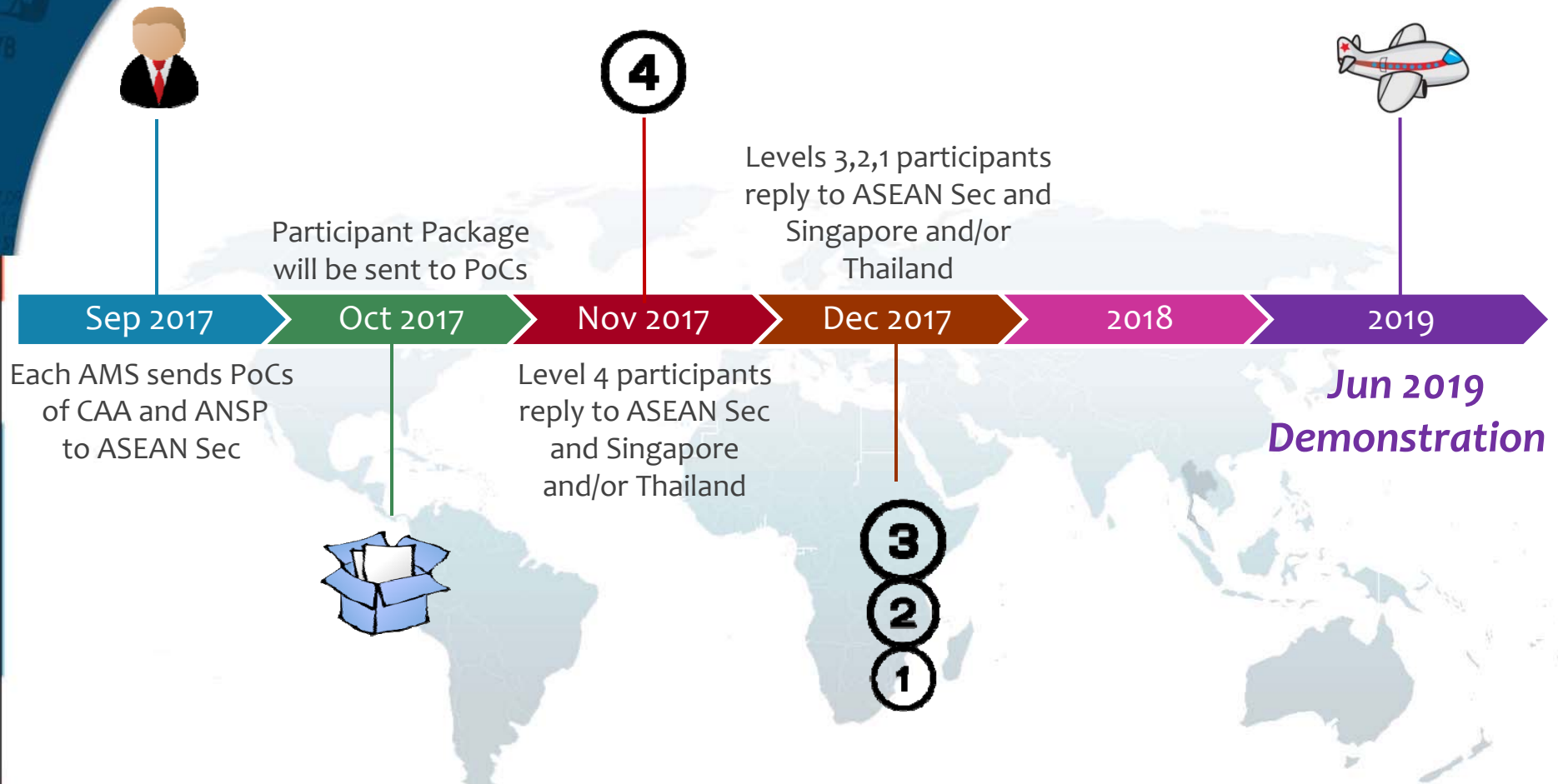
Level 1: Observation only

Level 2: Legacy-format data producer and consumer

Level 3: Native-SWIM-format data producer and consumer

Level 4: EMS development and native-SWIM-format data producer and consumer

Timeline of the Demonstration

Sep 2017

Each AMS sends PoCs of CAA and ANSP to ASEAN Sec

Oct 2017

Participant Package will be sent to PoCs

Nov 2017

Level 4 participants reply to ASEAN Sec and Singapore and/or Thailand

Dec 2017

Levels 3,2,1 participants reply to ASEAN Sec and Singapore and/or Thailand

2018

2019

Jun 2019 Demonstration

Thank You