



The Fifth Meeting of ICAO Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/5)

Bangkok, Thailand, 30 March – 3 April 2015

Agenda Item 5: Development of Regional ATFM Framework

DATA AND INFORMATION FORMAT FOR INTEGRATION AND EXCHANGE

(Presented by INDONESIA)

SUMMARY

This paper presents propose format and mechanism data and information exchange for Multinodal ATFM Operation.

Detailed of the data and information format and exchange mechanism will discussed on the techical meeting accordingly.

1. INTRODUCTION

1.1 Data and information is the important item to be share and process for the ATFM/CDM operation among CDM Stakeholder involve.

1.2 Data type and information from each CDM Stakeholder should be define and mechanism of integration and sharing.

2. DISCUSSION

Data Domain

2.1 Stakeholder data domains are listed in **Table 1**

Stakeholder	Data Domain	Utilization of Data	Remarks
ANSP	Actual Time Dep/Arr,	Time Taxi Out/In, In Flight Segment,	
	Date, Time	Date Operation, Time Operation	UTC format
	Flight Number, Registration	Flight Information	
	Runway In Use	Taxi Time Calculation, Inst. Approach Procedures (SID/STARR).	

Stakeholder	Data Domain	Utilization of Data	Remarks
	Runway Capacity	Capacity Measure, Demand Capacity Balancing	In hour
Airport Service Provider	Actual Block On/Off Time	Time Taxi In/Out, On Time Performance	
	Date, Time	Date Operation, Time Operation	UTC format
	Apron & Terminal Capacity	Capacity Measurement	In hour
	Parking Stand Number	Gate to Gate Operation	Amount / hour
	Boarding Gate Number	Public Information	
	Aircraft Registration Number	Data verification, On Time Performance. Slot Monitoring	
Aircraft Operator	Filled Flight Plan	Demand Measurement, Slot Monitoring	
	Passenger On Board	Capacity Measurement (Airport)	Amount / aircraft
	Crew On Board	Crew working hour monitoring	Regulation Propose
Slot Committee	Slot Time Regular Flight	Slot Monitoring, Capacity Measurement,	
	Notice Airport Capacity (NAC)	Capacity Baseline	Calculated base on Airport (Apron & Terminal Cap) and ANSP (Runway Cap) declare capacity
	OTP Monitoring	Slot Time Monitoring	Evaluation Slot Approval

Table 1: Stakeholder Data Domains

Data Type

2.2 Format Data type for exchange : XML, JSON, TEXT, EXCEL Worksheet, CSV.

Data Capacity

2.3 Data Transaction capacity scheme : 10 up to more than 200 TPS (Transaction Per Second).

Data Exchange Method

2.4 **Figure 1** illustrates the methodology of data exchange :

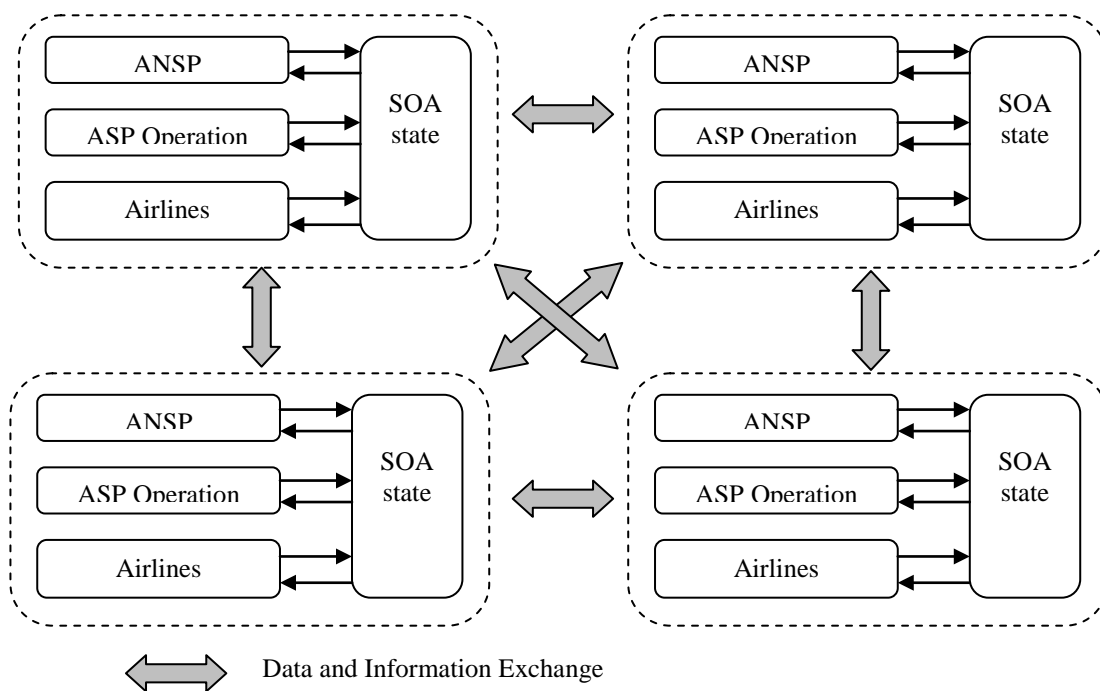


Figure 1: Data Exchange Methodology

2.5 A sample Request and Response format is provided at **Attachment A**.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) comment for the format data and information exchange mechanism; and
- b) discuss any relevant matters as appropriate.

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ATTACHMENT A – Sample REQUEST and RESPONSE Format

```
=====getFlightInfo=====
<!--REQUEST-->
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:soa="http://www.dephub.go.id/hubud/soa">
  <soapenv:Header/>
  <soapenv:Body>
    <soa:getFlightInfo>
      <soa:ACID>AWQ203</soa:ACID>
      <soa:aerodrome></soa:aerodrome>
      <soa:clientId>AP2</soa:clientId>
      <soa:tanggal>01022014</soa:tanggal>
    </soa:getFlightInfo>
  </soapenv:Body>
</soapenv:Envelope>

<!--RESPONSE-->
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:io3="http://www.dephub.go.id/hubud/airnav">
  <soapenv:Body>
    <io3:getFlightInfoResponse xmlns:io="http://www.dephub.go.id/hubud/soa"
xmlns:io3="http://www.dephub.go.id/hubud/airnav">
      <io:flightInformationList>
        <io3:flightInformations>
          <io3:ACID>AWQ203</io3:ACID>
          <io3:ADEP>WMKK</io3:ADEP>
          <io3:ADES>WIII</io3:ADES>
          <io3:AREG>PKAXE</io3:AREG>
          <io3:ATA>0347</io3:ATA>
          <io3:ATD/>
          <io3:ATYPE>A320</io3:ATYPE>
          <io3:idOps>01022014-AWQ203-WMKKWIII0347</io3:idOps>
          <io3:RWY>25R</io3:RWY>
          <io3:tanggal>01022014</io3:tanggal>
        </io3:flightInformations>
      </io:flightInformationList>
      <io:message>1</io:message>
      <io:status>>true</io:status>
    </io3:getFlightInfoResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

```
=====getFlightGroundInfo=====
<!--REQUEST-->
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:soa="http://www.dephub.go.id/hubud/soa">
  <soapenv:Header/>
  <soapenv:Body>
    <soa:getFlightGroundInfo>
      <soa:ACID>GA0216</soa:ACID>
      <soa:aerodrome></soa:aerodrome>
      <soa:clientId>AIRNAV</soa:clientId>
      <soa:tanggal>01022015</soa:tanggal>
    </soa:getFlightGroundInfo>
  </soapenv:Body>
</soapenv:Envelope>

<!--RESPONSE-->
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:io4="http://www.dephub.go.id/hubud/ap"
xmlns:io="http://www.dephub.go.id/hubud/soa">
  <soapenv:Body>
    <io:getFlightGroundInfoResponse xmlns:io="http://www.dephub.go.id/hubud/soa"
xmlns:io4="http://www.dephub.go.id/hubud/ap">
      <io:flightGroundInfoList>
        <io4:flightGroundInfos>
          <io4:ABOff>020220150003</io4:ABOff>
          <io4:ABon/>
          <io4:ACID>GA0216</io4:ACID>
          <io4:ADEP>PGK</io4:ADEP>
          <io4:ADES>JOG</io4:ADES>
          <io4:AREG>PKGEG</io4:AREG>
          <io4:ATYPE>73780</io4:ATYPE>
          <io4:CICounter/>
          <io4:gateNO/>
          <io4:idOps>02022015-GA0216-PGKJOG0003</io4:idOps>
          <io4:tanggal>01022015</io4:tanggal>
        </io4:flightGroundInfos>
      </io:flightGroundInfoList>
      <io:message>1</io:message>
      <io:status>true</io:status>
    </io:getFlightGroundInfoResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

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