

**FPL2012 Message Conversion and Migration Issues**  
 by Peter Cornelius, Project Manager, COMSOFT GmbH

Second seminar/workshop on the implementation of the new flight plan format Amendment 1 to the 15th Edition of Doc 4444 PANS/ATM  
 May 19 to 20, 2011  
 Lima, Peru

**COMSOFT**  
 is making the link

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- **COMSOFT**  
 Established in 1978, in the ATC Market since 1989
- **FPL 2012**
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- **References and Resources**

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**COMSOFT – Established 1978, in the ATC Market since 1989**

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### Overview of COMSOFT Product Portfolio



- Aeronautical Messaging Systems
- Aeronautical Information Management
- ATM Automation
- Surveillance Displays
- ARTAS Products & Services
- Surveillance Communication
- ADS-B and WAM Solutions
- Recording & Replay
- Surveillance Support Tools
- Control & Monitoring

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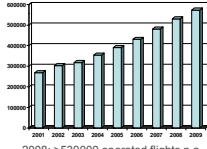
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### COMSOFT ATC Centre - GCAA Abu Dhabi

- 6 Radar Sectors
- Integrated Military Approach/Civil Approach MICA (scheduled for end 2009)
- 2 Major International Airports (DXB, AUH)
- Remote terminals (Military, AUH)



2008: >530000 operated flights p.a

▶ 24h UAE Air Traffic

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### Do we really have to...?



- Do we need to convert flight plans (and related messages)?
- Flights are international hence flight plans are distributed internationally
  - Must have a common Flight Plan message format internationally
  - One country to speak new format and all others must follow suit
- Activity in all regions
  - Risk of regional FPL 'flavours'
  - 2 known 'flavours' (EUR/NAT & ASIA/PAC/NAM)
- Right of continuance, protection of investment
  - Change entire SAM environment at one instance?
  - Considerable investment on change, non-negligible risk...
- => Yes, we really should be prepared to convert.

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**How do we have to ...?**

- What do we need to consider when converting FPL messages?
  - Where to convert.
    - Operator competence at (some of the) end systems BUT
    - Distribution scheme, collective routing knowledge only in the network
    - Cross-regional distribution controlled in the network
 => It is a good idea to be able to convert in the network.
  - How to convert.
    - Should consider regional 'flavours' when converting
    - Should consider individual end user/system new/present FPL capabilities
 => Need route/AD-specific conversion capabilities.
  - How to support legacy systems vs. new-FPL-only systems.
    - "Correct path" to follow ICAO regulations but support both formats
    - Effectively, national co-existence of new and present format
 => Need convert in both directions.

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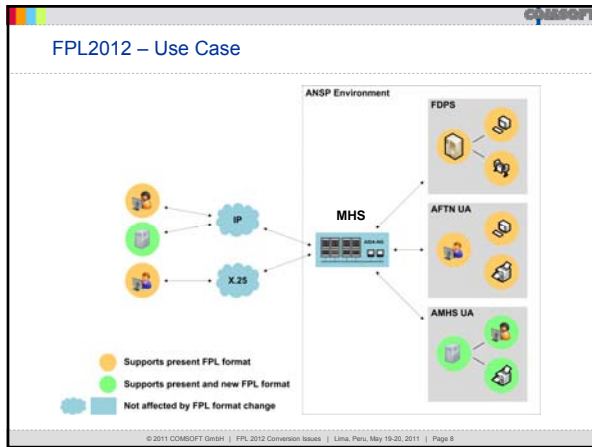
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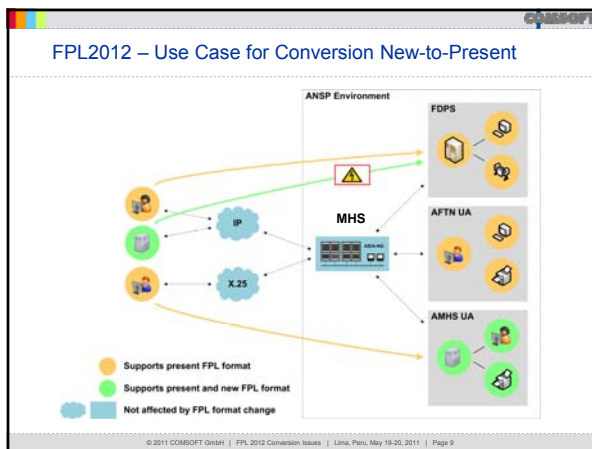
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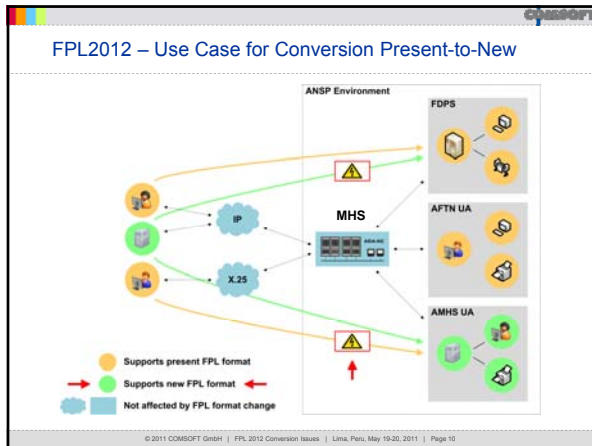
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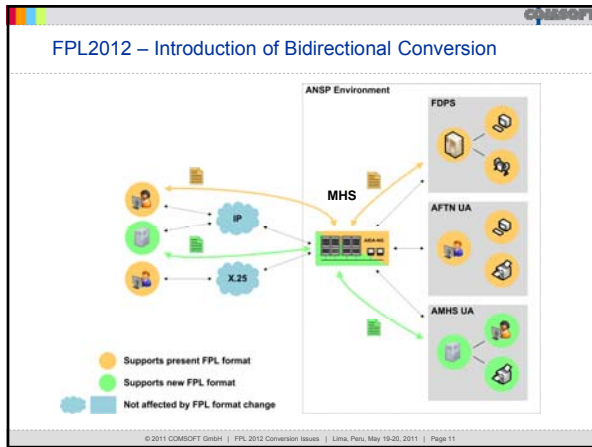
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- ### Can we, actually...?
- Can we operate and convert Flight Plan Messages?
  - Conversion functionality implemented in the COMSOFT aeronautical message handling system (AIDA-NG)
    - AIDA-NG follows the COMSOFT FPL 2012 Technical Specification
    - AIDA-NG supports new-to-present conversion (AIDA-NG R10.3)
    - AIDA-NG will support also present-to-new conversion (AIDA-NG R11.1)
    - Central "invalid message correction queue" possible
    - Automated conversion failure indication SVC to originator possible
  - User agent functionality implemented in COMSOFT UA System (CADAS-ATS)
    - CADAS-ATS follows the COMSOFT FPL2012 Technical Specification
    - CADAS-ATS supports both present and new FPL format on both FPL reception and transmission
  - End system functionality in COMSOFT FDPS System (PRISMA)
    - PRISMA supports both present and new FPL format
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Can we, actually...?

-  **AMHS Message Handling**  
AIDA-NG  
CADAS-ATS ✔
-  **AIM Information Management**  
CADAS-IMS ✔
-  **ACC/APP Control Centre**  
PRISMA ✔

# Yes! We can!

...

# NOW.

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Yes, we can!

- COMSOFT systems in the field with FPL 2012 capabilities
  - Abu Dhabi
  - Australia
  - Bosnia
  - Marocco
  - Macao
  - Pakistan
  - Saudi Arabia
  - Singapore
  - Switzerland
- Soon to come:
  - Peru
  - Qatar
  - ...



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Your COMSOFT Resources.

- COMSOFT has installed centralized management for FPL2012 issues
- COMSOFT updates its FPL2012 Technical Specification regularly
- COMSOFT tests thoroughly (CATS: ~1300 msgs/direction, 65 test cases)
- COMSOFT monitors all regional activities concerning FPL2012
- COMSOFT maintains contacts to regional FPL2012 stakeholders
- COMSOFT participates in regional FPL2012 activities (e.g. workshops)

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COMSOFT

Your COMSOFT Resources.



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