

# *Global Harmonization Through Collaboration*

## AIXM 5.1 – Eurocontrol Network Manager Implementation

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Eurocontrol*

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**Federal Aviation  
Administration**

**AIR TRANSPORTATION INFORMATION  
EXCHANGE CONFERENCE - (FEATURING  
AIXM, WXXM AND FIXM)**

August 28, 2012 - August 31, 2012  
NOAA Auditorium and Science Center  
Silver Spring, Maryland



# Content



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AIXM, WXXM and FIXM)

- Use of AIXM 5.1 in NOP/B2B services
- EAD migration to AIXM 5.1
- Other prototyping activities

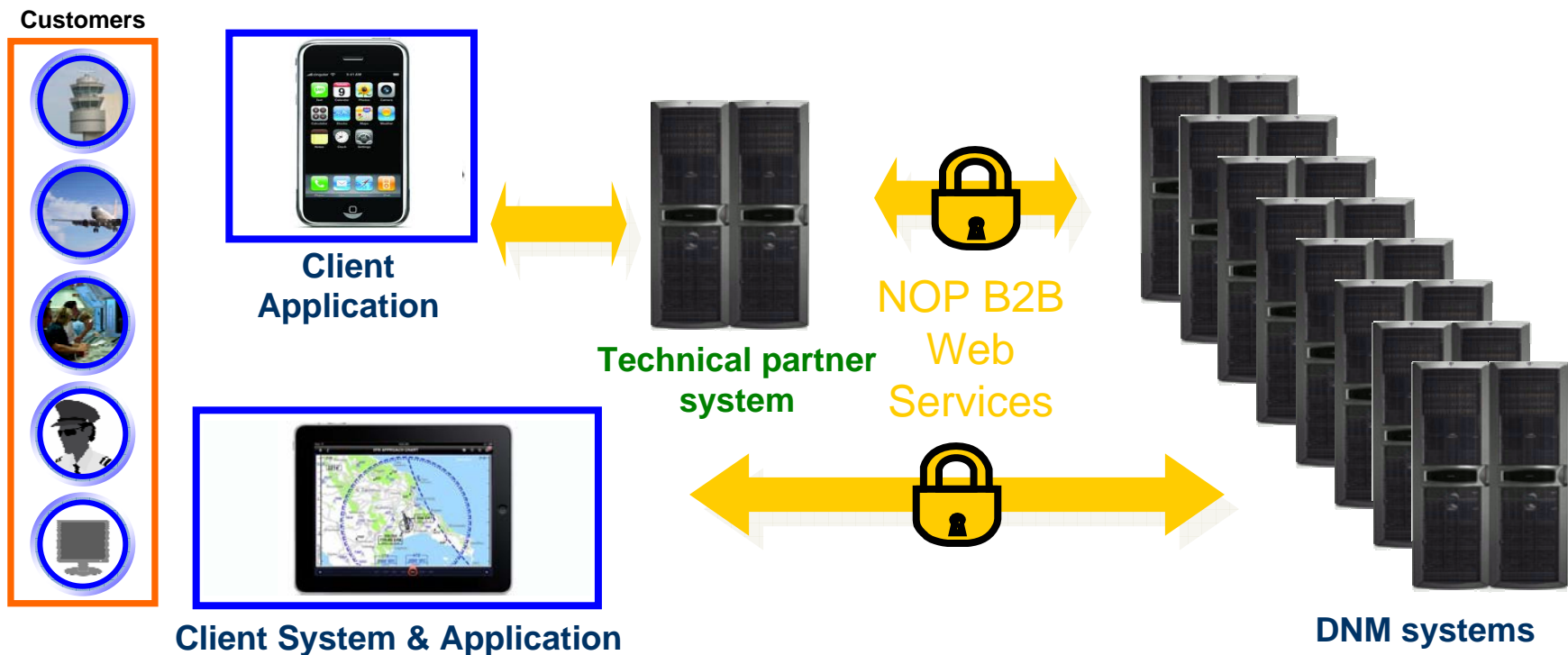


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# NOP B2B



- Solution: Web Services to support technical partners



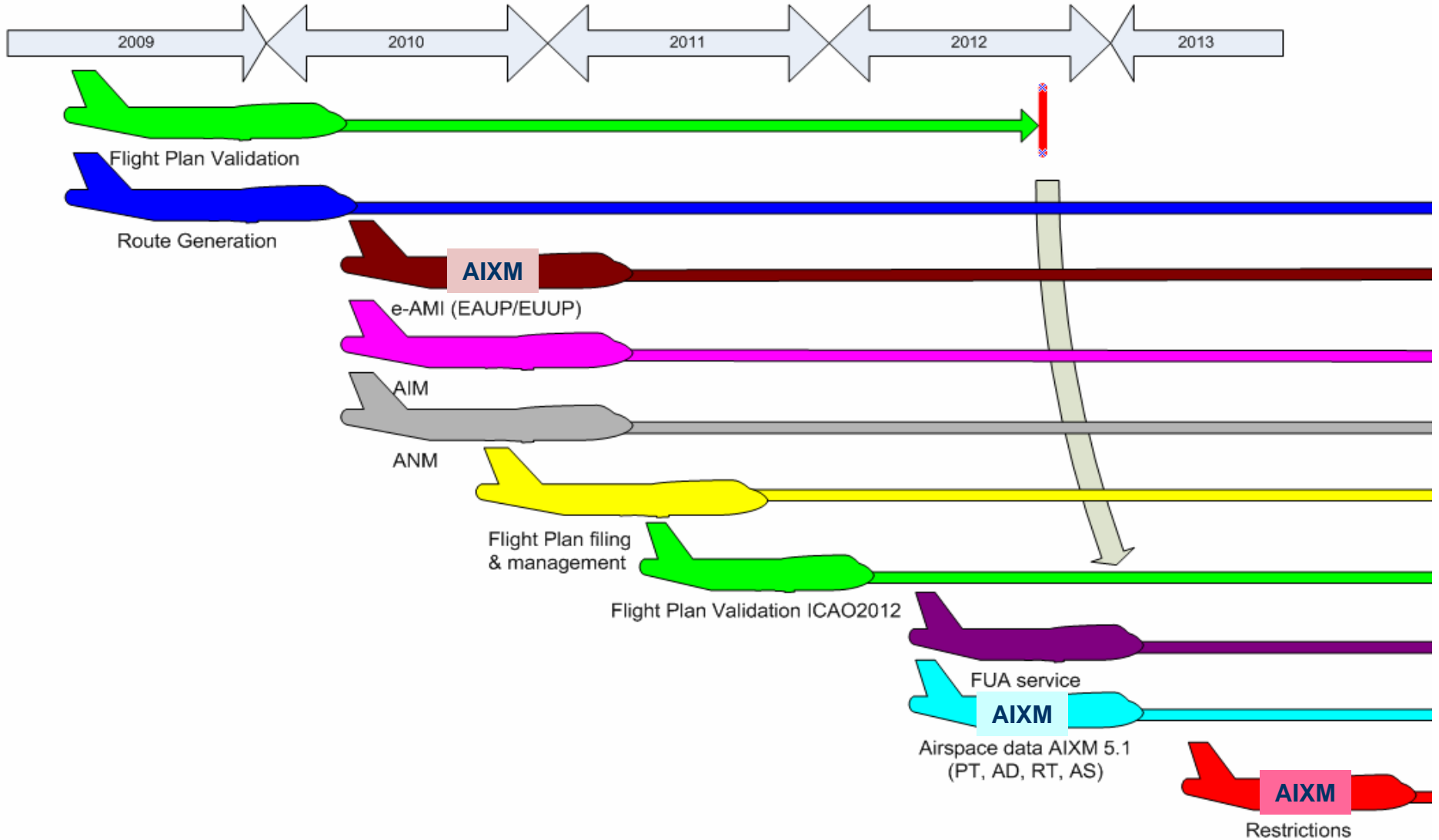
# NOB B2B - Open Standards



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- DNM's web services in two flavours:
  - XML rq & rep embedded into HTTP req/resp (no SOAP envelope)
  - The same XML requests and replies embedded into SOAP messages, themselves embedded into HTTP req/resp.
- SOAP DNM web services: WSDL 1.1 and SOAP 1.1
- All CFMU web services use HTTPS as transfer protocol.

# NOP B2B Roadmap



Slide by Bertrand BOUSQUET-HOURAT at SWIM Master Class Initiation Day



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# NOP B2B – Airspace Data



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The screenshot displays the AIXM 5 Viewer application window. The title bar reads "AIXM 5 Viewer". The menu bar includes "File", "Edit", "View", and "Help". Below the menu bar are navigation icons: a mouse cursor, a hand, a magnifying glass, and a ruler. On the right side of the window, there are controls for "Time Filter" and "3D" view. The main map area shows a complex network of red and blue lines representing airspace boundaries and flight paths. Numerous airports are marked with white star symbols and labeled with names such as "KAINARDZHA AIRFIELD" and "BALCHIK AIRFIELD". A "Map layers" panel is open on the left, listing various layers like "Grid", "CACDAIXM.35", "DistanceInd", "AngleIndic", "Navaid", "Designate", "AirportHeli", and "Background". Below the map, a "Nearby Features" panel is visible. At the bottom of the window, a status bar displays the text "Finished timeslice marker computation for: DistanceIndication" and a red warning icon with the number "153!". The Windows taskbar at the very bottom shows the Start button and several open applications: "Inbox - Microsoft Ou...", "3 Windows Explorer", "2 Microsoft Word", "AIXM at Eurocontrol ...", "2 Firefox", and "2 Java(TM) Plat...". The system clock shows "12:44".



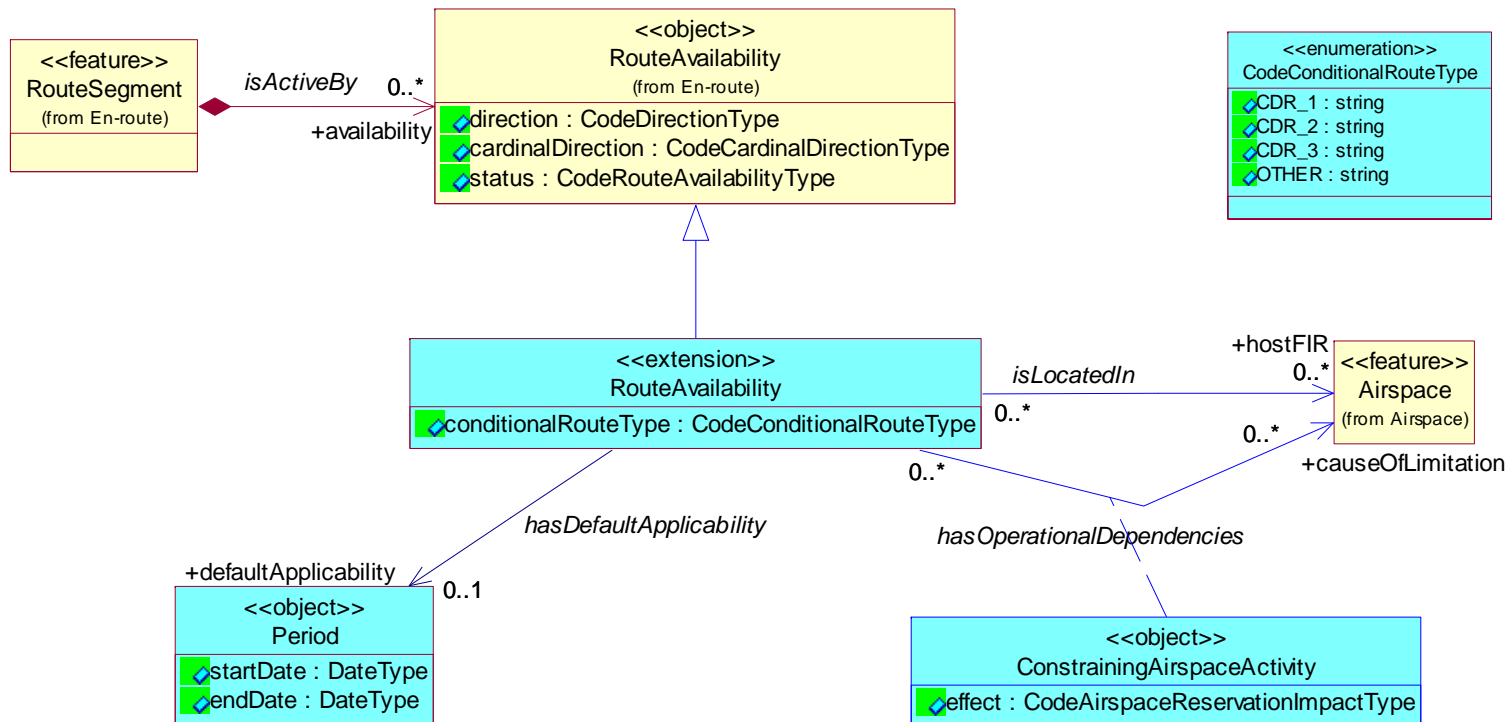
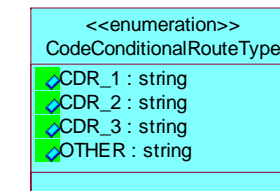
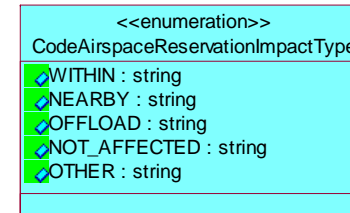
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# NOP B2B – AIXM extensions



- Flexible Use of Airspace

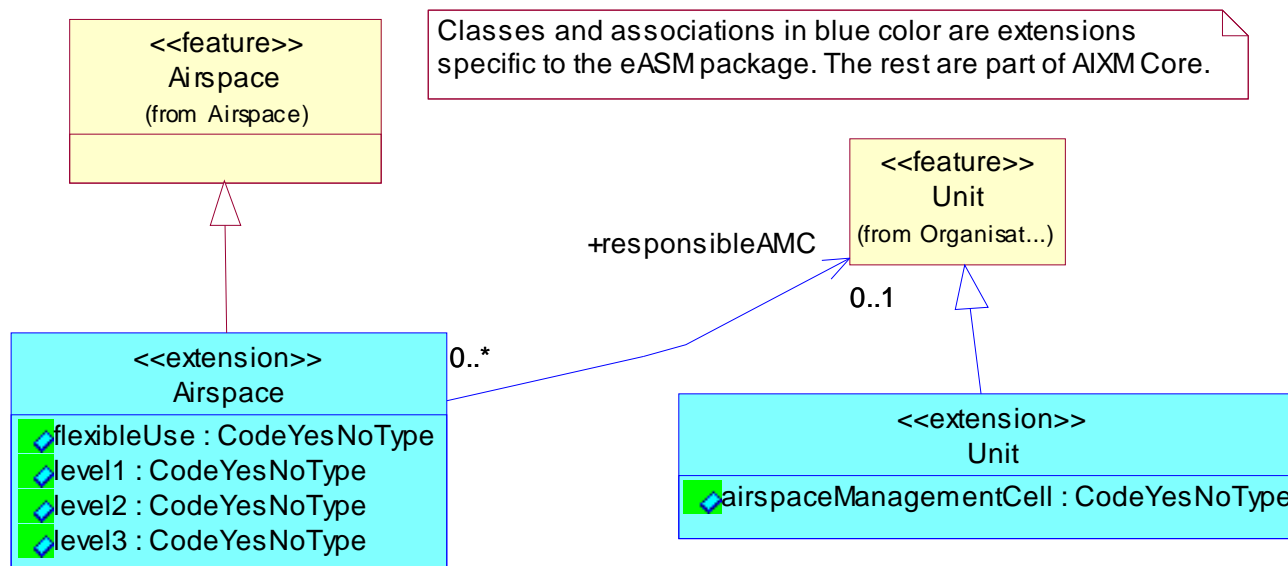
Classes and associations in blue color are extensions specific to the eASM package. The rest are part of AIXM Core.



# NOP B2B – AIXM extensions



- Flexible Use of Airspace

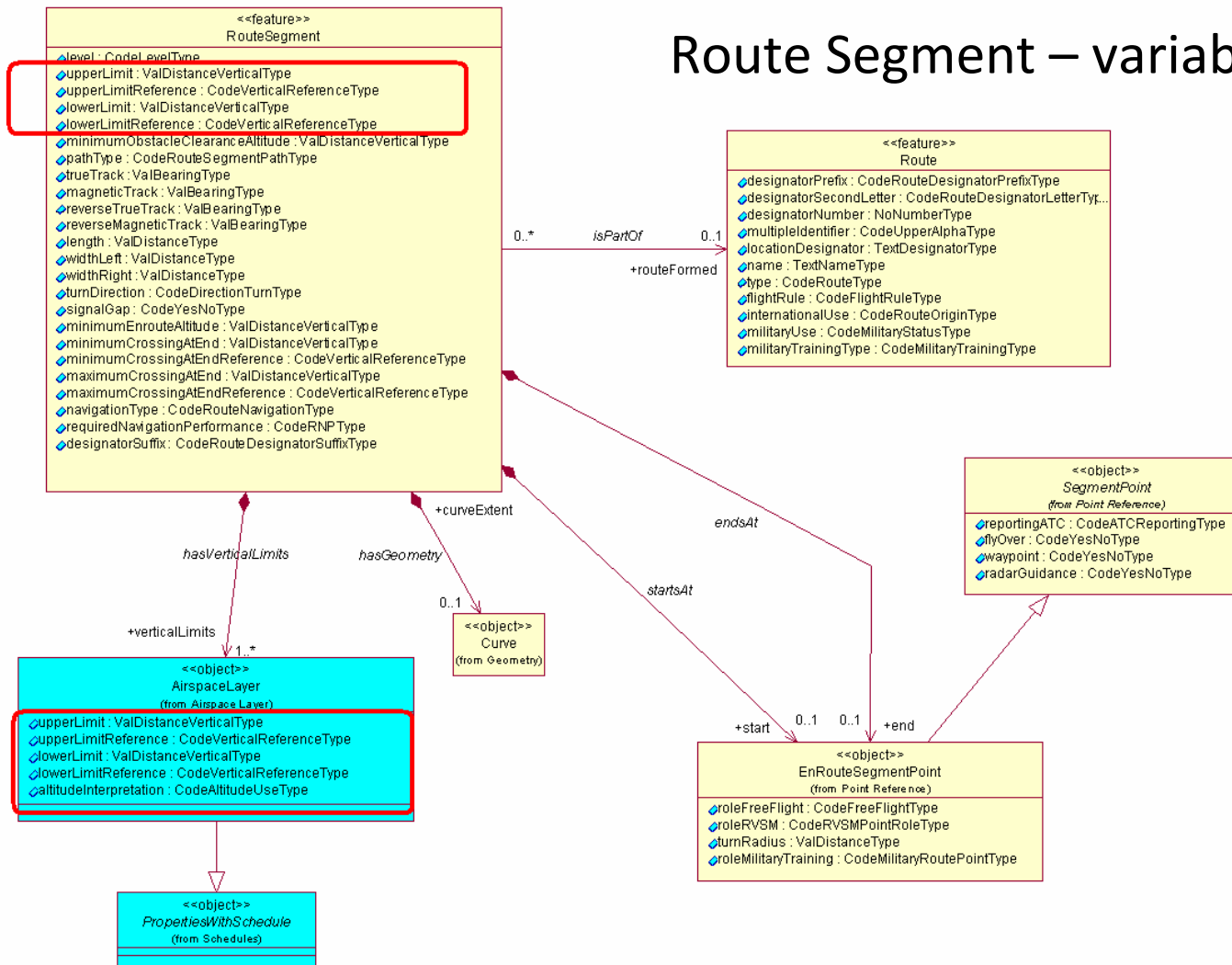




# NOP B2B – AIXM extensions



## Route Segment – variable vertical limits

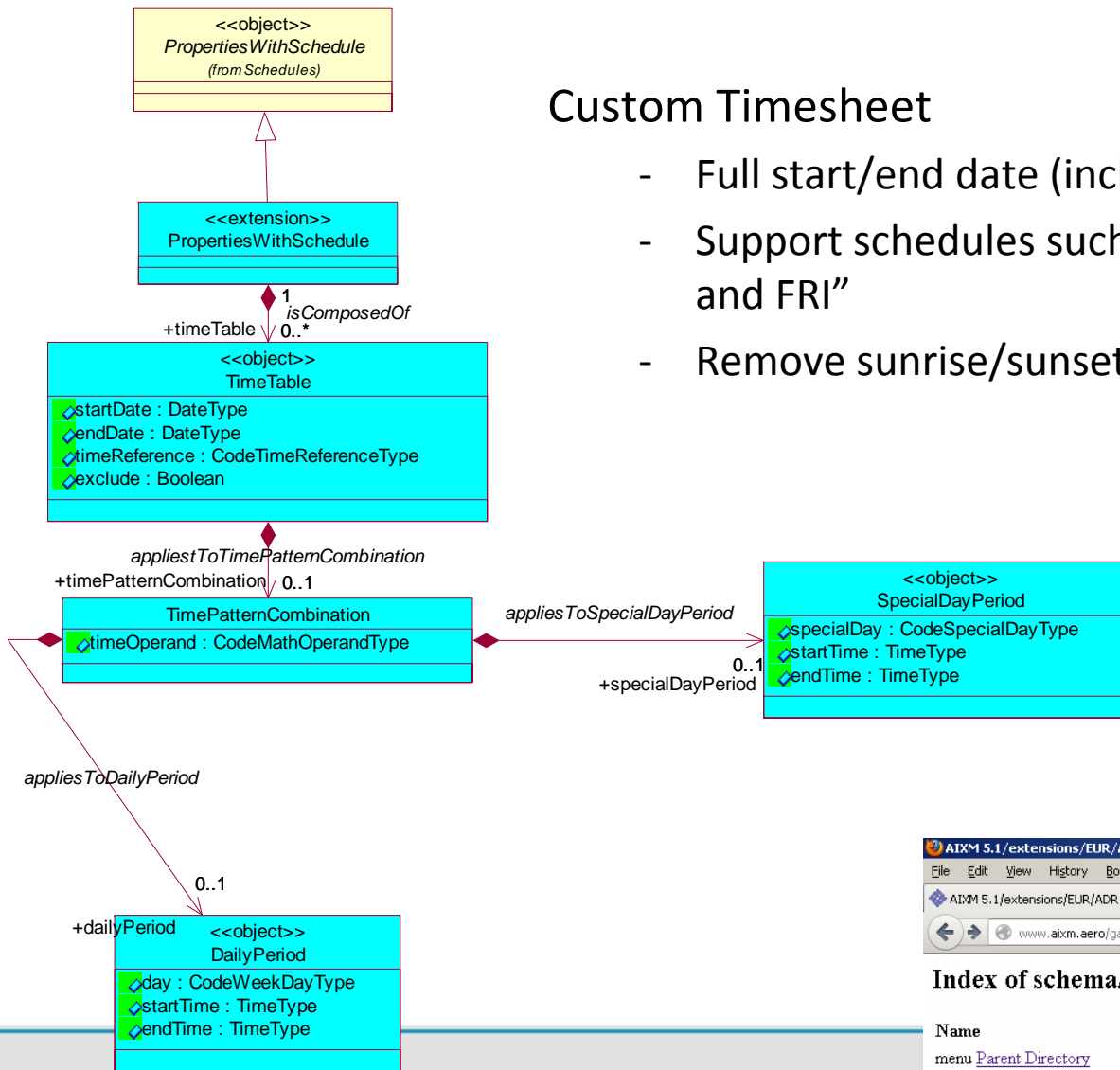


# NOP B2B – AIXM extensions



## Custom Timesheet

- Full start/end date (incl. year)
- Support schedules such as “MON excluding HOL and FRI”
- Remove sunrise/sunset



AIXM 5.1/extensions/EUR/ADR - Mozilla Firefox

File Edit View History Bookmarks Tools Help

AIXM 5.1/extensions/EUR/ADR

www.aixm.aero/gallery/content/public/schema/5.1/extensions/EUR/ADR/index.html

### Index of schema/extensions/EUR/ADR/

Name	Last modified	Size	Description
menu <a href="#">Parent Directory</a>			
xsd <a href="#">ADR_DataTypes.xsd</a>	02-APR-2012	7K	
xsd <a href="#">ADR_Features.xsd</a>	02-APR-2012	19K	

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# NOP B2B – AIXM Issues



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- To be raised with the AIXM CCB
  - Route Portion - levels, usage, etc.
    - AIXM 5.1 only allows this per RouteSegment (because of Digital NOTAM)
  - PointReference is very complex
    - encoding of a point/bearing/distance involves 3 features
  - encoding of airport collocation information is complex
  - an AIXMBasicMessage can not be empty?
  - Problems arising when multiple extensions are combined at the same time
  - possible breakdown of the AIXM structure into elementary building blocks?



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# EAD – AIXM 5.1 exports



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The screenshot displays the AIXM 5 Viewer interface. The main map shows a geographical view of Europe with various airspace boundaries overlaid. A pop-up window titled 'Airspace' provides details for a specific airspace element:

- Airspace**
- OVAR
- Timeslices: [B\\_1](#)
- Type: R
- Designator: LPR40BS
- Name: OVAR
- ICAO: NO
- Control type: MIL
- Geometry: 1. [Component](#)
- 055 STD
- 1000 SFC
- Activation: 1. [AirspaceActivation](#)

The interface also includes a 'Map layers' panel on the left with options like 'Grid', '[2011-12-22] EAD', and 'MarkerBeacon'. A 'Time Filter' and '3D' view toggle are visible in the top right corner. The bottom status bar shows the text 'Finished timeslice marker computation for: MarkerBeacon'.

Finished timeslice marker computation for: MarkerBeacon



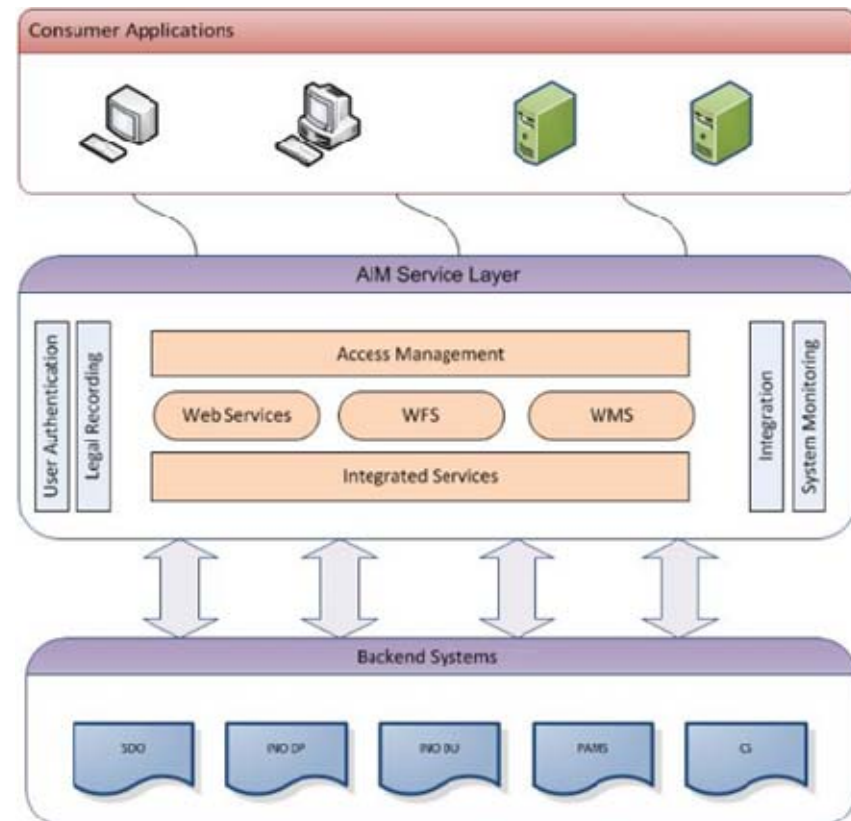
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# EAD “AIMSL”



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- Available at the Moment
  - PAMS (Published AIP Management System)
  - INO DU (International NOTAM Operation Data User)
  - SDO (Static Data Operation)
  - Download (AIXM 4.5)
  - INO DP (International NOTAM Operation Data Provider)
    - Maintain NOTAM
- AIXM 5.1 to be added





# Digital NOTAM – DiNO Prototype



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The screenshot shows the DiNO-AW software interface. The main window displays a map of Europe with several NOTAM areas highlighted in yellow, blue, and red. A menu is open over the map, listing options like 'Create / Edit area', 'Create / Edit template', 'Create area from template', 'Create area from sent', and 'Find existing area'. The 'New Area' sub-menu is also visible, listing various NOTAM identifiers such as P 030220111415, R 030220111210, D 061220101005, etc. The interface includes a menu bar (File, Edit, Area, Navigation, Data Management, Window, Help), a toolbar, a map view, and several panels on the right for editing and viewing data. The 'AP/HP' panel shows fields for Designator and Name, and a table for selecting features. The 'Route' panel shows fields for Design prefix, Design 2nd letter, Design number, and Multiple identifier, and another table for selecting features. The bottom status bar shows 'Logout', '9 unprocessed EAD updates', and '8 unprocessed eAMI updates'.

- Digital NOTAM Origination – Airspace Reservations/Warnings



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# Questions



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# Contact Information



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