

Introduction to Digital NOTAM submission Industry Requirements for Digital NOTAM Submission

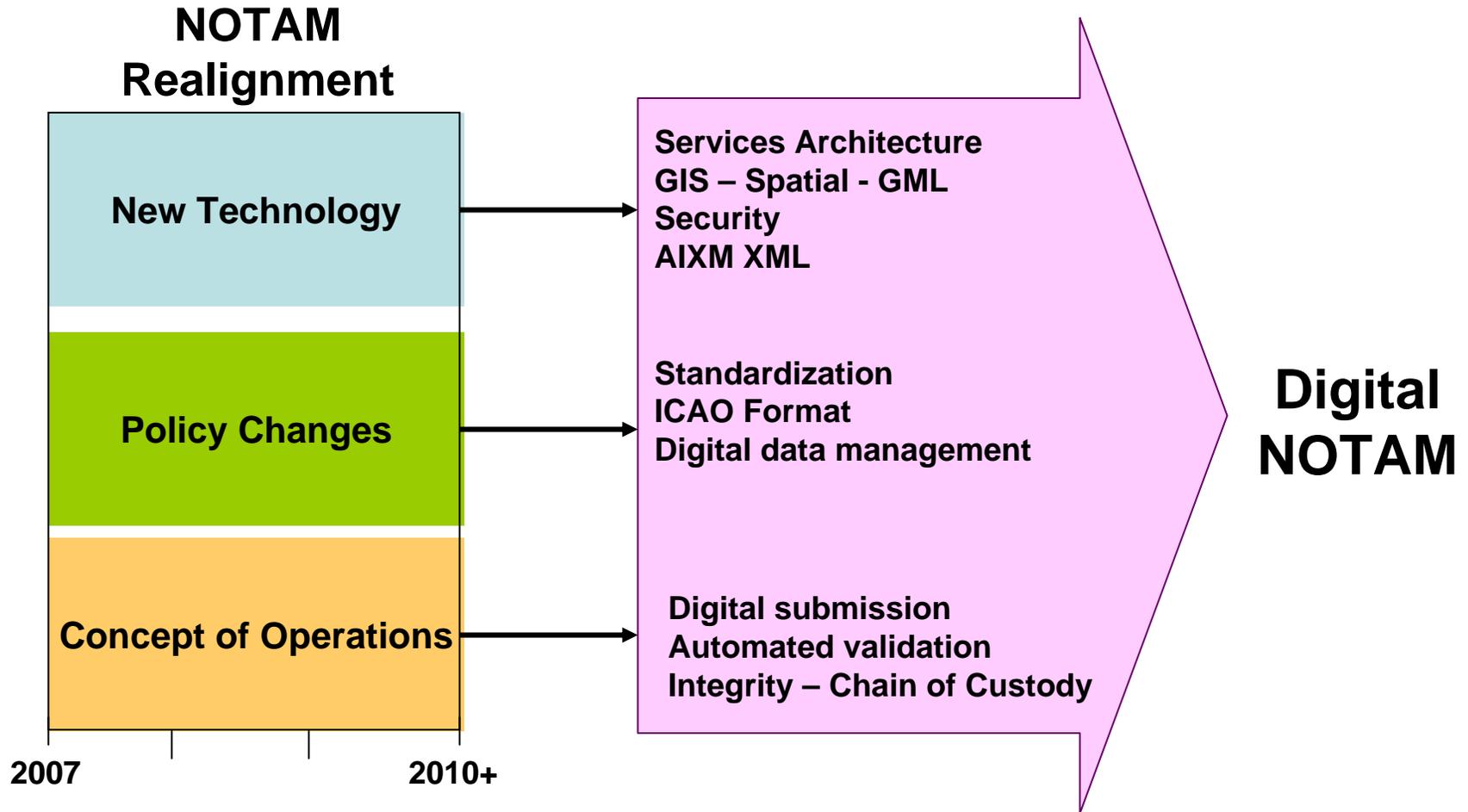
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Aeronautical Information Management
Date: August 2007



Federal Aviation
Administration



Digital NOTAM... part of the multi-year NOTAM Realignment strategy



What problems is Digital NOTAM trying to solve?

- **Data quality and integrity**
 - NOTAMs today don't always say what we mean
- **Poorly suited for human and computer**
 - Not standardized
 - Difficult to interpret
 - Difficult to distribute
 - Inaccessible for computer
- **Timeliness**
- **Manual processing**
 - Entry, Validation and End user interpretation

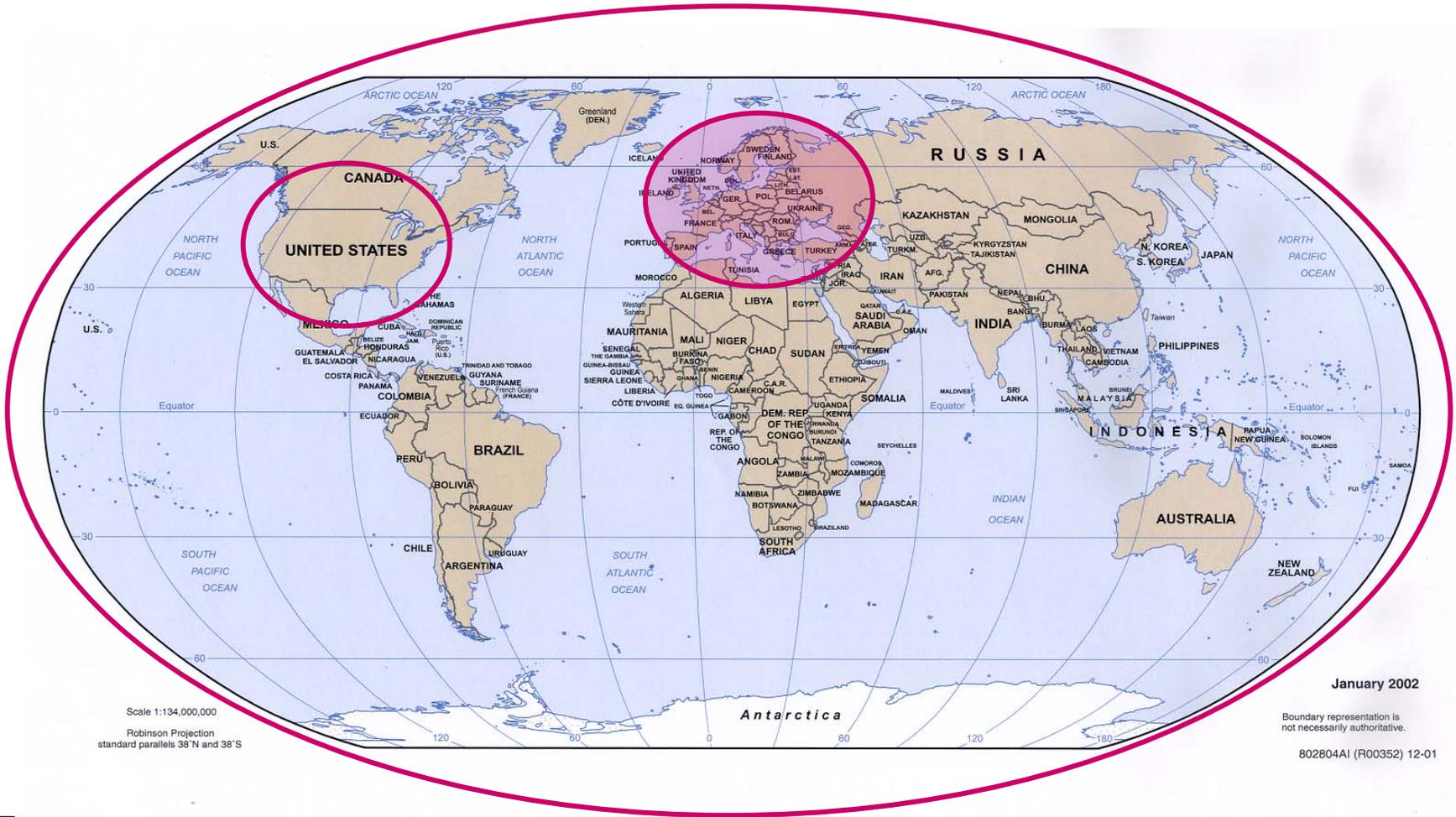


Digital NOTAM Goals

- **Radically improve the quality of NOTAM**
 - Ensure NOTAM intent is accurately encoded
 - Ensure NOTAM submitted = NOTAM received
 - Ensure NOTAM are encoded the same way every time
- **Streamline NOTAM processing**
 - Reduce the time between NOTAM submission and publication
 - Reduce NOTAM rejections due to quality problems
- **Enable customer benefits**
 - Provide digital NOTAM output to enable computer systems to fully leverage NOTAM information
 - Enable customers to receive NOTAMs when and how they need it



Digital NOTAMs are global



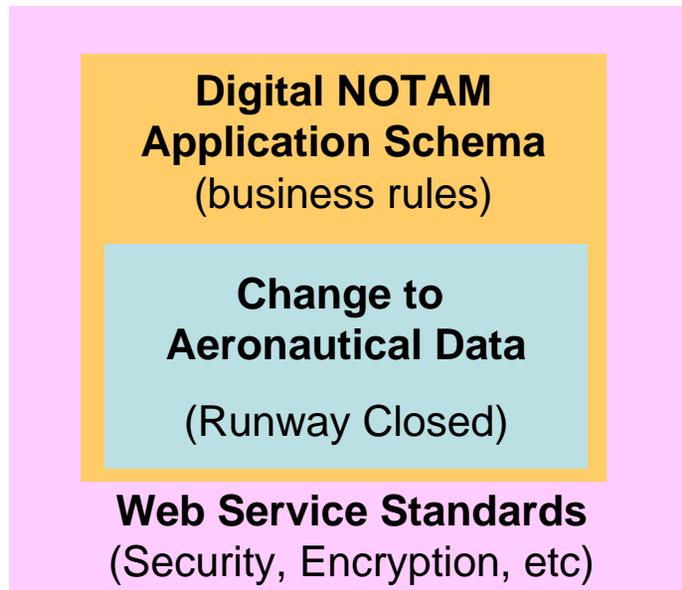
What is a digital NOTAM

- **Digital description of changes to aeronautical data - AIXM**
- **Concept of operations for submission and publication of the change**
 - Authorization
 - Workflow
 - Publication and Customer Products/Interfaces



What is a digital NOTAM

Digital Description - AIXM

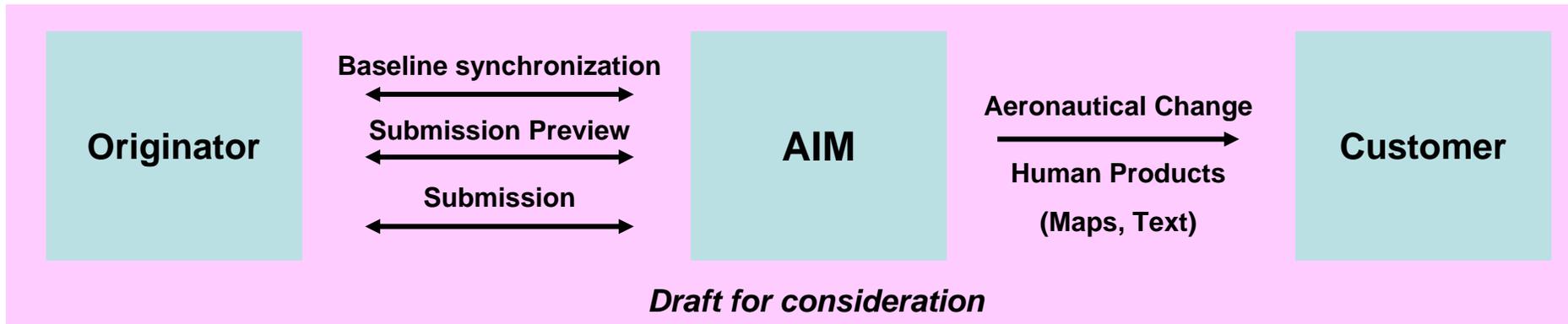


Draft for consideration

- **Aeronautical Information Exchange Model**
 - Timeslice model for describing temporal changes
- **Digital NOTAM application schema**
 - Encapsulating AIXM
 - Business rules and workflow
- **Web Services Standards**
 - FAA SWIM standards
 - Standards-based computer interfaces (SOAP)

What is a digital NOTAM

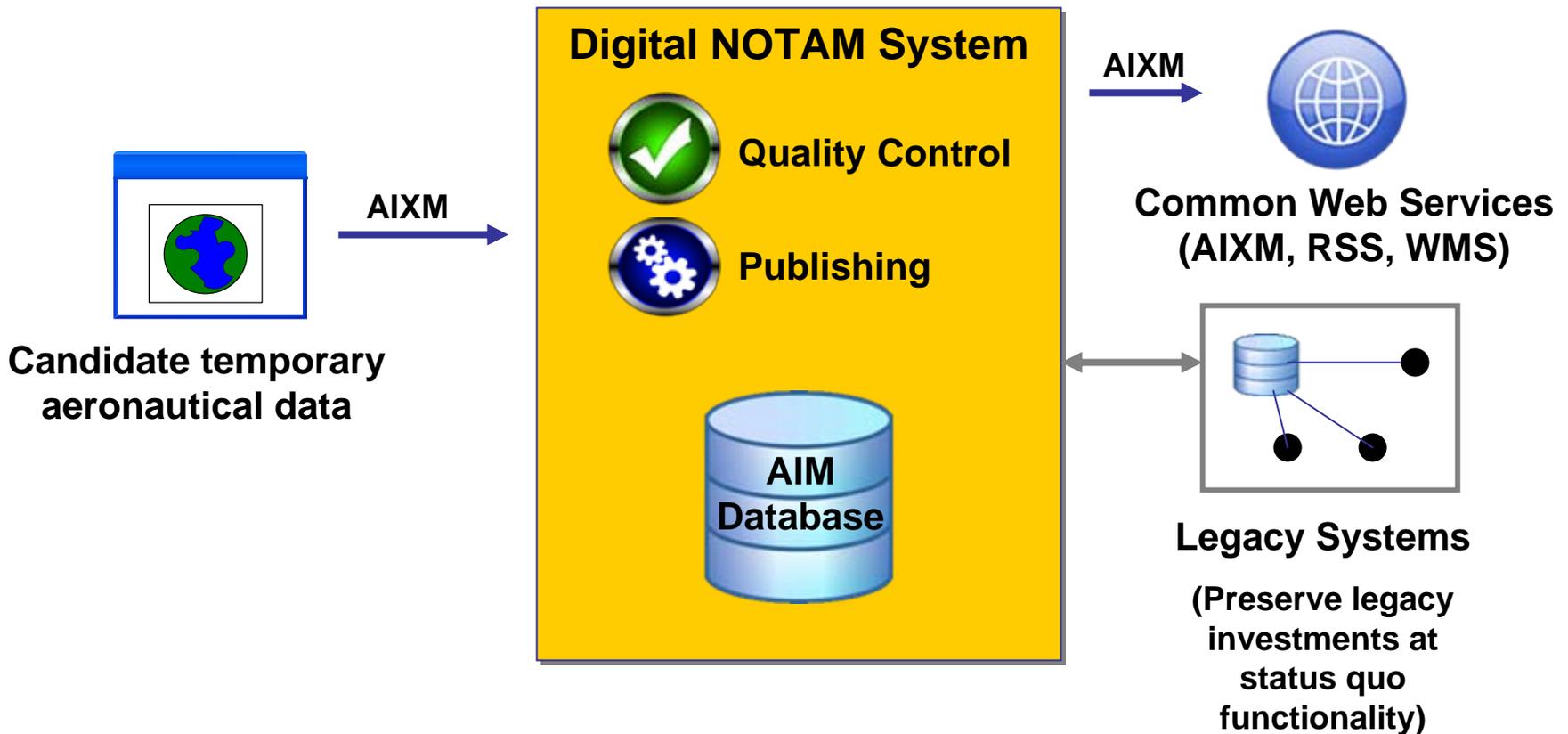
Concept of Operations



- **Digital information from the originator**
- **AIM**
 - Quality check
 - Convert to products (like NOTAM)
 - Distribution
- **Customers**
 - Human and computer systems

US Digital NOTAM System

Near-term capability demonstration



US Digital NOTAM System

Quality from the start and output to meet customer needs

Runway

Runway: 17R/35L

Runway Operation Status: Closed

Marking: </gml:validTime>

Modify Runway Length: <aixm:interpretat
<accountabilityFe
<isChanged_AIXMFe
<aixm:_Featurel
<aixm:has_Fee
ef="//aixm:Runway[i
</aixm:_Feature
</isChanged_AIXMF
<textUSNS>!COS 10

Entry

Description	
NOTAM Number	10/005
Issue Date	19 Nov 2
Airport	COS (K)
Effective Times	
Beginning	20 Nov 2
Ending	20 Nov 2
Affected Area(s)	
Runway	17R/35L
Operation Status	Closed

Issuing Authority: City of Colorado Springs Muni

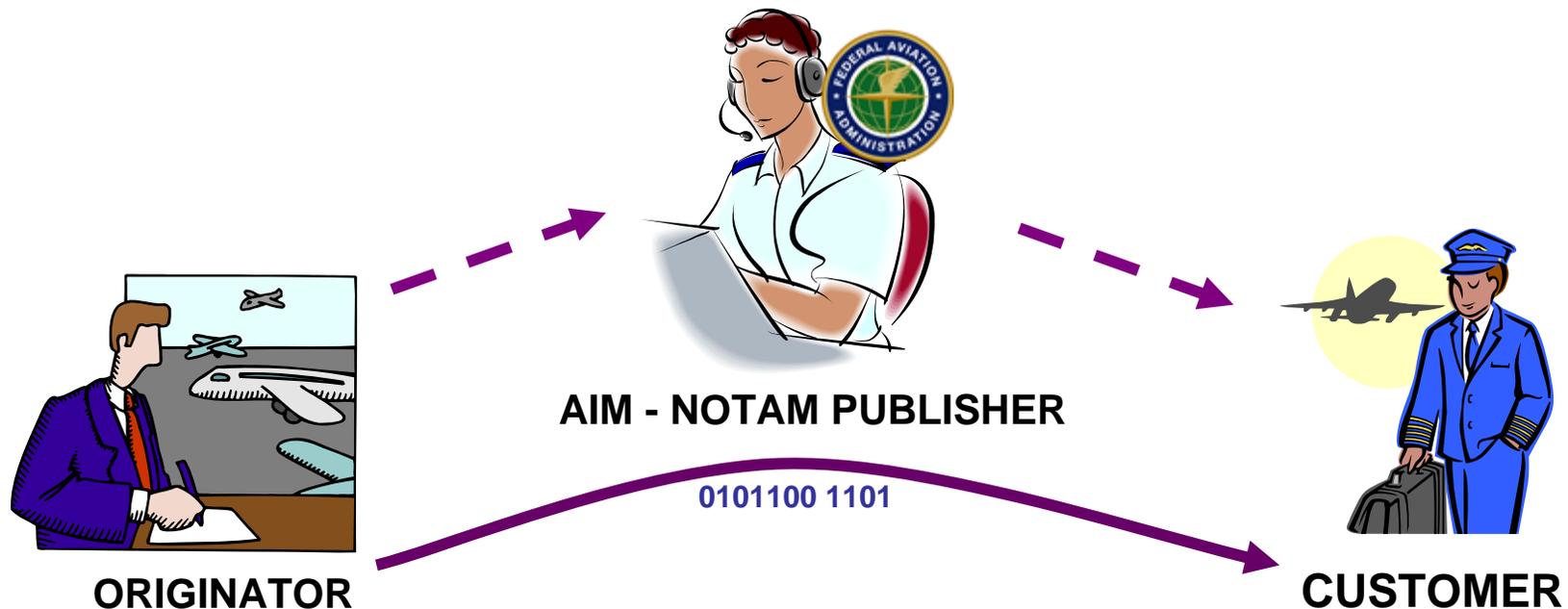
AIXM XML

Charts

Plain Language



Why Digital NOTAM submission



Quality starts at the beginning

Why Digital NOTAM submission



ORIGINATOR

- **Sophisticated airport information management systems**
 - Real time airport status updates
- **No way to automatically submit temporary aeronautical data**

Digital NOTAM submission will allow your information systems to automatically transmit temporary aeronautical data to the FAA for publication as a Digital NOTAM

Why Digital NOTAM submission



ORIGINATOR

- **Traditional NOTAM may not convey intent of the originator**
- **Without a common view we may have**
 - Extra communications
 - Misunderstandings
 - Inefficiencies



NOTAM PUBLISHER



CUSTOMER

Digital NOTAM Submission Working Group

Mission

The mission of DNSWG is to work with our stakeholders to develop specifications, as well as workflow, security and other operational requirements for submitting digital data about temporary changes to aeronautical resources to the Digital NOTAM system.



Digital NOTAM Submission Working Group

Scope

- **Interface specifications**
 - Data model, AIXM
- **Business process and workflow specifications**
 - Submission, Pre-submission check, Error Checking, Feedback
- **Security, Network and Authentication specifications**
 - Data integrity, authorization, certification
- **Risk and safety management**



Digital NOTAM Submission Working Group Process

- **Open forum**
 - Proceedings and recommendations published at
 - Nfdc.faa.gov/digitalnotam
 - www.aixm.aero
- **Industry participation**
 - Active working group
 - Monthly coordination
 - Both virtual and live meetings
 - Results will be available publicly even if you do not participate
- **Outcome focused**
 - Implement-able recommendations and specifications
 - Target date – March 2008



Digital NOTAM Submission Working Group

After the working group

- **FAA intends to**
 - Develop web services based on working group specifications
 - Coordinate demonstrations and trials focused on digital submission of airport changes
 - Full deployment as part of overall NOTAM Realignment strategy
- **International coordination with AIM Concept**
 - EUROCONTROL, FAA and international partnerships

