



Post Implementation Monitoring of Datalink Performance

ICAO PBCS Workshop
Paris 22nd February 2013

Proposed performance metrics

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DLS CRO Tool Support

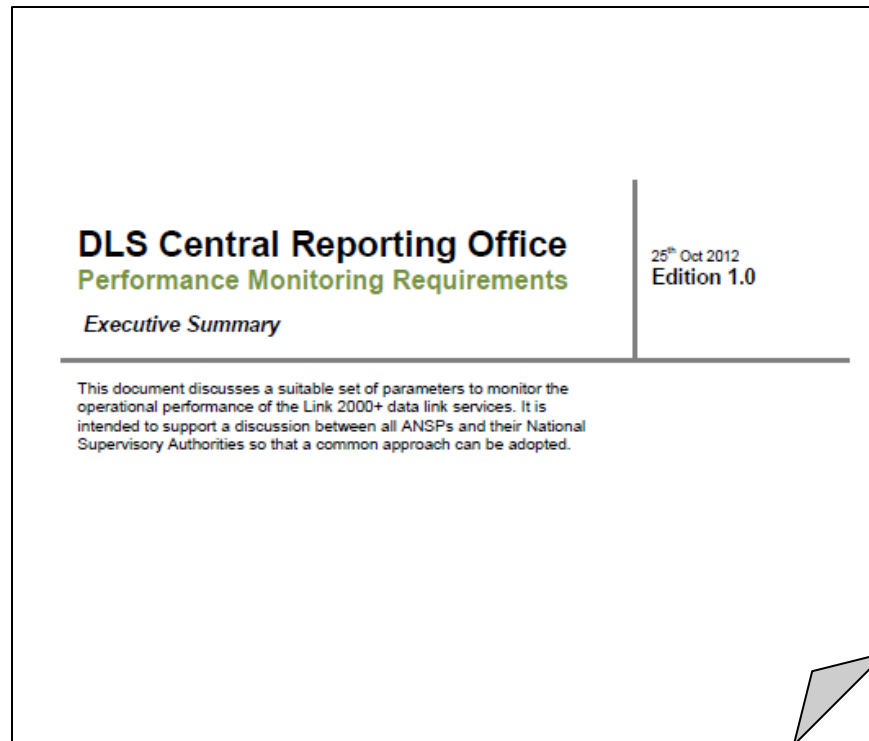


Proposed common metrics

Parameter		Expiration Timer (ET)	Continuity	Transaction Time (95%)	Availability (Use)	Availability (Provision)
DLIC initiation	Logon Counts	60	0.99	30	PA Counts	Availability
DLIC Contact						
ACM	Tech Round Trip Delay	GI Continuity	GI Trans Delay			
ACL Controller I						
ACL Flight Crew Initiated	AI Continuity	AI Trans Delay				
AMC						



A common proposal...



<http://www.eurocontrol.int/link2000/wiki/index.php/Library>



DLS CRO Tool Support

- Centralised tool to provide the common metrics
- Available to different stakeholders via their own portal (e.g. ANSPs Corner, Aircraft Operators Corner)
- ANSP upload their CM and CPDLC message logs.
- Stakeholder specific views
- Network level views
- Currently under test

Let's have a quick look...



Network Manager
nominated by
the European Commission



Questions?





Summary

- Monitoring is an ANSP responsibility
- Some limitations due to lack of regular recording on aircraft.
- Common metrics are more useful.
- DLS CRO will monitor performance and publish network wide metrics
- DLS CRO Tool allows stakeholders to review their own performance.
- Centralised tool relies on data provided by the ANSPs



Aircraft Operator Corner

Welcome, ISAAC DAVID! Dashboards - Answers - More Products - Settings - Log Out

General Performance Measures

The General Performance Measures give three key general performance indicators:

- [Technical Round Trip Delay](#)
- [PA counts](#)
- [CPDLC technical errors](#)

You can apply different filters using the menu on the left of this page and the various graphs and tables below will be updated to match your selection.

Technical Round Trip Delay

Key Metrics

Sample size : 46910
 50% : 1.00s
 95% : 7.00s
 99% : 23.00s

The figures on the left are the key percentiles of delay for the selection you have made.

The first graph belows shows the distribution of delays for the selection you have made, and the graph below that shows the trend of the Technical Round Trip Delay over the preceding year.

Chart

Technical Round Trip Delay Detail



- Aircraft Operator Corner
- TARGET IMPROVEMENTS
- STRATEGIC (ATM MasterPlan)
- LSSIP Home
- UPDATE MY DATA
- LSSIP Survey
- OPERATOR FLEET
- Prisme Fleet
- DELAYS
- Delays
- Datalink Performance Reports

Date From: 1/01/2012 00:00 Date To: 2/05/2012 00:00

Hour From: 00 Minute From: 00 Second From: 00
 Hour To: 00 Minute To: 00 Second To: 00

Atsu: UAC Maastrich Sector: COASTAL_ID

Ac type: All Operators Operator Icao: All Operators

Flight 24 bits addr: Flight identifier:

Equipment: atn

Go

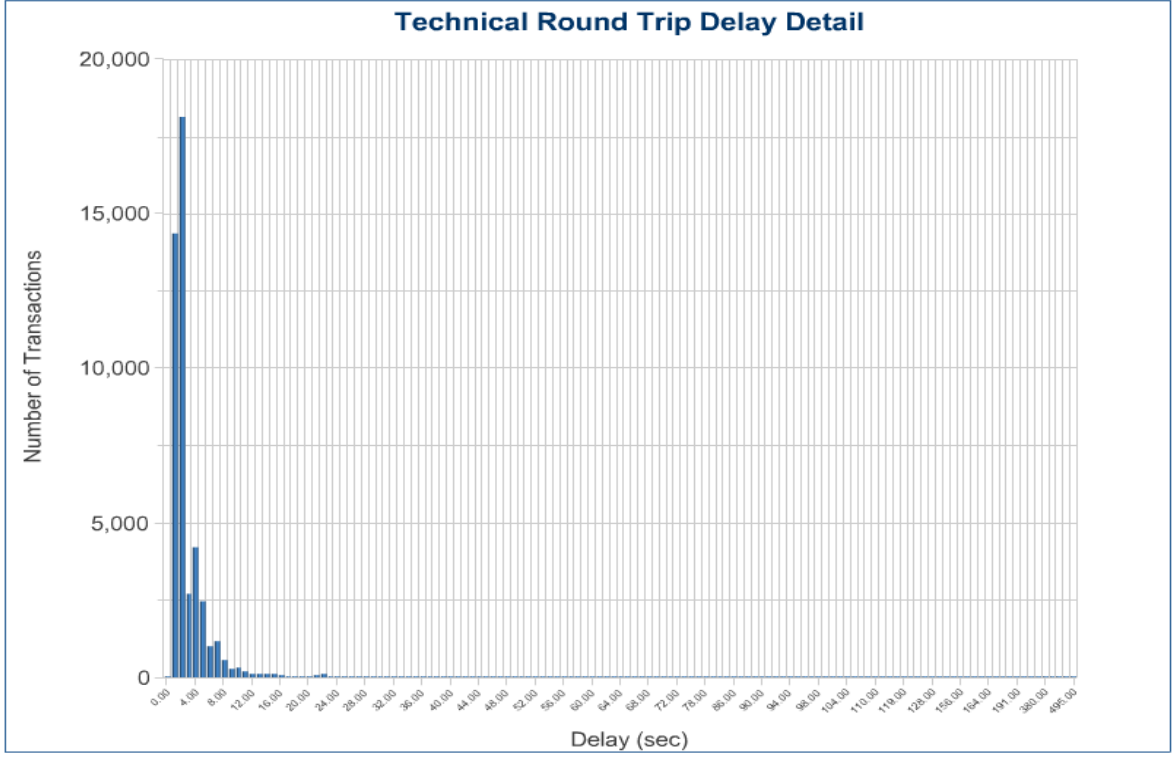
00 00 00
 Hour To--- Minute To--- Second To
 00 00 00
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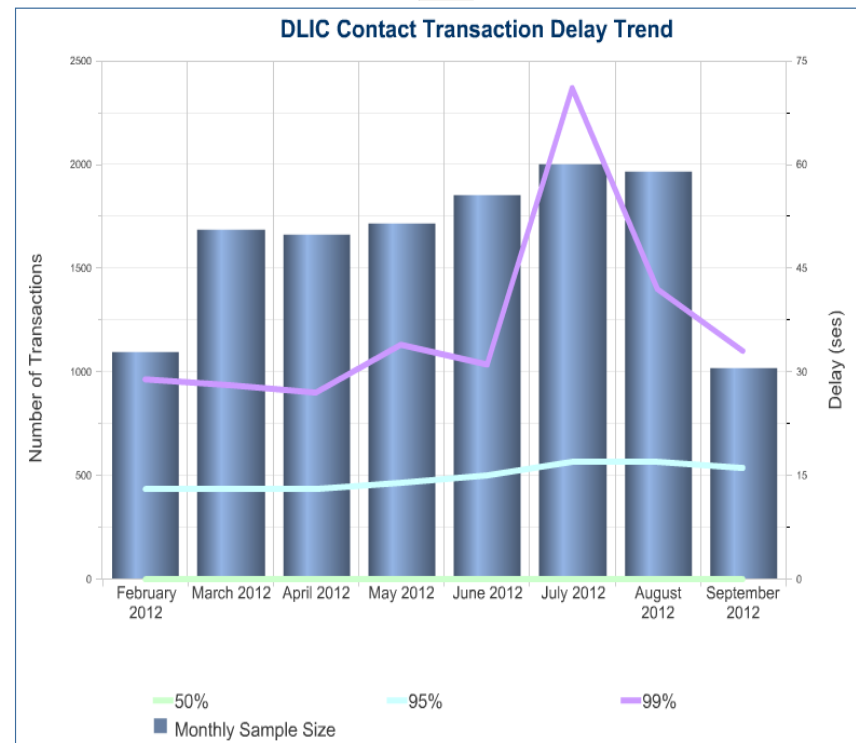
Date Range : 1/01/2012 00:00:00 -> 2/05/2012 00:00:00

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Chart

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Chart



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DLIC Contact Continuity

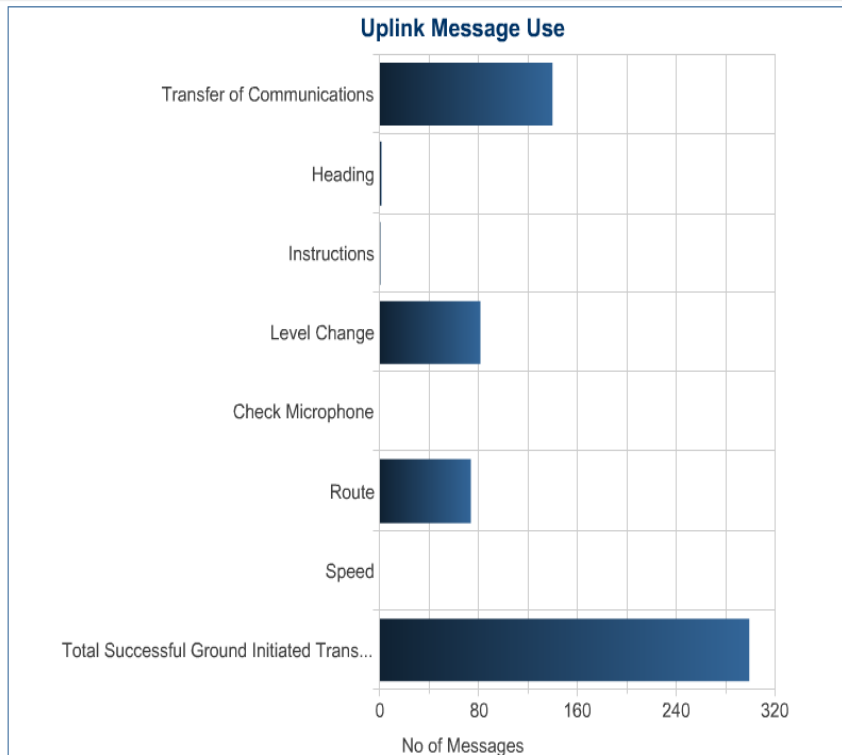
Start Date	End Date	Expired Transactions	Total Transactions	Continuity
2012/01/01 00:00:00	2012/05/02 00:00:00	54	937	0.942

Date Range : 1/01/2012 00:00:00 --> 2/05/2012 00:00:00

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Uplink Message Use



CPDLC Errors by Flight (uplink)

Error Text	Count
ATC TIMEOUT - REPEAT REQUEST	1
CONTROLLER TERMINATED CPDLC - USE VOICE	2
CPDLC MESSAGE FAILED - USE VOICE	64
CPDLC TRANSFER NOT COMPLETED - REPEAT REQUEST	2
DOWNLINK TIMESTAMP INDICATES FUTURE TIME	19
DOWNLINKED RESPONSE RECEIVED AFTER TIMEOUT - USE VOICE	2