



Data Link Implementation

NATCA®

Lessons Learned

An ANSP Perspective

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NATCA

DATALINK IMPLEMENTATION

LESSONS LEARNED AN ANSP PERSPECTIVE

- This presentation is meant to be an open forum discussion of some of the challenges that will be faced by ANSP's when implementing Data Link and the systems associated with its use.
- In order to prepare for this discussion, I sought the collaborative input of Site project members and their project lead's during the United States deployment.

DATALINK IMPLEMENTATION LESSONS LEARNED AN ANSP PERSPECTIVE

- Each interview subject was provided with the background reason for soliciting their input, along with a pre-formatted selection of questions. They were also asked to submit any additional questions/answers that they believed would be relevant or helpful.
- Last they were asked to provide macro level comments on the project as a whole, and implementation changes they would seek, if they were leading a deployment team today.

DATALINK IMPLEMENTATION LESSONS LEARNED AN ANSP PERSPECTIVE

- The answers cumulatively gathered from the team members were harmonized into single answer bullet format for the group answered questions.
- Additional information provided by individual members was distributed to others in a second solicitation and their combined input was also harmonized into single answer bullet format.

The logo for NATCA (National Air Traffic Controllers Association) is centered in the background. It features a stylized blue and white lighthouse or tower icon above the word "NATCA" in large, bold, red capital letters. The logo is partially obscured by the text of the list items.

What was the most beneficial aspect of transitioning to CPDLC?

- Controller/Pilot communication was much quicker.
- Use of pre-formatted messages greatly reduced errors that were normally received as “readback” errors.
- Messages were standardized and immediately available.
- Issuing Re-route clearances to aircraft that used to be complex and often took several attempts, was now almost immediate and correct on issuance.



From a controller perspective, what was the most challenging aspect of transitioning to CPDLC?

- Getting used to the new technology whilst still maintaining the 'flick' in respect to the traffic in your sector.
- Training developments proved troublesome, because clearances could now be issued with a click of a button (instead of the instructor listening to the development and readily being able to intervene).
- It takes a while to know exactly what messages are available to you and what the appropriate responses are.

When providing the initial briefings to your respective facilities, what were the projected benefits and were those benefits realized?

- You could respond more quickly than before CPDLC (doesn't take that long to compose a message) and thus have more time to do your other required tasks.
- Save time on issuing clearances and ensure readbacks are correct. (You will avoid third party human readback errors.)
- Messages are standardized and even HF will respond better once only one message set is commonly used.

When deploying the system, what would you have done differently to make the deployment more successful for the workforce?

- Vigorous testing, and attention to detail prior to deployment is a key element to avoid having to fallback to the legacy system.
- I would recommend putting into one sector initially (maybe for a month), then implement it in all of the sectors. This allows the controllers to kind of get used to it without being overwhelmed, and still quickly implements.
- It is important to get full controller “buy in” and manage expectations, prior to implementation. If not, the chances of success are minimized.

What items do you think should be emphasized as providing the most immediate benefit, and what items will require some time on the new system utilizing CPDLC, for benefit to be realized?

- Eliminating the controller having to issue a clearance on the phone to a 3rd party operator and having to listen to the readback to ensure it is correct. The reduced separation applications will take longer to realize.
- Ultimately, more efficient routes for aircraft will be issued, because the controllers can just click on the route as it comes in (instead of having to issue the route verbally word-for-word).

If you could change any part of your deployment plan to make it more effective, what would that be?

- Do not force a premature product into operation. Make sure it is ready and so are the controllers that will be working it. Even if implementation date promises have been made by “deciding officials.” It drastically erodes controller confidence when something is implemented and then brought off line for repairs. Often it seems that there always enough time do something over but never enough time to do it right the first time!

If you could change any part of your deployment plan to make it more effective, what would that be?

Continued

- It is VERY important that there is controller involvement (more than 1 controller) all the way through the entire design, development, implementation, and review process. They need to have equal status as project implementers. They will be working the system, and should decide how that system works. It will have to work for them, or it doesn't really work.

What were the biggest obstacles that you, or your team, had to overcome in the deployment and training of controllers on the new system?

- Not every aircraft being equipped. The controller needs to be aware of which aircraft have CPDLC and which ones don't.
- Additionally, the log in/log out process can be confusing, especially if an aircraft is equipped but is not logged on. Training needs to be thorough here so that the aircraft is in communication with ATC all of the time. Still require a check in with the third party provider while going through these growing pains.

What were the biggest obstacles that you, or your team, had to overcome in the deployment and training of controllers on the new system?

- Initial CPDLC deployment was done or attempted wholly as a management initiative. When the application to our operating system occurred, it required teams of controller/management specialists to change the parameters and basically re-deploy[®] and re-train use to fit the actual applications. Involve these teams from the beginning and movement forward will be quicker due to the groups gained experience.

What were the biggest obstacles that you, or your team, had to overcome in the deployment and training of controllers on the new system?

- Many of the new terms and contractions (as an example NDA or Next Data Authority) are initially confusing. Once the controller training is complete and there is some limited initial use, solicit input from the line controllers on items that require supplemental briefings. The teams are familiar with the terms, but the line controllers are not. Don't be afraid to find out where you failed and fix it!