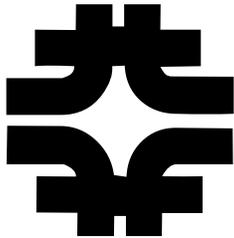


# D44 Data Archiving, Prototype status.



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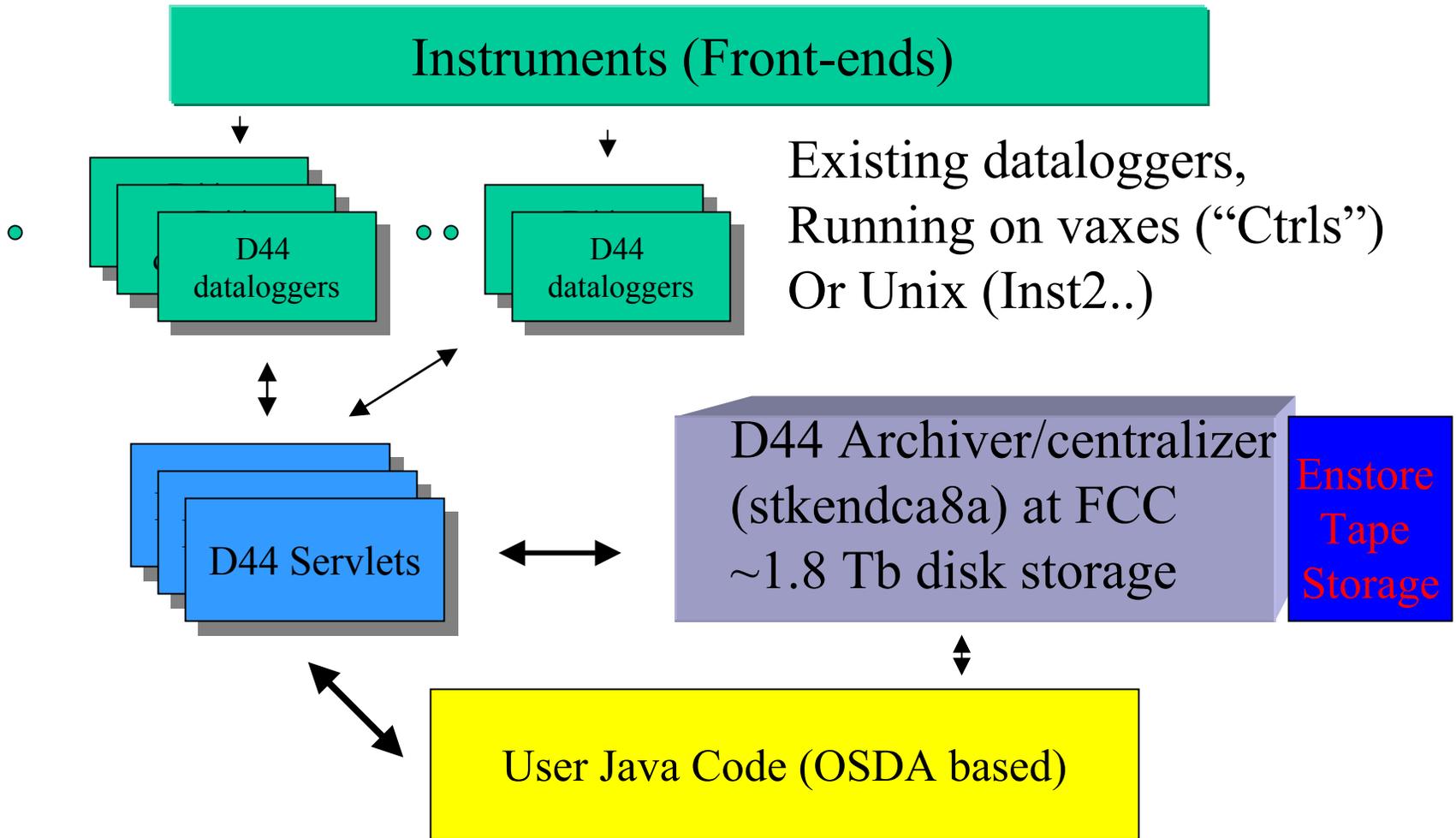
*Oct 22 2002*

# New D44 Archiving, definition

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- The 1 Hz (or fraction of 1 hz ) data is used for detailed analysis of the Tevatron performance. The 15 min. data is often too sparse. The SDA data is triggered, and also too sparse for some analysis.
- We are “copying” and we plan to “archive” and “make available the  $\sim < 1$ Hz data for selected devices, such as FBIs, SBD, SyncLight,...
- A prototype exists, is running on the right dedicated hardware at FCC, and may become “version 0” soon.
- A list of task to finish-up this new product is given.

# D44 Archiver Diagram



# Status of prototype

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- 60 to 80 % written in Java, ran on stkendca8a for about a week without interruption.
- SyncLight data gathering failed on numerous occasion, maximum number of error reached, it stopped (relax the maximum number of such error, keep at it relentlessly).
- Currently keeping the uncompressed and compressed files (x4 compression ratio)
- Data Access:
  - Bulk data: done, checked (data from previous test-bed on patmu3 have been analyzed)
  - Meta data: vie the “file repository”, not via a database
  - Bulk data transferred “by hand” from Archiver node to “Analyser” node.
- Data not backed-up to “Encp” area.

# Missing Items

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- “Tar” the files accumulated on a daily bases and copy then to the “encp” area, which will be backed up to Enstore. ( We were planning to load in Enstore individual bulk data files, ther are probably a bit too small for this. To be discussed! ).
- Unzip files on Linux and Windows (do we do it in Java, or via O.S. commands)
- Automated the remote access to Archiver node: copy a list of required file locally (the user has a cloned directory strutcture on his machine, with updated Meta Data files, he need to copy the required bulk data files for a particular request).
- Backup Archive the Meta data itself
- Optionally, save the Meta Data in MYSQL ( or similar).
- Performance and Monitoring tools (analysis of Archivers log files)

# Plan

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- Get the programming help we need to implemented this.. (CD!!)
- Review what we have, make necessary correction.
- Go though the list of missing items, and implement them on stkendca8a.
- Deploy.. Anticipated duration : ~4 months.

# Requests to BD

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- We need to make a list of D44 ACNET device we want to archive!
- Let us be greedy: if there is a shadow of a doubt that a detailed analysis of this variable will get done, place in the list.
- Discuss and present this with Recycler people, who are thinking about a similar project. We certainly could merge the two packages.
- A commitment that these device will be datalogged, and the corresponding datalogger node does not change too often!