

# Run II Databases

Run II Computing Review

September 11, 2003

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# Outline

- ◆ Current Resources
  - Hardware, Capacity Planning, and Backup capacity
- ◆ CDF Replication, Present & Future
  - *D0 uses another mechanism and Lee will present*
- ◆ Freeware Support
- ◆ Manpower & Support
- ◆ Current Projects

# Current Resources

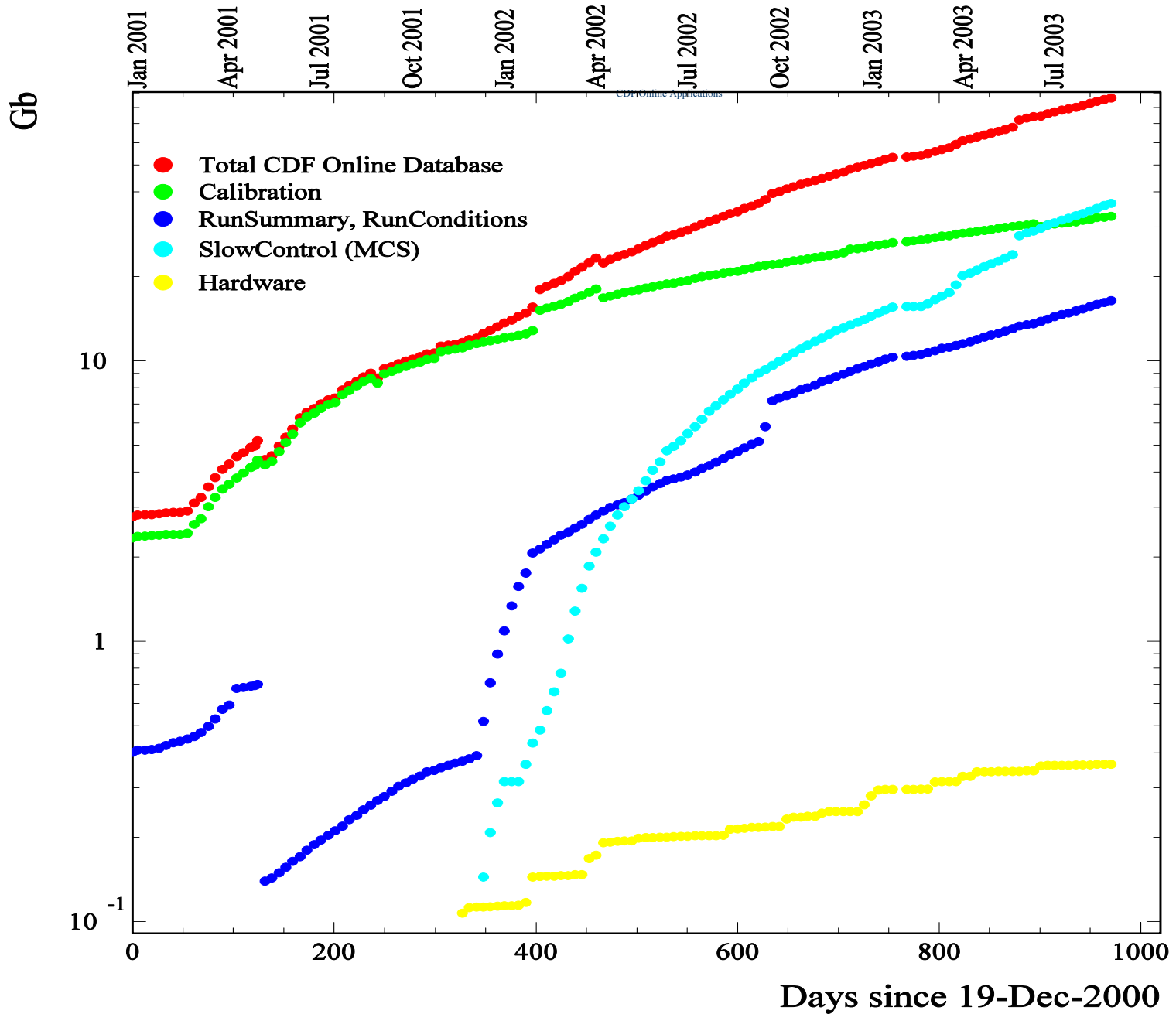
Applic.	Machine	Usage	Type	o/s	Oracle
D0 Offline, SAM / Calib	d0ora2	Prd/Int	Sun V880	2.9	9.2.0.3 64bit
D0 Offline, SAM / Calib	d0ora1	Dev	Sun E4500	2.9	9.2.0.3 64 bit
CDF Online, DAQ	b0dau35	Prd	Sun E4500	2.8	9.2.0.4 32 bit
CDF Online, DAQ	b0dau36	Dev/Int	Sun E450	2.9	9.2.0.4 32 bit
CDF Offline, Replica,DFC, SAM	fcdfora1	Prd	Sun E4500	2.9	8.1.7.4 32 bit
	fcdfora4	Prd	Sun V880	2.9	9.2.0.4 64 bit
CDF Offline, Replica,DFC, SAM	fcdfora2	Dev/Int	Sun E4500	2.9	8.1.7.4 32 bit
CDF Replica #1	fcdflnx1	Prd/Replica	P3 Xeon Quad	RHAS 2.1	9.2.0.3 32 bit
CDF Replica #2	fcdfora3	Dev	Dual P4 Xeon	Suse ES 8	9.2.0.4 32 bit
CDF Validation, Test Stream	fcdldata012	Dev/Val	Pentium 3	Suse ES 8	9.2.0.4 32 bit
NOTE: 2 new linux boxes 1 64bit the other 32 bit for testing					

# Current Resources

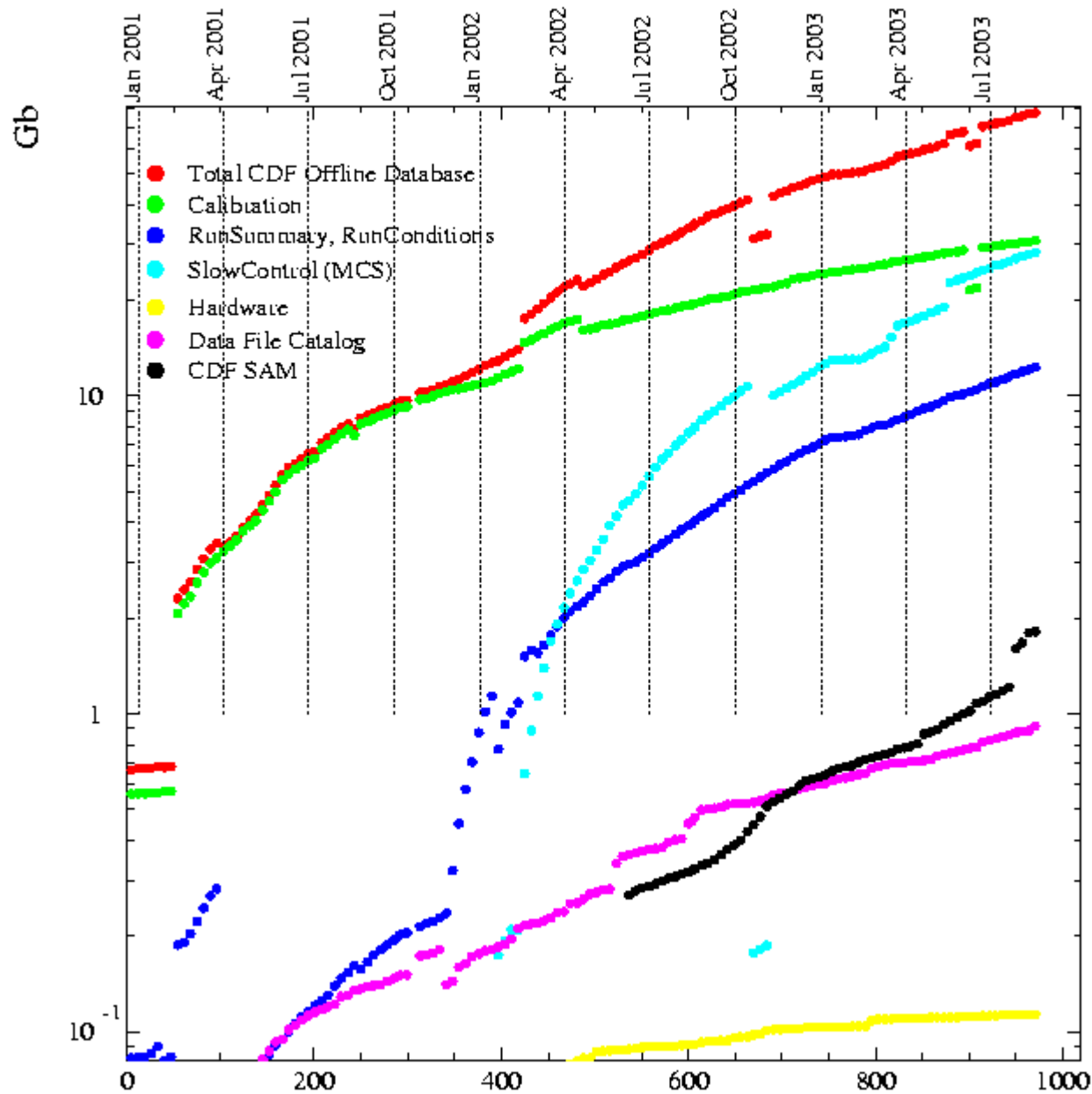
Applic.	Machine	Capacity	Used	Rman Capacity	Rman Used
D0 Offline	d0ora2	2TB	365G	1TB	309G
					Read only 10
CDF Online	b0dau35	508G	142G	143G	120G
CDF Offline	fcdfora1	366G	152G	60G	17G
	fcdfora4	2TB		1TB	
CDF Replica	fcdflnx1	1.2TB	100G	no rman implementation	



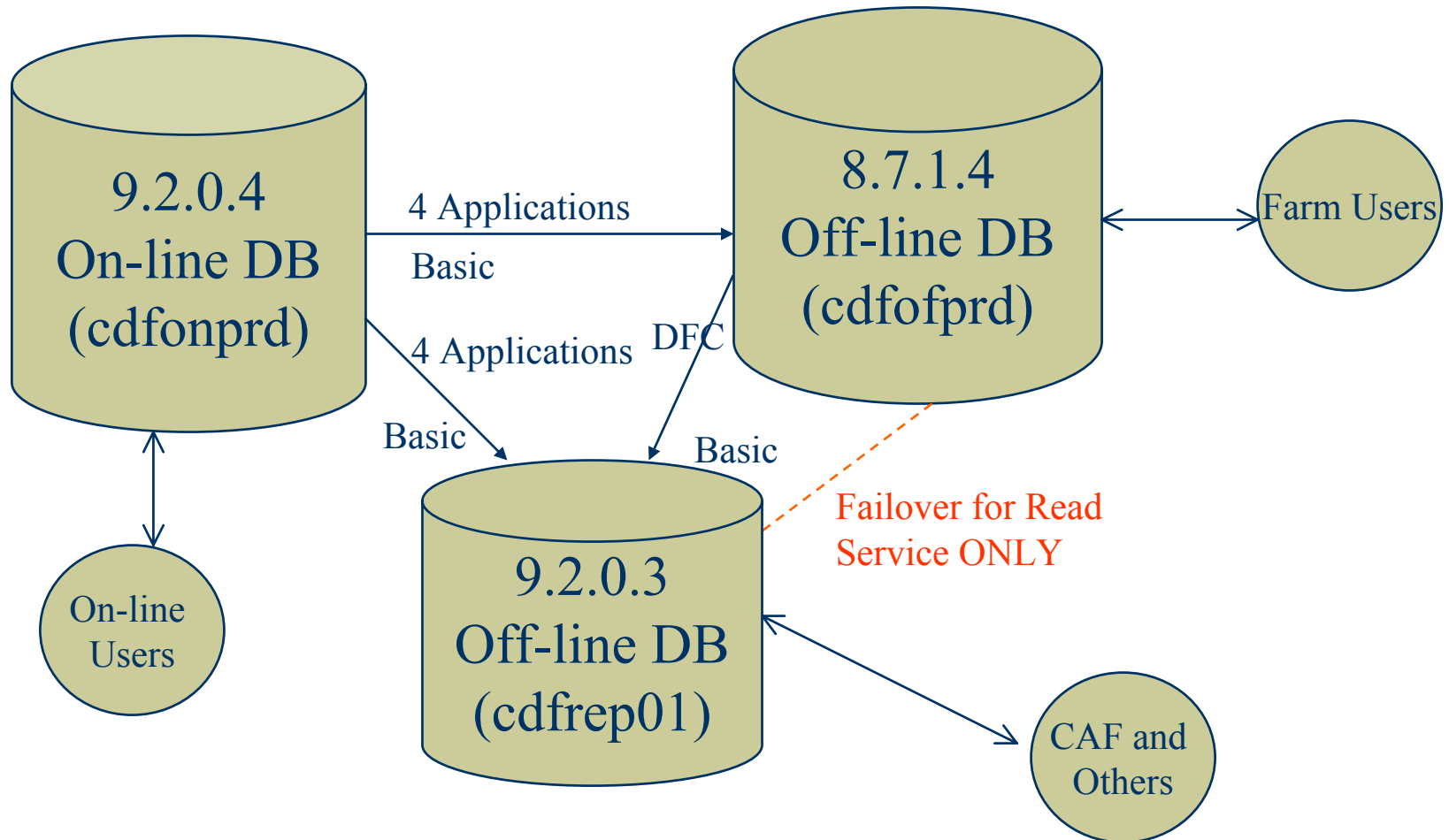
# Online Database Usage vs. Day



# Offline Database Usage vs. Day

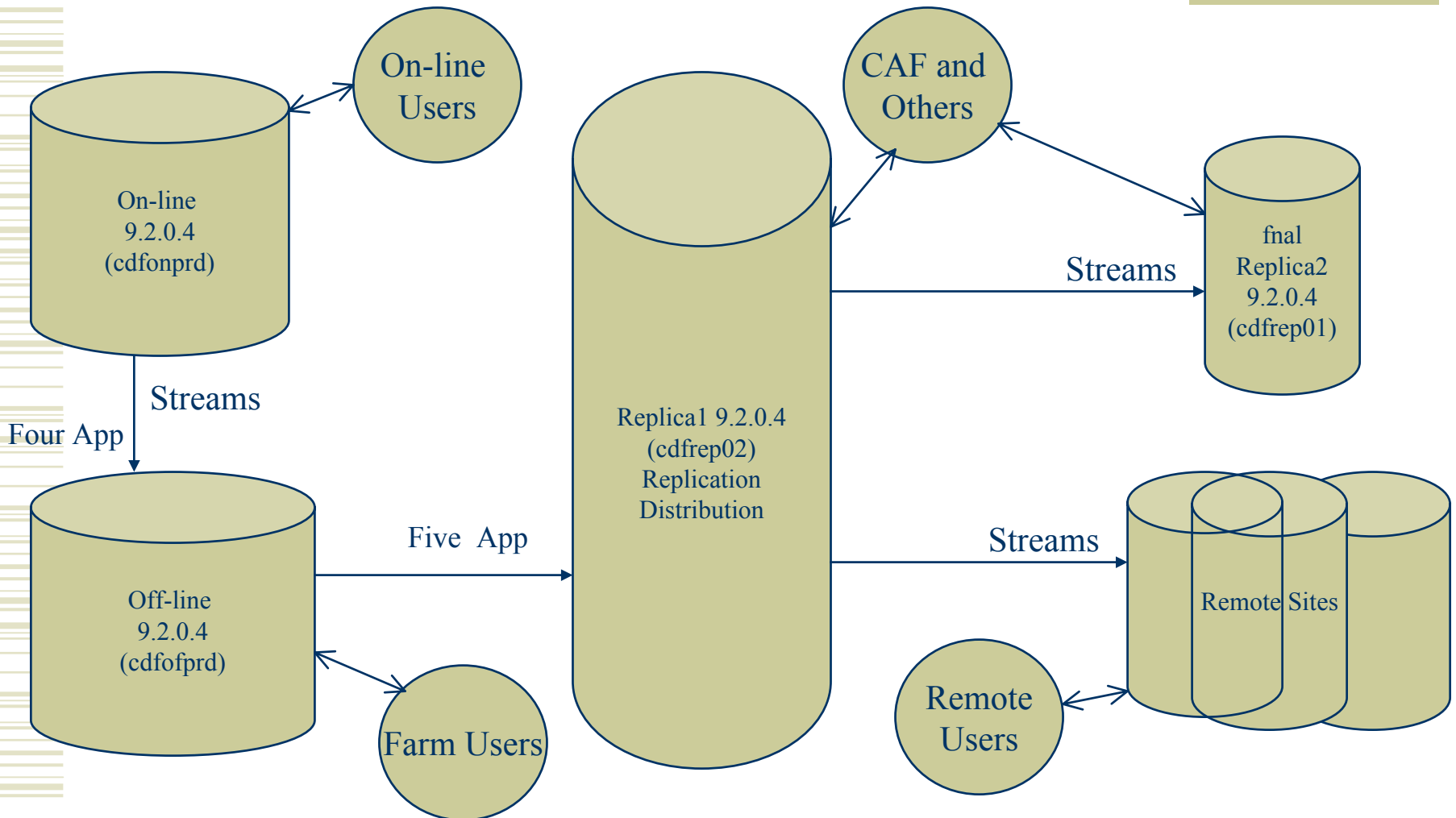


# CDF Current Replication





# CDF Future Replication



# Freeware Support

## ◆ Mysql/Postgres prototype

- proof of product with CDF data
- Mechanism for population IS on demand, it does not support updates
- CDF successfully tested with CDF code - (Karlsruhe)

## ◆ DSG has begun to provide consulting for freeware databases

- actively maintaining new versions of mysql & postgres in KITS and working towards a more robust environment
- actively maintaining documentation for mysql & postgres in our freeware area.
  - Reference url:

<http://www-css.fnal.gov/dsg/external/freeware>

- actively assisting users with questions, upgrades, testing, etc. for freeware products.

# Man Power & Support

- ◆ Production 24x7 with primary & secondary on call
  - 4 machines
- ◆ Development / Integration 9x5 with primary & secondary
  - 7 machines 5 (dev) 3 (int) 1(cdfval) 2(testbeds)
- ◆ 3 DBA's
  - Anil Kumar – CDF/DO
  - Diana Bonham – D0
  - Nelly Stanfield – CDF, plus 1 training/export or freeware
- ◆ 2.5 Sysadmin
  - Steven Kovich – D0 Offline
  - Jeff Schmidt – CDF Online
  - Richard Jetton – CDF Offline ½ time

# Current Projects

- ◆ CDF Offline hardware replacement
- ◆ Streaming technology replacing basic replication
  - Possibility of 2<sup>nd</sup> replica (contingent on Streams & Usage Pattern & Freeware implementation)
- ◆ Data Guard - Standby database for CDF Online
- ◆ Oracle Advanced Security Option
- ◆ VLD Backups. Alternatives to tape & rman utility
- ◆ Sam Schema support for CDF and D0

# Current Projects

- ◆ Freeware Project - Provide a procedure (or set of procedures) that will allow remote sites to populate local replica (freeware or Oracle) on demand, to be able to analyze local datasets.

- ◆ Negotiate New Oracle Server Licensing

This is our last year with 135  
Site wide concurrent licenses

New pricing schema for  
FY 2005

RUN II Databases 'Only'	Avg Users Per Month
D0 Online	18
D0 Offline	25
CDF Offline	22
CDF Online	32
CDF Rep01	18
Total	115