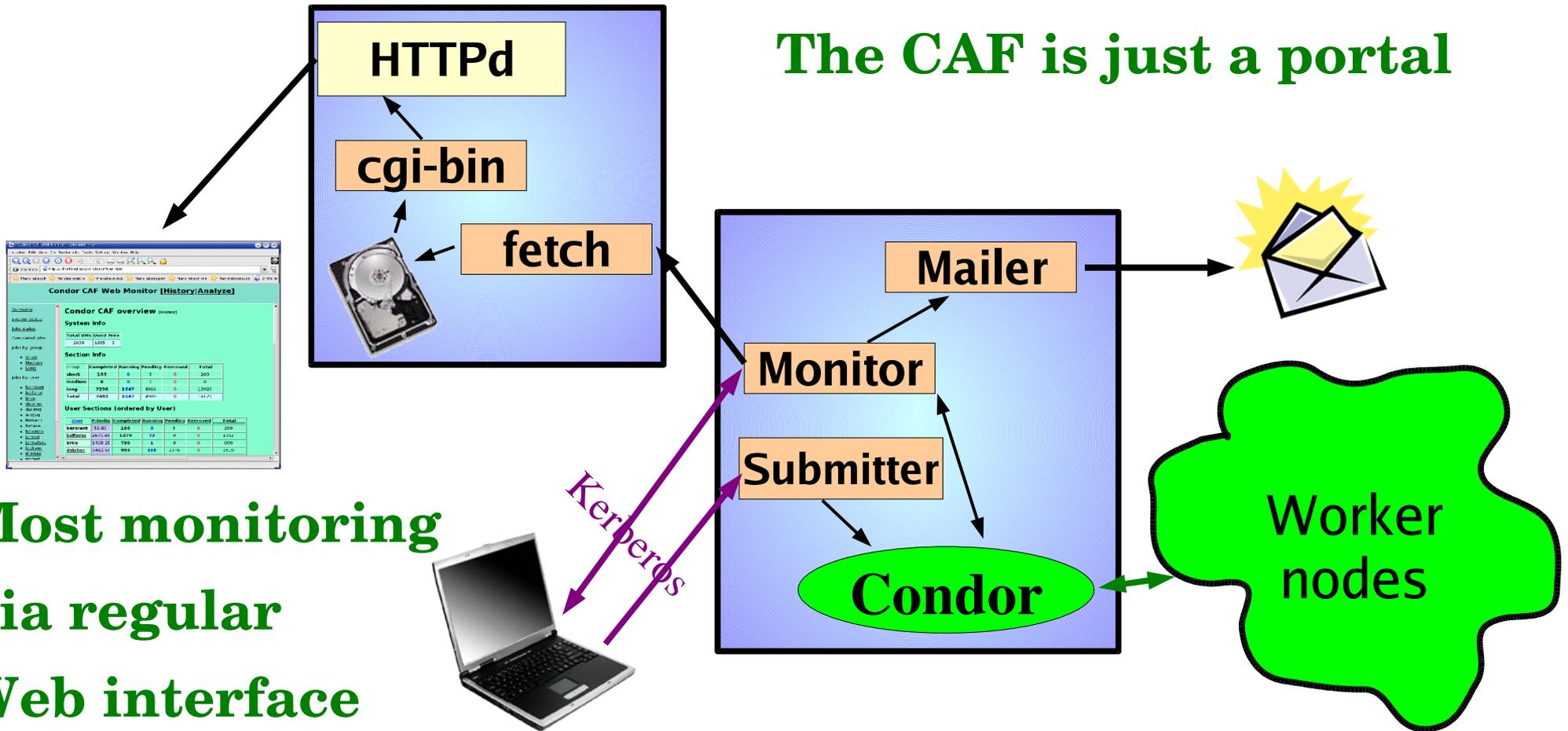


CDF GlideCAF

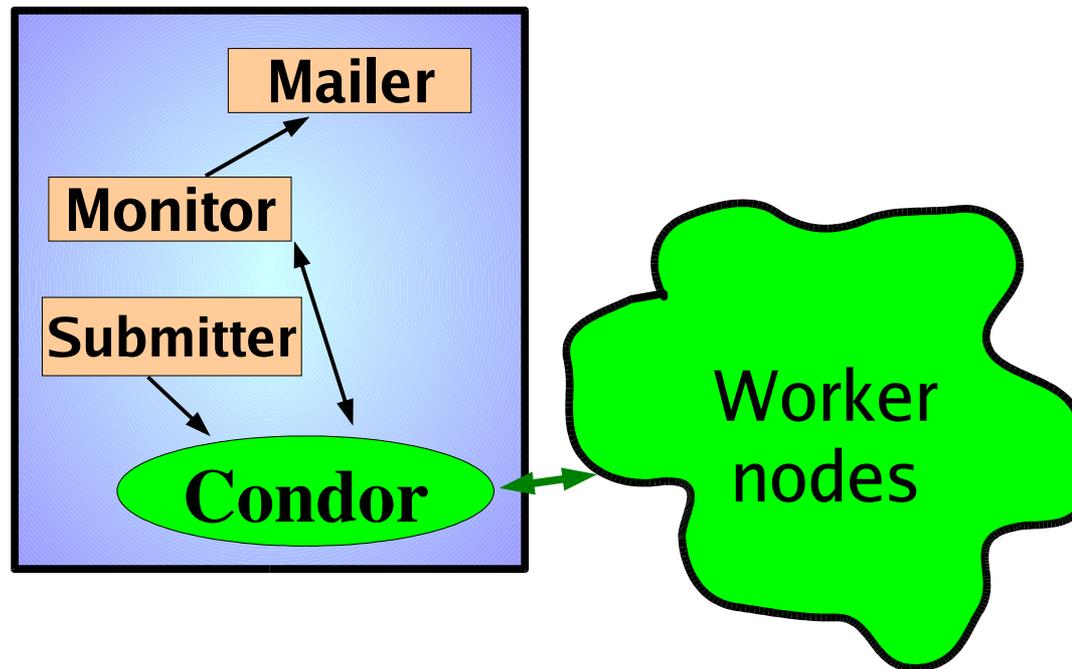
- Moving from dedicated resources to the Grid world
- Supporting existing applications
- Minimizing the impact on the users

CAF internals

The CAF is just a portal

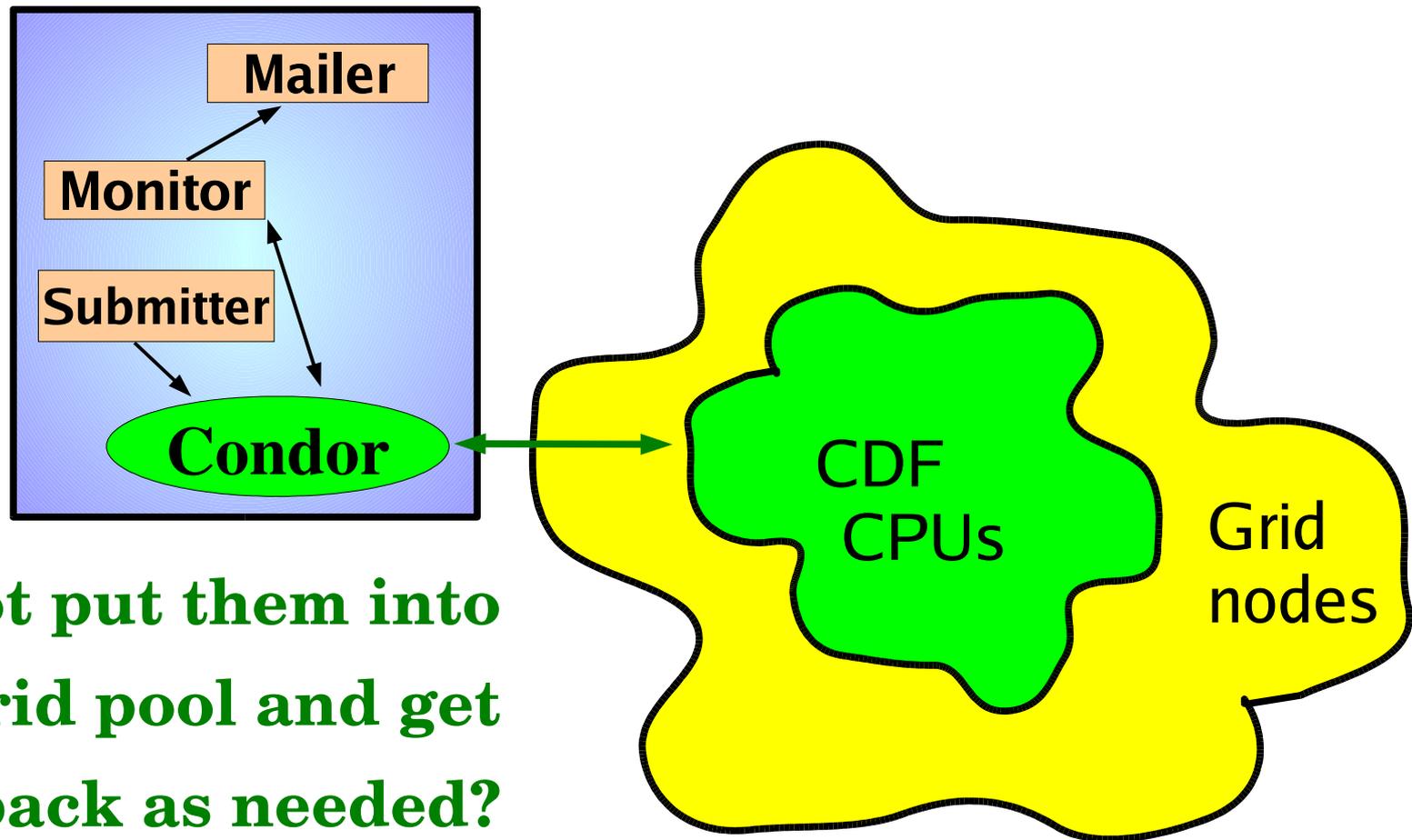


CAF evolution was needed⁽¹⁾



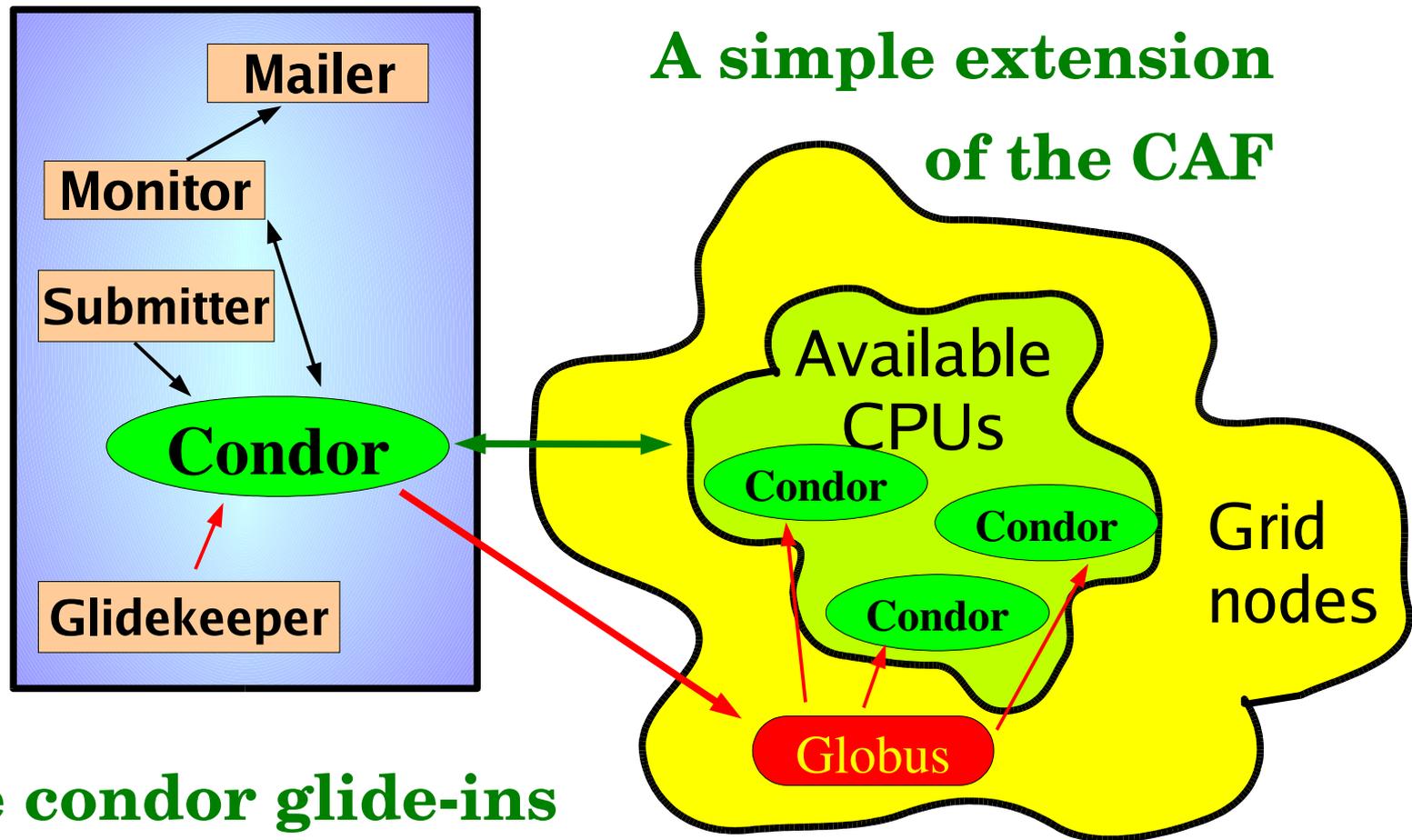
**Dedicated resources not
viable anymore**

CAF evolution was needed⁽²⁾

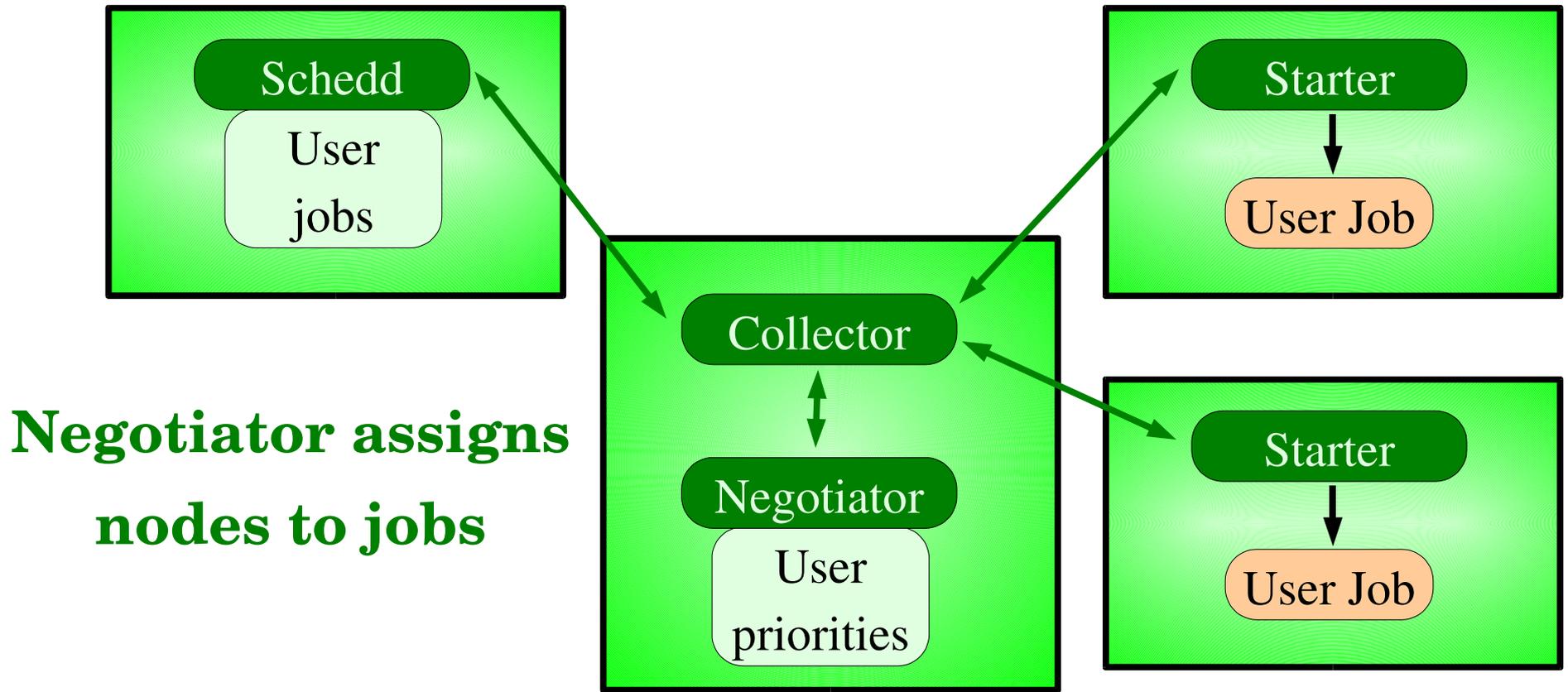


**Why not put them into
a Grid pool and get
them back as needed?**

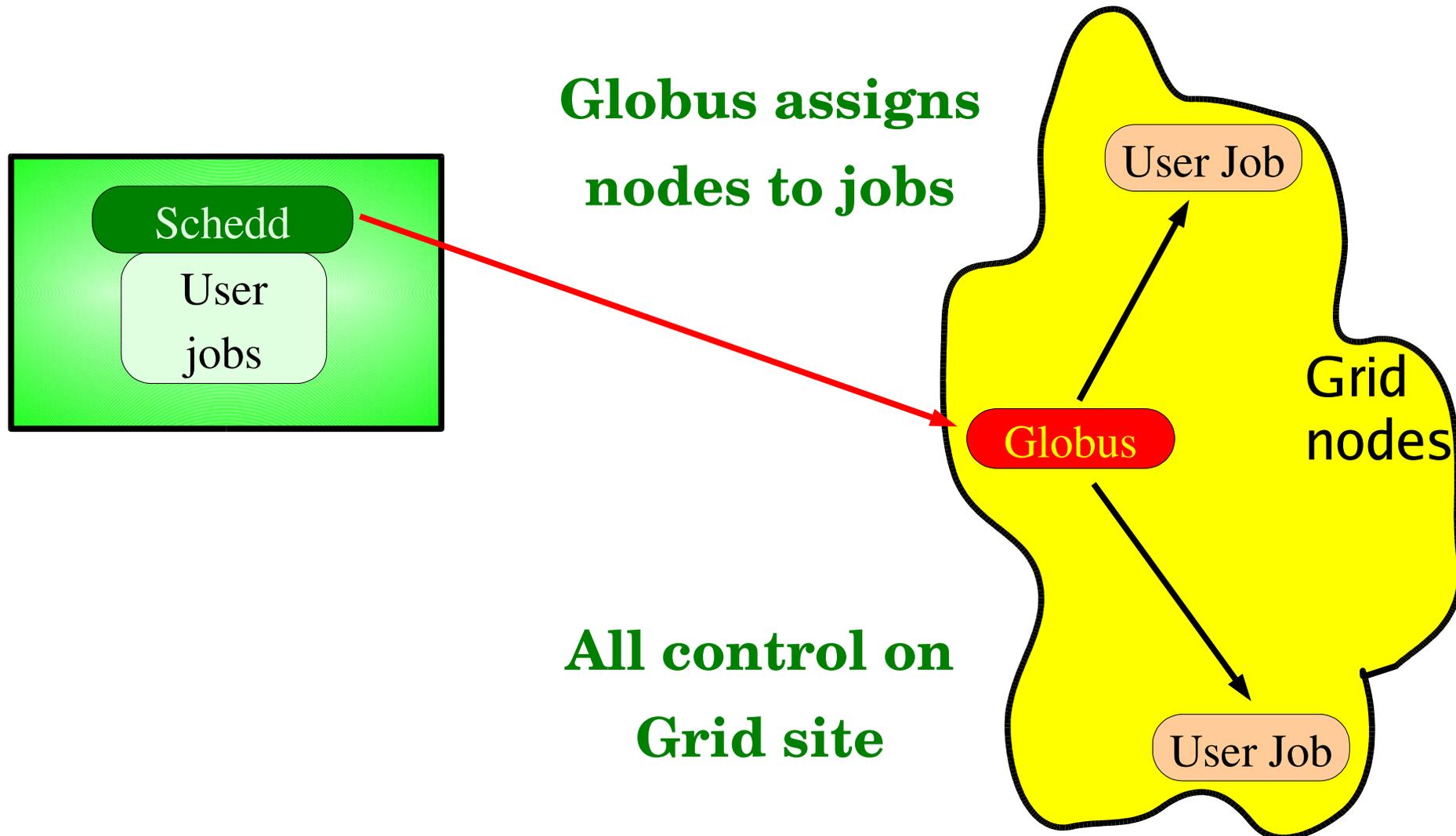
GlideCAF was born



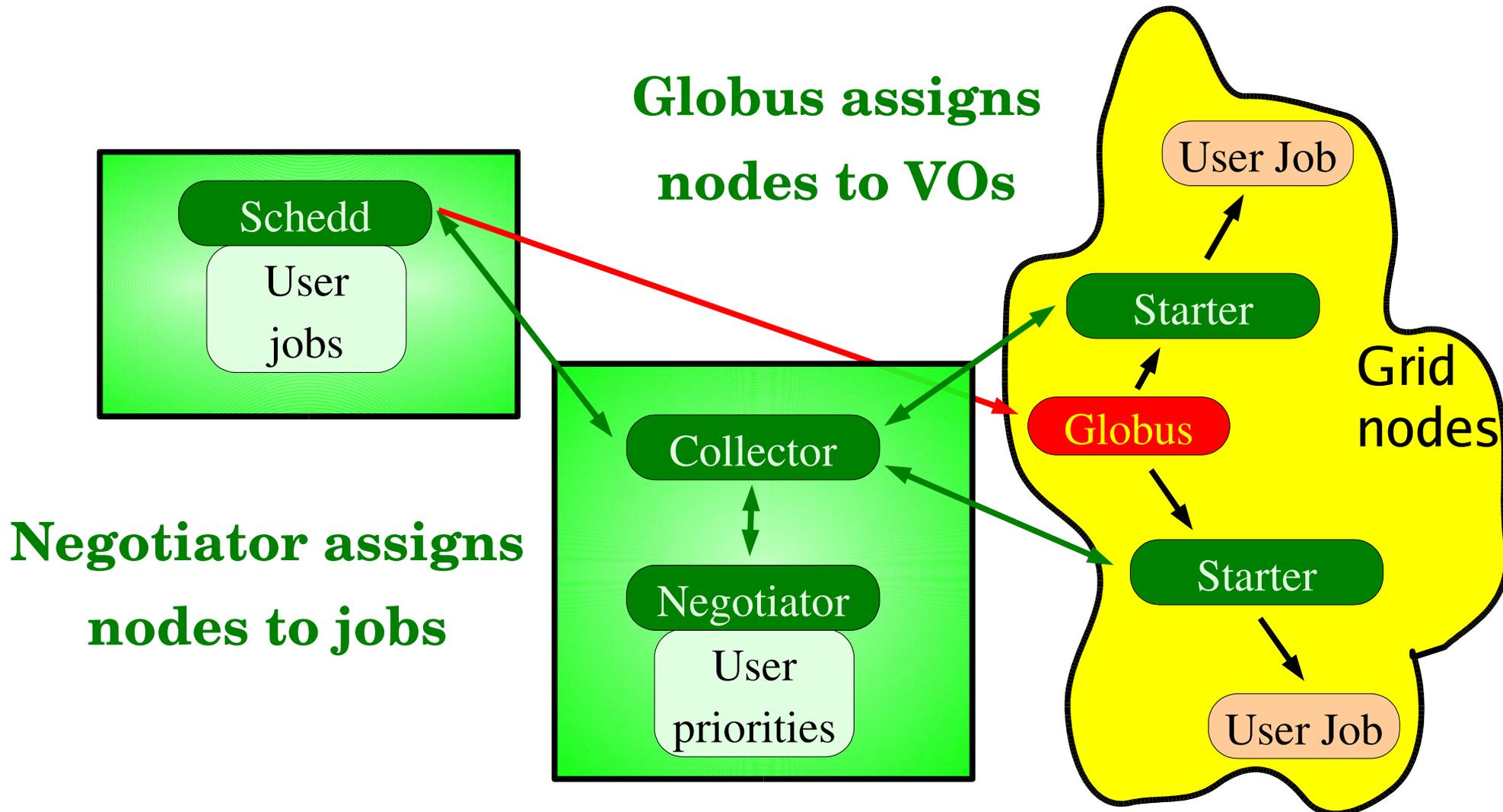
Condor system - Dedicated



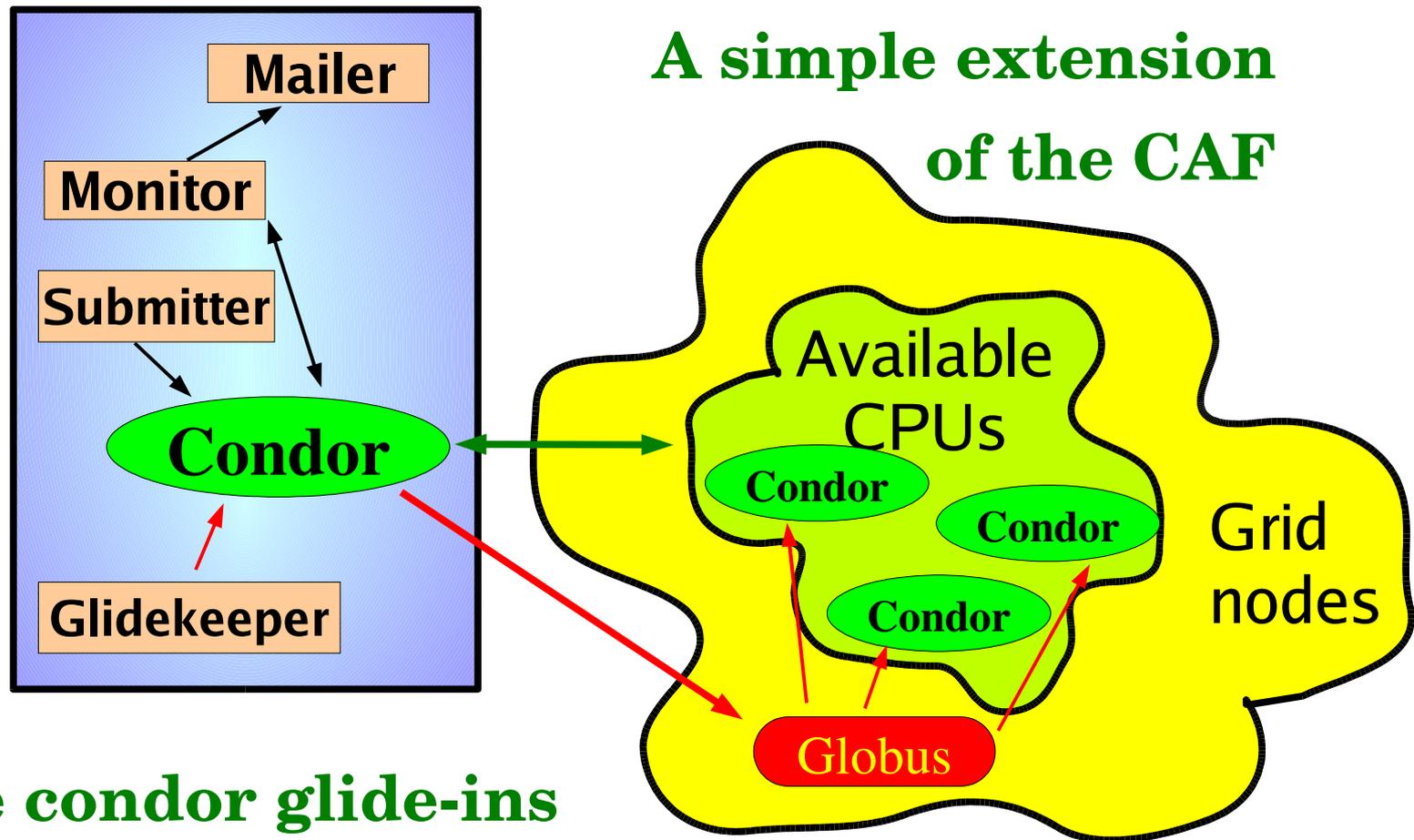
Condor system - Condor-G



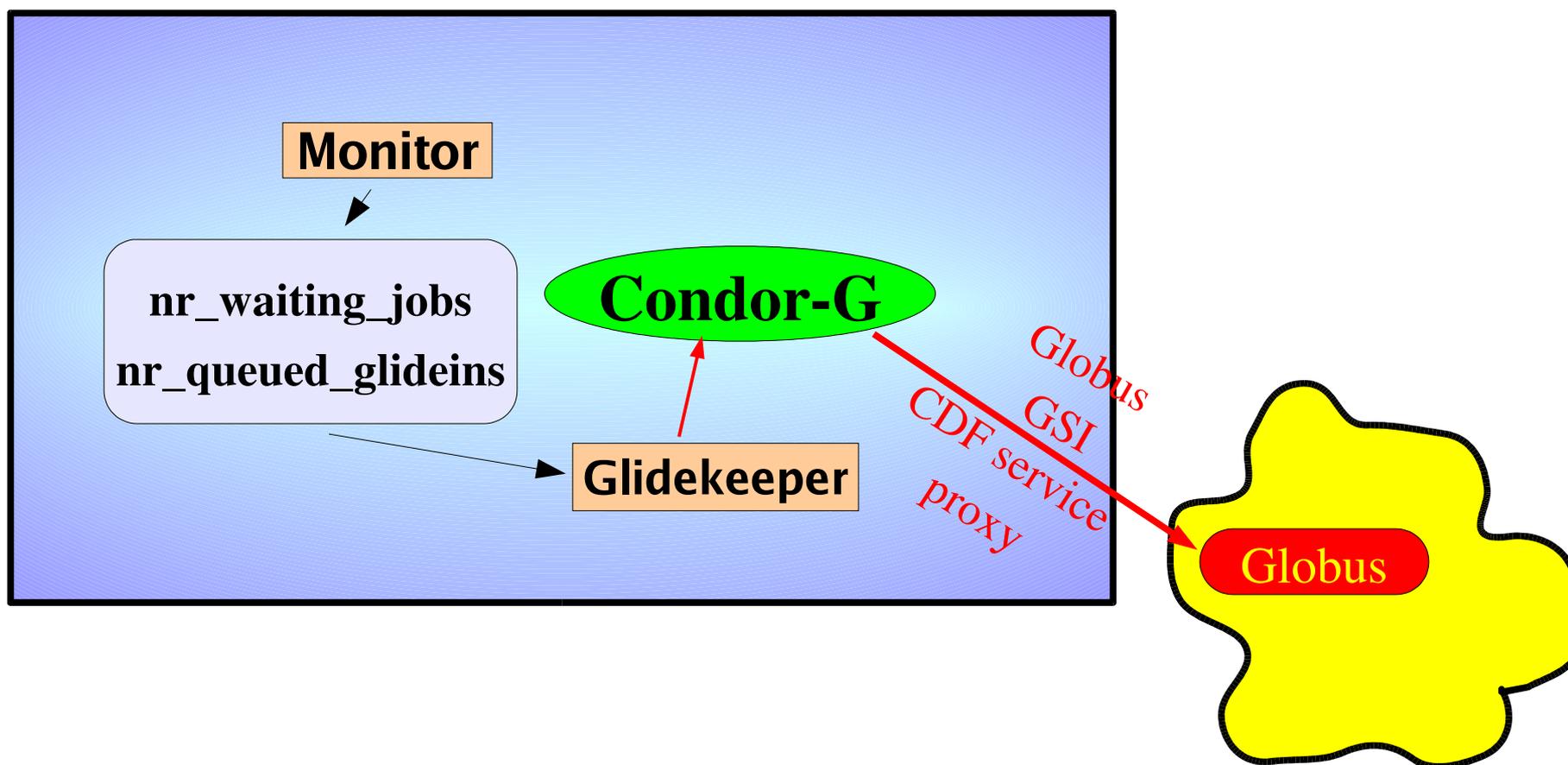
Condor system - Glide-Ins



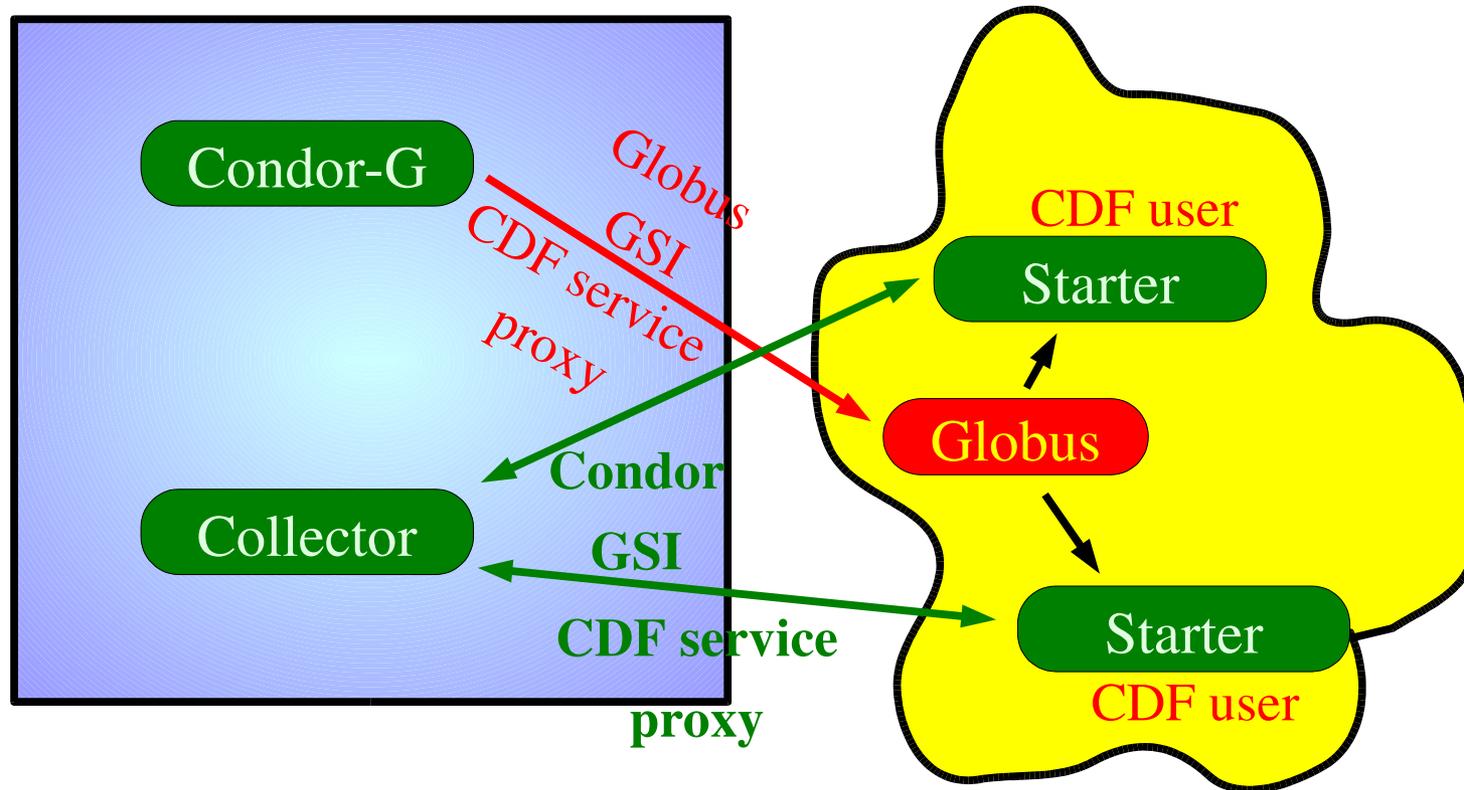
GlideCAF



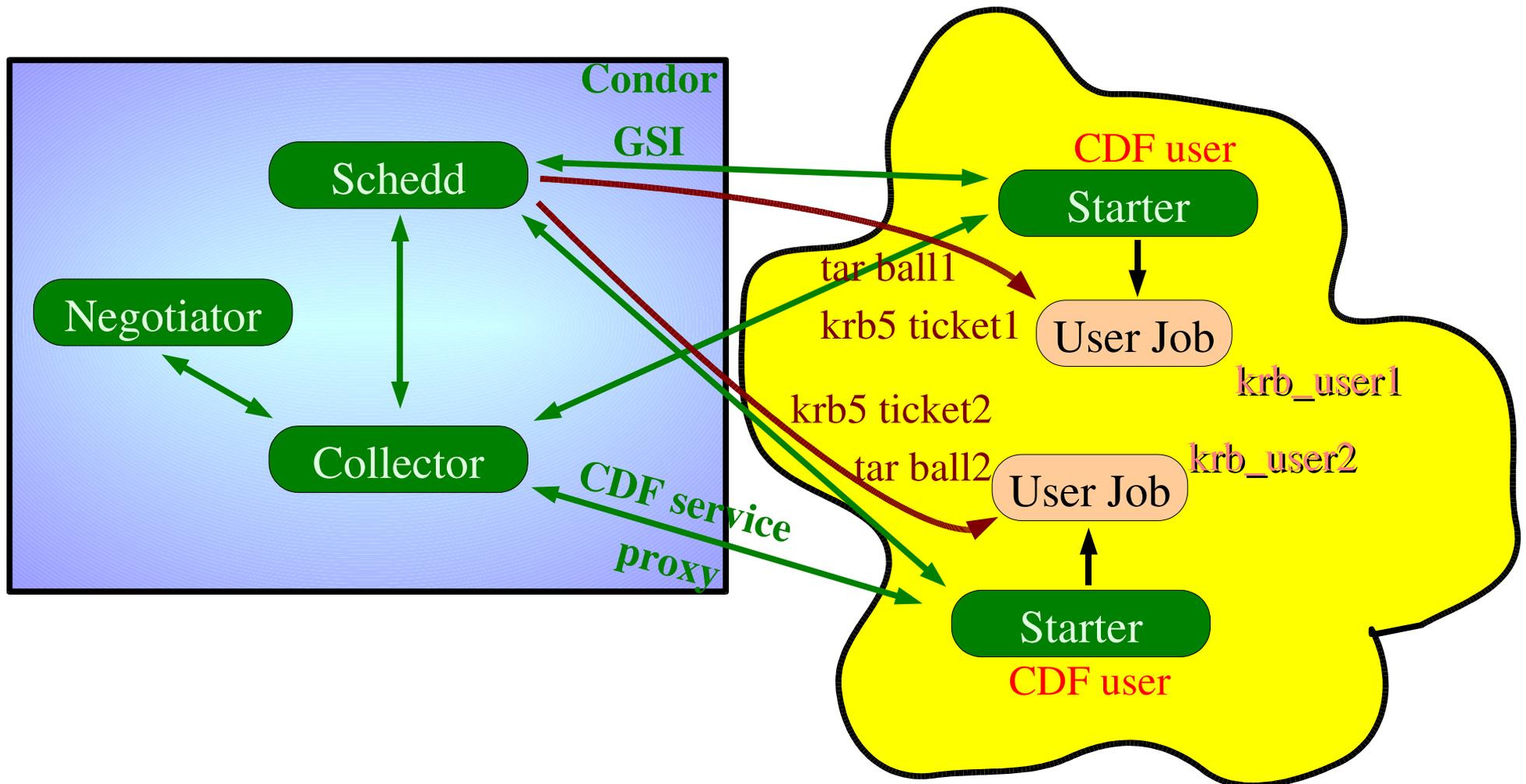
GlideCAF details - glidekeeper



GlideCAF details - Glide-Ins



GlideCAF details – CDF jobs



Advantages of Glide-Ins

- Two level negotiation
 - VO level at Grid site
 - Fine grained user level in Condor for each VO
- Late binding of resources
 - Better matching of resources to jobs
 - Black holes don't kill user jobs (just the glide-ins)
- No grid-site specific installation needed

Advantages of Glide-Ins for CDF

- Full Condor Environment
 - Only a small incremental change to the CAF infrastructure
- All monitoring continues to work
 - Only small changes were needed
- Good relations with the Condor team
 - Eventual problems solved fast

Deployment status

- A production system in Italy (Bologna, CNAF)
 - First prototype in April 05, declared production in September 05
- A production system in San Diego (recent)
- A production quality system at FNAL (since Jul05)
 - Not yet declared production due to its small size
- Final beta in France (Lyon, IN2P3)

Experience with GlideCAF

- Most users don't notice any difference
 - Long path names sometimes a problem
- Not running on dedicated resources occasionally a headache
 - Takes more time to find and fix problems (like missing libraries)
- All in all we like the system

Installation experience

- Most problems Kerberos related
 - Our jobs require KRB5 to talk to FNAL
 - Not **GlideCAF** specific, but required
- Kerberos and Firewalls can be a problem
 - Firewalls need to be configured to allow incoming Kerberos UDP traffic
- Some minor problems with input-sandboxes on LCG
 - No standard way to get the sanbox to the worker node
 - No problems on OSG

GlideCAF future

- Fermilab CAF resources to be put in a Grid pool and got back via GlideCAF
 - Staged approach, only a fraction for the first 6 months
- More GlideCAFs to come outside FNAL (Chicago, Wisconsin, Barcellona,...)
- Working on a multi-site version that can bridge firewalls – In collaboration with CMS

Summary

- CDF is able to use Grid resources
- CAF infrastructure preserved
 - Users don't notice any difference
 - All monitoring also preserved
- No new middleware introduced
 - Just using Condor in a different way