

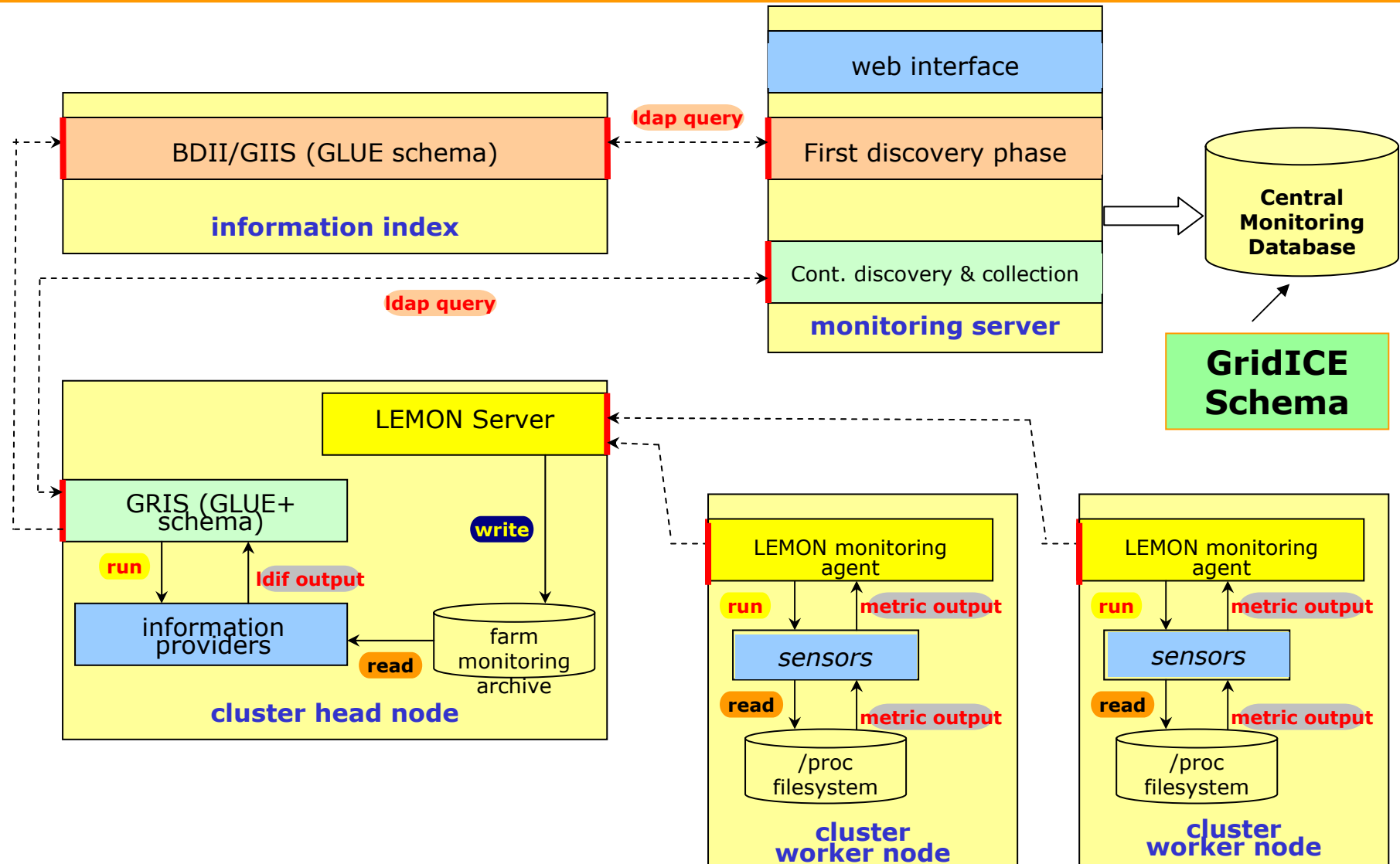


<http://grid.infn.it/gridice>

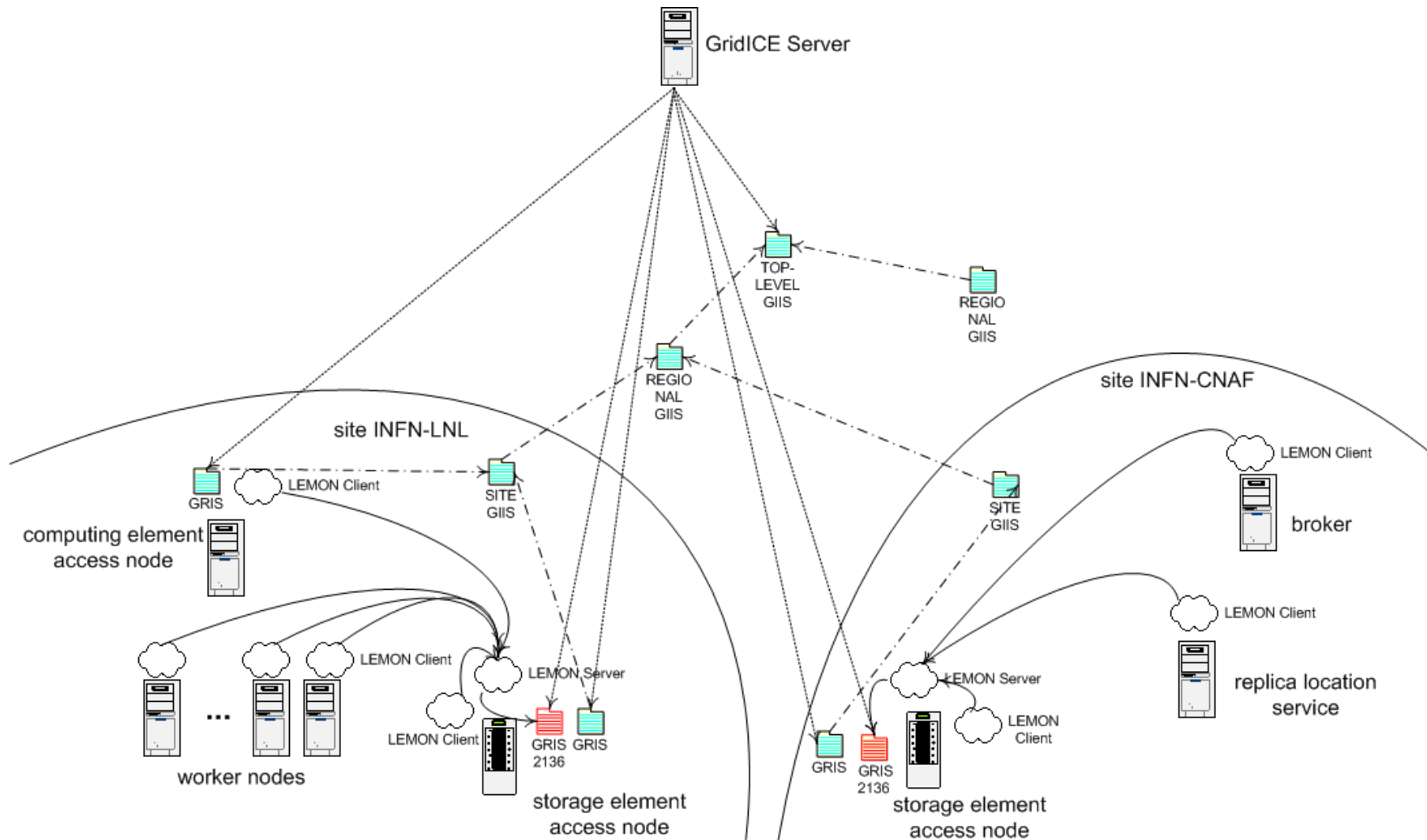
A Monitoring Toolkit for Grid
Systems

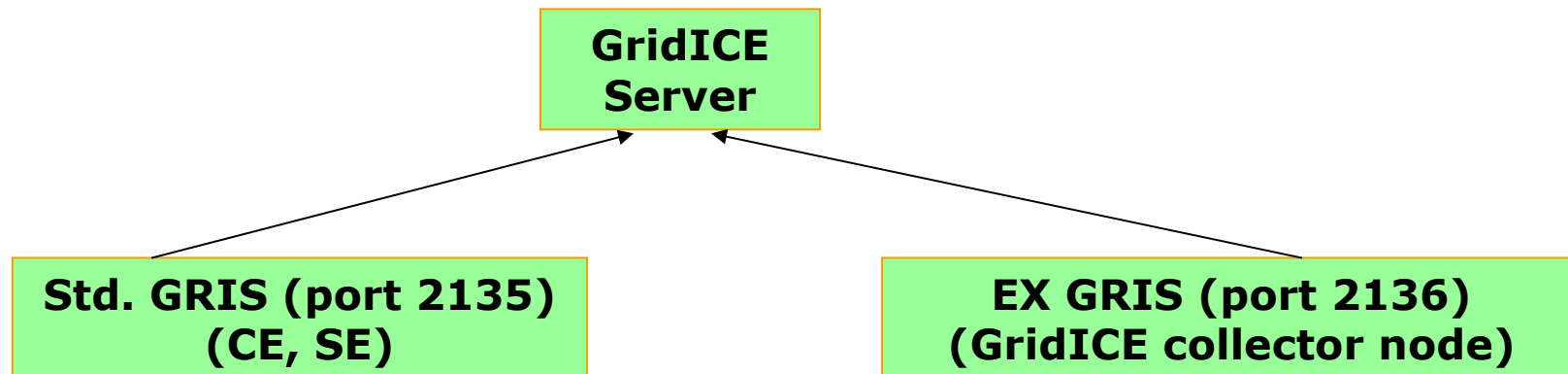
EGEE-SA1

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Deployment Layout





Basic info:

- Number of **queues**
- **Jobs** running/waiting (simple LRMS publish)
- **Storage Areas** info

GRIS status info:

- GRIS Service **Online/Offline**

Extended info:

- **Job Monitoring** (effective VO, user & all related info)
- Disk **partitions** space, **Network Adapters** activity
- **Role** based (CE, SE, RB, RLS, WN,...) user defined **services** (daemons, agents,...)
- More... (MEM, CPU, swap, context switches, interrupts, reg. open files, sockets, procs, INodes, host power w/ HT detection,...)

Each job is **related** to the **user certificate**, the **VO**, and the **site (resource)**; a sample of job related metrics stored on the RDBMS:

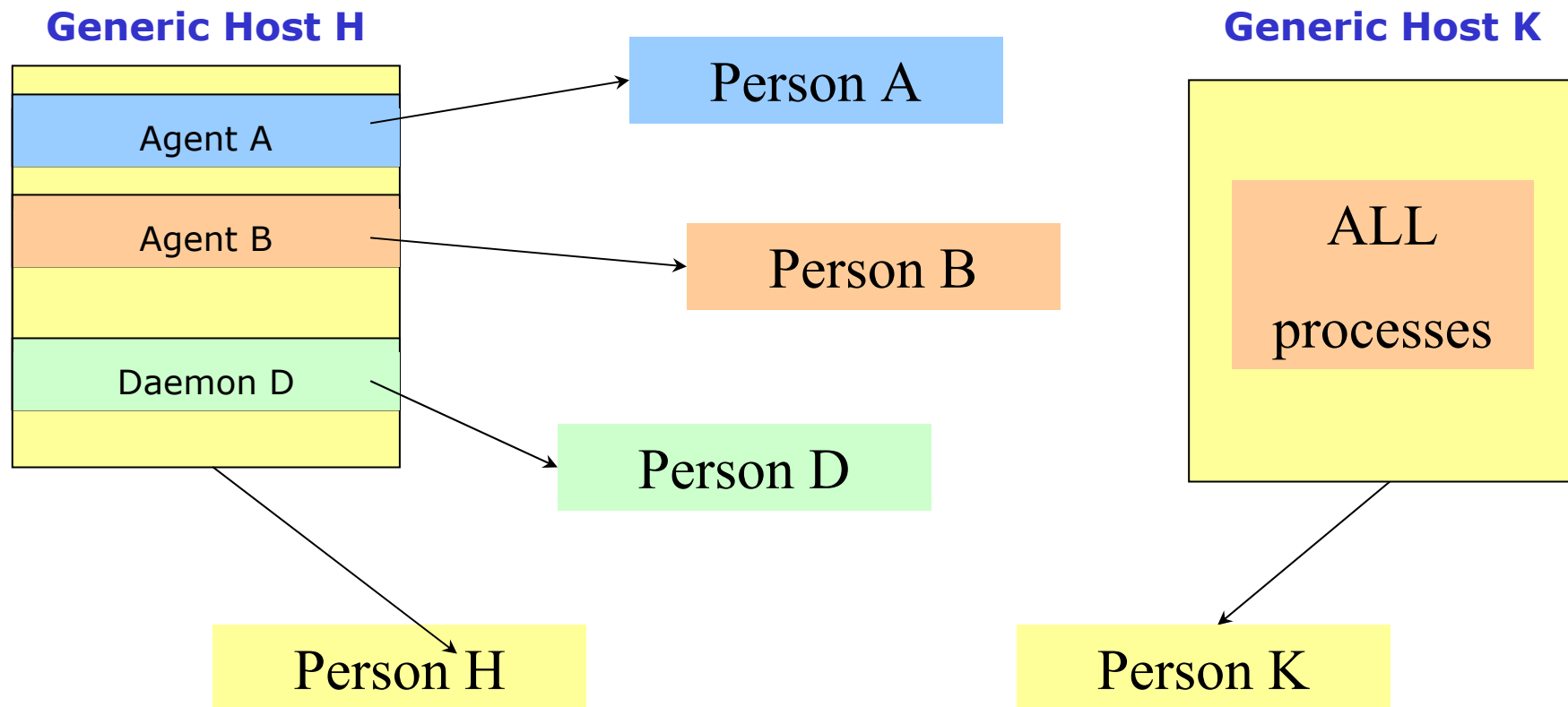
General Info	
LocalID	local job identifier (given by the LRMS)
GlobalID*	Grid identifier (EDGJobId)
LocalOwner	local user account
GlobalOwner	user certificate subject
ExecutionTarget	execution host
ExitStatus	exit status given by the LRMS

- * The GlobalID (EDGJobId) is available for jobs that remain on the LRMS at least for 10/20 minutes (it depends on the frequency configured to run the job monitoring info provider)

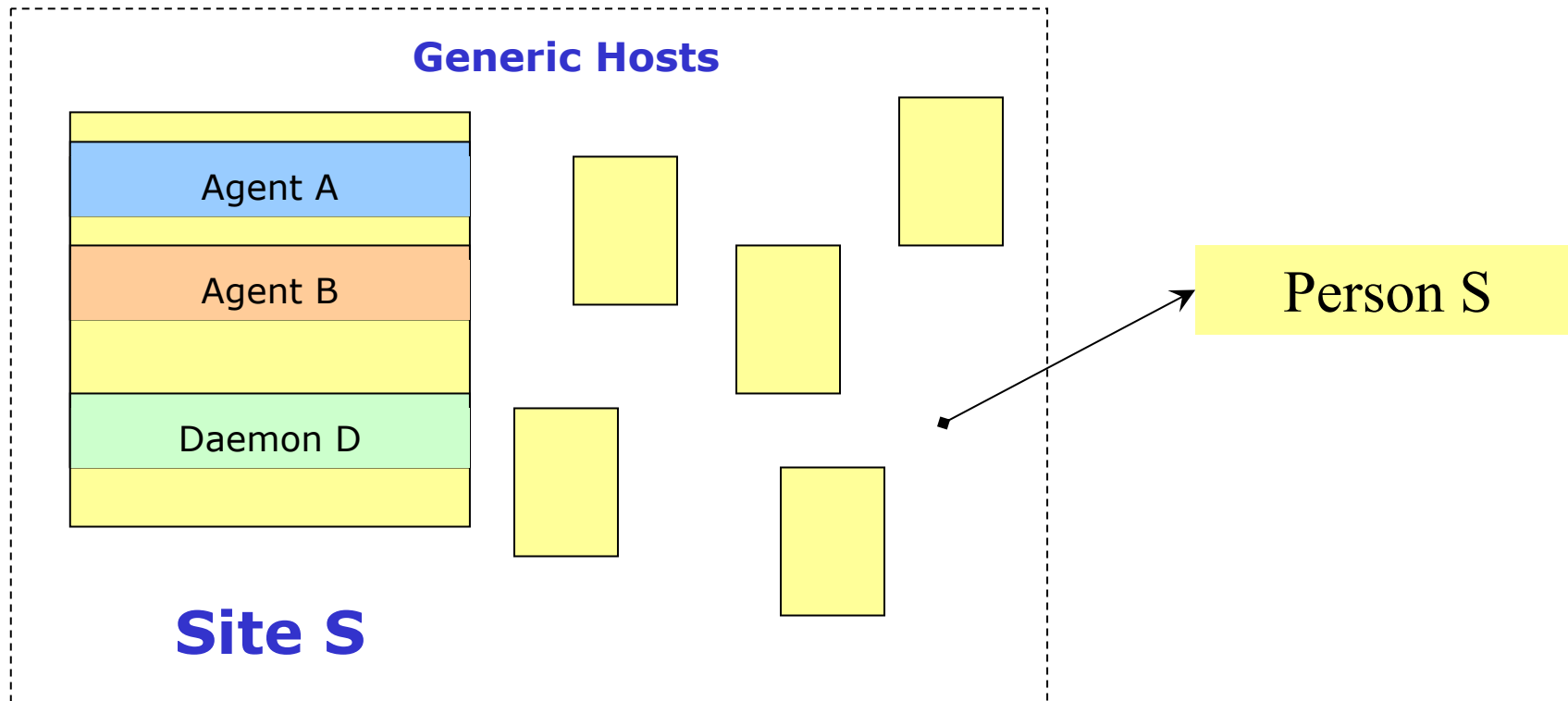
Each job is **related** to the **user certificate**, the **VO**, and the **site (resource)**; a sample of job related metrics stored on the RDBMS:

Resources Usage Metering Info	
CPUTime	CPU time usage (sec)
WallTime	time on the execution host (sec)
CreationTime	when job was submitted to the LRMS (timestamp)
StartTime	when was started on the execution host (timestamp)
EndTime	when finished (timestamp)
RAMUsed	RAM used (KB)
VirtualUsed	Virtual memory used (KB)

- The **notification capability** was added to the GridICE server (host & process levels):



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We can substitute **Person** with a **Group of people**

- **GridICE is part of the LCG middleware distribution:** since November 2003 our stuff is part of LCG and is installed and configured by default on services hosts like CE, SE, RB (no WN stuff is installed)
- **Many LCG sites doesn't publish eXtented info:** we observe that a most part of LCG sites are not correctly configured. So it is important to check also the availability/functionality of the GridICE service at site level.

- **We invite to read the HELP pages available:** many published info are not so simple to read/understand as they seem to be to the user (ex. Slot meaning).
- **LCG v2.3.0:** our stuff is installed over all services machines (CE, SE, RB, BDII,...) with RH7.3; service machines with SLC3/IA64 must be updated with our stuff released a week ago with new YAIM instructions.
- **LCG next release (2.4.0 ?):** our stuff is already on the certification CVS, so no problem for the next LCG release.

- **WEB GUI:** we are in the middle of reorganizing the pages, layouts, and information published as adding the **MDS-site-name** to simplify the relationship with the info of other monitoring tools. All pages will publish all the info also as XML data. Some of them are already in place.
- **CIC-on-Duty input:** we would appreciate all your feedback of the use of our tool on reporting when the tool help you or how to improve it to better meet your needs.

We will continue to support and develop new features:

- **Network Monitoring:** we are in the final test phase to integrate an effective network domain monitoring
- **Notification:** in future we expect to have a flexible system where authorized users will be able to set up via a GUI the notifications they would like to receive
- **Analysis:** a more powerful generic GUI for graph generation to help analyzing the historical DB data (**some already in place**)
- **Low level collection:** GridICE is independent from the host collection tool/layer, but it is needed to write the right coupling plug-ins. We are working to integrate also GANGLIA in the future.

LIVE DEMO Follow...