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Glite/ARC interoperability

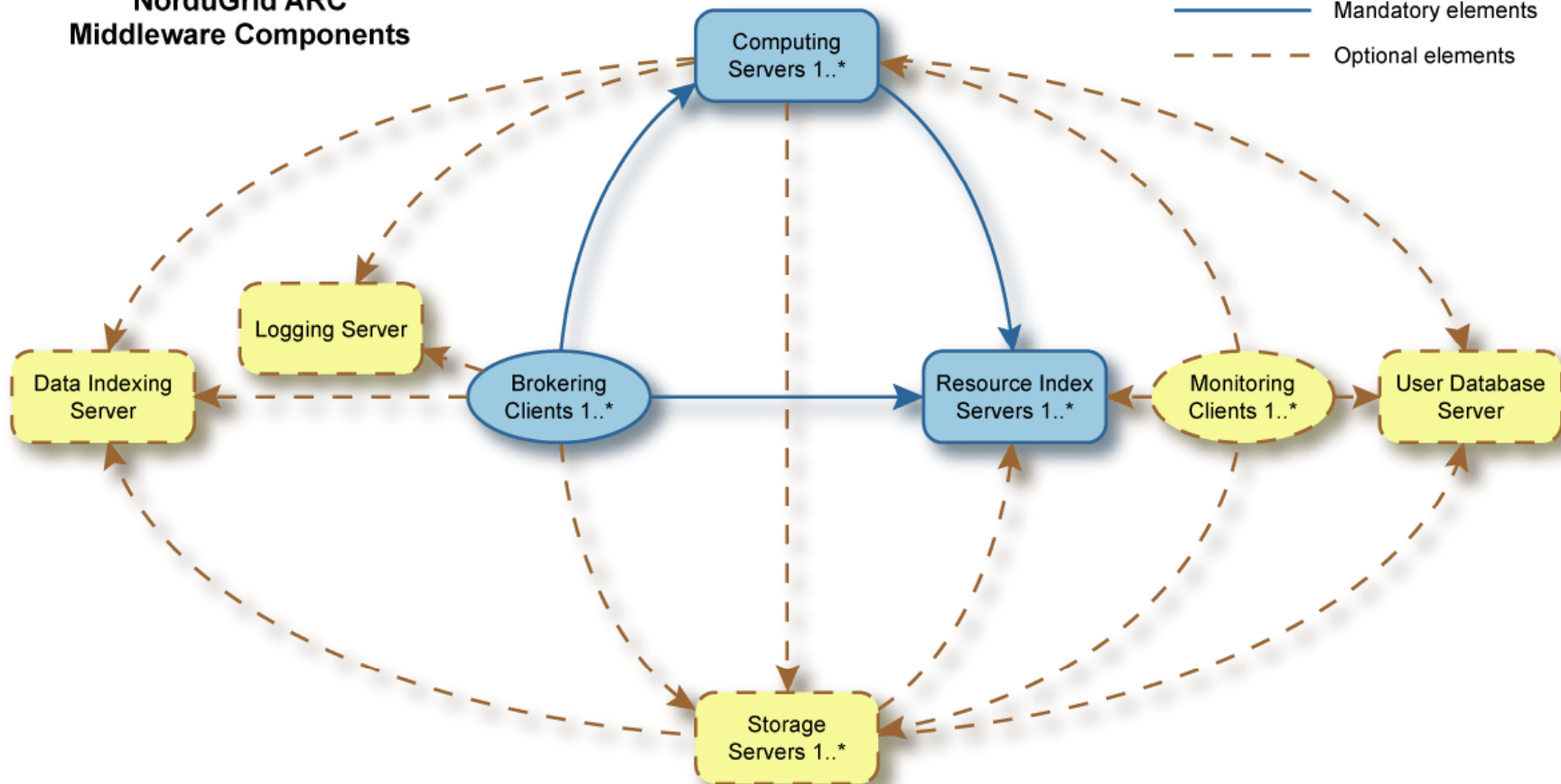
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Copenhagen

Arc overview



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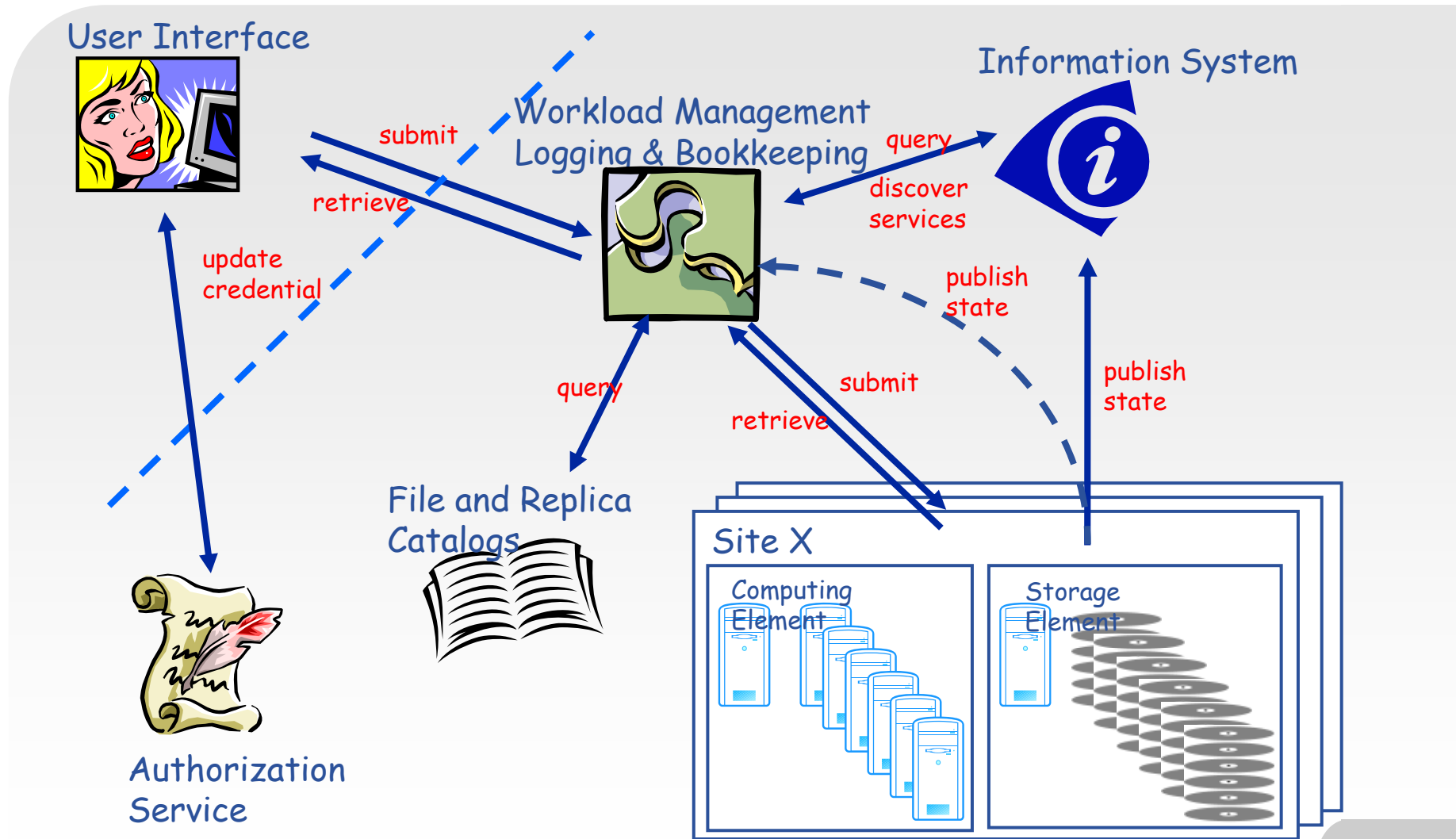
NorduGrid ARC Middleware Components



gLite overview



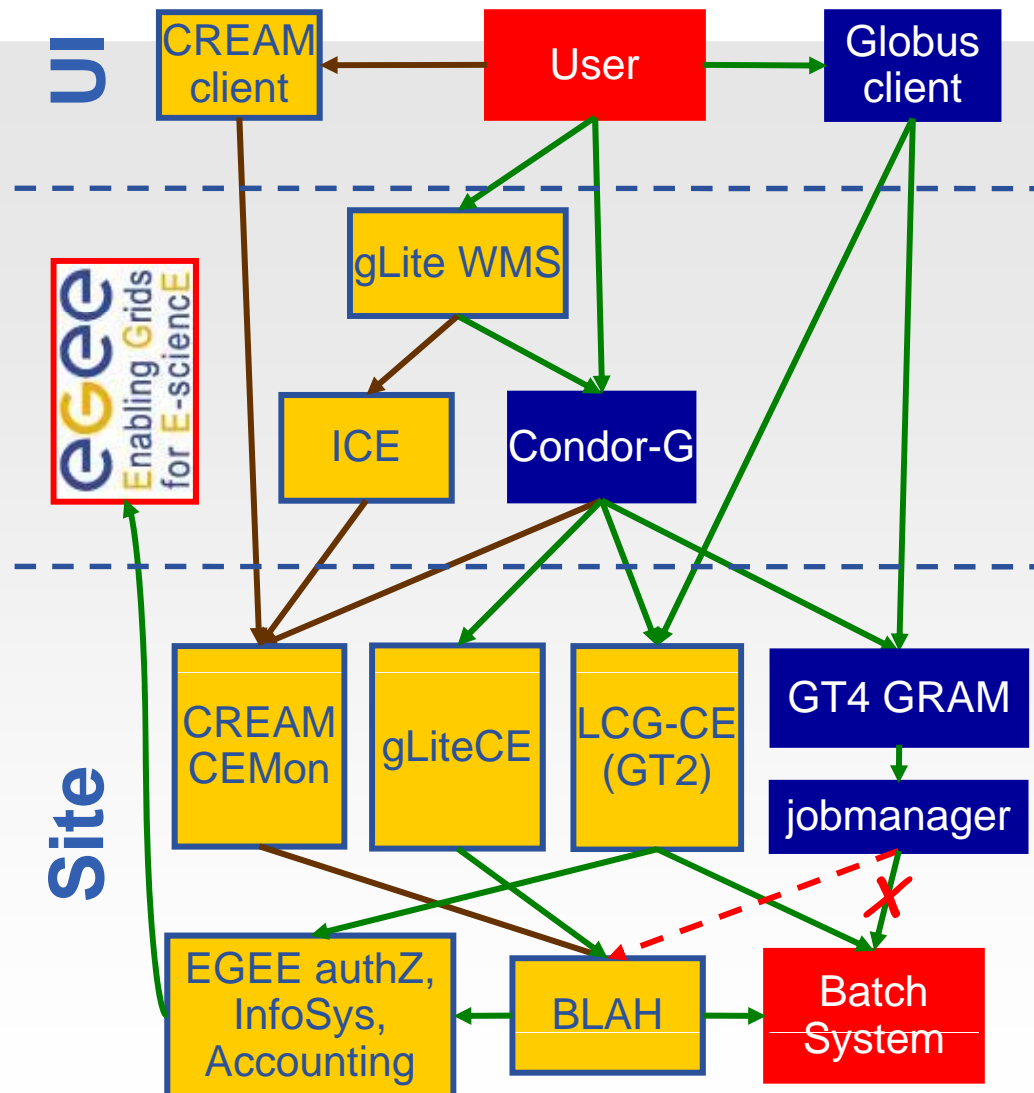
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gLite jobcontrol in detail



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- ✦ LCG CE
 - ❖ GT2 based
- ✦ gLite CE
 - ❖ Condor-G
- ✦ CREAM
 - ❖ Web Service interface to the CE
 - ❖ Available on testbeds
- ✦ All are JDL based



✦ gLite WMS

- ❖ Protocol specification?

✦ WMPProxy

- ❖ Web Service
- ❖ Standard with newer gLite installations

✦ Both are JDL based

Which interface?



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❖ Goals

- ❖ Light weight (We want to keep the ARC client small and with as few dependencies as possible)
- ❖ Stable (gLite software in strong flux)

❖ WMPProxy

- ❖ Interface specification exists
- ❖ Already deployed
- ❖ Grants access to all CE types that the gLite WMS will support.



- ✦ gLite uses BDII.
- ✦ ARC does not support this.
- ✦ With WMproxy gLite WMS does brokering
- ✦ No need for ARC to understand gLite information system.



- ✦ No status available in the BDII
- ✦ Job status available in the Logging and Bookkeeping system
- ✦ Standard LB interface
 - ❖ Protocol specification?
- ✦ LBProxy
 - ❖ Web Service
 - ❖ Uses httpg



- ✦ generalised translator and framework is in the works.
- ✦ will support
 - ❖ XRSL
 - ❖ RSL
 - ❖ JDL
 - ❖ JSDDL
- ✦ basic xrsl \leftrightarrow JDL is functional
- ✦ will only require standard ARC libraries



- ❖ JDL has no way of expressing renaming of input files from storage elements.
 - ❖ e.g. (inputfiles=(input1
"gsiftp://storage.dk/123456.txt"))
- ❖ Runtime Environment translation
 - ❖ Names differ across NG and EGEE, we need a translation database.



- ❖ Rudimentary XRSL/JDL translator exists.
- ❖ WS library exists.
- ❖ Temporary client programs exist that mirror arc functionality (ngwmsub, ngwmget...)
- ❖ Integration with arclib awaits arclib generalization.
- ❖ No status is available.



- ❖ Condor-G supports ARC submission.
- ❖ A BDII containing Nordugrid information exists. (arc-bdii.cern.ch)
- ❖ No success integrating with gLite-WMS.



- ❖ WMPProxy compliant gateway exists.
 - ❖ no support for Logging and Bookkeeping.
 - ❖ Jobs can be submitted through gLite wms interface and will run on nordugrid
 - ❖ output available on gateway
 - ❖ Job retrieval using wms interface requires a functioning LB.
- ❖ gLite-CE based gateway being prepared together with NDGF.

Thank you



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Questions?