

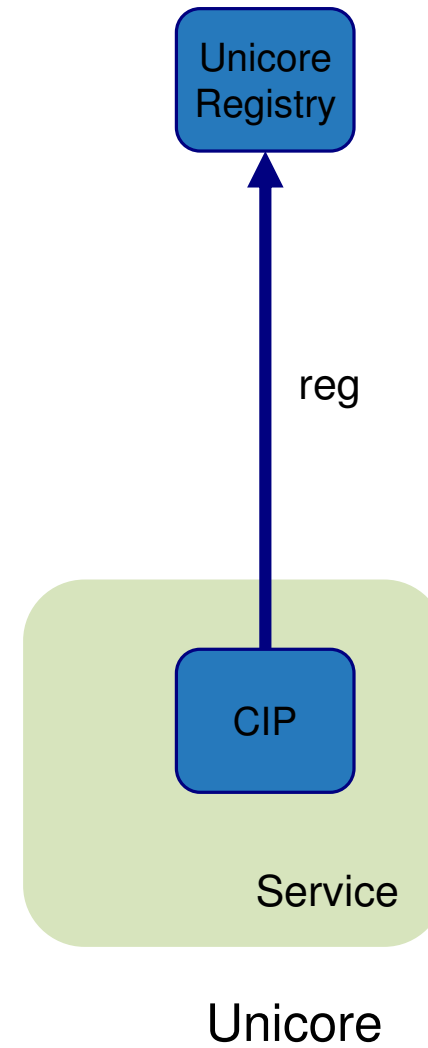
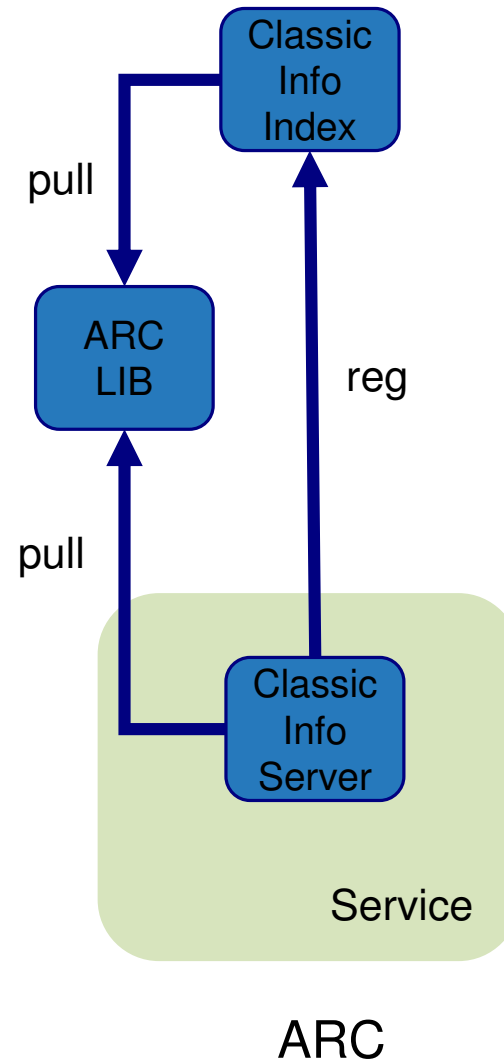
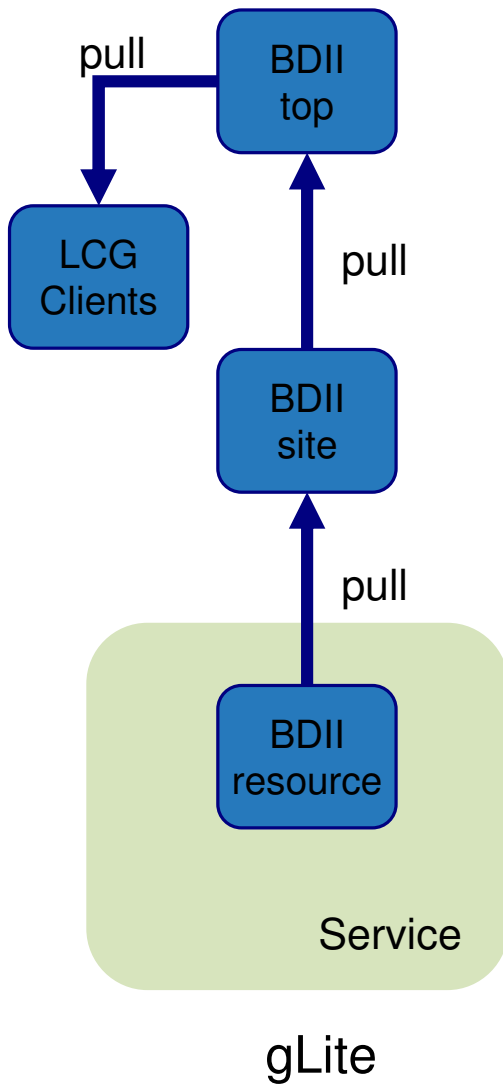
Information System Evolution



EGI Technical Forum 2012

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Before EMI



Stack	Service Level	Registry	Information Model	Data Model	Global Cache	Transport Model	Federated
gLite	resource-level BDII	GOC DB (Not EMI)	GLUE 1.3	LDIF	Top-level BDII	Pull	Kind of
ARC	Classic Info Server	Classic Info Index	NorduGrid Schema	LDIF	No	Pull	Not really
Unicore	CIP	Unicore Registry	GLUE 2.0	XML	No	Pull	Possibly
EMI	ERIS	EMIR	GLUE 2.0	LDIF	BDII	Pull	Yes

Focus: Consolidation and Harmonization

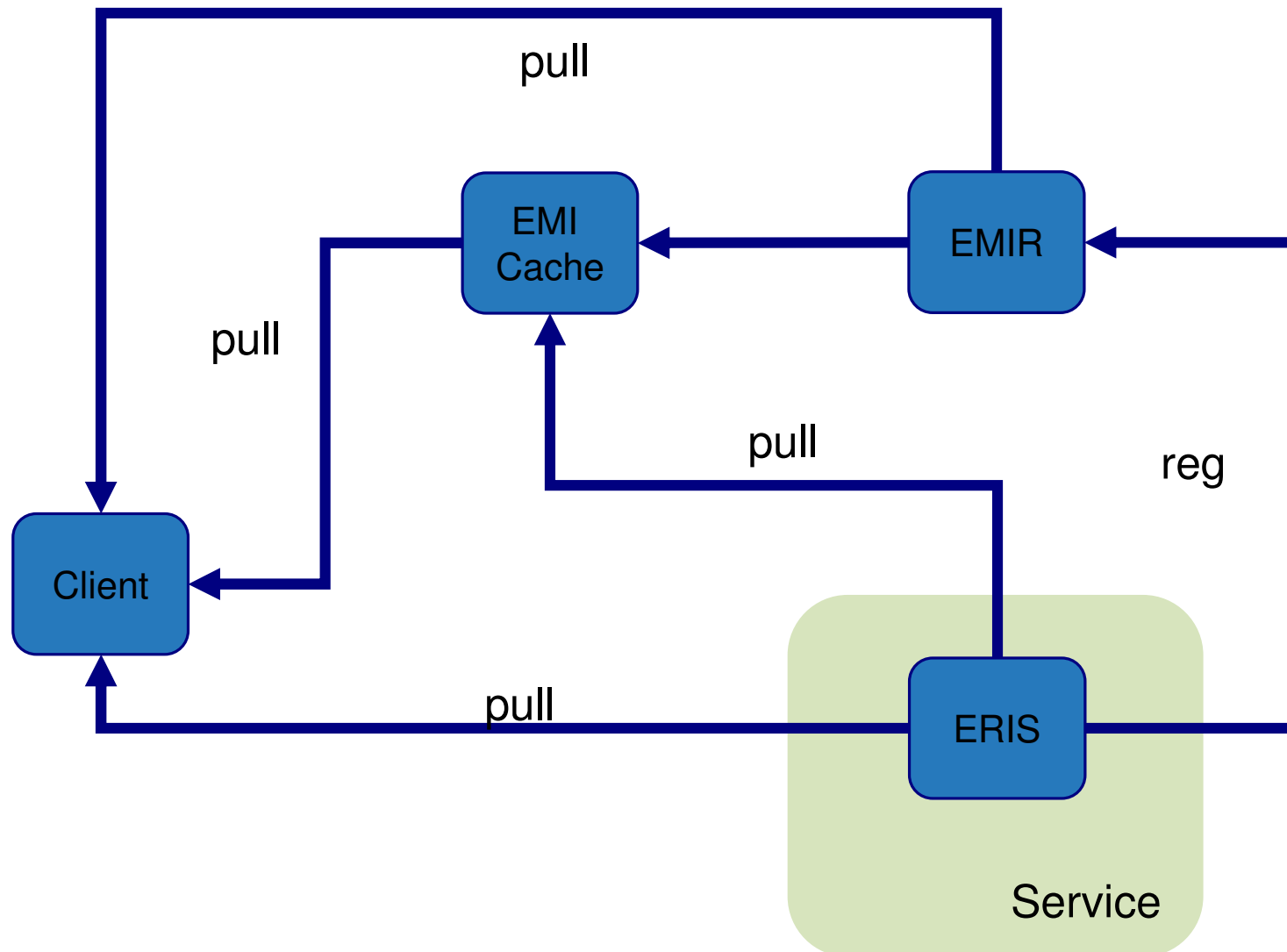
- Activity started before EMI
 - Brought together many stakeholders
 - Within an open forum (OGF)
 - Produced an agreed standard (recommendation)
- Goal achieved!
 - Widely accepted
 - 90% of the problem solved
 - Agreement on use cases
 - Agreement on naming and semantics
 - The reset is just a translation and data transport issue!
- Part of the EMI technical plan
 - Defined from the start in the DoW
 - Requirement from EGI
 - Implementation was a major goal for the first year

- Service-level information interface
 - Fundamental building block
- Recommended Interface
 - LDAPv3 interface to GLUE 2.0 information
 - We already have 10 years of experience
 - It is a requirement from EGI
 - Path of least resistance (low-cost, low-impact)
- Information providers
 - Extract information from the underlying service
 - Produce GLUE 2.0 information in the LDIF format

- Syntactical and Semantic checking
 - For GLUE 2.0 information
- Can be used as a unit test
 - For developers
- Validation test
 - For running services
- Will be integrated into ERIS
 - Improve information quality
 - Ensures only good information is published

- Service registration and discovery
 - A fundamental Grid functionality
- The EMI approach
 - Consolidates existing implementations
 - Is generic
 - Designed for federated infrastructures
 - Support policies at each-level
 - Incorporated into high-level functions

Consolidated Stack



- ERIS
 - Common Service Level Interface
 - GLUE 2.0 Information via LDAP v3
 - Primary Information Source
- EMIR
 - Common Service Registry
 - Service Endpoints
 - ERIS is an Endpoint

- Top BDII changes
 - *Use EMIR to discover services*
 - *Use ERIS to obtain information*
 - *No need for site BDII*
- *Pros and Cons*
 - *One less service to manage*
 - *Removes a redundant caching level*
 - *Increases population time*
 - *Issue for dynamic state information*
 - *Query ERIS instead*

- Push state information
 - For power users
 - Many sources, many queries
 - *Use messaging technology*
 - *Already have considerable production experience*
 - *What metrics?*
 - *Need to identify use cases*
 - *What broker topology?*
 - *Are there any other users?*
 - *Monitoring information from services*

- EMI 2 (Matterhorn) release provides
 - *ERIS*
 - Common Service Level Interface
 - *EMIR*
 - Common Service Registry
- Top level BDII should use these
 - Once they have been rolled out
- Investigate pushing state information
 - Using messaging