

INFN

Pre-GDB, May 12 2009



INFN Grid

- INFN Tier1 and Tier2 sites, together with the other INFN sites, are part of **INFN Grid**, a geographically distributed Grid, fully integrated with the Italian Grid infrastructure and the EGEE pan-European infrastructure since 2002
- the Italian Grid infrastructure currently amounts to **41 sites**, INFN being the major contributor
 - additional resources are increasingly contributed by **other national research organizations and regional Grids**
- INFN Grid supports the **LHC experiments** as well as many additional VOs from **HEP** and various **scientific disciplines**
- INFN Grid is based on **gLite** release with add-ons



Services

- INFN Grid contributes through a substantial amount of UF and EGEE-funded effort to:
 - the Italian ROC, which provides services to the entire Italian Grid infrastructure (Grid core services) and users community (VO services)
 - gLite middleware development, testing and certification
- most of those services are operated at CNAF
- the INFN Tier1 and the Tier2s, like the other INFN sites, are some of the consumers of such services

IGI

- **IGI** (Italian Grid Initiative) is the future Italian NGI.
- It is already officially **supported** by the Italian Ministry for Research and Education.
- The agreement of the partners is that the current **Italian JRU** will act as NGI until a new legal entity is formed. The JRU partners collaboration is formally defined by a MoU.
- **Negotiations** with the Ministry and funding agencies are currently ongoing to ensure the sustainability of IGI as a new legal body.
- IGI already has an **internal structure** which is progressively taking over JRU activities.
- We expect that current skilled personnel (from INFN grid and other partners) will move to IGI for continuity of service
- **Funding model**
 - **EC-funding for international tasks**
 - **Ministry of University and Research**
 - **IGI membership fee**



IGI partners

- Istituto Nazionale di Fisica Nucleare (INFN),
- Ente per le Nuove tecnologie, l'Energia e l'Ambiente (ENEA),
- Consiglio Nazionale delle Ricerche (CNR)
- Istituto Nazionale di Astrofisica (INAF),
- Istituto Nazionale di Geofisica e Vulcanologia (INGV),
- Università degli Studi di Napoli Federico II,
- Università degli Studi della Calabria,
- Sincrotrone Trieste S.C.p.A. (ELETTRA),
- Consorzio COMETA,
- Consorzio COSMOLAB,
- Consorzio SPACI,,
- Consortium GARR
- L'Università' di Perugia
- L'Università' del Piemonte Orientale
- SISSA
- National Computing Centres: CASPUR, CILEA.....

eGEE
Enabling Grids
for E-science

EGI European GRID Infrastructure

IGI = National Integration Italian GRID Infrastructure

INAF (Astrophysics)
Universities Campus Grid
Computing Centers

+

INEN-GRID
ENEAN-GRID

Roma



BRINDISI
LECCE
TRISAIA



GRISU'



Plans

- **General purpose services** currently provided by INFN Grid and mostly hosted at CNAF will be **gradually** taken up by the IGI personnel, and run under the **IGI** responsibility (without service interruption)
- Site's services (CE, SE..) will continue to be provided by sites with the support of IGI
- **WLCG-specific services** (if any) will be run under the responsibility of INFN
- Other **SSC services** can be provided by IGI or other specific organizations
- IGI is not expected to dispose initially of its own IT resources but to host its services in a few major existing computing facilities (e.g. CNAF Tier1)

Question 1

- Q: Which services you currently provide for WLCG (via EGEE) that you will commit to continue to support (see attached slide)
- what is the level of effort you currently provide for these (separated into operation, maintenance, and development)
- A: INFN will commit to support the site level services while the general purpose ones will be under responsibility of IGI (see next slides for details)

(*) Effort omitted here, it is available from the EGEE-III Description of Work

Service	Currently Provided Y/N Will continue to provide Y/N	Current Effort (*) (operations, maintenance, development)
<p>GGUS Relies on connections to local support ticket systems - today in ROCs and sites → Tier1 and Tier2 sites? COD, TPM</p>	<p>INFN relies on GGUS + regional ticketing system. Reg. ticketing system, regional COD and regional TPM will be future IGI service. Ad hoc agreements needed for 24xh support for Italian Grid core services used by WLCG</p>	<p>Operation and maintenance of the regional ticketing system, Regional COD (ROD) and participation to TPM 1 FTE</p>
<p>Operations and Service coordination CERN + EGEE ROCs</p>	<p>Currently provided: YES In the future: IGI service</p>	<p>2 FTE</p>
<p>ROCs: Support effort (TPM, COD) → moves to Tier 1s?</p>	<p>Currently provided: YES Support effort moves to IGI</p>	<p>6 FTE</p>
<p>EIS team - CERN (largely LCG funded)</p>	<p>INFN will contribute and co-fund the SSC activities supporting WLCG</p>	
<p>ENOC Coordination of OPN operations - currently by IN2P3</p>	<p>Support to LHCOPN: INFN-specific task, run by INFN in collaboration with the national NREN</p>	<p>0.5 FTE</p>

Service	Currently Provided Y/N Will continue to provide Y/N	Effort (operations, maintenance, development)
Deployment support: m/w deployment/testing/rollout/support Pre-production testing - effort and resources	Currently provided: Y Will continue to provide: Y, in collaboration with IGI	Operation of testbeds, participation to testing activities 2 + 2 FTE
Operational Security coordination	Currently provided: Y Will continue to provide: N (IGI task)	0.5 FTE (security coordination in the region)
Policy development	Currently provided: Y Will continue to provide: Y for WLCG-specific policies, for general-purpose policies INFN will contribute through IGI	0.5 FTE
Accounting: APEL - infrastructure/DB and service NB Italy uses DGAS and publishes into APEL; OSG + ARC publish into APEL Portal - CESGA	Currently provided: Y Will continue to provide: N (IGI service), will collaborate with IGI for WLCG-specific requirements	Development and operation of the accounting infrastructure 2 FTE

Service	Currently Provided Y/N Will continue to provide Y/N	Effort (operations, maintenance, development)
<p>GOCDDB: configuration DB</p> <p>Important for all configurations and definitions of sites and services</p>	<p>Currently provided: N</p> <p>Will continue to provide: IGI service if/when a regional instance will be deployed</p>	
<p>CIC Portal:</p> <p>Contact information, VO-ID cards, broadcast tool, Automated reporting,</p>	<p>Currently provided: N (backup instance only)</p> <p>Will continue to provide: IGI service if/when a regional instance will be deployed</p>	
<p>Availability/Reliability:</p> <p>SAM framework (and migration to Nagios); SAM tests</p> <p>Gridview/Algorithms etc:</p> <p>GridMap:</p> <p>MSG</p>	<p>Currently provided: Y (regional nagios)</p> <p>Will continue to provide: Y (site-level nagios, VO SAM tests), regional-level nagios is a IGI service</p>	1 FTE
<p>Dashboards</p> <p>Service, framework and common services</p> <p>Experiment-specifics</p>	<p>Currently provided: N</p>	

Service	Currently Provided Y/N Will continue to provide Y/N	Effort (operations, maintenance, development)
Middleware: CREAM	Currently provided: Y Will continue to provide: Y, directly and through the participation to the gLite mw consortium	Development and maintenance 2 FTE
Middleware: WMS and WMSMonitor	Currently provided: Y Will continue to provide: Y, directly and through the participation to the gLite mw consortium	Development and maintenance 1 FTE
Middleware: VOMS	Currently provided: Y Will continue to provide: Y, directly and through the participation to the gLite mw consortium	Development and maintenance 1 FTE
Middleware: Authz framework	Currently provided: Y Will continue to provide: Y, through the participation to the gLite mw consortium	Development
Middleware: StoRM	Currently provided: Y Will continue to provide: Y, directly and through the participation to the gLite mw consortium	Development and maintenance 2 FTE
Middleware: DGAS	Currently provided: Y Will continue to provide: Y, directly and through the participation to the gLite mw consortium	Development and maintenance 1 FTE

Question 2

- Which services you will not be able to continue to support, or where the level of effort may be significantly decreased that may slow developments, bug fixes, etc.
 - A: this will depend on the amount of national funding that will be secured for IGI and from the EC via EGI. Anyway, we do not foresee a significant decrease.

Question 3

- Will it be in place (and fully operational!) by the end of EGEE-III?
- A:
 - IGI structure and activities currently under definition
 - Negotiations are ongoing to secure national funding
 - INFN and the other IGI partners are willing to continue provide its current level of effort to ensure a smooth transition
 - Appropriate level of funding to bridge the gap (3-4 months?) in the international tasks between the end of EGEE III and the EGI start is also being secured

Question 4/5

- What is the management structure of the NGI?, and
- How do the Tier 1 and Tier 2s fit into that structure?
- A:
 - INFN is currently delegated to coordinate the IGI committee and the Italian JRU
 - It will be a full member of the new IGI legal organization and represent there WLCG needs

Question 6

- How the effort that today is part of the ROCs (e.g. COD, TPM, etc) for supporting the WLCG operations evolve? How will daily operations support be provided?
 - A: Regional Operations will be gradually taken up by IGI. WLCG-specific operational services (to be identified) will be run under the INFN responsibility in Tier1 and Tier2s

Question 7/8

- Does the country intend to sign the Letter of Intent and MoU expressing the intention to be a full member of EGI?
 - A: *yes, it does*
- Which additional services could the Tier 1 offer if other Tier 1s are unable to provide them?
 - A: *the Tier1 is not currently providing services directly. Agreements may be established with INFN/IGI if needed*

Question 9/10

- Other issues particular to the country, or general problems to be addressed.
 - A: timeliness of EGI implementation and amount of the national funding for IGI
- What are the plans to maintain the WLCG service if the NGI is not in place by May 2010, or if EGI.org is not in place.
 - A: The WLCG services are guaranteed today by INFN Grid. INFN which will continue to provide what is necessary until IGI and EGI will take over the general tasks