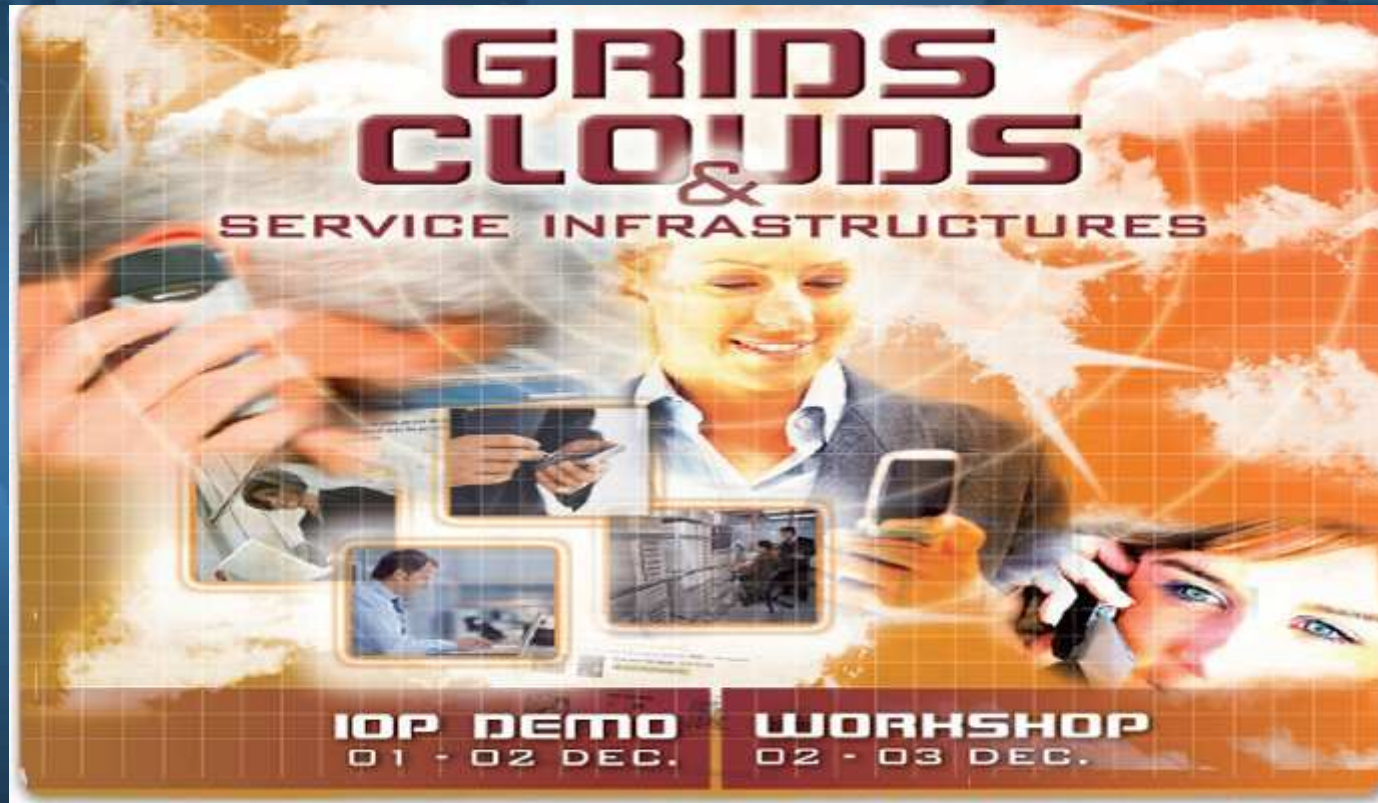




World Class Standards

ETSI TC GRID



Mike Fisher, ETSI TC GRID Chairman

Sophia-Antipolis, Dec 1–3 2009



ETSI and TC Grid

- ❑ **ETSI is the European Telecommunications Standards Institute**
 - SDO in area of information and communication technology
 - Unites almost 700 member organizations, including manufacturers, network operators, administrations, service providers, research bodies and users
 - Active member of the grid community for a number of years
 - (Co)-organized numerous Grids@work events of the past years
 - All published ETSI standards can be downloaded free
- ❑ **TC Grid is an ETSI Technical Committee**
 - Works on investigating and producing standardized solutions for using, integrating and deploying grid & cloud technology in existing and future telecommunication networks
 - Collaborates with other organizations active in these areas



TC GRID History

- ❑ **Established in 2006**
 - Encouragement from EC, as a strategic standards initiative
 - Cooperative activity from the start (EC projects, OGF, NESSI)
- ❑ **Aimed at convergence between telecomms and IT**
 - ...in particular, the relationship between computing/storage and next-generation networks
 - Distinct communities with limited history of real cooperation

“Most Grids today are built around an early set of de facto standards and toolkits. A new generation of industrial strength global standards is required to fully exploit the Grid’s potential.”

Building Grids for Europe Brochure

http://www.cordis.lu/ist/grids/building_grids_for_europe.htm

An old statement – but still valid!



Focus of ETSI TC GRID

- ❑ **NOT trying to duplicate standards development already underway in other bodies**
 - Aim is to complement progress being made elsewhere with a networking perspective and a more formal approach to standards and test specifications
 - Including introducing new requirements into networking (e.g. NGN) standards to support new kinds of application such as Grid and Cloud
 - ...so we can achieve the levels of interoperability needed in next generation networks, Grids and clouds
- ❑ **ETSI has some unique characteristics:**
 - Focus on “the big picture”
 - Ability to address IT and networking convergence
 - Experience in interoperability specification, testing and certification (e.g. GSM/UMTS, DVB, WiMAX, IPv6, Parlay)
 - Global organisation with extensive cooperation agreements
 - Clear IPR policies
 - Formal recognition by the EC
 - One of 3 ESOs



Terms of Reference

- ❑ The goal of TC GRID is to address issues associated with the convergence between IT (Information Technology) and Telecommunications. The focus is on scenarios where connectivity goes beyond the local network. This includes not only Grid computing but also the emerging commercial trend towards Cloud computing which places particular emphasis on ubiquitous network access to scalable computing and storage resources.**
- ❑ Since TC GRID has particular interest in interoperable solutions in situations which involve contributions from both the IT and Telecom industries, the emphasis is on the Infrastructure as a Service (IaaS) delivery model. TC GRID focuses on interoperable applications and services based on global standards and the validation tools to support these standards. Evolution towards a coherent and consistent general purpose infrastructure is envisaged. This will support networked IT applications in business, public sector, academic and consumer environments.**



ETSI TC GRID Outputs so far

- TR 102 659-1 **Inventory of ICT Grid Stakeholders**
- TR 102 659-2 **Interoperability Gaps and Proposed Solutions**
- TR 102 767 **Grid Services and Telecom Networks:
Architectural Options**
- TR 102 766 **ICT Interoperability Testing Framework and
Survey of Existing ICT Grid Interoperability Solutions**
- TS 102 786 **ICT Grid Interoperability Testing Framework**
- TS 102 826, 827, 828 **Grid Component Model (GCM)**



Next Steps

- ❑ **Network delivery of IT services is developing**
 - **Cloud computing, Future Internet**
 - **...with new challenges of interoperability and portability**
- ❑ **Increasing interest in standards for these new approaches**
 - **OGF, DMTF, ETSI, ITU,...**
 - **...but IT and telecoms still largely separate**
- ❑ **TC GRID will not address all the issues alone**
 - **...and unlikely that any other organisation will**

- ❑ **How can we best work together to build consensus and standards to support effective interoperability?**
 - **At the organisational level and as companies/individuals**

