

CCIF New York - April 2 2009

Grids, Clouds and Service Infrastructures

Patrick.Guillemine@etsi.org

ETSI Strategy & New Initiatives



With collaboration of Stephan Schulz

[ETSI - STF 331 - TC GRID](#)

<http://www.etsi.org/plugtests>

Sophia-Antipolis, FRANCE, Nov 30 – Dec 1 2009

ETSI – CCIF : 5 minutes – 5 slides

- **ETSI: European Telecommunications Standards Institute**
 - Standard Organization, not for profit, 21 years, 700 members, 62 countries
 - Creating ICT standards for global use: fixed, mobile, radio, converged, broadcast and internet technologies.
GSM/3GPP, DVB, IMS/NGN.. and **GRID**
 - Operators, Manufacturers, Big companies, Regulators, Administrations...
 - +60 cooperation agreements including ANSI, IEEE, ISO/IEC, ITU-T, W3C, IETF, **OGF**...
 - **TC GRID** (BT, Alcatel-Lucent, Nokia-Siemens-Networks, NEC, Hitachi Europe, INRIA...) Grid deployment standard = GCM
 - **STF 331: GRID interoperability standards** EU funded standardisation project (=> EC presence form ;-)
 - **6th GRID Interop testing + Cloud conference this year!**

About GCM

- ❑ **Grid Component Model (GCM) is a collection of ETSI standards**
 - **Developed by ETSI Technical Committee Grid**
- ❑ **Goal is to define one way of specifying deployment of applications on any grid infrastructure based on XML descriptors**
 - **Can be mapped to other web service based approaches popular in the grid community**
- ❑ **Deployment Descriptor (DD) - TS 102 827**
 - **Defines a XML schema for computing infrastructure and its access**
- ❑ **Application Descriptor (AD) - TS 102 828**
 - **Defines XML schema for deploying different types of application onto infrastructures (executable, virtual node, and grid component based)**

You can download the ETSI **published standards** in pdf format for free: <http://pda.etsi.org/pda/queryform.asp>

Concrete Proposal ?

TC GRID is different because ETSI involves Network Operators (fixed and mobile) and Manufacturers to provide global ICT services & applications.

ETSI likes interoperability events. We organised IETF bake-off for IPv6, SIP, Enum, eXML... ! Plugtest events are open doors to meet new actors.

Ideas:

- UCI vs GCM?**
- CloudCamp vs Plugtests?**
- Workshops cross participation?**

About Plugtest Format and Participation

- ❑ **Each grid or cloud infrastructure will be tested during the Plugtest under same conditions**
 - **Participants connect from ETSI to their remote infrastructures**
 - **Each participant asked to specify a GCM DD for their infrastructure**
 - **Observation of uploaded test application determines test result**
- ❑ **Infrastructure vendors can participate either by**
 - 1. Directly supporting GCM based deployment**
 - 2. Implementing and integrating a deployment manager for your infrastructure that converts GCM descriptors into interactions for your infrastructure specific application deployment interface**
 - 3. Using either an existing or creating a new integration with an already available GCM-based open source meta scheduler.**
 - 4. Manually converting GCM descriptors during the Plugtest event into interactions for your infrastructure specific application deployment interface**

Background slides

Questions / Answers

Thank you !

More detailed background slides...

Overview

- About ETSI and TC Grid
- About GCM
- About the ETSI's Grid Plugtest 2009
- A Testing Framework for GCM
- Summary of Approaches for GCM testing
- About the Grid Plugtest test specification

About 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**
- ❑ **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**
 - **Close collaboration with other grid SDOs such as OGF**

About ETSI's Grid Plugtest 2009

- ❑ **Planned to be hosted in Sophia-Antipolis, FR, from Nov 30 to Dec 2 co-located with a workshop organized by TC Grid (Dec 2 and 3)**
 - **NDA to protect event participants**
 - **Overall results from Plugtest to be presented at workshop**
- ❑ **Different format than previous ETSI Grid Plugtests**
 - **Not programming contest – applications used for testing are fixed prior to event**
 - **Goal is evaluation of application deployment onto different grid and cloud computing infrastructures based on ETSI GCM standards**
- ❑ **Intend is to bring key players of telecom community together with grid and cloud infrastructure providers**
 - **Event open to participation for commercial as well as open source infrastructure providers, ETSI as well as non-ETSI members**
 - **Telecom operators and equipment vendors will observe the event**

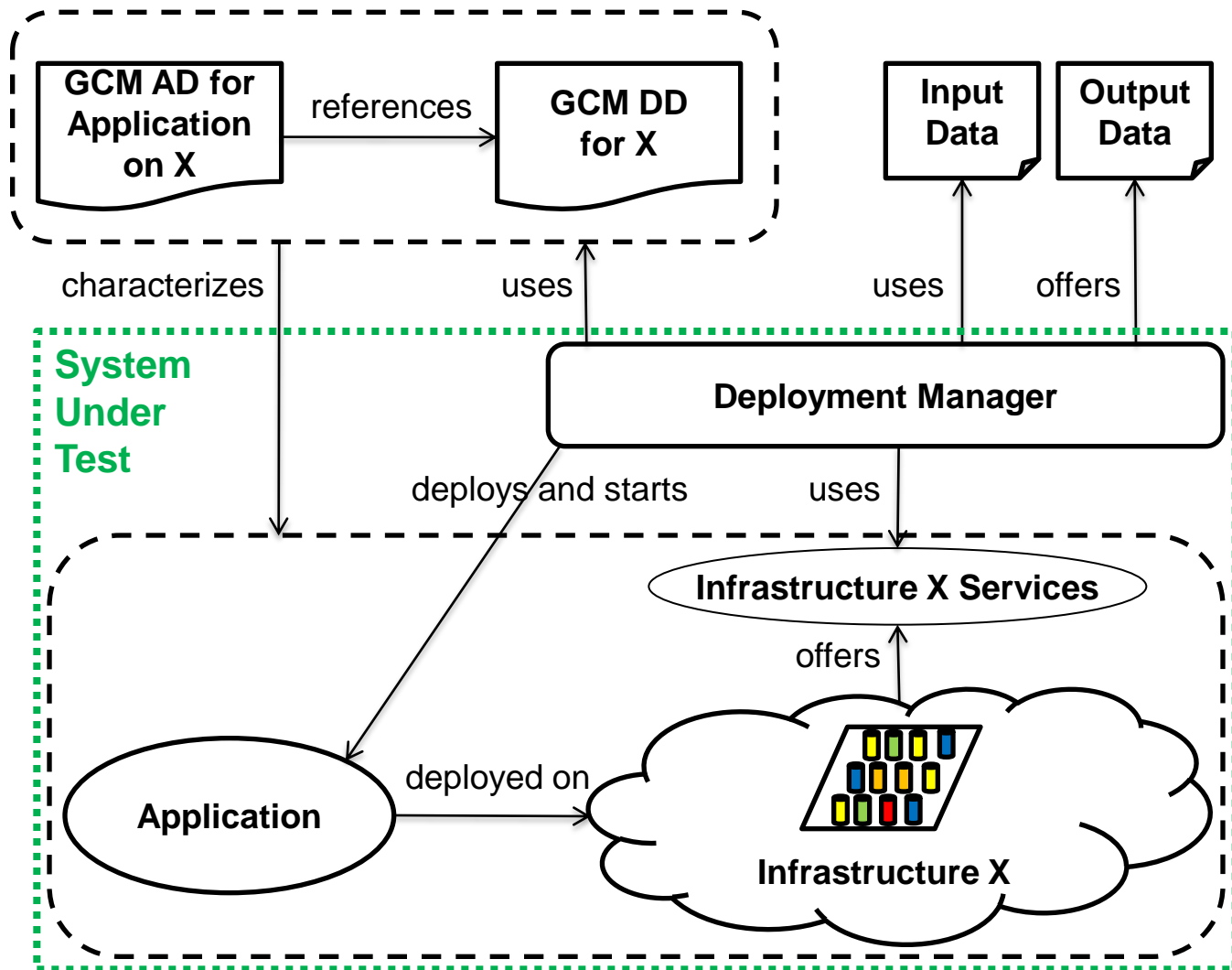
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Approach to GCM Testing



About the Grid Plugtest test specification

- ❑ **Currently under development in ETSI TC Grid**
- ❑ **Test specification focuses on characteristics of interest to the telecommunication industry when deploying applications**
 - **Example:**
Ensure that a grid infrastructure is able to cope with a deployment where the resource requested by the application exceeds the available resources at the time of deployment
- ❑ **For each test requirements on GCM DD and AD specification as well as the application to be deployed will be described**
- ❑ **A reference application implementation for each of the tests will be made available in the electronic annex of this document**
 - **Implementations are expected to be developed in Q2/2009**

Timelines

- Launch of event web site and communication: End of April**
- Availability of further promotional material: End of May**
- Draft test specification: End of June**

- Registration deadline: Nov 9**
- Plugtest: Nov 30 & Dec 1**
- [Workshop: Dec 2 & 3]**