



Introduction to panel

- ▶ Proposal to proceed by focusing on concrete projects' collaborations
- ▶ How to fill and prioritize the gaps between the offering and demand
- ▶ Need to agree on terminology, e.g. how is reproducibility defined in a large scale environment



Focus on concrete projects' collaborations

- ▶ Develop a well defined relationship between
 - ➔ The provider – FIRE facility and its projects
 - ➔ The customer – collaborative research projects
- ▶ Distinguish collaboration as a process
- ▶ The goal is to achieve a desired outcome in the most efficient and effective way possible for the stakeholders and all interested parties involved



Key elements of collaboration

- ▶ Requires parity among participants
- ▶ Is based on mutual goals
- ▶ Depends on shared responsibility for participation and decision making
- ▶ Means shared resources
- ▶ Requires shared accountability for outcomes
- ▶ Relies on mutual trust



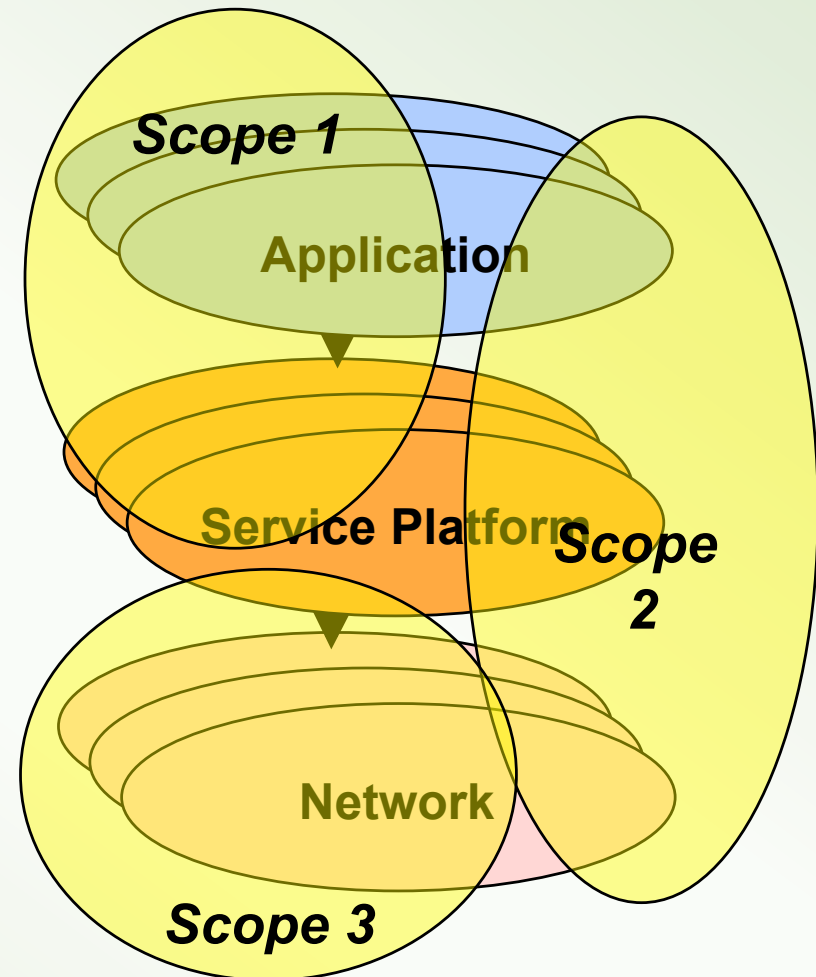
Collaboration Guidelines

- ▶ **Identify and bring project/collaborative parties together**
- ▶ **Provide understanding of scope of the collaboration and the expectations**
- ▶ Define success/desired results
- ▶ Define and discuss concrete elements of a collaboration within a customer project, specifically:
 - ➔ a) Leadership, b) Roles, responsibilities and ownership issues, c) Communication, d) Decision-making, e) Time management and priorities, f) Disagreements, g) Accountability, h) Outside resources, i) Milestones, j) Reward and recognition, k) Evaluation plan
- ▶ Identify possible barriers and how to remove them
- ▶ Obtain a commitment to collaborate from each member to move forward under the agreed upon collaborative guidelines



Different Testbed Scopes

- ▶ Innovative multimedia applications
 - ➔ eHealth, eGovernment, e/mCommerce, interactive TV, web 2.0, telco2.0, etc.
- ▶ Service delivery platforms
 - ➔ IP Multimedia System, P2P systems, broadcasting systems, etc.
- ▶ Network technologies
 - ➔ 3G beyond, Wimax, LTE, Fixed Broadband, etc.
- ▶ Sometimes also beta test user communities
- ▶ Sometimes mixture of all above domains





Bridging the gap – Self-NET

Components	Offer	Need	Scope
Application			Detecting / preventing network overload
Platform			
Networks	PII WiMax, PSTN/ ISDN	WiMAX, PSTN/ ISDN connected to TA and the WiMAX SS	



Bridging the gap – SEA

Components	Offer	Need	Scope
Application	P2P Streaming servers		TV and IPTV Streaming
Platform	Onelab2	P2P Networks (over PlanetLab)	
Networks	P2P 3G, LTE, WiMax, WiFi	Fixed Wireless Mobile Networks	



Bridging the gap – C-CAST

Components	Offer	Need	Scope
Application			Content delivery within context
Platform	PII?	Application servers?	
Networks	PII 3G, WiMax, WISEBED (not timely available)	Mobile and sensor networks	



Testing (e.g. in ETSI)

- ▶ Conformance testing
 - ➔ Gives a high-level of confidence that key components of a device or system are working as they were specified and designed to do
 - ➔ High control and observability but limited scope
 - ➔ Tests individual system components but a system is often greater than the sum of its parts! -- Does not prove interoperability
 - ➔ Can be automated
- ▶ Interoperability testing
 - ➔ Interoperability testing is system testing (end-to end functionality)
 - ➔ Tests at a 'high' level and tests the 'whole', not the parts
 - ➔ Tests functionality
 - Shows function is accomplished (but not how)
 - ➔ Does not prove interoperability with other implementations
 - ➔ Usually executed manually



Experimentation

- ▶ The orderly or methodical observation of the variation of facts resulting from artificial stimuli in a reproducible environment that confirms a hypothesis (verification) or rejects it (falsification)
- ▶ In an experiment we manipulate at least one system parameter (variable) according to a pre-defined plan and observe its impact on other (dependent) parameters under **controlled conditions**.
- ▶ The validity of the hypothesis, is only shown if we can reproduce the experiment under the same conditions and obtain the same result.
 - ➔ Minimise or **eliminate** “uncontrollable” environmental effects
 - ➔ **Controlled conditions** means **laboratory environment**



Testing vs. experimentation

- ▶ Testing has a known list of stimuli and observation points which are checked off
- ▶ Experimentation is the search for the „right“ stimuli and observation points that are useful for a reasonable assessment of a system

