

# **GÉANT 2 and Framework Programme 6**

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# **STRUCTURE OF THE PROPOSAL**

## **INTEGRATED INFRASTRUCTURE INITIATIVE - I3**

### **NETWORKING ACTIVITIES - NA**

- Human networks
  - Management
  - Dissemination and outreach
  - User support (NRENs)

### **JOINT RESEARCH ACTIVITIES - JRA**

- Focus on academic, technological research
  - New Service Development
  - Test Beds
  - Security
  - Mobility

### **SPECIFIC SERVICE ACTIVITIES - SSA**

- Focus on services, not infrastructure
  - Network Service Provisioning
  - Network Operation and Support

# Partners

- **DANTE (co-ordinator)**
- **TERENA**
- **NRENs**

## **NAs**

- **Funded 100%**
- **NA1 - management**
- **NA2 - GEANT dissemination**
- **NA3 - Support for users and consultancy**
- **NA4 - NREN development and support**
- **NA5 - foresight study**
- **NA6 - RTD co-ordination**
- **NA7 - Conferences and events**

## **SAs**

- **SA1 - Procurement**
- **SA2 - Network Operations**
- **SA3 - End to End Service Quality**
- **SA4 - Connectivity to other world regions**

## **SA3 - end to end service quality**

- **How to provide it, how to mix & match techniques in different domains, role of Premium IP, circuit emulation**
- **provisioning group**
- **PERT**

## **SA3 committed effort**

- **From 27 partners, many have up to 0.5 FTE per year**
- **Bulk (> 0.5 FTE) from 9 partners**
- **Total is 16.15 FTE**

## **JRAs**

- **JRA-1 - Performance monitoring and management**
- **JRA-2 - Security**
- **JRA-3- New service - BW allocation and reservation**
- **JRA-4 - testbeds**
- **JRA-5 - mobility and ubiquity**

# JRA-1 performance

<b>Month</b>	<b>Deliverable or Milestone</b>	<b>Item</b>
M3	<b>M</b> JAR 1.1	Definition of the metrics to be monitored
M3	<b>M</b> JRA 1.2	Wish list for the measurement box functionality
M6	<b>M</b> JRA 1.3	Inter- and Intra- domain protocols definition
M6	<b>M</b> JRA 1.4	User data representation
M6	<b>M</b> JRA 1.5	Definition of data base parameters
M6	<b>M</b> JRA 1.6	Definition of inter-domain measurement request
M6	<b>M</b> JRA 1.7	Definition of user measurement requests
M12	<b>D</b> JRA 1.8	Report on the design of the measurement system
M12	<b>M</b> JRA 1.9	Review of performance metrics
M18	<b>M</b> JRA 1.10	Pilot implementation
M24	<b>M</b> JRA 1.11	Full measurement system deployed
M36	<b>D</b> JRA 1.12	Final report on the measurement system operation

## **JRA-1 committed effort**

- **From 23 partners, many up to 0.5 FTE**
- **Bulk ( $> 0.5$ ) from 8 partners**
- **Total is 13.8 FTE**

## **JRA-2 security**

- **Establishment of *security think-tank*, building on TF-CSIRT**
- **Protection of network elements**
- **Data on monitoring of security incidents and attacks**

# JRA-2 D & M

Month	Milestone (M) or Deliverable (D)	Description
3	M J2.1	Definition and Establishment of <i>security think-tank</i>
4	M J2.2	Analysis of data to be monitored
6	M J2.3	Security monitoring architecture definition
10	M J2.4	Initial monitoring data available on GEANT
10	M J2.5	Definition of measures to protect new network elements
12	<b>D</b> J2.1	Report on initial security monitoring data and protection of new network elements
12	M J2.6	Survey of tools available to perform flow analysis at high speed
14, 26	<b>D</b> J2.2, <b>D</b> J2.4	Recommendations for future security developments (results of <i>security think-tank</i> )
18	M J2.7	Evaluation of tools for flow analysis and suitability study for DoS attack detection
12	M J2.8	Definition of database of security attacks/incidents
16	M J2.9	Initial implementation of database
18	<b>D</b> J2.3	Report on database implementation

## **JRA-2 committed effort**

- **From 21 partners**
- **Bulk ( $> 0.3$  FTE) from 11 partners**
- **Total is 12.3 FTE**

# JRA-3 BW allocation and reservation

Month	Milestone (M) or Deliverable (D)	Description
M3	M J3.1	Requirements gathering and definition of network services
M5	M J3.2	Survey of techniques for end to end service implementation
M8	M J3.3	Definition of testbed requirements and of test plans
M16	M J3.4	Implementation of tests completed
M18	<b>D</b> J3.1	Definition of service with manual configuration
M18	<b>D</b> J3.2	Specification of interface to middleware for automatic provisioning and advance reservation
M18	M J3.5	Start of Implementation and validation of initial end to end service
M20	M J3.6	Definition of test plans for automatic configuration
M22	M J3.7	Initial deployment of resource managers, AAA servers and policy managers
M30	M J3.8	Implementation of tests completed
M31	M J3.9	Definition of service with automatic configuration with advance reservation
M32	M J3.10	Implementation and validation of service
M34	<b>D</b> J3.3	Report on definition of service with advance reservation
M44	<b>D</b> J 3.4	Report on utilisation of service

## **JRA-3 committed effort**

- **From 23 partners**
- **Bulk (> 0.5 FTE) from 7 partners**
- **Total is 13.5 FTEs**

## **JRA-4 Testbed**

- **To build testbed infrastructure across the network**
- **To support JRAs**
- **To support other projects**
- **To be used by task forces in NA6 for idea validation**

## **JRA-4 committed effort**

- **From 13 partners**
- **Bulk (>0.2 FTE) from 4 partners**
- **Total 4.15 FTE**

## **JRA-5 ubiquity**

- **Effort from 16 partners**
- **Bulk (>0.4 FTE) from 7 partners**
- **Total 10.3 FTE**