

# Simplified NIF for GN4 Input

**Purpose:** This NIF form is to be used for the submission of New Ideas suggested for inclusion in the GN4 Phase1 and beyond proposals. Budget estimates, information about objectives, impact, benefits, etc. as well as scope must all be supplied.

**Submit to:** pmo@GÉANT.net by January 31st, 2014 with the subject label starting: GN4Input

## Overview

<b>Project Name:</b>	Optical Networking in campus area	<b>Project Proposer:</b>	Kurosh Bozorgebrahimi (UNINETT)
Project Type: GN4 Phase1 or longer term	2 years	<b>Estimated Project Costs (best effort!)</b>	
Duration proposed	1Y (phase 1) <ul style="list-style-type: none"> <li>The project will also identify attractive and promising optical local area networking technologies during the phase one of project. The next phase will be dedicated to testing.</li> </ul>	Manpower in person-months also identifying specific expertise required	10MM (first phase) 8MM (Second Phase)
Deliverables proposed (If any can be defined at this stage)	One document at the end of project	Hardware and equipment:	None
Milestones proposed (If any can be defined at this stage)	Publication of the report.	Other costs	Travel @ year 2 (2 test for 2 persons) 16 kEuro

## 1 Background and Reasoning

*Provide background information and the context of the project. Explain the reason for the project. What do you want to be different? What do you hope to improve? Why is the project needed? This should be the reason for the project, not the solution.*

Optical Networking equipment are widely used in NREN's Core Network in order to transport bits and bytes between different campus, local and regional networks. However the role of fiber and optical networking technologies are not well studied and known in campus and local area networking environment. In many cases to understand and deploy right type of optical fiber and corresponding optical networking technologies instead of traditional copper based solution could result to reduce both CAPEX and OPEX in addition to give a more future proof network.

## 2 Objectives, Impact and Benefits

*Provide one or more bullet points to briefly describe the primary objective(s) of the project in terms of the desired outcomes. This should be expressed in the form: 'To ensure...', 'To implement...', 'To service...', 'To improve...', 'To innovate...', 'To optimize...', 'To save...', etc. For each objective mention the benefits to identified stakeholders (e.g. end-users, NRENS, large international research projects, industrial research partners, high level education, etc.) should be mentioned. A description of the expected overall impact must also be provided.*

- The objective is to identify and describe possible alternative Optical LAN solutions compared to copper based solutions. One possible candidate could be Optical Passive LAN, which will be studied on detail.
- The phase two (year 2) will be dedicated to testing of identified technologies in phase one.

## 3 Scope

*Describe the areas expected to be covered or impacted by the proposed activity, such as organisational areas, systems, processes, resources.. i.e. what is 'in scope'. This is not a list of what will be done but identifying the services, areas or what, will be affected.*

*Also please enumerate specific items which although they could perhaps be related are intentionally not addressed by your proposal ("Out of Scope").*

### 3.1 In Scope

- The outcome of this project could be used as a guideline for campus networkors when designing, rebuilding and implemteing new network solution in campus area.
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### 3.2 Out of Scope

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## 4 General Information

*Outline any potential issues, risks, dependencies, assumptions, constraints and limitations or any other points that may be useful to help assess the proposal.*

- One of the alternative technologies which will be evaluated is Passive Optical LAN (POL). We will also search for similar technologies and in addition have an evaluation on fiber types which is specially designed for Local area networking and in solution regarding to the “Fiber To The Desk”.