31-07-2020

Milestone M1.4 (M40)
Training Workplan: Period 2

Abstract
This document provides a summary forecast of training and professional development activities for the period from May 2020 to August 2021 in GN4-3 WP1 T5 Human Capital Development.

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1 Introduction

WP1 Task 5 – GEANT Learning and Development (GLAD) maintains and develops what are among the most important assets of the GN4-3 community, the exceptional skills and experience of the professional staff found in the NRENs and GÉANT that are highly regarded and in demand across the industry and are pivotal to the success of the GÉANT project.

The purpose of this document is to provide a summary forecast of training and professional development activities for the period from **May 2020 to August 2021** in GN4-3 WP1 T5 Human Capital Development.

1.1 Training Planning Considerations and Approach

GLAD employs a wide range of training solutions to meet the diversity of training needs within GÉANT and its wider community. These solutions are delivered in a variety of learning formats (face-to-face, online and a combination of the two) by external training providers, GÉANT Subject Matter Experts (SMEs) and through curation of internal and external knowledge. To support its activities, GLAD utilises a number of tools ad media including a learning management platform [eAcademy], content curation tools [ap] and a website [GLAD] and [blog], as well as communication channels (see 1.3).

Training activities are structured around the two main categories of Technical Skills (TS) and Professional Competencies (PC). Most of the training and development activities for the project are identified at the start of the calendar year (Jan to end of February) during the annual consultation with the GN4-3 work package leaders, task leaders and participants conducted for the **learning needs assessment (LNA)**. This is a bottom-up inquiry in the form of a discussion where project participants voice their future plans, knowledge gaps and professional development needs which in turn inform the activities of WP1 T5.

In addition to the LNA, the planning of the WP1 T5 activities is informed by continuous direct communication between GLAD and WPs, and information and feedback gathered during any events and conferences (i.e. Symposium, TNC, SIG, TFs) attended by GLAD. This information about the project's continuously evolving training requirements forms the foundation for annual and medium-term (16-month) training planning.

Training planning also reflects patterns and trends that emerge from the LNAs and GLAD's interaction with the stakeholders. The analysis of these patterns is reflected in a series of "themes" (i.e. thematic training strands) that continues beyond the 12-month period of the LNA. These thematic stands are also defined based on the following factors:

- Subject matter: e.g. "communication skills" involve a wide range of diverse skills which require different forms of intervention over a prolonged period of time (life-long learning).

- The structure of delivery: some subjects (ITIL, TM Forum) have a modular structure that allows flexibility in accessing training and incorporating them in the flow of work, at the point of demand.
- The availability of refresher courses, updates and changes to qualifications, e.g. ITIL v4 (latest) that are released in phases.
- External factors that have an impact on planning and delivery of training, e.g. **the COVID-19 pandemic in 2020**. and the "lockdown" state experienced by GÉANT and its partners resulted in a much greater focus on virtual learning and supporting remote ways of working and learning as part of business resilience and continuity. This means that the following activities that started earlier in 2020 are expected to continue in 2021:
  - Training activities to enable the transition to remote working and maintaining productivity
  - Training activities to support SMEs to support transition from F2F to live online and asynchronous (self-paced) training.
  - Developing eLearning to support knowledge dissemination and exchange (eAcademy).

1.2   Funding

When executing training events from this plan, the following budget items can be expected to be included and claimed against WP1 T5 funding:

- Content expert (Consultant) fees
- Attendance fees
- Meeting rooms
- Working meals
- Participants Travel & subsistence
- Training Materials
- Certification costs

It is expected that the time for attending the training is claimed against WP1 T5 funding, made available to the GN4-3 participants using the following model:

Step 1: WP1 T5 publishes OR confirms attendance of the training event

Step 2: Interested GN4.3 participants:
— get time approval from WPL/TLs to attend the event
— get finance approval from their home NREN to cover the event expenses

Step 3: The home NREN pays the event expenses

Step 4: GN4-3 participants attend the event

Step 5: GN4-3 participants provide the following reports on the attendance:
— Financial – in accordance with home NREN rules
— Impact – in accordance with GLAD requests (feedback, stories, experiences)

Step 6: The home NREN claims expenses from WP1 T5

1.3   Contacts

Team Slack (internal chat, only team members): gladingn43.slack.com.

Team mailing list (internal comms, only team members): gn4-3-wp1-t5@lists.geant.org.

GLAD Community Slack channel (external chat): gladcommunity.slack.com.

GLAD Community Mailing list: glad_community@lists.geant.org.

GLAD Playlist on GEANTtv: https://www.youtube.com/channel/UCXveo5hh0lrdMlORFIaY3hw.

2 Period 2 Training Workplan by Category

Following the LNA (Learning Needs Analysis), WP1 T5 activities are grouped thematically under two main categories:

- Technical Skills (TS)
- Professional Competencies (PC)

An overview of current training requests by WP is shown in the table below.

N	Training (TS)	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	WP9
1	ITIL v4				X	X	X			X
2	TM Forum					X	X			
3	T&I Curriculum					X				
4	SecureCode and SSE									X
5	Docker for development and systems management								X	
6	Jira for project management								X	
7	Container technology, e.g. Kubernetes (T3) OpenStack (T3) AI & machine learning (T1, T2, T3, T4)				X				X	
8	Business Development				X				X	
9	Public speaking/presentation skills			X	X					
10	Knowledge dissemination through training F2F/Online (including webinars)				X		X		X	X
11	Report Writing								X	
12	Negotiation skills			X	X				X	
13	Facilitation Skills			X	X				X	

It should be noted that, as training needs and priorities may shift, this plan is intended as a guideline rather than as a definitive commitment.

2.1   Technical Skills

Technical Skills (TS) activities are focused on delivering ICT-related knowledge and expertise including standards and methodologies in areas such as (but not limited to) network and connectivity, cyber security, cloud technologies and storage, real-time communication technologies, software development and trust and identity.

The following trainings are planned in the area of Technical Skills development in the period May 2020 to August 2021.

2.1.1   ITIL4

(November 2020 to September 2021)

Requested by:

WP4, WP5, WP6, WP9

Other potential beneficiaries:

GN4-3 participants; European NREN community

Purpose & Impact:

ITIL is a methodology that is comprised of detailed practices for IT service management that focuses on aligning IT services with the needs of business. The methodology is expected to bring about common working practices and common language for a diverse and distributed GN4-3 community. It is also a gateway to industry for the compatibility and comparability of services and products. ITIL certification [ITIL4] is in line with WP1T5 objectives of mastering industry standards to ensure high quality, certification and recognition of GN4-3 capabilities.

These skills are equally important for both technical staff and the support functions to facilitate collaborative work and coordination of activities in the process of delivering GN4-3 services and products.

2.1.2   TMForum – Selected Modules (API and SID)

(October 2020 to August 2021)

Requested by:

WP5, WP6

Other potential beneficiaries:

GN4-3 participants; European NREN community

Purpose & Impact:

TM Forum Digital Transformation Training and Certification programmes [TMForum] help industry-leading information and communication technology (ICT) organisations succeed in the digital economy. These programmes are designed for the fast-paced world of cloud-based virtualised 5G networks, multi-access edge technology and Internet of Things (IoT)/Internet of Everything (IoE) platforms. In addition to helping facilitate innovation and renewal, more importantly the TM Forum standards offer standardised practices and terminology for GN4-3 work packages. It is envisaged that these standards will form a steady and durable foundation for GN4-3 products and services. For these reasons, TM Forum programmes are essential to the GN4-3 community.

2.1.3   SecureCode and School for Software Engineering

(October 2020 to September 2021, related webinars programme)

Delivered by:

WP9 T2

Other potential beneficiaries:

GN4-3 participants; European NREN community

Purpose & Impact:

SecureCode/SSE Training is a GN4-3 project deliverable. It provides knowledge to software developers and security specialists that allows for the provisioning of self-defending applications that are protected against cyberthreats to the maximum possible extent.

2.1.4   Docker for Development and Systems Management and other Container Technologies

(November 2020 to July 2021)

Requested by:

WP7, WP8

Other potential beneficiaries:

GN4-3 participants; European NREN community

Purpose & Impact:

Using [Docker] (de facto industry standard) as a tool to streamline the complexities of apps and to accelerate the workflow, and as an opportunity for developers for creativity and diversification in the choice and uses of tools available. Docker and other Container technologies have wide-ranging applications for developing containerised apps from the desktop to cloud services.

2.1.5   T&I Mentorship (TIM) Programme

(September 2020, next round June 2021)

Requested by:

WP5

Other potential beneficiaries:

GN4-3; European and Global NREN community; research & e-infras; Partner organisations

Purpose & Impact:

T&I is rapidly becoming a core competency of the NREN community; however, there are two key challenges:

- Capabilities are not evenly distributed across NRENs.
- There is a high staff turnover that requires efficient onboarding.

The T&I Mentorship [TIM] programme aims to capture the expertise of GN4-3 T&I subject matter experts (SMEs) and make it available to others project members and wider audiences. It is expected that as a result of this initiative there will be growth in T&I expertise and interest across the NREN community, and that in turn an improved and wider portfolio of products and services will be made available in this area. It is also expected that this project will be one of several initiatives to capture and showcase GN4-3 expertise, creating in so doing the knowledge legacy of the project. These objectives are in line with WP1 T5's objective of systematising and capturing community expertise and making it available to wider audiences.

2.1.6   Other

Future Talent Programme (FTP)

(March – June 2021)

Every year GLAD offers initiatives that facilitate engagement with young professionals under the mentorship of the NRENs. These initiatives exist to introduce a future generation of talents to the community and to engage with experts in the field. The Future Talent Programme [FTP] offer professional training and development to young professionals and supports mentors who lead the way.

2.2 Professional Competencies

Professional competencies (PC) are crucial for effective and efficient on-the-job performance. They are also essential for NREN capability building and staff retention within GN4-3 as well as more broadly in the NREN context.

To address the different demands of the diverse GÉANT community, WP1 T5 put together a list of thematic needs. The final formats of delivery include face-to-face training events, toolboxes, webinars, publications and other resources.

The following trainings are planned in the area of Professional Competencies development in the period May 2020 to August 2021.

2.2.1 Working with and Leading a Virtual Team

(Online, October to December 2020)

Due to increased demand (the topic has acquired extra relevance due to COVID-19 pandemic) another instance of this training programme will be delivered at the end of 2020 [Virtual Teams].

2.2.2 Knowledge Dissemination – Transition from F2F to Virtual Training

(August 2020 – February 2021)

Requested by

WP4, WP6 (to start in 2021), WP8, WP9

Other potential beneficiaries

GN4-3 participants; European NREN community

Purpose & Impact

Training and knowledge dissemination are key factors in engaging with target audiences to increase uptake of new products and services, as well as the vehicle for knowledge transfer within and for the benefit of the GN4-3 project and its participants.

The impact of COVID-19 demonstrated the need for SMEs to develop skills to deliver training online in addition to via the more "traditional" F2F mode.

It is anticipated that this need will be met through a blend of live online Train-the-Trainer sessions, access to relevant eLearning resources, knowledge curation and exchange.

The delivery of training associated with the development of new products and services forms the basis of some WPs' deliverables, and developing a wider range of skills contributes towards greater resilience and sustainability of their services and operations.

2.2.3   Business Development

(eLearning, TNC2021)

Requested by:

WP4, WP8

Other potential beneficiaries:

GN4-3 participants; European NREN community

Purpose & Impact:

Business Development is a key capability that allows GN4-3 to collect, understand and address the needs of community customers. This is an essential skill that connects the actual development of new services and products with the problems, projects and activities of future users. The following focus areas have been identified:

- Developing effective quality evaluation techniques and tools for increased user-centricity of products and services
- Stakeholder management
- Planning for innovation
- Tools for remote working
- Product and project management

It is expected that this training will deliver products to the market that are in demand, yielding higher service uptake. As a field of expertise, Business Development undergoes continuous renewal particularly in relation to topics such as customer centricity and route-to-market strategies, therefore an update and refresher is required by those engaged in this activity.

There is a high probability that this training will be delivered online as a series of webinars and through providing access to relevant eLearning materials. This approach would allow greater financial efficiency but needs to be weighed against the ability of delivering the same value and impact for GN4-3 participants.

2.2.4   Communication: Public Speaking/Presentation Skills/Report Writing

(eLearning – ongoing)

Requested by:

WP3, WP4, WP8

Other potential beneficiaries:

GN4-3 participants; European NREN community

Purpose & Impact:

Communication is a central to raising awareness about the GN4-3 project, dissemination of its services and their uptake. Using the modern language and techniques available in the market would allow to access and engage with wider audiences. This training can be viewed as a part of NREN capability building.

There is a high probability that this training will be delivered online as a series of live video lectures or webinars and eLearning materials. This approach would allow greater financial efficiency but needs to be weighed against the ability of delivering the same value and impact for the GN4-3 participants.

2.2.5   Negotiation Skills

(eLearning – ongoing)

Requested by:

WP3, WP4, WP8

Other potential beneficiaries:

GN4-3 participants; European NREN community

Purpose & Impact:

Negotiation is central to attaining favourable agreements with GN4-3 partner organisations and suppliers. A general refresher course is envisaged as a part of the solution. The additional impact of this training is an increased attractiveness of NREN careers and transferability of skills to other contexts. Therefore, this training can be viewed as a part of NREN capability building.

2.2.6   Facilitation Skills

(eLearning – ongoing)

Requested by:

WP3, WP4, WP8

Other potential beneficiaries:

GN4-3 participants; European NREN community

Purpose & Impact:

The ability to design and deliver effective and efficient meetings, events and spaces and the ability to drive decision-making and consensus practices are imperative for conducting collaborative work in GN4-3. The training will be designed and delivered internally by WP1 T5 and can also be included as part of NREN capability building.

There is a high probability that this training will be delivered by WP1 T5 as a great deal of expertise is available within the team on this topic.

References

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Glossary

F2F	Face-to-face
FTP	Future Talent Programme
GLAD	GÉANT Learning and Development
ICT	Information and communication technology
IoE	Internet of Everything
IoT	Internet of Things
LNA	Learning needs assessment
NREN	National Research and Education Network
SME	Subject Matter Expert
SSE	School of Software Engineering
T	Task
T&I	Trust and Identity
TIM	Trust & Identity Mentorship
TL	Task Leader
TS	Technical Skills
PC	Professional Competencies
WP	Work Package
WPL	Work Package Leader