



1st TF-NOC meeting
September 2-3 (Thursday - Friday), 2010
Barcelona, Spain

Table of contents

Table of contents	1
Minutes	1
1. Introduction and roll call	1
2. Taxonomy of NOC organisations, internal processes, workflows	2
3. NOC front-end development and improvement	2
4. NOC tools, interworking/interfacing issues, and automation.....	3
5. Efficient communication/collaboration tools and practices.....	4
6. Facilitate the collection/creation of best practice documents	4
7. Investigate and liaise with other communities	5
8. Real work: Questions for NOC taxonomy survey	5
9. Open discussions, general agreements	6
10. Next steps and close.....	7
List of actions	8
List of participants	9

Minutes

1. Introduction and roll call

The first TF-NOC meeting was held on 2-3 September, 2010, at CESCA (Centre de Supercomputacio de Catalunya), Barcelona, Spain. 17 people attended the meeting in person, other 6 people joined remotely via videoconference, and 2 apologised in advance. The TERENA secretary was Peter Szegedi. The initial aim of the meeting was to present, discuss, and agree on the work plans and deliverables for the various work items in TF-NOC, officially started on the 1st of September, 2010. The meeting agenda and presentations are available here: <http://www.terena.org/activities/tf-noc/meeting1/programme.html>

The welcome speech was given by Miquel Huguet, director of the Centre de Supercomputacio de Catalunya, who briefly introduced CESCA. Stefan Liström (NORDUnet), the chair of the task force, also welcomed the participants and asked for a roll call. Almost all the TF-NOC participants (listed in the task force's Terms of Reference) were represented and we were introduced to a new participant, Serge Krashakov from the Scientific Centre of Chernogolovka, Russia. Serge mentioned that he, as an operator of the research network connecting several institutes in the Chernogolovka region, is interested in the TF-NOC activities and may contribute in the future but his travel opportunities are limited.

The meeting was organised by the work items of the task force to be presented by the work item leaders and followed by open discussions including all the participants.

2. Taxonomy of NOC organisations, internal processes, workflows

Stefan Liström (NORDUnet), as the leader of Work Item A, presented the main objectives of his work item on NOC taxonomy and proposed some deliverables and deadlines for the next coming 3 years.

See the slides for more details here:

<http://www.terena.org/activities/TF-NOC/meeting1/slides/20100902-tf-noc-stefan1.pdf>

It was agreed that we need better understanding on how various NOCs are structured in order to know which NOCs can be compared in terms of size, structure, workflows, and procedures. The work item includes the investigation to gather a consistent information package on how to set up and maintain a NOC. The identification of key performance indexes is also important in order to perform NOC assessment.

The task force in general aims to prepare deliverables on how to set up a NOC (mainly targeting project consortia dealing with network operations, as well as the less advanced countries via the Africa Connect project or CLARA in South America), how to educate new NOC personnel, and how to hand over a NOC (in case of outsourcing various NOC functions to third-party companies).

It was noted that the overall aim is not to give an exact definition of NOC in general, but to try and define the boundaries of the NOC responsibilities focusing on the task force participants. Discussions on the distributed or centralised NOC structures, in-house and out-sourced NOC functions can also be part of this work item.

Stefan Liström (NORDUnet) presented a priority list of tasks where participants suggested that the 'understanding on NOC functions' must be ranked higher on the list.

3. NOC front-end development and improvement

Gareth Eason (HEAnet), the leader of Work Item B, gave an impressive presentation leading "towards excellent NOC customer service, even when things go wrong". Gareth warned everyone that user is the most important. NOC should be proactive and avoid failures using resilient solutions, monitoring, and alerting mechanism. It is important to consider alerting direct to the client; even NOC calls the client on detecting a problem or operates web portal displaying monitoring for the client. Make sure that your NOC is available, problem is resolved, and the customer stays informed.

Gareth discussed about two aspects; the supplier failures and client service failures. Regarding the supplier failures it is important to measure the outage, inform the supplier, plan to resolve, and agree on timeline and metrics. A checklist for a successful crisis meeting with

the supplier was given by Gareth namely: second last resort, collect data and metrics before the meeting, invite account manager, invite account manager's manager, avoid covering old ground, and last but not least avoid assigning blame. You should agree there is a problem, agree the scope of the problem, agree a resolution to the problem, agree how you'll know the problem is resolved and don't forget to agree the next meeting date.

Regarding the client service failures it is important to understand their problem, triage, define action plan (with client), implement plan, report on success (or otherwise) of plan or start again with better understanding on the problem.

All meeting participants agreed that communication is the key. We should work around problems, agree and stick to action plans. Gareth suggested at the end that "do one thing today to change how one customer thinks about your NOC in a positive way". There was no time left for further discussions but the main principles were set for the targeted activities in the work item.

Slides are available here:

<http://www.terena.org/activities/tf-noc/meeting1/slides/20100902-tf-noc-gareth.pdf>

4. NOC tools, interworking/interfaces issues, and automation

Maria Isabel Gandia Carriedo (CESCA), the leader of Work Item C, proposed her plan for this activity. She calculated with 3 meetings per year and 3 years of task force duration. The potential tools and structure of tool questionnaire can be found on her slides.

Slides are available here:

<http://www.terena.org/activities/tf-noc/meeting1/slides/20100902-tf-noc-maria-isabel.pdf>

It was noted that the tool development may be an option but not the major aim of this activity. TERENA task forces are on voluntary basis and there is no budget allocated to development activities there. It was agreed, of course, that any recommendation for a new NOC tool, function, or toolset would be a desired outcome of the task force that can be fed back to any tool development community or project.

It was felt that a survey on

- a) NOC tools currently used by the TF-NOC participants is useful but the survey must be extended with question related to
- b) tools those had been tried out but did not work (for any reason),
- c) tools those are planned to be inspected by NOCs, and d) tools/functions those are missing and may lead to tool developments.

It was also suggested to complete this survey as soon as possible not to lose momentum.

It would also be good to know more information about the NOC tool survey performed by ESnet.

ACTION 1 on Peter (TERENA): to contact with ESnet regarding the NOC tool survey had been done in the US.

The day was closed with an exciting tour to CESCA computing centre's museum and a delicious joint dinner. The second day was continued further on with the other work item presentations.

5. Efficient communication/collaboration tools and practices

Stefan Liström (NORDUnet) proposed a plan for Work Item D. The information sharing in a trusted and reliable way is really important as it was mentioned in the NOC front-end development work item presentation. It would be important to know what kind of communication tools are used, what functions are liked or not liked. Regarding the tool functions the GN3 SA2 group should be consulted.

There was a question addressed to all on which NOCs send authenticated/signed e-mails to customers? The ad-hoc survey resulted that HEAnet sometimes sign tickets, UNINETT only internally signs e-mails to be sent to the ticket system, BELNET inside the CERT signs messages with a CERT key and it is really appreciated by the users.

The federation and con-federation aspects of communication tools must be differentiated. HEAnet is running a federated NOC trial separated from the operational NOC but using the same tools such as monitoring, ticketing, etc.

Slides are available here:

<http://www.terena.org/activities/tf-noc/meeting1/slides/20100902-tf-noc-stefan2.pdf>

Stefan asked for any volunteers to lead this work item. Wiktor Procyk (PSNC) and Rachael Holt (HEAnet) have volunteered to co-lead this work item further on. Efforts are appreciated!

ACTION 2 on Peter (TERENA): to update the TF-NOC web and ToR with the new work item leaders.

6. Facilitate the collection/creation of best practice documents

Pieter Hanssens (BELNET), the leader of Work Item E, presented his ideas about facilitating the collection or creation of best practice documents for NOCs. The structure of the best practice documents should be in line with the basis of the NOC taxonomy. The proposed structure will be represented in the Wiki. The most important thing is to define what is in-scope and what is out-of-scope of TF-NOC. Beside the best practices, the worst practices (what to avoid, what not to say, etc.) might also be collected.

Slides are available here:

<http://www.terena.org/activities/tf-noc/meeting1/slides/20100902-tf-noc-pieter.pdf>

TF-NOC participants found that it would be important to immediately start uploading and labelling documents describing simple NOC procedures, workflows, etc. to the TF-NOC wiki. In order to do that, first we need to agree on the labelling that pretty much relies on the various NOC types and structures. Toby Rodwell (DANTE) mentioned that he is happy to spend half a day or so with finding and uploading documents that are currently available, but the proper labelling is the key.

ACTION 3 on Toby (DANTE): to propose an initial set of common labels for Wiki articles.

Meeting participants discussed about the structure and availability of the TF-NOC wiki pages. See agreements in Section 8.

Stefan (NORDUnet) proposed the basic principle to let best practice documents evolve. First we need to see how other do things (collect the documents currently available) and then revise documents and finally create the structured/revised best practice documentation set for all.

7. Investigate and liaise with other communities

Peter Szegedi (TERENA), the leader of Work Item F, spoke about the potential liaisons with other communities. As an obvious option, the related TERENA task forces (such as TF-MSP, TF-Storage) will be consulted as well as the GN3 activities including APM and SA2. It was noted that the Campus Best Practices documents of NA2 should also be cross-checked. TERENA offered to investigate similar efforts beyond Europe (e.g., Internet2 in the US, AARnet in Australia, or CLARA in South America). It was suggested to approach ESnet in the US to get more information about their related efforts. NORDUnet offered to follow up with TF-forum. Peter mentioned that commercial providers may be invited in order to give us presentations, if appropriate.

Finally, Peter mentioned that the TF-NOC group is still growing. Peter will follow up with the potential new participants of TF-NOC on an on-going basis.

No slides are available.

8. Real work: Questions for NOC taxonomy survey

At the end of the second day the meeting participants exploited the opportunity to do some "real work" and started collecting questions for the NOC taxonomy study. The random list of collected questions is as follows:

- How is your NOC staffed?
- What network does your NOC operate? <Project, Campus, Regional, National, Global, other...>
- What does your NOC support?
 - Technologies <photronics, TDM, switching, routing>
 - Protocols <OTN, SDH, Eth, IP, MPLS>
 - Services
- When is your NOC reachable?
- How is your NOC reachable?
- What network elements does your NOC operate? <Number of core nodes, end-points, etc...>
- How do you access your network? <out-of-band, in-band, both...>

- Who are your subscribers?
- Who are your peers?
- How do you assess yourself?
- What is your overall mission?
- How is your workload?
- Tickets? <number, type, volume, source, software>
- Definition of incidents?
- Reporting?
- Provisioning?
- Proactive vs. Reactive?
- Network monitoring categories?
- Security? <user authentication, user authority, NOC authority> <What do you do and plan to do?>

The questions must be formulised better and completed later on based on the TF-NOC participants' feedback.

ACTION 4 on all (TF-NOC): to think about 5 questions what you want to know about other NOCs and send them to Stefan (NORDUnet).

9. Open discussions, general agreements

According to the Term of Reference the overall work plan for TF-NOC would be to:

1. analyse the current situation (look at what we already have)
2. collection of best practices (See if there are already good practices. There might be some out there already.)
3. formulate proposals and recommendations (Make recommendations. These might be to write some good practice documents if we discover there are some missing in Step 2.)

Regarding to the analysis of the current situations, beside the planned survey on NOC taxonomy, Ernst Heiri (SWITCH) mentioned that it would be good to see a round of presentations from all the TF-NOC participants in the next coming meeting. The idea was welcomed by everyone. It can also facilitate the NOC taxonomy survey of Work Item A.

Gareth (HEAnet) noted that we need an example how to present a NOC in order to get the same level of information from everyone. It was agreed to create a template for the NOC presentations.

ACTION 5 on all (TF-NOC): to think about how to introduce their NOC and send 5 important bullet points to Stefan (NORDUnet).

ACTION 6 Stefan (NORDUnet): to collect the common items for the NOC presentation and produce a template by November 2010.

ACTION 7 on all (TF-NOC): to introduce their NOC according to the given template on the January/February TF-NOC meeting.

There was a discussion about the TF-NOC mailing list and wiki. The meeting participants agreed that all information uploaded to the TF-NOC wiki are considered to be public by default. It makes people think before uploading. It was also agreed that the wiki must have both a public and private spaces restricted to TF-NOC participants.

ACTION 8 on Peter (TERENA): to create a private restricted space for the TF-NOC wiki and manage the credentials.

The TF-NOC mailing list content is also considered to be public by default. The list web archives should be available on the wiki for future reference. Any need for additional private, restricted e-mail lists will be discussed and agreed on the next coming task force meeting.

ACTION 9 on Peter (TERENA): to create web archive for the TF-NOC mailing list and make it available on the wiki.

Regarding the TF-NOC meetings, participants agreed to meet 3 times per year in person; around January/February, around the TNC Conference of TERENA, and around September/October. Video/Webconferences may be organised between the face-to-face meetings. The TF-NOC meetings must be coordinated together with the GN3 APM meetings.

ACTION 10 on Peter (TERENA): to coordinate the planned TF-NOC meetings with Marian (DANTE), the APM meeting organiser.

It is important that the work item leaders have a strong plan in short term for the activities and deadlines. Everyone should be aware of these plans (perhaps make an activity list on the wiki). Work item leaders agreed to have regular videoconferences in order to synchronise the internal plans.

ACTION 11 on Peter (TERENA): to schedule the regular work item leaders' videoconference, preferably once a month in a fixed timeslot.

There was a question which NOCs are using ITIL library. It would be interesting to hear about the experiences with ITIL. Rachael (HEAnet) volunteered to give a presentation about ITIL experiences and TM-forum at the next task force meeting.

ACTION 12 on Rachael (HEAnet) and Peter (TERENA): to schedule a slot for the ITIL and TF-forum presentation in the next meeting agenda.

10. Next steps and close

Peter (TERENA) informed the TF-NOC participants about the fact that the TERENA TF-MSP (Management of Service Portfolios) group wants to have a joint meeting with TF-NOC in November in order to discuss the "technical and non-technical aspects of developing and managing Dark Fibre Networks in the NREN community". Some participants of TF-NOC (namely: CARNET, SWITCH, HEAnet, NORDUnet, and DANTE indicated at the meeting) are interested in a joint meeting with TF-MSP. So, TF-NOC won't have a task force meeting in November but is willing to contribute to the TF-MSP discussions. The preferred dates are: 9-10

November, 2011. The location and schedule must be agreed by TF-MSP and TF-NOC.

ACTION 13 on Peter (TERENA): to confirm the potential time and location for the joint TF-NOC/TF-MSP meeting on 9-10 November, 2010.

TF-NOC stated that they need more information from TF-MSP about the details of the dark fiber infrastructure related discussions before the meeting.

ACTION 14 on Stefan (NORDUnet): to get more information from TF-MSP about the planned joint meeting concerning dark fibre infrastructure related discussions. Perhaps to have a VC with them.

The participants agreed to have the 2nd TF-NOC meeting in January/February 2011 timeframe coordinated with the GN3 APM group.

ACTION 15 on Peter (TERENA): to schedule the 2nd TF-NOC meeting in January/February 2011 preferably jointly with GN3 APM.

Stefan (NORDUnet) and Peter (TERENA) thanked everyone for the useful meeting and, of course, CESCA for the host. The meeting was closed at 3pm local time.

List of actions

TSec(10)063	Who	What	When
ACTION 1	Peter Szegedi (TERENA)	to contact with ESnet regarding the NOC tool survey had been done in the US.	by the next meeting in 2011.
ACTION 2	Peter Szegedi (TERENA)	to update the TF-NOC web and ToR with the new work item leaders.	ASAP
ACTION 3	Toby Rodwell (DANTE)	to propose an initial set of common labels for Wiki articles.	by the next meeting in 2011.
ACTION 4	all (TF-NOC)	to think about 5 questions what you want to know about other NOCs and send them to Stefan (NORDUnet).	ASAP
ACTION 5	all (TF-NOC)	to think about how to introduce their NOC and send 5 important bullet points to Stefan (NORDUnet).	ASAP
ACTION 6	Stefan Liström (NORDUnet)	to collect the common items for the NOC presentation and produce a template.	by November 2010.
ACTION 7	all (TF-NOC)	to introduce their NOC according to the given template on the January/February TF-NOC meeting.	by the next meeting in 2011.
ACTION 8	Peter Szegedi (TERENA)	to create a private restricted space for the TF-NOC wiki and manage the credentials.	ASAP

ACTION 9	Peter Szegedi (TERENA)	to create web archive for the TF-NOC mailing list and make it available on the wiki.	ASAP
ACTION 10	Peter Szegedi (TERENA)	to coordinate the planned TF-NOC meetings with Marian (DANTE), the APM meeting organiser.	by the next meeting in 2011.
ACTION 11	Peter Szegedi (TERENA)	to schedule the regular work item leaders' videoconference, preferably once a month in a fixed timeslot.	ASAP
ACTION 12	Rachael Holt (HEAnet) and Peter Szegedi (TERENA)	to schedule a slot for the ITIL and TF-forum presentation in the next meeting agenda.	by the next meeting in 2011.
ACTION 13	Peter Szegedi (TERENA)	to confirm the potential time and location for the joint TF-NOC/TF-MSP meeting on 9-10 November, 2010.	ASAP
ACTION 14	Stefan Liström (NORDUnet)	to get more information from TF-MSP about the planned joint meeting concerning dark fibre infrastructure related discussions. Perhaps to have a VC with them.	by November 2010.
ACTION 15	Peter Szegedi (TERENA)	to schedule the 2 nd TF-NOC meeting in January/February 2011 preferably jointly with GN3 APM.	by November 2010.

List of participants

NAME		AFFILIATION	
Gerard	Alcorlo	CESCA	
Gyorgy	Balazs	CERN	
Maribel	Cosin	RedIRIS	
Gareth	Eason	HEAnet	
Ksenija	Furman Jug	ARNES	remote
Maria Isabel	Gandia Carriedo	CESCA	
Jordi	Gaya	CESCA	
Ivana	Golub	CARNet	
Pieter	Hanssens	BELNET	
Ernst	Heiri	SWITCH	
Rachael	Holt	HEAnet	remote
Serge	Krashakov	Scientific Center in Chernogolovka	
Håvard	Kusslid	UNINETT	
Stefan	Liström	NORDUnet	
Yannis	Mitsos	GRNET	remote
Andreas	Polyrakis	GRNET	remote

Wiktor	Procyk	PSNC	
Toby	Rodwell	DANTE	
Bojan	Schmidt	CARNet	
Peter	Szegedi	TERENA	
Vladimir	Trestik	CESNET	remote
Vegard	Vesterheim	UNINETT	
Anastasios	Zafeiropoulos	GRNET	remote
Apologised			
Fresia	Pérez	NORDUnet	
Ronald	van der Pol	SARA	