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|  | NaN(2019-05)049 |

**The 18th WG NaN Meeting**

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| Meeting place: | Ljubljana, Slovenia |
| Meeting dates: | 21-23 May 2019 |

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| Subject: | **Minutes of the 18th WG NaN Meeting** |
| Source: | WG NaN Secretary (Hege Johnson) |
| Source email: | [hege.johnson@nkom.no](mailto:hege.johnson@nkom.no) |

1. Welcome

The 18th meeting of the ECC’s Working Group Numbering and Networks (WG NaN) was held in Ljubljana, Slovenia, at the kind invitation of the Agency for Communication Networks and Services of the Republic of Slovenia (AKOS). The meeting was attended by 41 delegates representing 25 CEPT administrations, European Telecommunications Standards Institute (ETSI), Nippon Telegraph and Telephone Corporation (NTT), International Telecommunication Union (ITU) and the European Communications Office (ECO).

Mr. Marko Simončič gave a warm welcome the WG NaN members to Ljubljana. He said that AKOS is honoured to host this meeting with the experts in the field. He emphasised the principle of “the more you share the more you have”, and wished the participants a successful meeting.

The WG NaN Chairman Mr. Johannes Vallesverd (Norway) thanked Mr. Simončič for the kind welcome. Mr. Vallesverd referred to WG NaN as the regulatory family and encouraged the delegates to actively participate in the meeting, as contributions are very welcome and important.

There was a *tour-de-table* to introduce the participants at the meeting. The list of participants can be found in document [INFO-5](https://cept.org/ecc/groups/ecc/wg-nan/client/meeting-documents/file-history/?fid=51306).

1. Adoption of Agenda

Mr. Vallesverd introduced the agenda. Prior to the meeting he sent out an invitation for participants to send questions to be discussed during the WG NaN meeting, and there were quite a few responses with interesting topics. Mr. Jukka Rakkolainen (Finland) suggested to include a discussion on the implementation of the European Electronic Communication Code (EECC), which was supported by the meeting. The meeting adopted the agenda ([NaN(2019-05)001](https://cept.org/ecc/groups/ecc/wg-nan/client/meeting-documents/file-history/?fid=51191)).

The list of documents for the meeting can be found in document [NaN(2019-05)004](https://cept.org/ecc/groups/ecc/wg-nan/client/meeting-documents/file-history/?fid=51322).

1. Minutes of last meeting

The minutes of the WG NaN meeting in Sofia, Bulgaria on 27 – 29 November 2019 were adopted by email procedure. The meeting endorsed the minutes ([NaN(2019-05)002](https://cept.org/Documents/wg-nan/51196/nan-2019-05-002_minutes-of-the-17th-wg-nan-meeting-sofia)).

1. Organisation of WG NaN
   1. Terms of Reference for WG NaN Project Teams

The WG NaN Chairman explained the background for the decision of making Terms of Reference (ToR) for our Project Teams (PTs). The PT ToR could give a better perspective for the work of the PTs, and to build and brand the PTs for the future work. The draft ToR were discussed in the respective PTs, taking into account the ToR of WG NaN.

The meeting discussed the draft ToR of the four PTs and made some changes.

WG NaN approved the new names and ToR of our four PTs:

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| **New name** | **Long name** | **Old name** | **Link to ToR** |
| NaN1 | Future of Numbering Issues | PT FNI | [NaN(2019-05)008](https://cept.org/ecc/groups/ecc/wg-nan/client/meeting-documents/file-history/?fid=51202) |
| NaN2 | Number Portability, Switching and Trust in Numbering | PT NPS | [NaN(2019-05)009](https://cept.org/ecc/groups/ecc/wg-nan/client/meeting-documents/file-history/?fid=51203) |
| NaN3 | Emergency Communications | PT ES | [NaN(2019-05)010](https://cept.org/ecc/groups/ecc/wg-nan/client/meeting-documents/file-history/?fid=51204) |
| NaN4 | Networks and Services Technical Regulatory Issues | PT TRIS | [NaN(2019-05)011](https://cept.org/ecc/groups/ecc/wg-nan/client/meeting-documents/file-history/?fid=51205) |

The WG NaN Chairman emphasised that the ToR will provide a framework and transparency but also clarity and flexibility for the PTs. He thanked the members for their contributions in establishing the ToR for the PTs, and reminded the participants that the ToR can be revised by WG NaN when needed.

Mr. Freddie McBride (ECO) explained the implications of the name-changes for the ECO-website. It is not possible to change the name of a group, so new groups will be made.

There was a proposal to refer to the WG as NaN Plenary. Mr. Vallesverd pointed out that it is up to this group to decide how we want to present ourselves, but it would not be a formal change. The meeting agreed to refer to our group as WG NaN Plenary.

Note: For the rest of the minutes of the WG NaN meeting in Ljubljana the new names of the PTs will be used. The meeting agreed that sequence numbers for the PT meetings will be kept.

* 1. ECC Plenary

The WG NaN Vice Chair, Ms. Liz Greenberg (UK), gave an update of the last meeting of the ECC Plenary, which was held in Brighton, UK on 5-8 March 2019. It was the first meeting of the new ECC Chairman, Mr. Chris Woolford (UK) At the meeting, Mr. Woolford mentioned some of the excellent work of our WG NaN. He explained that he intends to build on the foundation already in place, but wants to increase the international dimension and influence of the ECC. As always, the WG NaN Progress report was presented to the ECC Plenary, and Ms. Greenberg gave an update on our work and activities.

Ms. Greenberg also attended the ECC Steering Group (ECC SG) meeting together with WG NaN Vice Chairman Mr. Vassil Krastev (Germany) which took place in advance of the ECC Plenary on 13-14 February 2019 at Ofcom’s headquarters in London, UK.

The 51st ECC Plenary meeting will take place on 2-5 July 2019, in Sofia, Bulgaria. There will not be another ECC Plenary in 2019, due to World Radio Conference (WRC), which takes place every four years, and this year will be held in Sharm el-Sheikh (Egypt) from 28 October to 18 November, 2019.

Mr. Vallesverd pointed out that our presence at the ECC Plenary is important. He thanked both the Vice Chairs for their efforts, representing WG NaN in an excellent way.

* 1. Outcomes of WG NaN Workshop on The Role of E.164 Numbers in International Fraud and Misuse of ECS - 11 December 2018

The WG NaN Chairman thanked Mr. McBridefor the great efforts in planning and executing the WG NaN Workshop on The Role of E.164 Numbers in International Fraud and Misuse of ECS.The workshop took place in Brussels, Belgium, at the BIPT premises on 11 December 2018. Around 90 people attended the workshop, and a lot of positive feedback was received.

Every country has the same problems with spoofing, wangiri, misappropriation of numbers etc. Both end users and operators are pointing to the regulators to find solutions, but many solutions are in the hands of the operators. There is a need for continued national and international focus on these topics.

Mr. Jan Vannieuwenhuyse (Belgium) emphasised that WG NaN has arranged a few workshops in recent years, all of them having been a big success in terms of participation, engagement and outcomes. We have used the outcomes in our deliverables, and it is great for our activity and contact with external stakeholders.

The Chairman highlighted that interaction with industry and market players is very important for the work of the WG NaN.

* 1. Review of ECC Decisions and Recommendations

**Review of ECC Decisions and Recommendations**

Review of our ECC Decisions and Recommendations is a standing agenda item for the WG NaN meetings. The document [NaN(2019-05)003](https://cept.org/Documents/wg-nan/51307/nan-2019-05-003_list-of-nan-related-ecc-deliverables) is an inventory of our deliverables, and lists the Decisions, Recommendations and Reports that WG NaN has responsibility for.

Our policy is to review deliverables that are older than 5 years. The deliverables highlighted in green in document [NaN(2019-05)005](https://cept.org/Documents/wg-nan/51308/nan-2019-05-005_review-of-ecc-dec-rec) require action at this meeting. Mr. McBride went through the list of deliverables up for review in 2019 and WG NaN agreed on the following:

* **ECC/REC/(14)03: “Charging Principles for National and International Freephone Numbers“** was put under review and assigned to NaN1 to carry out the review.
* **ECC/REC/(11)02: “Calling Line Identification and Originating Identification”** is currently under review by NaN2. NaN2 has developed a new draft Recommendation on this subject and it has recommended that, upon approval, this new Recommendation “Measures for increasing Trust in Calling Line Identification and Originating Identification“ will supersede ECC/REC/(11)02.
* **ECC/REC(05)09: “Customer Protection in Case of Misuse or Unauthorized Use of International E.164 Numbering”** is currently under review by NaN2. NaN2, following consideration of ECC/REC(05)09 at its last meeting, recommended to WG NaN to withdraw the Recommendation. The Recommendation contains principles that are useful, which will be taken into consideration in the work on CLI spoofing. The WG NaN agreed to withdraw the ECC Recommendation REC(05)09: “Customer Protection in Case of Misuse or Unauthorized Use of International E.164 Numbering”.
* **ECTRA/REC(98)03: “Harmonised National Numbering Conventions regarding ITU-T Recommendation E.164 numbers”**: will be reviewed by NaN1, taking into consideration the impact of the EECC.

The Chairman emphasised that the review is a good exercise and a reminder of all the great work that the working group and project teams are doing.

**Implementation status of WG NaN-related ECC Deliverables**

In April 2016 WG NaN looked at the status of implementation of NaN-related ECC Deliverables, and it was decided to do a review on a regular basis. At the WG NaN meeting in Sofia in November 2018 it was decided to review the status of implementation again.This is the second comprehensive review, which makes it possible to compare results.

The WG NaN Vice Chair Ms. Greenberg gave a presentation on the results of the questionnaire on the implementation status of NaN-related ECC Deliverables ([NaN(2019-05)006](https://cept.org/ecc/groups/ecc/wg-nan/client/meeting-documents/file-history/?fid=51288)). 20 countries responded to the questionnaire.

Ms. Greenberg went through the results of the questionnaire. There has been some movement on some of the deliverables when it comes to status of implementation. One conclusion to be drawn from the results of the questionnaire is that we should try to not make a Deliverable too complex, as it might be more difficult for administrations to fully implement the Deliverable. There are efforts made to implement the Deliverables, and it shows the effectiveness of the consensus-based working method.

There was a suggestion to make the information on implementation of our Deliverables publically available. A few participants expressed general support for transparency and publically availability of information on our work, but that there are aspects of the implementation status of Recommendations that advise against it. The meeting agreed not to make the status of implementation of Recommendations publicly available. It is possible to reconsider this at a later stage. The ECO informed the meeting that the ECO Documentation Database contains a facility to indicate the implementation status for ECC Decisions only.

The WG NaN Chairman thanked the members for replying to the questionnaire and emphasised that in general we are good at implementing our deliverables, but that we can always strive to improve.

* 1. Audit of WG NaN and PT membership

Mr. McBride introduced the document [INFO-4](https://cept.org/Documents/wg-nan/51305/info-4_wg-nan-and-pts-membership-may-2019) that contains the distribution lists of WG NaN and PTs. This is a standing item on the agenda, where the participants are asked to review the entries for their country on the list of members of WG NaN and to notify the ECO to remove or add people as appropriate.

* 1. Chairmanships

At the next ECC Plenary there will be an official announcement for candidatures for Chair of WG NaN, as Mr. Vallesverd and Ms. Hege Johnson (Norway) will have completed the maximum two terms as WG NaN Chairman and WG NaN Secretary, respectively. The appointment of the new WG NaN Chair will be at the ECC Plenary meeting in February/March 2020. The first WG NaN Plenary meeting of the new NaN Chair will be in Luxembourg in the spring of 2020.

Mr. Vassil Krastev will start a new role with the Body of European Regulators for Electronic Communications (BEREC) Office in Riga, Latvia from 1 July 2019, so the post for a WG NaN Vice Chair will become vacant. Mr. Krastev pointed out that the content of the role as Vice Chair depends on the interest and capacity of the person filling the role. He encouraged the participants to consider applying for a Vice Chairmanship, either for WG NaN or one of the PTs, as it is an opportunity to contribute and influence our work.

There are also other posts vacant:

This is the last WG NaN meeting of our NaN3 Chairman Mr. Daniel Voisard (Switzerland), so there will be a need for a new NaN3 Chair in September of 2019.

The NaN1 and NaN2 Vice Chair posts are also currently vacant.

The WG NaN Chairman thanked Mr. Voisard and Mr. Krastev for their great efforts in their positions.

Mr. Vallesverd strongly encouraged the WG NaN members to consider applying for the one of the vacant posts. It is an opportunity to take a closer look at the work we do, and it does not necessarily entail a lot of work. If needed, there is a possibility to have two Vice Chairs for one PT.

* 1. Newcomers workshop on Spectrum and Numbering

Mr. McBride informed the meeting about a workshop that will take place on 3 September 2019 at the ECO premises in Copenhagen, Denmark. This workshop is specifically designed for newcomers to the area of regulations for electronic communications, both working for national regulators and in the industry, as well as for those who would like to broaden their knowledge of modern regulation of spectrum management and numbering in Europe. Mr. McBride encouraged the WG NaN participants to attend and/or forward the information on the workshop to colleagues.

1. Reports/relation with other bodies

A vision for WG NaN is to be more visible in the European arena and to reach out to other bodies to explore cooperation. This is important in order to exchange views and information, to be relevant and to promote the work of WG NaN.

* 1. ITU-T

**5.1.1 ITU-T SG2**

The WG NaN Vice Chairman Mr. Krastev gave an update from the last ITU-T Study Group 2 (SG2) meeting, which took place at the ITU headquarters in Geneva, Switzerland on 19-28 February 2019. His report ([NaN(2019-05)013](https://cept.org/Documents/wg-nan/51309/nan-2019-05-013_report-from-itu-t-sg2-19-28-feb-2019)) summarises the items that are of particular interest to WG NaN and includes links to the relevant meeting reports. The documents for SG2 are only available for ITU-T members.

Mr. Francesco Bernabei (Italy) gave some information on the progress on the revision of ITU-T Recommendation E.118 (The international telecommunication charge card). At the last SG2 meeting there were a few contributions on the issue, with various proposals. A liaison statement was sent to GSMA with several questions. The work on the issue will be progressed at the next SG2 meeting.

The next meeting of ITU-T SG2 will take place in Geneva, Switzerland on 4-13 December 2019.

As Mr. Krastev will be joining the BEREC office from July 2019, Mr. Tamas Puss (Hungary) took on the task of arranging a web meeting for the WG NaN correspondence group before the next SG2 meeting.

Ms. Jie Zhang (ITU-T SG2 Adviser) informed the WG NaN members that there has been two e-meetings on the ITU-T Recommendations E.156 (Guidelines for ITU-T action on reported misuse of E.164 number resources) and E.157 (International calling party number delivery), which are currently under review. Another invitation for e-meetings on the two ITU-T recommendations has been sent out. Ms. Zhang invited the WG NaN participants to join the e-meetings, and will provide information to the group. Mr. Vallesverd pointed out that this might be an important step forward on this issue. Mr. Vallesverd also pointed out that the interaction with ITU is crucial when it comes to tackling global issues. We need a multi-stakeholder approach to the challenges misuse of numbers, and that the attendance of Ms. Zhang at the WG NaN meeting was highly appreciated.

**5.1.2 ITU-T SG20**

Mr. Krastev gave an update from the last ITU-T Study Group 20 (SG20) meeting, which took place at the ITU headquarters in Geneva, Switzerland on 9 – 18 February 2019. His report ([NaN(2019-05)014](https://cept.org/Documents/wg-nan/51310/nan-2019-05-014_report-from-itu-t-sg20-09-18-apr-2019)) summarises the items that are of particular interest to WG NaN and includes links to the relevant meeting reports. The overall report of SG20 has not been published yet.

SG20 deals mainly with IoT and its applications including smart cities and communities. The presentation contained in [NaN(2019-05)042](https://cept.org/Documents/wg-nan/51361/nan-2019-05-042_itu-t-sg20-presentation) gives an overview of SG20 and some of its work areas, including:

* IoT-Identifiers
* Intelligent Transport Systems (ITS)
* Emergency Response Systems
* Artificial Intelligence
* DOA & Counterfeit
* Blockchain
* Disaster notification
* Unmanned Aerial Vehicles (UAV)
* Smart City related WIs

The next meeting of ITU-T SG20 will take place in Geneva, Switzerland on 25 November – 6 December 2019.

* 1. ETSI
     1. **NTECH**

Ms. Donatella Chiara, the ETSI NTECH Liaison Officer to WG NaN, presented her report ([NaN(2019-05)015](https://cept.org/Documents/wg-nan/51207/nan-2019-05-015_report-from-ntech22-12-feb-2019)) to the meeting. The Technical Committee Network Technologies (TC NTECH) is responsible for the activities on Numbering, Naming, Addressing and Routing (NNAR). The last meeting of the committee was an online meeting that took place on 12 February 2019.

The Technical Report on "Options for Number Portability and Actual Use Cases", with Mr. Koji Isshiki (NTT) as editor, was approved on12 April 2019, and has been published.

It was agreed that after the publication of the Technical Report 103 282, NTECH will be placed in a dormant state. In this state, the committee will be able to become operational immediately, in particular if new European Commission mandates or new proposals for the opening of new work items arise. The correspondence list of NTECH is still active, and Ms. Chiara will continue to give updates from the work of WG NaN. Ms. Chiara also invited WG NaN and its members to propose topics for study in NTECH.

Ms. Chiara underlined that NTECH is important for the standardisation of requirements originating from European regulation, being the only European Standard Organisation with regulatory value for networks.

There was a discussion on the technical solution of STIR/SHAKEN, which is being implemented in the USA. The issue has been discussed in NaN2 and might be a relevant topic for ETSI to take on board as there are challenges on how to implement this solution in Europe.

* + 1. **EMTEL**

Mr. Daniel Voisard gave an update on the latest work of the ETSI Special Committee on Emergency Communications (SC EMTEL) ([NaN(2018-11)016](https://cept.org/Documents/wg-nan/51366/nan-2019-05-016_report-from-emtel44-29-30-jan-2019)), as the Chairman of the committee.

The last meeting of EMTEL took place on 29-30 January 2019, and included work on the following issues:

* Coordination of Emergency Telecom work with other bodies
* Use of mobile handset location for emergency calls – AML – publication of TS 103 625 expected in July 2019.
* Core elements for network independent access to emergency services – currently named Next Generation 112 architecture (NG112) – publication of TS 103 479 expected in July 2019.
* Interoperability testing of core elements for network independent access to emergency services (describing test cases and scenarios) – publication of TR 103 480 expected in November 2019.
* Emergency Communication Requirements for IoT – TR 103 582, approval of STF 555 final report and publication in June 2019.
* Conformance test specifications for NG112 – TR 103 650-1/2, approval of STF 549 final report, publication in May 2019.

The next meeting of EMTEL will held on 19-20 June 2019 in Budapest, Hungary.

* 1. Cooperation with BEREC on numbering-related PRDs

The WG NaN Chairman pointed out that the notion of number-dependency has a key role in the EECC. Numbering has become an important qualifier in the code. The EECC contains several provisions, which confers obligations on BEREC.

Mr. Francesco Bernabei (Italy) is convener of the work in BEREC on numbering-related issues, and he pointed out that the cooperation between BEREC and NaN1 is very useful. There are three Project Requirement Documents (PRDs) defined by BEREC concerning its numbering-related obligations arising from the EECC:

* Database of numbering resources with a right of extra-territorial use within the European Union
* Database of E.164 numbers of European emergency services, which is covered by the Directory of Public Safety Answering Point (PSAP-DIR), which is hosted by the ECO
* BEREC Guidelines on common criteria for the assessment of the ability of undertakings other than ECN or ECS to manage numbering resources and the risk of exhaustion of numbering resources

The numbering expertise is in WG NaN, and the same people are contributing in the processes in BEREC. A kick-off meeting of WG NaN cooperation with BEREC Regulatory Framework Expert Working Group (RF EWG) sub-group on numbering issues took place on 12th December 2018. BEREC has also had one back-to-back meeting with NaN1, in Dublin in April 2019, in addition to drafters meetings.

**Exchange of views on implementation of EECC**

Mr. Rakkolainen stated that there are several issues in the EECC that would be useful to discuss in a meeting, e.g. promotion of Over-The-Air provisioning. Most countries are in the beginning of the implementation phase, and there was a lot of support for arranging a one-day meeting to exchange views on these issues. The meeting agreed to arrange a one-day WG NaN workshop on the EECC. The WG NaN Chairman will send an email asking for specific issues and questions to discuss, as the basis for the meeting. The chairman will also propose a date and venue for the meeting.

* 1. Future of 116 and COCOM

Mr. Jukka Rakkolainen (Finland) informed the participants of the new developments on the EEA-harmonised numbering range 116 XYZ ([NaN(2019-05)033](https://cept.org/Documents/wg-nan/51209/nan-2019-05-033_116-project-lessons-learned-finland)).

The motivation for the initiative was to increase the utilisation of the EEA-harmonised numbering range, for example by returning part of the range to national administrations.

After discussions in WG NaN and the ECC Plenary, a letter regarding this numbering range was sent from the ECC Chairman to the Communications Committee (COCOM) on 2 March 2018, kindly asking COCOM to elaborate on its plans for the future development and use of this numbering range. The issue was discussed at the COCOM meeting on 25 September 2018. The Finnish representative Mr. Martin Anderson gave information on the background and presented the letter at the COCOM meeting, and there was positive feedback from the participants.

At the WG NaN meeting in Sofia, Bulgaria in November 2018 the participants were reminded to brief their national COCOM representatives on the matter.

The European Commission (EC) sent out a questionnaire on implementation of the reserved 116-numbers, including an annex with questions on any usage of 116-numbers for purposes other than harmonised services of social value. As there were not many responses to the questionnaire on 116 usage ([NaN(2019-05)017](https://cept.org/Documents/wg-nan/51208/nan-2019-05-017_annex-ii-to-the-116-report-for-2018)), it was concluded at the COCOM meeting on 19 February 2019 that there was not sufficient support to make any changes to the 116 number range.

Mr. Rakkolainen emphasised a few lessons learned:

* Plans which involve several international bodies will take a long time and require patience and commitment.
* It is difficult to change a decision of the EC, if there is no clear majority of Member States behind a proposal.
* It is not enough to show support in WG NaN meetings. In this case, it was important for WG NaN representatives to approach and persuade the COCOM representatives. The result was a lack of support in the COCOM meetings.

Mr. Vallesverd thanked Finland for the initiative and the effort to increase the utilisation of the 116-range. The meeting agreed that the WG NaN Chairman discuss the matter with the ECC Chairman on seeking a response from the EC to the letter of March 2018.

* 1. Report from EENA Conference

Mr. Freddie McBride gave an update from the European Emergency Number Association (EENA) Conference that took place 10-12 April 2019 in Dubrovnik, Croatia.

The EENA Conference was attended by nearly 900 people, and the conference included a wide range of topics related to Emergency Communication, such as artificial intelligence, drones, General Data Protection Regulation (GDPR), cybersecurity and Advanced Mobile Location (AML).

AML is operational in many countries throughout the world. Apple now support AML in the latest version of their operating system, which means that over 98 % of the smart phones now sold throughout the world have AML-capability. The WG NaN Chairman expressed pride in the role WG NaN has played in this important work, especially through NaN3.

* 1. Report from COM-ITU

Com-ITU is responsible for co-ordinating CEPT actions for the preparation for and during the course of the ITU activities of ITU Council, Plenipotentiary Conferences, WTSA and other meetings. The last Com-ITU meeting took place in Rome on 7-9 May 2019. Mr. McBride gave an update from the meeting.

Com-ITU has started preparations ([NaN(2019-05)037](https://cept.org/Documents/wg-nan/51313/nan-2019-05-037_outline-of-draft-brief-for-wtsa-20)) for World Telecommunication Standardisation Assembly (WTSA) that will take place in the last quarter of 2020. The venue and dates for the conference are yet to be confirmed. Mr. McBride provided a summary of the discussions at the last Com-ITU meeting where coordinators have been assigned to the various topic clusters. There is no coordinator for the numbering topic cluster yet.

1. Decisions/Recommendations/Reports
   1. Draft ECC Report 300 – A country-by-country analysis on defining PSAP-side statistics to quantify the effectiveness of emergency caller location information received for mobile calls– for final adoption

The NaN3 Vice Chair Ms. Veronica Huzuneanu (Romania) introduced the draft ECC Report 300 ([NaN(2019-05)018](https://cept.org/ecc/groups/ecc/wg-nan/client/meeting-documents/file-history/?fid=51192)). The draft Report considers how and why collecting and reviewing statistical data regarding the accuracy and reliability of location information received by the emergency services can be an important part of continually improving the quality of the caller location information received. The draft Report is based on a questionnaire, to which there were 16 responses from 15 countries.

There were no responses to the public consultation.

Mr. Vallesverd asked the meeting for approval of the draft Report, but giving a one-week deadline for countries to give updates for country-specific information. The meeting agreed to this.

The meeting adopted by consensus the ECC Report 300. Germany abstained.

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| WG NaN adopted by consensus the draft ECC Report 300 – A country-by-country analysis on defining PSAP-side statistics to quantify the effectiveness of emergency caller location information received for mobile calls |

* 1. Draft ECC Report 301 – Provision of caller location information from private/corporate networks – for final adoption

The NaN3 Chairman Mr. Daniel Voisard introduced the draft ECC Report 301 ([NaN(2019-05)019](https://cept.org/Documents/wg-nan/51193/nan-2019-05-019_draft-ecc-report-301-for-final-adoption)). The draft Report mainly focuses on emergency caller location information from private/corporate networks but also explores the issue of access to public emergency numbers including the pan-European emergency number, 112. The Report aims to raise awareness of these important issues.

There was one response to the public consultation, from ETNO ([NaN(2019-05)020](https://cept.org/Documents/wg-nan/51194/nan-2019-05-020_etno-pc-response-to-draft-ecc-report-301)).

The meeting adopted by unanimity the draft ECC Report 301.

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| WG NaN adopted by unanimity the ECC Report 301 – Provision of caller location information from private/corporate networks |

* 1. Draft ECC Recommendation (19)xx – Measures for increasing Trust in Calling Line Identification and Originating Identification – for public consultation

The NaN2 Chairman Mr. João Feijó Silva (Portugal) introduced the draft ECC Recommendation ([NaN(2019-05)021](https://cept.org/ecc/groups/ecc/wg-nan/client/meeting-documents/file-history/?fid=51195)).

The Project Team took on the task of revising the ECC Recommendation (11)02 Calling Line Identification and Originating Identification. The NaN2 Chairman explained that the suggestion from NaN2 is to create a new ECC Recommendation on Measures for increasing Trust in Calling Line Identification and Originating Identification that would supersede ECC Recommendation (11)02.

The meeting went through the new draft Recommendation section by section and some changes were made.

The meeting approved by unanimity the draft ECC Recommendation for public consultation.

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| WG NaN approved by unanimity the draft revised ECC Recommendation (19)xx Measures for increasing Trust in Calling Line Identification and Originating Identification – for public consultation |

The Chairman thanked the PT Chairmen, Vice Chairs and the participants of the PTs for their work on the draft deliverables, and the participants of the WG NaN for their contributions and great work.

1. NaN3 - Emergency Communications

The NaN3 Chairman Daniel Voisard presented the latest work of the NaN3 ([NaN(2019-05)024](https://cept.org/Documents/wg-nan/51367/nan-2019-05-024_pt-es-work-programme-report)). NaN3 has had one meeting since the last WG NaN meeting; in Edinburgh, United Kingdom on 5-6 February 2019 (meeting report: [NaN(2019-05)023](https://cept.org/Documents/wg-nan/51197/nan-2019-05-023_pt-es-meeting-report-edinburgh-5-6-february-2019)).

**Activities on current work items:**

* ECC Report 301: Provision of caller location information from private networks.
* ECC Report 300: A country-by-country analysis on defining PSAP-side statistics to quantify the effectiveness of emergency caller location information received for mobile calls
* Public Warning Systems (PWS)

**Potential future work**

* eCall callback
* The EECC may result in new WIs

**About Public Warning Systems**

A work item on Public Warning Systems was approved at the last meeting of WG NaN. BEREC is doing work in this area due to the EECC. The future direction of the work on PWS in NaN3 will be discussed at their next meeting.

**Potential new work item: eCall callback**

Tests have shown that there are many problems with callback for eCall. There is a need for more information on this topic, and to find out why this is a problem. The issue will be discussed at the next meeting of NaN3.

Orange has organised a +882 number for testing and a WG NaN questionnaire was circulated to PSAPs on this matter. PSAPs are instructed to call the test number and report on the result. So far, 16 out of 21 respondents were unable to make a call to the test number. The deadline for the questionnaire is 31 May 2019. The ECO informed the meeting that the deadline can be extended if necessary.

Ms. Jie Zhang suggested that WG NaN contact ITU-T SG2 on the issue, as international numbering resources are used for eCall. Mr. McBride informed the meeting that there has been contact between WG NaN and the rapporteur of Question 1 of ITU-T SG2, Mr. Philippe Fouquart, from the operator Orange. Mr Fouquart will probably give a presentation on the issue and the findings at the next SG2 meeting in December 2019.

There is a proposal from the Netherlands to send a letter to the EC about eCall callback functionality. WG NaN discussed the draft letter and potential other options. The meeting agreed to send a draft letter to be discussed at the ECC SG and ECC Plenary, and left it up to NaN3 to draft the letter. The draft will then be circulated to the WG NaN mailing list for comment within one week before being sent to the ECC SG.

1. NaN1 - Future of Numbering Issues

The NaN1 Chairman Mr. Francesco Bernabei presented the latest activities of the PT*.* NaN1 has had two meetings since the last WG NaN meeting: Edinburgh, UK (meeting report: [NaN(2019-05)025](https://cept.org/Documents/wg-nan/51198/nan-2019-05-025_pt-fni-meeting-report-edinburgh-29-30-january-2019)) and Dublin, Ireland (meeting report: [NaN(2019-05)026](https://cept.org/Documents/wg-nan/51199/nan-2019-05-026_pt-fni-meeting-report-dublin-2-3-may-2019)).

**Activities for NaN1:**

* Draft ECC Report – Distribution and implementation of E.164 number
* The work on increased transparency on the extra-territorial use of numbers for M2M numbers was suspended
* BEREC numbering-related PRDs

**Possible future work:**

* Best practice in management of numbering resources
* Numbering in 5G networks
* OTT bypass
* Use of global IMSIs for bootstrap-provisioning profiles

1. NaN4 - Networks and Services Technical Regulatory Issues

The NaN4 Chairman Mr. Virgilijus Stundzia (Lithuania) informed WG NaN of the recent work done in NaN4, which has had one meeting since the last WG NaN meeting; at ECO in Copenhagen, Denmark (meeting report: [NaN(2019-05)028](https://cept.org/Documents/wg-nan/51410/nan-2019-05-028_pt-tris-meeting-report-eco-29-30-april-2019)).

**Major issues:**

* Quality of mobile internet access services
* Draft ECC Report on sharing of ducts

**4G/LTE throughput**

Mr. Stundzia gave a presentation on 4G/LTE throughput in Lithuania ([NaN(2019-05)044](https://cept.org/Documents/wg-nan/51377/nan-2019-05-044_lte-throughput)). He emphasised that the focus should not only be on mobile coverage as expected speed is very useful information for the end users. The presentation included results of national calculations of throughput (network load), which Lithuania is one of the first countries to do.

The NaN4 Chairman encouraged WG NaN members to check if there are similar processes planned in their country. This information would be useful for the work on the report.

1. NaN2 - Number Portability, Switching and Trust in Numbering

The NaN2 Chairman Mr. Silva informed the meeting of the latest activities of NaN2 ([NaN(2019-05)032).](https://cept.org/Documents/wg-nan/51321/nan-2019-05-032_pt-nps-work-programme-report) NaN2 has had two meetings since the last WG NaN meeting; at ECO in Copenhagen, Denmark ([NaN(2019-05)030](https://cept.org/Documents/wg-nan/51200/nan-2019-05-030_pt-nps-meeting-report-eco-copenhagen-12-13-february-2019)) and Lillesand, Norway (meeting report: [NaN(2019-05)031](https://cept.org/Documents/wg-nan/51409/nan-2019-05-031_pt-nps-meeting-report-lillesand-2-3-may-2019)).

**Issues discussed and work items:**

* The ToR for NaN2.
* Review the Recommendation on Calling Line Identification (CLI) and Origination Identification (OI).
* Preparation of the skeleton of the ECC Report Routing and number portability in an all-IP environment.
* Preparation of the skeleton of the ECC Report on CLI Spoofing.
* Discussion of the WI related to the CEPT process for call blocking and withholding payments in cases of cross-border fraud and misuse.
* Analysis and discussion related to the status of ECC REC (05)09 - Customer Protection in Case of Misuse or Unauthorized Use of International E.164 Numbering Resources.
* Review of the first draft of ECC Report Routing and number portability in an all-IP environment.

**Possible future topics:**

* Refunding prepaid credit after number portability
* Porting of non-active numbers
* OTA in P2P environment
* Handling of numbers and number portability in cases of Operator Bankruptcy
* Switching of Internet access services – efficiency and simplicity of the switching process for the end user

1. Topics in Japan

**Several use cases of number portability towards all-IP**

Mr. Koji Isshiki presented document [NaN(2019-05)034](https://cept.org/Documents/wg-nan/51311/nan-2019-05-034_several-use-cases-of-number-portability-toward-all-ip-ntt), which gives information on nine use cases of estimated number portability solutions towards all-IP in seven countries. The information was collected in cooperation with NP experts from each county.

There are several options, but one needs to take into consideration investments already made in the current number portability solution when discussing future developments.

The NaN2 Chairman invited Mr. Isshiki to the next NaN2 meeting to present the findings of his research.

**Numbering discussions in Japan in 2018**

Mr. Isshiki presented topics under discussion in Japan in 2018 ([NaN(2019-05)035](https://cept.org/Documents/wg-nan/51312/nan-2019-05-035_numbering-in-japan-ntt)):

* Carrier selection code
* Numbering assignment and usage fee
* Preventing CLI spoofing

The presentation included information on the situation in seven countries on these issues, in addition to information on a survey carried out by the ITU in 2004 on numbering fees.

The main problem with CLI spoofing is international traffic, and there is a need for awareness and global solutions.

1. Discussion session on relevant topics

Prior to the WG NaN meeting, the Chairman invited the members to send him questions for a discussion session on relevant topics. He received five contributions for topics to discuss ([NaN(2019-05)038](https://cept.org/ecc/groups/ecc/wg-nan/client/meeting-documents/file-history/?fid=51316)).

**Topic 1: End user registration and SIM-swap**

The increased importance of numbers in multiple services highlights the need to investigate current end user registration practices and rules. An emerging type of fraud known as «SIM Swap» (sometimes also called mobile hijacking, porting fraud etc.) was discussed. SIM Swap fraud is the unauthorised movement of a mobile number to a new SIM card requested by a fraudster (substitution of SIM requested by a fraudster e.g. declaring that the SIM is damaged/lost). The essence in this fraud is that the incorrect end-user gets control over the correct end users number.

Some countries have experiences with SIM Swap. When the fraudster is in control of the mobile number, there have been cases where the fraudster gets access to bank details and empties the victim’s bank account.

There was a tour de table on end user registration. There are many countries where anonymous SIM-cards are not allowed, but also quite a few countries where registration is not required to obtain a prepaid SIM-card. There are a wide range of solutions on how to deal with registration of end users, e.g. self-regulation by the industry, guidelines and detailed regulation on the matter. A few countries require electronic identification in the registration process. The general notion captured in the discussions was that there will probably be increased focus on end user registration in the future, due to the increased importance of numbers.

**Topic 2: Combatting spoofing**

Most countries have experienced spoofed calls, i.e. calls with illegitimately manipulated A-number, and especially the “Microsoft-scam/fake IT-support-scam”. There was a discussion on spoofing and current practices and regulations to address and combat spoofing. Some countries have taken actions to try to combat, or at least limit, CLI spoofing, such as call trace back, black listing / blocking of numbers, online database for reporting of incidents and international traffic analysis. One country is in the process of defining what types of manipulation of CLI should be allowed. Several countries pointed to the encouragement and facilitation of cooperation and exchange of information between operators as a key to combatting CLI spoofing

**Topic 3: Number range for extra-territorial use**

According to the EECC article 93, section 4 number ranges are to be made available for the provision of electronic communications services other than interpersonal communications services, throughout the territory of the EU.

Quite a few countries have already allocated a range of non-geographic numbers for this purpose. In most countries, this range can also be used for eCall. It was pointed out that there are interesting aspects of this article to be discussed at the one-day WG NaN workshop on the EECC.

**Topic 4: termination of international traffic**

One country received a complaint about termination of international traffic. One operator informed the NRA that one of its partners (OTT platform, which offers IP telephone services as well) filed a complaint concerning calls from an Asian country via the OTT platform were terminated via the operator’s network to a universal access number of another local operator, and there was a recorded message. Both operators removed the numbers from their systems.

There was a short discussion on the topic, as no other country had experienced the same issue.

**Topic 5: Caller location information for nomadic services**

Caller location information for nomadic services is challenging. Some countries have a specific numbering range for nomadic services, while others allow nomadic use of geographic numbers. For geographic numbers that cannot be used nomadically, there is an address which gives caller location information to the PSAP, but for numbers used nomadically this is not as easy.

Generally, there is access to 112 for nomadic numbers or numbers allowed for nomadic use. In some countries, the registered address is sent and a flag informing the PSAP that it is a potential nomadic service on the number.

1. Questionnaires

**Denmark Questionnaire: Lock-in effects in a M2M-scenario**

Mr. Lars Bendtsen presented the results ([NaN(2019-05)046](https://cept.org/Documents/wg-nan/51390/nan-2019-05-046_dk-questionnaire-on-lock-in-effects-in-a-m2m-scenario)) of the Danish questionnaire, which was responded to by 20 countries.

Only the Netherlands have received complaints about lock-in effects in a M2M-scenario.

**Portugal Questionnaire: The use of mobile numbers at fixed access (e.g. primary rate interface)**

Mr. Silva presented the results of the Portuguese questionnaire on the use of mobile numbers at fixed access ([NaN(2019-05)041](https://cept.org/ecc/groups/ecc/wg-nan/client/meeting-documents/file-history/?fid=51332)). 17 countries responded to the questionnaire.

**Belgium Questionnaire: Sub-assignment of E.212 numbering resources**

Mr. Vannieuwenhuyse presented a summary of the responses on sub-assignment of E.212 numbering resources, an issue with many aspects. The questionnaire was based on a concrete question from an operator who wants to sub-assign an IMSI-range to another operator in a different country.

1. Update on PSAP Directory

Mr. Freddie McBride gave an update on the PSAP-DIR. At the last WG NaN meeting there was a demonstration of the directory, which was helpful to understand the functioning of the PSAP-DIR. So far, 18 countries are participating in the database, and Mr. McBride is in contact with countries that intend to join the directory.

The process for participating in the PSAP-DIR is as follows:

1. An administrative letter, nominating a primary PSAP, is sent to the ECO from the relevant ministry.
2. The PSAP and the ECO sign a participation agreement recognising the rights and obligations of both parties.
3. The ECO sets up user accounts.
4. The PSAP populates the PSAP-DIR with their own contact information.

There might be a need for a steering group for the PSAP-DIR at a later stage, with representation from the PSAPs. There has been interest in participation in the directory from outside Europe, and the PSAPs should be deciding who can join the PSAP-DIR.

The WG NaN Chairman strongly encouraged countries not participating to join the PSAP-DIR, and he pointed out that any questions about the PSAP-DIR can be sent to Mr. McBride.

1. AOB

**Invitation to Numbering Workshop in Japan**

There is a need for international cooperation with other regions of the world, also on numbering and networks issues. The WG NaN Chairman pointed to the good relationship with Japan, due to participation and contributions of Mr. Koji Isshiki (NTT Japan) in WG NaN and his many visits to NRAs in Europe over several years.

Mr. Isshiki introduced the invitation ([NaN(2019-05)039](https://cept.org/Documents/wg-nan/51317/nan-2019-05-039_invitation-to-numbering-workshop-in-japan)). There is an opportunity to join a workshop in Japan organised by the Telecommunication Technology Committee (i.e. ETSI’s equivalent in Japan). The main topics include numbering for M2M/IoT, number portability, numbering plan management, extra-territorial use of numbers and CLI spoofing. Industry, government, standards body and academia in Japan will be present at the workshop, and it will be a great opportunity to exchange views on relevant topics. There is a strong interest in the work of WG NaN, and our deliverables related to the topics of the fraud workshop will be presented. The Chairman thanked Mr. Isshiki for the efforts in arranging this workshop.

There are a few WG NaN members who would be very interested in attending such a meeting as part of a CEPT/ECC delegation. Mr. Vallesverd encouraged WG NaN members to participate, as the sharing of insights and information would be very useful to all concerned. The invitation will be discussed with the ECC chairman before participation is confirmed.

**LS from ITU-D SG 2 on counterfeit equipment and mobile theft**

Mr. McBride introduced the liaison statement ([NaN(2019-05)036](https://cept.org/Documents/wg-nan/51212/nan-2019-05-036_ls-from-itu-d-sg2-on-counterfeit-equipment-and-mobile-theft)). ITU-D Study Group 2 Question 4/2 deals with assistance to developing countries for implementing conformance and interoperability (C&I) programmes and combating counterfeit ICT equipment and theft of mobile devices. The liaison statement gives information on their work and includes an invitation to CEPT for contributions on related topics.

There was a brief discussion in the WG NaN meeting on the liaison statement. Mr. McBride will send a response to ITU-D SG2, thanking them for the information.

1. Next meetings

An overview of the next meetings can be found in document number [NaN(2019-05)040](https://cept.org/ecc/groups/ecc/wg-nan/client/meeting-documents/file-history/?fid=51319). Please note that the dates and venues might be subject to changes.

**Meetings of WG NaN and PTs**

**WG NaN meetings**

19th WG NaN Copenhagen, Denmark 19-21 November 2019 (confirmed)

20th WG NaN Luxembourg 26-28 May 2020 (to be confirmed)

21st WG NaN Cyprus Autumn 2020 (to be confirmed)

22th WG NaN Germany Spring 2021 (to be confirmed)

23st WG NaN Croatia Autumn 2021 (to be confirmed)

**PT FNI meetings**

42th NaN1 Moscow, Russian Federation 4-5 June 2019 (confirmed)

43th NaN1 Budapest, Hungary 8-9 October 2019 (confirmed)

**PT NPS meetings**

26th NaN2 Biel/Bienne, Switzerland 22-23 October 2019 (confirmed)

27th NaN2 Lisbon, Portugal February 2020 (to be confirmed)

**PT ES meetings**

22st NaN3 ECO, Copenhagen, Denmark 28-29 May 2019 (confirmed)

23st NaN3 Bucharest, Romania 24-25 September 2019 (confirmed)

**PT TRIS meeting**

20th NaN4 ECO, Copenhagen 17-18 September 2019 (confirmed)

**TTC – WG NaN joint workshop**

Joint workshop Tokyo, Japan 10-11 September 2019 (to be confirmed)

**Workshop on EECC**

One-day-meeting Rome, Italy 20 September 2019 (date and venue to be confirmed)

**Other groups’ meetings – for information**

**ECC Plenary meetings**

51th meeting Sofia, Bulgaria 2-5 July 2019 (confirmed)

**ECC Steering Group meeting**

51th ECC SG Brussels, Belgium 17-18 June 2019 (confirmed)

**ITU-T SG2 meeting**

SG2 meeting Geneva, Switzerland 4-13 December 2019 (confirmed)

**ETSI SC EMTEL (Special Committee on Emergency Communications) meeting**

EMTEL#45 Budapest, Hungary 19-20 June 2019 (to be confirmed)

EMTEL#46 Vienna, Austria 17-18 October 2019 (to be confirmed)

**EENA**

EENA Conference 2020 Riga, Latvia 1-3 April 2020 (confirmed)

EENA Members Workshop Brussels, Belgium 16-18 November 2020 (confirmed)

The Chairman thanked the PT Chairs and Vice Chairs and participants of the PTs for the work in preparing for this meeting, and furthermore, the WG NaN participants for active involvement in the meeting. He encouraged the participants to continue to contribute.

The WG NaN Chairman thanked AKOS for the successful arrangement of this meeting and wished all the participants a safe trip home.