TUEvents

TU Regional Cybersecurity Forum for Europe and CIS

27-28 February 2020 Sofia, Bulgaria

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TU Regional Initiative for Europe on enhancing trust and confidence in the use of ICTs

TU Regional Initiative for CIS on the development and regulation of infocommunication infrastructure to make cities and human settlements inclusive, safe, and resilient

POLICIES & STRATEGIES

CERTIFICATION FRAMEWORKS

DATA PROTECTION

SECURITY CHALLENGES

5G, eSIM IoT, AI









State e-Government Agency



REPUBLIC OF BULGARIA Ministry of Transport, Information Technology and Communications



5G European approach and habitat concerning cybersecurity

- The European framework background
- BEREC Internal Survey
- BEREC Internal Workshop
- Toolbox
- Way forward for BEREC





5G European approach and habitat concerning cybersecurity

12 March 2019 – Joint communication between EU and China:

Chapter IV:

The Commission will adopt a recommendation following the European Council for a common EU approach to security risks to 5G networks, building on a coordinated EU risk assessment and risk-management measures, an effective cooperation and exchange of information framework, and joint EU situational awareness covering critical communication networks.

- 26 March 2019- COM(2019)2335 —Commission Recommendation on Cybersecurity of 5G networks Request for coordinated actions at national level and at union level —BEREC explicitly mentioned
- 30 April 2019 –BEREC ad hoc WG

Terms of Reference ("ToR") for a new ad hoc group (Ad hoc Cybersecurity of 5G Networks working group ("Ad hoc C5GN WG")

• 7 June 2019- the EU Cybersecurity Act was published and came into force on June the 27th 2019





Actions arising from COM(2019)2335-leading actors











National Risk Assessments on 5G Networks

15/07/2019

Risk Matrix

Likelihood		Very Likely	Likely	Unlikely	Highly Unlikely
Consequences	Fatality	High	High	High	Medium
	Major Injuries	High	High	Medium	Medium
	Minor Injuries	High	Medium	Medium	Low
	Negligible Injuries	Medium	Medium	Low	Low

Union Risk Assessment on 5G Networks

9/10/2019

https://ec.europa.eu/commission/presscorner/detail/en/IP_19_6049

Common Union toolbox to address the risks 29/1/2020

https://ec.europa.eu/digital-single-market/en/news/cybersecurity-5g-networks-eu-toolbox-risk-mitigating-measures



Internal Survey/ Internal Stakeholder Workshop





BEREC Internal survey description

Part 1: Aimed to map the national state of play for security requirements in the 3G, 4G and 5G networks. It also touches the plans of the Member states about the possible future legislation changes about the network security requirements. Interested in special present and future plans about the network security requirements for the spectrum assignment.

Part 2: Operators' survey included questions for the 3G, 4G and 5G network operators in each country. BEREC would like to gain insights from the operators about the footprint and market shares of equipment suppliers as well as their views on future/possible 5G regulation.





BEREC Internal Workshop @27 of November 2019

Participants: DG Connect / ENISA / ECTA / ETNO / GSMA / GSA

Fast takeaways:

Collective efforts are necessary by all participants

5G infrastructure lifecycle must be examined in a sequence: standardization body > vendor> operator

Proposals for the toolbox:

- Validation /assurance process or schemes –e.g. NESAs can be useful. Focus not only on certification level (validation, assurance, etc.)
- Integrated vision applicable to all of 5G is necessary (eg mobile edge computing has to be addressed also)
- Best practice repository could be useful
- Threat information sharing and distribution mechanism(s) necessary





Timeline

Timeline



















12 March 2019

Report by the European Parliament.

22 March 2019

Conclusions by the European Council.

26 March 2019

The Commission published a Recommendation for Member States to take concrete actions to assess cybersecurity risks of 5G networks and to strengthen risk mitigation measures.

9 October 2019

The Member States finalised the EU coordinated risk assessment of 5G networks security.

21 November 2019

ENISA. the EU Agency for Cybersecurity published an extensive report on threats relating to 5G networks.

29 January 2020

Publication of the toolbox of mitigation measures by Member States. The Commission Communication on the implementation of the EU toolbox.

30 April 2020

The Commission The Commission calls on Member States to take first concrete. measurable steps to implement key Member States. measures.

30 June 2020

calls on Member States to prepare a report on implementation of key measures by

By October 2020

Review of the Commission Recommendation adopted 26 March 2019

Body of European Regulators for Electronic Communications





Toolbox-brief description

EU Toolbox for 5G Security

Based on the EU coordinated risk assessment of 5G networks security, the toolbox lays out a range of security measures, which allows to mitigate risks effectively and ensure secure 5G networks are deployed across Europe. It sets out detailed **mitigation plans** for each of the identified risks and recommends a set of **key strategic and technical measures**, which should be taken by all Member States and/or by the Commission.



STRATEGIC MEASURES

- Regulatory powers
- Third party suppliers
- Diversification of suppliers
- Sustainability and diversity of 5G supply and value chain



TECHNICAL MEASURES

- Network security baseline measures
- Network security 5G specific measures
- Requirements related to suppliers' processes and equipment
- · Resilience and continuity





Toolbox key measures

EU Toolbox conclusions: key measures

Member States: they should have measures in place and powers to mitigate risks. In particular they should address these aspects:

- strengthen security requirements for mobile network operators;
- assess the risk profile of suppliers; apply relevant restrictions for suppliers considered as high risk, including necessary exclusions for key assets;
- ensure that each operator has an appropriate multi-vendor strategy to avoid or limit any major dependency on a single supplier and avoid dependency on suppliers considered to be high risk.

The **European Commission** together with Member States should take measure to:

- maintain a diverse and sustainable 5G supply chain in order to avoid long-term dependency, including by:
 - making full use of the existing EU tools and instruments (FDI screening, Trade defense instruments, competition);
 - further strengthening EU capacities in the 5G and post-5G technologies, by using relevant EU programmes and funding;
- facilitate coordination between Member States regarding standardisation to achieve specific security objectives and developing relevant EU-wide certification schemes.

In addition, the mandate of the **NIS Cooperation Group Work Stream** should be extended to support, monitor and evaluate the implementation of the toolbox.





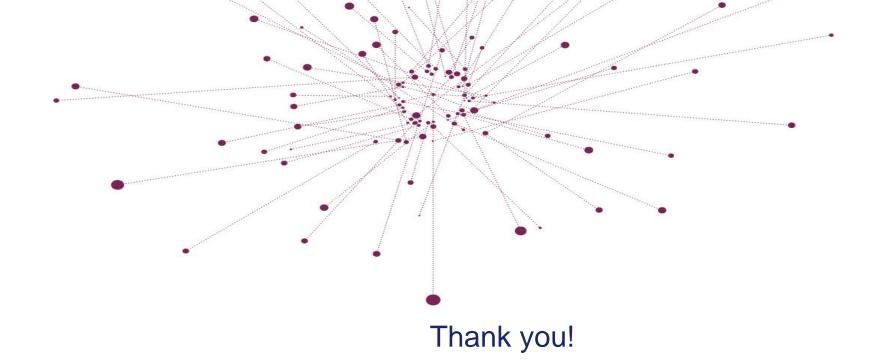
Way forward for BEREC

 ENISA-BEREC Joint Workshop end of March 2020

 Specific strategic measures under evaluation by BEREC adhoc 5G Cybersecurity WG







Body of European Regulators for Electronic Communications

