FSFE's position to the "EETT Public Consultation regarding the regulation for the determination of the Point Termination Network (NTP) for the provision of fixed service"

June 2022

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Introduction

The Free Software Foundation Europe (FSFE) acknowledges the professionalism and transparency on how EETT has been conducting the evaluation of new legislation concerning end-users' rights and free choice of terminal equipment, allowing the involvement of a broad spectrum of stakeholders in the regulatory process.

We thank EETT for the comprehensive feedback provided for the public consultation regarding the determination of the Network Termination Point (NTP). Since 2001, the FSFE has been working to protect and enhance end-users' freedoms and gathered considerable experience in regulatory and legislative processes regarding free choice of terminal equipment all over Europe. We are glad to continue collaborate with the Greek regulator providing our expertise.

The EETT report on the consultation of the NTP demonstrated that **the alliance coordinated by the FSFE** represented the majority of organisations (6 of 10) responding to the public consultation. These organisations represent diverse sectors, including manufacturer representatives, digital rights groups and consumer protection authorities. The alliance celebrates EETT's conclusion of setting the NTP at passive point (Point A of BEREC Guidelines of the NTP), allowing end-users to freely choose and user their own internet terminal equipment.

However, as we further elaborate in this document, the FSFE raises concerns on the draft regulation by implementing exceptions to fiber networks (FTTH) in the following terms:

- We strongly support the designation of Network Termination Point at the passive physical point at which access to the public fixed electronic communications network is provided to the end-user. This definition should encompass all fixed network topologies, including fiber networks (FTTH).

- We urge EETT to exclude the exception for fiber networks topology (FTTH), reconsidering the NTP for fiber topologies in the same passive point of other type of connections (Point A of BEREC Guidelines of the NTP).

- Backed up by empirical data, we demonstrate that defining the NTP at the passive point represents the best and only future-proof regulatory solution that

achieves the striking balance between consumer protection, fair competition of terminal equipment markets, privacy and security, as well as sustainability of the telecom sector.

The FSFE urges EETT to safeguard the legitimate rights of Greek end-users and fostering fairness, competition and sustainability of the telecom sector by implementing future-proof regulation that includes fiber networks (FTTH) on the specification of the Network Termination Point at the passive physical point (NTP at Point A).

Specifying the NTP on fiber networks

The FSFE welcomes EETT's efforts to consolidate the regulatory definition of the NTP for fixed networks in Greece, including explicit provision for fiber networks. This step represents a benefit for end-users, by clearly defining the boundaries of private and public networks – which have direct impact on the provision of internet services. Nevertheless, we encourage EETT to define the position of the NTP in full compliance with European telecommunication and network neutrality legislation. It is paramount to guarantee the legitimate rights of end-users in the regulatory framework, fostering a future-proof solution that will enable the striking balance between consumer protection and a competitive and sustainable telecom sector in Greece.

End-user experience survey and fiber

The deployment of new generation networks is a complex topic and we are satisfied that EETT is involving civil society in the regulatory process. In order to enlighten the debate with empirical data, the FSFE has launched in 2020 the Router Freedom survey to collect information on end-user experience in relation to terminal equipment, specifically to:

- Collect data on usage of terminal equipment and related problems with ISPs.
- Gather information on security issues regarding various types of networks, including FTTH.
- Identify ISPs' contentious practices (commercial and technical) in relation to terminal equipment.
- Inquire public opinion on principles of free choice of terminal equipment, in particular security, privacy, fair competition and sustainability.

By May 2022, the survey has gathered 1462 responses from end-users all over Europe. From the 1036 participants who informed their country of residence, 22 are from Greece, as displayed in Figure 1.
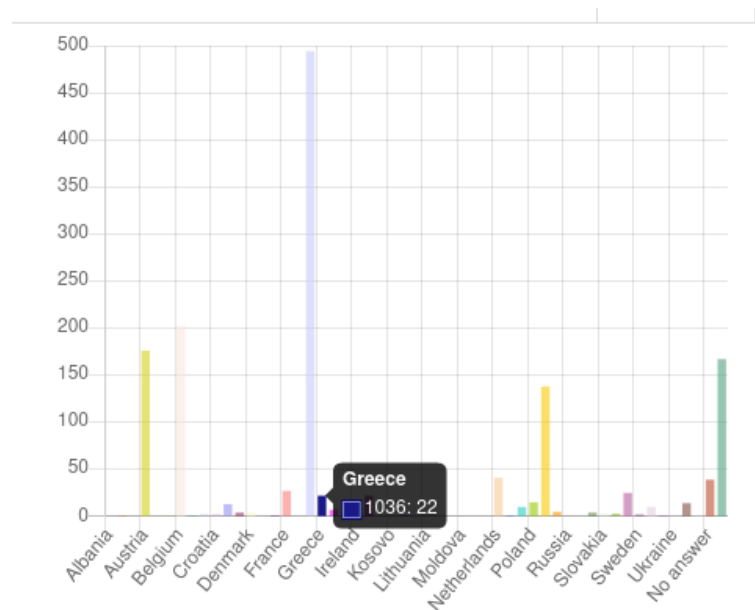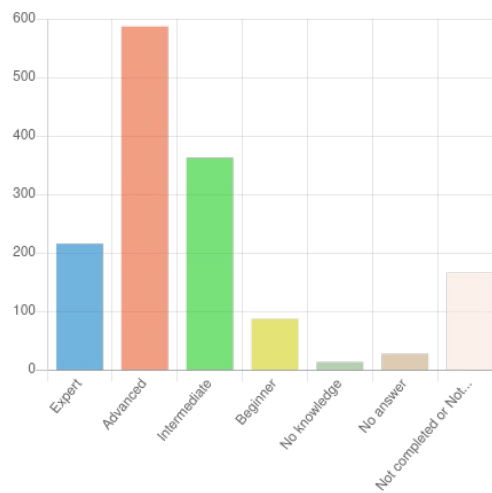

Figure 1: Participants overview on the Router Freedom survey

The majority of participants of the survey see themselves having advanced knowledge in topics concerning IT security, configuration of routers and modems, internet technologies and networks (Figure 2).

Figure 2: Level of IT security knowledge of the participants.

Fiber connections are the third most used connection type (column "other" in the first chart), lagging behind DSL and coaxial. The majority of the respondents use their own terminal equipment (Figure 3), which demonstrates the direct interest of the participants in the survey.
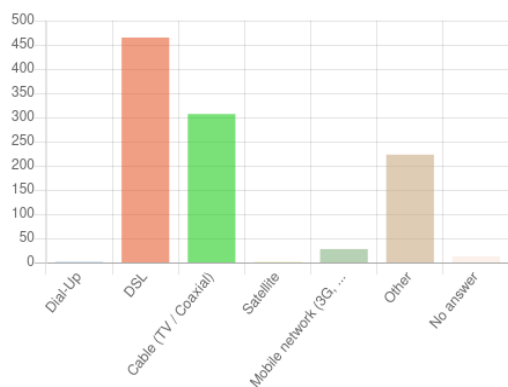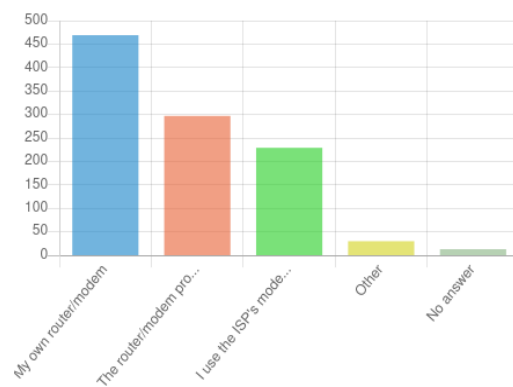
Figure 3: Types of connection and usage of private equipment.

Participants have related the overall experience with fiber (FTTH) setups and described a series of problems encountered in the provision of services. The responses report practices of ISPs usually providing free of charge or at some cost the optical network terminal (ONT) or modem/router on stand alone basis or in tandem with a IPTV set-top box. Among the issues encountered, we may quote:

- **Proprietary devices**. Generally the ONT devices are proprietary and owned by ISPs. Being proprietary, end-users are not allowed to inspect the source code of drivers and firmwares running in the devices, raising the level of insecurity and uncertainty of which functions the device is performing.

- **Undeveloped ONT market**. The ONT market is still not developed in Europe. ONT devices are not easily available at retail stores and alternatives are not openly available. There are routers that have ONT built-in, but these alternatives are currently "semi-closed", with proprietary firmware as a consequence.

- **Security & Privacy**. Although ISPs argue as an advantage the possibility to remotely accessed and configured, the risks for device security and data protection are high specially when protocols and standards used for such operations are closed and proprietary, which adds a layer of non-transparency avoiding proper public audit.

- **Unlawful technical and commercial hurdles**. Even in countries where free choice of terminal equipment is a reality – like Germany and the Netherlands – ISPs still impose on end-users several barriers to use their own equipment. On these jurisdictions, network topologies would allow the connection of personal equipment without any serious issues, ISPs make it cumbersome to replace the ISP's terminals by not providing login data or other access credentials, not offering technical support for the network as well as threatening end-users with contract termination. These barriers reportedly discourage end-users to deploy their equipment in flagrant non-compliance with telecommunications laws.

Finding a striking balance between ISP's and end-users' interests: objective technological necessities vs business and investment considerations

Determining the position of the NTP has a direct impact on divergent interests of end-users and ISPs. While the latter seek to cover their high investments on the deployment of new generation networks, end-users suffer with commercial practices that restrict their legitimate rights to exercise digital freedoms. Therefore, we urge EETT to safeguard end-users' interests in the upcoming regulatory framework by counterbalancing the very restrictive arguments of ISPs on device security and network integrity with the real technological necessities encountered in real life.

As our survey demonstrate with empirical data, telecom operators restrict end-users' rights to use retail routers based on arguments of network security and integrity. However, the real life experience demonstrate the opposite. ISPs' main drivers concern primordially commercial interests. The issues at stake are not technological, but business and investments.

Reportedly, ISPs keep ONT or other fiber equipment closed and proprietary on security grounds. ISPs argue that a programmable ONT may create havoc and disruption to the connectivity to all users. However, the end-user experience demonstrates that, although such interference would be theoretically possible, in reality it can be very difficult. We are not aware of serious cases of disruptions caused by end-users.

Looking to the historical perspective, the restrictive approach taken by telecom operators follows a determined pattern always when new technologies emerge. Since 2001 we have experienced this argumentation pattern being raised by ISPs. Network security and integrity are the "scapegoats" for every emerging technology by which end-users could have higher degrees of freedom. The same restrictive behaviour and argumentation used to limit free choice of terminal equipment in fiber networks were previously used when DSL and coax technologies were being lay down. However, as our data demonstrates, ISPs' concerns do not resound in the reality, as the number of disruptions caused by end-users are insignificantly low. This situation clearly demonstrates that there is no objective technological necessity to exclude FTTH from the standard passive position of the NTP.

In conclusion, the main problem resides in ISPs artificially limiting equipment usage for ramping up commercial interests. It is understandable that large investments are being made for the deployment of new generation networks, but there are means and alternatives to cover ISPs business interests not at cost of end-users' freedom.

Based on empirical data, the FSFE urges EETT finding a striking balance between business and investments considerations and consumer protection. Network operators should not unduly restrict free choice of terminal equipment with unrealistic arguments of device security and network integrity at cost of end-users freedoms.

End-users demand free choice of terminal equipment

We celebrate the EETT report on the consultation of the NTP demonstrating that the alliance coordinated by the FSFE represented the majority of organisations (6 of 10) responding to the public consultation. This clearly denotes the elevated interest and concern civil society has in free choice of terminal equipment.

Not only in Greece but all over Europe end-users have manifested their support for regulatory policies safeguarding the right to choose and use routers and modems. The Router Freedom Survey[1] has inquired participants to share opinion on principles and arguments regarding their ability to freely use personal equipment.

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1 Similar survey on public opinion regarding free choice of terminal equipment was conducted independently by VTKE, the router manufacturer industry representative with similar results where European end-users consider free choice of routers and modems a general consensus.

Figure 4 display the vast majority of respondents agree with the statements "*Freedom of choice: the right to choose and use routers/modems is fundamental for a technological neutral internet*" and "*Router Freedom is fundamental for privacy and data protection*".
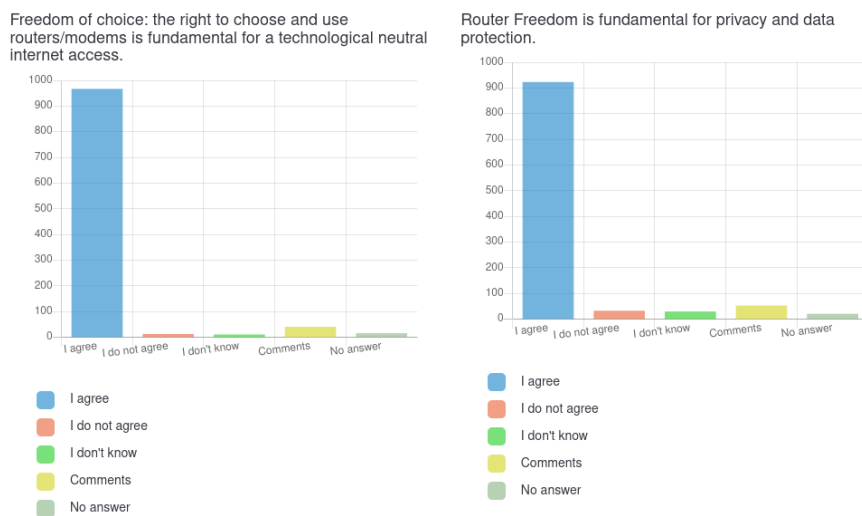

Figure 4. Reactions to arguments in favour of net neutrality, privacy and data protection.

Equally important, the vast majority of respondents categorically support fair competition and security. Figure 5 shows how respondents agree with statements "*Router Freedom supports competition and promotes technological progress*" and "*Router Freedom is important for internet access security*".
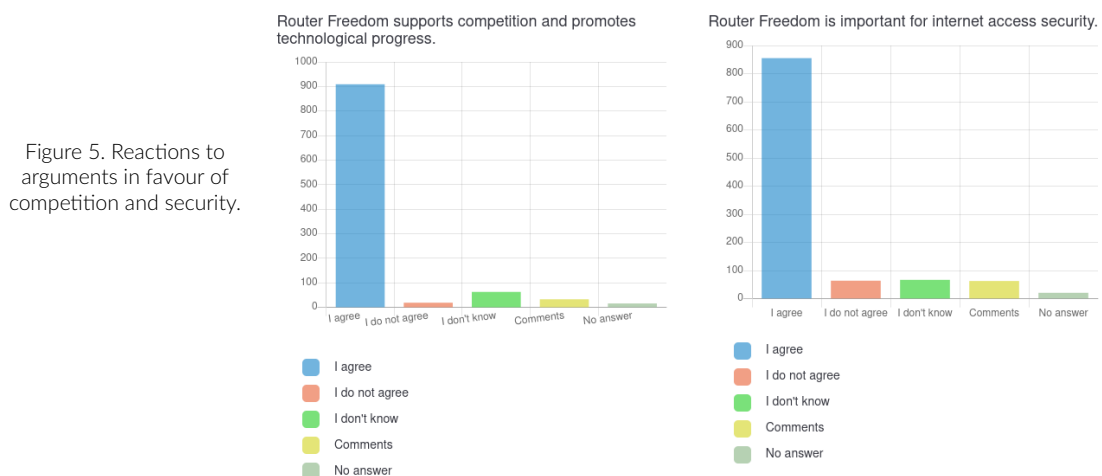
Figure 5. Reactions to arguments in favour of competition and security.

Fiber networks are the connections of the future. The EETT has taken a courageous position to set the position of the NTP at the passive point for legacy networks, but we reinforce the urge for guaranteeing the free choice of terminal equipment for next generations and emerging technologies. End-users recognise the need to maintain a safe, open and secure internet connection. Allowing them to choose and use their own equipment is a fundamental step in this direction.

> *End-users demand free choice of terminal equipment. The latest survey reports demonstrate that. Since fiber networks are the connections of the future, it is urgent to safeguard now the digital rights and freedom of consumers by allowing them to connect safe and private equipment to fiber lines.*

Free choice of terminal equipment, fiber networks and digital sustainability

The ongoing digitization of infrastructures and services comes along with a continuously growing number of electronic devices that are connected to the Internet - be it in private, public or business environments. The telecom sector is not an exclusion. The growing expansion of new generation networks pose challenges for the sustainability of the entire industry. Terminal equipment is an important element of the telecom infrastructure, making these kind of devices subject of environmental policies and regulation.

The FSFE has a large expertise and has been highlighting since 2013 the necessity to consider free choice of terminal equipment a fundamental element of environment-friendly policies for the digital sector. Recently, the FSFE has engaged with BEREC for the first studies on the sustainability of the telecom sector, where we could contextualize the EU fragmented regulatory patchwork involving terminal equipment as a draw back for the environment.

On April, 2022 the FSFE promoted [a coalition of 38 organisations in favour of the universal right to install any software on any device, including routers and modems](). Free choice of terminal equipment foster sustainability of telecom sector by by allowing older devices to be supported long after the manufacturer stops making updates. It reduces hardware waste and improves energy consumption.

When ISPs impose specific models on users - which are not best suited for their needs – it can mean unnecessary expense. For the environment, this is unfavourable due to the build-up of hardware waste even though other devices would still work.

During the last years, our experience has demonstrated that no objective technological necessity is observable to exclude the free choice of routers/modems. On the contrary: in countries where free choice of devices is established, a significant number of end-users decided to make use of this freedom, a vital market for terminal equipment is evolving, and there were no such breakdowns in neither the DSL, coaxial and fiber networks.

> *Free choice of terminal equipment is environment-friendly by enabling right to repair. End-users can expand the lifespan of devices with Free and Open Source Software. These are major wins for digital sustainability.*

Policy recommendations

As became clear in this position document, the FSFE strongly supports the designation of Network Termination Point at the passive physical point at which access to the public fixed electronic communications network is provided to the end-user. This definition should encompass all fixed network topologies, including fiber networks (FTTH). This definition is the only feasible choice to better safeguard end-users rights and promote innovation on TTE market.

The definition of the position of the NTP should not reflect restrictions on end-users consolidated rights of art. 3(1) of Regulation 2015/2120. Excluding fiber from the above

definition would seriously hamper the future of end-users' digital sovereignty and freedom of choice, increasing switching costs and the ecological footprint, and reducing technological security. Neither end-users nor IAPs or the terminal equipment industry would profit from a patchwork rug of different NTP locations. Instead, a European-wide Router Freedom would allow for a larger degree of innovation, fair competition and security in Europe. We propose the rephrasing of the draft regulation in the following terms:

Determination of the Network Termination Point for the provision of a fixed service

1. The terminal point of a network (STD) for the provision of a fixed service is determined at the physical passive point at which access to the public fixed electronic communications network is provided to the end user. ~~*with the exception of fiber optics at home (FTTH) where the network termination point is determined after the optical network terminal (ONT) and before the terminal equipment (router).*~~

2. The designation of point one (1), applies to all fixed network topologies. ~~*except FTTH, for the provision of different fixed services by the provider of electronic communications networks*~~*.*

Conclusion

The FSFE celebrates the courageous step in setting up the regulatory framework for specifying the position of the NTP at the passive physical point. We recognise this an important step for safeguarding consumer protection, security and data protection as well as digital sustainability of the telecom sector. Nevertheless, we urge EETT to include fiber networks in the definition, guaranteeing such beneficial aspects not only for legacy networks but also for the next generation ones.

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