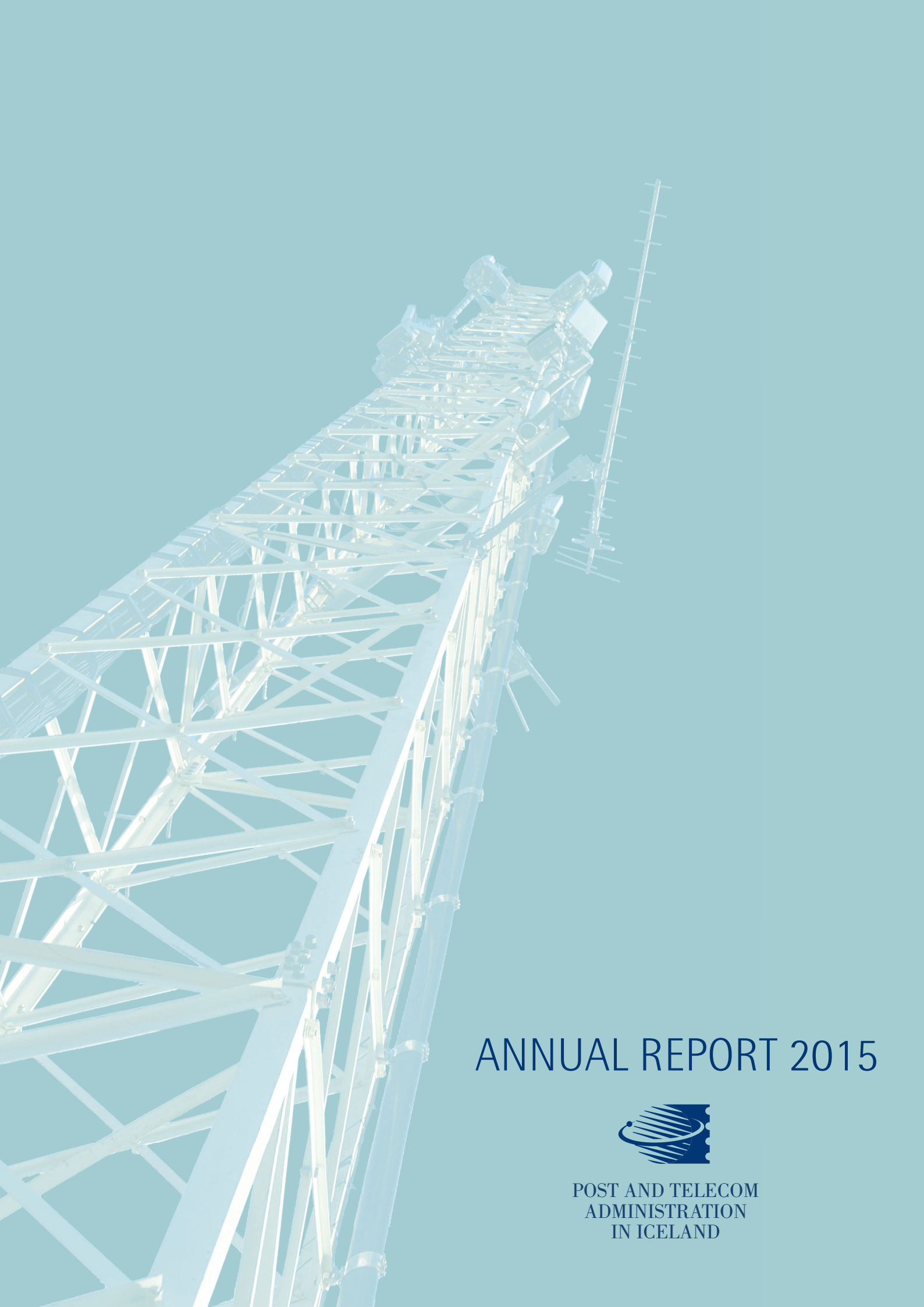

# ANNUAL REPORT 2015

POST AND TELECOM
ADMINISTRATION
IN ICELAND

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# ADDRESS BY THE MANAGING DIRECTOR

The Post and Telecom Administration (PTA) operates in two fields which are fundamental to human communication in modern society. Developments in electronic communications have among other things, led to fundamental shifts in the process of change in postal services during the last years and decades.

## ELECTRONIC COMMUNICATIONS

Glancing back at the salient features of electronic communications in Iceland in 2015, one can see clearly how today's electronic communications technology spreads, and influences both daily life and the laws and regulations that we introduce as a framework for our society.

### Fundamental changes to TV distribution

During 2015 the National Broadcasting Service decommissioned its analogue distribution system and replaced it in its entirety with digital distribution. Digital distribution uses, on the one hand, a UHF distribution system, which reaches 99.7% of the population and on the other hand fixed line systems through Vodafone and Siminn IPTV systems or with apps like Sarpurinn (linear and non-linear) through the Internet. Digital systems have the advantages of better quality and more varied interactive service. Consumers have access to material on demand and the popularity of non-linear viewing is growing, making IPTV systems extremely popular in this country. One must however keep in mind that IPTV systems are in fact closed distribution systems, that is to say that they are only accessible to those who specifically purchase access. It is for this reason that the Media Act includes a provision that bans media distributor from directing its customers to an affiliated electronic communications company. The objective of the provision is among other things to assure consumer freedom to choose e.g. an access network without this restricting their access to specific linear or non-linear material.

### Emphasis on high-speed access networks across the whole country in the next years

Access to high-speed local loops has been the primary consumer interest issue in electronic communications for many years. By comparison with other countries, access to such networks in this country is good and Icelandic electronic communications companies have developed high-speed access networks which reach a large majority of households in the country. There is however a specific part of the nation which must still endure market failure with respect to high speed connections. It was for this reason that last August, the Althingi endorsed ISK 500 million for development of high-speed networks in 2016. It is hoped that this substantial provision of funds will be the first phase in closing the digital divide in Iceland, thus eradicating circumstances where some citizens are subject to impairment of their human rights through lack of a viable Internet connection. Should government plans come to fruition one can expect almost all households in the country to have access to at least a 100 Mb/s connection by the year 2020. This situation will assure Iceland's position as one of the leading countries in the world in this respect.

In the light of market failure in high speed connections, there is increasing incidence of municipalities becoming involved in development of electronic communications infrastructure for the purpose of ensuring high-speed network service within the municipality. Such operations are always subject to the Electronic Communications Act. The current situation is that there are dozens of local access networks owned by electronic communications companies other than Mila. It is therefore clear that ownership, management and overview of electronic communications infrastructure in this country is becoming more distributed. The electronic communications regulatory framework covers all registered electronic communications companies, regardless of the ownership and size of the companies. This situation therefore presents certain challenges for the regulatory authority with respect to surveillance, for example of security of infrastructure, wholesale access, integrity of networks, service level and other issues. The PTA has countered this by collecting information from all parties to the market in a database of electronic communications infrastructure, to make it possible to maintain an overview of the country's electronic communications systems at one location. The Administration has also drawn attention to the need for synergy with other projects by laying fibre-optic cable during other civil works, such as the laying of electricity power cables and hot water piping. The EU Directive 2014/61 concerning economic development of broadband networks, which is soon to be adopted, prescribes an obligation for synergies in infrastructure civil works. The PTA considers that savings of ISK hundreds of millions can be made by adopting this Directive.

### Steadily increasing need for high capacity mobile network service

Use of mobile networks is increasing in this country. Download to mobile devices doubles every year. This increase in usage, combined with consumer demands for greater speed and better quality, calls for development of systems and more frequency licences. The Administration

conducted broad consultation on frequency arrangements for mobile services, in order to be able to organise the next steps in issuing frequency licences. If all currently available frequencies were allocated in the near future, then this would create the prerequisites for increased service and improved quality across the country and in addition to this the frequency allocations could lead to greater competition on the market through an increase in market participants. When allocating frequency licences, the Administration will take into account a number of issues relating to service and quality, including how social objectives regarding access to mobile service outside market areas can be achieved.

### Increased use of networks calls for rules on net neutrality

In 2015 the European Commission endorsed a new regulatory framework on net neutrality. The rules on net neutrality are to ensure that the Internet can continue to be a platform for uninhibited communications. The main objective of the rules is that all electronic communications regardless of content, software, usage characteristics, service, equipment, origin address and recipient address shall be transmitted. This is a ground-breaking decision which manifests the emphasis placed by the authorities on the importance of the Internet in daily life. There is still much work to be done in elaboration and interpretation of the regulatory framework, but it will in all likelihood be adopted in Icelandic law in the year 2017.

### Comprehensive review of electronic communications regulatory framework within Europe

The European Commission is currently conducting a comprehensive review of the electronic communications regulatory framework The main purpose of the review is to update the framework in line with the development that has taken place with the advent of the Internet. Electronic communications, information technology, dissemination of sound and images and various specialised systems and services are merging in the Internet, and traditional distinct channels of electronic communications will become a thing of the past within a decade. New technology is being rolled out, with smart functionality for various daily activities, and device-to-device (D2D) service is becoming very widely used. Attention is also paid to the commercial developments resulting from the advent of parties like Facebook, Netflix and others. Iceland must participate in this discussion like other nations, as organisational structure in such matters is having an increasing impact on daily life of citizens in this country.

### Security in electronic communications is the most important issue

There has been some uncertainty recently about the future of the network response team CERT-IS. It was planned to move the emergency response team to the National Commissioner of the Icelandic Police where it was to be substantially strengthened, among other things by including more sectors than electronic communications in its remit and by extending its service capacity. These plans have been retracted and instead the Minister intends to support the idea of strengthening the emergency response team at the PTA, at least for the time being. The European Commission is currently elaborating a regulatory framework for network security (NIS Directive), which will deal with these matters. When adopting this regulatory framework in this country, positions will be taken on various disputed issues on which consensus has not been reached here with respect to operations of the emergency response team, such as funding of the operations.

Electronic communications are becoming increasingly important in modern society. It is not enough to deal with network security through operations of the emergency response team, one must also support physical security of electronic communications systems. This is not least important in the light of the natural environment in Iceland. For this reason the Administration has recently examined various factors relating to physical security of electronic communications systems with the aim of strengthening them. The Administration furthermore intends to document all electronic communications systems in the country with respect to specific security factors such as reserve energy source, redundancy etc. The Administration would also like to embark on an appraisal of the integrity and security of the country's electronic communications infrastructure, if such a project is financially feasible.

## POSTAL MATTERS IN A PROCESS OF CHANGE

The Minister for Internal Affairs has published a draft Bill for legislation on Postal Service for consultation. The PTA considers there to be a pressing need to review legislation on postal services at the earliest opportunity. This is because on the one hand, new directives on postal services have been adopted in the EEA Agreement and on the other hand, because of a changed market environment resulting from diminishing post volume. In the resulting temporary situation, the Administration has in recent months, taken a position on important requests from the postal services

company, Íslandspóstur, for alterations to services which are mainly reactions to changes in the market environment. The most important decision concerned a change to mobile postal delivery which meant that post is delivered to homes in the countryside every other day instead of 5 days a week as before. It is estimated that this change will save approximately ISK 200 million per annum in postal deliveries. The change affects thousands of households in the countryside. This change has not been well received by consumers and local councils where a large number of local councils have raised objections. This demonstrates the importance of postal service in the country, not least in rural areas. It is hoped that development of fibre-optic service in the countryside with state support will mitigate to some degree the negative impact of this cut in services.

## STATUS AND DEVELOPMENT OF THE POST AND TELECOM ADMINISTRATION

The introduction to the last annual report for the year 2014 dealt with ideas about changes to the institutional organisation of the Administration. Those ideas were not implemented. It is clear to everyone that the Administration operates in an environment of major changes. The Administration believes that if its institutional structure is to be reviewed then one should look to the future with respect to the new shoots in its operations, not least with respect to frequencies, infrastructure and security issues, to development that derives from net neutrality and to the debate on development of the regulatory framework in the light of the merging of electronic communications and the Internet.

## CONCLUSION

It is foreseeable that in the coming years, electronic communications technology and services will to an increasing degree be subject to the rules and technology of the Internet and at the end of the day the Internet will merge totally with traditional electronic communications. There will in reality be no way to distinguish between Internet service and the service we call electronic communications today, such as voice telephony and SMS. With this smart revolution in societies where Internet connected devices perform a variety of daily tasks, the Internet will become very close to individuals. Individuals and societies will rely to an increasing degree on this new technology and will in reality become, to some extent, dependent on it. Technology will on the one hand meet specific needs that are handled manually today and on the other hand will create new opportunities with services based on interaction between high-speed networks, cloud services, powerful endpoint devices and artificial intelligence. Respected figures such as Bill Gates and Stephen Hawkins have warned that the capabilities of artificial intelligence will increase to such an extent in the next decades that they might even pose a threat to the human race. High-speed networks and the smart revolution will make this technology ubiquitous in our daily lives, in the home, the workplace and in the streets. The authorities must react without delay to this foreseeable development for it to be to our advantage and not a curse. In addition to addressing operational and cyber security of electronic communication networks, the development of such networks, review of personal data protection, of the service offer and of the business models of electronic communications companies, there is a need to address social and ethical aspects that derive from the technical development. This development is in fact already with us to a degree with the advent of social media and of a variety of simple smart devices, but one should assume that this is only a taste of what is to come. There are many indications that smart devices will be beneficial in controlling various factors in our environment, in health, education and transport systems, to name but a few. It is thus clear that we live in exciting times with even more exciting times ahead of us. Let us join forces and use technology for progress, harness it for the good of the nation.

*Hrafnkell V. Gíslason*

# THE ELECTRONIC COMMUNICATIONS MARKET

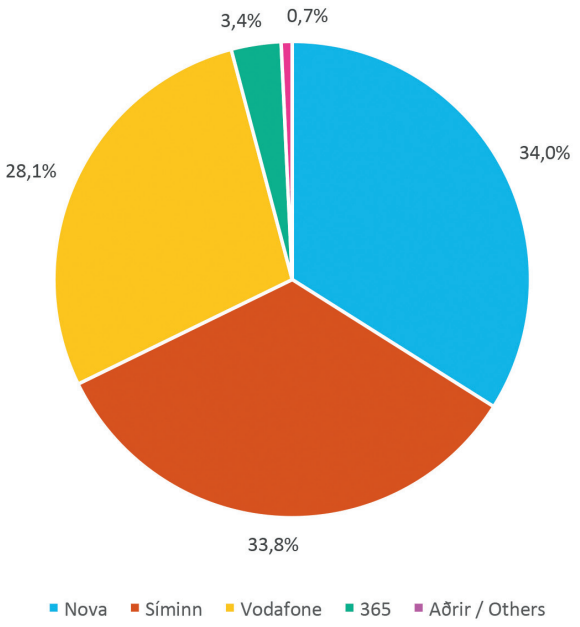
## MONITORING THE STATUS OF THE ELECTRONIC COMMUNICATIONS MARKET

### PTA's Statistical reports on the electronic communications market

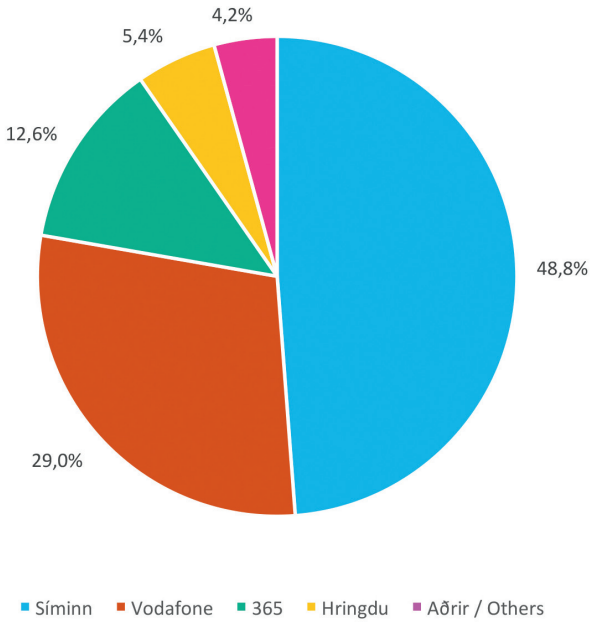
Twice a year, the Post and Telecom Administration (PTA) gathers information from registered electronic communications companies in this country on various sizes in electronic communications operations and services. The Administration processes these numbers to provide statistical reports which show information on the main sizes and companies on the Icelandic electronic communications market. The objective is to improve provision of information and to increase transparency on this market where the PTA reports correspond to reports published by sister institutions in our neighbouring countries. Statistical reports on the Icelandic electronic communications market are published twice a year.

A statistical report from 2015 shows, among other things, that there is active competition on the mobile network market and that division of the market between the three largest companies is more or less equal, where Nova has 34% market share, Siminn just under 34% and Vodafone has approximately 28%. On the market for Internet service, Siminn has a 49% share, Vodafone, 29%, 365 has 13% and other parties have less. The position on the market for fixed line networks has remained fairly stable during the past years where Siminn is by far the largest with about 62% market share with Vodafone coming next with 23%.

**Mobile subscriptions**
Market share by companies




**Internet connections**
Market share by companies




### Nordic statistical report

A statistical report is issued annually in cooperation with the PTA and its sister institutions in the Nordic countries and in the Baltics. The report gathers comparative data on the use of the main components of electronic communications service and on developments during the past years, in the eight countries.

On the whole, use of electronic communications is very similar in these countries and their citizens use comparable technology in a similar way. Despite this fact, one can nevertheless see different usage and development of specific features.
The report can be accessed on the PTA website.

# MARKET ANALYSES

Market analyses of the electronic communications market constitute a large part of PTA operations. They are used to strengthen competition by analysing the position of parties to the market and by imposing appropriate measures where competition is not considered adequate. The market analysis is the basis for decisions on whether to impose, maintain, change or lift specific regulatory obligations on electronic communications companies that have been designated as having significant market power.

## Main PTA tasks in the field on market analysis in 2015

**Wholesale market for call termination in individual mobile phone networks**

On 31 July 2015 the PTA published its Decision no. 20/2015 on the wholesale market for call termination in individual mobile phone networks (Market 7).

The PTA conclusion was to designate Siminn hf., Fjarskipti hf. (Vodafone), Nova ehf., IMC Ísland ehf. (Alterna) and 365 miðlar ehf. (365) as companies with significant market power on the market for call termination in GSM/2G, UMTS/3G, LTE/4G and in the virtual networks of the parties in question, and to impose appropriate obligations on those parties. Obligations on the companies will remain the same as before, with the exception that the obligation for separation of accountancy is lifted from Siminn and Vodafone, as this is unnecessary if benchmarking is used.

There is a new provision for the obligation for price control where it is specifically stated in the Decision that maximum termination rates only apply to telephone calls that originate in networks of electronic communication companies operating within the EEA. The obligation for maximum rates therefore do not apply to telephone calls that originate in networks outside the EEA.

An analysis of this market was previously made in 2006, 2010 and 2012. The conclusion of the previous analysis was that Siminn, Vodafone, Nova, Tal and IMC/Alterna had significant market power in their mobile phone networks. Obligations that were imposed with respect to the companies' GSM/UMTS were as follows:

- Obligation for access
- Obligation for non-discrimination
- Obligation for separation of accountancy (only on Siminn and Vodafone)
- Obligation for price control. The obligation was based on benchmarking in those countries within the EEA which had been analysed using the BU-LRIC methodology.

Since the last analysis was made, the company 365 miðlar ehf. has purchased IP-fjarskipti ehf. (Tal) and the merging of these companies has been endorsed by the Competition Authority with certain conditions.

The number of companies on the market does not have a definitive impact on competition on the relevant market as it is delineated by each individual network where each company has 100% market share of the termination market in its own network and there are no existing possibilities for substitutability, neither in supply or demand for termination in individual mobile phone networks. Existing technology does not offer mobile phone call termination with parties other than the mobile phone company of the receiving user. It is unlikely that this will change in the foreseeable future. Nor does there appear to be at retail level any other realistic options for users that could exert a controlling influence on pricing of termination of telephone calls in mobile phone networks.

Another innovation on the market since the last market analysis is that mobile phone companies now offer service over 4G mobile phone networks which is also called Long Term Evolution (LTE). The offer of 4G/LTE service commenced in April 2013 when Nova began to offer its customers service over such a network and this was offered by Siminn a few months later in that same year. Vodafone has also developed a 4G network as part of its mobile phone service. 365 miðlar ehf. was successful in a call for tenders which was completed in 2013 for licences for frequencies for 4G/LTE mobile phone networks across the whole country, but the company has not yet commenced operations on its own network. As was the case when UMTS (3G) service was first offered in 2007, this new service offer does not change competition conditions on the relevant market, particularly as 4G does not have B channels for voice communication but is only designed for data transfer. For this reason, telephone calls in 4G networks go via 3G or 2G (GSM) networks of the electronic communications company in question. In the case of call termination it is in addition not possible to distinguish between services, neither with respect to usefulness or pricing on the basis of which network handles the termination. 4G/LTE or 3G/UMTS therefore has no impact on shortage of substitutability for termination in individual networks.

The relevant service market thus covers call termination in individual mobile phone networks. The mobile phone networks that fall into this category are GSM (2G), UMTS (3G), LTE (4G) and virtual mobile phone networks based on the above specified networks. For this reason the PTA specifies the following service markets:

- Call termination in the Siminn GSM/UMTS/LTE mobile phone network
- Call termination in the Vodafone GSM/UMTS/LTE mobile phone network
- Call termination in the Nova UMTS/LTE mobile phone network
- Call termination in the IMC Ísland/Alterna GSM mobile phone network
- Call termination in the 365 (Tal) virtual mobile phone network

The PTA considers that the geographical market for call termination in individual mobile phone networks is the whole country in accordance with the scope of each mobile phone network.

All companies have 100% market share in call termination in their own mobile phone networks. In the opinion of the PTA the relevant market is characterised by absolute entry barriers and possible competition is not foreseeable in the coming 2-3 years. The market analysis indicates that there are no competition factors on the market that would create pressure on the price for call termination in mobile phone networks. The technology does not, as things stand today, provides the possibility for substitutability in supply. There is no countervailing buying power whatever, neither at wholesale nor retail level, and there is nothing to indicate that competitors, customers or consumers can have an impact on the price of call termination in a mobile phone network. For this reason the PTA considers that all the above specified companies have significant market power and designates Síminn, Vodafone, Nova, IMC/Alterna and the merged 365 and IP-fjarskipti (Tal) as having significant market power on the market for call termination in their mobile phone networks.

The competition problem identified by the PTA on the relevant market can first and foremost be attributed to the fact that the mobile phone company that controls the network where a call is terminated has a monopoly position on the market in question. Most competition problems on the relevant markets were related to call termination prices. In addition to this there is the fact that the substantial difference in termination charges of the electronic communications companies also had a damaging impact for consumers who had difficulty in identifying the cost of a telephone call. The PTA has in recent months and years eradicated the difference in termination rates that existed between companies and has significantly reduced termination rates. Excessively high termination rates can also have an impact on the entry of new service providers to the mobile phone market. Prices for call termination in mobile phone networks were thus for a considerable period of time higher than could be justified by costs, particularly when one refers to the Siminn cost analysis from 2010 and to the fact that off-net calls were significantly more expensive than on-net calls.

The PTA intends to impose the following obligations on the companies in order to encourage a solution of those competition problems that exist on the relevant markets:

- Obligation for access
- Obligation for non-discrimination
- Obligation for price control which will mean that a maximum call termination price will be decided on an annual basis with benchmarking. During the period of validity of the above specified Decision, the price will be updated annually on the basis of new benchmarking which should be completed no later than 1 November each year. This conclusion will decide the price from and including the following turn of the year.

**Wholesale market for trunk segments of leased lines**
On 12 August 2015 the PTA published its Decision no. 21/2015 on the wholesale market for trunk segments of leased lines (Market 14 pursuant to the older ESA Recommendation).

The PTA conclusion was to designate Mila as a company with significant market power on the wholesale market for trunk segments of leased lines and to impose appropriate obligations on the company.

A trunk line segment of a leased line is the part of a leased line which lies between telephone exchanges/connection points. The market in question was last analysed with PTA Decision no. 20/2007 where the conclusion then was that both Mila and Siminn were designated as companies with significant market power on the relevant market and appropriate obligations were imposed on both companies.

The PTA conclusion now was that Mila alone should be designated as having significant market power in this instance, as Siminn no longer operated on the relevant market subsequent to the Settlement between the Siminn Group and the Competition Authority in 2013. Obligations will be maintained on Mila to support active competition on the various electronic communications sub-markets, which rely for their operations on access to the Mila trunk leased line system, which has national coverage.

The main difference from the prior decision on the relevant market is that now the geographical market is defined as the whole country, whereas in the prior analysis

the geographical market was divided into two, that is to say the capital city area on the one hand and the countryside on the other. The PTA considered there to be no reason to maintain such a division.

An analysis of this market was previously made in the year 2007. The conclusion of that analysis was that there were two geographical markets, that is to say on the one hand the capital city area and on the other hand the countryside. Siminn and Mila, who both belong to the Siminn Group, were designated as having significant market power in both market areas and obligations were imposed on those companies for:

- Access
- Non-discrimination
- Transparency
- Separation of accountancy
- Price control (based on historical costs)

As this market is no longer in the ESA Recommendation it is necessary to evaluate whether it still fulfils the conditions required for possible implementation of ex-ante obligations (the Three Criteria Test). It is the PTA conclusion that the market still fulfils these conditions which are that high and non-transitory barriers still exists to entry to the market, that the market does not tend towards active competition and that the general rules of competition law will not suffice on their own to address the failures of the market. The circumstances pertain in this country that on many transit routes there is only one service provider and the European Commission has considered that such circumstances can justify continued intervention in the market with the imposition of appropriate obligations.

The conclusion of the market analysis in this instance was that circumstances on the market had not changed much from the circumstances that pertained in 2007. All wholesale of leased lines within the Siminn Group has been transferred to Mila which means that Siminn therefore no longer operates on this market. The number of companies on the market is more or less the same as in 2007. The PTA considers that significant and non-transitory entry barriers exist to the market and that active competition cannot be expected within the next 2 to 3 years. Mila still has an overwhelmingly dominant market share, whether measured by revenue from leased lines or by number of active connections.

The PTA intends to designate Mila again as having SMP on the market for trunk segments of leased lines. The designation of Siminn as a company with significant market power on this market is on the other hand withdrawn and the obligations that were imposed on Siminn are lifted. The obligations that the PTA intends to maintain on Mila ehf. on the relevant market are the following:

- Access
- Non-discrimination
- Transparency
- Separation of accountancy
- Price control (based on historical costs)
- Cost accounting

## Main tasks in the field of cost accounting in 2015

| Decision | Market | Market name | Subject |
|---|---|---|---|
| 32/2015 | M14 | Trunk segments of leased lines | Wholesale tariff - Metropolitan Data Highway |
| 28/2015 | M7 | Mobile Call termination | Wholesale tariff - Call termination (Benchmark) |
| 25/2015 | M14 | Trunk segments of leased lines | Wholesale tariff - Temporary connections |
| 24/2015 | M14 | Trunk segments of leased lines | Wholesale tariff - Metropolitan Data Highway |
| 23/2015 | M14 | Trunk segments of leased lines | Wholesale tariff - Ethernet |
| 22/2015 | M14 | Trunk segments of leased lines | Wholesale tariff - General leased lines |
| 19/2015 | M2 | Fixed Call origination | Wholesale tariff - Originiation (Benchmark) |
| 19/2015 | M3 | Fixed Call temination | Wholesale tariff - Call termination (Benchmark) |
| 18/2015 | M5 | Bitstream Access | Wholesale tariff - ADSL+ og SHDLS+ connections (A1) |
| 10/2015 | M1 | Access to PSTN for residential and non-residential users | Wholesale tariff - Access |

## MONITORING OF SEPARATION BETWEEN ELECTRONIC COMMUNICATIONS OPERATIONS OF GAGNAVEITA REYKJAVÍKUR AND OTHER OPERATIONS OF ORKUVEITA REYKJAVÍKUR

Pursuant to Article 36 of the Electronic Communications Act, undertakings that enjoy a special or exclusive rights in sectors other than electronic communications must keep their electronic communications activities financially separate for other activities, as if they were two separate undertakings. Care shall also be taken to ensure that competitive operations are not subsidised by activities enjoying exclusive rights or protected activities. On the basis of this provision, the Post and Telecom Administration (PTA) has made various interventions in the operations of Gagnaveita Reykjavíkur (GR) during the past decade in order to ensure financial separation of the company‹s electronic communications operations from other operations of the parent company Orkuveita Reykjavíkur (OR). Since 2006, the PTA has made eight decisions that relate to the implementation of financial separation in one way or another. In most instances this has being at the initiative of the Administration.

Various obligations have been imposed on Gagnaveita Reykjavíkur in these cases in order to create transparency in financial operations of the company and to establish a framework for the operations which is intended to ensure a normal competitive position. The latter issues relate among other things to preventing Gagnaveita Reykjavíkur from enjoying better terms than generally on offer to companies on the electronic communications market, because of GR‹s relationship with Orkuveita Reykjavíkur which is publicly owned. Throughout the years the PTA has imposed various conditions for implementation of financial separation at Gagnaveita Reykjavíkur, for example with respect to the following:

- Conditions for financial separation, among other things, criteria for loan agreements and for sharing of support services (2006)
- Instructions on financial reporting and on terms and conditions of a loan agreement between OR and GR (2008)
- Conditions for prior endorsement by the PTA of an increase in share capital in GR (2010)
- Breach of implementation of loan agreement between OR and GR (2010)
- Endorsement of increase in share capital in GR and confirmation of required rate of return (2010).
- Endorsement of increase in share capital in GR (2014)
- Contribution to development of fibre-optic from the Ölfus land restoration fund was a breach of Article 36 of the Electronic Communications Fund (2015)

From this one can see that the PTA monitoring of financial separation of the financial operations of Gagnaveita Reykjavíkur from other operations of the parent company has been ongoing during the past years. In the light of the interests that Article 36 of the Electronic Communications Act is intended to assure, i.e. to level the competitive position and to prevent unlawful subsidies of electronic communications operations, one must consider that the frequent PTA interventions in the operations of Gagnaveita Reykjavíkur have provided the restraint on the company that is the intention of the Electronic Communications Act.

## DISPUTE ON IN-HOUSE ELECTRONIC COMMUNICATIONS CABLING AND REVIEW OF THE RULES

For some time there has been a dispute between Mila ehf. and Gagnaveita Reykjavíkur (GR), on how cable ends of fibre-optic local loops should be finished at the demarcation point inside premises. On the basis of a complaint from Mila, the PTA made the decision that what is called fusion/mechanical splicing breached Article 7 of the PTA Rules no. 1109/2006 on in-house cabling as the cable ends were not connected to a patch panel. This conclusion was confirmed by the Appellate Committee for Electronic Communications and Postal Affairs, see Ruling no. 5/2014. On the other hand, the Appellate Committee revoked the PTA instructions to Gagnaveita Reykjavíkur on remedies, as they constituted a burdensome penal measure for which there were no grounds in the penal provisions of the rules and nor did they fulfil the conditions for clarity of infringement.

Subsequent to this, Mila reiterated its claim for remedial action. The PTA then repeated the investigation of the case and came to the conclusion that the responsibility for in-house cabling from the demarcation point of electronic communication cable rested on the owner of the building, see PTA Decision no. 29/2015. The conclusion was that it was not possible to direct a claim for remedial action at an electronic communications company, in this instance GR. To the best of the PTA knowledge, it is rare for in-

house cabling to be owned by the owner of a building and that the division of responsibility is prescribed by law. This means that general rules for access conditions to in-house cabling in this country apply as is the case in some European states as in-house cabling is owned by electronic communications companies. This PTA Decision is now in the appeal process.

In the events preceding the above specified dispute, the PTA had become aware that electronic communications companies were interested in the Administration reviewing its Rules no. 1109/2006 on in-house electronic communications cabling, among other things with respect to aligning the rules better with fibre-optic technology. This work however was shelved while the dispute between the parties was being resolved. Subsequent to the PTA Decision, the work in question was commenced last autumn, which included close and comprehensive consultation with parties to the market and with independent experts in the field. Among other things, a discussion meeting was held on the matter on 9 September 2015 and subsequently written consultation was opened. The review of the rules also covered the issues dealt with by the PTA in its decisions, that is to say finishing of cable ends of fibre-optic local loops at the demarcation point in buildings. In the opinions of the majority of consulted parties the view was expressed that the option of using fusion/mechanical splicing should be opened. The PTA considers that it processed the views and wishes of consulted parties in a fair and reasoned manner when publishing new Rules for in-house electronic communications cabling no. 1111/2015, by making the requirement that patch panel should be installed in all new-build apartment buildings and that fusion/mechanical splicing may not be used except where at least one additional fibre is laid to each apartment (which is then available for other electronic communications companies).

## THE ROLE OF THE PTA PURSUANT TO THE MEDIA ACT

Integration of the media and electronic communications is steadily increasing with technical developments of the past years and with the advent of powerful high-speed data transfer services. The current situation is that most citizens have access to TV service through high-speed mobile networks or through connections provided at a fixed location. This development has necessitated the setting of rules governing communications between media service providers and electronic communications companies (that is to say the parties operating distribution systems). This results from reciprocal interests of these parties, on the one hand where media service providers can obtain access to distribution systems with wide distribution and on the other hand, where electronic communications companies that operate distribution systems can obtain access to popular TV content. The provisions of the Media Act no. 38/2011 which deal with this are called rules on the transmission of audio-visual media content.

In the light of the above mentioned development of integration of media and electronic communications, there are examples from Europe where surveillance of these fields is handled by this same regulatory authority. In this country on the other hand the option was chosen of allocating supervision of the media in general to the Media Commission and to allocate surveillance related to communications between media service providers and electronic communication companies to the PTA on the basis of the rules on the transmission of audio-visual media content. These rules are discussed in Section VII in the Media Act where among the tasks allocated to the Administration in this field and in related fields are:

- Resolution of disputes on must carry obligation
- Resolution of disputes on must offer obligation
- Resolution of disputes on recompense for transmission or purchase of material
- Monitoring that media service providers ensure that in agreements it is prescribed that TV content may be transmitted through all digital electronic communications networks that fulfil specific conditions
- Implementation of the ban on media service providers directing their customers to related electronic communications companies
- Implementation of priority order on the remote for TV transmissions with Icelandic voice or text over foreign retransmission channels
- Resolution of disputes on access to short film sequences of home or foreign events which arouse great public interest
- Authority to set rules on minimum requirements for transmission quality and security

### Disputes on TV distribution issues

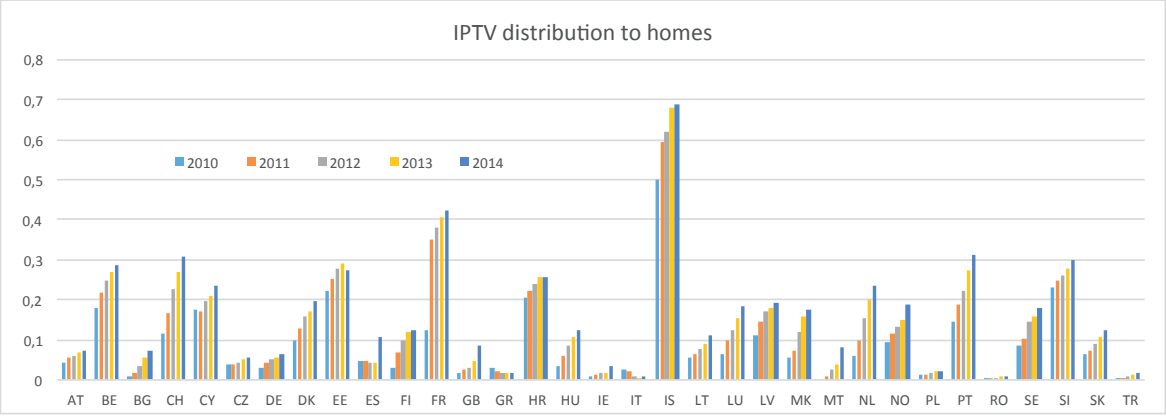
Pursuant to Section VII of the Media Act no. 38/2011, the Post and Telecom Administration has been allocated the surveillance role with respect to implementation of the rules on the transmission of audio-visual media content and to other related issues which concern communications between a media service provider, and electronic communications companies. There was a dispute last year between Fjarskipti hf. (Vodafone) and Siminn hf. on the implementation of an agreement between the two

companies regarding Vodafone TV transmission of Siminn (SkjárEinn) TV content. The case was referred to the PTA and the dispute revolved first and foremost around the question of whether Vodafone was authorised to distribute Siminn TV content with non-linear audio-visual media service, such as (time shift) Tímaflakk/Tímavél and Frelsi. In its Decision no. 30/2015 the Post and Telecom Administration came to the conclusion that the dispute concerned interpretation of a TV distribution agreement which had not been based on the Media Act rules on the transmission of audio-visual media content and was therefore not in the remit of the Administration but was in the jurisdiction of the courts for resolution.

This did however not mean that all aspects of the case were now closed for the Administration. There was still a dispute between the parties on whether access to non-linear TV content, which was only offered by the TV service of Siminn hf. constituted a breach of Paragraph 5 of Article 45 of the Media Act which prescribes that a media service provider is unauthorised to direct customer trade to unrelated electronic communications company. The dispute concerned among other things whether the Paragraph 5 in question of Article 45 of the Media Act covered non-linear audio-visual media service.

When interpreting such a provision it can be useful to consider the existing environment with respect to TV distribution in this country compared to other countries. In countries in the EEA, provisions have been widely made on must carry obligations but few states have made provisions on must offer obligations and no state, to the best of PTA knowledge, has made provisions as in Paragraph 5 of Article 45 of the Media Act. The reason for making the provision on must offer and for the ban provision in Paragraph 5 can be attributed to the unique circumstances that have pertained on the market for distribution of TV material in Iceland for many years. The importance of electronic communication companies in the distribution of TV content is huge in this country and much greater than is the case elsewhere in Europe. This applies not least to the electronic communications companies' IPTV systems, that is to say TV distributed with a fixed Internet connection. As one can see in the figure below, about 60% of Icelandic households used an IPTV system to watch TV in 2011 when the Media Act was passed. This proportion has increased to an even higher level and was almost 70% in the year 2014. This means that the need for these legal provisions has certainly not decreased.

Given this reality one can see that the strong position of IPTV in this country brings the risk of vendor lock-in of subscribers to a particular electronic communications network on the strength of the content it offers. This impact will increase in direct proportion to increased share of IPTV in TV distribution in the country in question and to the increase in popularity of TV content available exclusively on a specific electronic communications network. The influence of bundling in electronic communications has greatly increased in this country and across Europe during past years, a trend which is likely to continue. This manifests itself in an increasing tendency for consumers to purchase all service items in one package from the same electronic communications company, for example, voice telephony, mobile phone Internet connection and TV. This could lead to a negative competition position on the Icelandic electronic communications market if electronic communications companies are authorised to limit a specific form of audio-visual media service, that is to say non-linear, to their own electronic communications network. Recent developments have furthermore, all tended towards an increase in non-linear audio-visual media service at the cost of linear, a trend which will doubtless continue. The more popular the material the more damaging the impact of such a structure, as competition would be damaged and consumers would be disadvantaged through higher prices and less choice.




Sources: The Post and Telecom Administration, European Audiovisual Observatory and Cullen International

# ELECTRONIC COMMUNICATIONS TECHNOLOGY AND DISTRIBUTION

## CONSULTATION ON PTA POLICY ON FREQUENCIES FOR THE YEARS 2015-2018

In April, the PTA published a discussion document on frequency policy for specific frequency ranges which was to apply 2015-2018, where the Administration invited stakeholder responses and comments regarding organisation of the frequency spectrum. Consultation was invited for the frequency ranges 450 MHz, 700 MHz, 900 MHz, 1450 MHz, 2.1 GHz, 2.3 GHz, 2.6 GHz og 3.4 – 3.8 GHz where these frequency ranges were all earmarked for high speed mobile networks service (e.g. 4G). In addition to the many aspects investigated, special focus was directed at demand for frequency ranges that have already been designated for mobile network service and which will be available for allocation and reallocation during the next months and years. These are particularly the frequencies 400, 700, 900, 2100 and 2600 MHz.

The conclusions of the consultation were published in September and were based on responses from parties invited to comment and on the criteria that the Administration must apply with respect to efficient use of the frequency range, and in addition to this, the formation of conditions for distribution had to be taken into account, as appropriate. With all the above in mind the PTA considered it realistic to publish the following time plan for allocation of these frequency ranges.

| Frequency range | Allocation year | Start date of validity of frequency licence |
|---|---|---|
| 700 MHz | 2017/2018 | 2017/2018 |
| 900MHz | 2016 | 2017 |
| 2,1 GHz | 2016 | 2016 |
| 2,6 GHz | 2016 | 1 January 2017 |

## SHARING OF FREQUENCIES - INNOVATION IN ARCHITECTURE AND DISTRIBUTION

In past years there has been considerable technical development in the building and architecture of mobile networks which offers the possibility of sharing frequencies. This involves SingleRan and MOCN which enables distribution of GSM, 3G and 4G/LTE from the same transmission cabinet and using the same antenna for two or more operators simultaneously. A kind of virtual channel is created for each individual company and users of these companies see all services (GSM, 3G and 4G/LTE) as their own home network at the same time, while full sharing of equipment and frequencies is taking place simultaneously. In this way both equipment and frequency licences are being shared and there is no longer a need for separation between equipment and frequency use.

With the above technology, it is possible to achieve considerable economies in construction of mobile networks and to achieve increased distribution of mobile network service at lower costs. Taking this gain into account, the PTA considered it appropriate to provide the option of such cooperation between electronic communication companies when making tender conditions prior to the auction of frequency licences in the 800 and 1800 MHz frequency ranges which took place in February/March 2013. Such sharing was however subject to endorsement by the Administration and also by the Competition Authority with respect to its impact on competition.

With reference to these authorisations, Fjarskipti hf. (Vodafone) and Nova ehf. applied for authorisation to cooperate on the development and operation of a 4G/LTE mobile network and for authorisation to share all of the companies' frequency licences in accordance with the services covered by the licences. This cooperation was endorsed by the PTA and it was not deemed to constitute unlawful transfer of frequency licences pursuant to the Administration Decision no. 14/2014. On the part of the Competition Authority, the cooperation was endorsed with the conditions prescribed in its Decision no. 14/2015.

The Competition Authority considered that in this instance the cooperation between Vodafone and Nova ehf. did not

constitute a merger, which could have triggered an action by the Post and Telecom Administration to revoke or limit frequency rights on the basis of Article 8 of the Electronic Communications Act if the combined control over these frequency rights was considered to create the risk that either competition or economic use of the frequency spectrum could be compromised. There are examples in Europe where electronic communications companies have been taken over or merged with the consequences that frequency rights have been revoked in part.

Spectrum sharing agreements are generally not considered to constitute merging, pursuant to European case law. Such cooperation has not led to the revoking of frequency rights, though in some instances they have been subjected to other kinds of conditions as can be seen in the table below.

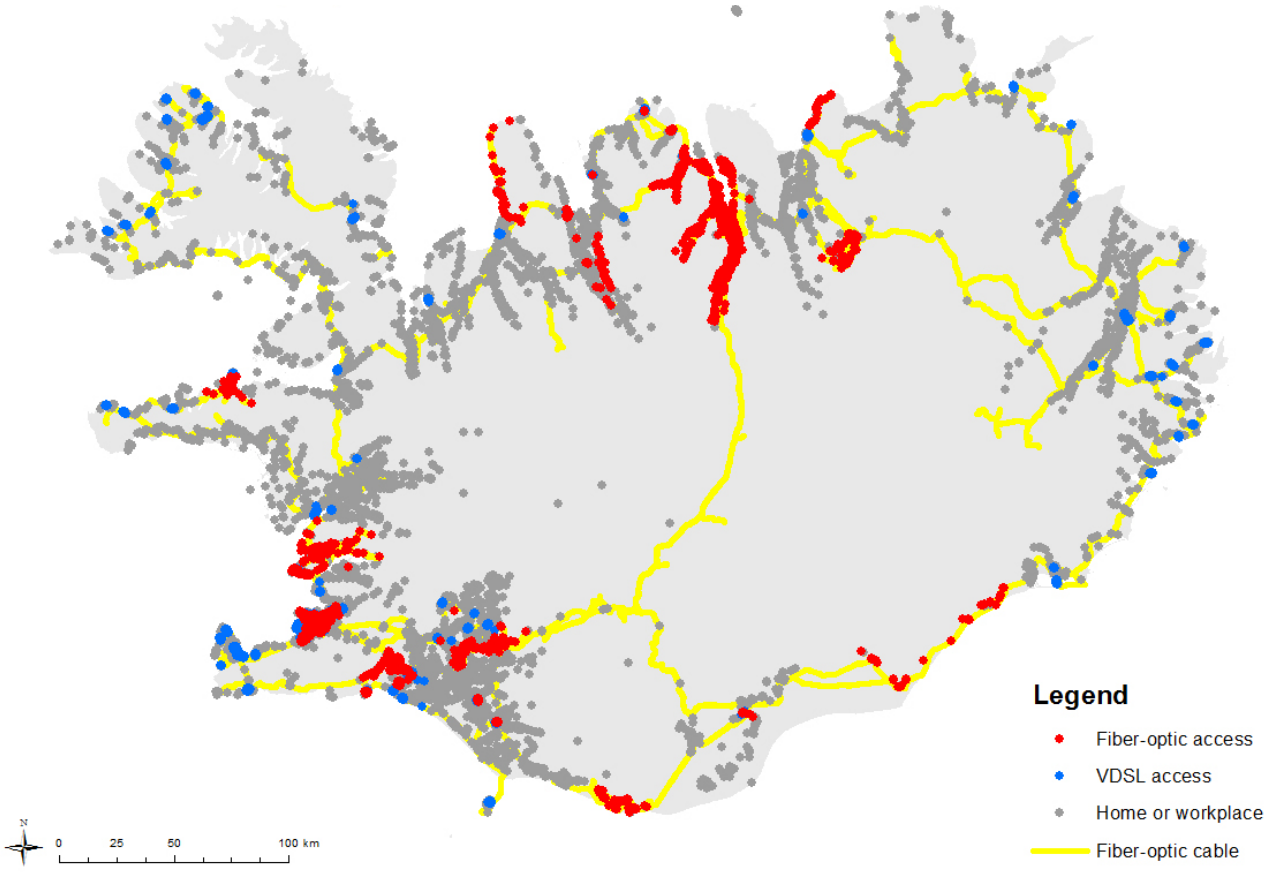
| Country | Company | Revocation of frequency rights | Open wholesale access | Limitation on purchase of frequency licences | Requirement for independence of operators | Geographical delineation |
|---|---|---|---|---|---|---|
| Denmark | Telenor and Telia | No | Yes | Yes | Yes | No |
| Finland | DNA and Telia | No | Yes | No | Yes | Yes |
| Iceland | Vodafone and Nova | No | Yes | No | Yes | No |
| Poland | Orange and T-Mobile | No | No | No | No | No |
| Sweden | Telia and Tele2 | No | No | No | No | No |
| Hungary | Magyar Telekom and Telenor | No | No | No | No | Yes |

Pursuant to this one can see that cooperation and sharing of frequencies by Vodafone and Nova ehf. is bound by the same kind of conditions as have applied in other European countries when the cooperation is not considered to constitute a merger and where the appropriate surveillance measures are applied.

## NEXT GENERATION FIXED LINE NETWORKS

In this country as elsewhere, there is now rapid development in the building of the next generation of fixed line networks, that is to say fibre-optic and VDSL. In urban and rural areas throughout the country, work is being done on developing access to high speed connections, though progress varies by location, as can be seen in the illustration below.

### Next Generation Access (NGA)




In areas that are not marked with either fibre-optic or VDSL access, the inhabitants do not have access to next generation access networks.

## GATHERING OF INFORMATION ON DISTRIBUTION AND STATUS OF ELECTRONIC COMMUNICATIONS

### Database on electronic communications infrastructure and the PTA geographical information system

The year 2015 saw continued development work on the database of electronic communications infrastructure and continued work on analysis of data from the database and publication of this data using the PTA geographical information system. These systems have been very useful for municipalities' planning, development of fibre-optic networks, for example within the state initiative for fibre-optic across the nation. The system has also been used in the work resulting from increased emphasis on security in the country's electronic communications systems, particularly with respect to response to natural calamities.

Knowledge within the Administration has grown with use of the PTA geographical information system and with the analysis of data from the electronic communications infrastructure database.

### Measurements of electronic communications connections on the country's road system

Towards the end of the year, the PTA commenced measurements of the country's electronic communications systems, pursuant to an agreement with the Telecommunications Fund. The plan is to measure mobile network service on all the country's roads with the first phase, including A roads (national highways) and B roads (connecting roads). The intention is among other things to publish information about coverage of the road system on the State Road Works website and on the PTA website, and to identify where the infrastructure needs improvement to ensure connections on the road system. The second phase, which is awaiting endorsement from the Telecommunications Fund, is planned for the summer of 2016 and constitutes measurements on highland roads. The Administration's measuring equipment is extremely useful in this task as are the database of electronic communications infrastructure and the PTA geographical information system.

### Mapping of electronic communications infrastructure in the Arctic region

PFS tekur þátt í starfi vinnuhóps á vegum Norðurskautsráðsins (Arctic Council) þar sem unnið er að kortlagningu fjarskiptainnviða á norðurhveli jarðar og tillögum um úrbætur. Þetta tengist þeirri þróun sem fyrirsjáanleg er við opnun siglingaleiðarinnar um Norður-Íshafið, en ekki síður hvernig bæta má lífsskilyrði þeirra sem búa á þessum slóðum. Áætlað er að skýrslu verði skilað í byrjun árs 2017. Í þessu verkefni hefur landupplýsingakerfi PFS enn og aftur sannað gildi sitt.

## ELECTRONIC COMMUNICATIONS SECURITY

### Computer Security incident response team CERT-IS

The CERT-IS computer security incident response team operates within the Post and Telecom Administration pursuant to the Electronic Communications Act and to Regulation no. 475 from 2013. The response team jurisdiction covers electronic communications companies that operate public electronic communications networks and/or provide access to the Internet and Internet services, but not to general public users. The role of the team is to prevent and mitigate the risk of cyber-attacks and other security events in its network jurisdiction and to impede and minimise damage from such sources to the community's critical information infrastructure.

CERT-IS is also the contact party for the Icelandic authorities in CERT computer security incident response team cooperation on reactions and defences for network and information security.

As CERT-IS employees were reduced from three to two and as there was a wait for the legislation necessary for the transfer to the National Commissioner of the Icelandic Police Civil Defence Department, it proved necessary to prioritise the team's work. The team therefore concentrated on cooperation with the electronic communications sector and on cooperation with Nordic Internet security response teams such as for example operation in joint Nordic exercises during the year.

Work was done with the Ministry of the Interior on amendments to the law where it was planned that the amendments would be put to the autumn parliament in 2015. This however did not happen because, as is noted in the Address of the Managing Director, the above mentioned plans to move the team were withdrawn towards the end of the year.

### Security of electronic communications infrastructure

During recent years, increasing emphasis has been placed on resilience of the country's electronic communications systems with respect to response to various risks as natural calamities, technical faults and human threats.

The PTA objective is to support integrity of systems; good functionality and resilience in Iceland's electronic communications infrastructure; that the authorities can assess the main threats to electronic communications systems of individual companies and for the country as a whole; that the authorities are prepared for response and coordinated measures at short notice in the event of an imminent threat.

Work was continued on coordinating the electronic communications sector with respect to the eruption north of Bárðarbunga with the focus on response to the consequences of a potential sub-glacial eruption. At the same time, work was done on response plans for utility providers which is prepared by the National Commissioner of the Icelandic Police in cooperation with operators of these important social infrastructure elements.

In addition to cooperation with the electronic communications sector and with the National Commissioner of the Icelandic Police Civil Defence Department on coordination of response measures in the event of natural calamities, the PTA inspected important Mila ehf. technical space. This was only the first inspection by the Administration of important electronic communications infrastructure and it was decided to take the next step in the year 2016 with an expansion of electronic communications transmitters in the Katla volcano evacuation area.

## Surveillance of frequencies - PTA interference monitoring

The Post and Telecom Administration regularly receives interference reports from electronic communications companies and from individuals. There has been a significant increase in reported interference during recent years, and in 2015 the Administration received 82 such notifications. The causes can be attributed to a number of factors:

1. Increased import of devices by the public through the Internet (often devices not CE marked).
2. Increased use of frequency ranges that have not been in use in Iceland (often frequency ranges used for other services in America and Asia).
3. Increased electronic communications company awareness of PTA knowledge and equipment for interference and interference search.

The PTA has recently emphasised the renewal of its equipment for diagnosing interference, preventative measures against interference and the ability to have an overview of current status (signals in the air at any given time).

The increase in notified interference last year, can be seen in the following table:

**Number of interference reports 2013-2015**

| 2013 | 2014 | 2015 |
|---|---|---|
| 30 | 53 | 82 |

The Electronic Communications Act is unequivocal on the PTA role in preventing electromagnetic interference, in locating interference, in limiting the use of devices which interfere with radio communications, in operating a database to find and prevent damaging interference etc. This is in other words part of the Administration's core operations. The PTA has responded to this increase in reports of interference by altering its organisation in processing and handling these incidents, by raising awareness of the rules that apply to imports of electronic communications equipment to the country and by providing proposals for improvements which have been sent to the Ministry of the Interior.

# POSTAL MATTERS

The year was quite eventful with respect to postal matters and a number of major cases were brought to a conclusion during the year. One could mention for example that the Administration‹s scrutiny of Íslandspóstur (hereafter ISP) separation of accountancy using the ABC model was completed and amendments were made to the Administration‹s price control. The PTA furthermore rejected the ISP methodology and conclusion on the company‹s universal services costs and towards the end of the year ISP was authorised to reduce the number of delivery days in the countryside, to mention some of the events.

## SEPARATION OF ACCOUNTANCY

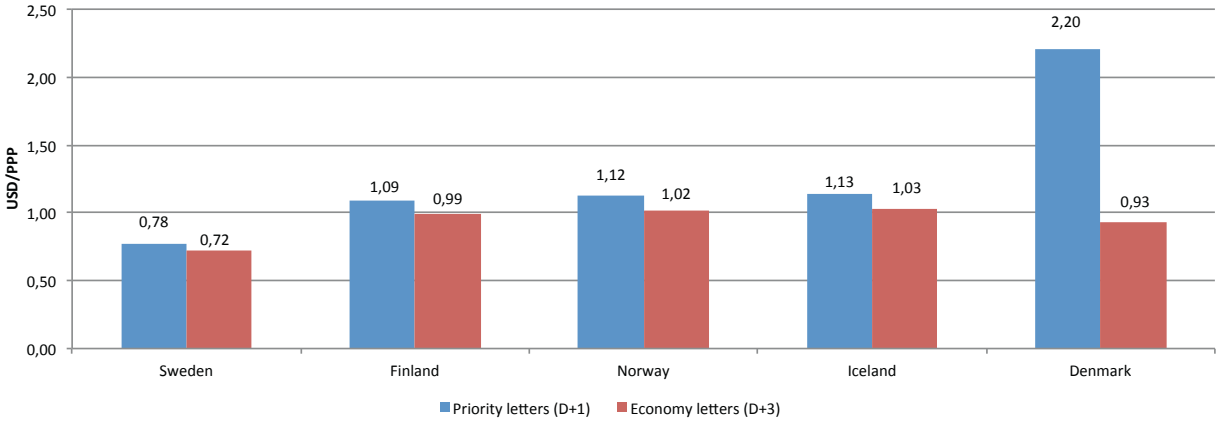
With a statement published on 30, June 2015 on ISP separation of accountancy on the basis of the ABC cost model, the PTA confirmed the integrity of ISK separation of accountancy for the year 2011, that is to say that ISP opex and capex was allocated in a recognised manner in the company's cost accounting. This declaration concluded the Administration's scrutiny of the company's separation of accountancy pursuant to the ISP ABC model, see PTA Decision no. 18/2013. Subsequent to this Decision, ISP embarked on making what is called an LRAIC model, among other things to implement the instructions for improvements that were prescribed in the Decision.

One could say that there had been a period of waiting while the scrutiny and PTA confirmation of the company's bookkeeping pursuant to the company's older ABC model, were being completed. In parallel to this, work was being done on scrutiny of the new ISP LRAIC model. On the basis of the information shown in the ISP LRAIC model, the Administration deemed that there was now sufficient information to show that the criteria had existed for a transfer entry of at least ISK 300 million from operations in competition to monopoly operations in the year 2011 on the basis of assessment of the universal services burden in the company's cost model (ABC model). The Administration had objected to this transfer in its Decision no. 18/2013.

## TARIFF INCREASES WITHIN MONOPOLY

The ISP tariff within monopoly is based on ISP cost accounting, but the PTA must endorse the method used when entering the bookkeeping. During the year there was a fundamental change where the Appellate Committee for Electronic Communications and Postal Affairs came to the conclusion, and thus changed prior practice, that the PTA only had authority to endorse or reject the petitions from ISP for an increase in tariff within monopoly. This means, for example, that it is no longer authorised to endorse a petition for amendments to tariff in part, that is to say as the documents of the case justify. This conclusion by the Committee called for changes in case procedure by the Administration, see PTA Decisions nos. 26/2015 and 27/2015.

The tariff within monopoly has increased significantly since 2007. This can mainly be attributed to the very significant decrease in letters that are within monopoly, where the decrease from 2007 until the end of 2015 has been about 48%. There has been a comparable trend in the countries we mainly compare ourselves with. The figure below shows a comparison with analogous tariffs in the Nordic countries. In this instance and equal value equivalence is used, called PPP (purchasing power parity) in the United States, which shows the amount needed to purchase the same quantity of goods and services in various countries.




**Source: Post and Telecom Administration/Teligen**

## UNIVERSAL SERVICE COSTS

During the year, the PTA made Decision no. 17/2015 which rejected criteria for ISP calculations of company costs that could specifically be attributed to the obligation borne by the company on the basis of universal service. The PTA conclusion was that ISP had not succeeded in demonstrating that the amount that the company had calculated as being a financial burden resulting from the universal service obligation, should in total be allocated to the cost base for monopoly services and be reflected as such in the company's tariff.

The company's calculations were based on its LRAIC model which it adopted in the year 2013. The decision was appealed to the Appellate Committee which has not pronounced its ruling.

## DECREASE IN DELIVERY DAYS IN THE COUNTRYSIDE

During the year, the Ministry of the Interior amended Regulation no. 364/2003 on universal services with Regulation no. 868/2015. One of the changes was the inclusion of specific cost criteria as to what could be designated normal cost of delivery in the countryside. The rule was that it was authorised to reduce the number of delivery days in the countryside where the cost was three times greater than corresponding cost in an urban area. The change constituted an addition to prior authority in the regulation on reduction of delivery days justified by circumstances or for geographical reasons. ISP applied for exemptions from the main principle of delivery on every working day on the basis of this new authorisation and the case was concluded with PTA Decision no. 34/2015 where ISP is authorised to reduce delivery days in the countryside to every other working day on the basis of the above specified cost criteria.
The company's calculations showed that its costs in the countryside exceeded the reference limits specified in the regulation where the cost was ISK 69,902 on average on an annual basis for each address. With these changes the ISP universal service costs will be reduced by about ISK 200 million per annum
It is expected that the change will affect about 15% of all postal deliveries within monopoly, that is to say solely A post. The changes have on the other hand no impact on B post which is now about 70% of all post within monopoly. The decision means that post is now delivered on Mondays, Wednesdays and Fridays every other week and on Tuesdays and Thursdays on the week in between.

After the changes the frequency of delivery for the whole country is now as follows:

| Service level | Number of addresses | Proportion |
|---|---|---|
| All working days | 128,599 | 94.86% |
| Every other working day | 6,931 | 5.11% |
| Two days a week | 43 | 0.03% |
| Total | 135,573 | 100% |

## CLOSURE OF ACCESS POINTS

ISP continued to work on making economies in the company‹s delivery network and available access points are one of the items included in universal service. The PTA agreed to the closing of access points at three locations in the country. Instead of these access points, inhabitants are offered a service with a post vehicle at specific times. It is also possible to call and order home service at specific times. The places where the new arrangement was introduced were: Tálknafjörður, Vík and Kirkjubæjarklaustur. This means that the number of traditional access points in the whole country has now been reduced to 62. At locations where there is no access point, then the services provided by ISP with traditional deliveries (landpóstur) or by operating a postal vehicle which can be visited at a number of smaller villages.

With the ruling of the District Court of Reykjavík in case no. E-2249/2014 the ruling by the Appellate Committee for Electronic Communications and Postal Affairs no. 3/2013 was rescinded where the Committee had confirmed the PTA Decision no. 14/2013 on the amount of additional discount for collectors.

The additional discount in question is still in the ISP conditions and is granted to those parties that fulfil the conditions that apply to the discount. One can draw the conclusion from the judgement of the District Court and from the rulings that have been made recently that it is for ISP to take the initiative in altering the discount in question or discount terms in general. Stakeholders can then complain to the PTA about the changes that the ISP may possibly make, see Article 9 of the Act on the Post and Telecom Administration no. 69/2003.

It is not established whether, or what changes ISP intends to make to the discount terms that apply today.

# CONSUMER ISSUES

One of the Post and Telecom Administration main tasks is to protect consumer interests on the electronic communications and postal markets and to support consumer protection in their transactions with electronic communications companies and postal service operators. Consumers are faced with varied and complex options on the electronic communications market, both with respect to choice and configuration of equipment and connections and not least with respect to choice of service provider. The Administration publishes information for consumers, participates in measures to protect personal data and personal privacy and works on assuring maintenance and security in public electronic communications networks.

The Administration's main tool for the provision of information is its website www.pfs.is where part of the web is dedicated to consumers. Consumers can also send communications and complaints to the Administration if they feel that their rights have been infringed with respect to legislation and regulation on electronic communications or postal services. Such complaints are in their hundreds every year though only some end in the formal complaint process.

## UNSOLICITED ELECTRONIC COMMUNICATIONS - CHANGED PROCEDURE AND PUBLICATION OF GUIDELINES

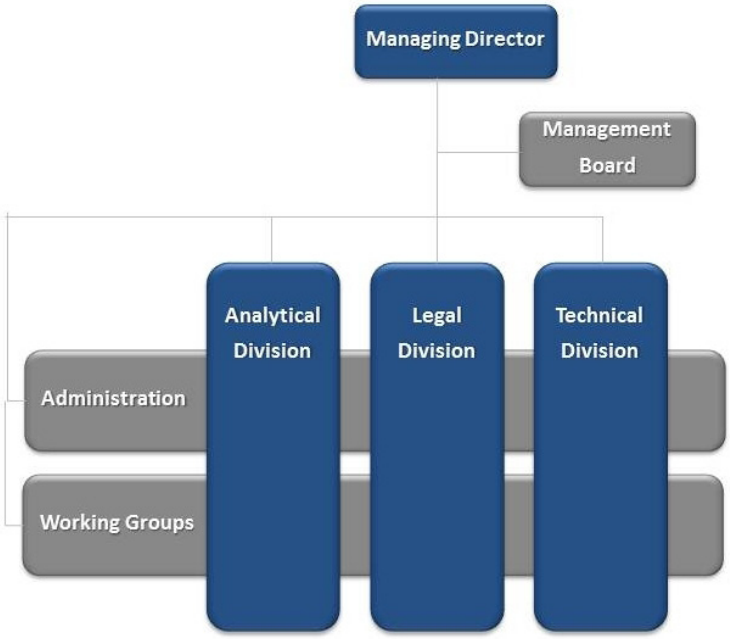
In January the PTA informed that in past years there had been a considerable increase in complaints about unsolicited electronic communications from parties conducting their marketing activities with the sending of emails, SMS or by telephone calls. Information gathered by the Administration on the number of such complaints showed that here was a 59% increase in such cases between the years 2011 and 2014, 155% increase between the years 2012 and 2014 and 38% increase between the years 2013 and 2014.

With the aim of increasing awareness and disseminating information on the provisions of Article 46 of the Electronic Communications Act no. 81/2003, which deals with unsolicited electronic communications, the Administration published guidelines, which explained the electronic communications that are deemed unsolicited, what should be considered to constitute marketing and the meaning of the ban sign in the telephone directory. The Administration furthermore, announced that it planned to alter its procedure with respect to this issue in such a manner that cases would not be taken for formal decision unless a party's infringement was repeated or where there was a dispute on the nature of the unsolicited electronic communications. When these conditions did not pertain, the Administration would send the parties responsible for the marketing, the above specified guidelines. The Administration considers that this new procedure provides important education to prevent parties from repeatedly breaching the provisions of the Electronic Communications Act, thus significantly increasing consumer protection.

## ASSESSMENT OF PROCESSING PERIOD FOR NUMBER TRANSFER REQUESTS

During the year, the Post and Telecom Administration made an assessment of whether requests for service transfer for telephone numbers were processed within the time limits prescribed in Paragraph 2 of Article 12 of Regulation no. 617/2010 on number and service transfer. It was also investigated whether denials of number and service transfer were in accordance with Article 8 of the above specified Regulation. The assessment was based on data requested by the Administration from HIN (the Icelandic number company) on processing of transfer requests over a two-week period. The main conclusion of the assessment was that the HIN electronic processing procedure was efficient and that number and service transfers were processed within 24 hours in 98% of cases. The intention is to repeat this assessment on a regular basis.

# POST AND TELECOM ADMINISTRATION 2015




**The Managing Director of the Post and Telecom Administration is Hrafnkell V. Gíslason**

Management Board consists of the managing director and of the heads of divisions.

PTA staff in 2015 numbered twenty four.

Analytical Division is responsible for market analyses, imposition and follow-up on financial obligations on electronic communications companies that have been designated as having significant market power subsequent to analysis, including cost analysis and separation of accountancy.
The Division collects information on pricing and statistics and is responsible for processing and publishing of such information. The Analytical Division also deals with various financial analyses on the post and electronic communications market.

Legal Division is responsible for handling administrative communications, settling disputes, the imposition and surveillance of obligations that are not financial in nature, universal service and consumer issues. The Division also handles international communications.

Technical Division is responsible for organisation and management of matters relating to frequencies and it monitors the use of frequencies. This Division monitors the market for electronic communications devices, is responsible for the collection and recording of information on electronic communications infrastructure along with processing of geographical information and inspects radio equipment on board ships. The Technical Division also provides other divisions with consultancy on technical issues that may affect the Administration's surveillance role.

Administration is responsible for matters related to operations, information systems, human resources, quality issues and promotion and it provides support for all internal work of the Administration.

Two working groups operated within the PTA during the year; the market analysis team and the emergency response team, CERT-IS.

# REGISTERED PROVIDERS OF ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICE

| Name | Issued | Services |
|---|---|---|
| 1808 ehf. | 28.4.2015 | Directory enquiry service |
| 365-miðlar ehf. | 17.1.2013 | Moblile and data transmission service |
| Advania hf. | 17.4.2002 | Data transmission service |
| Alterna Tel ehf. | 8.1.2010 | Voice telephony, mobile and data transmission |
| Alþingi | 23.3.2015 | Transmission of radio and television signals |
| Ábótinn ehf. | 28.3.2003 | Data transmission and service |
| Árvakur ehf. | 26.1.2015 | Directory enquiry service |
| Ásaljós | 18.8.2015 | Operation of fixed electronic communication network |
| Backbone ehf. | 25.8.2010 | Data transmission and service |
| Bloomberg Finance L.P. | 19.7.2007 | Leased line and network |
| Boðleið Þjónusta ehf. | 1.12.2015 | Voice telephony, mobile telephony and operation of fixed data transmission network |
| Brimrún ehf. | 3.4.2008 | Data transmission via satellite |
| BT Solutions Limited, útibú á Íslandi | 28.7.2014 | Data transmission services |
| Caze ehf. | 9.12.2013 | Data transmission service |
| Colt Technology Services AB | 29.9.2015 | Data transmission services |
| DataBox ehf. | 13.12.2010 | Voice telephony and network |
| Datacell ehf. | 25.8.2010 | Data transmission services |
| Davið og Golíat ehf. | 3.5.2010 | Voice telephony and data transmission |
| DCG Iceland ehf. | 24.3.2014 | Data transmission service |
| DCN Hub ehf. | 10.12.2012 | Mobile and data transmission services |
| DVD-Margmiðlun ehf. | 6.2.2004 | Broadcast cable network |
| Einar Ben Þorsteinsson | 26.8.2013 | Data transmission and service |
| Emerald Networks ehf. | 29.6.2011 | Submarine cable and data transmission service |
| Equant á Islandi ehf. | 7.7.2004 | Data transmission service |
| Eyja- og Miklaholtshreppur | 29.9.2015 | Fixed data transmission network |
| Factor ehf. | 30.5.2013 | Data transmission and service |

| | | |
|---|---|---|
| Farice ehf. | 2.9.2003 | Submarine cable |
| Feris ehf. | 6.1.2014 | Data transmission service |
| Fjarskiptafélag Skeiða- og Gnúpverjahrepps ehf. | 8.3.2013 | Data transmission network |
| Fjarskipti hf. | 27.3.2007 | Voice telephony, mobile, data transmission and network |
| Fjölnet ehf. | 26.10.2001 | Voice telephony, data transmission and network |
| Fónn ehf. | 26.5.2009 | Voice telephony, data transmission and network |
| Gagnaveita Helgafellssveitar | 18.8.2015 | Operation of fixed electronic communication network |
| Gagnaveita Hornafjarðar ehf. | 13.2.2013 | Electronic communucation networks |
| Gagnaveita Reykjavíkur ehf. | 23.3.2007 | Data transmission and service |
| Gagnaveita Suðurlands ehf. | 9.12.2013 | Data transmission service |
| Gagnaveitan ehf. | 8.6.2011 | Electronic communication services |
| Global Mission Network ehf. | 16.12.2014 | Transmission of radio and/or television signals |
| GlobalCall ehf. | 4.9.2008 | Voice telephony |
| Gullskógar ehf. | 5.2.2010 | Voice telephony |
| Halló ehf. | 23.5.2014 | Directory enquiry service |
| Hátíðni hf. | 24.1.2001 | Voice telephony, data transmission and network |
| Hitaveita Tálknafjarðarhrepps | 24.6.2015 | Data transmission network |
| Hringdu ehf. | 9.11.2010 | Voice telephony and data transmission service |
| Hringiðan ehf./Vortex Inc. | 3.12.1998 | Voice telephony, data transmission and network |
| Hvalfjarðarsveit | 31.3.2014 | Electronic communucation networks |
| Icelandair ehf. | 14.2.2014 | Network |
| iCell ehf. | 25.8.2010 | Voice telephony, mobile, data transmission and network |
| IMC Ísland ehf. | 27.6.2000 | Mobile DSC 1800 |
| Internet á Íslandi hf. | 3.2.1998 | Network, voice telephony and data transmisson |
| IP fjarskipti ehf. (TAL) | 15.9.2004 | Voice telephony, mobile and data transmission |
| IRJA ehf. | 3.5.2010 | Data transmission service |
| Isavia ohf. | 30.12.2010 | Voice transmission service for aircrafts and operation of fixed electronic communication network |
| Já upplýsingaveitur hf. | 21.11.2007 | Publication of directories, directory enquiry service |

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| Kukl ehf. | 20.3.2009 | Voice telephony, data transmission and network |
| Kvíaholt ehf. | 20.2.2012 | Voice telephony and data transmission service |
| Landhelgisgæsla Íslands | 1.1.2011 | Management and lease of NATO´s optical fibre network |
| Level 3 Communications Iceland ehf. | 1.12.2015 | Operation of fixed electronic communication network and data transmission service |
| Lindin, kristilegt útvarp | 26.1.2015 | Transmission of radio and television signals |
| LíF í Mýrdal ehf. | 15.9.2014 | Fixed line network data transmission |
| Ljós og gagnaleiðari ehf. | 10.8.2009 | Data transmission network |
| Loki Telecom ehf. | 4.5.2015 | Fixed and wireless telecommunication networks, fixed and wireless data transmission and transmission of radio and television signals |
| Magnavík ehf. | 1.4.2004 | Data transmission service |
| Martölvan ehf. | 26.11.2007 | Voice telephony, data transmission and network |
| Míla ehf. | 4.4.2007 | Electronic communication network |
| Nepal hugbúnaður ehf. | 21.2.2005 | Data transmission service and wireless data transmission |
| Netvarpið ehf. | 12.8.2013 | Voice telephony, data transmission and network |
| Netveldi ehf. | 1.12.2015 | Directory enquiry service |
| Nextgen Mobile Ltd. | 11.11.2013 | Mobile and data transmission service |
| Neyðarlínan ohf. | 6.10.1999 | Voice telephony - emergency service |
| Northern Clothing ehf. | 17.3.2015 | Transmission of radio and television signals and telecommunication service and directory enquiry service |
| Nova ehf. | 12.7.2006 | Voice telephony and data transmission |
| Nýherji hf. | 12.12.2011 | Data transmission service |
| Nýr valkostur ehf. | 20.6.2014 | Directory enquiry service |
| OnAir S.A.R.L. | 29.4.2008 | Mobile communication services on aircraft (MCA) |
| Opex ehf. | 12.9.2013 | Voice telephony and data transmission service |
| Opin kerfi hf. | 25.2.2011 | Data transmission service |
| Orkufjarskipti hf. | 26.10.2001 | Electronic communication network |
| Packet ehf. | 11.2.2011 | Data transmission and service |
| Pálmi Sigmarsson | 10.10.2014 | Wireless network and wireless data transmission |
| Radíó ehf. - Íslensk fjarskipti | 22.8.2006 | Telecommunication service |

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| Radíóvík ehf. | 14.5.2004 | Cable network |
| Rafey ehf. | 18.8.2015 | Operation of wireless electronic communication network |
| Ríkisútvarpið ohf. | 29.7.1997 | Transmission of radio and television signals |
| Símafélagið ehf. | 15.10.2008 | Voice telephony |
| Símaþjónustan ehf. | 28.6.2013 | Voice telephony |
| Síminn hf. | 30.7.1998 | Voice telephony, mobile, data transmission and network |
| Sjónvarpsmiðstöðin ehf. | 8.10.2009 | Data transmission service |
| Skjárinn ehf. | 16.12.2014 | Transmission of radio and/or television signals |
| Snerpa ehf. | 17.8.2000 | Network, voice telephony and data transmisson |
| Softverk ehf. | 20.3.2009 | Voice telephony, data transmission and network |
| SportTV ehf. | 12.8.2013 | Transmission of radio and television singals and telecommunication service |
| Streaming Media ehf. | 10.10.2014 | Wireless network, fixed and wireless data transmission and transmission of radio and television signals |
| Stykkishólmsbær | 2.5.2002 | Data transmission network |
| TELE Greenland A/S | 24.6.2008 | Submarine cable |
| Tengir hf. | 20.9.2002 | Fiber optical network |
| Thor Telecom Ísland ehf. | 15.10.2014 | Fixed and wireless data transmission and transmission of radio and television signals |
| Tismi BV | 5.3.2015 | Voice and mobile telephony |
| TSC ehf. | 18.1.2002 | Voice telephony, data transmission and network |
| Tölvu- og rafeindaþjónusta Suðurlands ehf. | 29.3.2004 | Data transmission service |
| Tölvun ehf. | 25.4.2003 | Data transmission and service |
| Tölvustoð ehf. | 15.4.2009 | Data transmission service |
| Tölvuteymi ehf. | 5.3.2015 | Data transmission and service |
| UAB Raystorm | 14.2.2014 | Mobile transmission service |
| Upplýsingatæknifélagið Omnis ehf. | 28.1.2013 | Data transmission service |
| Viking Travel slf. | 5.3.2013 | Wireless network, wireless data transmission and voice and mobile telephony |
| Þekking - Tristan hf. | 16.1.2004 | Data transmission and service |
| Þorvaldur Stefánsson | 14.10.2014 | Maritime mobile |
| Öryggisfjarskipti ehf. | 6.10.2008 | Telecommunication service and network / TETRA |

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