

# ANNUAL REPORT 2014



POST AND TELECOM  
ADMINISTRATION  
IN ICELAND

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# ADDRESS BY THE MANAGING DIRECTOR

**The Post and Telecom Administration plays an important surveillance and monitoring role in two sectors of the community which are characterised by major and increasingly rapid change. The electronic communications sector is in an ever-changing landscape where parties to the market increase in step with increased variety in technology and its applications. At the same time the postal market is in the middle of a process of change which is not least driven by a decrease in traditional letter post as electronic communications increase, and parcel post increases with the increase in on-line shopping.**

**Equally the legal environment and regulatory framework are subject to continuous change in line with the policies and circumstances pertaining at any given time.**



One of the roles of the Administration is to provide specialist knowledge for government policy-making and subsequently to work on implementation of plans that are made. In order to fulfil this role, the Administration staff need to have substantial knowledge of the critical community infrastructure dealt with by the Administration, and they need a good grasp of the development taking place and the ability to diagnose and react where the need arises. During the year, representatives of the Administration participated for example in a working group which dealt with a national drive to develop an electronic communications infrastructure where the objective was among other things to present options on how to ensure access to broadband for all. The proposals of the working group, Iceland Fiber-connected, aim to eliminate market failure in access to broadband by assuring broadband for almost all who live in rural areas.

The year 2014 not only brought changes and innovation in the fields in which the Post and Telecom Administration operates, but also ideas on changes in the position of the Administration itself. Government work commenced on a review of the institutional arrangement for surveillance of postal and electronic communications markets. In the light of ideas from the government rationalisation working group, the Minister of the Interior and the Minister for Employment have appointed a consultancy company to investigate the feasibility of possible merging or cooperation between the PTA, the Competition Authority, the Media Committee and the Orkustofnun Electricity Surveillance.

The PTA has indicated parts of the work of the Administration that would prove difficult to harmonise with the tasks of other institutions that had been mentioned in this connection. This applies, for example, to the allocation of frequency licences which constitutes in

reality the allocation of natural resources, and monitoring of wholesale costs on the market, both of which are typical ex ante administrative actions, that is to say looking to the future, that have an impact on the market position and thus competitive position of companies on this competition market. The PTA considers it difficult to see that decisions of this kind could effectively be accommodated in one and the same institution that also deals with competition issues and that operates on an ex post administrative basis or in other words, which looks mainly to the past at possible breaches of for example the Competition Act. The new institution would be in a position where it allocated resources or endorsed tariffs which had an impact on the competition position while at the same time being an independent arbiter in the competition environment which the institution had created with its ex-ante decisions.

## ELECTRONIC COMMUNICATIONS

### UNCERTAINTY IN CYBER SECURITY ISSUES

Cyber security is a factor whose importance is increasing steadily for the security of the whole community. During the year, PTA representatives participated in the Minister of the Interior's policy work on cyber security 2014 - 2025 and in the development of a plan of action for the coming years. The objective of the policy is to strengthen knowledge and resilience to adversity resulting from cyber threats and to improve legislation and policing. In the first part of the year the Minister of the Interior then in office made the decision to move the Computer Security Incident Response Team CERT-IS from the PTA to the Office of the National Commissioner of the Icelandic Police. The matter was however not successfully completed during the year and the

intention is to complete in 2016. From the time that the decision was made this interim status has created uncertainty on the future organisation and operations of the team at times when cyber threats are continuously on the increase and which appear in ever-changing manifestations to the public, to companies and to important community infrastructure.

### SUPPORT FOR SPREAD OF BROADBAND

Objectives are set in the 2011 - 2022 Telecommunications Plan for access to broadband such that all citizens will have access to a 30 Mb/s connection and 99% will have access to a 100 Mb/s connection in 2022. The PTA has clear policy on how to work towards achieving these objectives. The policy is based on four main pillars. First, increased distribution of electronic communications and improved access to broadband connections shall be supported by using the provisions of the electronic communications regulatory framework for development, e.g. by supporting increased competition in electronic communications. Secondly, the Administration encourages cooperation and synergy for the development of electronic communications infrastructure in those regions where the market has failed. Thirdly, the Administration will use its legal authority with respect to universal services and fourthly and finally the authorities, the state or municipalities, can provide state support for development of electronic communications infrastructure when other remedies are exhausted. The Administration has worked on translating and disseminating information on rules governing state aid for the development of electronic communications infrastructure. Promotional meetings have been held for municipalities for this purpose.

### VARIETY OF TASKS

Work is being carried out within the PTA on building a database containing information on all electronic communications infrastructure in the country. This will enable precise mapping of the status and distribution of electronic communications for the purpose of facilitating policy making and organisation. The database will furthermore be very useful for internal work in the Administration, for example when organising frequencies and searching for interference in radio networks. One of the Administration's most important tasks is to collect detailed information on electronic communications market statistics. This is among other things done to evaluate the efficiency and results of the Administration's work with respect to competition on the electronic communications market. One can see from the statistics that competition on the mobile phone


network is quite well-developed as the three largest companies have quite similar market share. On the market for Internet connections, Síminn has a strong position with about half of the market, while Vodafone has about one third and others have less. Competition on the market for fixed line networks is least developed and Síminn is by far the largest party. This shows that the work of the Administration on developing competition on the market has achieved significant results for the benefit of consumers.

In addition to regular tasks, the Administration works on a number of issues each year aimed at developing competition on the market, on improving access to services and on strengthening security.

In 2014 a new arrangement was adopted for disseminating telephone directory information. Up to that point in time, the company Já had had a near monopoly on providing telephone directory information and such like. The new arrangement means that competitors of Já can now access correct telephone directory information and build their services on the same information base to which Já has had access. In the auction of frequency licenses for fourth generation mobile phones in 2013, it was made possible for mobile phone companies to jointly develop mobile phone network infrastructure, even though they acted as non-related parties with respect to consumers. Subsequent to the auction the PTA authorised cooperation of this nature between Vodafone and Nova, given that the conditions of the Competition Authority were fulfilled. In this way the Administration made a contribution towards the objectives of making the development of electronic communications infrastructure more economical and of sharing, while at the same time supporting competition at consumer level.

## POSTAL AFFAIRS

The situation of the company Íslandspóstur has recently been the subject of considerable debate. Diminishing volume of letter mail has led to a deterioration in postal service which among other things has made it necessary to increase costs of monopoly service. In addition to this the distribution system has been simplified with the objective of reducing costs. It has long been intended to introduce the EU Postal Services Directive which among other things, would mean that Íslandspóstur monopoly on delivery of letters under 50 g would be lifted. This is currently being prepared. When lifting the monopoly one must take a position on how



universal service, that is to say regular distribution of post into all households in the country, will be financed, should this be necessary and the Administration has recently been working on this issue.

## CLOSING WORDS

The decision to open the electronic communications market was made just before the end of the last century. Few suspected at that time the extent to which the electronic communications market would change in just under two decades. It is now foreseeable that traditional circuit switched electronic communications will be a thing of the past within a few years and that services based on new technology, new philosophy and new business models will replace them. We know and use such services today such as social media and material providers. Nations and parties to the market face new opportunities and challenges. Parties to the market need to totally rethink their approach to the market. It is necessary to adapt the electronic communications regulatory framework to these changes and to level the playing field for those who are covered by the framework and those who are not. Nations have been slow to react and to adapt to change, for example with appropriate legislation. One must for example keep consumer rights in mind as information on consumer behaviour on the Internet is now bought and sold and is a currency that can be used for access to various services for which consumers are not required to make direct payment. In general there is reason to celebrate these changes, but at the same time one must consider consumer interests and the interests of the nation as a whole with respect to potential distortion of the competitive position of domestic parties to the market and with respect to various security threats directed at sensitive community infrastructure.

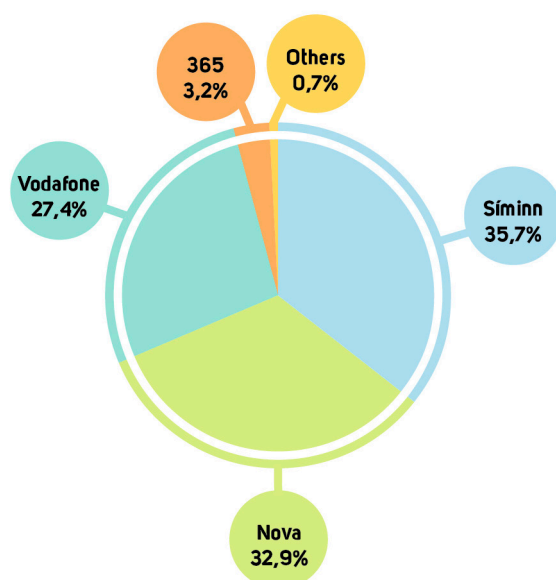
**Hrafnkell V. Gíslason**

# ELECTRONIC COMMUNICATIONS

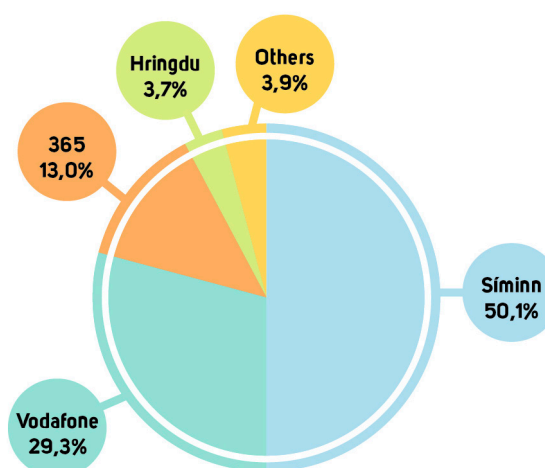
## MONITORING STATUS OF ELECTRONIC COMMUNICATIONS MARKET

The Administration collects detailed statistical information twice a year which shows the status of the electronic communications market. This is among other things done to evaluate efficiency and results of the Administration's work with respect to competition on this market. Data for the year 2014 shows, for example, that on the mobile phone market the share of the three largest companies, Síminn, Nova and Vodafone is fairly equal, while on the Internet connection market Síminn has about 50%, Vodafone about 30%, 365 has 13% and others have smaller shares. Competition on the market for fixed line networks is least developed where Síminn is by far the largest party with about 72% market share.

### MOBILE SUBSCRIPTIONS Market share by companies



### INTERNET CONNECTIONS Market share by companies



## 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 PTA makes analysis on the markets specified in the ESA Recommendation in accordance with the Electronic Communications Act and with Iceland's obligations pursuant to the EEA Agreement. Furthermore the electronic communications legislation prescribes that the PTA define these markets in accordance with circumstances specific to Iceland. This means that one can allow for the PTA market definition varying

from the definition in the Recommendation. The PTA is furthermore authorised to study other electronic communications markets than those listed in the Recommendation. The ESA Recommendation currently in force was issued on 5 November 2008 and it lists fewer markets than in the prior ESA Recommendation on the same subject, which was published in 2004. It was considered that in general, not all markets in the 2004 Recommendation still fulfilled conditions that made them susceptible to the imposition of ex-ante obligations. The markets where there is an obligation to examine pursuant to the current ESA Recommendation are as follows:

1. Access to the public telephone network at a fixed location for residential and non-residential customers.
2. Call origination on the public telephone network provided at a fixed location.
3. Call termination on individual public telephone networks provided at a fixed location.
4. Network infrastructure access (including shared or fully unbundled access) at a fixed location.
5. Broadband access
6. Terminating segments of leased lines.
7. Voice call termination on individual mobile networks.

In the year 2014 the Administration completed analysis of the above specified markets. Additionally, work was done on a review of the trunk line market (previously Market 14) and completion of this is expected in 2015. Furthermore, continuing emphasis will be placed on following up the obligations that have been imposed subsequent to market analysis and particularly on cost analysis of wholesale prices.

#### MARKET ANALYSIS CAN BE DIVIDED INTO 3 PHASES:

- Define the relevant service markets and geographical markets.
- Analyse all markets, determine whether there is active competition on these markets and make a Decision on whether one can find one or more companies with significant market power.
- Make a decision on whether obligations on companies with SMP shall be imposed, amended or withdrawn.

#### MAIN PTA TASKS IN THE FIELD OF MARKET ANALYSIS IN 2014

##### Retail market for minimum set of leased lines

On 23 April 2014 the PTA published Decision no. 7/2014 on the retail market for minimum set of leased lines (previously Market 7).

The PTA conclusion was that the designation of Síminn as a company with significant market power on the relevant market from 2007 was revoked. With this action the obligations imposed on Síminn with that Decision were withdrawn.

The PTA considers that the most significant entry barriers that once existed on this market are no longer

in place to the extent that they can be described as high and non-transitory. The PTA considers that those electronic communications companies that need to offer their customers retail leased lines have easy access to wholesale service which serves their needs, see the obligations on the wholesale market for terminating segments of leased lines (Market 6) which is now in the consultation phase with the EFTA Surveillance Authority (ESA).

The Administration nevertheless considers there to be a need to closely monitor the market and is prepared to examine whether a new analysis needs to be made should circumstances on the market change significantly. The retail market in question is defined as the minimum set of leased lines with up to 2 Mb/s to end users. Users are those who used the service for their own requirements and who do not use it as procurement from electronic communications companies for resale. This therefore does not apply to other electronic communications companies. The PTA defines leased lines as dedicated transmission capacity of signals between predefined points.

##### Wholesale market for terminating segments of leased lines

On 6 May 2014 the PTA published Decision no. 8/2014 on the wholesale market for terminating segments of leased lines (Market 6).

The PTA conclusion was that Míla still has significant market power on this market - as it had according to market analysis from 2007. In the Decision from 2007, Síminn was also in this position but all of Síminn's leased line operations at wholesale level were subsequently transferred to Míla. For this reason, Síminn was not designated as having a dominant market position on the relevant market. The obligations imposed on Míla with the 2007 Decision have remained in force with specific additions in this new Decision.

Despite the entry of Gagnaveita Reykjavíkur ehf. and of a number of local network operators, the Míla market share was still about 70-80%, according to the newest reference on market share, and there were still significant access barriers to the relevant market in the opinion of the PTA.

Terminating segments of leased lines is defined as an access market at wholesale level for stable capacity of signals between predefined points in that part of the electronic communications network where the subscriber



has sole access to the whole connection. The market lies between the user (residential or non-residential) and the node point/telephone exchange and connects users to one point where the trunk line system takes over. These connections are leased to other electronic communications companies to enable them to provide services on various retail markets such as for example fixed line telephone services, Internet services and other data transfer services. The market covers both digital and analogue lines and connections with all possible technology and transmission media. Transit media can be, fibre-optic, copper or wireless connections.

#### **Wholesale market for access to fixed access networks and broadband**

On 13 August 2014 the PTA published its Decision no. 21/2014 on the wholesale market for access to local loops (Market 4) and bitstream (Market 5).

The PTA conclusion was to maintain the designation of Mila, as a company with significant market power on the local loop market (Market 4) and to impose appropriate obligations on the company. In addition to maintaining specific obligations on Mila, the Administration imposed further obligations on the company that were designed to facilitate increased competition on the relevant market. Despite the entry of Gagnaveita Reykjavíkur ehf. and of a number of local network operators, the Mila market share was still about 83%, and there are still significant access barriers to the relevant market in the opinion of the PTA. The PTA furthermore designated Mila as a company with significant market power on the market for wholesale broadband access (Market 5) and imposed appropriate obligations on the company to strengthen competition. With the PTA Decision no. 8/2008, Síminn hf. was designated as a company with significant market power on the relevant market. Subsequent to the Settlement between Skipti - the parent company of Síminn and Mila - and the Competition Authority in 2013 these broadband operations of the Group, were transferred from Síminn to Mila. Mila has by far the largest market share on the relevant wholesale market with about 76% market share when internal sales are included.

Market 4 covers access to copper and fibre-optic local loops including both shared and fully unbundled access. The market thus covers physical electronic communication network infrastructure; the physical copper loops themselves, switching stations, boosters etc. A variety of technical systems can be added to the local copper loops and it is at these points that the real prod-

uction of service takes place. This service requires that end users can both send and receive data. This service - which takes place on the network, for example Internet, e-mail, television broadcasting (IPTV) and other services - is rather covered in the discussion on Market 5. It is not sufficient to have access to a local loop to enable broadband services. In the same way it is necessary to have access to some kind of electronic communications infrastructure to enable broadband services. This is why these markets are analysed together.

As stated above the PTA imposed appropriate obligations on Mila on the relevant markets for the purpose of strengthening competition in electronic communications. These are an access obligation, obligation for non-discrimination, for transparency, for separation of accountancy, for price control and for cost accounting.

The main difference from prior analyses is that current analyses and obligations cover both copper and fibre-optic networks operated by Mila whereas up to this point in time they only covered Mila's copper network. On the other hand the PTA did not impose a price control obligation on Mila's fibre-optic services, given that the company met specific conditions related to these services. The conditions constituted among other things a stricter non-discrimination obligation than before and reservations to the effect that competitors of the Skipti Group (Mila and Síminn) should be able to emulate services provided by the Group, technically and economically and in a sustainable manner on normal competitive grounds. In the event of Mila not meeting these conditions, the PTA reserves the authorisation to impose price control obligations on the company for this service.

#### **Call termination prices in mobile phone networks**

In October the PTA published its Decision no. 21/2014 on benchmarking on the wholesale market for call termination in individual mobile phone networks (Market 7). This Decision was a more detailed elaboration of a previous Decision by the Administration no. 3/2012 on market analysis of the wholesale market for call termination in individual mobile phone networks. According to the benchmarking, the maximum price should decrease to ISK 1.52/minute at the turn of the year 2014/2015. The implementation and conclusion of the benchmarking is described in more detail in the Decision itself. The termination rate which applied in 2014 was decided with the PTA Decision no. 25/2013 from 31 October 2013 when the Administration



prescribed that the termination rate should decrease from ISK 4/minute to ISK 1.64/minute from and including 1 January 2014.

The PTA decision on maximum termination rates was based on Decision no. 3/2010 on the designation of companies with significant market power and on the imposition of obligations on the wholesale market for call termination in individual mobile phone networks (Market 7). Pursuant to that Decision, maximum termination rates should be levelled and reduced, that is to say the price that mobile phone companies take for terminating a call in their own system that originates in another system.

Termination rates of all mobile phone operators in this country have been symmetrical since 1 January 2013, but for a period of many years they had not been symmetrical and were much higher than they are now. Pursuant to Decision 3/2012, the PTA shall make annual benchmarking to decide termination rates and the Decision shall be published no later than 1 November of each year, subsequent to national consultation and consultation with the EFTA Surveillance Authority, ESA. The conclusion shall be based on the average rates of the EEA states that apply the methodology for cost analysis which is described in more detail in PTA Decision no. 3/2012.

The PTA plans to review its Decision no. 3/2012 on Market 7.

#### **Wholesale market for trunk segments of leased lines**

In December 2014 PTA published a preliminary draft market analysis of the wholesale market for trunk segments of leased lines (Market 14 in the older ESA Recommendation). This market was last analysed with PTA Decision no. 20/2007. On that occasion, Síminn and Mila were designated as having significant market power on the relevant market. Appropriate obligations were imposed on the companies as a measure aimed at solving the competition problems that had been identified on the relevant market.

The market for trunk line segments of leased lines is an important market for electronic communications companies as it covers the connection routes between telephone exchanges and distribution locations, including connections between regions of the country, and these can be very powerful connections. The wholesale market for terminating segments of leased lines (Market 6) was analysed with PTA Decision no. 8/2014 and this

market covers connection routes in the access network between node points/telephone exchanges and end users (residential and non-residential). Mila was designated as a company with significant market power on those markets and appropriate obligations were imposed on the company as a measure towards solving the competition problems that had been identified.

It is the planned PTA conclusion that Mila still has significant market power on the wholesale market for trunk line sections of leased lines but Síminn however no longer operates on the relevant market. The PTA plans to maintain obligations on Mila.

The PTA plans in the year 2015 to publish its Decision on this market.

## AMENDED ARRANGEMENT FOR INFORMATION SERVICE ON TELEPHONE NUMBERS

The issue of electronic and printed telephone directories along with information service on telephone numbers is included in the definition of universal services which shall be available to all citizens at an affordable price. For many years the obligation to provide this service rested on Síminn hf. (and its predecessors) and subsequently on the company Já upplýsingaveitur hf. Experience of recent years has shown that there were grounds for the service being offered on market criteria. Taking this into account, the Post and Telecom Administration issued a consultation document in 2013 where the Administration's intention to lift the obligation on Já upplýsingaveitur hf. to maintain an electronic telephone directory and to provide telephone directory service. The conclusion of the consultation showed that Já was prepared to issue a printed telephone directory for a period of 3 years without any specific obligations to this effect and on these grounds the Administration decided to refrain from re-imposing such an obligation on the company. In June 2014 the Post and Telecom Administration sent new procedural Guidelines to electronic communications companies on the recording and dissemination of information on telephone numbers. These Guidelines cover the best ways for those electronic communications companies that allocate telephone numbers to coordinate technical implementation of dissemination of the information. The objective is to assure efficiency and to level the competitive position of these parties. The rules were made in cooperation with stakeholders. In order to level the competitive position

between Já upplýsingaveitur hf. and other parties that planned to operate telephone directory service, the 118 number was withdrawn with adequate notice and its use was to be discontinued no later than 30 June 2015, with telephone directory information subsequently being provided in the number sequence 1800-1899.

**The new arrangement for telephone directory service included the following:**

Basic information on an individual or legal entity that chooses to be registered in a telephone directory is: Name, address, postcode and telephone number, and in addition to this there would be unwanted call marks should the party in question so wish.

Electronic communications companies that allocate telephone numbers are responsible for the accuracy of basic information on its subscribers in a telephone directory and are obliged to disseminate this information to other electronic communications companies and/or information service providers on request.

Electronic communications companies that allocate telephone numbers are authorised to outsource processing and registering of telephone directory information to external processors.

In agreements with external processors or service providers on dissemination of information to service providers, there shall be a condition that information on all amendments made to a subscriber's basic information shall be disseminated back to the telephone company providing services to the subscriber in question.

## REVIEW OF UNIVERSAL SERVICE OBLIGATIONS

Universal service is the electronic communications service that shall be available to all citizens at an affordable price regardless of geographical location. Universal service obligations are therefore imposed on companies, one or more according to geographical region, which have the capacity with minimum costs of providing the service in question.

At the end of last year, the Post and Telecom Administration imposed a new and reviewed universal service obligation on Míla to supply users with a connection to the public electronic communications network. Significant amendments were made to the universal service obligation that up to that point in time had rested

on Míla and prior to that on Síminn, an obligation that had remained virtually unchanged since 2005.

The objective of the new universal service obligation was to end the stagnation that had characterised the installation of fibre-optic to residential customers in the countryside. This was done by making a new division of costs in those instances where Míla chose to install a new fibre-optic line to residential customers.

In addition to access to the public electronic communications network, the services covered by universal service include for example fixed line telephone (landline), minimum data transfer service, publishing of telephone directory and directory enquiries. Some of these services are provided by parties to the market on competition grounds. This applies, for example, to fixed line telephone and directory enquiries where obligations on specific companies to provide these services have been lifted.

On the other hand the PTA considers it necessary to maintain a universal service obligation on providing users with a connection to the public electronic communications network and thus assure access for all citizens to minimum telephone and data transfer service.

Up to this point in time, municipalities and stakeholders and/or the users themselves in certain areas have co-operated in laying local fibre-optic networks to meet steadily increasing requirements of citizens for better electronic communications service. Without the changes now being made, the Administration believes there to be a risk that citizens in certain regions will be left behind and will not be able to take advantage of the possibilities offered by modern electronic communications services in the foreseeable future.

With the obligations that were imposed on Míla the intention is among other things to create incentives for the company to renew its access system at locations where it is foreseen that new technical solutions will not be introduced. This applies for example to VDSL technology which enables the company to increase capacity of the copper line system already in place and offer up to 100 Mb/s, a service categorised by the EU definition as a next generation access network. It will however, as before, be entirely a decision for Míla as to whether and where the company will re-new the access network with fibre-optic where it is not possible to apply VDSL technology.

**Among the changes introduced by the new universal services obligation are:**

- The Mila share of the cost of providing a connection with the public electronic communications network is reduced from ISK 650,000 to ISK 250,000 for each local loop.
- A ceiling of ISK 250,000 is set for user participation in costs whereas previously the user had to pay all costs in excess of ISK 650,000.
- For the sake of transparency and non-discrimination, certain conditions are set for possible funding by the Universal Services Compensation Fund and its maximum contribution is ISK 250,000 per local loop.
- The obligation on Mila is geographically limited and does not apply in municipalities where other electronic communications companies or municipalities have installed local loops and have realistic plans for maintaining and assuring a connection for all citizens to the public electronic communications network. The municipalities in question will be specified in an Appendix to the Decision which will be published no later than 30 June 2015.

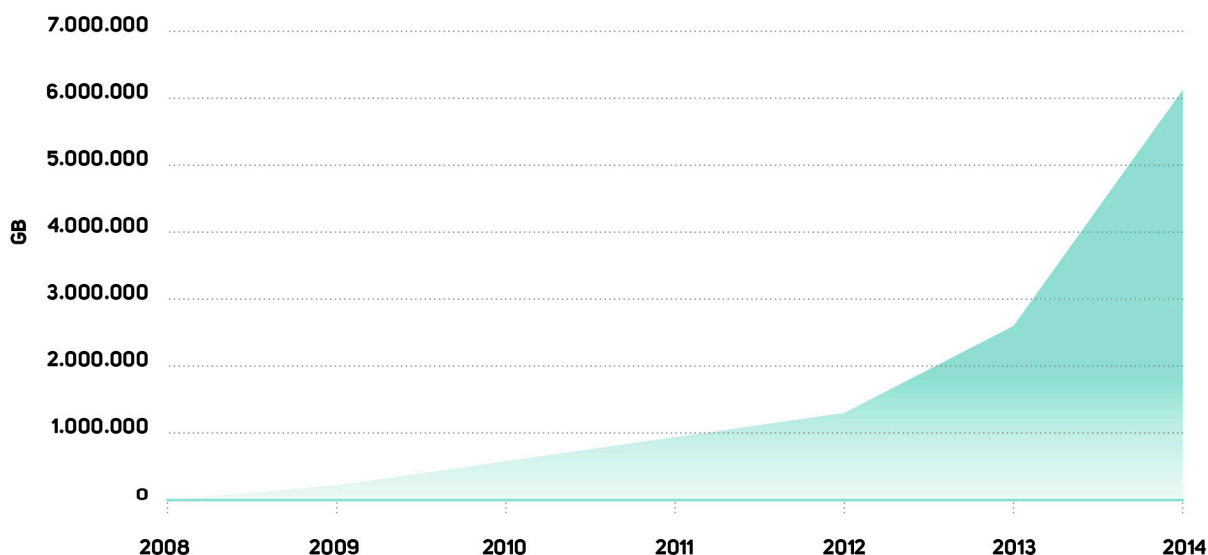
The new PTA Decision on the Mila universal services obligation takes into account the objective of encouraging development of fibre-optic and access networks across the whole country, which is in Althingi parliamentary resolutions on the 12 year Electronic Communications Plan for the years 2011-2022 and in the 4 year implementation plan for the years 2011-2014. The Digital Agenda for Europe, which has the same objective for public access to electronic communications, is also taken into account. The Administration had broad and open consultation with stakeholders during its work on this issue and many opinions were received from a variety of parties, including electronic communications companies, individual municipalities and their associations, from the Regional Development Institute and from the Farmers Association of Iceland.

## COOPERATION ON DEVELOPMENT AND DISTRIBUTION OF MOBILE NETWORK SERVICE

Recent years have seen major developments in technology for using the frequency spectrum, for example in compression and sharing of frequency ranges. In the conditions of the auction of frequencies in the 800 MHz and 1800 MHz frequency ranges, which was held in March 2013, authorisation was granted for cooperation between electronic communications companies on the development and operation of a 4G network, which among other things constituted sharing of frequencies. It is generally considered that the larger the frequency range used to develop a high-speed network, the greater the potential efficiency and data transfer speed. In the case of sharing of frequency ranges between two or more parties, such parties enjoy the benefits of economy of scale in the shared frequencies.

## DATA ON MOBILE NETWORKS

There has been a huge increase in the use of data in mobile networks (3G and 4G) since 2012.



In November 2013 a request was received from Vodafone and Nova for the PTA to authorise cooperation between the companies in sharing frequencies for the development of a joint distribution system for 4G mobile network service. Subsequent to this the Administration considered there to be a need for open consultation on the matter. In the consultation document it was stated that the companies planned to found a company jointly and equally owned by them which would handle ownership, building and development of a distribution system for all of the companies' public mobile phone services. The intention with the cooperation was threefold: Work jointly on introducing a comprehensive distribution system at national level.

- Work jointly on introducing a comprehensive distribution system at national level.
- Use technological advances to achieve significant economies in investment and operation.
- Develop a single comprehensive distribution system with national coverage for 2G/GSM, 3G/UMTS and 4G/LTE mobile phone and network service.

There were mixed reactions from competitors. Among other things, it was the opinion of Síminn that the planned sharing of frequencies constituted unlawful transfer of frequencies, and the Administration subsequently received a complaint to this effect. The Post and Telecom Administration resolved this dispute in its Decision no. 14/2014 from 2 July 2014. The

Post and Telecom Administration conclusion was that the cooperation between the companies on sharing frequency ranges did not constitute unlawful transfer of frequency licenses. Among other things the Administration considered that the frequency licences were not being transferred to the new joint company but rather that they were still in the hands of Vodafone and Nova. The Administration also took into account that the company would not offer electronic communications services, for example by making transactions or by enjoying income from such services, while the two owning companies would continue to operate as independent competitors on the mobile network market.

## REVIEW OF RULES ON IN-HOUSE TELECOMMUNICATIONS CABLING

The Post and Telecom Administration has for some time intended to review its Rules no. 1109/2006 on in-house telecommunications cabling. The Administration considers that they do not take sufficient account of fibre-optic cabling and that they are in many respects based rather on the older copper line technical environment. On the other hand the rules prescribe specific basic principles that are technology independent, such as security of connections, non-discrimination between competitors and consumer protection.

A related matter was where the Post and Telecom Administration resolved the dispute between Mila ehf. and Gagnaveita Reykjavíkur ehf. on finishing of a fibre-optic local loop and at interconnection with in-house cabling in an intake box. This matter arose because of a complaint by Mila ehf. about the Gagnaveita Reykjavíkur ehf. practice of fusing the fibre-optic local loop with the in-house cabling. Mila considered that the practice constituted a barrier to access to the user's in-house electronic communications cabling which in turn led to a limitation of competition in providing access to a local loop.

With its Decision no. 32/2014 from 1 December 2014, the Post and Telecom Administration came to the conclusion that the Gagnaveita Reykjavíkur practice of fusion splicing breached Article 7 of Rules no. 1109/2006 on in-house cabling which prescribes that the cable end of the local loop should be fitted to the appropriate connector which the user can then connect to the in-house cabling with a connector cable.

The Post and Telecom Administration is aware of the fact that IST - Icelandic Standards is reviewing the standard IST 150 on communication installations in residential buildings. The Administration plans to participate in this review and to revise its Rules no. 1109/2006 on in-house communications cabling having in mind the amendments that parties to the market will agree on in this respect. Furthermore, the Rules of the Post and Telecom Administration must take into account the Recommendation no. 2014/61/EU on reduction of costs in the building of high-speed networks, which among other things, contains requirements for electronic communications company access to in-house communications cabling.

## NEXT GENERATION ACCESS NETWORKS

### PTA AND ESA COURSE ON RULES GOVERNING STATE AID

In May 2014, specialists from the EFTA Surveillance Authority (ESA) came for their annual visit to Iceland to meet specialists in public administration and in the industry as the ESA role is to ascertain that measures taken by the authorities in Iceland, Norway and Lichtenstein under the EEA Agreement are in accordance with its rules.

During the visit a joint course was provided by the PTA and ESA on rules governing state aid for high speed

electronic communications networks. The course was open to all interested parties and was attended by representatives of electronic communications companies and utility companies that lay underground cable, by representatives of various interest groups and by employees of the PTA. ESA staff, Ketill Einarsson lawyer, Emily O'Reilly economist and Fabian Kaisen lawyer - who all manage treatment of specific issues at the Surveillance Authority - covered the main issues on how the state can participate in funding of high speed broadband networks pursuant to the EEA Agreement. Björn Geirsson senior lawyer at the PTA supervised the course.

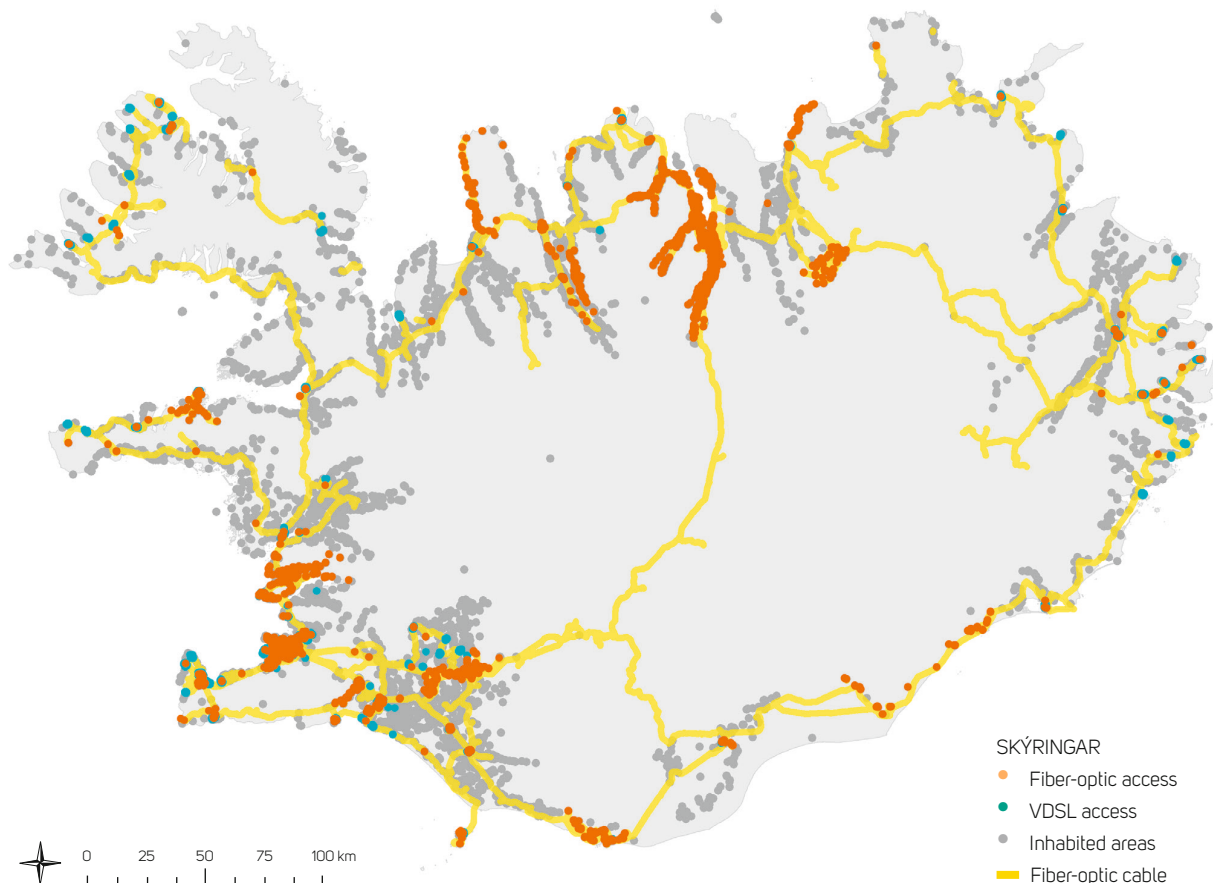
### PUBLICATION OF GUIDELINES

In the latter half of 2014 PTA staff were working on Guidelines for municipalities and other public bodies for the building of fibre-optic systems. The project was done at the request of the Ministry of the Interior which requested the above information in their initiative to support preparation and implementation of the building of fibre-optic systems by public bodies, particularly municipalities. The Ministry of Industries and Innovation funded the project on the grounds of objectives in the Parliamentary Resolution on a Strategic Regional Plan for the years 2014-2017 on support for building a powerful data network. The Administration published detailed Guidelines in November. There one can find information on the regulatory framework of the EEA Agreement for competition and state aid, technical requirements, information on requirements in auctions and templates for tender documents and for agreements with electronic communications companies on connections and operation of fibre-optic systems. In an appendix to the Guidelines themselves one can find a checklist, information on the status and development on the Icelandic electronic communications market, a template for interconnection agreement, general information on equipment and devices, and various related practical information. Subsequent to the publication of the Guidelines it was decided that in the first half of 2015 there would be a series of promotional meetings at various locations in the countryside in cooperation with representatives of regional associations.



In this country, as elsewhere, there is rapid development in installation of next generation access networks, that is to say fibre-optic - and VDSL connections where fibre-optic does not reach all the way into building but rather a copper wire is installed to the building from a fibre-optic cable in a street cabinet.

### NEXT GENERATION ACCESS



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

## TECHNICAL DEVELOPMENT AND STRENGTHENED INFORMATION SYSTEMS

Many projects are carried out each year within the Post and Telecom Administration Technical Division, many of which are regular, but which however develop in step with changes in technology and circumstances. In this context one could for example mention reactions to complaints about interference which have increased dramatically between the years, allocation of frequencies, inspections of electronic communications security equipment in ships, allocation of numbers and codes, issue of electronic communications certificates

and much more. In addition to this, in the year 2014 work was done on a number of separate projects variously short-term or long-term. One could mention here, for example, that in cooperation with the Icelandic Radiation Safety Authority, inspections and measurements were made on radiation from electronic communications transmitters, including radio transmitters at Úlfarsfell. National consultation was also opened on the future arrangement of numbers for what is called Machine to Machine (M2M) service which is growing rapidly, among other things because of next generation electronic communications networks and because of a reduction in costs in mobile phone and mobile network systems.



## BUILDING OF DATABASE ON ELECTRONIC COMMUNICATIONS INFRASTRUCTURE

Work was continued on developing a comprehensive database on the country's electronic communications infrastructure. The collection and display of information on electronic communications infrastructure related to wireless electronic communications networks was immediately commenced. The database manages various information about electronic communications transmitters, including information about location, height of masts and transmission strength. This information is used in a variety of ways, for example for searching for interference and for pre-emptive measures to prevent interference, for allocation of frequencies and for generating distribution maps. At the beginning of the year, the PTA began to publish electronic communications maps on its website which show distribution of GSM, 3G and 4G signals.

During the year work was commenced on collecting information on trunk line networks and access networks. Such information was among other things collected in connection with work related to the volcanic activity at and to the north of Bárðarbunga in Vatnajökull, where such data and its processing in the PTA geographic information system proved of key importance in the coordination work of the National Commissioner of the Icelandic Police Civil Protection unit.

## ELECTRONIC COMMUNICATIONS SECURITY

### READINESS FOR NATURAL CATASTROPHES

One of the largest tasks conducted by the technical Department of the Post and Telecom Administration during this year was work related to the volcanic activity at and to the north of Bárðarbunga (Holuhraun). In this task the Administration had the role of coordinator for the electronic communications sector in organising preventative measures for a potential eruption under glacier. It was clear that such an eruption would have previously unknown and serious consequences for the country's critical infrastructure which is why it was a key issue to coordinate plans for preventative measures by the electronic communications sector and to coordinate them with other sectors.

## 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.

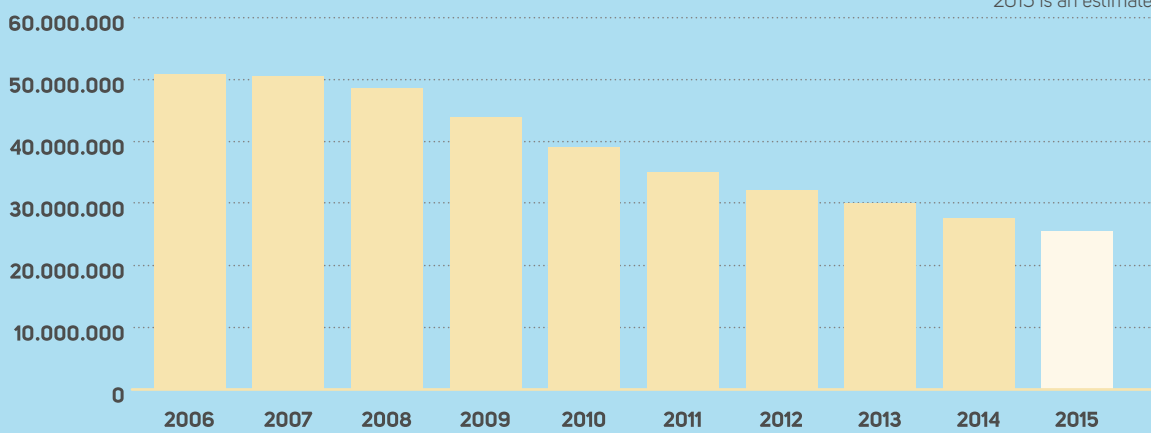
CERT-ÍS is also the National Point of Contact for the Icelandic authorities in CERT computer security incident response team cooperation on reactions and defences for network and information security. The Act and Regulation on the team allow for operators of systems deemed to be critical information systems being able to make service agreements with the team. Critical information systems are for example systems that are designed to assure state security, public safety and all kinds of gathering of procurements that are essential in a modern society. It is the role of the National Commissioner of the Icelandic Police to specify the information infrastructure covered by this definition.

In the first half of the year the Minister for the Interior presented a plan to move the team's operations from the Post and Telecom Administration to the National Commissioner of the Icelandic Police Civil Protection unit. For this to take place the matter has to be put to the Althingi which has to pass such an amendment to the Electronic Communications Act. The matter was not put to the Althingi during the year which means that the status of CERT-ÍS within the PTA is unchanged. The CERT-IS computer security incident response team has its own website, [www.cert.is](http://www.cert.is), where one can read about its operations, role and status.



Number of letters within monopoly (0 - 50 g) in the years 2006 - 2015

Source: Íslandspóstur  
2015 is an estimate



# POSTAL AFFAIRS

The Post and Telecom Administration issues licences to operate Postal Service pursuant to Article 12 of the Act on Postal Services no. 19/2002. Postal service covers the receipt, collection, sorting, transport and delivery of post against payment. There are two types of licences to operate postal services, a general licence and an operating licence. The general licence covers the right to operate the postal service other than that considered to be universal service pursuant to Article 6 of Act no. 19/2002. Three companies have such a licence: Burðargjöld ehf., Póstmarkaðurinn ehf. and Prentsmiðjan Oddi ehf. An operating licence is required by those companies that plan to provide universal services, that is to say postal services to which all citizens have a right at an affordable price, without regard to place of residence. When granting licences the PTA is authorised to impose obligations for universal services at all locations in the country or for specified parts of universal service in defined areas. Two companies have operating licences: Íslandspóstur ohf. and Póstdreifing ehf.

## ICELAND STATE MONOPOLY

The Icelandic State has a monopoly on postal service for letters less than 50 g. Since 1998 Íslandspóstur hf. has exercised this monopoly on behalf of the State. A European Union directive is in force which has been introduced into Icelandic law which prescribes that this state monopoly shall be lifted and work has been done in preparing this within the PTA. When lifting the monopoly one must take a position on how universal service, that is to say regular distribution of post into all households in the country, will be financed should this be necessary. The Administration has recently worked on analysing the inefficiency and cost for Íslandspóstur resulting from the company being subject to the universal service obligation, not least in the light of the fact that there has been a steady decline in traditional letter post. The conclusion in this matter will deal with the quality requirements it is reasonable to make for public postal services, including the frequency of delivery and the distribution of post in the countryside. It will also define the cost of bearing a universal service obligation in the light of the quality requirements and a position will be taken on the scope of the universal service in the future in the light of costs.

## EXAMINATION OF ÍSLANDSPÓSTUR SEPARATION OF ACCOUNTANCY AND COST ACCOUNTING

In 2014 work was continued on an examination of Íslandspóstur separation of accountancy and cost accounting. With the PTA Decision no. 18/2013, the company was requested to make various improvements that related to criteria for and implementation of this accounting, including:

- Íslandspóstur shall revise the description of the company's performance model and make it more detailed.
- Íslandspóstur shall increase the number of measurements behind the weighting coefficients, particularly with respect to universal service and shall ensure that it be stated which coefficients are based on measurements or evaluation.
- Íslandspóstur shall review evaluation of liquid assets, rate of return and investment costs.

Íslandspóstur shall fulfil the instructions prescribed in the PTA Decision and shall submit, among other things, a new cost model based on the long run incremental cost model. The company shall send a list with information on measurements of weighting coefficients, revision of booked capex, rate of return, itemised list of all company assets and statement of operating capital and shall submit calculations of company costs for universal service. The PTA review of amendments to the company's bookkeeping and of other documentation submitted by Íslandspóstur during the year was not fully completed at the end of the year.

# CONSUMER MATTERS

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. 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.

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 PTA places strong emphasis on providing information to consumers and on providing them with service when something goes amiss. The Administration's main tool for the provision of information is its website [www.pfs.is](http://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 progress to the formal complaint process.

## REACTION TO INCREASED NUMBER OF COMPLAINTS ABOUT UNSOLICITED ELECTRONIC COMMUNICATIONS

With rapid technical development, it becomes increasingly easy to direct advertisements, promotions and various kinds of marketing directly to individuals, including by telephone, email and SMS. Many people would like to avoid such harassment and in the Electronic Communications Act there are provisions that are intended to protect consumers from unsolicited communications. There has been a very substantial increase in the number of complaints to the PTA about unsolicited communications in recent years. There 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.

Nearly a quarter of all formal decisions published by the PTA in 2014 were related to cases of this type, that is to say 10 decisions of 42, apart from cases that were

settled in another manner. The Administration decided to react to this development and to strengthen consumer protection by providing information and Guidelines on the laws and regulations that apply for those parties who planned to use direct marketing using electronic communications. At the end of the year work was in progress on an information brochure on important issues with respect to, for example, the definition of unsolicited electronic communications, the nature of direct marketing and the meaning of the unwanted call sign in the telephone directory. The brochure was published in January 2015.

At the same time, the Administration decided to alter its procedures such that in those instances where the Administration receives a complaint against the party who has not previously been the subject of complaint, the Administration will send the party in question these Guidelines for information. In this way measures are being taken to prevent the party from breaching the above specified provisions in the future. The Administration considers that this arrangement could be conducive to reducing the number of complaints and the number of formal cases and decisions, and not least reducing inconvenience for those consumers who have not requested unsolicited communications.

### **ELECTRONIC COMMUNICATIONS ACT NO. 81/2003 ARTICLE 46, UNSOLICITED COMMUNICATIONS**

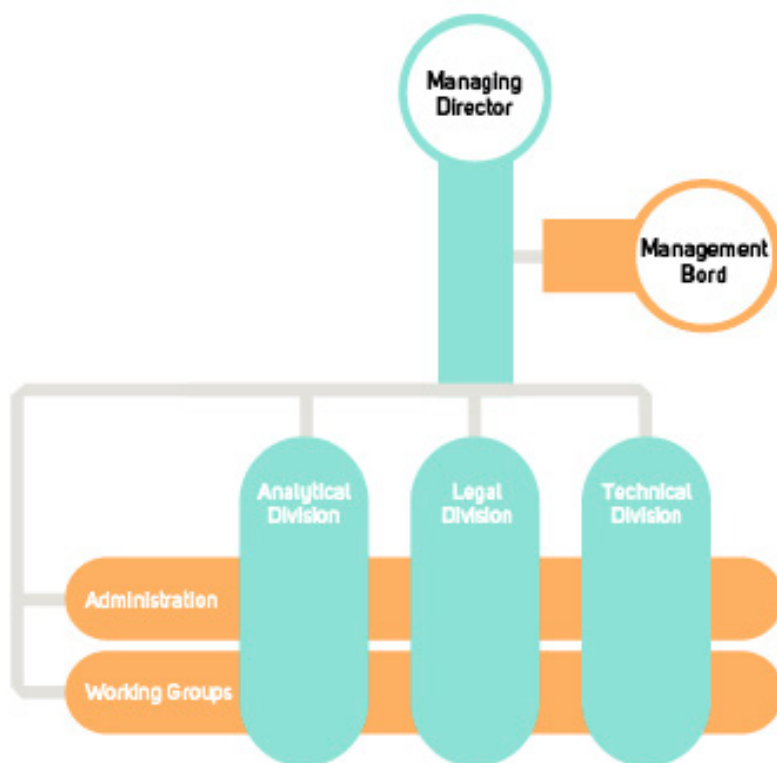
The use of automated calling systems, facsimile machines or electronic mail for direct marketing is only allowed if a subscriber has given prior consent. Notwithstanding the provisions of the first paragraph, electronic mail addresses obtained in the context of the sale of a product or service may be used for direct marketing of own goods or services if customers are given the opportunity to object to such use of addresses free of charge when they are listed and similarly each time a message is sent, if the customer has not initially refused such use.

Apart from provisions in the first and second paragraphs, unsolicited electronic communications in the form of direct marketing are not allowed to subscribers who do not wish to receive these communications.

The sending of electronic mail for purposes of direct marketing, where the name and address of the party responsible for the marketing is not clearly indicated shall be prohibited.

Users who use public telephone services as part of their marketing must respect designations in a telephone directory indicating that the subscriber in question does not wish to receive such calls to his/her number.

# THE POST AND TELECOM ADMINISTRATION IN 2014



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

**The Management Board** is composed of the managing director and of the directors of the divisions.

PTA staff in 2014 numbered 24.

**The Analytical Division** is responsible for market analysis and for imposition and surveillance of obligations subsequent to market analysis. The Division handles general economic analysis in the field dealt with by the PTA, provides information on pricing and statistics and is responsible for their processing and publication. The Analytical Division also oversees the running of the PTA Calculator Website which provides information on electronic communications costs for consumers.

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

**The 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 network and information security and inspects radio equipment on board ships. The Technical Division also provides other departments with consultancy on technical issues that may affect the institution's surveillance role. The CERT-IS computer security incident response team is in the Technical Division.

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

Two specialist groups were operating within the PTA during the year; a team on market analysis and the Computer Emergency Response Team, CERT-IS.

# REGISTERED PROVIDERS OF ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICE

Nafn	Skráð	Tegund starfsemi
1800 ehf.	23.5.2014	Directory enquiry service
365-miðlar ehf.	17.1.2013	Mobile and data transmission service
Advania hf.	17.4.2002	Data transmission service
Alterna Tel ehf.	8.1.2010	Voice telephony, mobile and data transmission
Ábótinn ehf.	28.3.2003	Data transmission and service
Backbone ehf.	25.8.2010	Data transmission and service
Biokraft ehf.	7.5.2014	Data transmission network
Bloomberg Finance L.P.	19.7.2007	Leased line and network
Boðleið Þjónusta ehf.	24.9.2013	Data transmission services
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 services
Colt Lux Group Holding S.a.r.l.	9.12.2011	Data transmission services
DataBox ehf.	13.12.2010	Voice telephony and transmission network
Datacell ehf.	25.8.2010	Data transmission services
Davíð og Goliat ehf.	3.5.2010	Voice telephony and data transmission
DCG Iceland ehf.	24.3.2014	Data transmission services
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 Atlantis ehf.	29.6.2011	Submarine cable and data transmission service
Equant á Íslandi ehf.	7.7.2004	Data transmission service
Factor ehf.	30.5.2013	Data transmission and service
Farice ehf.	2.9.2003	Submarine cable
Feris ehf.	6.1.2014	Data transmission services
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 Hornafjarðar ehf.	13.2.2013	Electronic communications networks
Gagnaveita Reykjavíkur ehf.	23.3.2007	Data transmission and service
Gagnaveita Skagafjarðar ehf.	30.11.2006	Data transmission 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
Hátiðni hf.	24.1.2001	Voice telephony, data transmission and 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 communication 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 transmission
IP fjarskipti ehf. (TAL)	15.9.2004	Voice telephony, mobile and data transmission
IRJA ehf.	3.5.2010	Data transmission
Isavia ohf.	30.12.2010	Voice transmission service for aircrafts
Já upplýsingaveitur ehf.	21.11.2007	Publication of directories, directory enquiry service
Kapalkerfi ehf.	14.5.2004	Cable networ
Kukl ehf.	20.3.2009	Voice telephony, data transmission and network

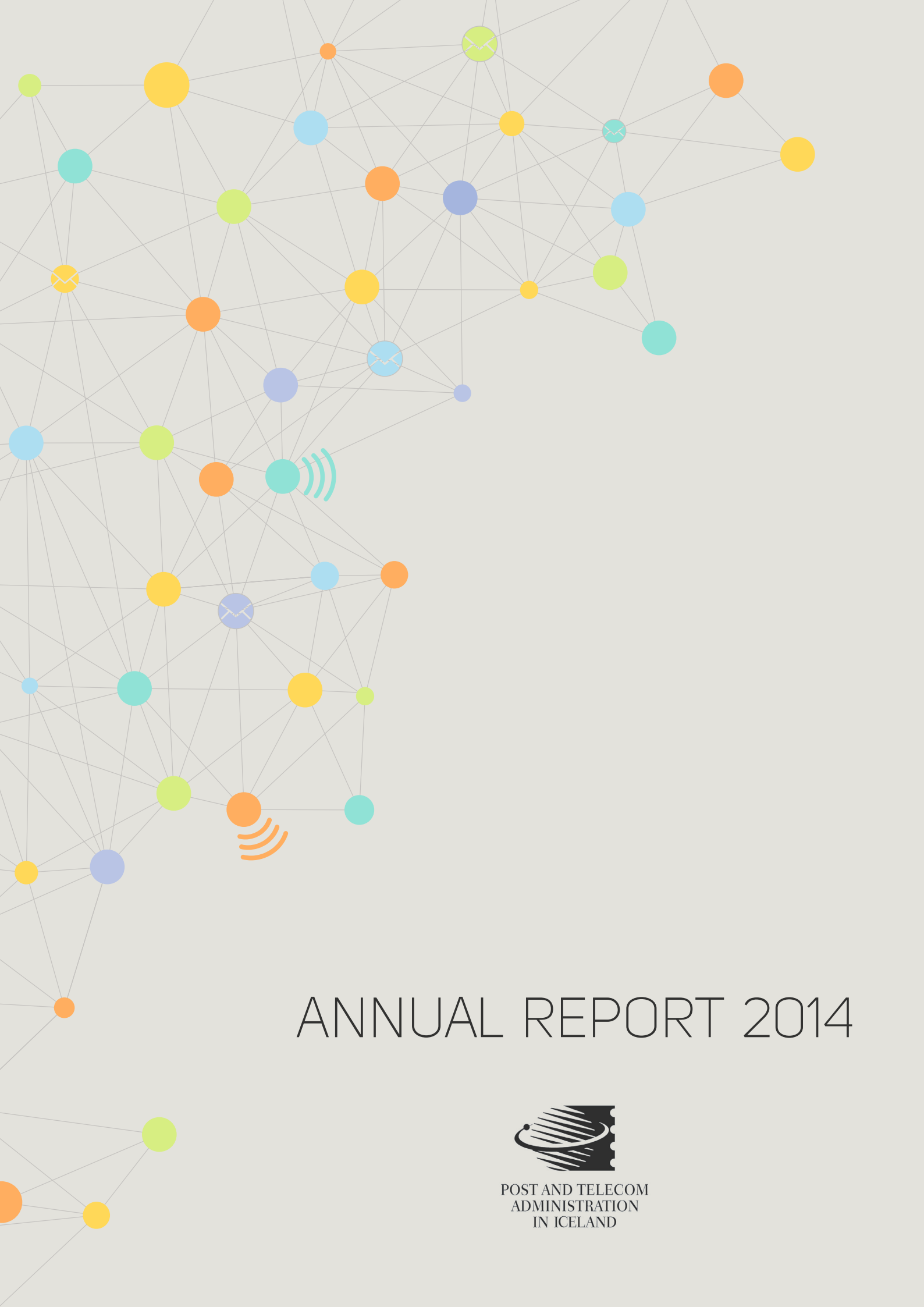


Kviaholt ehf.	20.2.2012	Voice telephony and data transmission service
Lancelot BV	20.2.2012	Mobile network and services
Landhelgisgæsla Íslands	1.1.2011	Management and lease of NATO's optical fibre network
LÍF í Mýrdal ehf.	15.9.2014	Fixed line network data transmission
Ljós og gagnaleiðari ehf.	10.8.2009	Data transmission network
Magnavík ehf.	1.4.2004	Data transmission service
Martölvan ehf.	26.11.2007	Voice telephony, data transmission and network
Míla ehf.	4.4.2007	Network
Nepal hugbúnaður	21.2.2005	Data transmission service and wireless data transmission
Netsamskipti ehf.	4.12.2002	Voice telephony, data transmission and network
Netvarpið ehf.	2.8.2013	Voice telephony, data transmission and network
Nextgen Mobile Ltd.	11.11.2013	Mobile and data transmission service
Neyðarlínan hf.	6.10.1999	Voice telephony - emergency service
Nova ehf.	12.7.2006	Voice telephony and data transmission
Nýherji hf.	12.12.2011	Data transmission
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 ehf.	25.2.2011	Data transmission service
Orkufjarskipti hf.	24.1.2001	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
Ríkisútvarpið ohf.	29.7.1997	Transmission of radio and television signals
Símafélagið ehf.	15.10.2008	Voice telephony and network
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
Skjárin ehf.	16.12.2014	Transmission of radio and/or television signals
Smartphone ehf.	8.3.2013	Voice and mobile telephony
Snerpa ehf.	17.8.2000	Network, voice telephony and data transmission
Softverk ehf.	20.3.2009	Voice telephony, data transmission and network
SportTV ehf.	12.8.2013	Transmission of radio and television signals 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 ehf.	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
TSC ehf.	18.1.2002	Voice telephony, data transmission and network
Tækni miðlun ehf.	27.8.2010	Data transmission service
Tölvu- og rafeindþjónusta Suðurlands ehf.	29.3.2004	Data transmission service
Tölvun ehf.	25.4.2003	Data transmission and service
Tölvustof ehf.	15.4.2009	Data transmission service
UAB Raystorm	14.2.2014	Mobile transmission service
Upplýsingatæknifélagið Omnis ehf.	28.1.2013	Data transmission service
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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