LITHUANIAN COMMUNICATIONS SECTOR 2017

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REGULATORY
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LITHUANIA

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FOREWORD OF THE MINISTER OF TRANSPORT AND COMMUNICATIONS OF THE REPUBLIC OF LITHUANIA

The electronic communications and postal service sector undoubtedly has a large growth potential in Lithuania. Having long term considerations, the key driver in this area is dynamics and progress based on the rapid development of information and communication technologies.

Today this advance field is of an especially great significance both for the global and European single market, as well as for Lithuanian economy and even daily lives of each and every one of us. The activity of the population, business and public authorities is becoming almost impossible without an effectively operating network of electronic communications.



Lithuania has every reason to be proud of the electronic data speed. The recent data show that 4G mobile internet connection has already covered 97% of the territory of our country, where just last year this number stood at 84%. The progress is obvious. Moreover, this is one of the best results in Europe and worldwide. The European Commission states that mobile broadband prices in Lithuania are among the lowest prices in the whole of the EU. Thus, we have been using this type of connection for an attractive price.

Life does not stand still. Habits of the customers have been changing, the use of the mobile internet has been increasing and volumes of transmitted data have been growing as well. This encourages to pursue even better quality, greater security and promptness of the services provided to the customers.

Lithuania, having created a well-developed infrastructure, has firm grounds for the further development of information and communication technologies. It is important for our country to focus on strategically significant areas, create favourable conditions for businesses in terms of investment, aim at reducing the shortfall of IT specialists on the market and tackle other challenges in the field of electronic services.

Last year, the Ministry of Transport and Communications implemented the Next Generation Internet Access Development Plan for 2014-2020 under which the coverage of 30 Mb/s and higher speed internet access has been nationally enhanced. According to the recent data, the latter stands at 91% in Lithuania, and the base coverage of fixed and mobile communications in our country is one of the largest in Europe.

Currently, the internet access is available to the majority of households in Lithuania: in cities – 83%, in rural areas – 67%. Last year almost all, 86%, households with the internet access were using the broadband wired and wireless fixed communications. By means of such technologies some 46% of households were able to use 30 Mb/s and higher speed internet, and 28% could use 100 Mb/s and higher speed internet (in 2016 – 42% and 18%, respectively).

A strategic goal of high-speed internet development in Lithuania is to provide all households with an opportunity to use 30 Mb/s or higher speed broadband by 2020, as well as to have at least 50% of households using high-speed internet access – 100 Mb/s and higher.

Private investments alone do not suffice to achieve this goal, therefore the high-speed broadband development is further continued, especially in rural as, though the EU fund investments. The large-scale infrastructure project is to be commenced this year already. During its implementation, the telecommunications towers will be installed in the remote areas which have not beet accessed by the high-speed internet connection yet. The implementation of this project will enable all residents of Lithuania, irrespective of the area they live in, to use the most advanced electronic communications services for an attractive fee.

With the rapidly growing e-commerce, the development of trade relations between the countries, which may accelerate the growth of Lithuania's economy, is equally important. Users that order goods by improving electronic means and companies that sell the goods expect the high-quality, speedy and secure delivery for an affordable fee. Here, a large role is played by postal service providers. One of the main tasks is to improve the quality of services, pursue favourable prices for delivery of cross-border parcels.

It is estimated that the EU consumers alone could save up to EUR 11.7 billion per year, where they were able to choose from all goods and services sold in the EU when shopping online. It is expected that a new Regulation of the European Parliament and the Council on cross- border parcel delivery services will increase the sector efficiency, transparency, guarantee affordable prices of cross-border delivery services to all consumers in the whole of the European Union.

In 2017, the total revenue of the postal market grew by 12.5%. However, the observations of the growth of e-commerce worldwide and on a single European market lead to the conclusion that this area has a significant potential for growth.

I believe that Lithuania will be further successful in implementing advanced technologies. I wish our State to be modern and in the future, be a leader in the field of electronic communications and postal services and responsibly and fairly defend the rights of the service users.

Minister of Transport and Communications

Rhaul

Rokas Masiulis

FOREWORD OF THE DIRECTOR OF THE COMMUNICATIONS REGULATORY AUTHORITY OF THE REPUBLIC OF LITHUANIA

The year of 2017 has further brought us joy in continuous growth of the communications sector and in positive changes increasing the well-being of our customers.

An overarching emphasis of 2017 in the electronic communications markets is to be associated with yet another step in realising a single market in the whole of the European Union. As of 15 June 2017, the roam like at home principle came into force in the whole of the European Union that allows the EU citizens to use the mobile services at the same fees as at home when travelling in the European Union. In order to balance the regulatory effect of international roaming services on the Lithuanian internal market and maintain stability of local fees, RRT has provided the Lithuanian international roaming service providers with an opportunity to apply a low additional fee to cover the required costs alongside the "home fees". Despite the



applied additional fee, the roaming fees were significantly going down to the travelling Lithuanians. Data transmission service fees decreased seven-/tenfold. The shrinking fees led to the significant growth of the use of services: after the entry into force of a new regulation in the middle of 2017, the use of voice calls and SMSs went up two-/threefold, and the use of data transmission services increased tenfold.

The changes in the communications sector were felt at a national level as well. At the beginning of 2017, Telia Lietuva, AB merged with AB Omnitel, which led to the occurrence of a new market player – Telia Lietuva, AB able to provide electronic communications services via both mobile and fixed communications networks. UAB Cgates was especially active in the consolidation process; in 2017, it finally joined 8 electronic communications service providers. The global asset management company "Providence Equity Partners" acquired 100% of the shares of Estonian company AS "VIASAT", UAB TV3, UAB "Tele-3 radijas" from the Sweden media concern "Modern Times Group" (MTG) through the controlled telecommunications company UAB "Bitė Lietuva".

The annual investments made by operators in the electronic communications infrastructure bring yet greater benefits to the final service users. The constant development of LTE or 4G networks of mobile operators caused the increase of the number of active Subscriber Identification Module (SIM) cards used to receive internet access services via LTE networks by 49.1% at the end of 2017, compared to the data of the end of 2016. According to the data of the company OpenSignal¹, Lithuania was ranked the 4th in Europe by the LTE network accessibility in Europe (with an 88.4% indicator).

It must be noted that the Internet of Things is more actively entering the Lithuanian electronic communications market as well. The number of SIM cards used to receive the so-called M2M (Machine-To-

¹ https://opensignal.com/reports/2018/02/state-of-lte

Machine) services or services of the Internet of Things grew by slightly more than a third (33.9%). The continuous investments in the construction of fibre-optic technology based data transmission networks led to the fact that 70.8% of users of internet access services provided by means of fixed communications technologies were reached by such services via fibre-optic lines, and the most popular speed of internet access services (44.0% of all subscribers) exceeded 100 Mb/s.

The steady growth of the postal sector related to the increasing number of sent postal parcels (in 2017 – growth of 15.7%) brings both joy and new challenges. To tackle them the European Commission, the European Parliament and Council of Europe considered a Regulation on cross-border parcel delivery services which is intended to increase transparency of conditions for prices and services when providing cross-border parcel delivery services in the European Union.

Director of the Communications Regulatory Authority Feliksas Dobrovolskis



Country	Lithuania
Capital	Vilnius
Area, km²	65,200
Population	2,810,118
Number of households	1,254,517
Country code	+370
Internet domain	.lt

IMPORTANT!

- The icons provided in the tables (illustrate the trends prevailing between 2012 and 2017 (decreasing, increasing, fluctuating).
- The figures provided on the left of the charts (e.g. +3.2%; -4.5%) show the changes of respective indicators in 2017 (positive, negative) compared to 2016.
- The report "Lithuanian Communications Sector 2017" has been drafted using the information on electronic communications and postal activities provided by electronic communications networks and service providers, as well as postal service providers. The report also contains the information received from the European Commission.
- The lists of electronic communications service providers and postal service providers are provided in Annexes 1 and 2.
- The data submitted by the electronic communications networks and service providers and postal service providers may be updated after the publication of the relevant annual report, therefore, the data of earlier periods provided in the reports of different years may differ.
- The data provided in the tables and figures of the report are rounded up to decimal places, therefore the total sum of the market share does not always equal 100%.
- The revenue received by the service providers indicated in the report or indicators that use revenue values for the calculation are VAT excluded.
- The number of residents and households of a respective year used to calculate the penetration is provided in Annex 3 to the Report.
- The methodologies for the calculation of certain indicators are provided in Annex 4.

OVERVIEW OF THE COMMUNICATIONS SEC	CTOR
Communications service providers	192
Major service provider	Telia Lietuva, AB
Revenue of the communications sector, EUR million	827.9

In 2017, the Lithuanian Communications Sector consisted of two service markets: the electronic communications market and postal service market. With a view to both of these markets, at the end of 2017, there were 192 undertakings having informed the Communications Regulatory Authority ("RRT") about the activities carried out in the communications sector – by 12 undertakings fewer than in 2016 (see Table 1). This was mainly affected by the consolidation of the companies. At the beginning of 2017, the final merger of Teo LT, AB and UAB Omnitel into the joint company Telia Lietuva, AB took place. Moreover, UAB Cgates acquired 11 service providers: UAB Telekomunikacijų Grupė, UAB Vilniaus Avilda, UAB Alpha Komunikacijos, UAB Dinetas, UAB Kava, UAB Kavamedia, UAB Remo Televizija, UAB Elekta, UAB Kateka, UAB Teletinklas and UAB Transteleservis; whereas UAB Magnetukas acquired UAB Ramnet and UAB M Projektai.

Table 1. Number of undertakings that notified RRT of the activity planned in the communications sector, number by markets in 2012-2017, in units

	2012	2013	2014	2015	2016	2017
Electronic communications market	4 142	144	144	132	139	127
Postal service market	73	76	69	66	67	65
All providers	215	220	213	198	206	192

Source: RRT

The revenue of the communications sector has continued to grow in 2017, as well as in 2016 (see Fig. 1). In 2017, it stood at EUR 827.9 million and was by 5.2% or EUR 41.0 million higher than in 2016. It must be noted that the revenue of both market slightly grew as well: postal service market – by 12.6% or EUR 16.4 million, electronic communications market – by 3.8% or EUR 24.6 million. It must be also noted that the share of the postal service market represented a much lower share throughout the entire period of 2012-2017 in terms of the total revenue of the communications sector: in 2017, it stood at 17.8% (in 2016 – 16.6%).



Fig. 1 Revenue of the communications sector in 2012-2017, in EUR million Source: RRT

During the period of 2012-2017, both the structure of the communications sector by revenue and the structure of the communications sector service providers by activities shows that the electronic communications service providers prevail in the sector (see Table 1 and Fig. 2). In 2017, the most revenue was generated by Telia Lietuva, AB (34.9%) providing electronic communications services out of 192 undertakings operating in the communications sector, although its market share shrank by 0.1 pp during 2017. The revenue of AB Lietuvos Paštas – the largest postal service provider – constituted 6.4% of all sectoral revenue in 2017. It must be noted that the largest growth was observed in the share of the market of other postal service providers was subject to the most significant decrease. In 2017, the share of the market of other postal service providers grew up to 11.4% (in 2016 – 10.5%), and the share of the market of other electronic communications providers shrank to 17.0% (in 2016 – 19.0%).

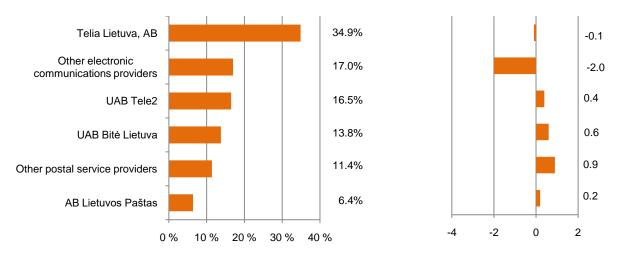


Fig. 2 Market shares of the communications sector service providers by revenue, %, and annual changes of the market shares, pp, 2017

Source: RRT

In 2017, the competitive services were offered to yet increasing circle of the service users in many service segments by ensuring high quality of the services provided. This resulted in the growth of the annual revenue of the communications sector by 5.2%. A further process of consolidation of both major and minor service providers shows the interest of the undertakings to increase the efficiency of their activities in the sector whose results will be experienced by users in the future.

MARKET OF ELECTRONIC COMMUNICATIONS SERVICES

1. General Overview of the Electronic Communications Market



The market of electronic communications services may be divided into 4 service groups:

- · telecommunications services;
- data transmission services;
- television and radio services;
- services of access to physical infrastructure.

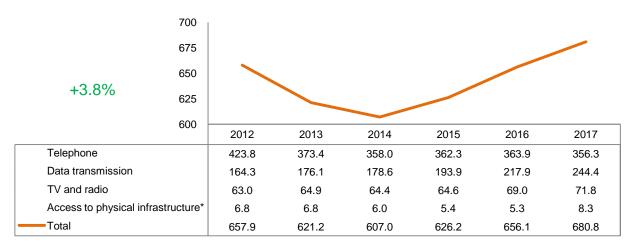
Service Providers. The number of undertakings engaged in the electronic communications activities decreased by 12 undertakings in 2017 and stood at 127, of which 123 undertakings were actually providing electronic communications services. The largest share was that of data transmission service providers as in the previous year (see Table 2).

Table 2. Number of electronic communications service providers that were providing the services, in units, 2017

	2012	2013	2014	2015	2016	2017
Telecommunications services	58	56	51	49	53	49
Data transmission services	103	107	110	103	106	93
Television and radio services	46	44	43	43	42	40
Services of access to physical infrastructure	16	17	15	14	15	15
All services	142	144	144	135	140	127

Source: RRT

Revenue. The revenue of the electronic communications market has continued to grow in 2017 (see Fig. 3). Compared to 2016, the revenue increased by 3.8% in 2017 and amounted to EUR 680.8 million. Most of the revenue was generated by telecommunications (52.3%) and data transmission (35.9%) service providers in 2017. The lowest portion of the revenue was received when providing the services of access to physical infrastructure in 2017. It must be noted, however, that in 2017, compared to 2016, the revenue from the provision of service of access to physical infrastructure grew from EUR 5.1 million to EUR 8.3 million or by 61.4%. That increase of the revenue in 2017 was caused by the fact that till 2017 the revenue from services of access to physical infrastructure had covered revenue received from the service of access to dark fibre only.



^{*} Till 2017, the revenue received only from the access to the dark fibre service is included.

Fig. 3 Structure of electronic communications market revenue by service groups in 2012-2017, in EUR million Source: RRT

In 2017, Telia Lietuva, AB remained a leader of the electronic communications market in terms of revenue and it increased its market share by 0.4 percentage point up to 42.4% over the year (see Fig. 4). It must be noted that the market shares were also increased by UAB Tele2, UAB Bité Lietuva and UAB Cgates: by 0.8, 1.0 and 0.6 percentage point, respectively.

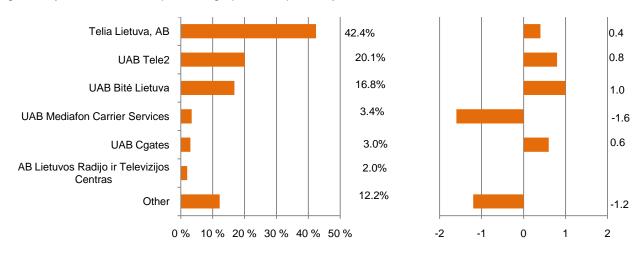


Fig. 4 Structure of the electronic communications market revenue by service providers, %, and annual changes of the market shares, pp, 2017

Source: RRT

Investments. Contrary to the situation in 2016, the investments in the electronic communications infrastructure were lower in 2017 and the amount invested was the lowest between 2012 and 2017. In 2017, the service providers invested EUR 76.9 million in the electronic communications infrastructure or by EUR 20.9 million fewer than in 2016 (see Fig. 5). As in the previous periods, the investments were made mostly in broadband networks: mobile communications 4G networks (Long Term Evolution, LTE) and optical fibre communication line networks. While considering the opportunities of the development of the electronic communications market, it is necessary to take account of the ratio between investment and the total revenue of this market. In 2017, the ratio between investments in the electronic communications infrastructure and the total revenue of this market accounted to 11.3% and it was by 3.6 pp lower compared to 2016.



Fig. 5 Investments in the electronic communications infrastructure, in EUR million, and share of investments in the total revenue of the electronic communications market, %, 2012-2017 Source: RRT

In 2017, the electronic communications market was further subject to the consolidation of the companies which resulted in 127 operators remaining on the market, i.e., by 12 operators fewer than in 2016. In 2017, the revenue of the electronic communications market went up (3.8% up to EUR 680.8 million), but the amount of investment dropped significantly (24.2% to EUR 76.9 million).

2. Telephone Service

2.1. Public Mobile Telephone Services

Service providers	14
Active SIM cards, million	3.7
7	
Duration of calls, billion minutes	8.7
<u> </u>	
Revenue, EUR million	173.6
ARPU, EUR per month	3.3

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• In this chapter of the report other public mobile telephone voice service providers shall be all public mobile telephone voice service providers, except for UAB Bitė Lietuva, Telia Lietuva, AB, and UAB Tele2 (hereinafter – the other providers).

Public mobile telephone services consist of local², international³ and international roaming⁴ calls via public mobile communications networks, where Lithuanian users of public mobile telephone services use roaming services in foreign countries (hereinafter – the roaming calls). This chapter also includes the Short Message Service (SMS) and Multimedia Messaging Service (MMS) sending services.

The data transmission services via the mobile network by means of both phones and computers are included in the chapter "Data Transmission".

Service Providers. At the end of 2017, public mobile telephone services were provided by 14 undertakings: 3 undertakings were providing public mobile telephone services over their own network, 4 service providers had concluded the wholesale service agreements with the mobile operators, the remaining 7 undertakings were reselling the services provided by other public mobile telephone service providers to the service users.

Service Recipients. At the end of 2017, public mobile telephone services were provided to approximately 3.7 million active SIM cards⁵ (see Table 3). The number of active SIM cards went up by 3.8% over the year, The number of active SIM cards per 100 residents (mobile service penetration) grew by 6.7 pp due to a higher number of active SIM cards and lower number of residents in 2017, and at the end of 2017, 100 residents shared 133.0 SIM Subscriber Identification Module) cards.

In 2017, the major share (61.7%) consisted of active SIM cards which were paid under invoices (hereinafter – post-paid) rather than in advance (hereinafter – pre-paid) (see Table 3). With a view to the period between 2012 and 2017, the continuous trend in growing of the number of post-paid SIM cards came about. In 2017, the number of such SIM cards grew by 11.3% or 233.9 thousand units and totalled 2,306.4

² Local calls shall mean the calls originated and terminated in Lithuanian public mobile and fixed communications operator networks.

³ International calls shall mean the calls originated in Lithuanian public mobile and fixed communications operator networks and terminated in foreign operator networks.

⁴ International roaming calls shall mean the calls originated by service users of Lithuanian public mobile communications network operators in foreign countries.

⁵ The number of service users indicated in this part of the report corresponds to the number of active SIM cards. An active SIM card shall mean a card which has been used to initiate a telecommunications event in the last 3 months (initiated or accepted call, sent or received a short text message or another service used).

thousand. Accordingly, the use of pre-paid SIM cards was going down on the market. Such trends could have been induced by attractive so-called flat rate service plans applied by the service providers, where a certain duration of local calls (or unlimited calls to all networks of Lithuania) and a certain amount of additional services (SMS data transmission services) are offered for a regular charge.

Table 3. Structure of the number of active SIM cards used to provide public mobile telephone services by service providers and method of payment, in thousands, 2012-2017

•		2012	2013	2014	2015	2016	2017
UAB Bitė Lietuva	+	890.9	872.5	846.3	840.2	812.4	918.4
Pre-paid		461.2	420.6	398.6	385.7	356.8	338.7
Post-paid	1	429.7	452.0	447.7	454.5	455.6	579.7
Telia Lietuva	1	1,724.3	1,283.0	1,095.0	1,016.3	975.7	1,033.6
Pre-paid	I.	1,058.0	633.6	439.3	351.3	305.8	277.3
Post-paid	•	666.3	649.5	655.7	665.0	670.0	756.3
UAB Tele2	+	1,894.1	1,824.1	1,780.5	1,713.2	1,724.5	1,704.2
Pre-paid	1	1,162.4	1,022.2	959.9	893.5	863.8	815.7
Post-paid	•	731.8	802.0	820.6	819.7	860.7	888.5
Other providers	+	97.8	86.0	78.2	79.6	87.5	82.5
Pre-paid		21.2	13.0	1.3	1.3	1.3	0.7
Post-paid	*	76.6	73.0	76.8	78.3	86.2	81.8
All providers	+	4,607.1	4,065.7	3,800.0	3,649.3	3,600.1	3,738.7
Pre-paid	-	2,702.8	2,089.3	1,799.1	1,631.8	1,527.7	1,432.3
Post-paid	1	1,904.4	1,976.4	2,000.8	2,017.5	2,072.4	2,306.4
O DDT	_						

Source: RRT

With a view to the breakdown of the number of public mobile telephone service users by providers, the number of active SIM cards of UAB Tele2 (see Table 3) and other providers decreased in 2017. The number of active SIM cards of UAB Bitė Lietuva, Telia Lietuva, AB went up in 2017, compared to 2016. UAB Tele2, however, by the number of active SIM cards, held the largest share of the market (45.6%) in 2017, as in 2016.

Number Portability Service. In 2017, the number portability service was used by 135.0 thousand service users, which constituted 3.6% of all public mobile telephone services users (see Table 4). In 2017, this service was used by 25.5 thousand service users more than in 2016. The growth in demand for the number portability service shows the existing competition on the public mobile telephone service market.

Table 4. Flows of ported numbers by service providers, in units, in 2017

	То	From	Balance sheet
Telia Lietuva, AB	38,472	35,028	3,444
UAB Tele2	48,339	46,054	2,285
UAB Bitė Lietuva	40,779	48,659	-7,880
Other providers	7,446	5,295	2,151

Source: RRT

In 2017, as in 2016, the major part of service users that used the number portability service came to UAB Tele2 network (35.8%), and UAB Bitė Lietuva network was left by most subscribers (36.0%).

Revenue. In 2017, the revenue received for public mobile telephone services accounted for one of the largest shares of the electronic communications service market revenue (25.5%). The revenue decrease trend has been further observed since 2012. In 2017, compared to 2016, the revenue from public mobile telephone services shrank by 0.7% or EUR 1.2 million and stood at EUR 173.6 million (see Fig. 6).

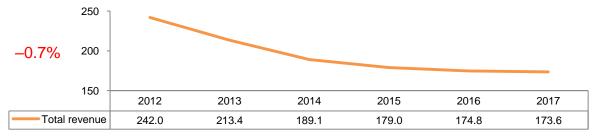


Fig. 6 Revenue from public mobile telephone services, in EUR million, 2012-2017 Source: RRT

In 2017, the largest market share (41.0%) by revenue from public mobile telephone services was held by UAB Tele2, as in 2016. The market share held by UAB Bitė Lietuva was subject to the largest growth in terms of revenue received from the provision of public mobile telephone services in 2017 (see Fig. 7).

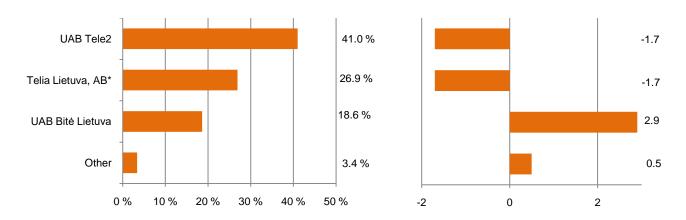


Fig. 7 Structure of revenue from public mobile telephone services by service providers, %, and annual changes of the revenue shares, pp, 2017

Source: RRT

The average revenue per user (ARPU) a month for public mobile telephone services was further decreasing in 2017 (EUR 0.2) and it stood at EUR 3.3 per month (see Table 5).

Table 5. ARPU for public mobile telephone services, in EUR per month, 2012-2017

ARPU for public mobile telephone 4.0 4.0 3.7 3.6 3.5 3.3 services		2012	2013	2014	2015	2016	2017
O DDT	services	4.0	4.0	3.7	3 h	3.5	3.3

Source: RRT

2.1.1. Mobile Telephone Voice Services

Call Duration. Duration of calls originated by Lithuanian public mobile telephone service users was further increasing in 2017. The duration of originated calls went up by 0.7% in 2017, compared to 2016, or by 61.5 million minutes and totalled 8,715.1 million minutes (see Fig. 8). In 2017, the Lithuanian public mobile telephone voice service users originated 98% of the calls by duration in Lithuania; the duration of such calls

slightly went down in 2017 (0.4%). Only part of the calls originated in foreign countries was higher, where the Lithuanian public mobile telephone service users, when being abroad, were using the roaming services.

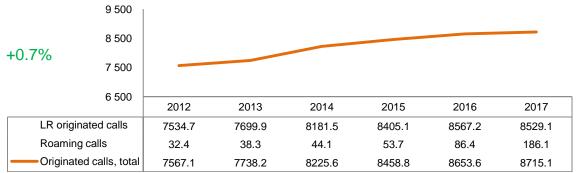


Fig. 8 Duration of calls originated by Lithuanian public mobile telephone voice service users, in million minutes, 2012-2017

Source: RRT

With a view to the breakdown of the duration of the calls originated by the Lithuanian public mobile telephone service users by providers, the longest duration (48.4%) remained that of the calls originated by UAB Tele2 service users in 2017 (see Table 6).

Table 6. Duration of calls originated by Lithuanian public mobile telephone voice service users by service providers, in million minutes, 2012-2017

	2012	2013	2014	2015	2016	2017
UAB Bitė Lietuva	1,720.3	1,761.7	1,930.7	1,947.3	1,972.3	1,939.4
Telia Lietuva, AB	2,202.8	2,148.8	2,157.6	2,240.8	2,318.5	2,347.2
UAB Tele2	3,393.1	3,571.8	3,877.9	4,045.3	4,127.9	4,216.7
Other providers	218.5	217.6	215.3	225.3	234.9	211.9
All providers	7,534.7	7,699.9	8,181.5	8,458.7	8,653.6	8,715.1

Source: RRT

When assessing the call structure, the call destinations must be taken into account as well. The following destinations of the calls originated in the Lithuanian public mobile communications networks are singled out, where the calls are terminated in own network, in other public mobile communications networks, in public fixed communications networks or in foreign operators' networks. The major part (55.0%) of all public mobile telephone calls were terminated in the own network and in other Lithuanian public mobile networks (40.3%) in 2017 (see Table 7). In 2017, the duration of the public mobile telephone calls which were terminated in other public mobile and fixed communications networks increased by 2.8% and 5.2%, accordingly.

Table 7. Structure of the duration of calls originated in Lithuanian public mobile communications networks by call destination, in million minutes, 2012-2017

	2012	2013	2014	2015	2016	2017
Terminated in own network	5,293.2	5,226.7	5,144.7	4,969.3	4,866.7	4,738.2
Terminated in other public mobile communications networks	2,015.2	2,224.5	2,755.9	3,114.6	3,346.8	3,439.4
Terminated in public fixed communications networks	154.8	177.9	222.3	269.0	304.3	320.3
Terminated in foreign operators' networks	71.6	70.8	58.6	52.2	49.4	45.4
Total call duration	7,534.8	7,699.9	8,181.5	8,405.1	8,567.2	8,497.4

Source: RRT

When analysing the call structure by the way of settlement, most calls in Lithuania were originated by service users (legal and natural entities) which paid for the services under invoices (*post-paid*) in 2017 – this represented 77.6% of the total duration of originated calls (see Table 8). The duration of such calls grew by 4 percentage points in 2017, compared to 2016. The average monthly call duration per post-paid service user was 188.3 minutes in 2017 (natural person – 209.7 minutes, legal person – 147.9 minutes), and the duration per pre-paid service user was 111.2 minutes.

Table 8. Structure of the duration of calls of various destinations originated in Lithuanian public mobile communications networks by way of settlement and type of service users, in million minutes, 2016-2017

	2016				2017	
	Pre-paid	Post	-paid	Pre-paid	Post-	-paid
		Natural	Legal		Natural	Legal
Terminated in own network*	1,592.8	2,353.3	920.6	1,310.6	2,506.5	921.2
Terminated in other public mobile communications networks	598.1	1,964.9	783.8	535.3	2,117.6	786.5
Terminated in public fixed communications networks	67.2	165.8	71.3	60.5	183.1	76.7
Terminated in foreign operators' networks	5.9	13.5	29.9	5.0	12.4	13.8
Total originated	2,264.0	4,497.5	1,805.6	1,911.4	4,819.6	1,798.1

^{*}The data of 2017 include the short-number calls or other premium or toll-free calls. Source: RRT

On 25 November 2015 Regulation (EU) 2015/2120 of the European Parliament and of the Council on roaming on public mobile communications networks within the European Union that entrenched the reduction of roaming prices in the European Union⁶ as of 30 April 2016 was adopted. Moreover, as of 15 June 2017 another regulatory step came into force by which it was provided for that the roaming prices, when travelling in the EU, paid by consumers must be the same as in their own country. Taking account of such amendments, the roaming prices were further decreasing and this enhanced the growth of the demand for roaming calls.

In 2017, UAB Tele2 became the leader of roaming services, where service users of Lithuanian public mobile telephone service providers is calling while being abroad (see Fig. 9): In 2017, by means of SIM cards of this operator, 40.0% of all roaming calls were originated. The duration of roaming calls originated by means of UAB Tele2 SIM cards increased by 4.2 times or by 53.6 million minutes over 2017.



Fig. 9 Duration of calls originated by Lithuanian public mobile telephone service users using roaming services by service providers, in million minutes, 2012-2017

Source: RRT

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⁶ http://www.rrt.lt/lt/vartotojui/telefono-rysys/tarptautinis-tarptinklinis-rysys.html

With a view to the calls originated in Lithuania public mobile communications networks, without differentiating call destinations, the average monthly call duration per service user was 166.5 minutes in 2017 (slightly less than 3 hours), i.e., by 3.3 minutes shorter than in 2016 (see Fig. 10). The average longest duration of the calls (192.0 minutes or 3.2 hours) was of the UAB Tele2 service user in 2017. It must be noted that in 2017, compared to 2016, the average monthly duration of calls of the latter grew by 1.1% or by 2.1 minutes.

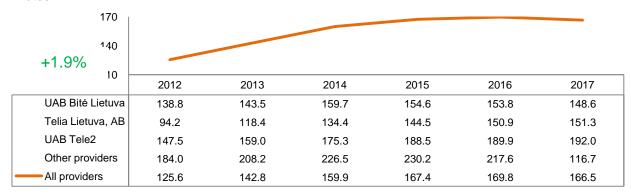


Fig. 10 Average monthly duration of calls originated by a single Lithuanian public mobile telephone voice service user by service providers, in minutes, 2012-2017

Source: RRT

Revenue. In 2013, the leap in revenue (see Fig. 11) from public mobile telephone voice services was caused by re-allocation of the revenue for public mobile communications services that took place due to RRT's detailed methodology for revenue re-allocation by services. The revenue decrease trend, however, has been observed since 2013. In 2017, compared to 2016, the revenue from public mobile telephone voice services went down by 0.7% or EUR 1.0 million.

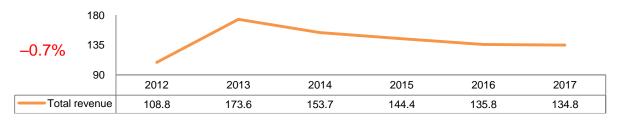


Fig. 11 Revenue from public mobile telephone voice services, in EUR million, 2012-2017 Source: RRT

Since one operator does not single out the revenue from local and international calls, the structure of the revenue received by public mobile telephone voice service providers by call destinations is very difficult to assess.

Table 9. Structure of revenue received by public mobile telephone voice service providers by call destinations, %, 2017

•	Local calls	International calls	Roaming calls
UAB Bitė Lietuva	73.1	15.4	11.6
Telia Lietuva, AB	70.2	17.0	12.8
UAB Tele2		89.9	10.1
Other providers	67.6	14.1	13.3

^{*} UAB Tele2 does not single out the revenue from local and international calls Source: RRT

However, with a view to the roaming call segment, it must be noted that the major share of total revenue (13.3%) for roaming calls was held by other providers in 2017, the smallest share was that of UAB Tele2 (see Table 9).

ARPU. The highest monthly revenue per subscriber received from public mobile telephone voice services constituted EUR 3.2 in 2013 (see Table 10). In 2013, the ARPU leap was caused by re-allocation of the revenue for mobile communications services that took place due to RRT's detailed methodology for revenue re-allocation. However, the ARPU decrease trend that has been observed since 2013 is to be linked with the effective competition on the market. The latter results in the price drop, and the service users gain the opportunity to use high-quality public mobile telephone voice services. It must be noted that service providers receive more than 2.1 times from post-paid service users rather than those using the pre-paid service. In spite of this, the growth of the number of post-paid public mobile telephone service users was recorded in 2017 (11.3%). This shows that the difference between the service users' expenditure when paying under invoices or in advance is not significant, and the choice is determined by *flat rate* service plans offered by service providers which corresponded to the service users' needs, because they were attractive as they help forecast the expenses.

ARPU for public mobile telephone voice services went further down (EUR 0.1) and stood at EUR 2.6 per month in 2017. It constituted 78.8%. ARPU for all public mobile telephone services.

Table 10. ARPU for public mobile telephone voice services by way of settlement, in EUR per month, 2012-2017

	2012	2013	2014	2015	2016	2017
ARPU for public mobile telephone voice services	1.8	3.2	3.0	2.9	2.7	2.6
From post-paid	2.6	4.7	4.1	3.7	3.4	3.1
From <i>pre-paid</i>	1.2	1.5	1.5	1.6	1.5	1.5
ARPU for all public mobile telephone services	4.0	4.0	3.7	3.6	3.5	3.3
Source: RRT						

The comparison of ARPU received by major operators for public mobile telephone voice services shows that in 2017, as in 2016, the lowest ARPU was that of UAB Tele2 (EUR 2.2), the highest ARPU was of UAB Bite Lietuva (EUR 3.1) (see Table 11).

Table 11. ARPU for public mobile telephone voice services by providers, in EUR per month, 2012-2017

	2012	2013	2014	2015	2016	2017
UAB Bitė Lietuva	2.7	3.9	3.5	3.2	3.0	3.1
Telia Lietuva, AB	1 .6	2.9	3.0	2.9	2.9	2.8
UAB Tele2	1.5	3.0	2.8	2.7	2.4	2.2
Other providers	3.2	3.1	2.5	2.0	1.9	1.4
All providers	1.8	3.2	3.0	2.9	2.7	2.6
Source: RRT	_					

Prices. During the period between 2012 and 2017, the so-called slat rate service plans were prevailing in Lithuania, where a certain duration of local calls (or unlimited calls to all networks of Lithuania) and a certain amount of additional services (SMS data transmission services) are offered for a certain regular charge. Where different mobile telephone *flat rate* service plans are offered on the market, it is difficult to exclude the price of public mobile telephone voice services from the total price offered in the plan. However, having calculated the average prices of voice services (the ratio between revenue for such

services and duration of respective calls subject to received revenue), the minor trend of the price decrease has been observed since 2014. The only exception in this trend is the average price for public mobile telephone voice services of UAB Bitė Lietuva which in 2017, compared to 2016, grew by 0.2 euro cent per minute and stood at 2.1 euro cent per minute, Whereas, the price of Telia Lietuva, AB and UAB Tele2 went down by 0.1 euro cent per minute in 2017, the price of other providers dropped by 0.2 euro cent per minute (see Table 12).

Table 12. Calculated average public mobile telephone voice service prices by service providers, in euro cent per minute, 2012-2017

······, ···	2012	2013	2014	2015	2016	2017
UAB Bitė Lietuva	1 .9	2.7	2.2	2.0	1.9	2.1
Telia Lietuva, AB	1.6	2.5	2.2	2.0	1.9	1.8
UAB Tele2	1.0	1.9	1.6	1.4	1.3	1.2
Other providers	1.7	1.4	1.1	0.8	0.9	0.7
All providers	1.4	2.2	1.8	1.7	1.6	1.5

Source: RRT

Quality. In order to inform on the quality of electronic communications services RRT carries out the evaluation tests of the public mobile telephone service quality indicators in relation to UAB Bité Lietuva, Telia Lietuva, AB, and UAB Tele2 public mobile communications networks operating in Lithuania. The following criteria are taken into account when carrying out the tests: share of unsuccessful calls of voice calls, call setup time, voice transmission quality and share of interrupted calls. When analysing the voice transmission quality indicator MOS-LQO by different service providers, it is observed that it is high and differs insignificantly (see Table 13). It must be noted that the highest the score, the higher the quality of the service.

Table 13. Average MOS-LQO value of transmission quality of public mobile telephone voice services by service providers, in scores, 2012-2017

	2012	2013	2014	2015	2016	2017
UAB Bitė Lietuva	3.24	3.16	3.25	3.25	3.52	3.56
Telia Lietuva, AB	3.47	3.44	3.60	3.57	3.51	3.47
UAB Tele2	★ 3.22	3.16	3.32	3.32	3.33	3.38

Source: RRT

2.1.2. Mobile Telephone SMS and MMS Services

Irrespective of the shrinking demand for short text messages (SMS), SMS has remained one of the most popular means of communication in 2017. This alternative of information exchange, as the calls, have a feedback option. Multimedia messaging service (MMS) is a short message with more options allowing sending a video message which may be supplemented by audio features and text. Despite greater possibilities of MMS, the popularity of this service, although growing, is still lower than that of SMS.

Number of SMS and MMS. Since 2012, the number of SMS has been going down (see Table 14). In 2017, the decrease accounted for 14.6%. A single public mobile telephone service user sent 86 SMS per

⁷ For more information, see RRT website at: http://www.rrt.lt/lt/apzvalgos-ir-ataskaitos/viesuju-judriojo-telefono-rj7y.html

⁸ Voice transmission quality is a figure which shows the quality of a voice transmitted over the network during a successful call expressed in MOS-LQO scores (5 is the maximum score). MOS-LQO assessment is carried out by means of specific software installed in RRT measurement equipment. The higher the MOS-LQO score, the better the assessment of the voice transmission quality.

month on an average in 2017 (by 18 SMS fewer than in 2016); a single service user sent 2.8 SMS per day on an average in 2017.

Table 14. Number of sent SMS, in million units, and MMS, in thousand units, and market shares of service providers, %, 2012-2017

F	2012	2013	2014	2015	2016	2017
Number of sent SMS, in million units	7,591.3	7,068.3	7,107.9	6,350.2	5,259.3	4,489.7
UAB Tele2	41.3	42.2	48.0	51.3	53.9	56.8
Telia Lietuva, AB	26.2	25.9	22.8	22.5	21.5	21.7
UAB Bitė Lietuva	32.1	31.4	28.5	25.1	22.9	19.7
Other providers	0.4	0.5	0.7	1.1	1.7	1.8
Number of sent MMS, in thousand units	5 ,868.4	6,229.6	6,785.3	8,071.5	9,430.7	10,944.3
UAB Tele2	53.2	52.3	47.7	47.4	46.3	47.7
Telia Lietuva, AB	27.9	27.9	28.4	30.3	30.9	27.1
UAB Bitė Lietuva	17.1	17.7	19.8	16.5	15.5	21.0
Other providers	1.8	2.1	4.1	5.8	7.4	4.2
Source: RRT	ı					

Since 2012, the trend of a growing number of MMS sent in public mobile communications networks has been observed in Lithuania: during a period in question, 10.9 million MMS were sent, which a largest amount in six years (see Table 16). In 2017, the number of sent MMS was higher by 16.0% than in 2016. Despite the growing number of sent MMS, the number of MMS per subscriber is small – a single public mobile telephone service user sent 0.2 MMS on an average in 2017.

While analysing the structure of SMS and MMS services by the number of sent messages and their breakdown by service providers, it is obvious that service users of UAB Tele2 have been sending the largest number of SMS and MMS for six consecutive years (see Table 16).

Revenue. In 2017, the revenue received from sent SMS and MMS messages increased by 5.3% and equalled EUR 25.7 million (see Fig. 12). In 2017, the major portion of the revenue, 96.1%, was represented by the revenue from sent SMS. Such revenue increased by 4.8% in 2017 and amounted to EUR 24.7 million. Compared to all revenue from public mobile telephone services, the revenue from SMS accounted for 14.2% of the total revenue⁹. In 2013, the leap of revenue from SMS was caused by reallocation of the revenue for mobile communications services that took place due to RRT's detailed methodology for revenue re-allocation.



Fig. 12 Revenue from SMS and MMS, EUR million, 2012-2017

Source: RRT

⁹ All revenue from public mobile telephone services includes the revenue from calls, SMS, MMS and other revenue.

Prices. The calculated average price of SMS services (ratio between revenue from such services and number of sent SMS) stood at 0.55 euro cent in 2017, i.e., by 0.1 euro cent more than in 2016. The calculated average SMS prices of UAB Bitė Lietuva, Telia Lietuva, AB, and UAB Tele2 differed in 2017: the difference between the highest and lowest calculated average SMS prices on the market amounted to 0.26 euro cent. Service users of UAB Bitė Lietuva had to pay 0.65 euro cent per sent SMS, which was the highest price to be paid, whereas the lowest price (0.39 euro cent) for sending SMS was applied by Telia Lietuva, AB in 2017. In 2017, the average revenue received by other providers per sent SMS stood at 1.45 euro cent.

The average calculated price of sending MMS (ratio between services and number of sent MMS) stood at 8.8 euro cent in 2017. The largest difference between the highest and lowest calculated average MMS price applied by the major mobile communications operators stood at 11.5 euro cent. UAB Bitė Lietuva service users had to pay the highest price for sending an MMS, i.e., 15.7 euro cent; the lowest price was paid by Telia Lietuva, AB, service users – 4.2 euro cent. UAB Tele2 service users had to pay 8.8 euro cent for sending MMS in 2017. The calculated average price of other providers per sent MMS stood at 2.9 euro cent.

The increasingly effective competition on the market of public mobile telephone voice services encouraged the service providers to offer attractive service plans which provided the service users with the opportunity to use the high-quality services almost without limits and pay for them a little less than last year. The *flat rate* service plans offered by service providers allowed the service users to receive various public mobile telephone services for a fixed price, to pay a single invoice and forecast their expenses in terms of such services.

2.2. Public Fixed Telephone Services

Service providers	35
Service users, thousand	485.9
Duration of calls, million minutes	699.6
Revenue, EUR million	39.9
ARPU, EUR per month	6.8

IMPORTANT!

• In this chapter of the report other public fixed telephone service providers shall be all public fixed telephone service providers, except for Telia Lietuva, AB (hereinafter – the other providers).

Public fixed telephone services consist of local and international calls via public fixed communications networks.

Service Providers. At the end of 2017, the public fixed telephone services were provided by 35 undertakings, i.e., by 1 undertaking fewer than at the end of 2016. 30 (at the end of 2016 – 33) undertakings indicated that they provided public fixed telephone services by means of VoIP (Voice Over Internet Protocol) technology.

Service Recipients. The total number of public fixed telephone service users decreased by 8.3% or 43.9 thousand in 2017 and at the end of 2017 it stood at 485.9 thousand service users (see Table 15). The service users received public fixed telephone services via public fixed telephone lines by means of PSTN (Public Switched Telephone Network), ISDN (Integrated Services Digital Network) and VoIP technologies. It must be noted that the number of service users does not correspond to the number of lines as public fixed telephone services may be provided to several service users via a single line provided by means of different technologies. In 2017, the number of used public fixed telephone lines decreased by 9.1% or by 47.6 thousand lines and the total number equalled 474.3 thousand lines. Due to the shrinking number of lines, the penetration of communications lines via which the public fixed telephone services were provided decreased as well. At the end of 2017, as many as 16.9 lines per 100 residents were available.

Table 15. Number of public fixed telephone service users and of used lines, in thousands, and penetration (per 100 residents and 100 households), %, 2012-2017

	2012	2013	2014	2015	2016	2017
Number of lines, in thousand units	4 659.8	614.5	574.5	553.4	521.9	474.3
Line penetration (per 100 residents), %	22.2	20.9	19.7	19.4	18.3	16.9
Line penetration (per 100 households), %	53.3	47.0	44.2	43.4	41.0	37.8
Number of service users, thousand units	675.4	624.8	585.5	560.8	529.9	485.9
Natural entities	482.1	449.8	416.3	396.8	374.7	333.7
Legal entities	193.3	175.0	169.2	164.0	155.2	152.2
Service users' penetration (per 100 residents), %	22.7	21.2	20.0	19.7	18.6	17.3
Service users' penetration (per 100 households), %	54.5	47.8	45.1	44.0	41.7	38.7

Source: RRT

The greatest share of the number of public fixed telephone service users (68.7%) was comprised by natural persons in 2017 (see Table 15). In 2017, compared to 2016, the number of natural persons using public fixed telephone services dropped by 10.9% or by 40.9 thousand. The number of legal persons has been further decreasing as well: in 2017, their number shrank by 1.9% or by 3.0 thousand.

The number of users of public fixed telephone services provided by Telia Lietuva, AB went down by 10.7% or by 49.9 thousand in 2017, compared to 2016 (see Table 16). The number of users of services provided by other providers increased by 9.1% or by 5.9 thousand in 2017. The largest undertakings from other providers (by the number of service users at the end of 2017) were as follows: UAB CSC Telecom, UAB Baltnetos Komunikacijos and UAB Nacionalinis Telekomunikacijų Tinklas – their total market share constituted 11.1%.

Table 16. Number of public fixed telephone service users by service providers, in thousands, and by types of service users, %, 2012-2017

	2012	2013	2014	2015	2016	2017
Telia Lietuva, AB	4 604.2	564.1	524.7	499.3	464.8	414.9
Natural entities	77.5	77.1	76.3	75.9	76.0	74.8
Legal entities	22.5	22.9	23.7	24.1	24.0	25.2
Other providers	J 71.2	60.7	60.8	61.4	65.1	71.0
Natural entities	19.5	24.4	26.2	28.6	32.6	32.7
Legal entities	80.5	75.6	73.8	71.4	67.4	67.3

Source: RRT

The decreasing overall number of service users resulted in the changes in the market structure by a type of service users (see Table 16). The number of natural entities using public fixed telephone services provided by Telia Lietuva, AB dropped by 12.1% and stood at 310.5 thousand in 2017. For this reason, the market share held by Telia Lietuva, AB in the segment of services provided to natural entities decreased by 1.2 pp and stood at 93.0% of the overall market. The number of natural entities using public fixed telephone services provided by other providers grew by 9.2% and stood at 23.2 thousand service users in 2017, compared to 2016.

The number of legal entities using public fixed telephone services provided by Telia Lietuva, AB and other providers dropped by 6.3% (7.0 thousand) in 2017 and went up by 9.0% (4.0 thousand), respectively, in 2017. Telia Lietuva, AB whose public fixed telephone services were used by 104.4 thousand legal entities at the end of 2017 held 68.6% of the market of public fixed telephone services provided to legal entities.

Number Portability Service. In 2017, this service was used 7.6 thousand times, i.e., by 41.1% less than in 2016 (see Table 17). A major share (77.2%) of telephone numbers were ported to another network from Telia Lietuva, AB network – this accounted for 5.9 thousand telephone numbers. As many as 0.8 thousand telephone numbers were ported from the networks of other providers to Telia Lietuva, AB network.

Table 17. Number of ported numbers by service providers, in units, in 2017

	То	From	Balance sheet
UAB Nacionalinis Telekomunikacijų Tinklas	2,319	181	2,138
UAB CSC Telecom	2,492	918	1,574
UAB Mediafon Carrier Services	1,320	296	1,024
AB Lietuvos Radijo ir Televizijos Centras	511	301	210
UAB Ecofon	191	6	185
UAB Tele2	17	13	4
Teledema SIP, UAB	4	0	4
UAB Telekomunikacijų Grupė	0	9	-9
UAB Voxbone	0	15	-15
Telia Lietuva, AB	761	5,876	-5,115

Source: RRT

Call Duration. The size of the market of public fixed telephone services, in terms of the duration of originated calls, has been further decreasing. In 2017, the duration of calls originated by public fixed telephone service users dropped by 12.4%, and since 2012 it decreased by 45.2% (see Fig. 13). The market of public fixed telephone services, in terms of the duration of calls originated in the networks of different providers, maintained the same positions in 2017 as in the previous year: the major market share (88.6%) was held by Telia Lietuva, AB; however, its market share has shrunk by 4.7 pp since 2012.

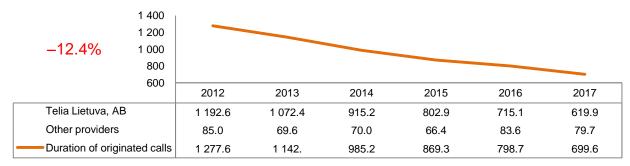


Fig. 13 Duration of calls originated by public fixed telephone service users by service providers, in million minutes, 2012-2017

Source: RRT

The dynamics of the duration of calls originated by the users of services provided by Telia Lietuva, AB by call destinations during the period between 2012 and 2017 shows that the trend of the indicator changes by call destinations remains stable: the users of services provided by Telia Lietuva, AB make fewer calls in own network and tend to make more calls to other public fixed and mobile telephone communications networks (see Table 18). In 2017, the duration of calls in own Telia Lietuva, AB network went down by 20.2% or 100.5 million minutes.

Table 18. Structure of the duration of calls originated in individual public fixed telephone communications networks by call destination, in million minutes, 2012-2017

Telia Lietuva, AB	2012	2013	2014	2015	2016	2017
Terminated in own network	1,078.7	914.1	726.2	591.8	497.1	396.6
Terminated in other public fixed communications networks	17.8	19.6	21.0	22.5	23.3	29.4
Terminated in public mobile communications networks	★ 67.1	111.2	144.1	167.3	175.8	172.5
Terminated in foreign operators' networks	29.0	27.5	23.9	21.3	18.9	17.0

Other providers						·
Terminated in own network	12.6	13.1	12.8	13.7	16.9	9.5
Terminated in other public fixed communications networks	↔ 29.9	22.4	23.8	22.5	24.5	16.9
Terminated in public mobile communications networks	18.6	21.2	20.5	20.5	21.4	20.7
Terminated in foreign operators' networks	23.9	12.9	12.9	9.7	20.9	24.8
All providers			_	_		
Terminated in own network	1,091.3	927.2	739	605.5	514	406.1
Terminated in other public fixed communications networks	↔ 47.7	42	44.8	45	47.8	46.3
Terminated in public mobile communications networks	1 85.7	132.4	164.6	187.8	197.2	193.2
Terminated in foreign operators' networks Source: RRT	★ 52.9	40.4	36.8	31	39.8	41.8

The duration of calls originated by the users of other service providers and terminated in own network represented one of the smallest parts (in 2017 - 9.5%). It must be noted that it was only the duration of the calls originated by the users of other service providers and terminated in foreign operators' networks that was increasing in 2017: 18.7% or 3.9 million minutes (see Table 21).

Revenue. In 2017, the revenue from public fixed telephone services went down by 9.6% or EUR 4.3 million and amounted to EUR 39.9 million (which constituted 5.9% of the total revenue of the electronic communications market) (see Fig. 14).

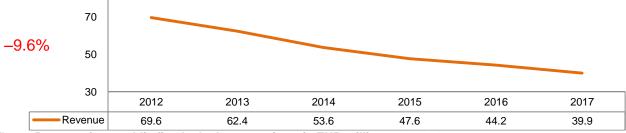


Fig. 14 Revenue from public fixed telephone services, in EUR million, 2012-2017 Source: RRT

With a view to the structure of the revenue from public fixed telephone services by providers, the decreasing trend of the revenue received by all service providers from public fixed telephone voice services has been observed since 2012 already. In 2017, compared to 2016, the revenue received by Telia Lietuva, AB from the provision of public fixed telephone voice services dropped by 10.9% or by EUR 4.5 million. Telia Lietuva, AB, having received the revenue of EUR 36.5 million, held 91.4% of the overall market of public fixed telephone voice services in 2017. The revenue of other providers received from public fixed telephone voice services went up by 6.7% or by EUR 3.4 million in 2017, compared to 2016.

ARPU. The average revenue from public fixed telephone services per subscriber per month (ARPU) dropped by 2.9% and accounted for EUR 6.8 in 2017, compared to 2016 (see Table 19). In 2017, ARPU was decreasing in the segment of legal persons (7.1%), whereas in the segment of natural persons ARPU had remained stable for the first time throughout the entire period of 2012-2017 in question and amounted to EUR 5.8 per month. During the period between 2012 and 2017, ARPU from both legal persons (20.7%) and natural persons (20.9%) was going down. This may be associated with favourable conditions in terms of competition in the segment of both legal persons and in the segment of natural persons.

Table 19. ARPU for public fixed telephone services by service providers and type of service users, in EUR per month, 2012-2017

ARPU by users	2012	2013	2014	2015	2016	2017
ARPU for public fixed telephone services*	8.6	8.3	7.6	7.1	7.0	6.8
Natural entities	J 7.4	7.1	6.5	6.0	5.8	5.8
Legal entities	11.6	11.5	10.4	9.7	9.9	9.2
ARPU by providers						
Telia Lietuva, AB	9.3	9.1	8.8	8.1	7.5	7.3
Other providers	5.3	4.5	4.0	3.7	3.6	4.0

^{*} Including the revenue from loops.

Source: RRT

In 2017, ARPU from public fixed telephone services exceeded ARPU from public mobile telephone voice services by 2.6 times (in 2016 – by 2.6 times as well). As ARPU does indirectly reflect average monthly expenses of a single service user as well, besides the differences in functionality of fixed and mobile telephone voice services, ARPU difference in terms of such services also contributes to higher attractiveness of public mobile telephone voice services to service users and this may be defined as one of the reasons for the market of public fixed telephone services to be rapidly shrinking.

Prices. The calculated average prices of different public fixed telephone service providers in 2017 (ratio between revenue for such services and duration of calls that revenue was generated from) per minute of a local and international call changed insignificantly (see Table 20). In 2017, compared to 2016, the calculated average price per minute of a local call originated in the network of Telia Lietuva, AB increased by 0.1 euro cent or by 4.2%, while the calculated average prices of the said services provided by other providers went down by 0.2 euro cent or by 11.8%.

Table 20. Calculated average public fixed telephone service prices by service providers, in euro cent per minute, 2012-2017

Local call	2012	2013	2014	2015	2016	2017
Telia Lietuva, AB	1.8	2.0	2.2	2.3	2.4	2.5
Other providers	4 2.1	2.1	2.0	2.0	1.7	1.5
All providers	1.9	2.0	2.2	2.3	2.4	2.4
International call						
Telia Lietuva, AB	13.8	12.7	12.1	11.8	12.4	12.4
Other providers	5.8	8.0	7.1	8.3	5.8	6.0
All providers	10.1	11.2	10.4	10.7	8.9	8.6

Source: RRT

When analysing the calculated average prices per local call minute by service providers, the lowest calculated average prices were those of other providers (6.0 euro cent per minute) in 2017 as in the previous year. It grew by 0.2 euro cent or by 3.4% over the year. The prices of the services provided by Telia Lietuva, AB did not change (see Table 20).

In 2017, the market of public fixed telephone services was further shrinking in terms of both the number of service users and call duration, and revenue. The service users continue to replace public fixed telephone services with public mobile telephone voice and other services, including OTT (Over-the-Top) services.

2.3. Wholesale Services of the Provision of Public Communications Networks and Wholesale Public Telecommunications Services

2.3.1. General Overview of the Market



The wholesale public communications networks and wholesale public telephone services (hereinafter – the networks interconnection services) are wholesale services necessary to enable the provision of retail public telephone services. Such services include the following services provided to other service providers: call origination, call transit and call termination provided in public fixed and/or mobile communications networks, roaming services provided to foreign public mobile telephone service providers so that their service users were able to use public mobile telephone services while being in Lithuania, as well as other revenue received from wholesale public communications network provision and public telephone services.

Revenue. The revenue from the networks interconnection activities that had been decreasing till 2013 started to grow since 2014. In 2017, compared to 2016, the revenue increased by 0.9% and equalled EUR 142.8 million (see Fig. 15). It must be noted that, in 2017, compared to 2016, the revenue growth rate was lower by 6.4 pp. Irrespective of the fact that the higher revenue received from networks interconnection services constituted a larger share, the portion of the revenue in the overall structure of the revenue of the electronic communications service market shrank by 0.6% and accounted for 21.0%.



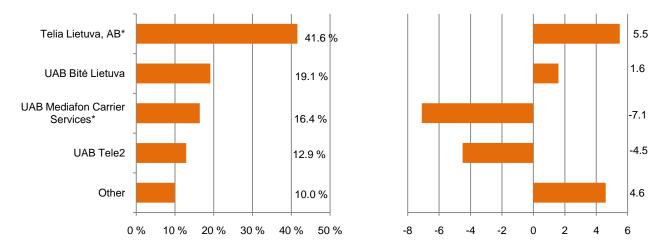
Fig. 15 Structure of revenue received from networks interconnection services by service groups in 2012-2017, in EUR million

Source: RRT

The revenue from call transit services has accounted for the major portion of the revenue from networks interconnection services since 2012. In 2017, such revenue was growing faster (5.1%) than in 2016 (4.1%); the portion of such revenue in terms of the total revenue from networks interconnection

services went up by 2.1 pp. In 2017, the revenue from transit services constituted 51.7% of the total revenue of networks interconnection services.

In 2017, the largest portion of the revenue (41.6%) was received from networks interconnection activities by Telia Lietuva, AB (see Fig. 16). Over the year, the market share held by the latter service provider grew by 5.5 pp.



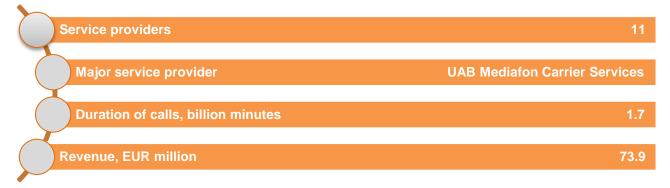
^{*} Till 2017 the services were provided by Teo LT, AB and UAB Omnitel which became Telia Lietuva, AB after the merger.

Fig. 16 Structure of the networks interconnection services market in terms of revenue by service providers, %, and annual changes of the market shares, pp, 2017

Source: RRT

Networks interconnection services ensure the opportunity for all service users to connect to and communicate with voice service users in all networks. Over the year, the revenue from networks interconnection services has grown by 0.9% and in 2017, it represented 21.0% of the total revenue of the electronic communications market.

2.3.2. Call Transit Services



IMPORTANT!

• The call transit services discussed in this section include pure transit only, i.e., where the calls are not originated or terminated in the network where a transit service is provided.

The call transit service is significant to public telephone service providers for the purpose of making a more effective use of available network and financial resources and have alternative ways of sending calls. Call transit services make it possible to transfer calls inside the country, send calls originated inside the country to foreign countries, as well as to transfer calls from abroad

to a specific public communications network in Lithuania. Calls which are neither originated nor terminated in Lithuania may be also forwarded by transit.

Service Providers. At the end of 2017, call transit services were provided by 11 undertakings¹⁰, i.e., the same as at the end of 2016.

Duration of transferred calls. Where assessing the duration of calls forwarded by transit by call destinations, the following call transit services are singled out, where calls are forwarded as follows: 1) from public communications networks of the Republic of Lithuania to other public communications networks of the Republic of Lithuania, 2) from public communications networks of the Republic of Lithuania to foreign operators' networks, 3) from foreign operators' networks to the public communications networks of the Republic of Lithuania, 4) from foreign operators' networks to other foreign operators' networks via the territory of the Republic of Lithuania.

In 2017, as in 2016, the duration of calls forwarded by transit to foreign operators' public communications networks shrank (8.1%), whereas the duration of calls forwarded by transit to other public telephone communications networks of the Republic of Lithuania increased (47.3%). Irrespective of this, the trend remained that the largest share (69.0%) of calls forwarded by transit in 2015 was forwarded to public communications networks of foreign operators (see Figure 17).

	1800 1200 600						
+4.0%	600	2012	2013	2014	2015	2016	2017
from LR networks to other	r LR networks	291.1	283.2	284.6	264.0	358.5	9.1
from foreign networks to L	T networks	-	-	-	-	-	519.0
from LR networks to foreign	gn networks	-	-	-	-	-	168.4
from foreign networks to onetworks	other foreign	501.1	697.5	1082.8	1319.7	1280.6	1008.1
To all networks		792.2	980.7	1367.4	1583.7	1639.1	1704.7

Fig. 17 Duration of calls forwarded by transit to public communications networks of Lithuanian and foreign operators, in million minutes, 2012-2017

Source: RRT

The largest share on the market of call transit by the duration of forwarded calls (39.4%) was held by UAB Mediafon Carrier Services in 2017, although its share decreased by 6.6 pp over the year (see Fig. 18).

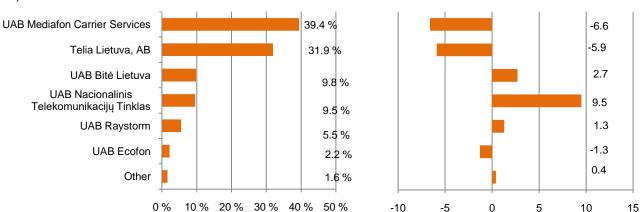


Fig. 18 Structure of the market of call transit services by duration of forwarded calls, %, and annual changes of the market shares, pp, 2017

Source: RRT

31

¹⁰ Telia Lietuva AB, UAB Bitė Lietuva, UAB CSC Telecom, UAB Ecofon, UAB Mediafon ,UAB Mediafon Carrier Services, UAB Nacionalinis Telekomunikacijų Tinklas, UAB Raystorm, UAB TCG Telecom, UAB Teleksas, SA Voxbone

Revenue. The revenue received from call transit services stood at EUR 73.9 million in 2017 and, compared to 2016, it grew by 5.1% (see Fig. 19). The growth of the revenue from call transit services was influenced by the longer duration of calls forwarded by transit in 2017 (4.0%).

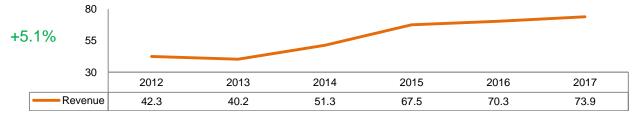


Fig. 19 Revenue from call transit services, in EUR million, 2012-2017 Source: RRT

With a view to the market of call transit services by revenue, the major portion (52.7%) of the revenue was generated by Telia Lietuva, AB in 2017 (see Fig. 20). Its market share grew by 10.8 percentage point over the year and it exceeded the market share held by its closest competitor UAB Mediafon Carrier Services by as many as 21.1 percentage points.

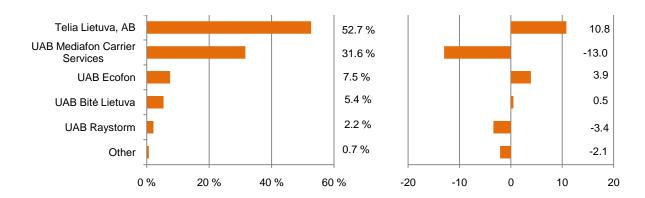


Fig. 20 Structure of the market of call transit services by revenue, %, and annual changes of the market shares, pp, 2017

Source: RRT

In 2017, the market of call transit services grew by 5.1% in terms of revenue. The growth was influenced by the increased flow (47.3%) of calls forwarded to public telephone communications networks of the Republic of Lithuania.

2.3.3. Call Termination Services

2.3.3.1. Call Termination in Public Mobile Communications Networks

Service providers	5
Major service provider	UAB Tele2
Duration of calls, billion minutes	4.0
Revenue, EUR million	44.2

IMPORTANT!

- The services of call termination in public mobile communications networks discussed in this section include the termination of calls originated only in other networks, and calls which were originated and terminated in the same network are not assessed.
- In this section of the report other service providers of call termination in public mobile communications network shall be all service providers of call termination in public mobile communications network, except for UAB Bité Lietuva, Telia Lietuva, AB, and UAB Tele2 (hereinafter – the other providers).

The services of call termination in public mobile communications services consist of calls originated in Lithuanian and foreign operators' networks which were terminated in public mobile communications networks of Lithuanian operators.

Service Providers. In 2017, the services of call termination in public mobile communications networks were provided by 5 operators¹¹.

Duration of terminated calls. In 2017, the overall duration of calls terminated in public mobile communications networks was 4,028.6 million minutes, i.e., by 4.2% more than in 2016. It must be noted that the trend of the increasing duration of terminated calls is observed in all public mobile communications networks. The duration of calls terminated in public mobile communications networks of other providers grew by 3.7 times in 2017. In 2017, the largest share of calls terminated in public mobile communications networks (83.7%) by call duration was originated in public mobile communications networks. In 2017, most calls were terminated in UAB Tele2 network (see Table 21) and this accounted for 41.3% of all calls terminated in public mobile communications networks.

Table 21. Duration of calls terminated in public mobile communications networks by service providers, in million minutes, and call origination network. %, 2012-2017

minutes, and call origination ne	etwork, %, 201	2-2017				
UAB Bitė Lietuva	2012	2013	2014	2015	2016	2017
Originated in public mobile communications networks	89.6	88.7	88.6	88.9	87.5	87.8
Originated in public fixed communications networks	6.7	8.3.	8.8	7.7	8.5	6.5
Originated in foreign operators' networks	3.7	2.8	2.6	3.4	4.0	5.7
Total originated	626.4	703.1	880.2	979.8	1,041.3	1,064.3
Telia Lietuva, AB						
Originated in public mobile communications networks	84.9	82.6	83.8	84.0	84.0	82.5
Originated in public fixed communications networks	4.1	5.0	4.7	4.8	4.8	4.6
Originated in foreign operators' networks	11.0	12.4	11.5	11.2	11.2	12.9
Total originated	1 742.0	830.1	1,012.6	1,129.8	1,226.0	1,288.4
UAB Tele2						
Originated in public mobile communications networks	87.2	86.5	80.7	83.7	82.5	82.2
Originated in public fixed communications networks	2.7	4.7	6.6	5.3	5.4	5.0
Originated in foreign operators' networks	10.1	8.8	12.7	11.0	12.1	12.7
Total originated	* 872.9	1,000.7	1,280.7	1,455.1	1,594.8	1,664.3

¹¹ Telia Lietuva, AB, UAB Bitė Lietuva, UAB Tele2, UAB CSC Telecom, UAB Mediafon Carrier Services

.

Other providers						
Originated in public mobile communications networks	95.9	96.3	92.8	93.0	95.1	47.8
Originated in public fixed communications networks	3.0	1.9	4.8	5.0	3.1	42.4
Originated in foreign operators' networks	1.1	1.8	2.4	2.0	1.8	9.9
Total originated	10.3	4.8	11.0	37.5	3.1	11.5
Originated of all providers	2,251.6	2,538.7	3,184.5	3,602.1	3,865.2	4,028.6

Source: RRT

Revenue. The revenue received from call termination in public mobile communications networks decreased by 11.2% and stood at EUR 44.2 million in 2017, compared to 2016 (see Fig. 21).

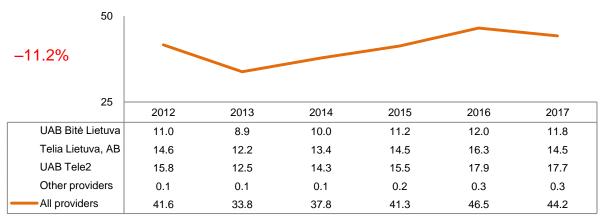


Fig. 21 Revenue from call termination in public mobile communications networks by service providers, in EUR million, 2012-2017

Source: RRT

The major portion of the revenue (39.9%) in 2017, as in 2016, was generated by UAB Tele2 whose revenue from call termination shrank by 1.1% over the year. (see Fig. 22).

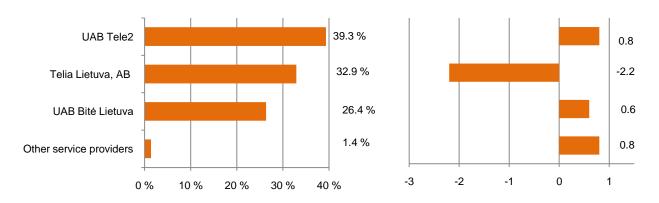


Fig. 22 Structure of revenue from termination of calls in public mobile communications networks by service providers, %, and annual changes of the market shares, pp, 2017

Source: RRT

Prices. In 2017, the price of call termination in public mobile communications networks did not change due to the regulation applied by RRT. Taking account of this regulation, as of 1 April 2016 the price of call termination in public mobile communications networks, where calls are originated in the Member States of the European Economic Area¹², may not exceed 0.94 euro cent per minute (VAT excl.).

¹² Norway, Island and Liechtenstein are not the Member States of the European Union, however, the said three countries and the Member States of the European Union constitute the European Economic Area.

2.3.3.2. Call Termination in Public Fixed Communications Networks

7
Telia Lietuva, AB
373.7
2.5

IMPORTANT!

• In this section of the report other service providers of call termination in public fixed communications network shall be all service providers of call termination in public fixed communications network, except for Telia Lietuva, AB (hereinafter – the other providers).

The services of call termination in public fixed communications services cover calls originated in Lithuanian and foreign operators' networks which were terminated in public fixed communications networks of Lithuanian operators.

Service Providers. In 2017, the services of call termination in public fixed communications networks were provided by 7 operators¹³.

Duration of terminated calls. In 2017, compared to 2016, the duration of calls terminated in public fixed communications networks went down by 12.6% and accounted for 373.6 million minutes. In 2017, the largest share of calls terminated in public fixed communications networks (70.0%) by call duration was originated in public mobile communications networks (see Table 22). The duration of the latter calls went down by 12.4% or by 37.2 million minutes in 2017.

Table 22. Structure of the duration of calls terminated in individual public fixed communications networks by call origination network, in million minutes, 2012-2017

Telia Lietuva, AB	2012	2013	2014	2015	2016	2017
Originated in public mobile communications networks	1 39.6	161.3	212.9	235.6	252.9	211.0
Originated in public fixed communications networks	72.7	81.5	55.9	43.6	52.4	49.6
Originated in foreign operators' networks	89.2	72.6	54.6	81.3	40.1	30.1
Total originated	301.5	315.4	323.4	360.5	345.4	290.7
Other providers						
Originated in public mobile communications networks	15.3	18.7	25.9	31.8	45.9	50.7
Originated in public fixed communications networks	26.8	23.5	24.9	26.0	31.9	26.6
Originated in foreign operators' networks	7.8	4.8	4.9	5.6	4.3	5.6
Total originated	49.9	47.0	55.7	63.4	82.1	83.0
Duration of terminated calls	351.4	362.4	379.1	423.9	427.6	373.7

Source: RRT

_

¹³ Telia Lietuva, AB, AB Lietuvos Geležinkeliai, AB, Lietuvos Radijo ir Televizijos Centras, UAB CSC Telecom, UAB Ecofon, UAB Mediafon Carrier Services, UAB Nacionalinis Telekomunikacijų Tinklas

With a view to the structure of the market of call termination in public fixed communications networks by service providers, most calls (77.8%) were terminated in Telia Lietuva, AB public fixed communications network in 2017 (see Table 22). The largest share (72.6%) of calls terminated in Telia Lietuva, AB network was comprised of the calls originated in public mobile communications networks. It must be noted that the duration of calls terminated in the networks of other providers, contrary to the case of Telia Lietuva, AB, increased in 2017 (by 1.1% or 0.9 million minutes). The overall duration of calls terminated in the networks of other providers stood at 83.0 million minutes in 2017 (see Table 22). The largest share (61.0%) of calls terminated in the networks of other providers was comprised of the calls originated in public mobile communications networks.

Revenue. In 2017, the revenue received from call termination in public fixed telecommunications networks significantly decreased (by 19.1%) and stood at EUR 2.5 million (see Fig. 23).

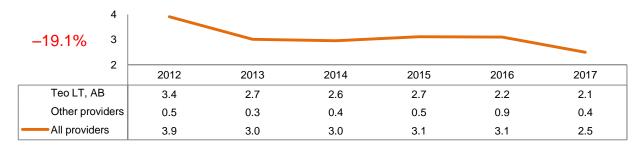


Fig. 23 Revenue from call termination in public fixed communications networks by service providers, in EUR million, 2012-2017

Source: RRT

The largest portion of such revenue (84.1%) was generated by Telia Lietuva, AB (see Fig. 24).

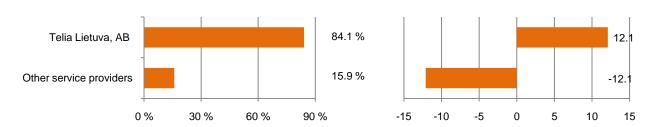


Fig. 24 Structure of revenue from termination of calls in public fixed communications networks by service providers, %, and annual changes of the market shares, pp, 2017

Source: RRT

Prices. In 2017, the price of call termination in public fixed communications networks did not change due to the regulation applied by RRT. Taking account of this regulation, as of 1 January 2016 the price of call termination in public fixed communications networks, where calls are originated in the Member States of the European Economic Area¹⁴, may not exceed 0.13 euro cent per minute (VAT excl.).

In 2017, the market of call termination (in fixed and mobile communications networks) services shrank by 11.6% in terms of revenue. With a view to the structure of the market of call termination services by termination destination, it must be noted that 91.5% (by call duration) of the market was represented by calls terminated in public mobile communications networks.

¹⁴ Norway, Island and Liechtenstein are not the Member States of the European Union; however, the said three countries and the Member States of the European Union constitute the European Economic Area.

3. Data Transmission

3.1. General Overview of the Market of Data Transmission Services

Service providers	92
Maior consider muscider	Talia Liatura AD
Major service provider	Telia Lietuva, AB
Revenue, EUR million	241.4
Share of the retail service market by revenue, %	94.8
	
Share of the wholesale service market by revenue, %	5.2

IMPORTANT!

 In this section of the report other data transmission service providers shall be all providers of such services, except for Telia Lietuva, AB, UAB Tele2, UAB Bitė Lietuva, AB Lietuvos Radijo ir Televizijos Centras and UAB Cgates in Figure 27 (hereinafter – the other providers).

In 2017, the data transmission services provided in Lithuania may be divided into internet access services (retail and wholesale) and other data transmission services (retail and wholesale).

Service Providers. The market of data transmission services is quite stable with a view to the number of providers. At the end of 2017, data transmission services were provided by 92 undertakings. Data transmission service providers represented more 72.4% of all 127 undertakings engaged in electronic communications activities. The majority of data transmission service providers were providing retail internet access services in 2017 as in previous periods – their number stood at 87 (in 2016 – 100).

Revenue. In 2017, the revenue gained from data transmission services amounted to EUR 241.4 million, i.e., by 10.7% more than in 2016 (see Fig. 25). The activity of the provision of data transmission services remains one of the most important components of the electronic communications sector representing over a third (35.4%) of the total revenue of the electronic communications market. It must be also noted that the increase of the revenue from data transmission services was recorded between 2012 and 2017.

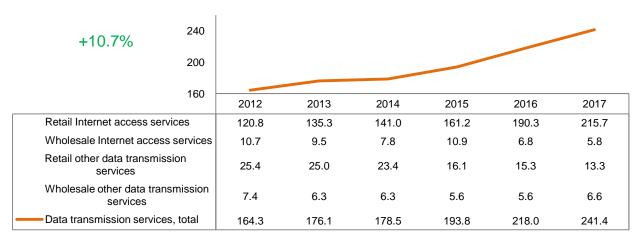


Fig. 25 Structure of revenue received from data transmission services by service groups in 2012-2017, in EUR million.

Source: RRT

In 2017, as throughout the entire period between 2012 and 2017, the largest portion of the revenue (89.3%) was comprised of the revenue from retail internet access services (see Fig. 26). In 2017, compared to 2016, a portion of the revenue from retail internet access services grew by 2.1 percentage point in the total revenue of data transmission services. This was mainly affected by the increased demand for the retail internet access services.

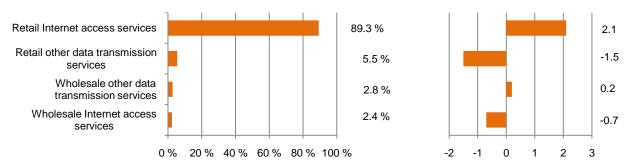


Fig. 26 Structure of revenue from data transmission services by service groups, %, and annual changes of the revenue structure, pp, 2017

Source: RRT

In 2017, as in 2016, the largest portion of the revenue from data transmission services was gained by Telia Lietuva, AB – the received revenue represented 46.9% of all revenue from data transmission services (see Fig. 27). The second largest operator, in terms of revenue from data transmission services, was UAB Tele2 in 2017, which received 17.0% of all revenue from data transmission services; the revenue gained was subject to the largest increase of all operators in 2017, compared to 2016 (by 4.5 pp). UAB Bitė Lietuva was the largest third operator by gained revenue and it received 15.1% of all revenue from data transmission services. In 2017, AB Lietuvos Radijo ir Televizijos Centras and UAB Cgates received 3.9% and 3.1% of all revenue from data transmission services, respectively.

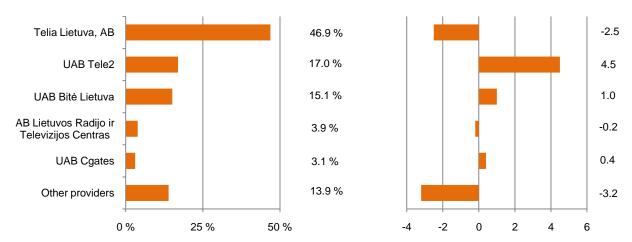


Fig. 27 Structure of revenue from data transmission services by service providers, %, and annual changes of the revenue portions, pp, 2017

Source: RRT

The annual increase of the single data transmission service market, in terms of revenue, has been observed since 2012. In 2017, the revenue in this market grew by 10.7%. This growth was basically caused by the increase of revenue from retail internet access services. Telia Lietuva, AB has remained the major leader of the market of data transmission services.

3.2. Retail Internet Access Services

Service providers 87

Revenue, EUR million 215.7

Methods of the Service Provision. In 2017, the retail internet access services were provided by means of fixed communications or mobile communications technologies in Lithuania.

Service Providers. The Lithuanian market of retail internet access services was characteristic of the high number of service providers in 2017 as in the previous periods. At the end of 2017, the internet access services were provided by 87 undertakings (by 13 undertakings fewer than in 2016).

Service Recipients. According to the data of the European Commission, in 2017 the use of retail internet access services ¹⁵ in Lithuanian households grew by 3.3 pp, compared to 2016, i.e., from 71.7% to 75.0% ¹⁶ (see Fig. 28). The overall average of the use of the internet by the EU Member States grew by 1.5 pp and stood at 86.9% in 2017, compared to 2016, which is by 11.9 pp more than in Lithuania. With a view to the use of such services in the households, Lithuania remains at the lower positions in the European Union. The Lithuanian indicator is also the lowest compared to the closest neighbouring countries Estonia, Poland and Latvia, where this indicator, respectively, stood at 88.3%, 81.9% and 78.6%. The most widespread use of retail internet access services is in the Netherlands, and the least widespread – in Bulgaria. In these countries, the share of households using the internet accounted for 98.2% and 67.3%, respectively, in 2017.

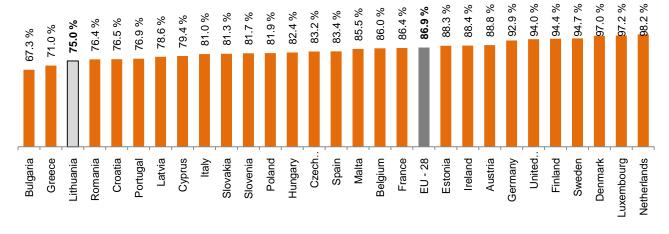


Fig. 28 Share of households using internet access service in the EU Member States, %, 2017 Source: European Commission¹⁷

According to the data of the Statistics Department¹⁸, in 2017 the absence of the need to use the internet was indicated as the main reason for failing to use retail internet access services at home in Lithuania. This was indicated by over half (62.2%) of households without access to the internet at home. Other reasons, which were less common, were the absence of required knowledge (43.3%), expensive equipment (23.8%), high service tariffs (21.1%) or an opportunity to use the internet elsewhere (7.4%). The absence of supply in a place of residence was the least frequent reason for not using the internet at home.

¹⁵ Including retail internet access services provided via xDSL loops, wireless communication lines, CTV networks, FTTx lines, LAN lines and mobile communications technologies.

¹⁶ Calculated based on "Eurostat" survey "Community Survey on ICT Usage in Households and by Individuals".

¹⁷ http://digital-agenda-data.eu/charts/analyse-one-indicator-and-compare-countries

¹⁸ Information Technologies in Lithuania 2017: https://ivpk.lrv.lt/uploads/ivpk/documents/files/Naujienos/IT%20Lietuvoje%202017.pdf

Revenue. The total revenue from retail internet access grew throughout the entire period between 2012 and 2017. In 2017, compared to 2016, such revenue increased by 13.3% and accounted for EUR 215.7 million (see Fig. 29). In 2017, the revenue from retail internet access services provided by means of fixed communications technologies represented 44.1% or by 8.2 pp less than in 2016 in the total revenue from retail internet access services provided by means of mobile communications technologies accounted for, respectively, 55.9% or by 8.2 pp more than in 2016 in the total revenue from retail internet access services.

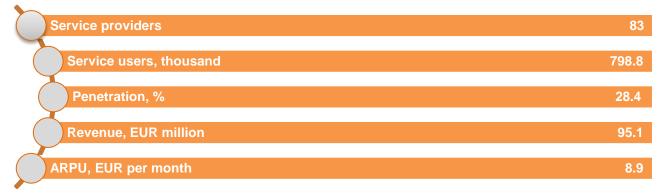


Fig. 29 Structure of revenue received from retail internet access services by service provision technologies in 2012-2017, in EUR million

Source: RRT

In 2017, the revenue from retail internet access services continued to grow (the growth of 13.3%). The major share – 55.9% – was comprised of the revenue from retail internet access services provided by means of mobile communications technologies.

3.2.1. Retail Internet Access Services Provided by Means of Fixed Communications Technologies



IMPORTANT!

 In this section of the report the other providers of retail internet access services provided by means of fixed communications technologies shall be all providers of such services, except for Telia Lietuva, AB, UAB Cgates, UAB Init, Splius, UAB, UAB Balticum TV, UAB Penkių Kontinentų Komunikacijų Centras, AB Lietuvos Radijo ir Televizijos Centras in Figure 33; Telia Lietuva, AB, UAB Cgates, Splius, UAB, UAB Balticum TV, UAB Init, UAB Penkiy Kontinenty Komunikacijy Centras, UAB Kauno Interneto Sistemos, AB Lietuvos Radijo ir Televizijos Centras, UAB Baltnetos Komunikacijos, KLI LT, UAB in Table 24; Telia Lietuva, AB, UAB Cgates, AB Lietuvos Radijo ir Televizijos Centras, UAB Init, UAB Balticum TV, UAB Baltnetos Komunikacijos, Splius, UAB, UAB Penkių Kontinentų Komunikacijų Centras in Figure 36 (hereinafter – the other providers).

Methods of the Service Provision. In 2017, retail internet access services were provided by means of fixed communications technologies using the following methods in Lithuania:

- metallic twisted pair loops using xDSL technology (hereinafter xDSL loops);
- wireless communication lines using WiMAX (Worldwide Interoperability Microwave Access), Wi-Fi (Wireless Fidelity) and other wireless communication technologies (hereinafter - wireless communication lines);
 - coaxial cable lines (hereinafter CTV networks);
- optical fibre lines using FTTB¹⁹ (Fibre to the Building) and FTTH²⁰ (Fibre to the Home) technologies (hereinafter – FTTH lines and FTTB lines, jointly to be referred to as FTTx lines);
- shielded twisted pair (STP) and unshielded twisted pair (UTP) lines in LAT networks (Local Area Network) (hereinafter - the LAN lines);
 - by means of other technologies (leased lines, etc.).

Service Providers. In 2017, retail internet access services by means of fixed communications technologies were provided by 83 undertakings in Lithuania (by 13 undertakings fewer than in 2016).

Service Recipients. At the end of 2017, compared to the data at the end of 2016, the number of users of retail internet access services provided by means of fixed communications technologies shrank by 59 thousand or by 6.9% and stood at 798.8 thousand subscribers (see Fig. 30). The penetration of retail internet access services provided by means of fixed communications technologies (number of service users per 100 residents) went down by 1.7 pp in 2017 and accounted for 28.4%. Where the growth of the number of service users and penetration was observed between 2013 and 2016, both indicators dropped in 2017, contrary to the period of 2013-2016. This decrease may be basically explained by the fact that AB Lietuvos Radijo ir Televizijos Centras switched from WiMAX technology to mobile communications LTE technology when providing internet access services in 2017.

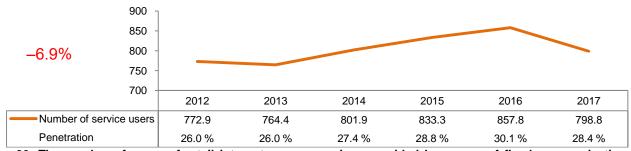


Fig. 30. The number of users of retail internet access services provided by means of fixed communications technologies, in thousands, and penetration, %, 2012-2017 Source: RRT

According to the data of the European Commission, the penetration of retail internet access services provided by means of fixed communications technologies stood at 27.8% in the middle of 2017 in

²⁰ Fibre to the Home

¹⁹ Fibre to the Building

Lithuania²¹ (see Fig. 31). The average penetration of the Member States of the European Union amounted to 33.7% in the middle of 2017. Based on this indicator, Lithuania outperforms two neighbouring countries -Latvia and Poland (26.3% and 18.4%, respectively). Estonia where the penetration of the said services stood at 32.7% in the middle of 2017 is still ahead of Lithuania. The highest penetration of internet access services provided by means of fixed communications technologies in the European Union was recorded in the Netherlands (43.7%) and Denmark (43.6%).

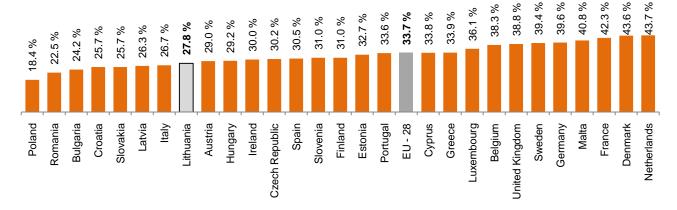


Fig. 31 The number of users of retail internet access services provided by means of fixed communications technologies per 100 residents, in the EU Member States, %, June 2017 Source: European Commission²²

The structure of the market of retail internet access services by fixed communications technologies used by service users maintained the similar proportions in 2017 as in the previous periods (see Table 23); FTTx lines were used most often - 70.8% (565.6 thousand users). It must be noted that 53.4% (301.8 thousand) of all users of retail internet access services provided via FTTx lines used the internet access services provided via FTTB lines, and 46.6% (263.8 thousand) were provided with the services via FTTH lines. In 2012, these indicators were 62.8% and 37.2%, respectively. During the period between 2012 and 2017, the number of users of retail internet access services provided via FTTH lines was increasing more rapidly than the number of users of retail internet access services provided via FTTB lines. Therefore, the gap between the number of users of retail internet access services provided via FTTB and FTTH lines is decreasing.

In 2017, compared to 2012, the number of the users of retail internet access services provided by means of FTTx technology grew by 18.7 percentage points. In 2017, as in each previous year, the number of users of retail internet access services provided via LAN lines, xDSL lines and CTV networks continued to go down. In 2017, compared to 2016, the number of users of retail internet access services provided via xDSL lines went down by 14.1 thousand and totalled 143.2 thousand users at the end of the year. The number of users of retail internet access services provided via CTV networks decreased by 4.9 thousand in 2017 and, at the end of the year, the number stood at 25 thousand. The decrease of the number of the users of retail internet access services provided via CTV networks is the outcome of continuous investments in FTTx line networks, where service users, who used to receive retail internet access service via CTV networks, switch to the services provided via FTTx lines without changing the service provider.

http://digital-agenda-data.eu/charts/analyse-one-indicator-and-compare-countries

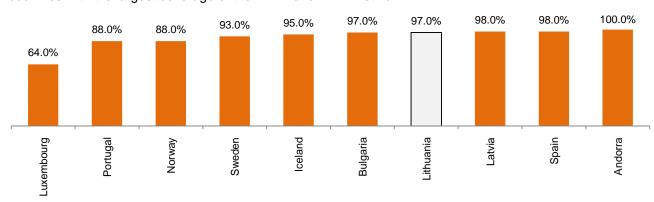
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²¹ The penetration of Lithuanian retail internet access services provided by means of fixed communications technologies in Figure 24 differs from that in Figure 25 because of the different calculation methodology applied by the European Commission.

Table 23. Structure of service users by used fixed communications technologies to receive r	etail internet access
services, %, 2012-2017	

	2012	2013	2014	2015	2016	2017
FTTx	52.1	57.3	59.6	62.1	63.6	70.8
xDSL	23.7	23.1	21.2	19.8	18.3	17.9
Wireless communication lines	16.6	12.8	13.1	13.1	13.4	7.2
CTV network	5.6	5.0	4.6	3.8	3.5	3.1
LAN	1.9	1.8	1.4	1.2	1.2	0.9
Other technologies (leased line, etc.) Source: RRT	0.1	0.1	0.1	0.1	0.1	0.1

According to the data of the organisation FTTH Council Europe²³, Lithuania shared the fourth-fifth place with Bulgaria by the FTTH and FTTB line coverage in Europe in 2017 or the third-fourth place in the EU with the coverage of 97% (see Fig. 32). As for the neighbouring countries, Lithuania was only outperformed by Latvia (98%), while Estonia and Poland were not even included in the list of the European countries with the largest coverage of the FTTH and FTTB network.



 $\hbox{Fig. 32 TOP-10 of the European countries with the largest coverage of the FTTH and FTTB network, \%, data of September 2017$

Source: FTTH Council Europe

As many as 51.3% of all users of retail internet access services provided by means of fixed communications technologies were choosing the services provided by Telia Lietuva, AB (see Fig. 33). 14.5% of the users preferred UAB Cgates. Over the year, the market shares held by these operators grew by 4.4 pp and 5.3 pp, respectively. Also, in 2017, compared to 2016, the minimum growth of the market shares held by other providers may be observed. In 2017, compared to 2016, the market share held by AB Lietuvos Radijo ir Televizijos Centras was subject to the most significant decrease – by 6.7 pp. The market share held by other providers shrank, accordingly, by 4.0 pp.

 $^{23}\ http://www.ftthcouncil.eu/documents/Reports/2017/IDATE_European_FTTH_B_panorama_at_Sept2017.pdf$

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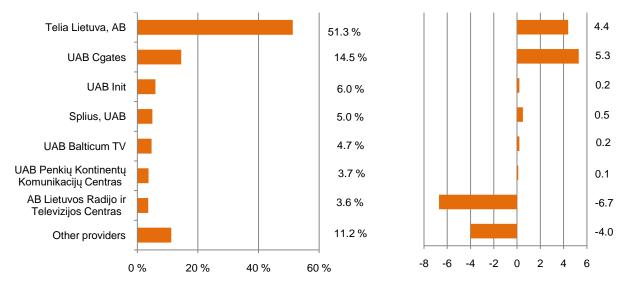


Fig. 33 Structure of the number of subscribers by service providers, %, and annual changes of the market shares, pp, 2017

Source: RRT

With a view to the breakdown of the number of the users of retail internet access services provided by the services providers by fixed communications technologies used to provide retail internet access services, it is apparent that in 2017, as in the previous year, Telia Lietuva, AB was the major provider of retail internet access services via FTTx lines and xDSL lines (see Table 24). in 2017, accordingly, 46.7% (in the case of FFTx lines) and 99.3% (in the case of xDSL lines) of all internet access service users were using the services provided by Telia Lietuva, AB. In 2017, AB Lietuvos Radijo ir Televizijos Centras held the largest share of the market of retail internet access services provided via wireless communication lines (49.6%), whereas the share of the market of internet access services provided over CTV networks was held by UAB Init (74.9%).

Table 24. Structure of service providers by the number of service users using respective technologies, %, 2017

	FTTx	Wireless communication	CTV networks	xDSL
Telia Lietuva, AB	46.7	-	-	99.3
UAB Cgates	19.9	3.7	4.4	-
Splius, UAB	6.2	3.0	12.9	-
UAB Balticum TV	5.8	7.0	3.3	-
UAB Init	5.1	-	74.9	-
UAB Penkių Kontinentų Komunikacijų Centras	5.3	-	-	-
UAB Kauno Interneto Sistemos	2.3	-	-	-
AB Lietuvos Radijo ir Televizijos Centras	-	49.6	-	-
UAB Baltnetos Komunikacijos	=	2.5	-	-
KLI LT, UAB	-	3.8	-	-
Other providers	8.8	30.5	4.4	0.7
Total number of providers	54	57	10	6

Source: RRT

Speed rate. Internet access speed rate has been annually increasing (see Table 25). This is driven by several reasons: service users' needs growing in terms of speed rate and development of technologies used to provide retail internet access services. The most popular internet access speed rate preferred by the users of retail internet access services provided by means of fixed communications technologies became 100 Mb/s in 2017, contrary to the situation in 2016. In 2017, this speed rate was selected by 17.2 pp more service users than in 2016. Accordingly, the speed rate went down from 30 Mb/s to 100 Mb/s by 8.1 pp in terms of users in 2017. In 2017, less than one fifth (15.3%) of all users of internet access services provided

by means of fixed communications technologies, or less by 5.9 pp than in 2016 and even by 27.6 pp less than in 2012, used internet access of a speed lower than 10 Mb/s.

Table 25. Structure of users of retail internet access services provided by means of fixed communications technologies by speed rate, %, 2012-2017

• • • •	2012	2013	2014	2015	2016	2017
up to 2 Mb/s	♣ 8.5	4.8	3.2	2.1	1.4	0.6
2 Mb/s to 10 Mb/s	34.4	24.8	24.4	21.7	19.8	14.7
10 Mb/s to 30 Mb/s	10.4	19.0	15.6	16.1	15.9	12.7
30 Mb/s to 100 Mb/s	36.6	41.0	44.6	42.4	36.0	27.9
More than 100 Mb/s	1 0.1	10.5	12.2	17.7	26.8	44.0

Source: RRT

The Next Generation Internet Access Development Plan for 2014-2020 of the Republic of Lithuania approved by Order No 3-410-(E) of the Minister of Transport and Communications of 30 October 2014 "On the Approval of the Next Generation Internet Access Development Plan for 2014-2020 of the Republic of Lithuania" is designed to have 50% of all Lithuanian households using 100 Mb/s and higher speed broadband internet by 2020. In 2017, this indicator had not been achieved in Lithuania yet (see Fig. 34), but, the changes during the period of 2014-2017 are quite promising. Every year, the consistent growth of the number of households with the internet speed higher than 100 Mb/s was observed; in 2015, compared to 2014, that increase accounted for 3.8 pp, in 2016, compared to 2015, it was 6.7 pp, and in 2017, compared to 2016, it stood at 9.9 pp.

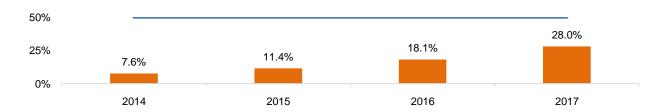


Fig. 34 Implementation of the Next Generation Internet Access Development Plan for 2014-2020 of the Republic of Lithuania so that 50% of the households were using at least 100 Mb/s speed internet in Lithuania Source: RRT

Revenue. In 2017, compared to 2016, the service providers' revenue from retail internet access services provided by means of fixed communications technologies went down by 4.5% or by EUR 4.5 million. In 2017, that revenue stood at EUR 95.1 million (see Fig. 35). Whereas, between 2012 and 2016, the growth of the revenue from retail internet access services provided by means of fixed communications technologies was observed. The largest growth of the revenue was recorded in 2016.

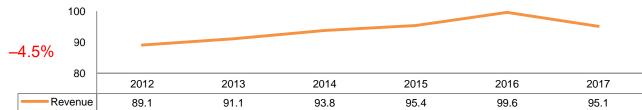


Fig. 35 Revenue received from retail internet access services provided by means of fixed communications technologies in 2012-2017, in EUR million

Source: RRT

With a view to the service providers by received revenue (see Fig. 36), the structure of the market was not subject to the significant changes in 2017, as in 2016: the leader's position (the largest portion of the revenue gained) was maintained by Telia Lietuva, AB. Its market share, in terms of the revenue received, stood at 60.4% and increased by 4.1 pp over the year, compared to 2016. The market shares held by UAB Cgates, UAB Balticum TV, UAB Baltnetos Komunikacijos and Splius, UAB also grew insignificantly in 2017, compared to 2016. In 2017, compared to 2016, the most significant decrease of the market share was that held by AB Lietuvos Radijo ir Televizijos Centras (by 3.9 pp). That drop, as mentioned before, was caused by the fact that AB Lietuvos Radijo ir Televizijos Centras was actively switching from WiMAX technology to mobile LTE technology to provide internet access services.

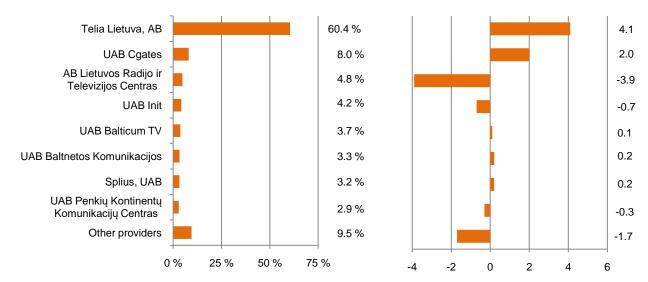
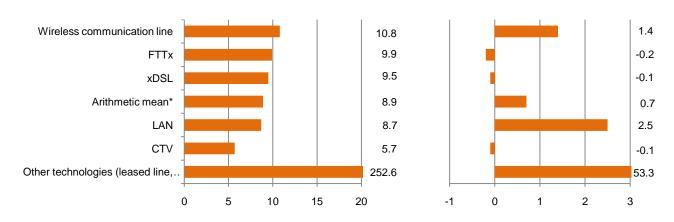


Fig. 36 Structure of the revenue by service providers, %, and annual changes of the market shares, pp, 2017 Source: RRT

ARPU. The average monthly revenue per user of retail internet access services provided by means of fixed communications technologies (ARPU) accounted for EUR 8.9 in 2017 and it was by EUR 0.7 larger than in 2016 (see Fig. 37). As in the previous periods, the highest ARPU was generated from service users who connected to the internet by means of other technologies (via leased lines, etc.). In 2017, compared to 2016, ARPU of this service went up by 26.7% or by EUR 53.3 per month.



^{*} Calculated including all technologies, except for other technologies (leased line, etc.).
Fig. 37 ARPU by used technologies, in EUR per month, and ARPU annual changes, in EUR per month, 2017
Source: RRT

The lowest revenue (EUR 5.7) per service user in 2017, as in 2016, was received from retail internet access services provided by means of CTV networks. ARPU of the most popular retail internet access services provided via FTTx lines decreased by EUR 0.2 up to EUR 9.9 per month in 2017. ARPU of retail internet access services provided via xDSL lines also dropped by EUR 0.1 in 2017, compared to 2016.

The structure of the market of retail internet access services provided by means of fixed communications technologies by fixed communications technologies used by service users maintained the similar proportions in 2017 as in the previous periods; FTTx lines were used most often. More than a half of service users (51.3%) were selecting the services provided by Telia Lietuva, AB. The speed of 100 Mb/s became the most popular internet access speed in 2017.

3.2.2. Retail Internet Access Services Provided by Means of Mobile Communications Technologies

Service providers	8
Number of active SIM cards, thousand	2,444.3
Penetration of the use of active SIM cards, %	87.0
Revenue, EUR million	120.6
ARPU, EUR per month	4.3

IMPORTANT!

In this section of the report other providers of retail internet access services provided by means of
mobile communications technologies shall be all providers of such services, except for UAB Bit

Lietuva, Telia Lietuva, AB, UAB Tele2, AB Lietuvos Radijo ir Televizijos Centras in Table 26, Figure
41 and Table 27, Telia Lietuva, AB, UAB Bit

Lietuva, UAB Tele2 in Figure 42 and Figure 43
(hereinafter – the other providers).

Methods of the Service Provision. Retail internet access services provided by means of mobile communications technologies were provided using GPRS, EDGE, UMTS, UMTS HSDPA, UMTS HSUPA, LTE²⁴ and other mobile communications technologies ensuring higher speed.

Service Providers. In 2017, retail internet access services provided by means of mobile communications technologies were provided by 8 undertakings in 2017 (compared to 2016, such services were provided by 2 undertakings more)²⁵.

Service Recipients. It must be noted that the number of active SIM cards to provide internet access services has been growing on a yearly basis. Over 2017, the number of active SIM cards for internet access services increased by 35.3 thousand, or by 1.5% – at the end of 2017 it stood at 2444.3 thousand units (see Fig. 38). Moreover, in 2017, compared to 2016, the number of LTE technology-based active SIM cards grew by 49.1% and equalled 1765.2 thousand cards. It must be also noted that the penetration of the

²⁴ GPRS (General Packet Radio Service), EDGE (Enhanced Data Rates for GSM Evolution), UMTS (Universal Mobile Telecommunications System), UMTS HSDPA (*Universal Mobile Telecommunications System High-Speed Download Packet Access*), UMTS HSUPA (Universal Mobile Telecommunications System High-Speed Uplink Packet Access), LTE (Long-Term Evolution)
²⁵ Telia Lietuva, AB, UAB Bité Lietuva, UAB Tele2, AB Lietuvos Radijo ir Televizijos Centras, UAB CSC Telekom, UAB Eurocom, UAB Teledema and AS Viasat

use of active SIM cards to provide internet access services was annually growing, and in 2017, it represented 87%, which is by 2.4 pp more than in 2016.

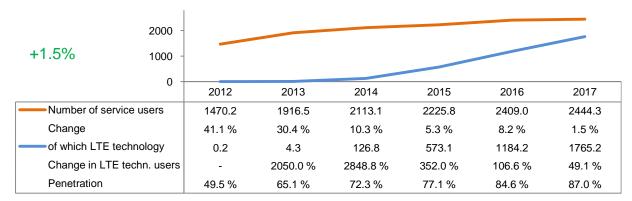


Fig. 38 Annual change in the number of active SIM cards of retail internet access services through mobile communications technologies used to provide internet access, in thousands, %, and penetration of the use of active SIM cards for internet access services (number of active SIM cards for internet access services per 100 residents), %, 2012-2017

Source: RRT

In 2017, compared to 2016, the number of active SIM cards of retail internet access services provided by means of mobile communications technologies, where the internet access service provision plan instead of the telephony one is used, dropped and it amounted to 371.7 thousand (see Fig. 39). The increase of this number had been observed for the last two years until 2017.

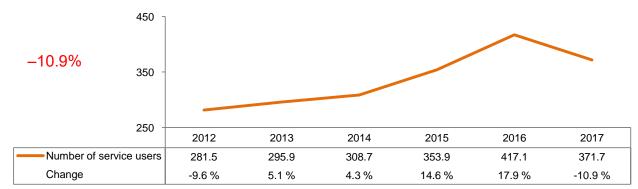


Fig. 39 Number of active SIM cards of retail internet access services provided by means of mobile communications technologies, where the internet access service provision plan instead of the telephony one is used, in thousands, and annual change, %, 2012-2017 Source: RRT

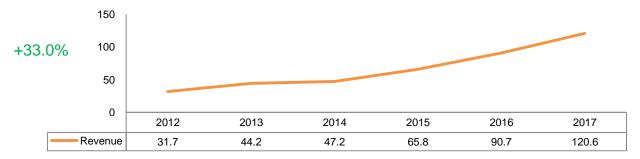
In 2017, three major market players were dominating on the market of retail internet access services provided by means of mobile communications technologies in Lithuania – Telia Lietuva, AB, UAB Bitė Lietuva and UAB Tele2, and one new market player AB Lietuvos Radijo ir Televizijos Centras (see Table 26). The largest market share, in terms of the number of active SIM cards for internet access services, was held by UAB Tele2 in 2017 (35.8%), but its market share shrank by 4.7 pp over the year.

Table 26. Structure of active SIM cards used to provide internet access services by service providers, %, 2012-2017

	2012	2013	2014	2015	2016	2017
UAB Bitė Lietuva	32.8	27.2	26.6	27.6	28.3	28.4
Telia Lietuva, AB	28.1	35.7	35.1	30.7	29.4	31.2
UAB Tele2	38.2	35.5	36.8	40.0	40.5	35.8
AB Lietuvos Radijo ir	-	-	-	-	-	2.6



Revenue. In 2017, as in the previous periods, the service providers' revenue from retail internet access services provided by means of mobile communications technologies was growing. In 2017, such revenue amounted to EUR 120.6 million, i.e., by 33% or by EUR 29.9 million more than in 2016 (see Fig. 40). It must be noted that the growth of such revenue, in terms of EUR, was the largest in 2017, compared to the previous periods. In terms of percentage, the largest growth of the revenue was observed in 2013.



 ${\it Fig.~40~Revenue~received~from~retail~internet~access~services~provided~by~means~of~mobile~communications~technologies~in~2012-2017, in~EUR~million}$

Source: RRT

UAB Tele2 held the leader's position in the structure of the market of retail internet access services provided by means of mobile communications technologies in 2017, in terms of the revenue received by individual undertakings; it held 34.1% of the market (see Fig. 41). Over the year, its market share was subject to the largest growth compared to all undertakings – by 4.0 pp. The second largest undertaking in this segment was Telia Lietuva, AB in 2017, and it held 33.2% of the market, but its market share decreased by 4.5 pp over the year. UAB Bitė Lietuva held 28% of the market, but its share also shrank over the year (by 3.6 pp). In 2017, a new market player emerged in this segment – AB Lietuvos Radijo ir Televizijos Centras which held 3.9% of the market in 2017.

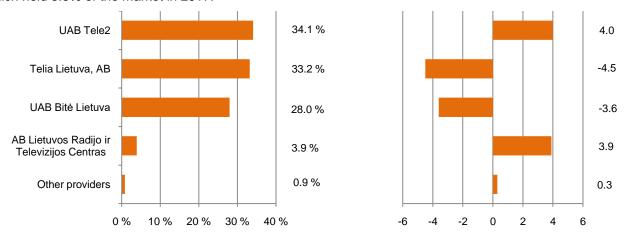


Fig. 41 Structure of revenue from retail internet access services provided by means of mobile communications technologies by service providers, %, and annual changes of the market shares, pp, 2017 Source: RRT

ARPU. The average ARPU per user of a SIM card for retail internet access services provided by means of mobile communications technologies (ARPU) accounted for EUR 4.3 in 2017 and it was by EUR 1 larger than in 2016 (see Fig. 42). In 2017, Telia Lietuva, AB received the highest ARPU – EUR 4.5. It was

followed by UAB Bitė Lietuva and UAB Tele2 with the same ARPU amounting to EUR 4.2. In 2017, compared to 2016, the largest growth of ARPU was that of UAB Tele2 (EUR 1.7).

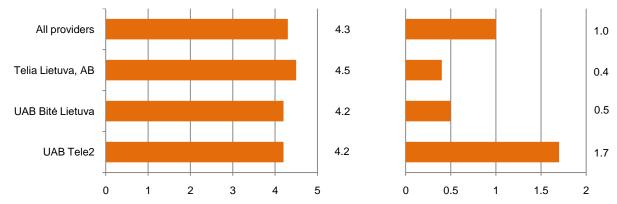


Fig. 42 ARPU of each of the 3 major providers of all service providers, jointly and individually, EUR per month, and ARPU annual changes, EUR per month, 2017

Source: RRT

The monthly ARPU per SIM card user, where the internet access service provision plan is applied rather than the telephony one, accounted for EUR 8.3 in 2017 and it was by EUR 2.8 higher than in 2016 (see Fig. 43). In 2017, UAB Bitė Lietuva received the largest ARPU – EUR 10.3, it was followed by UAB Tele2 and Telia Lietuva, AB whose ARPU amounted to EUR 8.4 and EUR 7.3 respectively. In 2017, compared to 2016, the largest growth of ARPU was that of UAB Bitė Lietuva (EUR 5). When comparing Fig. 43 and Fig. 36 (ARPU for retail internet access services provided by means of fixed communications technologies), it is apparent that the ARPU of all providers in Figure 43 and average ARPU in Figure 36 are very similar – the average fixed internet access ARPU is by mere EUR 0.6 higher than the average mobile internet access ARPU.

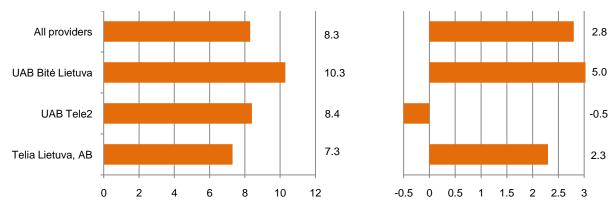


Fig. 43 ARPU of each of the 3 major providers of all service providers, jointly and individually, where the internet access service provision plan is applied instead of that of telephony, EUR per month, and ARPU annual changes, EUR per month, 2017 Source: RRT

Data Volume. In 2017, compared to 2016, the volume of sent and received data per service user per month grew by as many as 180.9% and it stood at 6,887.6 MB (see Table 27). The largest monthly volume of data was sent by a single service user by means of internet access services provided by AB Lietuvos Radijo ir Televizijos Centras in 2017 – 72,382.9 MB. That undertaking started providing retail internet access services by means of mobile communications technologies in 2017 only (it was not providing such services in 2016). The largest growth of the volume of sent and received data per user per month was that of UAB Tele2 out of the service providers providing such services in 2016 (199.7%) and it stood at

6,253.9 MB. The monthly volume of sent and received data per service user of Telia Lietuva, AB and UAB Bitė Lietuva also increased, respectively, by 65.8% and 63.4% and, accordingly, constituted 4,649.2 MB and 4,419 MB.

Table 27. Monthly volume of data sent and received by a single service user, MB, their changes, %, 2017

Service provider	Data volume per month in 2016	Data volume per month in 2017	Change per year, %
AB Lietuvos Radijo ir Televizijos Centras	0.0.	72,382.9	-
UAB Tele2	2,086.9	6,253.9	199.7
Telia Lietuva, AB	2,804.8	4,649.2	65.8
UAB Bitė Lietuva	2,703.7	4,419.0	63.4
Other providers	902.3	1,405.4	55.8
All providers	2.452.3	6.887.6	180.9

Source: RRT

4G (LTE) Network Accessibility. According to the data of the company OpenSignal established in London²⁶, Lithuania was ranked the 4th in Europe by the LTE network accessibility in Europe (with an 88.4% indicator) (see Fig. 44). As for LTE network accessibility, we not only outperform the closest neighbours (in Latvia, LTE network accessibility is 84.17%, in Estonia – 84.21%, in Poland – 72.84%), but we are also ahead of the other European countries with only Hungary, the Netherlands and Norway in the lead (89.26%, 89.64% and 92.16%, respectively) in terms of LTE network accessibility, where Norway is the leader of the European countries by LTE network accessibility.

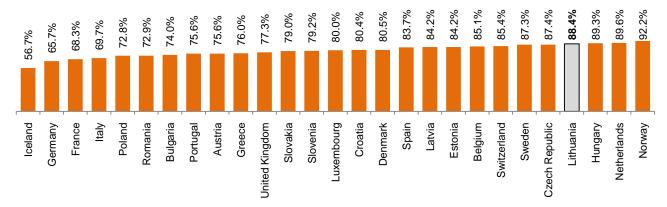


Fig. 44 LTE network accessibility in European countries, %, 2017

Source: OpenSignal

Speed rate. According to the data of portal ISPreview.co.uk²⁷, during Q3 2017 Lithuania was ranked the 2nd by data upload speed of internet access services (3G/4G) provided by means of mobile communications technologies in Europe – data upload speed was 44.7 Mb/s in Lithuania (see Fig. 45). Lithuania was only outperformed by Hungary whose data upload speed was 79 Mb/s. In terms of data upload speed, Lithuania outperformed all neighbouring countries: Latvia and Estonia were outperformed twice as much, as their data download speed was 18.5 Mb/s and 21.8 Mb/s respectively; Poland whose data download speed was 31.4 Mb/s was also left behind.

²⁶ https://opensignal.com/reports/2018/02/state-of-lte

²⁷ https://www.ispreview.co.uk/index.php/2017/12/map-uk-european-countries-ranked-mobile-broadband-speed.html

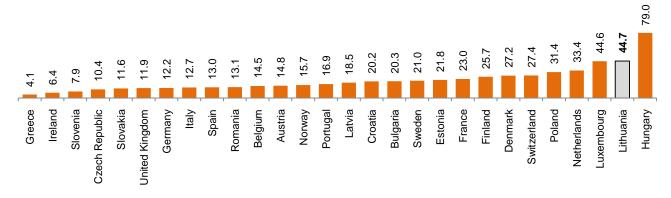


Fig. 45 Data upload speed (Mb/s) of internet access services provided by means of mobile communications technologies (3G/4G) in European countries, data of Q3 of 2017 Source: ISPreview.co.uk

Over 2017, the number of active SIM cards for internet access services increased by 35.3 thousand, or by 1.5% – at the end of 2017, as many as 2,444.3 thousand SIM cards were active. Moreover, in 2017, the number of LTE technology-based active SIM cards grew by 49.1% and equalled 1,765.2 thousand cards. In 2017, as in the previous periods, the service providers' revenue from retail internet access services provided by means of mobile communications technologies was growing. In 2017, the revenue of all undertakings gained from retail internet access services provided by means of mobile communications technologies totalled EUR 120.6 million, i.e., by 33% more than in 2016. The largest market share was held by UAB Tele2.

3.3. Wholesale Internet Access Services

Service providers	10
Revenue, EUR million	5.8

IMPORTANT!

• In this section of the report, other wholesale internet access service providers shall be all providers of such services, except for UAB Satgate, Telia Lietuva, AB, UAB Bitė Lietuva, UAB Nacionalinis Telekomunikacijų Tinklas, UAB Ektra, Lattelekom SIA branch in Figure 47 (hereinafter – the other providers).

Revenue. In 2017, compared to 2016, the revenue from wholesale internet access services went down by 14.7% and amounted to EUR 5.8 million. It must be noted that the largest decrease of the revenue was recorded in 2016 – the revenue dropped by EUR 4.1 million or by 37.6% compared to 2015. With a view to the revenue changing trend between 2012 and 2014, it must be noted that from 2012 to 2014, the revenue from wholesale internet access services was dropping (see Fig. 46). In 2015, the growth of such revenue was observed; the revenue had been at its peak in 2015 since 2012. In 2016-2017, the revenue from wholesale internet access services went down again.

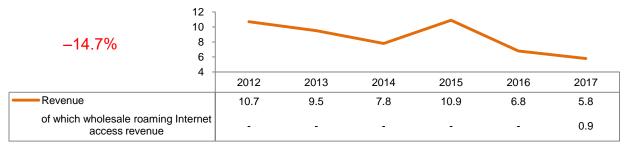


Fig. 46 Revenue from wholesale internet access services, in EUR million, 2012-2017 Source: RRT

At the end of 2017, wholesale internet access services were provided by 10 undertakings (by 2 undertakings more than in 2016). In 2017, the largest market share, in terms of revenue from the provision of wholesale internet access services, was held by UAB Satgate (45.9%) (see Fig. 47). It was followed by Telia Lietuva, AB with 22% of the market, UAB Bitė Lietuva with 15.2% of the market, UAB Nacionalinis Telekomunikacijų Tinklas with 6.4% of the market, UAB Ektra with 4.5% of the market and Lattelekom SIA branch with 3.6% of the market. In 2017, compared to 2016, the market shared held by UAB Satgate, Telia Lietuva, AB and UAB Nacionalinis Telekomunikacijų Tinklas were shrinking. In 2017, the market shares held by UAB Ektra (its market share grew the most, i.e., by 0.9 pp) and Lattelekom SIA branch increased.

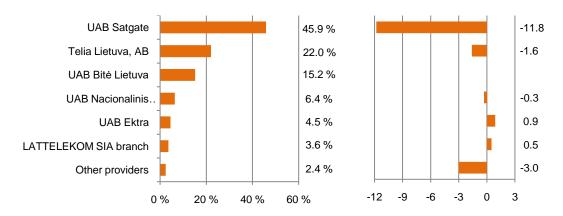


Fig. 47 Structure of revenue from wholesale internet access services by service providers, %, and annual changes of the market shares, pp, 2017

Source: RRT

In 2017, the revenue from wholesale internet access services was going down, but the services were provided by 2 undertakings more than in 2016. The largest market share was held by UAB Satgate in 2017.

3.4. Other Data Transmission Services

Service providers	17
Service users, thousand	12.4
Revenue, EUR million	19.9

Methods of the Service Provision. Other data transmission services are usually the services provided by the internet protocol technologies which ensure data transmission between the geographically distant points, connection of geographically distant points, data flow transmission and other features of data transmission. The examples of such services are Virtual Private Network services, Frame Relay services, Ethernet services, Multiprotocol Label Switching (MPLS) services for data flow transmission.

Service Providers. In 2017, other data transmission services were provided by 17 undertakings (by 1 undertaking more than in 2016).

Other data transmission services may be divided into retail other data transmission services and wholesale other data transmission services.

Revenue. In 2017, the revenue from other data transmission services totalled EUR 19.9 million or by 4.8% less than in 2016 (see Fig. 48). Throughout the entire period of 2012-2017, the annual decrease in the revenue from other data transmission services was observed.

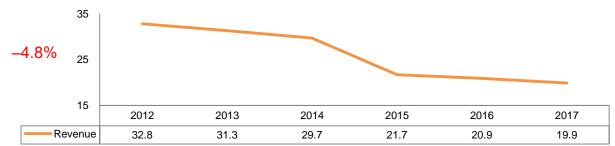


Fig. 48 Revenue from other data transmission services, in EUR million, 2012-2017 Source: RRT

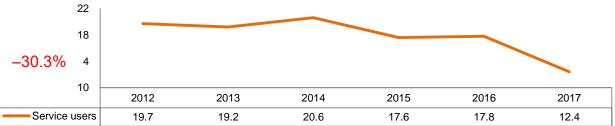
3.4.1. Retail Other Data Transmission Services

Service providers	14
Service users, thousand	12.4
Number of M2M SIM cards, thousand	251.0
Revenue, EUR million	13.3
Revenue from M2M services, EUR million	2.9

IMPORTANT!

• In this section of the report, other retail other data transmission service providers shall be all providers of such services, except for Telia Lietuva, AB, UAB Dekbera, UAB Bitè Lietuva in Figure 50, Telia Lietuva, AB, UAB Bitè Lietuva, UAB Tele2 in Figures 52 and 55; Telia Lietuva, AB, UAB Duomenų Logistikos Centras, UAB Bitė Lietuva, UAB Dekbera, AB Lietuvos Radijo ir Televizijos Centras in Figure 54 (the "other providers").

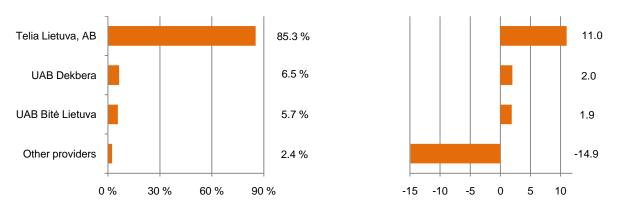
Service Recipients. In 2017, compared to 2016, the number of users decreased by 30.3% to 12.4 thousand users (see Fig. 49). Between 2012 and 2017, the number of other data transmission service users was at the peak in 2014.



^{*} In 2012-2016, the number of leased lines was included in the number of service users considering, with reservation, that 1 leased line equals 1 service user.

Fig. 49 Number of retail other data transmission service users in 2012-2017, in thousands Source: RRT

The majority of retail other data transmission service users were using the services provided by Telia Lietuva, AB. At the end of 2017, Telia Lietuva, AB was providing retail other data transmission services to 85.3% of the service users, which was by 11.0 pp more than in 2016 (see Fig. 50).



^{*} In 2012-2016, the number of leased lines was included in the number of service users considering, with reservation, that 1 leased line equals 1 service user.

Fig. 50 Structure of the number of service users by service providers, %, and annual changes of the market shares, pp, 2017

Source: RRT

Number of M2M SIM cards. Between 2012 and 2017, the number of active SIM cards used to provide M2M (Machine to Machine, Man to Machine, Machine to Man) services was continuously growing. In 2017, the growth of the number of such cards (both in EUR and in per cent) was the highest throughout the entire period – in 2017, it amounted to 251 thousand SIM cards for M2M services, which was by 33.9% or by 63.5 thousand more than in 2016 (see Fig. 51).

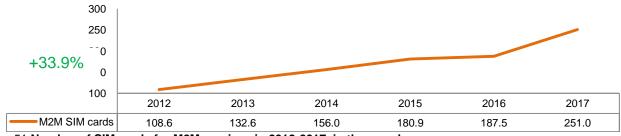


Fig. 51 Number of SIM cards for M2M services in 2012-2017, in thousands

Source: RRT

In 2017, over a half of SIM cards for M2M services were used by Telia Lietuva, AB, i.e., in 2017, Telia Lietuva, AB held 56.2% of the market in terms of SIM cards for M2M services. UAB Bite Lietuva held 28.4% of the market and UAB Tele2 held 15.4% of the market (see Fig. 52). The market share held by Telia

Lietuva, AB was subject to the largest growth (by 9.6 pp) in 2017, compared to 2016, and the market share held by UAB Bitė Lietuva significantly decreased (by 8.6 pp).

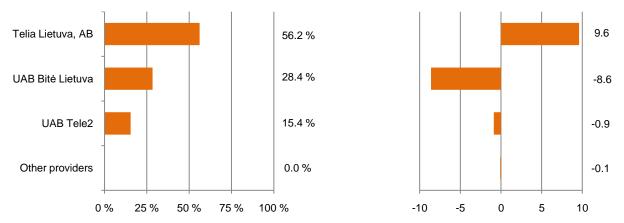


Fig. 52 Structure of the number of SIM cards for the provision of M2M services by service providers, %, and annual changes of the market shares, pp, 2017

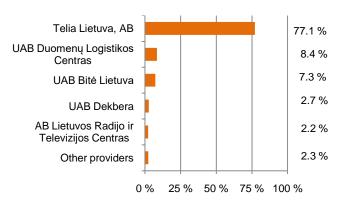
Source: RRT

Revenue. Between 2012 and 2017, the revenue from retail other data transmission services were consistently decreasing – in 2017, such revenue had been the lowest since 2012 and stood at EUR 13.3 million (see Fig. 53). In 2017, compared to 2016, the revenue from retail other data transmission services went down by 13.1% and amounted to EUR 13.3 million. With a view to the revenue from the provision of M2M services, such revenue had grown since 2014 until 2017. In 2017, the revenue from M2M services stood at EUR 2.9 million and was by 11.5% higher than in 2016.



Fig. 53 Revenue from retail other data transmission services, in EUR million, 2012-2017 Source: RRT

In 2017, the largest market share, in terms of revenue from the provision of other retail data transmission services, was held by Telia Lietuva, AB (77.1%) (see Fig. 54). It must be noted, however, that the market share held by Telia Lietuva, AB shrank most significantly in 2017, compared to 2016 (by 1.6 pp). In 2017, UAB Duomenų Logistikos Centras held 8.4% of the market, it was followed by UAB Bitė Lietuva with 7.3% of the market, UAB Dekbera with 2.7% of the market and AB Lietuvos Radijo ir Televizijos Centras with 2.2% of the market. In 2017, compared to 2016, the market share held by UAB Duomenų Logistikos Centras was subject to the largest increase (by 2.2 pp).



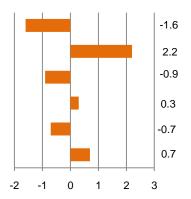
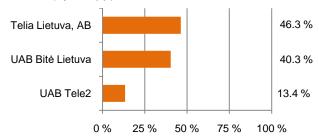


Fig. 54 Structure of revenue from retail other data transmission services by service providers, %, and annual changes of the market shares, pp, 2017

Source: RRT

In 2017, the revenue from M2M services was received by 3 undertakings (Telia Lietuva, AB, UAB Bitė Lietuva and UAB Tele2). The largest market share, in terms of revenue from M2M services, was held by Telia Lietuva, AB (46.3%), it was followed by UAB Bitė Lietuva with 40.3% of the market and UAB Tele2 with 13.4% of the market (see Fig. 55). The market share held by Telia Lietuva, AB was subject to the largest growth (by 3.0 pp) in 2017, compared to 2016, and the market share held by UAB Bitė Lietuva significantly decreased (by 2.1 pp).



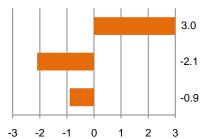


Fig. 55 Structure of revenue from M2M services by service providers, %, and annual changes of the market shares, pp, 2017

Source: RRT

In 2017, the number of retail other data transmission service users dropped by almost a third, the revenue received went down by 13.3% as well. In 2017, there were 251 thousand SIM cards used to provide M2M services, which was by 33.9% more than in 2016. In 2017, not only the number of M2M SIM cards, but also the revenue from the provision of M2M services was growing. M2M services were provided by 3 undertakings.

3.4.2. Wholesale Other Data Transmission Services

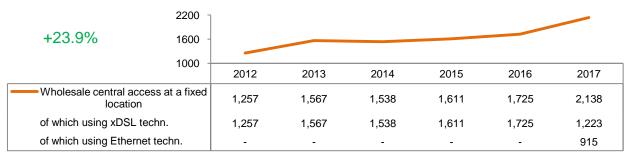
Service providers	7
Granted wholesale central accesses at a fixed location, thousand	2 .138
Revenue, EUR million	6.64

IMPORTANT!

• In this section of the report, the wholesale other data transmission service providers shall be all providers of such services, except for Telia Lietuva, AB, Public Enterprise Plačiajuostis Internetas, UAB Duomenų Logistikos Centras in Figure 58 (hereinafter – the other providers).

Service Providers. In 2017, the wholesale other data transmission services were provided by 7 undertakings (by 1 undertaking fewer than in 2016).

Wholesale central access at a fixed location for mass-market products. At the end of 2017, the service of wholesale central access at a fixed location for mass-market products was provided by 1 undertaking – Telia Lietuva, AB. At the end of 2017, Telia Lietuva, AB had granted 2,138 wholesale central accesses at a fixed location in total, of which 57.2% of wholesale accesses (1,223 wholesale accesses) were granted by means of xDSL technology and 42.8% (915 wholesale accesses) of them were granted by means of Ethernet technology (see Fig. 56). Taking account of the decrease in the demand for the services provided by means of xDSL technology, the number of granted wholesale central accesses at a fixed location by means of xDSL technology dropped by 29.1% in 2017, compared to 2016. In the future, the demand for the services of wholesale central access at a fixed location for mass-market products by means of xDSL technology are also likely to go down.



^{*} Between 2012 and 2016, there are no data on the number of granted wholesale central accesses at a fixed location by means of Ethernet technology.

Fig. 56 Number of granted wholesale central accesses at a fixed location for mass-market products, 2012-2017 Source: RRT

Revenue. In 2017, compared to 2016, the revenue from the provision of wholesale other data transmission services increased by EUR 1 million or by 17.9% and accounted for EUR 6.64 million (see Fig. 57). In 2017, the revenue from the provision of wholesale central access at a fixed location for mass-market products accounted for EUR 0.23 million or 3.5% of the total revenue from the provision of wholesale other data transmission services.

+17.9%	6	_					
	4 †	2012	2013	2014	2015	2016	2017
Wholesale other data trans services revenue	smission	7.43	6.29	6.33	5.61	5.64	6.64
of which from wholesale co access at a fixed location mass-market products ser	for	-	-	-	-	-	0.23
using xDSL techn.		-	-	-	-	-	0.17
using Ethernet techn.		-	-	-	-	-	0.06

^{*} Between 2012 and 2016, there are no data on the revenue from the services of wholesale central accesses at a fixed location for mass-market products provided by means of both xDSL and Ethernet technologies.

Fig. 57 Revenue from wholesale other data transmission services, in EUR million, 2012-2017 Source: RRT

In 2017, the largest market share, in terms of revenue from the provision of wholesale other data transmission services, was held by Telia Lietuva, AB (62%) (see Fig. 58). It must be noted, however, that the market share held by Telia Lietuva, AB shrank most significantly in 2017, compared to 2016 – by 3.0 pp. In 2017, the Public Enterprise Plačiajuostis Internetas held 30.9% of the market, it is followed by UAB Duomenų Logistikos Centras with 5.7% of the market. In 2017, compared to 2016, the market share held by UAB Duomenų Logistikos Centras was subject to the largest increase (by 5.7 pp).

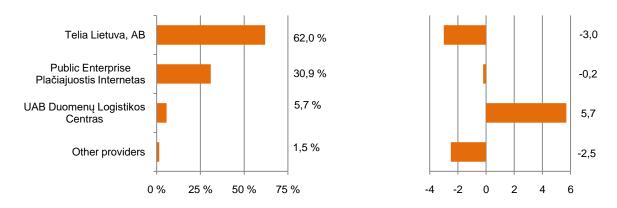


Fig. 58 Structure of revenue from wholesale other data transmission services by service providers, %, and annual changes of the market shares, pp, 2017

Source: RRT

In 2017, the revenue from the provision of wholesale other data transmission services increased by 17.9% and accounted for EUR 6.64 million. In 2017, as many as 2,138 wholesale central accesses at a fixed location for mass-market products were granted, which is by 23.9% more than in 2016.

4. Television and Radio

4.1. General Overview of the Market of Television and Radio Services

	40
Service providers	40
Major service provider	Telia Lietuva, AB
Revenue, EUR million	71.8

IMPORTANT!

 In this section of the report other television and radio service providers shall be all television and radio service providers, except for UAB Balticum TV, UAB Cgates, UAB Init, AB Lietuvos Radijo ir Televizijos Centras, Splius, UAB, Telia Lietuva, AB and AS Viasat (hereinafter – the other providers)

In the context of this report, the market of television and radio services covers retail pay-TV services and wholesale television and radio broadcasting services which are required to provide retail radio and television services.

Service Providers. At the end of 2017, television and radio activities, insofar this relates to the electronic communications activities, were carried out by one undertaking less than at the end of 2016, i.e., 40 undertakings (see Table 28).

Table 28. Number of television and radio service providers by services provided, in units, 2012-2017

	2012	2013	2014	2015	2016	2017
Radio and television broadcasting	5	4	6	4	4	3
Pay-TV services	4 5	46	45	41	42	39
Total	46	46	46	45	44	40

Source: RRT

In 2017, retail pay-TV services were provided by 39 service providers. There were quite fewer wholesale radio and television broadcasting service providers: At the end of 2017, television broadcasting services were provided by 3 undertakings. AB Lietuvos Radijo ir Televizijos Centras and UAB Balticum TV were providing both retail pay-TV services and radio and television services. Radio broadcasting services, as in the previous periods, were provided by only one undertaking – AB Lietuvos Radijo ir Televizijos Centras. In the segment of pay-TV services the decrease of the number of such service providers is further caused by currently more active consolidation processes of service providers.

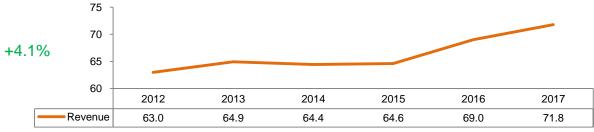


Fig. 59 Revenue from television and radio services, in EUR million, 2012-2017 Source: RRT

Revenue. The significantly increased revenue from retail pay- and wholesale television and radio services in 2016 was growing slightly slower in 2017. In 2017, compared to 2016, the said revenue

increased by EUR 2.8 million or by 4.1% and accounted for EUR 71.8 million (see Fig. 59). This change in the revenue was mainly caused by the higher revenue from pay-TV services.

In 2017, as in the previous periods, the largest portion of the revenue was earned from retail pay-TV services. The revenue generated from this activity stood at EUR 67.4 million and constituted 93.9% (in 2016 - 93.3%) of the total revenue from the provision of television and radio broadcasting services. In 2017, the revenue from wholesale television and radio broadcasting services amounted to EUR 4.4 million or 6.1% (in 2016 - 6.7%) of the total revenue, of which: 4.6% (in 2016 - 5.1%) of the revenue was received from television broadcasting services, and 1.6% (in 2016 - 1.7%) – from radio broadcasting services.

With a view to the structure of the market of television and radio services by revenue of service providers in 2017, the same 7 undertakings remained the major service providers that together held 94.2% of the market, i.e., by 1.7 pp more than in 2016 (see Fig. 60). Telia Lietuva, AB remained the major service provider with the increased market share by 2.1 pp which stood at 37.5%. UAB Cgates, which held 16.8% of the market by revenue in 2017, was the one to have strengthened its market share the most. Over the year, the market share of this undertaking grew by 3.5 pp. The market share held by 4 undertakings was shrinking in terms of the revenue: AS Viasat held 15.1% of the market (in 2016 – 16.4%), UAB Init held 7.7% of the market (in 2016 – 9.2%), UAB Balticum TV held 7.4% of the market (in 2016 – 7.9%), AB Lietuvos Radijo ir Televizijos Centras held 5.9% of the market (in 2016 – 6.5%). The market share held by UAB Splius remained stable and represented 3.8%.

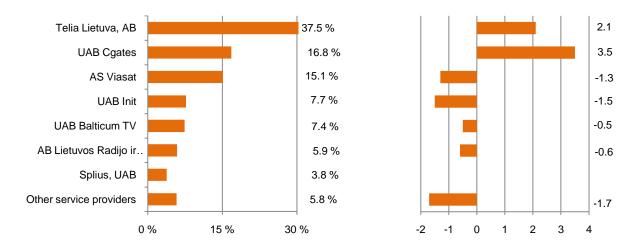


Fig. 60 Structure of revenue from television and radio services by service providers, %, and annual changes of the market shares, pp, 2017

Source: RRT

In 2017, compared to 2016, the revenue from television and radio services grew by 4.1%. In the segment of pay-TV services the decrease of the number of such service providers is caused by currently more active consolidation processes of service providers. UAB Cgates, which held 16.8% of the market by revenue in 2017, was the one to have strengthened its market share the most.

4.2. Retail Pay-TV Services

Service providers	39
Service users, thousand	712.9
<u> </u>	
Revenue, EUR million	67.4
ARPU, EUR per month	7.88

IMPORTANT!

• In this section of the report, other retail pay-TV service providers shall be all retail television service providers, except for UAB Balticum TV, UAB Cgates, UAB Init, Splius, UAB, Teo LT, AB and AS Viasat (hereinafter – the other providers).

Methods of the Service Provision. In 2017, pay-TV services were provided by employing 5 different methods in Lithuania:

- via cable television networks (hereinafter CTV);
- via broadband networks by means of Internet Protocol technologies (hereinafter IPTV);
- via satellite networks (hereinafter satellite TV);
- via terrestrial television networks (hereinafter DVB-T);
- via microwave multi-channel distribution system networks (hereinafter MMDS).

Service Providers. In 2017, compared to 2016, the number of pay-TV service users changed insignificantly. The changes are recorded in CTV and IPTV segments (see Table 29). The number of undertakings providing CTV services dropped from 30 to 26 service providers in 2017. Since 2012, the number of undertakings providing IPTV services had grown twice and stood at 18 in 2017. In 2017, as in the previous periods, MMDS and DVB-T services were provided by 2 undertakings (each), and satellite TV services were provided by 1 undertaking – AS Viasat.

Table 29. Structure of pay-TV service providers by service provision methods, in units, between 2012 and the end of 2017

	2012	2013	2014	2015	2016	2017
CTV	4 1	37	35	32	30	26
MMDS	2	2	2	2	2	2
DVB-T	2	2	2	2	2	2
Satellite TV	1	1	1	1	1	1
IPTV	1 9	15	16	15	16	18

Source: RRT

Service Recipients. At the end of 2017, the number of television service users stood at 712.9 thousand service users or by 0.8% more than in 2016 (see Fig. 61). The largest share (52.7%) of television service users were still preferring CTV services, but their number is dropping. In 2017, compared to 2016, the share of CTV service subscribers decreased by 0.6 pp. In 2017, IPTV and satellite TV services were used by 32.2% and 9.3% of all pay-TV service users, respectively. The MMDS service further remains the least popular service whose users accounted for mere 1.4%.

With a view to the structure of pay-TV service users by methods of the television service provision, the number of the users of services provided by all methods, except for IPTV, was decreasing in 2017. The number of IPTV service users grew by 11.3% (in 2016 – 14.6%). The growth of the demand for IPTV services may be associated with the fact that the functionality of such services corresponds to the needs of today's users (archive of various recorded TV programmes; stopping TV programme broadcast, rewinding, watching from the beginning; rental of motion pictures, etc.). The number of DVB-T television service users decreased the most – it went down by 19.7% and totalled 31.8 thousand users at the end of the year.



Fig. 61 Number and structure of pay-TV service users by service provision methods in 2012-2017, in thousands Source: RRT

Revenue. The similar trends of the structure of the market of pay-TV services, in terms of revenue or number of service users, have been observed. In 2017, the largest portion (41.1%) of the revenue from pay-TV services was from CTV services whose revenue, compared to 2016, went up by 2.6% (see Fig. 62). In 2017, the growth of the revenue from pay-TV services resulted from the increase of the revenue from IPTV services. Over the year the revenue earned from these services amounted to EUR 24.2 million or by 17.5% more than in 2016. The revenue from IPTV grew due to the increased demand for these services caused by higher functionality of television services provided this way vis-a-vis other methods of the provision of television services.



Fig. 62 Structure of revenue received from pay-TV services by service provision methods in 2012-2017, in EUR million.

Source: RRT

The structure of the pay-TV service market by the revenue received by service providers changed in terms of both the positions and market shares in 2017 (see Fig. 63). First of all, UAB Cgates became the second largest market player in terms of revenue earned. In 2017, the market share held by the latter

undertaking grew by 3.3 percentage points and stood at 17.6%. Telia Lietuva, AB not only remained in the lead on the market, but it also strengthened its positions. Telia Lietuva, AB increased its market share by 2.1 percentage points up to 40.0% over the year. This was mainly impacted by further increasing demand for IPTV services provided by Telia Lietuva, AB. The market shares held by other major service providers neither increased nor decreased.

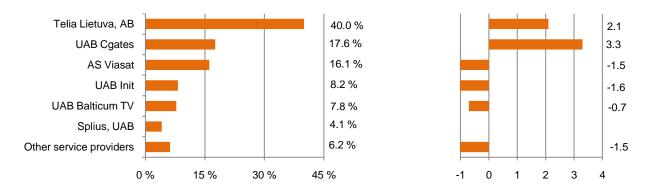


Fig. 63 Structure of revenue from pay-TV services by service providers, %, and annual changes of the market shares, pp, 2017
Source: RRT

ARPU. The monthly revenue per pay-TV service user (ARPU) accounted for EUR 7.88 in 2017 and it was by EUR 0.3 more than in 2016 (see Fig. 64). With a view to ARPU received from pay-TV services provided by different means, the largest change in ARPU (growth by EUR 0.86) in 2017, compared to 2016, was recorded in the provision of a satellite TV service whose provider gained the largest ARPU in 2017, as in the previous periods. The lowest ARPU was earned by other CTV service providers in 2017.

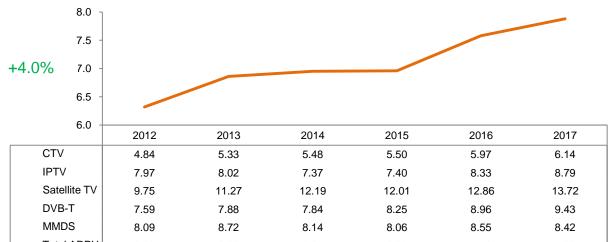


Fig. 64 ARPU from pay-TV services by service provision methods in 2012-2017, in EUR per month Source: RRT

In 2017, both the number of retail pay-TV service users and total revenue of such service providers went up. Since 2011, the significant growth of IPTV service market in terms of both the number of users and revenue has been observed. Retail pay-TV market shares held by Telia Lietuva, AB and UAB Cgates were growing. In 2017, ARPU of all ways of the television provision was increasing, except for MMDS television.

4.3. Wholesale Television and Radio Broadcasting Services

Service providers	3
Major service provider	AB Lietuvos Radijo ir Televizijos Centras
Revenue, EUR million	4.41

Service Providers. In 2017, wholesale television broadcasting services were provided by 3 undertakings: AB Lietuvos Radijo ir Televizijos Centras (over national networks), UAB Balticum TV (over regional networks) and UAB Satgate (provided television broadcasting services outside Lithuania). One undertaking – UAB Šiaulių Apskrities Televizija – that had been providing the services over the regional network, stopped carrying out its activity in 2017.

In 2017, as previously, wholesale radio broadcasting services were provided by only one undertaking – AB Lietuvos Radijo ir Televizijos Centras.

Revenue. In 2017, compared to 2016, the revenue from the provision of television and radio broadcasting services dropped by 5.4% and stood at EUR 4.66 million (see Fig. 65). The decrease of the revenue resulted from the lower revenue received from radio broadcasting services and the revenue from digital terrestrial television broadcasting services. The largest portion of the revenue from television and radio broadcasting services in 2017, as in the previous periods, was generated by AB Lietuvos Radijo ir Televizijos Centras. In 2017, this undertaking generated 95.5% (in 2016 – 96.0%) of the total revenue from television and radio broadcasting services.

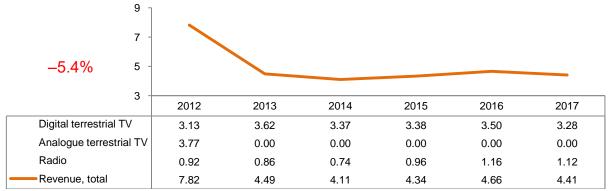


Fig. 65 Revenue from television and radio broadcasting services by service groups, in EUR million, 2012-2017 Source: RRT

Digital terrestrial television broadcasting stations. At the end of 2017, as many as 104 (in 2016 – 106) digital terrestrial television stations were operating in Lithuania. 93 digital terrestrial television stations constituted 5 national coverage digital terrestrial television networks (2 networks were owned by AB Lietuvos Radijo ir Televizijos Centras, 2 – by Telia Lietuva, AB and 1 – by the Lithuanian national radio and television). There were also 11 digital terrestrial television stations which operated in individual geographical regions.

In 2017, the revenue from wholesale television and radio broadcasting services shrank by 5.4% and amounted to 6.1% of the total revenue of the television and radio market. In 2017, AB Lietuvos Radijo ir Televizijos Centras generated 95.5% of the total revenue from television and radio broadcasting services.

5. Access to Physical Infrastructure

Service providers	15
Major service provider	Telia Lietuva, AB
Revenue, EUR million	8.3

IMPORTANT!

- As the information possessed by RRT until 2017 includes the access to dark fibre and full unbundled and shared access to the local metallic twisted pair loop services only, the information contained in this section will reflect only the provision of the said services throughout the entire period of 2012-2017.
 Information on other services of access to physical infrastructure shall cover 2017 only.
- In this section of the report other access to physical infrastructure service providers shall be all access to
 physical infrastructure service providers, except for UAB Skaidula and Telia Lietuva, AB in Figure 67,
 UAB Duomenų Logistikos Centras, Public Enterprise Plačiajuostis Internetas, UAB Skaidula and Telia
 Lietuva, AB in Figure 69 (hereinafter the other providers).

In 2017, the following wholesale access to physical infrastructure services were provided in Lithuania:

- wholesale line rental services (WLR) for the provision of public fixed telephone services by way of preselection by the operator;
- · access to dark fibre service;
- service of full unbundled and shared access to the local line;
- · service of access to communications cable duct system;
- services of access to other physical infrastructure.

Providers. At the end of 2017, as in 2016, wholesale access to physical infrastructure services were provided by 15 undertakings. In 2017, as in the previous year, shared access to the local metallic twisted pair loop services were provided by only one undertaking – Telia Lietuva AB. At the end of 2017, this undertaking was also the sole operator that was providing wholesale line rental services (WLR) for the provision of public fixed telephone services by way of pre-selection by the operator. In 2017, the full unbundled access to local metallic twisted pair loop services and access to communications cable duct system services were provided by two undertakings – Telia Lietuva, AB and AB Lietuvos Geležinkeliai. The latter undertaking was the only one that provided the unbundled access to local dark fibre services in 2017. 14 undertakings were engaged in the provision of access to dark fibre services, i.e., by 1 undertaking fewer than in 2016.

Number of Granted Accesses. During the period between 2012 and 2017, the demand for full unbundled and shared access to the local line services was gradually decreasing (see Fig. 66). At the end of 2017, the total number of granted accesses to the local line stood at 41 units or by 35.9% less than in 2016.

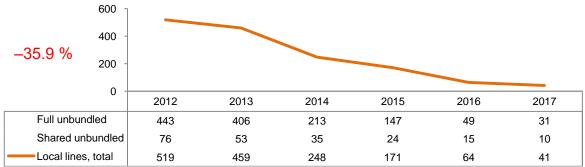


Fig. 66 Number of granted accesses to full unbundled and shared local line, in units, 2012-2017

At the end of 2017, the service providers had provided 2,832 dark fibres (see Fig. 67). This had been the first market growth since 2013, in terms of the assigned dark fibres. At the end of 2017, the number of dark fibres assigned was by 2.6% or by 71 fibres more than at the end of 2016. In 2017, UAB Skaidula further maintained the leader's position on the market of access to dark fibre services in terms of the number of accesses granted. It must be noted that the market share held by this undertaking has been gradually increasing. In 2017, compared to 2016, is market share grew by 2.2 percentage point and stood at 34.5%.



Fig. 67 The number of granted accesses to dark fibre, in units, 2012-2017 Source: RRT

At the end of 2017, as many as 663 wholesale local lines were assigned for the provision of public fixed telephone services by way of pre-selection by the operator, as well as access to the communications cable duct system of 8,766 km long.

Revenue. In 2017, the revenue received from the provision of services of access to physical infrastructure equalled EUR 8.3 million The amount of EUR 5.1 million or 61.4% was received from the provision of access to dark fibre services. The amount of EUR 2.8 million was received from the provision of service of access to communications cable duct system. The largest portion of the revenue was gained by Telia Lietuva, AB, i.e., almost EUR 7 million or 84.1% of all revenue from the provision of services of access to physical infrastructure.

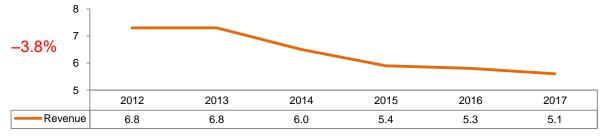


Fig. 68 Revenue from access to dark fibre services, in EUR million, 2012-2017 Source: RRT

68

As mentioned afore, in 2017, the providers of access to dark fibre services earned the revenue from the provision of such services totalling EUR 5.1 million, i.e., by 3.8% or EUR 0.2 million less than in 2016 (see Fig. 68). The revenue from the provision of these services dropped for the fourth consecutive year in 2017.

In 2017, UAB Skaidula not only remained the leader of the market of the provision of access to dark fibre services, but it also strengthened its position by 1.8 pp (see Fig. 69). A slightly different situation is observed with respect to Telia Lietuva, AB. In 2017, the market share held by the latter operator shrank by 3.9 percentage point and stood at 33.7%.

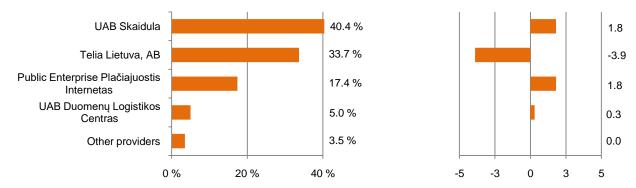


Fig. 69 Structure of revenue from access to dark fibre services by service providers, %, and annual changes of the market shares, pp, 2017

Source: RRT

In 2017, the revenue received from the provision of services of access to physical infrastructure equalled EUR 8.3 million At the end of 2017, the total number of granted accesses to the local line stood at 41 units or by 35.9% less than in 2016. At the end of 2017, the service providers had provided 2,832 dark fibres.

POSTAL SERVICE MARKET

1. General Overview of the Postal Service Market



The growth of the postal service market has been observed for six years already. During this period, the market has grown by 64.0% and in 2017, it represented 17.8% of the total revenue of the Lithuanian communications sector. The annually increasing volumes of e-commerce and scale of emigration results in the growth of the parcel flow. Thus, due to the relevance of the postal service the continuous provision of the universal postal service to all residents of Lithuania will be further ensured²⁸ under uniform conditions.

The postal service consists of the following three main activities: sending of items of correspondence²⁹ (letters and small packages), sending postal parcels (articles and merchandise up to 50 kg), other postal and related services (advertising information, newspapers, magazines, other periodicals, etc.). Moreover, the postal service may be divided into universal postal service and non-universal postal service.

Service Providers. At the end of 2017, there were 65 registered undertakings having indicated to intend to carry out the postal service activity in Lithuania, i.e., by 2 postal service providers fewer than at the end of 2016 (see Table 30). In 2017, 8 undertakings commenced the provision of the postal services, and 10 undertakings terminated this activity. However, there were only 46 out of 65 undertakings that were actually engaged in the provision of postal service at the end of 2017, i.e., by 9 undertakings fewer than in 2016.

Table 30. Number of postal service providers in 2012-2017, in units

	2012	2013	2014	2015	2016	2017
Number of actual postal service providers	J 54	59	56	47	55	46
Total number of postal service providers Source: RRT	4 73	76	69	66	67	65

Revenue. In 2017, all postal service providers earned the revenue amounting to EUR 147.1 million, which was by 12.4% or by EUR 16.2 million more than in 2016 (see Fig. 70). It must be noted that the revenue from the provision of postal services was growing throughout the entire period in question (2012-2017).

²⁹ An item of correspondence is a postal item to be dispatched and delivered, which contains a notice inscribed on any physical material, including small packages, and has the address of the addressee indicated thereon (books, catalogues, newspapers and other periodicals are not considered items of correspondence).

²⁸ Universal postal service shall mean a postal service of the quality established by legal acts that is to be provided to all users willing to be provided with such a service throughout the Republic of Lithuania for an affordable fee. In the territory of the Republic of Lithuania the provision of this universal postal service shall be ensured: 1) the clearance, sorting, transport and delivery of postal items of up to 2 kilograms; 2) the clearance, sorting, transport and delivery of postal parcels up to 10 kg; 3) the clearance, sorting, transport and delivery of registered and insured postal items; 4) the delivery of postal parcels of up to 20 kilograms received from other Member States of the European Union.

The following categories of the postal service are singled out: items of correspondence, postal parcels and other services related to the postal service. In 2017, the postal service market maintained the same proportions of the structure that had formed since 2012, where the largest portion of the revenue (56.5%) was comprised of the revenue from postal parcels (see Table 31).

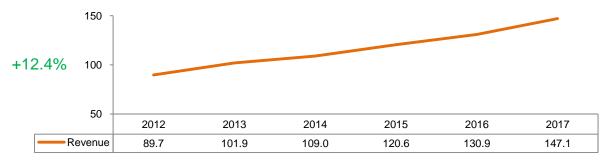


Fig. 70 Revenue from the provision of postal services, EUR million, 2012-2017 Source: RRT

The largest portion (83.6%) of the revenue from postal services is further represented by the revenue from the provision of the non-universal postal service (see Table 31). The amendments of the Postal Law laying down that bulky postal items and parcels, as well as value-added services shall no longer be attributed to the universal postal service resulted in the drop of the revenue from the universal postal service in 2013. The revenue growth trend from the provision of the universal postal service has been further observed since 2013. In 2017, the revenue went up by 18.1%.

Table 31. Structure of revenue of the postal service by types of postal items and services, in EUR million, 2012-2017

	2012	2013	2014	2015	2016	2017
By types of postal items:						
items of correspondence	1 41.3	41.7	45.4	49.0	49.5	55.4
postal parcels	44.3	50.4	53.8	59.7	72.3	83.1
other	4.2	9.9	9.8	11.9	9.1	8.6
By types of the service:						
universal	28.3	15.4	16.8	18.7	20.4	24.1
non-universal	1 61.4	86.5	92.2	101.9	110.5	123.0
Total revenue	1 89.7	101.9	109.0	120.6	130.9	147.1

Source: RRT

The largest market share (35.8%), in terms of revenue, was held by AB Lietuvos Paštas in 2017 (see Fig. 71). Over the year, its market share shrank by 1.2 pp. The second largest undertaking in terms of the share of the postal service market was UAB DPD Lietuva holding 18.3% of the market, and UAB DHL Lietuva with the market share of 10.4% was ranked the third.

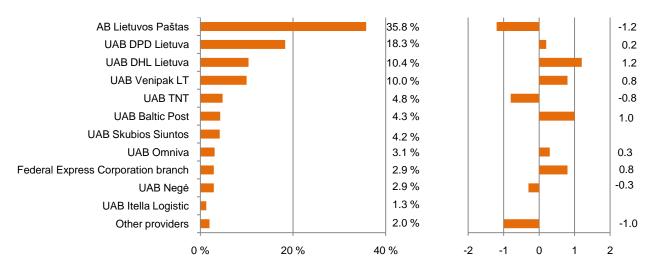


Fig. 71 Structure of revenue of the postal service market by service providers, %, and annual changes of the market shares, pp, 2017

Source: RRT

The postal service market that grew by 64.0% over six years, in terms of revenue, shows that Lithuanian citizens are actively sending and receiving various parcels. The growth of the postal sector is enhanced by the advanced electronic communications means which contribute to shopping online becoming part of a daily life of the population.

2. Items of Correspondence



Service Providers. In 2017, items of correspondence were provided by 36 undertakings, i.e., by 3 undertakings fewer than in 2016.

Number of items. In 2017, as many as 61.1 million items of correspondence were sent. In 2017, compared to 2016, the growth of 0.7% of the volume of items of correspondence was recorded (see Table 32). In 2017, the major share (69.0%) of these items was comprised of non-universal items of correspondence. The amendments of the Postal Law laying down that bulky postal items and parcels, as well as value-added services shall no longer be attributed to the universal postal service resulted in the drop of the volume of universal items of correspondence that has been observed since 2013. In 2017, the increase in the volume of items of correspondence in the universal service segment (9.9%) and the decrease in the non-universal service segment (3.0%) was observed.

Table 32. Volumes of items of correspondence, in million units, 2012-2017

	2012	2013	2014	2015	2016	2017
Universal items of correspondence	49.2	17.2	17.5	16.8	17.2	18.9
Non-universal items of correspondence	25.0	51.9	54.1	57.5	43.5	42.2
All items	4.2	69.1	71.6	74.3	60.7	61.1

Source: RRT

The majority of items of correspondence (87.9%) were sent and received through AB Lietuvos Paštas, i.e., by 3.3% more than in 2016. The total of 2.0% of items of correspondence were sent through UAB Apskonta, i.e., by 10.1% less than in the previous year.

Revenue. In 2017, the revenue received from items of correspondence increased by 11.9% and equalled EUR 55.4 million (see Fig. 72). In 2017, the largest portion of the revenue (64.8%) was received from the provision of non-universal items of correspondence. The revenue from the provision of these services grew by 51.6% over the year. The revenue from universal items of correspondence went down by 54.6%.

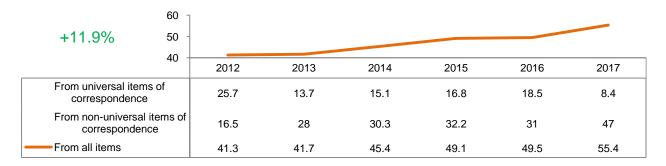


Fig. 72 Revenue from sending items of correspondence, in EUR million, 2012-2017

Source: RRT

The decrease in the revenue from the universal items of correspondence in 2013 was caused by the amendments of the Postal Law mentioned afore. Therefore the revenue from the provision of universal items of correspondence in 2017 accounted for 15.2% of the total revenue received from items of correspondence, where in 2012, the portion of such revenue stood at 62.2%.

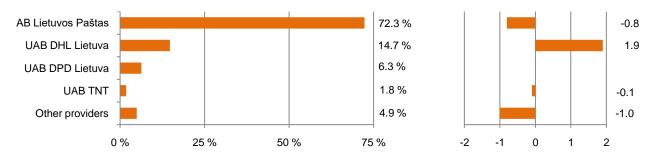


Fig. 73 Structure of the postal service provider market shares by revenue for the letter-post items, %, and annual changes of the market shares, pp, 2017

Source: RRT

Lietuvos Paštas AB received most revenue from letter-post items (see Fig. 73). The market share held by this company represented 72.3% in 2017 and it was by 0.8 pp smaller than in 2016. UAB DHL Lietuva received 14.7%, UAB DPD Lietuva – 6.3% of the total revenue from letter-post items in 2017.

Items of correspondence further remain a significant share of the postal service market. The number of items went up by 0.7% over the year, and the generated revenue grew by 11.9%. This change is most likely to be associated with sending heavier and more expensive items.

3. Postal Parcels

28
13.5
83.1

Service Providers. In 2017, the postal parcel services were provided by 28 undertakings, i.e., by 6 undertakings fewer than in 2016.

Number of parcels. During the period between 2012 and 2017, the number of parcels was continuously growing. In 2017, as many as 13.46 million units of postal parcels were handed over, i.e., by 12.4% more than in 2016. In 2017, 13.28 million units of non-universal postal parcels were sent and received, i.e., by 12.6% more than in 2016, and the number of universal postal parcels stood at 0.18 million units, i.e., by 0.9% less than in the previous year (see Table 33).

Table 33. Volumes of universal and non-universal postal parcels, in million units, 2012-2017

	2012	2013	2014	2015	2016	2017
Universal postal parcels	0.45	0.21	0.20	0.19	0.18	0.18
Non-universal postal parcels	6 .74	7.66	8.48	9.36	11.79	13.28
All postal parcels	1 7.19	7.87	8.68	9.55	11.97	13.46

Source: RRT

The major share of the postal parcel market, by number of parcels, was held by UAB DPD Lietuva -35.3% (by 1.1% more than in 2016), UAB Venipak LT -22.5% (by 2.3% more than in 2016), UAB Baltic Post -13.2% (by 21.0% less than in 2016), UAB Omniva -11.4% (by 22.6% more than in 2016), UAB Lietuvos Paštas -2.5% (by 24.2% less than in 2016), UAB Skubios Siuntos -5.1% (by 8.5% more than in 2016). The remaining undertakings jointly held 10.0% of the market.

Revenue. Between 2012 and 2017, the revenue from postal parcels almost doubled (increased by 87.6%). In 2017, the revenue amounting to EUR 83.1 million was received from postal parcel services, which was by EUR 10.7 million or by 14.8% more than in 2016 (see Fig. 74). Such a growth is directly related to the increase of e-commerce volumes, which results in a greater demand for the postal parcel service.



Fig. 74 Revenue from postal parcel services, in EUR million, 2012-2017

Source: RRT

The revenue from non-universal postal parcels grew by 15.1% in 2017, compared to 2016. The revenue from the provision of universal postal parcels increased by 7.1% or EUR 0.14 million (see Fig. 73). In 2016, 97.4% of the revenue was received from non-universal postal parcels, and 2.6% – from universal postal parcels.

The largest market share, in terms of the revenue from the postal parcels, was held by UAB DPD Lietuva – 28.3% in 2017, the share held by UAB Venipak LT represented 17.8%, UAB DHL Lietuva held 8.6% (see Fig. 75).

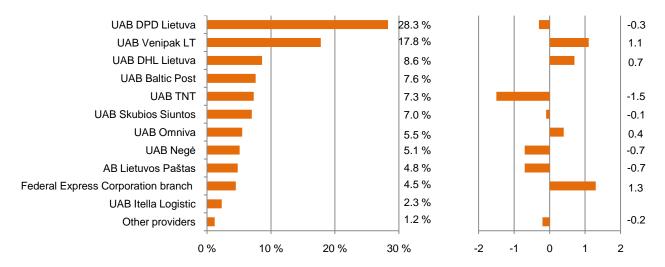


Fig. 75 Structure of the postal service provider market shares by revenue for the postal parcels, %, and annual changes of the market shares, pp, 2017 Source: RRT

Postal parcels hold the major share (56.5%) of the postal service market in terms of the revenue. During the period between 2012 and 2017, both the revenue and number of parcels almost doubled.

4. Universal Postal Service

629
19.0
24 1

Service Provision. In 2017, as in the previous years, the universal postal service in Lithuania was provided solely by AB Lietuvos Paštas. There were 629 points of access to universal postal services in Lithuania, i.e., by 126 points of access fewer than in 2016 (see Table 34). The number of both mobile and stationary points of access to universal postal service was decreasing. 87.0% of all access points were stationary, and 13.0% – mobile ones.

Table 34. Number of points of access to universal postal services, in units, 2012-2017

	2012	2013	2014	2015	2016	2017
Mobile access points	133	134	132	133	128	82
Stationary access points	703	695	679	659	627	547
All points of access	836	829	811	793	755	629

Source: RRT

In 2017, there were 1,606 post boxes for outgoing mail in Lithuania, i.e., by 64 post boxes or by 3.8% less than in 2016 (see Table 35). During the period between 2012 and 2017, the number of post boxes for outgoing mail was annually decreasing.

Table 35. Number of post boxes for outgoing mail, in units, 2012-2017

	2012	2013	2014	2015	2016	2017
Post boxes for outgoing mail	1 2122	2058	21838	1687	1 670	1606

Source: RRT

Volume of Service. In 2017, the volume amounting to 19.0 million of the universal postal service was sent and received, which was by 10.5% more than in 2016 (see Table 36).

Table 36. Scale of provided universal postal service, in million units, and its structure, %, 2012-2017

	2012	2013	2014	2015	2016	2017
Items of correspondence = or < 2 kg, %	80.1	74.14	70.56	69.07	69.93	62.6
Registered items, %	1 9.0	24.6	28.3	29.79	32.00	36.4
Postal parcels < 10 kg, %	0.9	1.2	1.06	1.06	1.01	0.91
Postal parcels from the EU < 20 kg, %	0.01	0.02	0.02	0.02	0.01	0.002
Insured items, %	0.02	0.04	0.04	0.05	0.05	0.05
Total	49.7	17.4	17.7	17.0	17.2	19.0

Source: RRT

With a view to the structure of the universal postal service market in terms of the scale of services, in 2017, the major share (62.6%) was represented by items of correspondence up to 2 kg, however, this market share shrank by 7.3 pp over the year.

Revenue. The revenue received from the provision of the postal service stood at EUR 24.1 million in 2017 and, compared to 2016, it grew by 18.1%. It must be noted that the revenue growth was enhanced by the increase of the number of registered items (see Fig. 76).

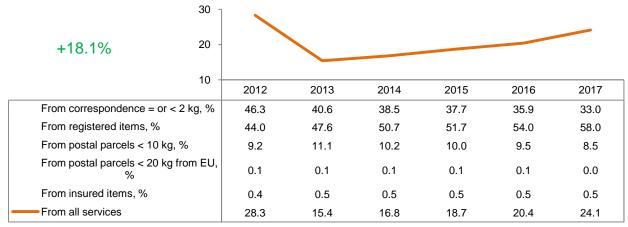


Fig. 76 Revenue from the universal postal service, in EUR million, and structure of revenue, %, 2012-2017 Source: RRT

The largest portion of the revenue (58.0%) was generated from the provision of registered items. 33.0% of the revenue was generated from items of correspondence up to or equal to 2 kg (see Fig. 75).

The universal postal service in Lithuania is provided by AB Lietuvos Paštas. This service is of a relevance to the residents of remote areas who are provided with an opportunity to send and receive various postal parcels or items of correspondence. Thus, the universal postal service plays a significant social role.

Annex 1

Electronic Communications Service Providers that Provided Services in 2017

Item No.	Service providers	Telephone service	Data transmission	Radio and television	Access to Physical Infrastructure
1.	Telia Lietuva, AB	•	•	•	•
2.	A. Judickas' Individual Enterprise	•	•		
3.	AB Lietuvos Geležinkeliai	•			•
4.	AB Ogmios Centras	•	•		
5.	AB Lietuvos Radijo ir Televizijos Centras	•	•	•	
6.	AS Viasat		•	•	
7.	Dainius Kamarauskas' company Davgita		•		
8.	DIDWW Ireland Ltd	•			
9.	G. Pečiulis' company		•		
10.	H. Abramavičius' company		•		
11.	Hibernia Media (UK) Limited		•		
12.	Individual Enterprise IT Kubas		•		
13.	Individual Enterprise Satinet		•		
14.	Ivančikas' Individual Enterprise Žaibas		•	•	
15.	J. Jasiulionis' Individual Enterprise			•	
16.	J. Varnas' Vilniaus Radijo Studija		•	•	
17.	KLI LT, UAB	•	•	•	
18.	KTU Department of Information Technology		•		
19.	L. Bulovas' firm Elektromedija		•		
20.	Mobi LT, UAB	•			
21.	SIA Lattelecom Ltd.		•		
22.	Splius, UAB	•	•	•	•
23.	Teleline LT, UAB	•			
24.	UAB Acta Iuventus		•		
25.	UAB Agon Networks	•			

Item No.	Service providers	Telephone service	Data transmission	Radio and television	Access to Physical Infrastructure
26.	UAB AirnetTV		•	•	•
27.	UAB Alantos Kompiuterių Servisas		•		
28.	UAB Auridija		•		
29.	UAB Autožvilgsnis	•			
30.	UAB AVVA		•	•	
31.	UAB Balticum TV	•	•	•	•
32.	UAB Baltnetos Komunikacijos	•	•		
33.	UAB Bitė Lietuva	•	•		
34.	UAB Bitosis		•		
35.	UAB Cgates	•	•	•	•
36.	UAB Consilium Optimum		•	•	
37.	UAB CSC Telecom	•	•		
38.	UAB Data Business		•	•	
39.	UAB Dekbera		•		
40.	UAB Dicto Citius		•		
41.	UAB Duomenų Ekspresas		•		
42.	UAB Duomenų Greitkelis		•	•	•
43.	UAB Duomenų Logistikos Centras		•		•
44.	UAB Dzūkijos Internetas		•		
45.	UAB EcoFon	•	•	•	•
46.	UAB Ektra		•		•
47.	UAB Elneta		•		
48.	UAB Eltida		•		
49.	UAB Etanetas		•	•	
50.	UAB Eteris		•	•	
51.	UAB Eurocom	•	•		
52.	UAB Eurofonas	•			
53.	UAB Funaris			•	
54.	UAB Gisnetas		•		

Item No.	Service providers	Telephone service	Data transmission	Radio and television	Access to Physical Infrastructure
55.	UAB Horda			•	
56.	UAB Ignalinos Televizija		•	•	
57.	UAB Ilora		•	•	
58.	UAB Informacijos Labirintas		•		
59.	UAB Infoseka		•		
60.	UAB Init	•	•	•	
61.	UAB Kalbu Lt	•			
62.	UAB Kalvanet		•		
63.	UAB Kauno Interneto Sistemos		•	•	
64.	UAB Kednetas		•		
65.	UAB Kodas		•		
66.	UAB Krėna		•		
67.	UAB Kvartalo Tinklas		•		
68.	UAB Lansneta		•	•	
69.	UAB Lema		•		
70.	UAB Linaspas		•		
71.	UAB Linkotelus	•			
72.	UAB Linx Telecommunications		•		
73.	UAB LT Telekomunikacijos	•			
74.	UAB M Projektai		•		
75.	UAB Magnetukas		•		
76.	UAB Mano Kamanė			•	
77.	UAB Marsatas	•	•	•	
78.	UAB Mavy Studija	•			
79.	UAB Mediafon Carrier Services	•			
80.	UAB Mediafon	•			
81.	UAB Medium Group	•			
82.	UAB Metameda Ir Ko	•			
83.	UAB Molėtų Radijas ir Televizija	•	•	•	

Item No.	Service providers	Telephone service	Data transmission	Radio and television	Access to Physical Infrastructure
84.	UAB N Plius		•		
85.	UAB Nacionalinis Telekomunikacijų Tinklas	•	•	•	
86.	UAB Netsis		•		
87.	UAB NNT		•		
88.	UAB Pakeleivis		•		
89.	UAB Parabolė		•	•	
90.	UAB Patrimpas			•	
91.	UAB Penkių Kontinentų Komunikacijų Centras	•	•	•	•
92.	UAB Peoplefone	•			
93.	UAB Progmera		•		
94.	UAB Proitas	•			
95.	UAB Radijo Elektroninės Sistemos	•	•	•	
96.	UAB Raystorm	•			
97.	UAB Ramnet		•		
98.	UAB Roventa	•	•	•	
99.	UAB Satgate		•	•	
100.	UAB SauleNet		•		
101.	UAB Skaidula				•
102.	UAB Skylink LT	•			
103.	UAB Socius		•	•	•
104.	UAB Sugardas		•	•	•
105.	UAB Šilutės Internetas		•		
106.	UAB TCG Telecom	•			
107.	UAB Tele2	•	•		
108.	UAB Teledema SIP	•			
109.	UAB Teledema	•	•		
110.	UAB Telekomunikaciniai Projektai	•	•		
111.	UAB Teleksas	•			

Item No.	Service providers	Telephone service	Data transmission	Radio and television	Access to Physical Infrastructure
112.	UAB Telemeta	•			
113.	UAB Televizijos Komunikacijos	•	•	•	
114.	UAB Verslo Tiltas		•		
115.	UAB Viltuva		•	•	
116.	UAB Vinetika		•		
117.	UAB VIP Sprendimai		•		
118.	UAB Zirzilė	•	•	•	
119.	Public Enterprise Plačiajuostis Internetas		•		•
120.	Public Enterprise Infostruktūra		•		
121.	Vytautas Ričkauskas' Company		•		
122.	Voxbone SA	•			
123.	Public Enterprise Comtel		•		
		49	93	40	15

Annex 2

Postal Service Providers in 2017

Item No.	Service Providers	Items of correspondence	Postal parcels
1.	AB Lietuvos Paštas	•	•
2.	A. Safošina's Individual Enterprise		•
3.	Individual Enterprise K.Matulevičiaus firm Ryto Žvaigždė	•	
4.	Lithuanian and Canadian UAB Kali		•
5.	UAB Apskonta	•	
6.	UAB Araneum	•	
7.	UAB Autopašto terminalas	•	•
8.	UAB Baltic Krantas		•
9.	UAB Baltic Post		•
10.	UAB Brevitra	•	
11.	Individual Enterprise Britlita		•
12.	UAB DHL Lietuva	•	•
13.	UAB DPD Lietuva	•	•
14.	UAB Drusvilma	•	
15.	UAB EU Broker	•	
16.	"Federal Express Corporation" affiliate	•	•
17.	UAB Finansinės Strategijos	•	
18.	UAB Greitasis Paštas	•	
19.	UAB HRES	•	
20.	UAB Invicte		•
21.	UAB Itella Logistic		•
22.	UAB Jūros Paštas	•	•
23.	UAB Kaišiadorių Butų Ūkis	•	
24.	UAB Kastinida		•
25.	UAB Kodas	•	
26.	UAB Litera	•	
27.	UAB Litgina	•	•
28.	UAB Litpost	•	
29.	UAB Megatomas	•	
30.	UAB Négė		•
31.	Social Public Enterprise for the Disabled Vilties Pagalba	•	•
32.	UAB Omniva		•
33.	UAB Pašto Paslaugos	•	
34.	UAB Prima Line		•
35.	UAB Ritspeda	•	
36.	UAB Rusko	•	•
37.	UAB Samus	•	•
38.	UAB Skubios Siuntos	•	•
39.	UAB Šiaulių Naujienos	•	
40.	UAB TNT	•	•
41.	UAB Toras LT		•
42.	UAB Utenos Diena	•	
43.	UAB Velo Kurjeris		•
44.	UAB Verslo Spaudos Centras	•	•
45.	UAB Venipak LT		•
46.	UAB VIM Agentūra	•	•
47.	UAB Zenesa	•	
48.	UAB Žemaitijos Paštas	•	

Item No.	Service Providers Items of corresponden		Postal parcels
49.	Public Enterprise Kultūros vizija		
50.	Public Enterprise Šiauliai plius	•	
	Total	36	28

Annex 3

Number of Residents and Households in Lithuania on 1 January, 2012-2018

	2012	2013	2014	2015	2016	2017	2018
Number of residents	3,003,641	2,971,905	2,943,472	2,921,262	2,888,582	2,849,317	2,810,118
Number of households	1,262,034	1,238,294	1,308,210	1,298,339	1,289,546	1,272,017	1,254,517

Source: Statistics Department of Lithuania

Maximum Tariffs of the Universal Postal Service³⁰

I. Maximum Tariffs of the Universal Postal Service in Lithuania

Item of correspondence¹ up to 500 grams

Item	Universal postal service	Postage tariff per one postal item, in E (exclusive of VAT)	
No.	Olliversal postal service	non-priority postal items	priority postal items
1.	Up to 20 grams	0.39	0.45
2.	> 20 grams, up to 50 grams	0.42	0.48
3.	> 50 grams, up to 100 grams	0.45	0.52
4.	> 100 grams, up to 500 grams	0.62	0.72

Bulky items of correspondence² up to 2 kilograms

Item	Universal postal service	Postage tariff per one postal item, in EUR (exclusive of VAT)		
No.	Oniversal postal service	non-priority postal items	priority postal items	
1.	Up to 100 grams	0.68	0.78	
2.	> 100 grams, up to 500 grams	0.94	1.09	
3.	> 500 grams, up to 1,000 grams	1.16	1.33	
4.	> 1,000 grams, up to 2,000 grams	1.56	1.80	

Postal parcel^{3, 4, 5} up to 10 kilograms (including a registration service)

Item No.	Universal postal service	Postage tariff per one postal item, in EUR (exclusive of VAT)
1.	Per each postal parcel	2.40
2.	Per each full or partial kilogram	0.14

Registration and/or insurance of items of correspondence¹, bulky items of correspondence² or postal parcels^{3, 4}

Item No.	Universal postal service	Postage tariff per one postal item, in EUR (VAT excl.)
1.	Registration of items of correspondence or bulky items of correspondence	0.58
2.	Registration and insurance of items of correspondence or bulky items of correspondence	3.48
3.	Insurance of postal parcels	3.48

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³⁰ Approved by Order No 1V-1025 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 29 July 2014 *On the Approval of Maximum Tariffs of the Universal Postal Service*

II. Maximum Tariffs of Cross-Border Universal Postal Service

Item of correspondence¹ up to 500 grams

		Postage tariff per one postal item, in EUR (exclusive of VAT)				
Ite		non-prior	non-priority parcels		priority parcels	
m No.	Universal postal service	to the European Union Member States	to other states	to the European Union Member States	to other states	
1.	Up to 20 grams	0.75	0.71	0.81	0.84	
2.	> 20 grams, up to 50 grams	0.84	0.75	1.00	0.97	
3.	> 50 grams, up to 100 grams	1.13	0.84	1.29	1.27	
4.	> 100 grams, up to 500 grams	1.98	2.09	2.37	3.40	

Bulky items of correspondence² up to 2 kilograms

		Postage tariff per one postal item, in EUR (VAT excl.)			
Ite		non-priority parcels		priority parcels	
m No.	Universal postal service	to the European Union Member States	to other states	to the European Union Member States	to other states
1.	Up to 100 grams	1.42	1.26	1.85	1.67
2.	> 100 grams, up to 500 grams	2.52	3.13	2.93	3.91
3.	> 500 grams, up to 1,000 grams	4.63	6.95	5.21	7.82
4.	> 1,000 grams, up to 2,000 grams	6.95	10.43	7.53	11.58

Postal parcel^{3, 4, 5} up to 10 kilograms (including a registration service)

Item	Universal poetal corvine	Postage tariff per one postal item, in EUR (exclusive of VAT)		
No.	Universal postal service	to the European Union Member States	to other states	
	Cross-border postal parcel tariffs apply to postage of postal parcels. The share of processing postal parcels in Lithuania:			
1.	Per each postal parcel 5.07 5.07			
2.	Per each full or partial kilogram	0.14	0.14	

Registration and/or insurance of items of correspondence^{1, 6}, bulky items of correspondence^{2, 6} or postal parcels^{3, 4}

Item No.	Universal postal service	Postage tariff per one postal item, in EUR (VAT excl.)
1.	Registration of priority items of correspondence or priority bulky items of correspondence	20.3
2.	Registration and insurance of priority items of correspondence or priority bulky items of correspondence	3.48
3.	Insurance of postal parcels	3.48

Notes:

- 1. Largest possible dimensions of an item of correspondence shall be as follows: length -381 mm, width -305 mm, height -20 mm.
- 2. Largest possible dimensions of a bulky item of correspondence shall be the following: any dimension shall not exceed 600 mm, while the sum of the length, width and height shall be no greater than 900 mm; any dimension of a cylinder item shall be no greater than 900 mm, while the sum of length and double diameter shall not exceed 1,040 mm.
- 3. Largest dimensions of a postal parcel shall be as follows: any dimension shall be no greater than 1.05 m, while the sum of the length and the largest dimension measured in any other direction than the length shall be no greater than 2 m.
- 4. Largest dimensions of a postal parcel marked "Encombrant" ("Bulky") shall be as follows: any dimension shall be no greater than 1.50 m, while the sum of the length and the largest dimension measured in any other direction than the length shall be no greater than 3 m.
- 5. A postal parcel marked "Encombrant" ("Bulky") shall be subject to additional postage tariffs of 50% as indicated in Table 3 or Table 7.
- 6. Only priority items of correspondence or priority bulky items of correspondence may be registered or registered and insured.
- 7. Items of correspondence marked as "Cécogrammes", items of correspondence addressed to prisoners of war marked as "Service des prisonniers de guerre" and to interned civilians marked as "Service des internés civils" or sent by these persons shall be sent free of charge.