



File ref.: 18-39364

## **Instructions for the questionnaire**

### **The Swedish Telecommunications Market 2018**

**Read through the cover sheet before filling in the information.**

**Information regarding commercial operations and turnover for the operations subject to notification (question 1-6) should also be answered by all companies.**

**The other parts should be completed if you have such operations.**

**The questionnaire is available as a web survey. The answers should be submitted no later than February 20, 2019.**

## Questionnaire

### Basis for SMP assessments, The Swedish Telecommunications Market 2018, official statistics on telecommunications operations 2018, and basis for National Accounts

#### General

Since the year 2000, the collection of statistics in the area of electronic communications is a joint initiative between three government agencies: The Swedish Post and Telecom Authority (PTS), Transport Analysis (Trafikanalys) and Statistics Sweden (SCB). An important reason for this collaboration is to facilitate the respondents' provision of information by reducing the number of questionnaires and using a set of common definitions. The interagency collaboration also creates one source of basic data, which is helpful to users of the data.

#### Objectives

The purpose of this survey is to collect data for PTS's report 'The Swedish Telecommunications Market', which aims to raise the level of knowledge about the electronic communications market in Sweden, and to produce official statistics for the sector. Additional purposes are to gather information that will form the basis for market analyses that PTS is obliged to conduct and for any decisions concerning significant market power (SMP) and for any decisions by PTS regarding universal service obligation.

#### Use and publication of information submitted

The results of the survey will be used and reported by the respective agencies. PTS will use the information, firstly in the 'Swedish Telecommunications Market 2018' report (published in the second quarter 2019 and made available on PTS's website, [www.pts.se](http://www.pts.se) and on PTS's statistics portal, [statistik.pts.se](http://statistik.pts.se)), secondly for the market analyses and decisions implemented on an ongoing basis in accordance with Chapter 8, Sections 5 and 6 of The Electronic Communications Act 2003:389 (LEK). Trafikanalys will use the information for the official statistics on telecommunications operations in Sweden. The report 'Televerksamhet 2018 (Telecommunications Operations 2018)' will be published in June 2019 (preliminarily) and made available on Trafikanalys's website, [www.trafa.se](http://www.trafa.se). SCB will use the information as a basis for the National Accounts estimates.

The information that PTS will use for the 'Swedish Telecommunications Market 2018' includes nearly all responses to questions in the questionnaire. The answers to questions 1 to 5 will also be used, firstly by Trafikanalys and SCB for statistical purposes, and secondly, by PTS for market analyses and any obligation decisions. In addition, PTS may use the information gathered in conjunction with any decisions concerning universal services. PTS intends to publish information for individual operators as part of the 'Swedish Telecommunications Market 2018' and on PTS's statistics portal, [statistik.pts.se](http://statistik.pts.se). This applies to as good as all information related to retail markets. The answers to these questions, as well as other information, may also be published in conjunction with PTS's market assessments and decisions concerning significant market power (SMP), and also any decisions made by PTS concerning universal services. No market shares for individual operators are stated in the annual report on telecommunications operations issued by Trafikanalys and SCB. The market share will only be stated on a sectoral level. Also, the reporting to the EU will be on a sectoral level. For further information about the tables used by PTS (for SMP analyses), Trafikanalys and SCB, see the 'Information obligation' section below.

#### Information obligation

There is an obligation to provide information for questions 1 to 5 in the questionnaire in accordance with Section 1 and 2, together with Appendix 1 of KAMFS 2008:5, SIKAFS 2008:5 and Chapter 8, Section 1 of LEK. Answers that are received to the above-mentioned questions are transferred from PTS to Trafikanalys and SCB.

For all questions in the questionnaire, there is an obligation to provide information to PTS in accordance with Chapter 8, Section 1 of LEK. Trafikanalys and SCB are not entitled to use this information, with the exception of information already published in the 'Swedish Telecommunications Market'. Under Section 11 of The Swedish Post and Telecom Authority Funding of Operations Ordinance 2003:767 and Section 37 of the Electronic Communications Ordinance 2003:396, PTS can prescribe regulations on charges. Question 6, concerning the turnover subject to the notification obligation forms the basis for the charge, and the data is compiled in accordance with Chapter 7, Section 3 LEK.

#### Secrecy protection

PTS is empowered, according to Chapter 30, Section 23 of the Public Access to Information and Secrecy Act (Swedish Code of Statutes 2009:400), Section 9 of the Public Access to Information and Secrecy Ordinance (Swedish Code of Statutes 2009:641) and Item 99 of the Appendix, to decide that information received that is assessed by PTS to be commercially sensitive shall not be disclosed to a party who requests such information. However, these provisions indicate that information concerning business or operational circumstances is presumed to be public; that is, the point of departure is that such information is not covered by secrecy protection. However, if it may be considered that a party submitting information would suffer economic damage if the information were disclosed or otherwise made public, the information will be classified as secret. Such information that is typically deemed to be secret is, for instance, information about acquisitions, transfers, operational guidelines, marketing plans, pricing calculations and plans concerning advertising campaigns, that is, not the type of information requested in this PTS intends to publish information referable to individual operators. If the party submitting information considers that certain information is covered by secrecy protection and should not be published or disclosed, the reasons for this should be stated to PTS in conjunction with the submission of the information (i.e. why economic damage would arise if the information were made public). However, it is PTS that in each individual case determines whether or not the information is such that it is subject to secrecy.

The classification as 'secret' applies to all information gathered through this questionnaire. Information that is secret and is transferred to Trafikanalys and SCB by PTS is classified as 'secret' and subject to restriction on being made public according to Chapter 24, Section 8 of the Secrecy Act.

#### Annual charges for 2018

On 12 December 2018 the Board of PTS approved the charges for 2019. These charges are published in the 'The Swedish Post and Telecom Authority Regulations on Charges: PTSFS 2018:6', available on the PTS website: <https://pts.se/sv/dokument/foreskrifter/avgifter/pts-foreskrifter-om-avgifter-ptsfs-20175/>

#### GDPR

PTS processes the following personal data about you contact information for your workplace, name, e-mail address, mobile telephone number. Read more: <http://www.statistik.pts.se/en/the-swedish-telecommunications-market/gdpr/>

#### Definition and advice on the completion of the questionnaire

Where information is requested separately for the categories 'Private' and 'Business', you should base your answer on who pays for the service, not the user of the service. The criterion for the paying party to be designated as a 'Business' (including organisations) is that it has a company/organisation identity (ID) number. All others should be designated as private customers.

If a service is offered, but an answer cannot be submitted, an explanation must be provided as to why an answer cannot be given. Revenues for both 'Private' and 'Business' should be reported excluding value added tax (VAT). Sales via distributors should not be included in those cases where retail data is requested.

#### PTS MUST HAVE RECEIVED YOUR QUESTIONNAIRE NO LATER THAN FEBRUARI 20, 2019

#### Contact

If you have further questions, please contact:  
Karin Fransen, Olov Enström or Andreas Wigren (PTS), +46 8 678 55 00, or [e-komstat@pts.se](mailto:e-komstat@pts.se)

**COMMERCIAL OPERATIONS**

# Questionnaire for

**Basis for SMP assessments, The Swedish Telecommunications Market 2018,  
official statistics on telecommunications operations 2018,  
and basis for National Accounts**

**Question 0**

Company/organisation name:
Company/organisation registration number:
Contact person:
Telephone:
E-mail:
Invoice address:
Website:

**Which companies are included in the information that you report regarding the full-year?**

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**Which operations have you acquired since 31 december 2017?**

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**Which operations have you sold since 31 December 2017?**

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## COMMERCIAL OPERATIONS

**Within which area did you have operations in Sweden during 2018?**

**Yes/No**

<b>Fixed call services (also IP telephony):</b>	<input type="checkbox"/>
<b>Interconnection in fixed networks:</b>	<input type="checkbox"/>
<b>Mobile call and data services and mobile broadband:</b>	<input type="checkbox"/>
<b>Interconnection in mobile networks:</b>	<input type="checkbox"/>
<b>Internet subscriptions:</b>	<input type="checkbox"/>
<b>Television services:</b>	<input type="checkbox"/>
<b>Bundled subscriptions:</b>	<input type="checkbox"/>
<b>Black fibre and wavelength connections to operators and end users:</b>	<input type="checkbox"/>
<b>Data communications services to operators:</b>	<input type="checkbox"/>
<b>Data communications services to end users:</b>	<input type="checkbox"/>
<b>Connections to premises and virtual access connections:</b>	<input type="checkbox"/>

*PLEASE NOTE: When you have answered the questions above, fill in Questions 1 to 6 and the sections of the questionnaire for which your company/ organisation has had commercial operations (see the tabs for the respective spreadsheets). If no commercial operation has been conducted, only fill in Questions 1 to 6 and send the questionnaire to PTS.*

Contact person for question 1-5: Daniel Lindhe , tel.nr: +46 10-479 64 12, e-mail: Daniel.Lindhe@scb.se.

## COMMERCIAL OPERATIONS

**Question 1: Total operating income related to telecommunications[1] in Sweden [SEK 000s] during 2018. Whole sale and hardware income is also included :**

Total	
Fixed network services (fixed telephony, network capacity and other network services, etc.):	
Mobile telecommunications services:	
Interconnection fixed & mobile (access, termination, transit):	
Internet access and Internet services:	
Radio and television broadcasting services:	
Other revenues related to telecommunications (sales of goods and services, etc.):	
<b>Net turnover:</b>	
Other revenues related to telecommunications (rent, licenses, contributions [2], etc.):	
<b>Total operating income related to telecommunications:</b>	
<b>Comments:</b>	

**Question 2: Investments in own operation[3] related to telecommunications in Sweden [SEK 000s] during 2018:**

Total	
<i>Total investmests related to telecommunications (both tangible and intangible fixed assets) license fees excluded</i>	
<b>Total investments in tangible fixed assets related to telecommunications:</b>	
<i>of which within fixed telephony operations:</i>	
<i>of which within mobile networks (investments in GSM, UMTS, LTE and 5G networks) :</i>	
<i>of which fixed broadband network (including passive and active equipment[6]):</i>	
<i>of which other computers and computer-controlled equipment:</i>	
<i>of which other related to telecommunications:</i>	

**Question 3: Number of employees within Sweden in 2018:**

	Men	Women	Total
Average number of employees during 2018:			
of which within telecommunications operations:			
Number of full-time employees on 31 Dec 2018 (35hours per week or more):			
of which within telecommunications operations:			
Number of part-time employees on 31 Dec 2018:			
of which within telecommunications operations:			

**COMMERCIAL OPERATIONS**

**Question 4: Revenues from abroad and costs to abroad[4] for telecommunications services [SEK 000s] 2018:**

Total	
<b>Total revenues from abroad for telecommunications services (export):</b>	
of which telephony and data services (fixed and mobile):	
of which other goods and services:	
<b>Total costs to abroad for telecommunications services (import):</b>	
of which telephony and data services (fixed and mobile):	
of which other goods and services:	

**Question 5: Total operating expenses related to telecommunications in Sweden [SEK 000s] during 2018:**

Total	
<b>Telecommunications operations total costs[5]:</b>	
of which purchase of goods and material excl. goods for resale:	
- of which purchase of programs and systems for computers:	
of which foreign work (subcontractors, consultants engaged):	
of which salaries, social security contributions and pension costs:	
of which costs for interconnection services (utilisation of others' networks):	
of which other costs related to telecommunications :	

# OPERATION SUBJECT TO NOTIFICATION OBLIGATION

Questions: please contact [anmalningsplikt@pts.se](mailto:anmalningsplikt@pts.se)

Yearly turnover with subject to notification, used as base for PTS fees regarding the financial year 2018

The turnover is reported in thousand SEK.

If no operations are applicable, report only 0 (zero) SEK.

If no turnover is reported, PTS is entitled to estimate your yearly turnover, according to PTS fee regulations (PTSFS). An estimation of the yearly turnover is also made during your first financial year after notification.

Submitted or estimated turnover is the basis for PTS fees, i.e. a percentage of the turnover will constitute the fees used for invoicing. The fees are announced in form of a decision.

For further information regarding notification and fees: <https://pts.se/en/english-b/telephony/vc/>

Guidelines for fee-qualifying revenue: <https://pts.se/contentassets/d3e7d8272c1242288defc8ae1e01f141/guidelines-for-fee-qualifying-revenue.pdf>

**Question 6: Yearly turnover for the financial year 2018. According to the Swedish Electronic Communication Act, Chapter 2 Section 1, notified operators are obliged to report their yearly turnover for the operations subject to notification.**

***NB Specify in thousand SEK***

[illegible]

Comments:

**Question 7: If the turnover for the financial year 2018 is equal to 30 million SEK or more the information must be certified. This is done through an authorized signatory (e.g. MD, CFO, Accounts Manager or similar) confirming the yearly turnover.**

	I confirm the yearly turnover in question 6 is accurate.	Yearly turnover 2018, according to question 6:	
Name:			
Position:			

## FIXED CALL SERVICES

**Question 8: Number of active subscriptions for fixed telephony (PSTN, ISDN, IP-based and internetbased telephony [1]. Only subscriptions which have generated traffic the last three months. SIP-trunks not included. 31 Dec 2018 :**

	Private	Business	Total
Subscriptions with both telephony and traffic[2]:			
of which via WLR[3]:			
of which via PSTN access[4]:			
of which via ISDN access[5]:			
of which via xDSL access:			
of which via cable television access:			
of which via LAN network access[6]:			
of which via other ip-based access [9]:			
Active pre-selection subscription (not customers via WLR[7] ([3]):			
<b>Total number of subscriptions:</b>			
of which with LLU[8]:			

**In addition**

Subscriptions where call charges are included in a fixed monthly fee[10]:			
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**Comments:**

**Question 9: Number of subscriptions of IP-telephony (xDSL, cable television access, LAN network access an other IP-based access) which are not used as of 31 December 2018. Not used subscriptions means here suscriptions which have not generated traffic (incoming or outgoing calls) during the last 3 month period.**

	Private	Business	Total
Total number of IP-telephony subscriptions (used):			
Number of not used ip-telephony subscriptions			
<b>Total number of IP-telephony subscriptions:</b>			
<b>Comments:</b>			



## FIXED CALL SERVICES

**Question 10: Revenues (SEK 000s) for fixed telephony (PSTN and ISDN, IP-based and internet-based telephony) SIP-trunks not included. As of 31 Dec 2018:**

	Private	Business	Total
Subscription charges[11]:			
of which from PSTN-subscriptions:			
of which from ISDN-subscriptions:			
of which from IP based subscriptions:			
of which from other subscriptions:			
Other fixed charges (installation charges, transfer charges etc.):			
Calls from national fixed networks to national fixed networks[12]:			
Calls from fixed networks to mobile networks:			
Calls from national fixed networks to international fixed and mobile networks:			
Other telephony services[13][14]:			
<b>Total revenues for fixed telephony from end users:</b>			
of which revenues from IP-based telephony:			

**Question 11: Number of outgoing traffic minutes (in thousands) from end users for fixed telephony (PSTN, ISDN, IP-based and Internet-based telephony) as of 2018:**

	Private	Business	Total
Calls from national fixed networks to national fixed networks[12]:			
Calls from fixed networks to mobile networks:			
Calls from national fixed networks to international fixed and mobile networks:			
Other telephony services:[13]:			
<b>Total number of outgoing traffic minutes for fixed telephony:</b>			
of which traffic minutes from IP-based telephony:			

**Question 12: Number of outgoing calls (in thousands) from end users for fixed telephony (PSTN, ISDN, IP-based and Internet-based telephony) as of 2018:**

	Private	Business	Total
Calls from national fixed networks to national fixed networks[12]:			
Calls from fixed networks to mobile networks:			
Calls from national fixed networks to international fixed and mobile networks:			
Other telephony services[13]:			
<b>Total number of outgoing calls for fixed telephony:</b>			
of which calls from IP-based telephony:			

## INTERCONNECTION IN FIXED NETWORKS

### Question 13: Termination of incoming traffic to own fixed networks:

Yes/No	
Do you provide termination of incoming traffic to own fixed networks?	

### Question 14: Interconnection revenues [3](SEK 000s) in fixed networks (incl. group internal revenues, excl. revenues from interconnection within own network) during 2018:

	Total	of which group internal
Termination of incoming traffic from national operators' networks[1]:		
of which revenues from Internet traffic:		
Termination of international incoming traffic:		
Interconnection revenues from originated traffic[3]:		
<b>Total interconnection revenues for fixed telephony:</b>		
of which revenues from packet-switched interconnection[4]:		

### Question 15: Number of interconnection minutes (in thousands) in fixed networks (incl. group internal traffic, excl. interconnection within own network) during 2018:

	Total	of which group internal
Number of terminated traffic minutes from national operators' networks[1]:		
of which number of traffic minutes from Internet traffic:		
Number of terminated traffic minutes from international incoming traffic:		
Number of traffic minutes from originated traffic[3]:		
<b>Total number of interconnection minutes:</b>		
of which no. of min. via packet-switched interconnection[4]:		

### Question 16: Number of terminated traffic minutes from own customers (incl. terminated traffic within own network) during 2018:

	Total
Number of terminated traffic minutes from own customers:	
of which number of traffic minutes from Internet traffic:	

## INTERCONNECTION IN FIXED NETWORKS

**Question 17: Originated traffic minutes (in thousands) in own fixed network[5] going via direct connection[6] during 2018:**

State stakeholder	Termination in another operator's		Total
	fixed network	mobile network	

**Question 18: Originated traffic minutes (in thousands) in own fixed network going via a transit operator[7] onward to a terminating operator[8] during 2018:**

State stakeholder	Termination in third operator's		Total
	fixed network	mobile network	

## MOBILE CALL AND DATA SERVICES AND MOBILE BROADBAND

*In question 19-25 M2M-subscriptions should not be included.*

**Question 19: Number of subscriptions[1] for mobile telephony and mobile data (excludes customers of service providers that are not owned by an operator; i.e. indirect customers[2]), distributed by form of subscription and rate, 31 Dec 2018:**

	Private	Business	Total
Number of mobile telephony subscriptions [1] for voice only [3]:			
<i>of which active pre-paid cards (3-month rule)[4]:</i>			
<i>of which contract subscriptions:</i>			
Number of mobile telephony subscriptions [1] for voice and mobile data[5]:			
<i>of which active pre-paid cards (3-month rule)[4]:</i>			
<i>of which contract subscriptions:</i>			
Number of mobile subscriptions[1] for mobile data only [7]:			
<i>of which active pre-paid cards (3-month rule)[4]:</i>			
<i>of which contract subscriptions:</i>			
<b>Total number of subscriptions [1] for mobile telephony and data at the end of the period:</b>			
<b>Number of subscriptions that have used services in GSM networks (3-month rule):</b>			
<b>Number of subscriptions that have used services in UMTS networks (3-month rule)[8]:</b>			
<b>Number of mobile subscriptions which have used services in LTE networks[9]:</b>			

**Question 20: Number of subscriptions for mobile telephony and mobile data (excludes customers of service providers that are not owned by an operator; i.e. indirect customers[2]) distributed by data allowance and month [31], [33], :**

	Private	Business	Total
<b>Number of contract subscriptions[1] for both mobile telephony and mobile data (from question 19)[4]:</b>			
<i>of which less than 1 GB data</i>			
<i>of which 1- 10 GB data</i>			
<i>of which 11-20 GB data</i>			
<i>of which 21-50 GB data</i>			
<i>of which 51-200 GB data</i>			
<i>of which 201 GB data or more, although limited amount of data</i>			
<i>of which unlimited data</i>			
<b>Sum of contract subscriptions for both mobile telephony and mobile data</b>			
<b>Number of contract subscriptions[1] for mobile data only (from question 19)[7]:</b>			
<i>of which less than 1 GB data</i>			
<i>of which 1- 10 GB data</i>			
<i>varav med 11-20 GB data</i>			
<i>of which 21-50 GB data</i>			
<i>of which 51-200 GB data</i>			
<i>of which 201 GB data or more, although limited amount of data</i>			
<i>of which unlimited data</i>			
<b>Sum of contract subscriptions for mobile data only</b>			

**Comments:**

## MOBILE CALL AND DATA SERVICES AND MOBILE BROADBAND

**Question 21: Number of active SIM-cards with a geographic telephone number 31 Dec 2018:**

	Private	Business	Total
Number of mobile subscriptions with a geographic telephone number linked to the SIM card [10]:			

**Question 22: Total revenues (SEK 000s) from end users for mobile call and data services [13] [31] during 2018:**

Charges	Private	Business	Total
<b>Fixed charges</b>			
Subscription charges[14]:			
<b>Variable charges</b>			
<b>Total revenues for mobile call and data services from end users:</b>			
of which revenues from contract subscriptions:			
of which revenues from pre-paid cards[4]:			
of which are revenues from subscriptions for mobile data services only, no voice (both fixed and variable charges)			
of which are revenues from mobile data in subscriptions for mobile call and data (both fixed and variable charges)			

**Question 23: Number of outgoing voice traffic minutes (in thousands) from end users for mobile telephony (excluding data traffic and international roaming) during 2018 [20]:**

	Private	Business	Total
Outgoing voice traffic from mobile telephones to national mobile networks:			
of which within own network[21]:			
Outgoing voice traffic from mobile telephones to national fixed networks:			
Outgoing voice traffic from mobile telephones to international fixed and mobile networks:			
Outgoing voice traffic from mobile telephones to other call services:			
<b>Total number of voice traffic minutes for mobile telephony:</b>			
of which voice traffic minutes from GSM networks:			
of which voice traffic minutes from UMTS networks:			
of which voice traffic minutes from LTE networks (VoLTE):			
of which voice traffic minutes in unknown networks:			

## MOBILE CALL AND DATA SERVICES AND MOBILE BROADBAND

**Question 24: Number of outgoing mobile calls[22] (in thousands) from end users (excluding international roaming) during 2018:**

	Private	Business	Total
Outgoing calls from mobile telephones to national mobile networks:			
<i>of which within own network[21]:</i>			
Outgoing calls from mobile telephones to national fixed networks:			
Outgoing voice traffic from mobile telephones to international fixed and mobile networks:			
Outgoing calls from mobile telephones to other call services:			
<b>Total number of calls for mobile telephony:</b>			
<i>of which calls from GSM networks:</i>			
<i>of which calls from UMTS networks:</i>			
<i>of which calls from LTE networks (VoLTE):</i>			
<i>of which number of calls in unknown networks::</i>			

**Question 25: Outgoing and incoming traffic[31] from end users[5] for mobile data services (excluding international roaming) 2018:**

Outgoing (upstream) mobile data traffic (Gbyte)[24]:			
Incoming (downstream) mobile data traffic (Gbyte)[24]:			
Mobile data traffic (Gbyte) unknown if upstream or downstream [24]:			
<b>Total quantity of mobile data traffic (Gbyte)[24]:</b>			
<i>of which traffic in 4G network:</i>			
<i>of which traffic in 5G network:</i>			
of which from subscriptions on mobile broadband - only data:			
<i>of which from subscriptions for both voice and mobile data [6]:</i>			

**Question 26: Number of text messages (in thousands) and MMS (in thousands) sent during 2018[26]:**

	Private	Business	Total
Number of text messages sent from mobile telephones [25]:			
<i>of which within own network[26]:</i>			
Number of SMS sent from computer system or application[27]:			
Number of MMS sent from mobile telephones:			

## MOBILE CALL AND DATA SERVICES AND MOBILE BROADBAND

### M2M = machine-to-machine

**Question 27: Revenues, traffic and number of M2M SIM cards [11] (excludes customers of service providers that are not owned by an operator; i.e. indirect customers.) during 2018. If estimated, please make a note in the comments field on the number of M2M subscriptions used (outside Sweden) in permanent roaming:**

Total	
Number of SIM cards for M2M [11],[12] :	
Revenues from SIM cards for M2M [19] (SEK 000s):	
Number of SMS from M2M SIM cards (thousands)	
Total quantity of mobile data traffic from SIM cards for M2M (Gbyte):	
Comments:	

### Leased networks for MVNO/Reseller business. Question 28-29 for operators that are leasing network capacity for MVNO or Reseller business.

**Question 28: Leasing of network capacity for mobile call and data services to service providers [27](Reseller and MVNO) during 2018:**

Total	
Number of end users:	
Number of outgoing traffic minutes from mobile telephones (in thousands):	
Outgoing and incoming traffic for mobile data services (Gbyte):	
Revenues from leased networks for MVNO/Reseller business [28] for mobile call and data services (SEK 000s):	
Revenues from termination [29] of incoming [30] call traffic (SEK 000s):	
Number of traffic minutes from termination [29] of incoming [30] traffic:	

**Question 29: Which service providers[27] (Reseller and MVNO) leased network capacity for mobile call, and data services to end users during 2018?**

One company per row	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

## INTERCONNECTION IN MOBILE NETWORKS

**Question 30: Termination of incoming traffic to own mobile network during 2018:**

	Yes/No
Do you currently provide termination of incoming traffic to your own mobile network?	

**Question 31: Interconnection revenues [1](SEK 000s) in mobile networks incl. group internal revenues during 2018:**

	Total
Termination of incoming [2] traffic from the networks of national operators:	
of which group internal revenues:	
Termination of international incoming traffic:	
From mobile data traffic:	
Termination of incoming M2M traffic:	
<b>Total interconnection revenues for mobile telephony:</b>	

**Question 32: Interconnection minutes in mobile networks (in thousands) incl. group internal traffic during 2018:**

	Total
Number of terminated call minutes [3] from national operators' networks:	
of which group internal traffic:	
Termination of international incoming traffic:	
<b>Total interconnection for mobile telephony:</b>	

**Question 33: Number of terminated traffic minutes (thousands) from own customers (incl. Terminated traffic within own network) during 2018:**

	Total
Number of terminated traffic minutes from own customers:	

**Question 34: Originated traffic minutes (in thousands) in own mobile network [4] going via direct connection[5] during 2018:**

State stakeholder	Termination in another operator's		Total
	fixed network	mobile network	



## INTERCONNECTION IN MOBILE NETWORKS

**Question 35: Originated traffic minutes (in thousands) in own mobile network going via a transit operator[6] on to a terminating operator[4] during 2018:**

State stakeholder	Termination in third operator's		
	fixed network	mobile network	Total
<b>Total</b>			

## INTERNET SUBSCRIPTIONS

**Question 36: Number of active subscriptions [1] for Internet service (access) distributed by form of access downstream, 31 Dec 2018:**

	Private	Business	Total
<b>PSTN (Modem up to 56 kbps):</b>			
<b>Satellite:</b>			
<i>of which above 144 Kbps and below 2 Mbps:</i>			
<i>of which 2 Mbps and above (and below 10 Mbps):</i>			
<i>of which 10 Mbps and above (and below 30 Mbps):</i>			
<i>of which 30 Mbps and above (and below 100 Mbps):</i>			
<i>of which 100 Mbps and above:</i>			
<b>xDSL:</b>			
<i>of which above 144 Kbps and below 2 Mbps:</i>			
<i>of which 2 Mbps and above (and below 10 Mbps):</i>			
<i>of which 10 Mbps and above (and below 30 Mbps):</i>			
<i>of which 30 Mbps and above (and below 100 Mbps):</i>			
<i>of which VDSL 30 Mbps and above (and below 60 Mbps):</i>			
<i>of which VDSL 60 Mbps and above (and below 100 Mbps):</i>			
<i>of which 100 Mbps and above:</i>			
<i>of which xDSL end users connected via LLU (full access/line)[2]:</i>			
<i>of which xDSL end users connected via LLU (shared access/line [2]:</i>			
<i>of which xDSL end users connected via other wholesale products [3]:</i>			
<b>Cable television:</b>			
<i>of which above 144 Kbps and below 2 Mbps:</i>			
<i>of which 2 Mbps and above (and below 10 Mbps):</i>			
<i>of which 10 Mbps and above (and below 30 Mbps):</i>			
<i>of which 30 Mbps and above (and below 100 Mbps):</i>			
<i>of which 100 Mbps and above (and below 250 Mbps):</i>			
<i>of which 250 Mbps and above (and below 500 Mbps):</i>			
<i>of which 500 Mbps and above (and below 1000 Mbps):</i>			
<i>of which 1000 Mbps and above:</i>			
<b>Fixed radio access[4]:</b>			
<i>of which above 144 Kbps and below 2 Mbps:</i>			
<i>of which 2 Mbps and above (and below 10 Mbps):</i>			
<i>of which 10 Mbps and above (and below 30 Mbps):</i>			
<i>of which 30 Mbps and above (and below 100 Mbps):</i>			
<i>of which 100 Mbps and above:</i>			
<b>Fibre and Fibre-LAN[5]:</b>			
<i>of which above 144 Kbps and below 2 Mbps:</i>			
<i>of which 2 Mbps and above (and below 10 Mbps):</i>			
<i>of which 10 Mbps and above (and below 30 Mbps):</i>			
<i>of which 30 Mbps and above (and below 100 Mbps):</i>			
<i>of which 100 Mbps and above (and below 250 Mbps):</i>			
<i>of which 250 Mbps and above (and below 500 Mbps):</i>			
<i>of which 500 Mbps and above (and below 100 Mbps):</i>			
<i>of which 1000 Mbps and above:</i>			
<b>Other fixed Internet access (state what under 'Comments'):</b>			
<i>of which above 144 Kbps and below 2 Mbps:</i>			
<i>of which 2 Mbps and above (and below 10 Mbps):</i>			
<i>of which 10 Mbps and above (and below 30 Mbps):</i>			
<i>of which 30 Mbps and above (and below 100 Mbps):</i>			
<i>of which 100 Mbps and above:</i>			
<b>Total number of active subscriptions downstream:</b>			
<b>Comment to the answer:</b>			

## INTERNET SUBSCRIPTIONS

**Question 37: Number of active subscriptions [1] for Internet service (access) distributed by form of access upstreams. 31 Dec 2018:**

	Privat	Företag	Totalt
<b>Cable television upstreams</b>			
of which over 144 kbit/s and under 2 Mbit/s:			
of which 2 Mbit/s and over and under 10 Mbit/s:			
of which 10 Mbit/s and over and under 30 Mbit/s:			
of which 30 Mbit/s and over and under 100 Mbit/s:			
of which 100 Mbit/s and over and under 250 Mbit/s:			
of which 250 Mbit/s and over and under 500 Mbit/s:			
of which 500 Mbit/s and over:			
<b>Fiber and fiber-LAN [5] upstreams:</b>			
of which over 144 kbit/s and under 2 Mbit/s:			
of which 2 Mbit/s and over and under 10 Mbit/s:			
of which 10 Mbit/s and over and under 30 Mbit/s:			
of which 30 Mbit/s and over and under 100 Mbit/s:			
of which 100 Mbit/s and over and under 250 Mbit/s:			
of which 250 Mbit/s and over and under 500 Mbit/s:			
of which 500 Mbit/s and over and under 1000 Mbit/s:			
of which 1000 Mbit/s and over:			
<b>xDSL, PSTN, satellite, fixed radio and other fixed internet access (upstreams):</b>			
of which over 144 kbit/s and under 2 Mbit/s:			
of which 2 Mbit/s and over and under 10 Mbit/s:			
of which 10 Mbit/s and over and under 30 Mbit/s:			
of which 30 Mbit/s and over and under 100 Mbit/s:			
of which 100 Mbit/s and over:			
<b>Total active subscriptions upstream:</b>			

**Comment to the answer:**

**Question 38: Revenues (SEK 000s) from end users for active subscriptions[6] for Internet service (access), regardless of form of access. Including startup charges, and fixed and variable charges. Excluding mobile broadband and group internal revenues. During 2018:**

	Private	Business	Total
xDSL :			
Cable television :			
Fibre and fiber-LAN [5]:			
Dial-up access :			
Other forms of access (Excl. mobile broadband):			
<b>Total revenues for Internet subscriptions:</b>			

## INTERNET SUBSCRIPTIONS

**Question 39: Number of active internet subscriptions and bundled subscriptions [7] which are group connections. Group connections refer to internet subscriptions that have been signed between the operator and, for example, landlords or housing cooperatives, rather than directly with the end users. Only bundled subscriptions where fixed broadband is included are counted. As of December 31, 2018.**

	Subscriptions
xDSL - subscriptions which are group connections	
Of which group connection where Internet service is bundled with atleast one other service [7]:	
Cable television - subscriptions which are group connections:	
Of which group connection where Internet service is bundled with atleast one other service [7]:	
Fibre and Fibre-LAN - subscriptions which are group connections	
Of which group connection where Internet service is bundled with atleast one other service [7]:	
<b>Total number of internet subscriptions which are group connections:</b>	
<b>Total number of internet subscriptions which are group connections and which are also bundled:</b>	
<b>Comment to the answer:</b>	

## TELEVISION SERVICES

Questions 40 and 41 are intended for stakeholders having contracts with households or landlords for subscriptions concerning a basic package of television channels. This question is about traditional pay TV subscriptions.

**Question 40: Number of active [1] subscription contracts on basic packages [2] concluded with households/end users or landlords 31 Dec 2018:**

Total	
<b>Analogue television in cable network [4][5]:</b>	
<i>of which through contracts with landlord [4] [7]:</i>	
<i>of which contracts directly with households without subscription contracts with landlords [4]:</i>	
<b>Digital basic packages in the cable network [2][4]:</b>	
<i>of which through contracts with landlord [4] [7]:</i>	
<i>of which contracts directly with households without subscription contracts with landlords [4]:</i>	
<b>Digital television in cable network</b> where you have <b>analogue</b> contracts directly (i.e a direct invoice -relation) with households which, in turn, have contracts of basic packages via landlords:	
<b>Digital television in cable network</b> where you have <b>digital</b> contracts directly (i.e a direct invoice -relation) with households which, in turn, have contracts of basic packages via landlords:	
<b>IPTV in fibre or fibre LAN [8]:</b>	
<i>of which through contracts with landlord [7]:</i>	
<i>of which contracts directly with households without subscription contracts with landlords:</i>	
<b>Digital television in IP-TV network</b> where you have <b>digital</b> contracts directly (i.e a direct invoice -relation) with households which, in turn, have contracts of basic packages via landlords.	
<b>Iptv via xDSL:</b>	
<b>IPTV via other infrastructure (please specify under 'Comments'):</b>	
<b>Television via terrestrial network:</b>	
<b>Television via satellite:</b>	
<b>Total number of subscriptions:</b>	
<b>Total number of subscriptions excluding those cable TV subscriptions that also have contracts with landlords [9]:</b>	
<b>Comment to the answer:</b>	

## TELEVISION SERVICES

**Question 41: Revenues (SEK 000s) for the provision of television services to households [8] in the form of subscriptions for a basic package [9], package options and channel options [10] and other revenues from television services during 2018:**

	Basic package [9]	Package options and channel options[10]
Analogue television in cable network [3]:		
of which through contracts with landlords[5]:		
of which revenues from households:		
Digital television in cable network[4]:		
of which through contracts with landlords[5]:		
of which revenues from households:		
IPTV in fibre or fibre LAN [6]:		
of which through contracts with landlords [5]:		
of which revenues from households:		
Iptv via xDSL		
IPTV via other infrastructure (please specify under 'Comments'):		
Television via terrestrial network:		
Television via satellite:		
<b>Total revenues:</b>		
<b>Comment to the answer:</b>		

Question 41 is intended for programming agencies that sell television channels to (for example) network or landlords and cable television operators (SMATV). Sappa and Canal Digital run this type of operation.

**Question 42: Number of households reached through agencies for programme companies. 'Agencies' refers to programming agencies that sell television channels to, for example, network and property owners and cable television operators SMATV). Sappa and Canal Digital run this type of operation. As of 31 december 2018:**

	Total number of households:
Agency operations	
of which in cable television network:	
of which in fibre and fibre LAN:	
<b>Comment to the answer:</b>	

## BUNDLED OFFERS

'Bundled services' refers to combination offers that contain two or more services, such as fixed and mobile telephony, television or broadband. Bundled services includes services which are offered and marketed as an offer or with a price list for the bundled services. Bundled services includes here also services which are not offered and marketed as an offer or with a price list for the bundled services, as example when an end user buys two or more services separately, may be on different occasions. Do not include OTT services like Spotify and Skype.

### Question 43: Number of end users with bundled subscriptions 31 Dec 2018:

Type of bundled subscription	Private	Business	Total
<b>Double-play:</b>			
Fixed telephony and fixed broadband:			
Fixed telephony and television:			
Fixed telephony and mobile telephony/mobile broadband:			
Mobile telephony/mobile broadband and fixed broadband:			
Mobile telephony and mobile broadband[1]:			
Mobile telephony/mobile broadband and television:			
Television and fixed broadband:			
Other combinations; state what under comments:			
<b>Total number of double play end users:</b>			
<b>Triple play, three services:</b>			
Fixed telephony and fixed broadband and television:			
Fixed telephony and fixed broadband and mobile telephony/mobile broadband:			
Fixed telephony and mobile telephony/mobile broadband and television:			
Mobile telephony/mobile broadband and fixed broadband and television:			
Other combinations; state what under comments:			
<b>Total number of triple-play subscriptions:</b>			
<b>Quadruple play, four services</b>			
Fixed telephony and fixed broadband and television and mobile telephony/mobile broadband:			
Other combinations; state what under comments:			
<b>Total number of quadruple play subscriptions:</b>			
<b>Total number of double, triple and quadruple play subscriptions:</b>			
<b>Comment to the answer:</b>			

## DATA COMMUNICATIONS SERVICES WHOLESALE

If you have questions regarding question 42 - 45, please contact Lars-Erik Axelsson or Andreas Wigren, phone +46 8 678 55 00

### WHOLESALE HIGH-QUALITY ACCESS

The questions in this section are needed for the SMP analysis regarding high-quality access, market 4. If you do not sell these services, ie only have dark fibre, please enter "0" on all questions in this section. Wholesale high-quality access are digital leased lines typically demanded by business customers with specific requirements regarding quality, availability and/or servicelevels. High-quality access is often used by business customers to connect their multiple sites and for more high-quality internet, telephony and virtual private network connections which are often delivered to this customer segment. Wholesale high-quality access includes digital leased lines with both dedicated and none-dedicated capacity, with or without quality of service (QoS). A wholesale high-quality access is a connection provided between a fixed network accesspoint at the business customers site and a delivery point where the wholesale customer/operator can take over the transmission and pass it further in its own network. Sales of high-quality access for mobile backhaul should not be included in the bellow reported figures.

**Question 44: Revenues (in thousand SEK) from sales of high quality access [6] to wholesale customers[7] in Sweden as of 31st of December 2018:**

	Total	Internal sales[9]	External sales[10]
Revenues from sales of TDM-based (SDH/PDH) high-quality accesses:			
Revenues from sales of Ethernet-based [8] high-quality accesses			
Revenues from sales of other types of digital high-quality accesses:			
<b>Total revenues from high-quality accesses:</b>			



## DATA COMMUNICATIONS SERVICES TO END-USER

If you have questions regarding question 45 - 46, please contact Lars-Erik Axelsson, phone +46 8 678 55 00

### Question 45: Revenues (SEK 000s) from network services to end users [1] in Sweden during 2018:

Total	
Digital SDH-based [2] leased lines to end users[1]:	
Digital Ethernet-based [3] leased lines to end users[1]:	
Analogue line capacity for end users:	
IP VPN[4]:	
<b>Total revenues:</b>	
<b>Comment to the answer:</b>	

### Question 46: Number of national, installed ports/leased lines for end users[1], 31 Dec 2018:

Total	
Number of digital SDH-based[2] leased lines to end users[1]:	
Number of digital Ethernet-based[3] leased lines to end users[1]:	
Number of national analogue leased lines for end users:	
IP VPN (number of ports)[4]:	
<b>Total:</b>	
<i>of wich with a downstream speed of at least 100Mbps:</i>	
<b>Comment to the answer:</b>	

## BLACK FIBRE AND WAVE LENGTH CONNECTIONS FOR WHOLESALE CUSTOMERS AND END USERS

If you have questions regarding question 42 - 45, please contact Lars-Erik Axelsson or Andreas Wigren, phone +46 8 678 55 00

**Question 47: Revenues (SEK 000s) for wavelength [3] connections for wholesale customers and end users[1] in Sweden during 2018**

Total	
Total revenues for wavelength connections:	
of which group internal revenues[2]:	

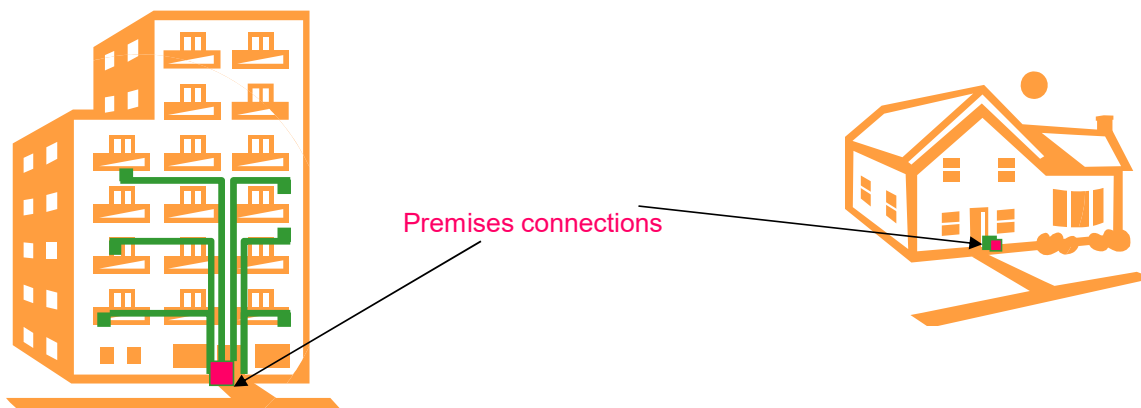
**Question 48: Revenues (SEK thousands) from leasing of dark fibre connections[4] for wholesale customers and end users[1] within Sweden during 2018:**

Total	
Total revenues for dark fibre connections	
of which group internal revenues[2]:	

## PREMISES CONNECTIONS AND VIRTUAL ACCESS CONNECTIONS

If you have any questions , please contact: Josefin Carlsson, (Josefin.Carlsson@pts.se), or phone +46 8-678 55 00.

In questions 49-50 only infrastructure for fixed connections are asked for, excluding mobile connections. However, question 51 includes mobile networks.



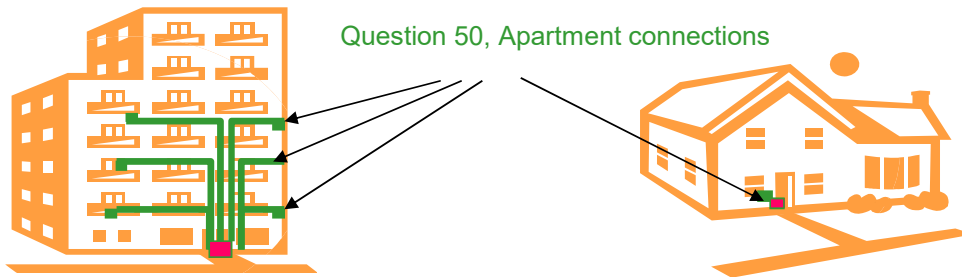
In order to be able to measure the extent of infrastructure available for broadband, PTS needs to assess which operators own network infrastructure extending up to properties (private as well as business properties) in addition to the extent of such ownership.

**Question 49: Estimate the number of premises connections in your own network infrastructure[1] leased to operators [2] or used for own purposes, 31 Dec 2018:**

	Total
Metallic (refers only to twisted copper pairs and mainly to be answered by TeliaCompany):	
of which sold to another operator:	
of which for own end users:	
Fibre-based:	
Coaxial cable - cable television:	
of which sold to another operator:	
of which for own end users:	
Fixed radio-based (not mobile telecommunications networks):	
of which sold to another operator:	
of which for own end users:	
Other net infrastructure, please specify under "comments":	
of which sold to another operator:	
of which for own end users:	
<b>Total number of property connections in own net infrastructure:</b>	
<b>Comment to the answer:</b>	

## PREMISES CONNECTIONS AND VIRTUAL ACCESS CONNECTIONS

**Below question is to be answered if you have registered that you own network infrastructure in question 49.**



Number of apartment connections that you reach via the property connections mentioned in the previous question.

**Question 50: State the number of apartments that you reach via the connections reported in the previous question, and how many of those that you lease to operators[3] and end users[4] respectively, 31 Dec 2018:**

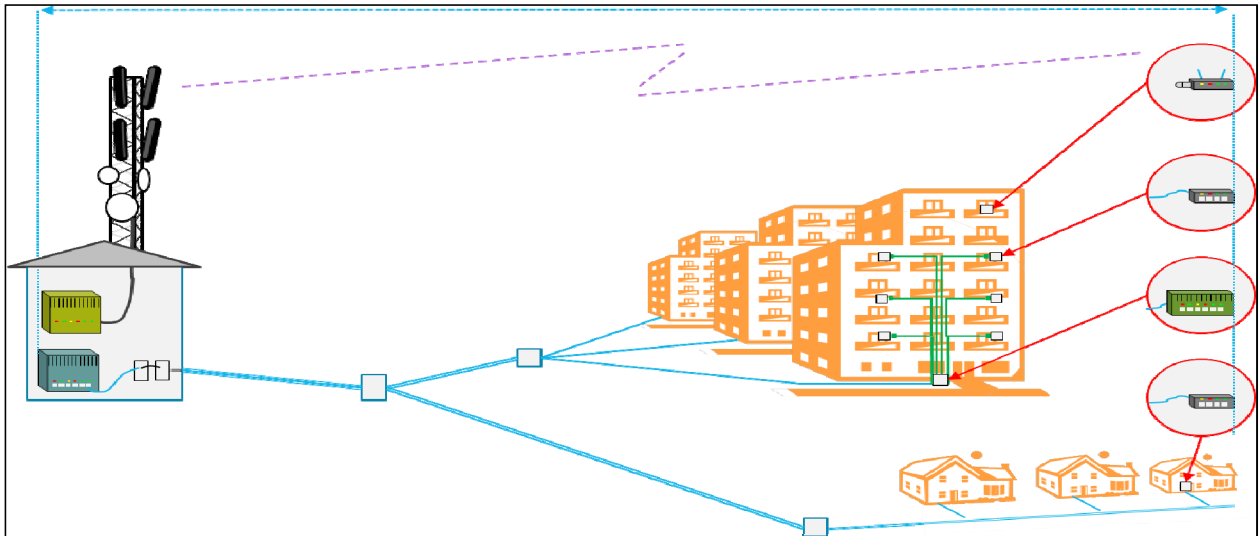
	Total
Metallic (refers only to twisted copper pairs and mainly to be answered by Telia Company):	
of which for leasing to operators (used or unused):	
of which for own end users (used):	
of which passive (ie. either leased to operator or own end user):	
Fibre- and fibre-LAN:	
Coaxial cable - cable television:	
of which for leasing to operators (used or unused):	
of which for own end users (used):	
of which passive (ie. either leased to operator or own end user):	
Fixed radio-based (not mobile telecommunications networks):	
of which for leasing to operators (used or unused):	
of which for own end users (used):	
of which passive (ie. either leased to operator or own end user):	
Other net infrastructure, please specify under "comments":	
of which for leasing to operators (used or unused):	
of which for own end users (used):	
of which passive (ie. either leased to operator or own end user):	
<b>Total number of apartment connections:</b>	
<b>Comment to the answer:</b>	

## PREMISES CONNECTIONS AND VIRTUAL ACCESS CONNECTIONS

Virtual accesses refer to connections created with active equipment over a passive network, e.g. a DSLAM and an ADSL modem at the end customer premises. PTS requires information on the total number of virtual accesses broken down by different types of passive networks. PTS also needs to know if the virtual accesses are used for the operator's own retail services or to which degree of refinement they are sold to wholesale customers.

Please note: Only an operator who produces virtual accesses, i.e. possesses active network equipment, should answer this question. Operators who buy virtual accesses, or resell services where virtual accesses form a part, should not answer this question.

### Virtual access connection



**Question 51: Indicate the nubor of virtual accesses that you produce in your own or in other's passive network infrastructure with the aim to deliver broadband services to end customers. AS of 31 Dec 2018:**

	Total
<b>Virtual access lines connecting end users over copper pair (xDSL)</b>	
<i>of which activated for your own end customers:</i>	
<i>of which activated and sold to wholesale customers:</i>	
<i>of which service resold to end customers [7]:</i>	
<b>Virtual access lines connecting end users over optical fiber or fiber-LAN, with fiber extending to the home (FttH) or connecting to Cat4/6 inhouse wiring (FttB).</b>	
<i>of which activated for your own end customers:</i>	
<i>of which activated and sold to wholesale customers:</i>	
<i>of which service resold to end customers [7]:</i>	
<b>Virtual accesses via coaxial cable (cable TV network):</b>	
<i>of which activated for your own end customers:</i>	
<i>of which activated and sold to wholesale customers:</i>	
<i>of which service resold to end customers [7]:</i>	
<b>Virtual accesses via other infrastructure.</b>	
Please indicate type of passive network and transmission medium in comments:	
<i>of which activated for your own end customers:</i>	
<i>of which activated and sold to wholesale customers:</i>	
<i>of which service resold to end customers [7]:</i>	
<b>Total number of active virtual accesses:</b>	
<b>Comment to the answer:</b>	

Ducts			
If you have questions regarding ducts, please contact Krister Carlsson, tel 08-678 55 00			
The Act (2016:534) on measures for deployment of broadband networks, in Swedish: lag (2016:534) om åtgärder för utbyggnad av bredbandsnät, came into force in July 2016. PTS is now evaluating the use of the law by asking questions in what extent the law is applied when managing physical infrastructure as ducts etc. by parties acting in this market segment.			
<b>Question 52: Has your organisation received any requests such as the questions listed below? This means that the Act on measures for deployment of broadband networks has been applied. As of year 2018.</b>			
Access to existing physical infrastructure, i.e. ducts or other physical infrastructure?	Yes	No	Do not know
Coordination of civil works?	Yes	No	Do not know
Request for information regarding, for example, access to physical infrastructure and/or coordination of civil works?	Yes	No	Do not know
Comments:			
<b>Question 53: Where do you publish information for coordination of civil works, in case you are a public organisation or when projects are entirely or partly financed by public funding?</b>			
Ledningskollen (i.e system owned by PTS)			
Own website			
Other electronic service (if so, please describe in comments)			
Do not know			
Comments:			
<b>Question 54: Have you made any requests such as the questions listed below? This means that the Act on measures for deployment of broadband networks has been applied. As of year 2018.</b>			
Access to existing physical infrastructure, such as ducts or other physical infrastructure?	Yes	No	Do not know
Coordination of civil works?	Yes	No	Do not know
Request for information regarding, for example, access to physical infrastructure and/or coordination of civil works?	Yes	No	Do not know
Comments:			
<b>Question 55: Have you, when using the Act on measures for deployment of broadband networks,</b>			
Yes (if yes, please describe in comments)			
No			
Do not know			
Comments:			

# Foot notes

## COMMERCIAL OPERATIONS

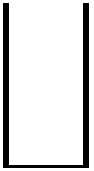
- 1 Total operating income. Income that the undertaking has received both within Sweden and from abroad (exports of goods and services) is to be reported here. Please note that it is the entire operation that should be reported, even the part that is not telecommunications and data communications. The total operating income may be obtained from Account Class 3 in the basic accounting plan. Please note that if the undertaking has reported grants among the operating costs, these should be added here. Do not include financial and extraordinary income or VAT.
- 2 Grants received from the EU, government, municipality and county council together with other contributors are included as grants received. This relates also to grants that the undertaking has received as support for the actual operation and which is reported as income. Note that grants that have been reported among the costs (as cost reduction) shall be included here (for example recruitment incentive).
- 3 Include total investment in property (land or buildings) and equipment (switchgear, hardware, software, office equipment, and motor vehicles).
- 4 Abroad' here relates to foreign counterparty (operators or other customers and suppliers). Include also inbound/outbound roaming for foreign part.
- 5 **Operating expenses** relates to the costs that have been incurred in the undertaking's normal operations. Operating expenses are stated after deduction for discounts received. It is the total operating expenses before depreciation that shall be stated. Note that grants that have been reported among the costs (as cost reduction) shall not be included. It is the gross value of the operating expenses that we are interested in. Purchase of goods for resale should be purchase of goods that are not further refined within the undertaking, i.e. the purchase of goods for direct onward sales.  
 If you follow the classification by type of **cost format**, the sum here relates to: costs for raw materials/ necessities, costs for goods for resale, other external costs, personnel costs, costs affecting comparability, other costs.  
 If you follow the classification by **function format**, the sum here relates to: cost of goods/services sold, sales costs, administration costs, Research and Development costs, costs affecting comparability and other operating costs.
- 6 For active equipment, routers and switches are included

## FIXED CALL SERVICES

- 1 Relates here to the form of IP-based telephony where the telephone call made by a subscriber to IP-based telephony should be able to reach and be reached by telephones connected to the PSTN and ISDN networks. PBXs that are connected via IP protocol should also be included. Exclude Internet telephony with which it is not possible to call ordinary telephone numbers and that is not connected to the traditional telephone network.
  
- 2 Relates to subscriptions that includes both telephony access and traffic (that is pre-selected subscriptions excluded)
- 3 Wholesale line rental. Relates to resale under agreements concluded with Telia Company, both prior to and after 18 May 2005.
- 4 A PSTN subscription is equivalent to a main line to an own end user, where subscriptions for analogue telephony are supplied. The operator with subscription customers usually owns the main line, leases the main line from a network operator (for example by full or shared access) or purchases wholesale line rental for telephony subscriptions. An indirectly connected customer (i.e. a customer connected via WLR, a pre-selection customer or a prefix customer) should not be included here.
- 5 An ISDN subscription is equivalent to a main line to an own end user, comprising either basic rate or primary rate ISDN. The operator with subscription customers usually owns the main line, leases the main line from a network operator or purchases wholesale line rental for telephony subscriptions. An indirectly connected customer (i.e. a customer connected via WLR, a pre-selection customer or a prefix customer) should not be included here.
  
- 6 A 'LAN network' means a fixed connection (local area network, property network) usually based on Ethernet technology. The LAN is linked to a public fibre network; for example, an area network.
- 7 Relates to active pre-selection customers where the customer is indirectly connected. 'Active' means that the customer has made at least one call during the last quarter in the period. Please note that if a customer has different pre-selections for national and international calls, this only corresponds to one customer. Corresponds to the English term 'Carrier PreSelect' (CPS). Relates to pre-selection for both PSTN and ISDN.
- 8 Local Loop Unbundling, dvs. tillträde för andra operatörer till konventionella abonnentledningar via det reglerade tillträdet i form av LLUB (fullt eller delat tillträde).
- 9 Refers to IP-based telephony subscriptions where the form of access is unknown.
- 10 Refers to a subscription for fixed telephony where the customer is not charged by the minute for calls made to fixed and mobile networks in Sweden. Thus it does not matter, from a cost point of view, whether the customer makes a call to a geographical telephone number or to a mobile number.
- 11 Excluding subscription charges from xDSL, fixed charges for value-added services and supplementary services.
- 12 Does not include calls to dial-up Internet access, calls to mobile networks, free-phone, calls with shared cost, pay telecom services and mass call services or directory enquiry services.
  
- 13 Relates to calls from/using pre-paid telephone cards from payphones (both national and international calls); calls with shared cost (077-); directory enquiry services (118 XYZ); pay telecom service and mass call service (0900-, 0939-, 0944- and 099-).  
Also relates additional services, free-phone services and value added services. Examples of additional services are wake-up calls, voice mail-box, invoice specifications, call minder, incoming phone number presentation, blocking of certain incoming numbers, forwarding to another phone number, direct call to a pre-set number when receiver is lifted, repetition of the last used number, speed numbers.
- 14 Only such calls to dial-up Internet access that are invoiced to the operator's own end users are reported, i.e. the calls that are registered as calls to dial-up Internet access on the customer's invoice. Only relates to dial-up Internet access; i.e. via PSTN and ISDN.
  
- 15 EU does also include EU 27 as well as EEA EFTA countries Norway, Iceland and Liechtenstein



- 16** This refers to both bundled subscriptions that are marketed as an offering with pricelist for the bundled services, and services not marketed together as a special offering, i.e. where an end user buys two or three services separately, perhaps at two different occasions. This does not refer to subscriptions bundled with OTT-services such as Spotify.



## INTERCONNECTION IN FIXED NETWORKS

- 1 Including fixed charges. Relates to gross revenues, i.e. before any set-off.
- 2 Call origination covers the transfer of calls from the end user's network termination point, including routing and connection, up to the point as close to the end user as possible where a relay service or other infrastructure can relay the traffic. Call origination only covers the transfer up to the point where it is possible to transfer (the traffic) to another operator, regardless of whether the transfer occurs there or higher up in the network and regardless of whether there is other infrastructure actually rolled out at that point or not. Call termination is defined in the corresponding point as call origination.
- 3 Does not relate to end user traffic.
- 4 Interconnection that is exchanged with other operators via connections with packet-switched technology (usually IP technology) and that does not occur via circuit-switched interconnection connections.
- 5 Please note that traffic that terminates in your mobile network should also be stated here. If you only have one fixed network, or alternatively a mobile network, you should disregard the other type of network.
- 6 Direct connection' relates to such traffic as originates in own network and terminates in another operator's network or own network without being routed through a transit operator.
- 7 Transit' relates to such traffic as originates in own network and is transited in another operator's network in order to then terminate in a third operator's network or own network.
- 8 Please note that traffic that terminates in your mobile network should also be stated here. If you only have one fixed network, or alternatively a mobile network, you should disregard the other type of network.

## MOBILE SERVICES

- 1 "Subscription" refers to both contract subscriptions and pre-paid cards; pre-paid cards are reported under 'Private' and according to the 3-month rule (see 'pre-paid card' for definition). M2M, or Machine to Machine, should not be included, but should be reported separately in question.
- 2 However, customers of service providers that are at least 50 per cent owned by the network operator itself are considered to be directly connected customers.
- 3 Also include those with subscriptions for a voice service that also have subscriptions for data but have not used the data access at least once during the last quarter of the period for which subscription charges have not been paid during the last quarter of the period.
- 4 Pre-paid cards must have been topped up or have generated (outgoing or incoming) traffic (minutes or data) or revenues during the last quarter of the period; all pre-paid cards are reported under 'Private'.
- 5 Only include subscriptions for a voice service that also allows the transmission of packet data and where the data access has been used at least once during the last quarter of the period or where a separate charge for mobile packet data has been paid during the last quarter of the period.
- 6 Refers to bundling products where the subscriber has purchased at least 1 GByte of data traffic. In practice, this means smartphones used for both calls and mobile broadband.
- 7 Include subscriptions which are used for mobile data and has been used at least once the last three months or the subscription fee has been paid during the last three months in the period. The subscription must not have generated any voice minutes.
- 8 Active GSM, UMTS and LTE subscriptions must have generated traffic (minutes or data) in the GSM, UMTS or LTE networks during the last quarter of the period.
- 9 LTE (Long Term Evolution). Also called 4G, fourth generation mobile networks.
- 10 Refers to mobile subscriptions with a fixed network number connected to SIM card as an add-on service.
- 11 M2M = machine-to-machine. M2M subscriptions are subscriptions on services on communication between machines or other equipment and which are not part of a private or company subscription. Subscriptions on mobile broadband (like tablets or routers) are not included here).
- 12 Customers of service providers that are at least 50 per cent owned by the network operator itself are considered to be directly connected customers.
- 13 Including active pre-paid cards, SMS, MMS, mobile data traffic and mobile value-added services. Excluding interconnection, international roaming abroad, machine-to-machine (reported separately) and group internal revenues. Supplementary charges or other instalment payments for discounted mobile telephones should also be excluded. Revenues from pre-paid cards are reported under 'Private'.

- 14 Fixed charges includes extra data that can be purchased as add-on services for a mobile subscription (with or without voice calls), when the included amount of data is finished. Exclude additional fees or other instalment payments for discounted mobile telephones (so called 'handset revenues'). Revenues from pre-paid cards are reported under 'Private'.
- 15 Only Voice traffic. Revenues from SMS, MMS, machine-to-machine (reported separately), mobile data traffic and mobile broadband should not be included.
- 16 Excluding revenues from value-added in premium SMS.
- 17 Including revenues from mobile broadband.
- 18 Excluding active pre-paid cards, SMS, MMS, mobile value-added services, interconnection, international roaming abroad, machine-to-machine (reported separately) and group internal revenues. Supplementary charges or other instalment payments for discounted mobile telephones should also be excluded. Do not include revenues from mobile "apps" (applications). Revenues from pre-paid cards are reported under 'Private'.
- 19 Revenues from both subscriptions and traffic.
- 20 State outgoing voice traffic minutes, regardless of whether they are debited or not. Voice traffic minutes from pre-paid cards are reported under 'Private'.
- 21 For service providers/third party operators where network capacity is purchased from a mobile network operator, 'voice traffic' relates to voice traffic that terminates in the same network to which the service provider is connected.
- 22 Calls from pre-paid cards are reported under 'Private'.
- 23 1 Gbyte = 1 000 000 000 bytes
- 24 Traffic from and to pre-paid cards is reported as 'Private'.
- 25 SMS and MMS sent from pre-paid cards are reported under 'Private'.
- 26 This refers to text messages sent from mobile terminals. Also includes text messages sent without being debited per item (those included in subscriptions of the type '3 000 free text messages'). Person-to-person.
- 27 Exclude those service providers that are owned 50 per cent or more by the network operator itself. Include other service providers and MVNOs.
- 28 Including all one-off charges plus fixed and variable charges.
- 29 Refers only to the revenues and traffic minutes for termination of calls payable to the service provider.
- 30 Refers to both national and international incoming traffic.
- 31 Does not include extra data that can be purchased as an add-on service (so called 'data topups') (with or without voice calls), when the amount of data is finished. Report data topups under subscriptions for mobile call and data services.
- 32 EU does also include EU 27 as well as EEA EFTA countries Norway, Iceland and Liechtenstein
- 33 If a number of subscriptions share the amount of data (sometimes referred to as 'family subscriptions') report the total amount of data for the main subscription, and 'less than 1 GB data' for the other subscriptions. Also report subscriptions with variable amount of data as 'less than 1 GB data'. Do not include data topups [31]. Family subscriptions with unlimited amount of data: Report all subscriptions in the family subscription under 'unlimited'

## INTERCONNECTION IN MOBILE NETWORKS

- 1 Relates to gross revenues; i.e. before any set-off.
- 2 Including revenues for termination of calls to the subscribers of any service provider to the extent that these revenues are not payable to the service provider.
- 3 Including traffic minutes for termination of calls to the subscribers of any service provider to the extent that this traffic is not payable to the service provider.
- 4 Please note that traffic that terminates in your mobile network should also be stated here. If you only have one fixed network, or alternatively a mobile network, you should disregard the other type of network.
- 5 Direct connection' relates to such traffic as originates in own network and terminates in another operator's network or own network without being routed through a transit operator.
- 6 Transit' relates to such traffic as originates in own network and is transited in another operator's network in order to then terminate in a third operator's network or own network.

<b>Datakom wholesale</b>	
<b>6</b>	Wholesale high-quality access includes digital leased lines with both dedicated and non-dedicated capacity, with or without quality of service (QoS). A wholesale high-quality access is a connection provided between a fixed network accesspoint at the business customers site and a delivery point where the wholesale customer/operator can take over the transmission and pass it further in its own network. High-quality access are digital leased lines typically with specific requirements regarding quality, availability and/or servicelevels. High-quality access is often used by business customers to connect their multiple sites and for more high-quality internet, telephony and virtual private network connections very often delivered to this customer segment.
<b>7</b>	Revenue from sales of high-quality access to wholesale customers produced either with own passive infrastructure or with leased passive infrastructure. Revenue from sales of high-quality access to retail customers should not be included. Neither should revenue from sales of high-quality access to the own retail business be included.
<b>8</b>	Refers to providing high-quality access with non-dedicated capacity, with or without quality of service (QoS)
<b>9</b>	Refers to revenues from selling high-quality access to the own business. If group internal sales are not separately reported, the value of revenue should be estimated.
<b>10</b>	Revenue from sales of high-quality access to external operators.
<b>Data com end user</b>	
<b>1</b>	Refers to the retail market, i.e. sales made to end users. Wholesale sales, i.e. sales made to operators(refers to both operators within a group and external operators) for onward sale - even after further refinement - must not be included. However, services sold to an own operation for own use (i.e. where one's own operation is the end user) must be included in the retail market.
<b>2</b>	Refers to TDM, PDH and SDH-based leased lines as a separate service.
<b>3</b>	Refers to point-to-point, Ethernet-based, non-overbooked leased lines, based on SHDSL or fibre access as a separate service.
<b>4</b>	IP-VPN relates to the following standards: IPsec VPN, IP MPLS VPN and IP SSL VPN. Access to IP-VPN services can either take place via leased lines or dial-up connections. Costs for dial-up access (ISDN/PSTN) shall be deducted from the revenues.
<b>BLACK FIBRE AND WAVE LENGTH CONNECTIONS</b>	
<b>1</b>	Refers to the retail market, i.e. sales made to end users. Wholesale sales, i.e. sales made to operators(refers to both operators within a group and external operators) for onward sale - even after further refinement - must not be included. However, services sold to an own operation for own use (i.e. where one's own operation is the end user) must be included in the retail market.
<b>2</b>	Only refers to group internal revenues within Sweden.
<b>3</b>	Wavelength' refers to the fact that the optical light in a fibre is divided into wavelengths so that each wavelength functions as a channel.
<b>4</b>	Dark fibre' refers to an optical fibre connection, point-to-point, where the fibre is not lit up, i.e. physical fibre cables without electronic equipment. This refers to the point-to-point connection.

PREMISES CONNECTIONS AND VIRTUAL ACCESS CONNECTIONS	
1	Own infrastructure' refers to infrastructure that you own and also connections owned by an undertaking but sold by another within the same group.
2	Refers to property connections sold or leased to another operator, i.e. as a wholesale product.
3	Relates to access lines sold or leased to another operator, i.e. as a wholesale product.
4	Relates to access lines over which you sell a service to the end user (private or business customers) and where the access line is included as part of this service (e.g. broadband).
5	Layer 2 products refer to digital accesses delivered to wholesale customers who mediate traffic based on layer 2 protocol (OSI model), e.g. Ethernet with MAC addressing.
6	Layer 3 products refer to digital accesses delivered to wholesale customers who mediate traffic based on layer 3 protocol (OSI model), e.g. IP with IP addressing.
7	Resale products refer to digital accesses that can be sold to end customers and where the buying operator only needs to be active in delivering the service, e.g. by generating user accounts and authenticating customers at log-in.
8	For example fees for connecting a fibre line to the end user's home.
9	For example a network fee that the consumer must pay in order to use an internet subscription provided by another operator. If you sell internet subscriptions where such a charge is included in the subscription fee, the revenues should not be reported here but reported in question 35.

## Internet services

- 1 Active subscription' refers to a subscription that has used the access at least once during the last quarter in the period (only applies to customers who do not pay subscription charges). If the customer pays a subscription charge, the customer is deemed to be active if payment is made during the second quarter of 2011. If a tenant-owners' association or the equivalent is an end user, the number of underlying active Internet accesses shall be stated under 'Private' instead of the number of subscriptions. PLEASE NOTE: Here, this only relates to end users of ISPs. Operators that only provide broadband access without an Internet service should not include these customers.
- 2 Local Loop Unbundling; i.e. access for other operators to conventional subscriber lines via the regulated access in the form of LLU (full or shared access).
- 3 For example, pure resale products or products that are more raw, such as 'bitstream products'.
- 4 Mobile subscriptions used for mobile data or M2M should not be reported here.
- 5 Internet access is reached via a property network, i.e. a LAN (Local Area Network), usually based on Ethernet technology. The property network is linked to a public fibre network, for example, an area network. The property network, which may comprise optical fibre cable or copper-based cable, links the individual dwellings/operations with the property node, which in its turn is connected to the area networks.
- 6 Includes e-mail only if this is a part of the fixed charge. Does not refer to revenues from data communications services.
- 7 This refers to both bundled subscriptions that are marketed as an offering with pricelist for the bundled services, and services not marketed together as a special offering, i.e. where an end user buys two or three services separately, perhaps at two different occasions. This does not referer to subscriptions bundled with OTT-services such as Spotify.
- 8 That is, local physical access for other operators to black fibre in fibre access networks, where the leasing operator is reponisble for/owns the transmission equipment.
- 9 For example, transmission products from communication operators or pure resale products.



## TV-services

- 1 The TV subscription can be a contract with households or landlords or also t.ex. bostadsrättsföreingar. The subscription is active if a fee has been paid during the last 3 months in the period.
- 2 If the household has one analogue subscription indirect via the landlord and one digital direct between operator and household, the analogue subscription indirect via the landlord is reported as "analogue cable TV subscription via the landlord" and the digital cable TV subscription direct between operator and household is reported as "Digital cable TV subscription where the operator has contract directly (i.e a direct invoice -relation) with the household, which, in turn, has an analogue cable tv subscription via a land lord". In the case a household has dual cable TV subscriptions on basic package, one analogue and one digital, both indirect via a landlord, only the digital cable TV subscription is reported, to avoid double counting. This business model was used by Tele2 until 2013 and by Telenor from first half year 2014 (after the acquisition of Tele2s cable TV business). Subscriptions via minor cable TV nets and landlords are included in "SMATV" to avoid double counting.
- 3 The subscription is to be viewed as analogue if the signal distributed to the individual household is analogue.
- 4 The subscription is to be viewed as digital if the signal distributed to the individual household is digital.
- 5 Property owner' refers to a contract with a property owner that owns an apartment building or similar associations (eg. housing cooperatives). This means that the property owner is not the same as the household living there.
- 6 A 'LAN network' means a fixed connection (local area network, property network), usually based on Ethernet technology. The LAN is linked to a public fibre network, for example, an area network. Fibrer and fibre-LAN means FTTH (fibre to the home) and FTTB (fibre to the basement)
- 7 The sum "Total number of subscriptions excluding those cable TV subscriptions that also have contracts with property owners" consists of "Total number of subscriptions" minus "Digital subscriptions (in cable TV networks and/or IPTV via fibre) where there is a direct contract (i.e. a billing relationship) with a household which, in turn, also has an analogue subscription via the property owner". This sum is an estimate of the number of households.
- 8 Revenues from provision of TV services, either via a contract directly with the household/end customer or via a landlord or similar.
- 9 Basic packages include all revenues which are attributable to a subscription on a basic package: current subscription expenditure, starting fees, rental or sale of digital TV-boxes and program cards.
- 10 Add-on subscription: A subscription on add-on services such as a package of special digital channels. Include all revenues which are attributable to the add-on subscription: current subscription expenditure, starting fees, rental or sale of digital TV-boxes and program cards (do not include revenues from basic packages). Do not include revenues from transaktionsbased VOD (video on demand) and pay-per-view.

## Bundeling

- 1 This does not include twin cards.