





File ref.: 17-11418

# Instructions for the questionnaire The Swedish Telecommunications Market 2017

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, 2018.







Ref.nr:

#### Questionnaire

# Basis for SMP assessments, The Swedish Telecommunications Market 2017, official statistics on telecommunications operations 2017, and basis for National Accounts

#### Genera

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 infomation 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 2017' report (published in the second quarter 2018 and made available on PTS's website, www.pts.se and on PTS's statistics portal, 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 2017 (Telecommunications Operations 2017) will be published in June 2018 (preliminarily) and made available on Trafikanalys's website, 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 2017' includes 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 2017 and on PTS's statistics portal,

PTS intends to publish information for individual operators as part of the 'Swedish Telecommunications Market 2017 and on PTS's statistics portal, statistik.pts.se. This applies to 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. 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

#### 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

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 14 December 2017 the Board of PTS approved the charges for 2018. These charges are published in the "The Swedish Post and Telecom Authority Regulations on Charges: PTSFS 2017:5, available on the PTS website:

http://www.pts.se/sv/Dokument/Foreskrifter/Avgifter/PTSFS-20175---PTS-foreskrifer-om-avgifter/

#### 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 RECIEVED YOUR QUESTIONNAIRE NO LATER THAN FEBRUARI 20, 2018

#### Contact

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







# **COMMERCIAL OPERATIONS**

# **Questionnaire for**

Basis for SMP assessments, The Swedish Telecommunications Market 2017, official statistics on telecommunications operations 2017, and basis for National Accounts

Question 0
Company/oraganisation name:
Company/organisation registration number:
Contact person:
Telephone:
E-mail:
17 man.
Invoice address:
Website:
Which companies are included in the information that you report regarding the full-year?
Which operations have you acquired since 31 december 2016?
Which operations have you sold since 31 December 2016?







COMMERCIAL OPERATIONS	
Within which area did you have operations in Sweden during 2017?	Yes/No
Fixed call services (also IP telephony):	
Interconnection in fixed networks:	
Mobile call and data services and mobile broadband:	
Internet subscriptions:	
Television services:	
Bundled subscriptions:	
Black fibre and data communications services to operators:	
Black fibre and data communications services to end users:	
Connections to premises and virtual access connections:	

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.







# **COMMERCIAL OPERATIONS**

Contact person for question 1-5: Ludmila Lind , tel.nr: +4670 652 63 66, e-mail: ludmila.lind@scb.se

Question 1: Total operating income[1] in Sweden [SEK 000s] during	~ 2017. W	hole sale a	nd
hardware income is also included:	, =0177		
		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.):			
Other revenues not related to telecommunications:			
Net turnover:			
Other revenues related to telecommunications (rent, licenses, contributions [2], etc.):			
Total operating income:			
Question 2: Investments in own operation[3]in Sweden [SEK 000s]	during 20		
T 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Total	
Total investments in tangible fixed assets:			
Of which within telecommunications operations:			
of which within fixed telephony operations:			
of which within mobile networks (investments in GSM, UMTS and LTE networks			
of which fixed broadband network (including active and passive equipment):			
of which other computers and computer-controlled equipment:			
	•		
Question 3: Number of employees within Sweden in 2017:			
	Men	Women	Total
Average number of employees during 2017:			
of which within telecommunications operations:			
Number of full-time employees on 31 Dec 2017 (35hours per week or more):	1		
of which within telecommunications operations:			
Number of part-time employees on 31 Dec 2017:			
of which within telecommunications operations:			







# **COMMERCIAL OPERATIONS**

Question 4: Revenues from abroad and costs to abroad[4] for teleco	ommunications services [SEK
000s] 2017:	
	Total
Total revenues from abroad for telecommunications services (export):	
of which telephony and data services (fixed and mobile):	
of which other goods and services:	
Total costs to abroad for telecommunications services (import):	
of which telephony and data services (fixed and mobile):	
of which other goods and services:	
Question 5: Total operating expenses in Sweden [SEK 000s] during	<i>2017:</i>
	Total
Total operating expenses[5]:	
of which telecommunications operations total costs:	
of which purchase of goods and material excl. goods for resale:	
<ul> <li>of which purchase of programs and systems for computers:</li> </ul>	
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):	

#### **OPERATION SUBJECT TO NOTIFICATION OBLIGATION**

Questions: please contact anmalningsplikt@pts.se Yearly turnover with subject to notification, used as base for PTS fees regarding the financial year 2017 The turnover is reported in thousand SEK, no space. 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: <a href="http://www.pts.se/en-GB/Industry/Telephony/Notification-of-operators/">http://www.pts.se/en-GB/Industry/Telephony/Notification-of-operators/</a> Question 6: Yearly turnover for the financial year 2017. 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 Specify concerned company/companies in terms of yearly turnover Yearly turnover subject to notification used ass base for PTS fees regarding the financial year 2017, in thousand SEK (excluded internal sales) Total Comments: Question 7: If the turnover for the financial year 2017 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 2017, 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 [6]. Only subscriptions which have generated traffic the last three months. SIP-truncs not included. 31 Dec 2017:

	Private	Business	Total
Subscriptions with both telephony and traffic[7]:			
of which via WLR[8]:			
of which via PSTN access[9]:			
of which via ISDN access[10]:			
of which via xDSL access:			
of which via cable television access:			
of which via LAN network access[11]:			
of which via other ip-based access [14]:			
Active pre-selection subscription (not customers via WLR[12] ([8])	):		
Total number of subscriptions:			
of which with LLU[13]:			
n addition			
Subscriptions where call charges are included in a			
Subscriptions where can charges are included in a			
fixed monthly fee[15]:  Comments:			
fixed monthly fee[15]:  Comments:  Question 9: Number of subscriptions of IP-telefony (xDS) access an other IP-based access) which are not used as of subscriptions means here suscriptions which have not generally access.	f 31 December 2	2017. Not use	ed
Comments:  Question 9: Number of subscriptions of IP-telefony (xDS) access an other IP-based access) which are not used as or subscriptions means here suscriptions which have not generally subscriptions which have not generally subscr	f 31 December 2	2017. Not use	ed
fixed monthly fee[15]:	f 31 December 2 nerated traffic (1	2017. Not use incoming or	ed outgoing
Comments:  Question 9: Number of subscriptions of IP-telefony (xDS) access an other IP-based access) which are not used as of subscriptions means here suscriptions which have not generalls) during the last 3 month period.  Total number of IP-telephony subscriptions (used): Number of not used ip-telephony subscriptions	f 31 December 2 nerated traffic (1	2017. Not use incoming or	ed outgoing
Comments:  Question 9: Number of subscriptions of IP-telefony (xDS) access an other IP-based access) which are not used as of subscriptions means here suscriptions which have not generalls) during the last 3 month period.  Total number of IP-telephony subscriptions (used):	f 31 December 2 nerated traffic (1	2017. Not use incoming or	ed outgoing

# **FIXED CALL SERVICES** Question 10: Revenues (SEK 000s) for fixed telephony (PSTN and ISDN, IP-based and internetbased telephony) SIP-truncs not included. As of 31 Dec 2017: Private **Business** Total Subscription charges[16]: 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 fixednetworks[17]: Calls from fixed networks to mobile networks: International calls: Other telephony services[18][19]: Total revenues for fixed telephony from end users: 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 2017: **Private Business** Total Calls from national fixed networks to national fixed networks. Exclude calls to mobile networks: Calls from fixed networks to mobile networks: International calls: Other telephony services:[18]: Total number of outgoing traffic minutes for fixed telephony: 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 2017: **Private Business** Total Calls from national fixed networks to national fixed networks. Exclude calls to mobile networks: Calls from fixed networks to mobile networks: International calls: Other telephony services[18]: Total number of outgoing calls for fixed telephony:

of which calls from IP-based telephony:

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 [20](SEK 000s) in fixed networks (incl. group internal revenues, excl. revenues from interconnection within own network) during 2017:  Total of which group internal  Termination of incoming traffic from national operators' networks[21]:
Do you provide termination of incoming traffic to own fixed networks?    Question 14: Interconnection revenues [20](SEK 000s) in fixed networks (incl. group internal revenues, excl. revenues from interconnection within own network) during 2017:    Total of which group internal of incoming traffic from national operators' networks[21]:   of which revenues from Internet traffic:
Question 14: Interconnection revenues [20](SEK 000s) in fixed networks (incl. group internal revenues, excl. revenues from interconnection within own network) during 2017:  Total of which group internal  Termination of incoming traffic from national operators' networks[21]:  of which revenues from Internet traffic:  Termination of international incoming traffic:  Interconnection revenues from originated traffic[22]:  Total interconnection revenues for fixed telephony: of which revenues frompacket-switched interconnection[23]:  Question 15: Number of interconnection minutes (in thousands) in fixed networks (incl. group internal traffic, excl. interconnection within own network) during 2017:  Total of which group internal  Number of terminated traffic minutes from national operators' networks[20]:
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Number of terminated traffic minutes from national operators' networks[20]:
networks[20]:
of which group internal
or which group internal
of which number of traffic minutes from Internet traffic:
Number of terminated traffic minutes from international incoming
traffic:
Number of traffic minutesfrom originated traffic[22]:
Total number of
interconnection minutes:
of which no. of min. viapacket-switchedinterconnection[23]:
Question 16: Number of terminated traffic minutes from own customers (incl. terminated traffic
within own network) during 2017:
Total
, i otal
Number of terminated traffic minutes from own customers:

# INTERCONNECTION IN FIXED NETWORKS

		Termination in other operator	· <del>-</del>
State stakeholder	fixed network	mobile network	Total
Total			
Question 18: Originated traffic minutes (in thou	,	r via a transi	t
Question 18: Originated traffic minutes (in thou	27] during 2017:	r via a transit	n
Question 18: Originated traffic minutes (in thou operator[26] onward to a terminating operator[	27] during 2017:	Termination in	n
Question 18: Originated traffic minutes (in thou operator[26] onward to a terminating operator[	ti fixed	Fermination in hird operator mobile	n 's
Question 18: Originated traffic minutes (in thosoperator[26] onward to a terminating operator[5].  State stakeholder	ti fixed	Fermination in hird operator mobile	n 's

Total

## MOBILE CALL AND DATA SERVICES AND MOBILE BROADBAND

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

Question 19: Number of subscriptions [28] for mobile telephony and mobile data (excludes customers of service providers that are not owned by an operator; i.e. indirect customers [29]), distributed by form of subscription and rate, 31 Dec 2017:

	Private	Business	Total
Number of mobile telephony subscriptions [28] for voice only [30]:			
of which active pre-paid cards (3-month rule)[31]:			
of which contract subscriptions:			
Number of mobile telephony subscriptions [28] for voice and mobile data[32],[33]:			
of which active pre-paid cards (3-month rule)[31]:			
of which contract subscriptions:			
Number of mobile subscriptions[28] for mobile data only [32], [35]:			
of which active pre-paid cards (3-month rule)[31]:			
of which contract subscriptions:			
Total number of subscriptions [28] for mobile telephony and data at the end of the period:			
Number of subscriptions that have used services in GSMnetworks (3-month rule):			
Number of subscriptions that have used			
services in UMTS networks (3-month rule)[36]:			
Number of mobile subscriptions which have used services in LTE networks[37]:			

Question 20: Number of active SIM-cards ith a geographic telephone number 31 Dec 2017:

	Private	Business	Total
Number of mobile subscriptions with a geographic			
telephone number linked to the SIM card [38]:			

Question 21: Total revenues (SEK 000s) from end users for mobile call and data services [41] during 2017:

Charges	Private	Business	Total
Fixed charges			
Subscription charges[42]:			
Variable charges			
Total revenues for mobile call and data			
services from end users:			
Of which revenues from contract subscriptions:			
Of which revenues from pre-paid cards:			
Of which revenues from mobile data (routers, dongels but no voice)			

# MOBILE CALL AND DATA SERVICES AND MOBILE BROADBAND

Question 22: Number of outgoing voice traffic minutes (in thousands) from end users for mobile telephony (excluding data traffic and international roaming) during 2017 [48]:

	Private	Business	Total
Outgoing voice traffic from mobile telephones to			
national mobile networks:			
of which within own network[49]:			
Outgoing voice traffic from mobile telephones to			
national fixed networks:			
International outgoing voice traffic:			
Outgoing voice traffic from mobile telephones to other			
call services:			
Total number of voice traffic minutes for			
mobile telephony:			
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):			

Question 23: Number of outgoing mobile calls[50] (in thousands) from end users (excluding international roaming) during 2017:

	Private	Business	Total
Outgoing calls from mobile telephones to national mobile networks:			
of which within own network[49]:			
Outgoing calls from mobile telephones to national fixed networks:			
International outgoing calls:			
Outgoing calls from mobile telephones to other call services:			
Total number of calls for mobile telephony:			
of which calls from GSM networks: of which calls from UMTS networks:			
of which calls from LTE networks (VoLTE):			

Question 24: Outgoing and incoming traffic from end user international roaming) 2017:	s for mobile d	lata services	(excluding
Outgoing (upstream) mobile data traffic (Gbyte):			
Incoming (downstream) mobile data traffic (Gbyte):			
Total quantity of mobile data traffic (Gbyte):			

of which from subscriptions on mobile broadband only:		
of which from subscriptions for both voice and mobile data [34]:		

of which traffic in 4G network:

# MOBILE CALL AND DATA SERVICES AND MOBILE BROADBAND Question 25: Number of text messages (in thousands) (exklusive internationall roaming) and MMS (in thousands) sent during 2017[53]: **Private Business** Total Number of text messages sent from mobiletelephones [54]: of which within own network[56]: Number of SMS send from computer system or application Number of MMS sent from mobile telephones: M2M = machine-to-machine Question 26: Number of M2M subscriptions [39] for mobile telephony, SMS and mobile data (excludes customers of service providers that are not owned by an operator; i.e. indirect customers.) During 2017: Total Number of M2M subscriptions [39],[40]: Revenues from M2M subscriptions [47] (SEK 000s): Number of SMS from M2M subscription (mashine to mashine) (thousands) Total quantity of mobile data traffic from M2M subscriptions (Gbyte): Leased networks for MVNO/Reseller business Question 27: Leasing of network capacity for mobile call and data services to service providers [55](Reseller and MVNO) during 2017: Total Number of end users: Number of outgoing traffic minutes from mobile telephones (in Outgoing and incoming traffic for mobile data services (Gbyte): Revenues from leased networks for MVNO/Reseller business [56] for mobile call and data services (SEK 000s): Revenues from termination [57] of incoming [58] call traffic (SEK 000s): Number of traffic minutes from termination [57] of incoming [58] traffic: Question 28: Which service providers [55] (Reseller and MVNO) leased network capacity for mobile call, and data services to end users during 2017? One company per row 2 3 4 5 6 7 8 9

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INTERCONNECTION IN MOBILE NETWORKS			
Question 29: Termination of incoming traffic to own mobile	le network d	luring 2017:	
			Yes/No
Do you currently provide termination of incoming traffic to your own	mobile netwo	ork?	
Question 30: Interconnection revenues [59] (SEK 000s) in nevenues during 2017:	nobile netwo	orks incl. gr	oup internal
			Total
Termination of incoming [60] traffic from the networks of national operators:			
of which group internal revenues:			
Termination of international incoming traffic:			
From mobile data traffic:			
Termination of incomming M2M trafic:			
Total interconnection revenues for			
mobile telephony:			
Question 31: Interconnection minutes in mobile networks traffic during 2017:	in thousand	ds) incl. gro	up internal
			Total
Number of terminated call minutes [61] from national operators' networks:			
of which group internal traffic:			
Termination of international incoming traffic:			
Total interconnection for mobile			
telephony:			
	•	•	
Question 32: Number of terminated traffic minutes (thousa Terminated traffic within own network) during 2017:	ands) from o	own custom	ers (incl.
			Total
Number of terminated traffic minutes from own customers:			
Question 33: Originated traffic minutes (in thousands) in o	wn mobile	network [62	] going via
direct connection[63] during 2017:			
		Termination	in
	aı	nother opera	tor's
State stakeholder	fixed network	mobile network	Total

INTERCONNECTION IN MOBILE NETWORKS				
Question 34: Originated traffic minutes (in thousands) in own mobile network going via a transit operator[64] on to a terminating operator[62] during 2017:				
		Termina	ation in third	operator's
State stakeholder		fixed network	mobile network	Total
Total				

# **INTERNET SUBSCRIPTIONS**

Question 35: Number of active subscriptions [83] for Internet service (access) distributed by form of access downstream and upstream, 31 Dec 2017:

access downstream and apstream, 31 Dec 2017.	Private	Business	Total
PSTN (Modem up to 56 kbps):	12.		
Satellite:			
xDSL:			
of which above 144 Kbps and below 2 Mbps:			
of which 2 Mbps and above (and below 10 Mbps):			
of which 10 Mbps and above (and below 30 Mbps):			
of which 24 Mbps and above (and below 30 Mbps):			
of which 30 Mbps and above (and below 100 Mbps):			
of which VDSL 30 Mbps and above (and below 60 Mbps):			
of which VDSL 60 Mbps and above (and below 100 Mbps):			
of which 100 Mbps and above:			
of which xDSL end users connected via LLU (full access/line)[84]:			
of which xDSL end users connected via LLU (shared access/line			
[84]:			
of which xDSL end users connected via other wholesale products			
[85]: Cable television:			
of which above 144 Kbps and below 2 Mbps:			
of which 2 Mbps and above (and below 10 Mbps):			
of which 10 Mbps and above (and below 30 Mbps):			
of which 30 Mbps and above (and below 100 Mbps):  of which 100 Mbps and above (and below 250 Mbps):			
of which 250 Mbps and above (and below 500 Mbps):			
of which 500 Mbps and above:			
Fixed radio access[86]:			
of which above 144 Kbps and below 2 Mbps:			
of which 2 Mbps and above (and below 10 Mbps):			
of which 10 Mbps and above (and below 30 Mbps):			
of which 30 Mbps and above (and below 100 Mbps):			
of which 100 Mbps and above:			
Fibre and Fibre-LAN[87]:			
of which above 144 Kbps and below 2 Mbps:			
of which 10 Mbps and above (and below 30 Mbps):			
of which 30 Mbps and above (and below 100 Mbps):			
of which 100 Mbps and above (and below 250 Mbps):			
of which 250 Mbps and above (and below 500 Mbps):			
of which 500 Mbps and above (and below 100 Mbps):			
of which 1000 Mbps and above:			
of which are fiber and fiber-LAN end users connected over leased			
dark fiber in the access network			
of which fibre and fibre-LAN end users connected via other			
Other fixed Internet access (state what under 'Comments'):			
of which above 144 Kbps and below 2 Mbps:			
of which 2 Mbps and above (and below 10 Mbps):			
of which 10 Mbps and above (and below 30 Mbps):			
of which 30 Mbps and above (and below 100 Mbps):			
of which 100 Mbps and above:			
Total number of active subscriptions:			

INTERNET SUBSCRIPTIO	NS			
of which upstream above 144 Kbps and below 2 Mbps:				
of which upstream above 2 Mbps and below 10 Mbps:				
of which upstream above 10 Mbps and below 30 Mbps:				
of which upstream above 30 Mbps and below 100 Mbps:				
of which upstream 100Mbit/ and above and below 250 Mbit/s:				
of which upstream 250Mbit/ and above:				
of which upstream other speed:				
Total nuber of active subscriptions (upstreams):				
Comment to the answer:		•		
Question 36: Revenues (SEK 000s) from end users for active subs	anintiana [00]	for Internat		
(access), regardless of form of access (excluding mobile broadba				
during 2017:	na ana group	inicinal icve	.nucs)	
during 2017.	Duitanto	Dunings	Total	
	Private	Business	Total	
xDSL (incl. one-off charges, and fixed and variable charges):				
Cable television (incl. one-off charges, and fixed and variable charges):				
Fibre and fiber-LAN (incl. one-off charges, and fixed and variable				
charges)[87]:				
Dial-up access (incl. one-off charges, and fixed and variable charges):				
Other forms of access (Excl. mobile broadband, incl.one-off charges, and				
fixed and variable charges):				
Total revenues for Internet subscriptions:				
Total revenues for internet subscriptions.				
operator and, for example, landlords or housing cooperatives, rate Only bundled subscriptions where fixed broadband is included a		•		
		Subsc	riptions	
xDSL - subscriptions which are group connections				
of which number of subscriptions which are bundled:				
Cable television - subscriptions which are group connections:				
of which number of subscriptions which are bundled:				
Fibre and Fibre-LAN - subscriptions which are group connections of which number of subscriptions which are bundled:				
Total number of internet subscriptions which are group connections:				
Total number of internet subscriptions which are group connections				
also bundled:				
Comment to the answer:				
Question 38 is only to be answerd by Telia Company, Telenor, ComHem, Bahnhof, Bredband 2, Alltele Privat and Alltele företag.				
Question 38: Data traffic, up streams and downstreans, for all fixe	ed broadband	l subscription	ns for the full	
year 2017 (in Gbyte). Do not include data traffic for IP-telephon		-		
estimated, please make a note in the comments field.				
	Data traffic	whole year 20	017 (Ghvte)	
xDSL:	Data traiile	Trible year Z	J. (Jayte)	
Cable television:				
Fibre and Fibre-LAN:				
Total amount of data:				
Comment to the answer:				

# **TELEVISION SERVICES**

Questions 39 and 40 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 39: Number of active [89] subscription contracts on basic packages [90] concluded with households/end users or landlords 31 Dec 2017:

concluded with households/end users or landlords 31 Dec 2017:	
	Total
Analogue television in cable network [90][91]:	
of which through contracts with landlord [90] [93]:	
of which contracts directly with households without subscription contracts with landlords [90]:	
Digital basic packages in the cable network [90][92]:	
of which through contracts with landlord [90] [93]:	
of which contracts directly with households without subscription contracts with landlords [90]:	
Digital television in cable network where you have analogue 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:	
IPTV in fibre or fibre LAN [94]:	
of which through contracts with landlord [93]:	
of which contracts directly with households without subscription contracts with landlords:	
Digital television in IP-TV network where you have digital contracts directly (i.e	
a direct invoice -relation) with households which, in turn, have contracts of basic packages via landlords.	
lptv via xDSL:	
IPTV via other infrastructure (please specify under 'Comments'):	
Television via terrestrial network:	
Television via satellite:	
Total number of subscriptions:	
Total number of automintions analytics there are Indian	
Total number of subscriptions excluding those cable TV subscriptions that also have contracts with landlords [95]:	

#### **TELEVISION SERVICES**

Question 40: Revenues (SEK 000s) for the provision of television services to households [96] in the form of subscriptions for a basic package [97], package options and channel options [98] and other revenues from television services during 2017:

	Basic package [97]	Package options and channel options[98]
Analogue television in cable network [91]:		
of which through contracts with landlords[93]:		
of which revenues from households:		
Digital television in cable network[92]:		
of which revenues from households:		
IPTV in fibre or fibre LAN [94]:		
of which through contracts with landlords [96]:		
of which revenues from households:		
Iptv via xDSL		
IPTV via other infrastructure (please specify under 'Comments'):		
Television via terrestrial network:		
Television via satellite:		
Total revenues:		
Comment to the answer:	•	

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 41: 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 2017:

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

#### **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. New definition!

ed subscription Private Business Total  y and fixed broadband:
and fived broadhand:
, and fixed broadband:
and incu produpand.
y and television:
y and mobile telephony/mobile broadband:
ny/mobile broadband and fixed broadband:
ny and mobile broadband:
ny/mobile broadband and television:
fixed broadband:
ions; state what under comments:
of double play end users:
ee services:
/ and fixed broadband and television:
y and fixed broadband and mobile telephony/mobile
/ and mobile telephony/mobile broadband and
ny/mobile broadband and fixed broadband and
ions; state what under comments:
of triple-play subscriptions:
y, four services
and fixed broadband and television and mobile
le broadband:
ions; state what under comments:
of quadruple play subscriptions: ne answer:

## **BLACK FIBRE AND DATA COMMUNICATIONS SERVICES TO OPERATOR**

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

pnone +46 8 678 55 00		1	
Question 43: Revenues (SEK 000s) for wavelength [65] connections for whe customers [67] in Sweden during 2017	olesale		
customers [07] in oweden during 2017	Total		
Total revenues for wavelength connections:			
of which group internal revenues[66]:		]	
Question 44: Revenues (SEK thousands) from dark fibre connections [68]	for wholesale	]	
customers[65] within Sweden during 2017:	01 //1101 <b>0</b> 0 <b>010</b>		
	Total		
Total revenues for dark fibre connections of which group internal revenues[66]:			
of Whot group mondification			
Question 45: Number of dark fibre connections [68] for wholesale custome Sweden 31 Dec 2017:	rs [65] in		
	Total		
Total number of dark fibre connections			
of which group internal leased lines:			
WHOLESALE HIGH-QUALITY ACCE  The questions in this section are needed for the SMP analysis regarding high-quality		et 4. If you d	lo not sell
digital leased lines typically demanded by business customers with specific requirer and/or servicelevels. High-quality access is often used by business customers to co high-quality internet, telephony and virtual private network connections which are segment. Wholesale high-quality access includes digital leased lines with both dedic or without quality of service (QoS). A wholesale high-quality access is a connection accesspoint at the business customers site and a delivery point where the wholesal transmission and pass it further in its own network. Sales of high-quality access for in the bellow reported figures. If you have any questions or would like to give u Lars-Erik Axelsson (lars-erik.axelsson@pts.se) or Andreas Wigren (andreas.wigrend)	nnect their multoften delivered atted and none- provided betwee customer/ope mobile backhas your point of	tiple sites and to this custoned dedicated case a fixed no can tall should no view, please	nd for more omer operation of the control of the co
Question 46: Revenues (in thousand SEK) from sales of high quality access in Sweden as of 31st of December 2017:	s [X1] to who	lesale custo	omers[X2]
	Total	Internal sales[X4]	External sales[X5]
Revenues from sales of TDM-based (SDH/PDH) high-quality accesses:			
Revenues from sales of Ethernet-based [X3] high-quality accesses			
Revenues from sales of other types of digital high-quality accesses:			
Question 47: Revenues (in thousand SEK) reported in Question 48 split in [X6] as of 31st of December 2017:	to underlying	access infr	astructure
	Total	Internal sales[X4]	External sales[X5]
Revenues from sales of high-quality access based on copper:			
Revenues from sales of high-quality access based on fibre:			
Revenues from sales of high-quality access based on radio:			

Revenues from sales of high-quality access based on cable-tv:

# BLACK FIBRE AND DATA COMMUNICATIONS SERVICES TO END-USER

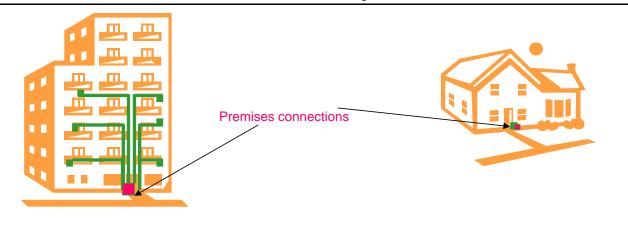
If you have questions regarding question 46 - 48, please contact Lars-Erik Axelsson, phone +46 8 678 55 00

Question 48: Revenues (SEK 000s) from network services to end users[69] in Sweden	during 2017:
	Total
Digital SDH-based [70] leased lines to end users[69]:	
Digital Ethernet-based [71] leased lines to end users[69]:	
Analogue line capacity for end users:	
Other refined network services to end users (please specify under 'comments'):	
IP VPN[72]:	
Dark fibre for end users[68]:	
Wavelengths to end users[67]:	
Total revenues:	
Comment to the answer:	
Question 49: Number of national, installed ports/leased lines for end users[69], 31 De	ec 2017:
	Total
Number of digital SDH-based[70] leased lines to end users[69]:	
Number of digital Ethernet-based[71] leased lines to end users[69]:	
Number of national analogue leased lines for end users:	
IP VPN (number of ports)[73]:	
Number of ports for other refined network services for end users (please specify under 'comments'):	
Dark fibre for end users[68]:	
Wavelengths for end users[67]:	
Total:	
of wich with a downstream capacity of at least 100Mbps:	
Comment to the answer:	
Question 50: Number of end users [68] that purchase dark fibre and/or wavelength pr Dec 2017:	oducts[67], 31
	Total
How many end users purchase dark fibre from you based on the fibre network that you own?	
How many end users purchase wavelength products from you?:	

#### PREMISES CONNECTIONS AND VIRTUAL ACCESS CONNECTIONS

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

To measure the expansion of network infrastucture, PTS need information about which companies and other players which owns network infrastructure to the premises (residental as well as commercial buildings) och the extent of the owning.

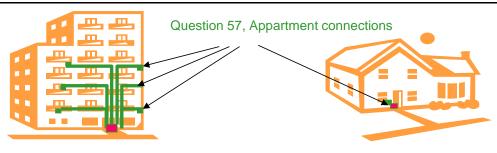


In order to be able to measure the extent of infrastructure available for broadband, PTS needs to assess which operators own network infrastructure extending up to properties (private as well as business properties) in addition to the extent of such ownership.

	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:	
of which sold to another operator:	
of which for own end users:	
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:	
Total number of property connections in own net	
infrastructure:	

## PREMISES CONNECTIONS AND VIRTUAL ACCESS CONNECTIONS

Below qustion is to be answerd if you have registred that you own network infrastructure in question 51.



Number of appartment connections that you reach via the property connections mentionend in the previous question.

Question 52: State the number of appartments that you reach via the connections reported in the previous question, and how many of those that you lease to operators[76] and end users[77] respectively, 31 Dec 2017:

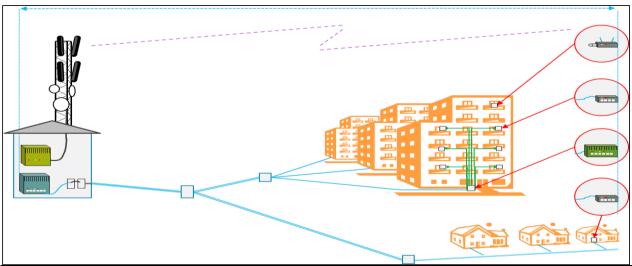
	Total
Metallic (refers only to twisted copper pairs and mainly to be answered by Telia Company):	
of which for leasing to operators (used or unused):	
of which for own end users (used):	
of wich passive (ie. either leased to operator or own end user):	
Fibre- and fibre-LAN:	
of which for leasing to operators (used or unused):	
of which for own end users (used):	
of wich passive (ie. either leased to operator or own end user):	
Coaxial cable - cable television:	
of which for leasing to operators (used or unused):	
of which for own end users (used):	
of wich 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 wich 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 wich passive (ie. either leased to operator or own end user):	
Total number of appartment connections:	

#### 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 braken 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 53: Indicate the nuber 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 2017:

	Total
Virtual access lines connecting end users over copper pair (xDSL)	
of which activated for your own end customers:	
of which activated and sold to wholesale customers:	
of which service resold to end customers [80]:	
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).	
of which activated for your own end customers:	
of which activated and sold to wholesale customers:	
of which service resold to end customers [80]:	
Virtual accesses via coaxial cable (cable TV network):	
of which activated for your own end customers:	
of which activated and sold to wholesale customers:	
of which service resold to end customers [80]:	
Virtual accesses via other infrastructure.	
Please indicate type of passive network and transmission medium in comments:	
of which activated for your own end customers:	
of which activated and sold to wholesale customers:	
of which service resold to end customers [80]:	
Total number of active virtual accesses:	
Comment to the answer:	

Ducts	
If you have questions regarding ducts, please contact Johan Viksten, tel 08	-678 55 00
The purpose of these questions is to collect and update the information on (suitable for electronic communications services) in Sweden. The reason is (2016:534) which came into force in July 2016. The information is also collabligation of ducts in the SMP decision for market 3a (Market for wholesale provided at a fixed location) from 2015.	the new law ected for
Question 54: Do you, or any company that you own, own ducts suitable for 31 December 2017? Ducts is referred to as tunnels, culverts or poles, which or suitable for a line.	
Yes	
No	
Other, specify in the comment	
Comment to the answer:	
Question 55. Specify how many km of ducts suitable for broadband as of 31	

you own. If the length is estimated, please specify this in the comment. Count for only one pipe for parallel ducts. If the ducts are on both sides of a road, then both should be counted for.

Number of km:

Of which km which could be rented by others

Do not know

Comments:

Question 56: Do you let out ducts for broadband to other operators? If yes, how many km as of 31 December 2017:

Yes, we let out ducts

Number of km

No, but we have possibility to let out but have not yet recieved any requests

No

Comments:

Question 57: Do you rent ducts for broadband from other operators? If yes, how many km? As of 31 December 2017

Yes
Total km:
No

Comments:

#### **COMMERCIAL OPERATIONS**

- 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.
- 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.
- 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.

#### **FIXED CALL SERVICES**

- 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.
- 7 Relates to subscriptions that includes both telephony access and traffic (that is pre-selected subscriptions excluded)
- **8** Wholesale line rental. Relates to resale under agreements concluded with Telia Company, both prior to and after 18 May 2005.
- 9 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.
- 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.
- 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.
- 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.
- Local Loop Unbundling, dvs. tillträde för andra operatörer till konventionella abonnentledningar via det reglerade tillträdet i form av LLUB (fullt eller delat tillträde).
- 14 Refers to IP-based telephony subscriptions where the form of access is unknown.
- 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.
- 16 Excluding subscription charges from xDSL, fixed charges for value-added services and supplementary services.
- 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.
- 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.
- 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.

#### INTERCONNECTION IN FIXED NETWORKS

- 20 Including fixed charges. Relates to gross revenues, i.e. before any set-off.
- 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.
- 22 Does not relate to end user traffic.
- Interconnection that is exchanged with other operators via connections with packetswitched technology (usually IP technology) and that does not occur via circuit-switched interconnection connections.
- 24 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.
- 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.
- 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.
- 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**

- "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.
- 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.
- 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 peridod for which subscription charges have not been paid during the last quarter of the period.
- 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'.

32

- 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.
- 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.
- 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 payed during the last three months in the period. The subscription must not have generated any voice minutes.
- 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.
- 37 LTE (Long Term Evolution). Also called 4G, fourth generation mobile networks.
- 38 Refers to mobile subscriptions with a fixed network number connected to SIM card as an add-on service.
- 39 M2M = machine-to-machine. M2M subscriptions are subscriptions on services on communication between mashines 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).
- Customers of service providers that are at least 50 per cent owned by the network operator itself are considered to be directly connected customers.
- 41 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'.

- Exclude additional fees or other instalment payments for discounted mobile telephones (so called 'handset revenues'). Revenues from pre-paid cards are reported under 'Private'.
- 43 Only Voice traffic. Revenues from SMS, MMS, machine-to-machine (reported separately), mobile data traffic and mobile broadband should not be included.
- **44** Excluding revenues from value-added in premium SMS.
- 45 Including revenues from mobile broadband.
- 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'.
- 47 Revenues from both subscriptions and traffic.
- State outgoing voice traffic minutes, regardless of whether they are debited or not. Voice traffic minutes from pre-paid cards are reported under 'Private'.
- 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.
- **50** Calls from pre-paid cards are reported under 'Private'.
- **51** 1 Gbyte = 1 000 000 000 bytes
- **52** Traffic from and to pre-paid cards is reported as 'Private'.
- 53 SMS and MMS sent from pre-paid cards are reported under 'Private'.
- 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.
- Exclude those service providers that are owned 50 per cent of more by the network operator itself. Include other service providers and MVNOs.
- 56 Including all one-off charges plus fixed and variable charges.
- 57 Refers only to the revenues and traffic minutes for termination of calls payable to the service provider.
- 58 Refers to both national and international incoming traffic.

#### **INTERCONNECTION IN MOBILE NETWORKS**

- **59** Relates to gross revenues; i.e. before any set-off.
- 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.
- 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.
- 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.
- 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.
- 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.

#### Datakom wholesale

- Refers to the wholesale market, i.e. the sales made to stakeholders (refers to both operators within a group and external operators) for onward sale or processing even after further refinement. Sales made to end users (i.e. retail) must not be included. Nor should services sold to one's own operation for own use (i.e. where one's own operation is the end user) be included in the wholesale market.
- Only refers to group internal revenues within Sweden.
- Wavelength' refers to the fact that the optical light in a fibre is divided into wavelengths so that each wavelength functions as a channel.
- Dark fibre' refers to an optical fibre connection where the fibre is not lit up, i.e. physical fibre cables without electronic equipment.

#### Data com end user

- 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.
- **70** Refers to TDM, PDH and SDH-based leased lines as a separate service.
- 71 Refers to point-to-point, Ethernet-based, non-overbooked leased lines, based on SHDSL or fibre access as a separate service.
- 72 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.
- 73 Only ports with a termination point with an end user should be included.

#### PREMISES CONNECTIONS AND VIRTUAL ACCESS CONNECTIONS

- Own infrastructure' refers to infrastructure that you own and also connections owned by an undertaking but sold by another within the same group.
- **75** Refers to property connections sold or leased to another operator, i.e. as a wholesale product.
- 76 Relates to access lines sold or leased to another operator, i.e. as a wholesale product.
- 77 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).
- 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.
- Type Taylor 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.
- 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.
- 81 For example fees for connecting a fibre line to the end user's home.
- For example a network fee that the consumer must pay in order to use an interent 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

- 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.
- 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).
- **85** For example, pure resale products or products that are more raw, such as 'bitstream products'.
- 86 Mobile subscriptions used for mobile data or M2M should not be reported here.
- 87 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.
- 88 Inkluderar e-post endast då detta ingår i den fasta avgiften. Avser inte intäkter från datakommunikationstjänster.

#### **TV-services**

- 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.
- 90 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.
- The subscription is to be viewed as analogue if the signal distributed to the individual household is analogue.
- The subscription is to be viewed as digital if the signal distributed to the individual household is digital.
- Property owner' refers to a contract with a propery owner that owns an apartement building or similar associations (eg. housing cooperatives). This means that the property owner is not the same as the household living there.
- 94 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)
- 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.
- **96** Revenues from provision of TV services, either via a contract directly with the household/end customer or via a landlord or similar.
- 97 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.
- 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

'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 customer buys two or more services separately, may be on different occasions. Do not include OTT services like Spotify and Skype.

	1 oot notes	
Datacom - wholesale		
X1	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 very 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.	
X2 X3	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.  Revenue from sales of high-quality access with none-dedicated capacity, with or without	
λJ	quality of service (QoS).	
X4	Number of high-quality access sold to the own business.	
X5	Revenue from sales of high-quality access to external operators.	
X6	When a high-quality access is delivered over several and distinct netinfrastructures, the revenue-figures generated by the access infrastructure are of interest and should be reported in this enquirey.	
<b>X7</b>	Number of high-quality access sold to the own business.	
X8	Number of high-quality access sold to the external operators.	