



Digital Economy and Society Index (DESI) 2020

Use of internet services

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Use of internet services

Citizens with an internet connection and the necessary digital skills to take advantage of it can engage in a wide range of online activities. Although already 85% of citizens used the internet in 2019, prior to the COVID-19 pandemic, the current crisis may have the positive impact of increasing further the number of internet users and their interactions online. This dimension of the DESI measures how many people use the internet and what activities they do online. Activities include the consumption of online content (e.g. entertainment such as music, movies, TV or games, obtaining media-rich information or engaging in online social interaction), using modern communication activities (e.g. taking part in video calls), and transaction activities such as online shopping and banking.

Table 1 Use of internet services indicators in DESI

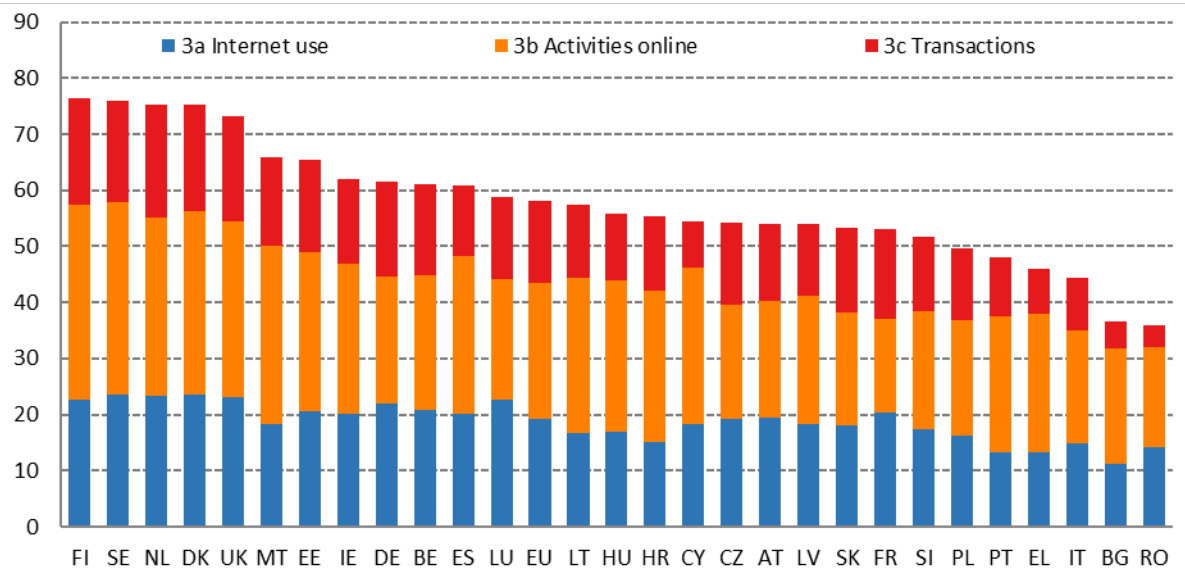
	EU	
	DESI 2018	DESI 2020
3a1 People who have never used the internet	13%	9%
% individuals	2017	2019
3a2 Internet users	81%	85%
% individuals	2017	2019
3b1 News	72%	72%
% internet users	2017	2019
3b2 Music, videos and games	78%	81%
% internet users	2016	2018
3b3 Video on demand	21%	31%
% internet users	2016	2018
3b4 Video calls	46%	60%
% internet users	2017	2019
3b5 Social networks	65%	65%
% internet users	2017	2019
3b6 Doing an online course	9%	11%
% internet users	2017	2019
3c1 Banking	61%	66%
% internet users	2017	2019
3c2 Shopping	68%	71%
% internet users	2017	2019
3c3 Selling online	22%	23%
% internet users	2017	2019

Source: DESI 2020, European Commission.

1. Use of internet services in 2019

People in the EU engage in a wide range of online activities; however, there are still large disparities across EU Member States regarding the use of internet services. Finland, Sweden, the Netherlands and Denmark have the most active internet users, followed by the UK, Malta, Estonia and Ireland. Conversely, Romania, Bulgaria and Italy are the least active. Ireland and Spain were the Member States that registered the largest improvement in this dimension compared with the previous edition (up 7 and 6 percentage points respectively). They were closely followed by Belgium. Hungary and Finland, which also made significant progress in comparison to their results in the 2019 edition of DESI (+5 percentage points).

Figure 1 Use of internet services (Score 0-100), 2020



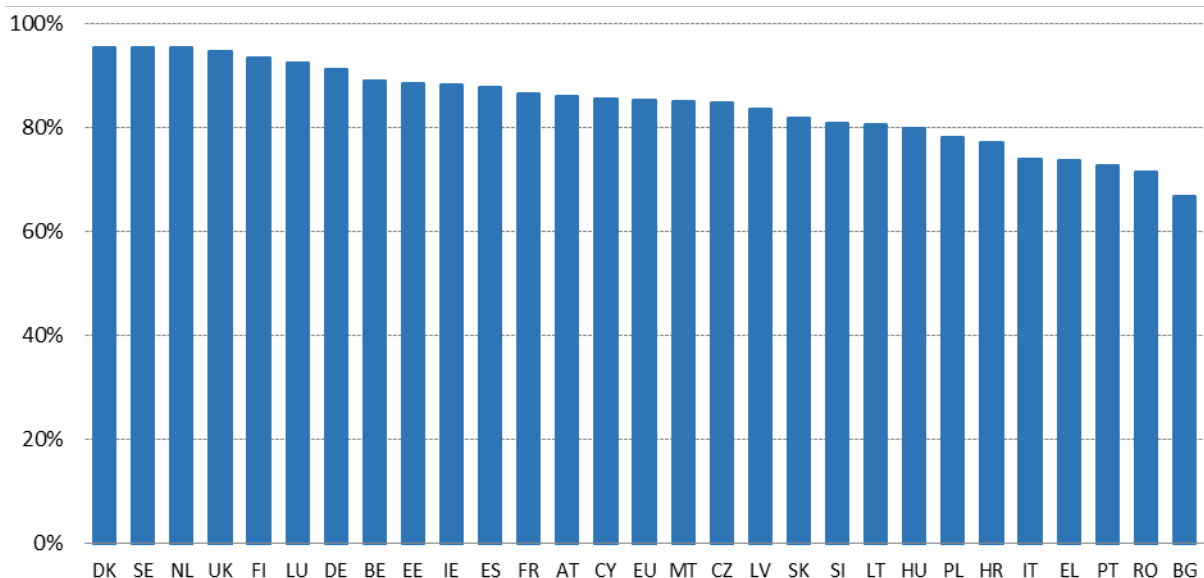
Source: DESI 2020, European Commission.

2. Regular internet users

In Member States such as Denmark, Sweden and the Netherlands, the vast majority of the population (95%) uses the internet at least once a week. Noteworthy increases in comparison to last year were recorded in Ireland (+8 percentage points) Spain and Hungary (+5 percentage points). However, in some Member States, over one quarter of the population still does not regularly go online (33% of Bulgarians and 28% of Romanians).

The most active internet users are young individuals (97% of those aged between 16 and 24 are regular internet users), those with a high level of formal education (97%) and students (98%).

Figure 2 Regular internet users – at least once a week (% of individuals), 2019



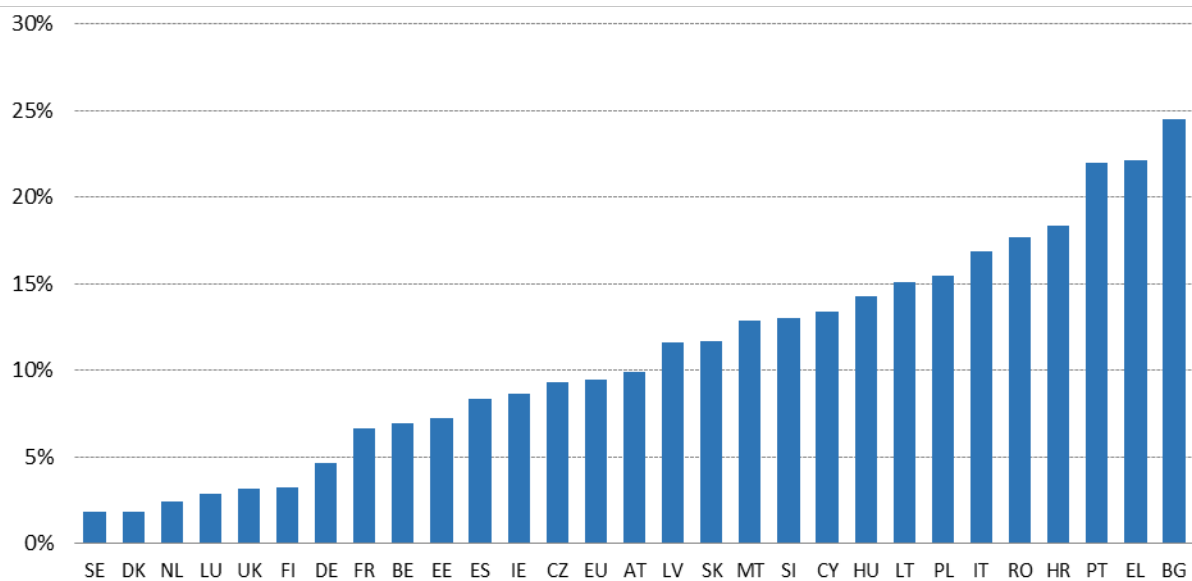
Source: Eurostat, Community survey on ICT usage in Households and by Individuals.

3. People who have never used the internet

The share of people in the EU who have never gone online decreased again in 2019, although the current share of 9.5% warrants further action. Despite convergent trends, large differences remain across Member States. The share of people in the EU not using the internet fell in nearly all Member States in 2019. Sweden, Denmark, the Netherlands and Luxembourg are the countries where the share is the lowest (below 3%). The ratio is still large in Bulgaria (24%), Greece (22%), Portugal (22%) and Croatia (18%). The Member States reporting the largest reductions were Ireland with a drop of 7 percentage points, and Spain and Malta with drops of 4 percentage points.

There is a high number of non-users among people with no or low education levels (24%), among those aged between 55 and 74 (23%), and the retired and the inactive (26%).

Figure 3 People who never used the internet (% of individuals), 2019

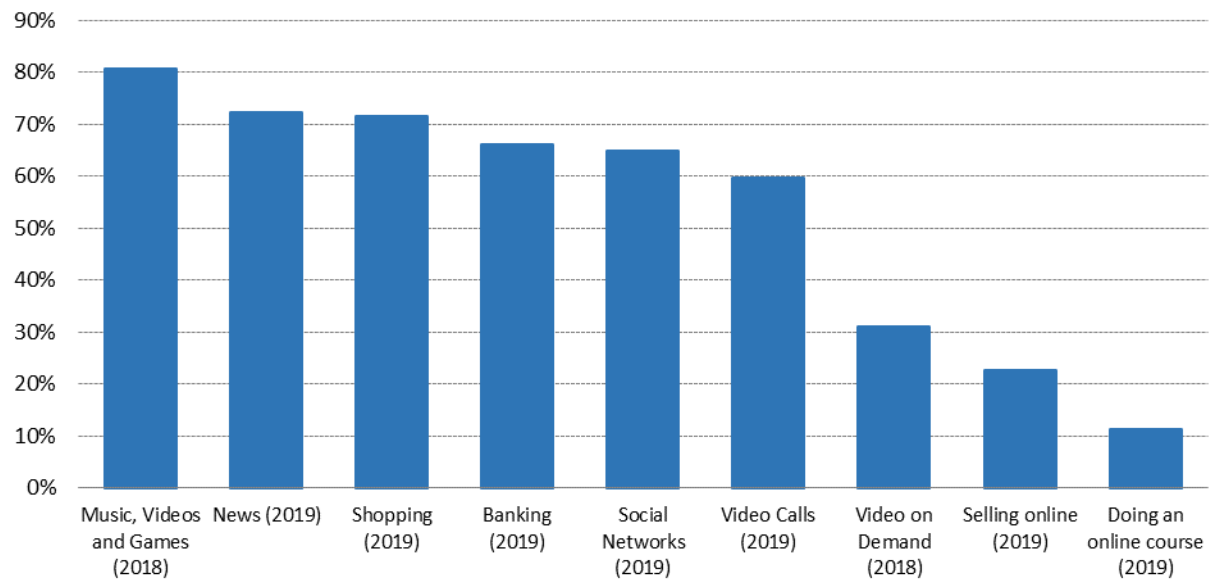


Source: Eurostat, Community survey on ICT usage in Households and by Individuals.

4. Online services

Using the internet for listening to music, playing games or watching videos is still the most common activity (81% of individuals who used internet in the last 3 months). Reading news online is the second most popular activity shown in the DESI (72%), while 2 in 3 internet users shop (71%) or bank online (66%). In contrast, doing an online course is among the least popular activities online (11%). It is relatively widespread in Finland (22%) and in the UK (20%) to participate in e-learning activities.

Growth in the use of online services continued in 2019. Annual variation in the different activities considered in the *use of internet services* dimension has been limited. The percentage of people using the internet for shopping, banking and doing an online course increased slightly (about 2.5 percentage points in each). The largest increase concerned video calls, where the share of users went from 49% in 2018 to 60% in 2019. The current crisis may further boost internet usage.

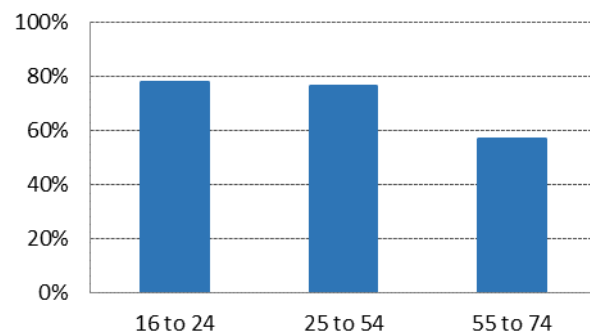
Figure 4 Online activities (% of internet users), 2018 or 2019

Source: Eurostat, Community survey on ICT usage in Households and by Individuals.

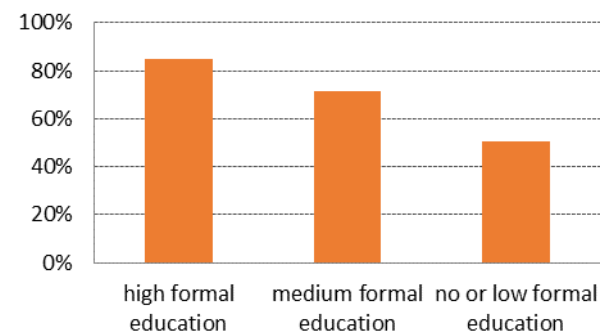
5. e-Commerce

The upward trend in e-commerce continued in 2019, with around 71% of EU internet users ordering goods and services online. e-Commerce varies considerably across EU Member States. In 2019, 91% of internet users in the UK and 86% in Denmark shopped online, compared to only 29% in Romania. The largest annual increases were in Croatia (10 percentage points) and in Hungary (8 percentage points).

e-Commerce is influenced by age, level of education and employment situation. Young people make up the most active age group of online shoppers (78% of 16-24-year olds), while the proportion of internet users with a higher level of education shopping online (85%) is 35 percentage points higher than those with a lower level of formal education. There is no significant difference by gender as, 72% of male and 71% of female internet users shop online.

Figure 5 Online shopping (% of internet users) by age groups, 2019

Source: Eurostat, Community survey on ICT usage in Households and by Individuals.

Figure 6 Online shopping (% of internet users) by education level, 2019

Source: Eurostat, Community survey on ICT usage in Households and by Individuals.

Cross-border online shopping is advancing more slowly. Among online shoppers, 35% made online purchases from sellers in other EU countries, while 87% made online purchases in their home countries. An increase could be observed for purchases from sellers in other EU countries (from 29% in 2014 to 35% in 2019) and from sellers outside the EU (from 17% in 2014 to 27% in 2019).

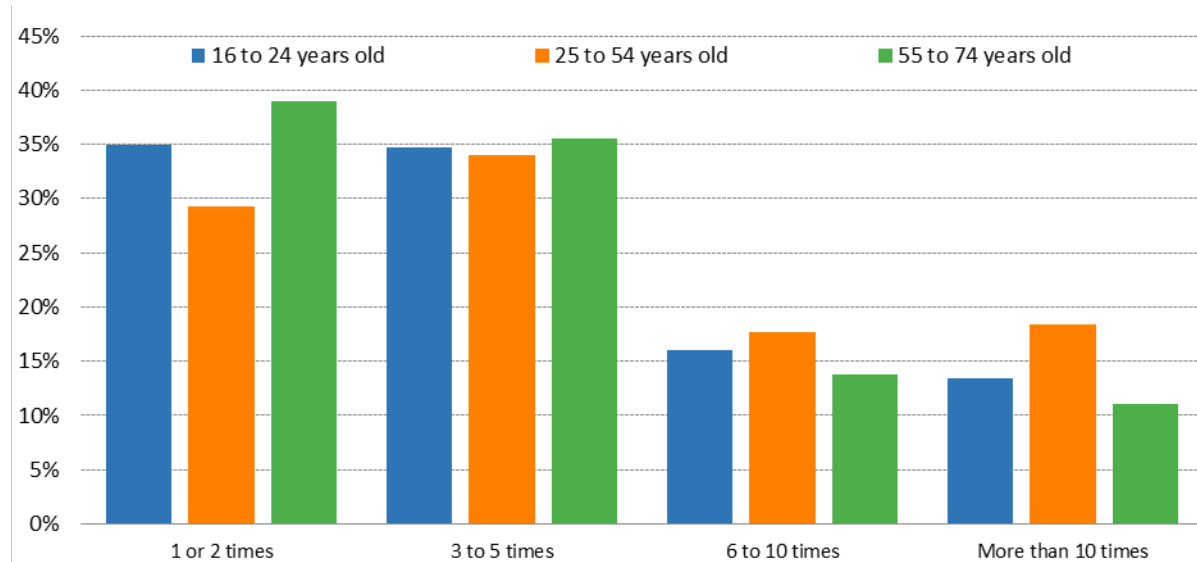
6. e-Commerce – categories of goods and services

In 2019, the most popular categories of goods and services purchased online in the EU were clothes and sports goods. These were ordered online by 65% of online shoppers. Clothes and sports goods were followed by travel and holiday accommodation (54%), household goods (46%), tickets for events (41%), and finally books, magazines and newspapers, which were chosen by every third European (33%). Only 17% bought computer hardware, while 16% purchased medicines.

Online shoppers aged 16-24 favoured clothes and sports goods in their online purchases (73% of individuals), while people aged 25-54 were the most frequent buyers of travel and holiday accommodation (57%), household goods (52%), and tickets for events (43%). People aged 16-24 were purchasing also video games software, other software and upgrades (34%), or films and music (34%). People aged 55-74 took the lead in buying medicines (20%).

About 34% of online buyers bought goods or services for private use between three and five times, while 32% had done so once or twice. 16% made online purchases over 10 times in the previous 3 months. Over 4 in 10 online shoppers claimed to have spent between €100 and €499 on online purchases over the previous three-month period.

Figure 7 Frequency of online shopping by age groups (% of individuals who purchased online in the last 3 months), 2019



Source: Eurostat, Community survey on ICT usage in Households and by Individuals.

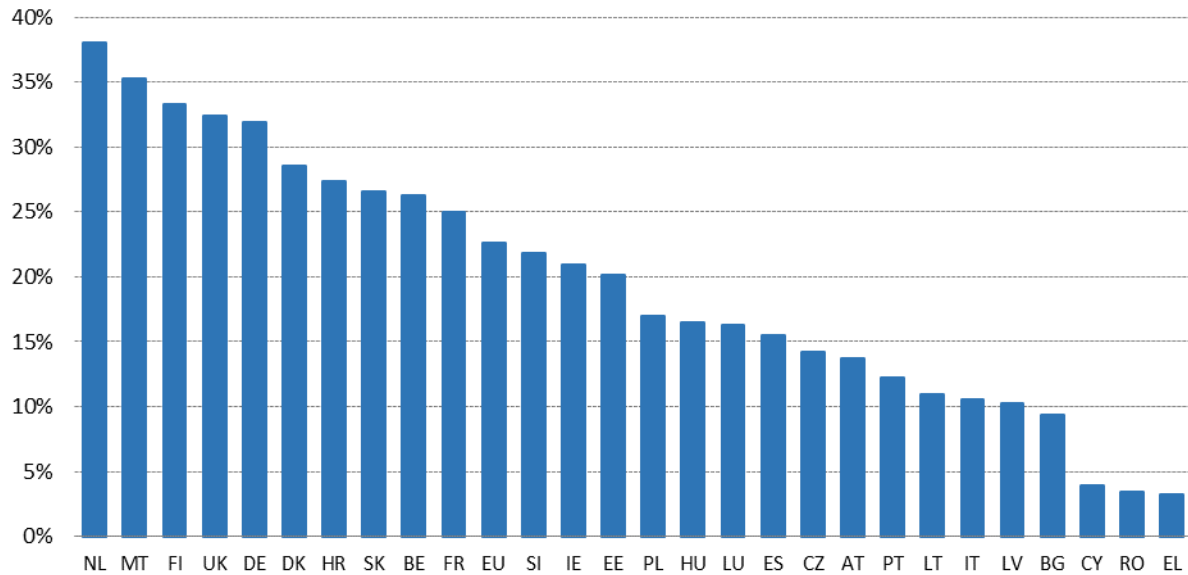
65% of e-buyers reported having no problem when buying or ordering goods or services in the previous 12 months. Problems encountered most often by EU online shoppers related to slower deliveries than indicated at the time of making the purchase (19%).

Among internet users who have purchased more than one year ago, or did not purchased at all, the main reason given for not making purchases online was a preference for shopping in person to see the products before the purchase (73%). Other, much less reported factors, were payment security concerns (24%) and lack of skills or knowledge (21%).

7. People selling online

In 2019, 23% of internet users sold goods or services over the internet in the last three months. The highest shares among EU Member States were recorded in the Netherlands (38%), Malta (35%) and Finland (33%). Belgium and Finland recorded the highest increase in comparison to last year (both were up 5 percentage points). Cyprus, Romania and Greece are the countries with the weakest performance (below 5%) among other EU Member States.

Figure 8 Selling online in the last three months (% of internet users), 2019



Source: Eurostat, Community survey on ICT usage in Households and by Individuals.

ANNEX I Abbreviations

Abbreviation	Explanation
4G / 5G	Fourth/Fifth generation technology standard for cellular networks
AI	Artificial Intelligence
BCO	Broadband competence office
BERD	Business expenditure on R&D
CAGR	Compound annual growth rate
CEF	Connecting Europe Facility
CRM	Customer Relationship Management
CSA	Coordination and Support Actions
DIH	Digital Innovation Hubs
DII	Digital Intensity Index
DOCSIS	Data over cable service interface specification
DSL	Digital subscriber line
DTT	Digital terrestrial television
EBP	European Blockchain Partnership
EBSI	European Blockchain Services Infrastructure
eForm	Electronic Form
EFSI	European Fund for Strategic Investments
eID	Electronic Identification
eider's	Electronic Identification, Authentication and Trust Services
EIF	European Investment Fund
ERA-NET	European Research Area
ERM	Enterprise Risk Management
ERP	Enterprise Resource Planning
Euro HPC JU	Euro High Performance Computing Joint Undertaking
FET	Future & Emerging Technologies
FTTB	Fibre-to-the-building
FTTH	Fibre-to-the-home
FTTP	Fibre-to-the-premises
FWA	Fixed wireless access
GBARD	Government Budget Allocations for R&D
GDP	Gross Domestic Product
GHz	Gigahertz
HES	Secondary and Higher Education Establishments
HPC	High Performance Computing
IA	Innovation Action
IaaS	Infrastructure as a service
ICOs	Initial Coin Offerings
ICT	Information and communication technology
IMSI	International mobile subscriber identity
IoT	Internet of Things
JRC	Joint Research Centre
LEIT	Leadership in Enabling and Industrial Technologies
LTE	Long-term evolution
Mbps	Megabits per second
MHz	Megahertz
MNO	Mobile network operator
MVNO	Mobile virtual network operator

NACE	Statistical Classification of Economic Activities in the European Community
NBP	National broadband plan
NGA	Next generation access
NRA	National regulatory authority
OTT	Over-the-top
PaaS	Platform as a Service
PCP	Pre-Commercial Procurement
PERD	R&D personnel
PPI	Public Procurement for Innovation
PPS	Purchasing Power Standards
PRC	Private for-Profit Companies
PSAP	Public safety answering point
QCI	Quantum Communication Infrastructure
R&D	Research and Development
R&I	Research and Innovation
REC	Research Organisations
SaaS	Software as a Service
SMEs	Small and Medium Enterprises
USO	Universal service obligation
VDSL	Very-high-bit-rate digital subscriber line
VHCN	Very high capacity network