



INTERNATIONAL TELECOMMUNICATION UNION

**TELECOMMUNICATION
DEVELOPMENT BUREAU
INFORMATION SYSTEMS UNIT**

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TITLE: TELECOMMUNICATIONS IN FINLAND – A STATISTICAL OVERVIEW

TELECOMMUNICATIONS IN FINLAND - A STATISTICAL OVERVIEW

Finland as a telecommunications country

There has always been a multioperator environment in Finland and the operators have been and still are private, communal and state-owned. This meant from the very beginning that every operator handled telephony in its own licenced concession area. Anyway, since 1985 telecommunications operations have been opened up gradually to competition. The competition began from infrastructure and it was later enlarged to services by freeing some parts totally from licenses. In 1994 the telecommunications market was fully liberalised and every segment of the telecommunications market has since been subject to competition.

The users of the telecommunications services have been the winners in the liberalisation process of the market; they are no longer dependent on monopoly supply, the number of services have been growing and the prices have gone down. Even operators have benefited of the situation because the volumes have increased.

The Finns are advanced users of telecommunications services. In international comparisons Finland is among the leading countries within the OECD, no matter which indicators are used for measuring the use of services. This is true especially as to the use of mobile communications and Internet services. The popularity of the mobile phones is clearly evidenced by the fact that the growth of the total subscription density is entirely a result of the increased demand for mobile phone subscriptions. Finland has the highest mobile phone density (mobile phones per capita) in the world. In the beginning of January 1999 there were 57 mobile phone subscriptions per 100 inhabitants. Finland is also ranked first as to the use of Internet. At the end of 1998, there were about 100 hosts connected to Internet per 1000 inhabitants.

One reason for the extensive use of telecommunications services might be low rates. In international comparisons Finland is one among the five cheapest countries as regards to the rates of telecommunications services. Especially the rates of the mobile phones and the data transmission services are among the lowest in the world. Local call prices are the cheapest in the EU countries. The rates of data transmission are 49 % and the rates of mobile communications are about 72 % of the average level of the OECD countries. Long-distance and international call prices are below the average level of the OECD countries.

Finnish telecommunications services are not only cheap, but also of high quality. Delivery time for a subscription is short and telecommunications networks are reliable. According to the studies of the Ministry of Transport and Communications the customers are satisfied with the service level.

Advanced state of development in telecommunications is also evidenced by adoption of new technology. For example, Finland was among the first countries to introduce GSM and ATM networks. And at the end of March 1999 Finland was the world's number one by granting four competing licences to UMTS operations.

Main operators

According to the Telecommunications Market Act, telecommunications operators are divided into network operators and service providers. Network operators provide network services by constructing and/or maintaining either fixed or mobile communications networks. Only those operators that provide mobile communications network need a licence for their activities. The licences are granted by the Ministry of Transport and Communications. As a general rule, the provision of telecommunications is subject to a telecommunications notification to the Ministry.

Finnish telecommunications markets are dominated by the following three consortiums: state-owned Sonera Ltd (former Telecom Finland Ltd), Finnet Group, which consists of regional telephone companies with several subsidiaries and affiliated companies and Telia Finland Ltd which is owned by Swedish telecommunications operator Telia Ltd. Other network operators in Finnish markets are e.g. Global One Communications Ltd, Facicom Finland Ltd and RSL COM Finland Ltd which provide network and other services to their contracting customers. In addition there are telecommunications operators which provide telecommunications networks and services to limited user groups. One such operator is Raitelia Ltd.

Telecommunications service operators provide telecommunications services (like telephone and value added services) in telecommunications networks. Network operators provide networks to be used for providing telecommunications services. These companies also provide services.

Statistical activities in Finland

The Ministry of Transport and Communications is the central authority in the sector of providing telecommunications statistics. As a supervisory and policy making body the Ministry have a wide experience and knowledge in the field of telecommunications. Since 1989 the Ministry of Transport and Communications has published a statistical yearbook which covers the situation of telecommunications in Finland. The yearbook called Telecommunications Statistics is prepared and developed by a working group which has members from the three main operator groups (Sonera, Finnet Group and Telia Finland). Statistics Finland is working together with the group as a consultant.

The book includes comprehensive statistical data of telecommunications in Finland. In the publication you can find statistical data of the whole telecommunications sector:

- telephone networks
- quality of services
- telecommunications operators
- Internet
- telecommunications charges
- financial figures
- impact of the telecommunications sector on the national economy
- production, import and export of telecommunications equipment
- international telecommunications comparisons

Besides the Telecommunications Statistics, the Ministry of Transport and Communications also produce other statistical information of telecommunications to fulfill its obligation as a

regulatory body. According to the Telecommunications Market Act the Ministry has the right to obtain necessary information from telecommunications operators for the performance of their duties provided in the Act.

Once a year the Ministry publishes a publication called *Price level of the Telecommunications Charges in Finland*. The subject of the research is the charges of telecommunications operations in the general telecommunications and mobile communications networks. Time series of the prices are also shown in the publication.

Every second year the Ministry makes a comprehensive survey on *Quality of Teleservices*. The private and business customers have a possibility to give their opinions concerning the telecommunications services and operators.

Further information

<http://www.vn.fi/lm/telecom.htm>

and the websites of the operator groups

The writer of the review, researcher Mikael Åkermarck, is working in the Telecommunications Unit in the Communications Administration Department of the Ministry of Transport and Communications.

The Telecommunications liberalisation process in Finland since 1987

1987

- Telecommunications Act
- Administration of telecommunications was transferred to the Ministry of Transport and Communications

1988

- competition in corporate networks and data transmission was partially liberalised
- the new Radio Act

1990

- the special rights of the National Board of Post and Telecommunications were abolished
- free competition in data networks and GSM-networks

1990-1991

- licences were granted to regional radio telecommunications networks
- corporate networks became subject to free competition

1992

- switched data transmission was exempted from licences
- competitive licences to long-distance and local telecommunications

1993

- restricted competition in long-distance and international telecommunications

1994

- local, long-distance and international telecommunications became subject to free competition
- the first licences to service operators

1995

- competing licences to DCS-networks

1996

- the amendment to the Telecommunications Act

1997

- the Telecommunications Act was repealed by the Telecommunications Market Act
- The Telecommunications Market Act designated some operators as companies with significant market power

1998

- minor forms of mobile telecommunications were exempted from licence
- transmission of international telecommunications to Finland was mainly exempted from notification duty

TELECOMMUNICATIONS OPERATORS

NETWORK OPERATORS

- Provide network for telecommunications services
- Need a licence for mobile communications networks, but are required only to notify the authorities of other network operations
- The most significant operators:
 - Sonera Ltd
 - Finnet Group
 - Telia Finland Ltd

SERVICE OPERATORS

- Provide telecommunications services in telecommunications networks
- Operation is subject to a notification
- Most important operators in addition to Sonera, Finnet Group and Telia:
 - Global One Communications Ltd
 - Teleykkönen Ltd
 - RSL COM Finland Ltd

Telecommunications Statistics in Finland

- Coordinates statistical co-operation
- Collects data

Ministry of Transport and Communications

Statistics on the whole country



- Collect data
- Give figures to the Ministry in agreed format

Finnet

Sonera

Telia Finland

Others



Reports and publications for internal and external use

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Content of the publication Telecommunications Statistics 1998:

- **Preface**
- **Contents**
- **List of the tables and figures**
- **Telecommunications in Finland**
- **Review of telecommunications policy 1997-1998**
- **Telecommunications operators**
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 - Local telephone networks
 - Long-distance telephone networks
 - Number of telephone calls
 - Surveillance and control systems
- **Mobile communications**
 - Mobile telephone networks
 - Radio paging networks
 - Satellite communications
- **Data transmission**
- **Text transmission**
- **Cable Television networks**
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 - Telecommunications operators
 - Telecluster
- **Telecommunications operators' financial figures**
- **Impact of the telecommunications on the national economy**
- **Production, import and export of telecommunications equipment**
- **International telecommunications statistics**

Statistical data collected by the Ministry of Transport and Communications

(To fulfill the duties as a regulatory body)

- Telephone charges in Finland
- Quality of services
- Financial data
- Others

Co-operation with international organisations

ITU: - World Telecommunications
Development report
- others

OECD: - Communications Outlook
- others

EUROSTAT: - Communications Services
- others

EU: - many questionnaires

(And many other organisations all over the world.)

Number of telephone subscriber lines and personnel of TCs 31.12.1997

Telecommunications area	Telephone company	Subscriber lines	Personnel ¹⁾
Uusimaa	Helsingin Puhelin Oyj	750 343	3 814
	Karis Telefon Ab	6 111	26
	Lohjan Puhelin Oy	22 185	58
	Loviisan Puhelinosuuskunta	6 033	22
	Riihimäen Puhelin Oy	19 783	53
Turku and Pori	Eurajoen Teleosuuskunta	2 652	8
	Huittisten Puhelin Oy	4 736	22
	Härkätien Puhelin Oy	3 531	11
	Kankaanpään Puhelin Oy	6 079	21
	Kemiön Puhelinosakeyhtiö	3 653	11
	Laitilan Puhelinosuuskunta	4 497	17
	Loimaan Seudun Puhelin Oy	18 700	66
	Lännen Puhelin Oy	74 859	248
	Pargas Telefon Ab	6 753	7
	Porin Puhelin Oy	38 264	137
	Salon Seudun Puhelin Oy	30 832	107
	Turun Puhelin Oy	118 082	530
	Turun Seudun Puhelin Oy	13 840	42
Vakka-Suomen Puhelin Oy	9 953	46	
Häme	Etelä-Satakunnan Puhelin Oy	10 986	44
	Forssan Seudun Puhelin Oy	16 182	67
	Hämeen Puhelin Oy	42 542	127
	Ikaalisten-Parkanon Puhelin Oy	8 929	31
	Keikyän Puhelinosuuskunta	1 422	5
	Pohjois-Hämeen Puhelin Oy	14 642	56
	Päijät-Hämeen Puhelinyhdistys	104 136	371
	Tampereen Puhelin Oyj	168 707	789
Kymi	Kymen Puhelin Oy	33 095	154
Vaasa	Alajärven Puhelinosuuskunta	3 786	14
	Jakobstadsnejdens Telefon Ab	16 787	108
	Kokkolan Puhelin Oy	18 743	83
	Vaasan Läänin Puhelin Oy	100 027	424
Oulu	Kajaanin Puhelinosuuskunta	16 130	65
	Oulun Puhelin Oy	83 776	330
	Pohjanmaan Puhelinosuuskunta	46 719	171
North Karelia	Joensuun Puhelin Oy	27 099	114
	Outokummun Puhelin Oy	4 267	10
	Puhelin Oy Telekarelia	9 836	24
Central Finland	Keski-Suomen Puhelin Oy	62 597	241
Mikkeli	Mikkelin Puhelinyhdistys	22 422	114
	Savonlinnan Puhelinyhdistys	18 136	78
Lapland	Telepohja Oy	264	4
Kuopio	Puhelinosuuskunta IPY	8 990	34
	Kuopion Puhelin Oyj	62 596	251
Åland	Mariehamns Telefon Ab	9 975	29
	Ålands Telefonandelslag	7 378	21
Total		2 061 055	9 005

1) Personnel in TCs and their subsidiaries

Source: Telecommunications Statistics page 22

Total profit and loss accounts of the telecommunications operators 1980-1997, FIM million

Year	Finnet/TC ¹⁾			Sonera			Telia								
	Income	Expen.	Surplus/ deficit	Income	Expen.	Surplus/ deficit	Income	Expen.	Surplus/ deficit						
1980	1 026	1 018	8	1 809	1 448	361									
1981	1 194	1 192	2	1 944	1 664	280									
1982	1 353	1 352	1	2 264	1 854	410									
1983	1 577	1 563	14	2 518	2 036	483									
1984	1 768	1 740	28	2 790	2 167	623									
1985	1 988	1 969	19	3 072	2 319	753									
1986	2 274	2 279	-5	3 215	2 442	773									
1987	2 593	2 590	3	3 528	2 744	784	14	17	-3						
1988	2 938	2 935	3	3 966	3 117	849	22	23	-3						
1989	3 229	3 235	-6	4 251	3 396	855	37	38	-1						
1990 ²⁾	3 465	3 458	7	4 982	4 589	393	49	49	0						
1991	3 686	3 692	-6	4 958	4 650	308	71	70	1						
1992	3 824	3 834	-10	5 006	4 699	307	102	122	-20						
1993	3 962	3 942	20	5 188	4 629	559	141	175	-34						
1994 ³⁾	4 326	4 267	59	5 002	4 777	225	347	328	19						
	Finnet Group total			Telephone companies ⁴⁾			Sonera Group			Sonera Parent Com.			Telia		
	Income	Expen.	Surplus/ deficit	Income	Expen.	Surplus/ deficit	Income	Expen.	Surplus/ deficit	Income	Expen.	Surplus/ deficit	Income	Expen.	Surplus/ deficit
1994	4 874	4 783	91	4 467	4 403	64									
1995	5 346	5 253	93	4 690	4 636	54	5 735	5 411	324	5 490	5 183	307	110	103	7
1996	6 582	6 235	347	5 194	5 072	122	6 487	5 970	517	6 303	6 001	302	139	132	7
1997	8 082	7 669	413	5 702	5 473	229	7 722	7 209	513	7 202	6 817	385	165	200	-35

1) Parent companies' figures

2) The method of accounting was changed in Sonera in 1990.

3) The method of accounting was changed in 1994.

4) See page 21.

The net revenue of Finnet Group can not be compared to the net revenue of Sonera Group.

Source: Telecommunications Statistics page 74