EasyLink

BUSINESS SERVICES

SECTOR ANALYSIS

Information Technologies

CZECH REPUBLIC

MARCH 2000

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Note: This report is based on 2000 (up to March), 1999 and - where more recent figures are not available - 1998 statistical data; all CZK denominated figures were recalculated to Canadian dollars at the rate of CAD 1 = CZK 24.7 (CZK 25 for rough estimates).

1. Market analysis

1.1. General overview

The Czech Republic currently represents one of the most dynamic information technologies markets in the world and also one of the most mature and promising markets in Central and Eastern Europe. (Where statistics was not available for the year 1999 at the time of completion of this report, we provide 1998 figures.)

- IT *spending per capita* reached USD 141 (CAD 208) in 1998, ranking the Czech Republic second among Central and Eastern European (CEE) countries, behind Slovenia.
- IT *spending per GDP* in the Czech Republic, unlike in most other CEE countries, is higher then average in Western Europe, exceeding 2.7 % of GDP (in 1998).
- In absolute terms, the country - with a population of 10.3 million and GDP of CZK 1,820 billion (CAD 74 billion) in 1998, has the third largest *total size of the IT market* in the region behind Russia and Poland amounting to USD 1.57 billion (CAD 2.3 billion) in 1999 (estimate by IDC).
- The market is expected to continue *growing* at a rate of 7 % per year.

Economic growth, which the country experienced prior to 1996, was interrupted in 1997 by economic decline, which involved devaluation of the currency, difficulties in the banking sector, high state budget deficits, lower foreign direct investment and other symptoms of recession. Destructive floods in the Eastern part of the country in July 1997 further decreased government IT spending. Despite these difficulties, the country has retained monetary and fiscal stability - low inflation, relatively low unemployment rate, acceptable budget deficit, and stable exchange rate.

At the end of 1999 (last quarter), the Czech economy finally recorded very slight GDP growth of 1 % following several years of recession. 1999 was also a record-breaking year in terms of direct foreign investment, which is likely to support the recovery. Total FDI reached 5.1 billion U.S. dollars: a 100% increase from 1998, second highest in Central Europe in absolute terms after Poland, and first in per-capita terms with USD 493 per capita (Hungary USD 161).

In 1998 and 1999, higher demand especially from smaller and medium-sized companies, higher demand for software and services, fast development of the Internet and telecommunications, economic recovery as well as other factors contributed to a restored growth of the IT market.

Computer market size (CAD million)

	End 1996	End 1997	End 1998	October 1999*
Services market	619	662	748	864
Equipment market	1 252	1 353	1 410	1 439
Total computer market	1 871	2 015	2 159	2 303

*Source: European Survey of Information Society, *estimate*

The Czech market is one the most developed CEE markets, with a structure similar to West European market: increasing share of implementation services, network hardware/software, application solutions and IT services.

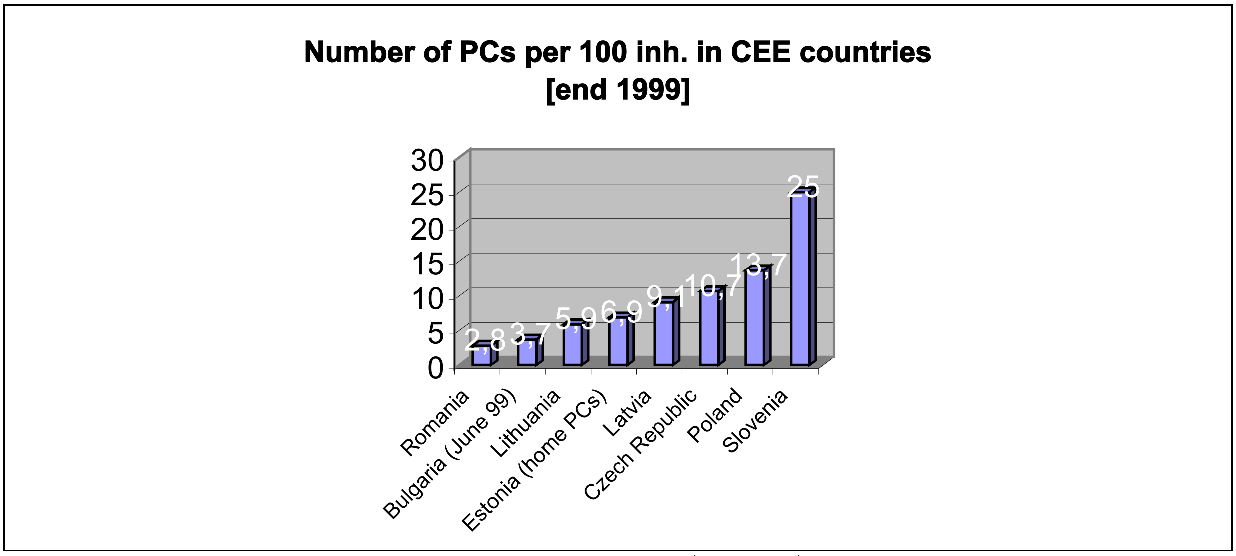
1.2. Regional comparison

IT Investment per GDP

The Czech Republic has the highest share of IT investment per GDP in the region. In 1998, total IT investment reached 2.7 % of GDP, thus exceeding that of Hungary (2.2 %), Poland (1.5 %) and Slovakia (1.5 %).

Personal computers per capita

Between 1996 and 1999, the total number of PCs per 100 inhabitants in Central and Eastern European (CEE) countries grew steadily to an average of 12 in 1999. The Czech Republic recorded significant growth of 26 % annually over this period to reach a fourth position in 1999 after Hungary, Slovenia and Poland, with 10.7 personal computers per 100 inhabitants.



Source: European Survey of Information Society (ESIS II)

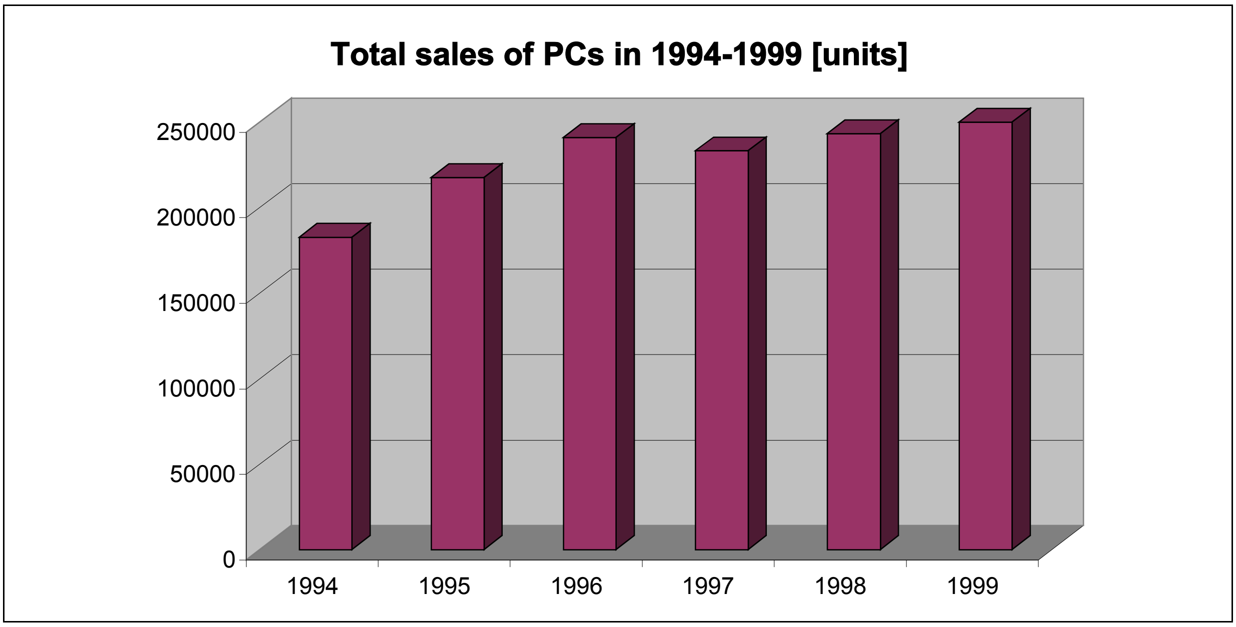
Telephone lines per capita

Between 1996 and October 1999, the total number of telephone lines per 100 inhabitants in the CEE region (incl. mobile telephone lines) rose from around 20.6 to around 35.1. This represents an average annual growth of 19.4%. Within this overall situation, the Czech Republic achieved annual growth of approx. 24 % and reached telephone line penetration of 52.3 %, which ranked it third behind Slovenia (75.9 %) and Estonia (61.4 %). At the end of 1999, the Czech Republic, with a population of 10.3 million, had 3,839,000 conventional lines, 1,945,000 mobile lines and over 57,000 ISDN lines. Total telephone line penetration thus reached 56.7 percent by December 31, 1999.

1.3. Hardware

1.3.1. Size of the market

After a decline in 1997, higher demand especially from smaller and medium-sized companies resulted in an annual growth of total sales of personal computers by 4.3 % to a total of nearly 250,000 units in 1999. This growth resulted from falling prices of the products, lifted spending restrictions throughout the private sector, and growth in the sectors of telecommunications and Internet.



Year	1994	1995	1996	1997	1998	1999
Units	182640	217525	240934	233200	243165	250000*

Source: IDC, *estimate

The following statistics is based on 1999 data from the Czech Statistical Office and the Ministry of Industry and Trade for category SITC 75 - Business machines and information technologies.

Total domestic sales of „business machines and information technologies“ as recorded by the Czech Statistical Office and published by the Ministry of Industry and Trade are shown in the table below:

Domestic consumption of business machines and information technologies 1994 - 1999

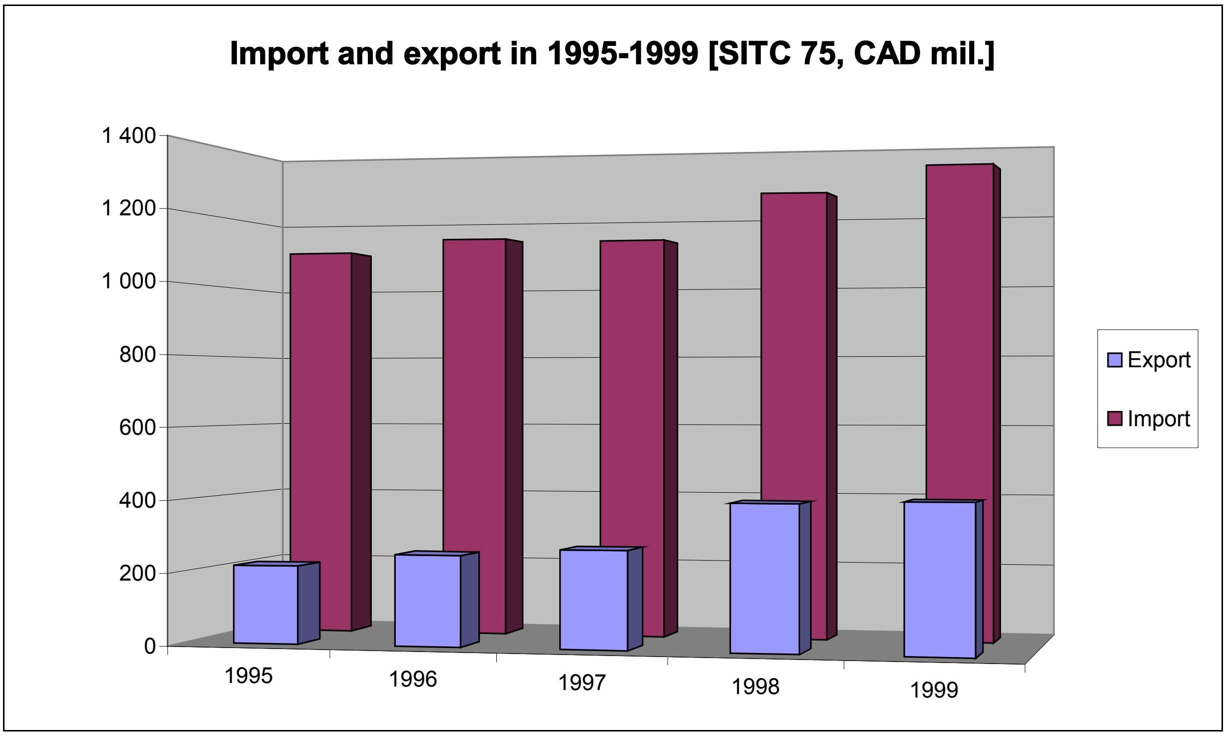
CAD million	1994	1995	1996	1997	1998	1999*
domestic consumption	814.9	998.7	961.2	908.4	893.2	930.0
annual growth (%)	x	26.8	-3.9	-7.7	9.0	-4.9
cumulated growth (%)	0.0	26.8	21.9	12.6	22.7	16.7

* estimate
Source: Czech Statistical Office, Ministry of Industry and Trade

1.3.2. Import & Export

Foreign trade, i.e. import and export of *business machines and information technologies* (category SITC 75) in 1995 – 1999, is represented by the following table and graph.

CAD mil.	1995		1996		1997		1998		1999	
Export	216	-	251	15.9%	270	7.7%	400	48.4%	408	1.8%
Import	1 101	-	1 138	3.3%	1 129	-0.7%	1 257	11.3%	1 330	5.8%
Balance	885		887	0.2%	860	-3.1%	857	-0.3%	922	7.6%



Imports of business machines and information technologies are constantly higher than exports. In 1999, total imports reached CAD 1,330 mil. After stagnation in the years 1995-1997, imports grew at 11% in 1998 and 6 % in 1999 compared to the previous year.

Exports recorded substantial growth of nearly 50 % in 1998 compared 1997, which was due mainly to the start of production by FIC (see 2.1.2, page 20). However, this increase was not repeated in 1999 and exports remained relatively stable at the new level of slightly over CAD 400 million.

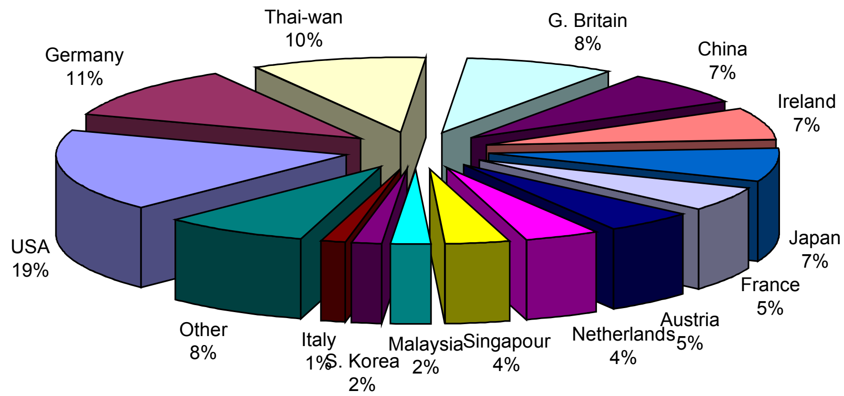
The trade balance in this market segment is expected to remain stable with imports significantly higher than exports or further increase in view of future investments in progressive technologies and the limited domestic production capacity.

For a deeper study of territorial distribution of imports and exports, we will consider two categories of the Harmonized Schedule of Tariffs: HS 8471 (automatic data processing equipment) and HS 8473 (parts of writing and reading devices and of automatic data processing equipment). HS 8471 and HS 8473 account for approximately 70 % and 25 % respectively of total SITC 75 imports.

Import by country of origin

	HS 8471 import		HS 8473 import		Total	
Country	CAD ths.	%	CAD ths.	%	CAD ths.	%
USA	159 464	17.86%	57 913	17.88%	217 377	17.87%
Germany	89 019	9.97%	47 058	14.53%	136 077	11.19%
Thai-wan	72 022	8.07%	49 009	15.13%	121 031	9.95%
G. Britain	85 465	9.57%	14 404	4.45%	99 869	8.21%
China	69 676	7.81%	17 444	5.39%	87 120	7.16%
Ireland	78 257	8.77%	8 710	2.69%	86 967	7.15%
Japan	59 833	6.70%	25 820	7.97%	85 653	7.04%
France	24 557	2.75%	40 480	12.50%	65 037	5.35%
Austria	42 514	4.76%	19 591	6.05%	62 105	5.10%
Netherlands	40 770	4.57%	7 989	2.47%	48 759	4.01%
Singapore	40 849	4.58%	3 728	1.15%	44 577	3.66%
Malaysia	23 890	2.68%	2 380	0.73%	26 270	2.16%
S. Korea	19 345	2.17%	2 102	0.65%	21 448	1.76%
Italy	10 146	1.14%	5 977	1.85%	16 124	1.33%
Other	76 873	8.61%	21 311	6.58%	98 184	8.07%
Total	892 678	100.00%	323 919	100.00%	1 216 597	100.00%

Territorial Distribution of Import [HS 8471 + HS 8473, 1999]

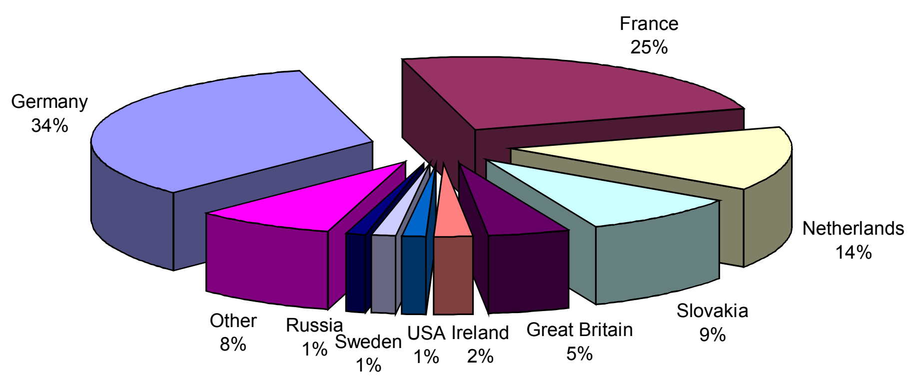


The strongest foreign supplier of automatic data processing equipment (HS 8471) and parts (HS 8473) is clearly the United States with a share of nearly 18 % and total imports of CAD 217 million in 1999. The second place belongs to Germany; however, number two in imports of only HS 8471 is Thai-wan. These three leaders are then followed by nine other countries accounting for between 5 and 10 % of total imports, including Great Britain, China, Ireland, Japan, France, Austria, Netherlands, Singapore, and Malaysia.

Export by territory

	HS 8471 export		HS 8473 export		Total	
Country	CAD ths.	%	CAD ths.	%	CAD ths.	%
Germany	83 107	41.57%	42 266	23.89%	125 373	33.27%
France	10 530	5.27%	82 319	46.54%	92 849	24.64%
Netherlands	42 520	21.27%	10 503	5.94%	53 023	14.07%
Slovakia	16 176	8.09%	18 419	10.41%	34 594	9.18%
G. Britain	12 579	6.29%	5 167	2.92%	17 746	4.71%
Ireland	5 020	2.51%	2 880	1.63%	7 900	2.10%
USA	2 817	1.41%	2 655	1.50%	5 473	1.45%
Sweden	3 890	1.95%	1 493	0.84%	5 383	1.43%
Russia	3 524	1.76%	226	0.13%	3 749	1.00%
Other	19 756	9.88%	10 969	6.20%	30 725	8.15%
Total	199 919	100.00%	176 896	100.00%	376 815	100.00%

Territorial Distribution of Export [HS 8471 + HS 8473, 1999]



Exports of automatic data processing equipment (HS 8471) and parts of [...] (HS 8473) are dominated by exports to Germany, France and Netherlands, which account for three fourths of all exports. Germany, a traditionally strong trading partner for the Czech Republic, leads with 34 % (CAD 125 million), followed by France with 25 % and Netherlands with 14 %.

1.3.3. Installed base

Personal computers

	End 1996	End 1997	End 1998	End 1999
Total number of Home PCs	110 000	190 000	250 000	275 000
Total number of Business PCs	440 000	525 000	643 000	825 000
Total number of PCs	550 000	715 000	893 000	1 100 000

Source: European Survey of Information Society (ESIS II)

	End 1996	End 1997	End 1998	End 1999
Total number of Home PCs per 100 inh.	1.1	1.9	2.5	2.7
Total number of Business PCs per 100 inh.	4.4	5.2	6.4	8.2
Total number of PCs per 100 inh.	5.3	7.1	8.7	11

Source: European Survey of Information Society (ESIS II)

Other organizations have produced higher estimates: according to regular surveys of the Czech Statistical Office, 13.5 % of households owned a computer in 1998 (11.5 % in 1997).

1.3.4. Hardware market segments

Personal computers

As shown in Chapter 1.3.1, the number of PCs sold in 1998 and 1999 has been growing to a total of 250,000 in 1999. In financial terms, however, total sales decreased due to lower prices. A large part of growth came from small firms and the business sector overall. Sales to state authorities and the home segment stagnated. This segment is nearly equally divided between foreign suppliers (brand vendors) and local assemblers.

Computer systems and servers

This market segment has seen significant growth in the number of units sold. It is dominated by foreign suppliers: Compaq was the leader in system and server sales, Intel is the most successful platform with nearly 90 % of total sales in 1998.

Network technologies

According to IDC, the LAN market, including cards, hubs, switches, routers and remote access servers, reached total revenues of USD 95.7 million in 1998 (CAD 140 million). IDC estimates that 57 % of all PCs were connected to LANs in 1999 and predicts this indicator will grow to 86 % by 2003. LAN hardware market is thus one of the most dynamic IT sectors. Similarly to other hardware market segments, unit growth is much stronger than growth in value due to worldwide trends in pricing and price declines.

1.4. Software

The size of the software market can only be estimated as production, import and export statistics is not available and because of significant extent of software piracy. According to IDC, the software segment has been growing in the last years despite stagnation or decline in some other segments due to economic difficulties of the country, devaluation of the currency, budget restrictions and postponed privatization in the banking sector. IDC estimated the total software market at over CAD 300 million in 1998 with projected growth.

Microsoft is, not surprisingly, the dominant software supplier in the Czech Republic with a 98% share in operation systems and 95% share in office products. Microsoft also dominates desktop and portable computers software. Total revenues of Czech Microsoft reached more than CZK 2 billion (CAD 80 million) in 1999; it is also one of the most profitable branches of the corporation. Microsoft has a local competitor in office products - Software 602, a company established by authors of the Text602 text editor that was very popular in late 1980's and early 1990's. See page 20 for more information on Software602.

The information systems (ERP) market was CAD 55 million in size in 1998, according to IDC. Compared to 1997, this represented an annual growth of 19% and the same growth rate is predicted for the next five years. Within the ERP market, the focus is now on medium-sized information systems. See chapter 2.2.4 on page 26 for details on this market segment.

Local software producers have built up positions in several niche markets, mainly where specific knowledge of the Czech economic and legal environment gives them a comparative advantage. These niche markets include antivirus programs, information systems (ERP), legal software, accounting, maps etc. See chapter 2.2 for details on these companies.

Software piracy

Despite the country's membership in many international trade organizations with activities in the field of intellectual property rights and its signature under a number of agreements and treaties, intellectual property rights protection has been a significant problem for the country.

Since 1998, the Czech Republic has been listed on the U.S. Watch List, which - by Special 301 stipulation of the U.S. commercial code - includes member countries of TRIPS (Agreement on Trade Related Aspects of Intellectual Property Rights, signed by WTO member countries) that have insufficient protection of intellectual property rights. The country was even proposed for the Priority Watch List by IIPA (International Intellectual Property Alliance, www.iipa.com), which could lead to political and economic measures against the country with broad consequences. International pressure and the threat of consequences that the Czech Republic could face have yet strengthened with full effect of TRIPS for economies in transition from January 1, 2000.

The issue of intellectually property rights was also part of the country's association agreement with the European Union and will certainly be covered in its negotiations over future accession.

Insufficient protection of intellectual property has also been subject to criticism by foreign investors and represents a threat also to local companies developing new know-how and technologies.

The key elements contributing to ineffective legal protection of intellectual property have been lengthiness of prosecution, low penalties, and impossibility to seize illegal products and prevent further distribution were the key elements contributing to ineffective protection. Also, the legislation did not reflect sufficiently modern technologies, Internet etc.

In view of the importance of these concerns, the government defined intellectual property rights as a significant safety risk in 1999, declared a special policy focused on this issue. After a lengthy legislative process, the Parliament finally approved several new laws and amendments to existing legislation (copyright, import and other), which should result in future improvements in this area.

Extent and nature of software piracy

Estimates of the share of illegal software installed on Czech computers vary around between 50 and 65 percent, which is higher than the estimated share of pirated software in West European countries but comparable to other CEE countries. According to Business Software Alliance, the share of illegal software is 38 % in Western Europe, 57 % in Hungary, 61 % in Poland and 50 % in Slovakia. BSA estimates the total value of illegal software in the Czech Republic at USD 43.4 million.

The extent of software piracy differs for different types of software. Applications that require regular updates (such as legal information systems, anti-virus programs etc.) would be affected less than others. Also operation systems, which are sold as OEM versions on new computers, have only a relatively lower share of illegal use. In 1998, 84 % of all new computers were sold with at least some pre-installed software (operation system as minimum). The remaining 16 % (40,000 PCs) were sold as „naked“, which could mean either that their new owners are likely to be using illegal software or that they had a license agreement with a software producer (e.g. schools with Microsoft).

1.5. IT services

The market of professional IT services exceeded CAD 800 million in 1998, representing around 37 % of the all IT expenditures. The two strongest segments within the IT services market were hardware support and hardware installation. The strongest market player is IBM, followed with a local company PVT. See chapter 2.4 for details on these companies and a list of system integrators in Chapter 5.3.

1.6. Internet

Internet has been enjoying fast growing popularity in the Czech Republic. Although estimates of the total number of Internet users vary (see 1.6.1 below), it has clearly become widely used and accepted. One of the largest Internet service providers, Internet OnLine, currently has close to 50,000 clients – compared to 22,000 in 1998 and 4,000 in 1997. Within the group of private users, Internet is used especially by students and young people with high school or university education, higher income groups, men rather than women, and mainly in larger cities. In the last two years, Internet has recorded growing popularity and use also among businesses and state and local authorities; these two groups have already caught up with the previously dominating group of students. In the business sector, a recent survey showed that 90 % of companies with over 25 employees use the Internet. Practically all national government organizations and many regional and local bodies are also connected and have their own web sites.

The specific key local driving forces that contributed to Internet popularity and growth in the last two years and the factors that are likely to further support growth in the near future (besides global reasons) are:

- major marketing campaign by the largest commercial Internet Services Provider, Internet OnLine (see 2.5.1 on page 32 for details on IOL)
- availability of free Internet access to a large student population throughout the country and their migration into paying subscribers after graduation
- falling access fees, several commercial ISPs currently offer free access (see 2.5.1)
- reduced telephone fees for dial-up access (following a „general strike“ of Internet users and companies against the monopolistic telecom provider, Český Telecom. The reduced „Internet 2000“ tariff is available from any location in the country (see Dial-up connection on page 13). In Poland, where this system has been in effect for more than three years, around 50 % of all computers are connected. Similarly, the share of connected computers, currently roughly 20 %, can be expected to grow in the Czech Republic.
- in early 2000, operators of cable television started to offer Internet connection for a fixed monthly fee, which is likely to contribute to further growth of the number of Internet users as well of the level of their activity on the web
- further growth can be expected after liberalization of the telecom market (see Deregulation and competitive situation on page 17), which is likely to lead to reduced fees

While reduced telephone fees for dial-up access have led to faster growth in the number of Internet users and in the amount of time they spend on-line, the cost is still significant and represents the main major barrier to even stronger growth.

1.6.1. Internet population

There are two significantly different estimates of the total „Internet population“ in the Czech Republic. As no exact statistics is available and both estimates are supported by qualified experts and verified data, we present both:

According to a mid-1999 survey by IDC (International Data Corporation), the Internet had approximately 292,000 users in the Czech Republic. This represents around 3 % of the total population. IDC predicts annual growth of 30.7 % over the next five years, i.e. up to nearly 1 million users (10 % of total population) by 2003.

In reaction to the IDC study, three major Internet service providers (ISP) representatives issued their own analysis, estimating the total Internet population at 600,000 users and predicting annual growth of more than 80 %. This estimate is based on ISP statistics, cookie-based analyses and public surveys by market research agencies. According to a cookie-based survey, there were 250,000 domestic users and 450,000 professional users as of end of 1999.

According to IDC, nearly half of all Internet users (140,000) are students who have free access to the Internet at school. Migration of students into paying subscribers contributes and will contribute to further growth. According to a late 1999 survey, over 60 % of all Internet users are younger than 30 (nearly 80 % are younger than 45).

Closer look at Internet users

Several surveys have focused on use of the Internet - in general (a) and exclusively in the business sector (b). Here are the main points of some of these surveys. (See also chapter 1.6.4 on page 15 for details on e-commerce, Internet banking etc).

a) Overall

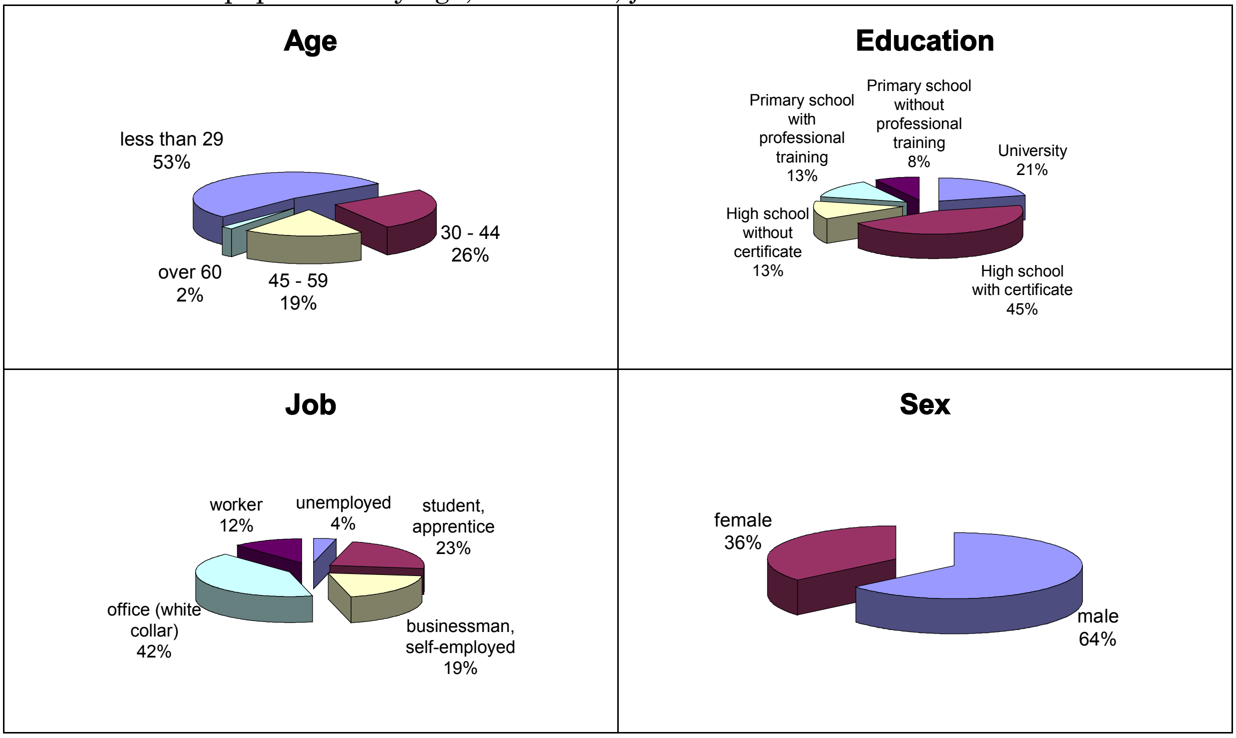
- More than 90 % of Czech Internet users use it to search for information;
- For nearly 70 % of users, Internet is too expensive; consequently, most users access the Internet in their office;
- The share of people who consider Internet to be just a matter of fashion or something reserved for a small group of „computer nerds“ has been decreasing;
- 64 % of Internet users are male;
- 45 % have high-school education, 21 % are university graduates;
- 42 % of Internet users are office workers, 23 % are students and 19 % are businessmen

Source: Sofres-factum

b) Business

- 91 % of businesses with more than 25 employees used the Internet in early 2000, compared to 43 % in 1999 and only 4 % in 1995 (Markent)
- 96 % of managers are convinced of the importance and usefulness of the Internet (Intel)
- 20 % of firms use e-commerce, mostly as an alternative marketing tool (Intel)
- a majority of respondents in all surveys consider low speed and high access fees to be the biggest drawbacks and barriers to broader use of the Internet

Czech Internet population by age, education, job and sex



Source: Sofres-Factum, November 1999

1.6.2. Internet Service Providers

TEN-155 CZ, the academic network with nearly 140,000 users (mainly students) is the largest Internet Service Provider in the country.

The second largest ISP in the country and the largest ISP in respect of paying subscribers is Internet OnLine, the Internet division of the national telecommunication company Český Telecom.

Last year, Czech OnLine (provider of Video OnLine) adopted a free-access policy, followed later in the year by World On Line. From March 2000, also Contactel offers free access to the Internet. Internet OnLine offers free access to subscribers of the biggest local daily newspaper. Please refer to chapter 2.5.1 for details Internet Service Providers.

Recently, several Internet service providers have entered into partnership with or were acquired by stronger players in an effort to prepare for large multinational competitors and for a new competitive environment after liberalization of the telecommunication sector (see chapter 1.7). A recent example is CZCOM acquired by WorldOnline in 1999, but also the commercial network of Cesnet sold to Contactel, which is a joint venture of České radiokomunikace and Tele Danmark A/S, Czech On Line now part of the Deutsche Bank group, Nextra owned by Telenor etc.

Dial-up connection

Dial-up connection is used by a majority of private (domestic) users as well as small and most medium-sized companies. This solution requires only a very moderate initial investment into a modem and is most economical for users with limited activity on the Internet and for domestic use during off-peak hours. Several Internet service providers have started to offer free access and so the only variable cost is fees of the telecom operator. With the new Internet 2000 tariff of the national Český Telecom, one hour on the Internet costs approx. CAD 0.63. The Internet 2000 pricing scheme, used by over 120 providers, is shown in the table below. Six providers currently use a new addition to the service allowing access from any part of the country through a unique number.

Internet 2000 tariff [CAD]

minutes	7:00 - 17:00	17:00 - 19:00	19:00 - 21:00	21:00 - 7:00 & week-ends & holidays
5	0.32	0.21	0.21	0.21
10	0.53	0.32	0.21	0.21
30	1.16	0.63	0.53	0.42
60	2.21	1.05	1.05	0.63
add. 1 min.	0.04	0.02	0.02	0.01

Until this year, ISPs had no share on the revenues from telephone fees generated by connection to the Internet. From this year, providers can retain 15 % of revenues in their largest access point and up to 12 % from all operations throughout the country (all access points). This scheme of revenue sharing is estimated to bring approximately CAD 40,000 for the largest providers. The program is subject to criticism by ISP companies as too complex and unfair and might be changed in the future.

Fixed line connection

A fixed line connection to the Internet involves a higher initial investment as well as higher fixed fees to the national telecommunications operator. Users of fixed lines also pay „activation fees“ and regular monthly fees to their Internet providers. This method of Internet connection is thus economical - compared to dial-up - for medium-sized firms with significant activity on the Internet, larger firms and other larger organizations.

ISDN

EuroISDN2 is a fully digital connection with a capacity of 64 kb/s or 128 kb/s with two channels. Český Telecom charges CZK 6500 (CAD 260) for renovation of a current telephone line and CZK 9500 (CAD 385) for a new line. This initial investment and telephone fees are then the only cost for Internet connection as some Internet providers now offer free access.

Wireless Internet connection

Several Internet Service Providers have started to sell and operate wireless Internet connection, using devices originally developed for wireless local area networks (WLAN). Currently, between 80 and 90 % of all sales of wireless devices is to Internet Service Providers, companies, system integrators and other businesses for the purpose of wireless Internet connection. This segment has seen substantial growth between 100 and 200 % annually and is expected to continue at the same pace for the next two years.

Wireless connection to the Internet is technically and financially competitive with traditional fixed line connection. Some of the significant advantages of this technical solution in the local environment are independence from the telecom operator, absence of telephone fees, and fast installation. A disadvantage is the required initial investment, which IS operators try to overcome by offering lease contracts. Different operators offer different programs with limited or unlimited data transfers, various pricing schemes, different capacities, which make a general comparison of their products practically impossible.

Internet service providers offering wireless connection include Cesnet (www.cesnet.cz), Video On Line (www.vol.cz), InWay (www.inway.cz), CZCOM (www.czcom.cz), Luko Czech-Net (www.luko.cz), SkyNet (www.skynet.cz), Internet OnLine (www.iol.cz) and Bohemia Net (www.bohemia.net), GTS/INEC (www.gtsinec.cz), Mopos (www.mopos.cz). See chapter 2.5.1 for details on these as well as other Czech Internet Service Providers.

Cable television operators

In early 2000, several cable television operators started to offer Internet access through their network for a fixed monthly fee. Cable television has recorded fast expansion, especially in Prague. The installation is free of charge and the lowest monthly fees for only the four national TV channels are below two dollars for some of the operators. Dattelkabel, a major operator with 40,000 clients mainly in Prague, offers full Internet access for CAD 20 per month. See details on cable television operators on page 34 and a list in Chapter 5.5, page 52.

1.6.3. Internet content providers

Internet web sites in the Czech Republic have been assessed by PricewaterhouseCoopers as the most interesting and most informative in the Central and East European region. A vast majority of medium-sized and larger companies and national institutions have their own websites. The most popular server, www.seznam.cz, reports over 1.4 million page views per day.

The table below shows that on the regional and local level, the number of web sites is significantly lower, mainly due to limited funding.

Number of web sites in regional and local institutions

	„population“	web sites	%
Primary and secondary schools	5308	714	13.5
High schools	168	59	35.1
Universities	30	30	100.0
National ministries	14	14	100.0
Regional and local authorities	6440	225	3.5
Hospitals/clinics	320	66	20.6
Museums	430	120	27.9
Libraries (only in larger cities)	6303 (158)	256 (158)	4.1 (100)

Source: European Survey of Information Society, January 2000

1.6.4. E-business

Internet banking, home banking etc.

All major banks in the Czech Republic have started to build up electronic and telecommunication banking channels and compete over future clients in this field with expected strong growth. Some of the products offered to clients in early 2000 were Internet banking, home banking, GSM banking, and call centres. There is one truly Internet bank – Expandia banka – with 24,000 clients, which has been recently acquired by a strong partner, Česká pojišťovna (Czech Insurance Company), which can support further growth.

Although the use of Internet as a service channel by Czech banks is rapidly increasing, there are certain technical and administrative barriers on even faster and wider expansion of Internet banking (company policies, server configurations, corporate safety measures etc.). These follow from the fact that most Internet users in the Czech Republic access the web through corporate networks, which are subject to certain restrictions.

According to a Sofres Factum survey of mid-1999 among nearly 300 hundred managers, around fifty percent of companies, especially larger ones, use electronic banking services. The three most frequently used services are account activity information reports, account balance checks and requests for payment.

E-commerce

E-commerce has seen fabulous growth in 1999, with total sales 533 % than in 1998. The biggest expansion occurred before Christmas 1999. According to a study by Deloitte & Touche, total sales of Internet shops exceeded CZK 5 million (CAD 200 thousand) in October and reached 11 million (CAD 420 thousand) in December - one fourth of total annual sales, which amounted to CZK 44.46 million (CAD 1.8 million). If growth continues at the same rate, the Czech Internet retail market could reach CAD 10 million in the year 2000. In view of this huge potential, companies now concentrate on building up their market share, regular clientele, and good reputation rather than achieving profits.

In terms of product ranges, the bulk of sales is in home appliances (refrigerators, washing machines etc.), literature, music, electronic products (TV, VCR, CD players etc.) and travel. Practically all Internet shops are targeted at Czech customers. The only exception is www.musicabona.com with 95 % of sales to foreign countries.

A typical client is very similar to the typical Internet user - a young man with relatively high income with access to the Internet in his office. A great majority (85 %) of all Internet sales are processed on payment-on-delivery basis, which is a consequence of still limited use of credit/debit cards and relatively low safety of the Internet.

The figures given above cover only specialized Internet shops and do not include companies that use e-commerce only as an alternative marketing and sales instrument, which however represent also a significant volume of Internet sales. AutoCont CZ, a hardware distributor, achieved highest sales of all Internet shops amounting to CZK 15.7 million (CAD 0.6 million). Total sales over the Internet in the Czech Republic are estimated at around CZK 100 million (CAD 4 mil.), which is 0.02 % of total retail sales.

1.7. Telecommunications

The telecommunication market has seen enormous growth, especially since partial privatization of the monopolistic national operator SPT Telecom (now Český Telecom, privatized through „voucher“ privatization in 1994 and strategic investment of the TelSource consortium in 1995), and due to recent expansion of the segment of mobile communication.

Size of the market

Telecom market size (CAD million)

	End 1996	End 1997	End 1998	End 1999*
Operators market	1 680	2 030	2 450	3 219
Equipment market	2 310	2 660	3 052	3 796
Total Telecom market	3 990	4 690	5 502	7 015

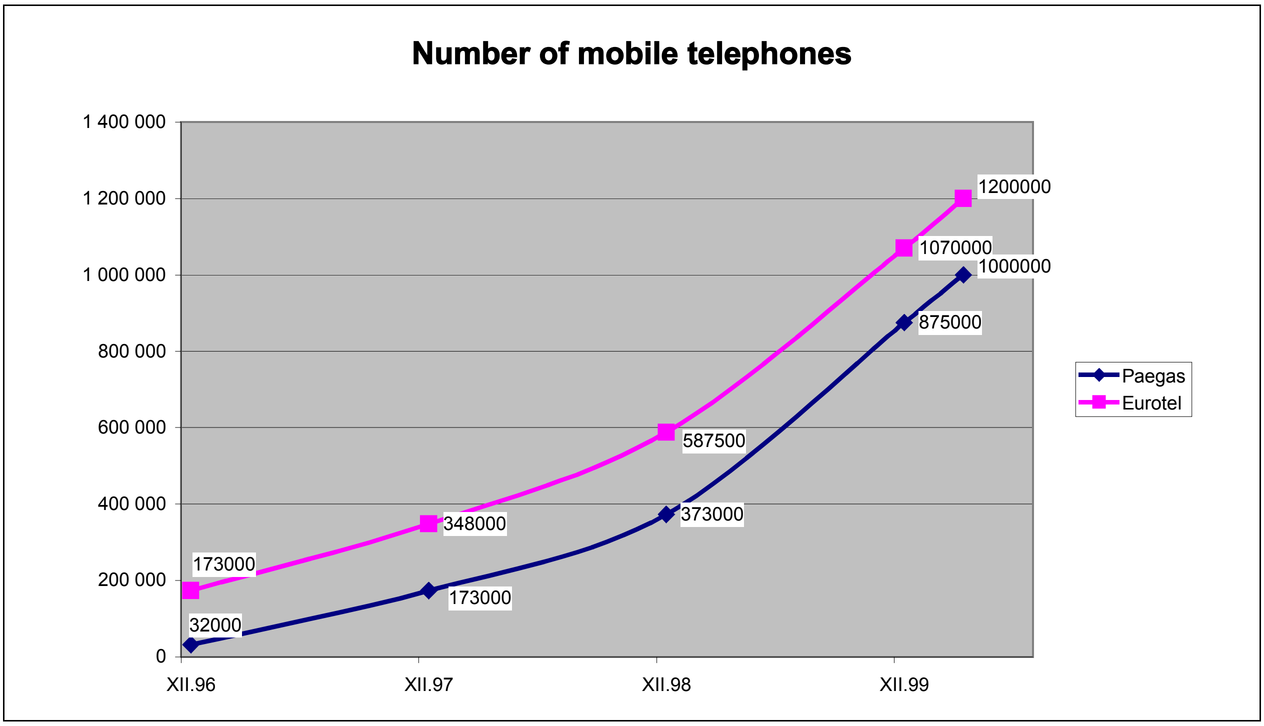
* estimate

Telephones lines

	End 1996	End 1997	End 1998	End 1999
Conventional lines	2 815 000	3 274 000	3 734 000	3 839 000
64kB ISDN lines (subsc.)	0	6500	16500	57 000
Mobile phone lines	203 180	524 641	968 760	1 945 000
Total number of lines	3 018 180	3 805 141	4 719 260	5 841 000

Telephone lines per 100 inhabitants

	End 1996	End 1997	End 1998	End 1999
Conventional lines	27.30	31.80	36.20	37.27
64kB ISDN lines (subsc.)	0	0.07	0.16	0.55
Mobile phone lines	1,97	5.09	9.41	18.88
Total	29.30	36.96	45.80	56.70



Source: European Survey of Information Society II

At the end of 1999, the number of mobile telephones grew to 1,945,000, thus reaching a penetration of nearly 19 %. By March 2000, this figure further increased to 2,200,000! The marked increase of the last few months is partly due to a massive pre-Christmas campaign of both operators, but also a „domino effect“ of wide use of mobile phones, and prices reductions resulting from competition between the two existing operators and against the third one, operating commercially from March 1, 2000.

Of the total number of mobile telephones in March 2000, EuroTel has 1,200,000 clients, still leading over RadioMobil with 1,000,000. RadioMobil started to operate its GSM network in 1996, while EuroTel launched a NMT network already in 1991 (and GSM in 1996). The graph on the previous page demonstrates the rate of growth as well as the competitive position of both operators.

Deregulation and competitive situation

According to the 1994 Telecommunications Act, the telecom market has been privatized with the important exception of voice services. The national monopolistic operator, SPT Telecom (now Český Telecom) was granted an exclusive license for voice operation of long distance and international communication until the year 2000. This exclusivity expires on January 1, 2001, but the House of Deputies of the Parliament in a new Telecommunication Act passed in March 2000 approved a measure of technical nature that would practically postpone real competition until mid-2002 by preventing new operators from leasing the existing network from the Český Telecom. Český Telecom claims not to have the technical capacity necessary to let end-users choose their operator on the current line. From July 1, 2000, existing clients of Český Telecom would finally have the possibility to choose their operator on the existing line and only from January 1, 2003, clients would be able to select any operator for individual phone calls. The new Telecommunication Act is yet to be approved by the Senate, however, which already expressed certain objections and could return the regulation to the House of Deputies.

Future competitors of Český Telecom now operate services that were already liberalized, e.g. data networks, and prepare their infrastructure for competition once the market is fully liberalized. Two major „alternative operators“ are Aliatel and Contactel – see chapter 2.6 for details on these as well as other telecommunication companies.

In the sub-sector of local voice services, 16 regions, the capital city of Prague and the city of Liberec were chosen for pilot private networks projects. Nine companies were granted a license to operate these networks. The development of regional networks (unlike Prague and Liberec) has not been successful so far.

For five years (1991-1996), the mobile communication market was controlled by EuroTel (a joint venture of SPT Telecom and Bell Atlantic and US West) with a guaranteed monopoly for operation of an analogue NMT network. In 1996, the market was opened to a second operator, RadioMobil (a joint venture of České Radiokomunikace and German-led consortium CMobil), with a GSM network. EuroTel also launched a GSM network in the same year. In October 1999, a third GSM license (in the 1800 MHz band) was awarded to Český Mobil, a consortium of TIW (Telesystem International Wireless TIW, a member of the Canadian-based private communications group Telesystem Ltd.), Priority Telecom, and IPB (a Czech private bank with majority ownership of Nomura, Japan). Český mobil launched its commercial services on March 1, 2000. By June, the company expects to cover 80 percent of the population. Total investment into the network is to reach USD 200 million by mid-2000.

Internet telephony, offering significant economies especially on international telephone calls, started to expand in 1999. In March 2000, Český Telecom joined EuroTel, RadioMobil, Contactel, Aliatel and several other operators and started to offer Internet telephony.

See also chapter 2.6 for details on selected telecommunication companies.

1.8. Role of the state

In 1996, the **State Information System Office** was established, originally with the goal to implement a unified information system of all the state authorities. This was later changed because most state authorities already had a system of their own, to „coordinating" the interconnection of various independent information systems of state authorities. Today, the State Information System Office is involved in several other activities covering the area of Information Society - for example, it hosted the National Coordination Center for Y2K, acts as the Czech ISPO office, represents the Czech Republic in international activities in the field of information society, acts as a partner for many EU activities, coordinates the development of e-commerce etc.

Úřad pro státní informační systém
(State Information System Office)
Havelkova 22, 130 00 Praha 3
Tel. +420-2-21008111, Fax: +420-2-24221484
www.usiscr.cz

The Czech Republic has an Information Society policy document, entitled **The State Information Policy** (SIP, Státní informační politika - cesta k informační společnosti). This document was elaborated by the **Governmental Council for State Information Policy** (Rada vlády pro státní informační politiku), established on October 19, 1998 by Governmental Decree No. 680/1999. The Governmental Council For State Information Policy (Rada vlády pro státní informační politiku) has a Permanent working group (Odborná pracovní skupina) to implement decisions and evaluate and measure achieved results.

Rada vlády pro státní informační politiku
Governmental Council for State Information Policy
sip@vláda.cz, www.vláda.cz

The Council also formed an advisory body named **Czech Forum for Information Society**, which should promote dialogue with the public which will be affected by the State information policy and which should contribute to its implementation. It would gather up to 50 personalities representing all relevant parts of the society (including minorities, media etc.), to provide necessary dialogue with the public and discuss various issues related to information society.

České fórum pro informační společnost
(Czech Forum for Information Society)
www.info-forum.cz

1.9. Sector organizations

Sdružení pro informační společnost

(Consortium for Information Society)
Blanická 16, Praha 2, 120 00
Tel: +420-2-2150-3481, Fax: +420-2-2150-3482
E-mail: spis@spis.cz; Web: www.spis.cz

In March 1998, the Sdružení pro informační společnost (SPIS) was formed as a professional association of companies from the sphere of information and communication technologies, with the aim of promoting the Information Society. It represents the Czech Republic (as the only post-communist country) in EUROBIT - European Association of Manufacturers of Business Machines and Information Technology Industry. SPIS contributes to development of new legislation (electronic signature act), organizes discussion clubs for the government etc.

In March 2000, SPIS had 44 members: APC, APP Group, Arthur Andersen, AutoCont, BVV, CCA, Cisco Systems, Contactel, Compaq Computer Corp., CPE, Český Telecom, debis IT Services, DNS, EuroTel, Expert & Partner engineering, GiTy, Gopas, Hewlett-Packard, ICL, Informix, Intel, Intergraph ČR, Ixos Software, Logica, Lucent Technologies, MEDIUM SOFT, Merlin, Microsoft, Novell, Olympus C&S, Oracle, PIKE Electronic, Progress Software, PVT, RadioMobil, SAP, Siemens, Software602, Sun Microsystems, Sybase, Unicorn, Unisys, Varias, and Weinhold a partneři.

Asociace provozovatelů veřejných telekomunikačních sítí

(Association of Public Telecommunication Network Operators)
Jeseniova 52, 130 00 Praha 3
Tel.: +420-2-6972880, Fax: +420-2-6975278
E-mail: apvts@apvts.cz, http://www.apvts.cz.

Chairman: Ing. Svatoslav Novák, Executive Director: Mgr. Veronika Garbe
Members: Aliatel, České radiokomunikace, Dattel, GTS Czech Net, Kabel Plus, Český Telecom

Asociace pro elektronickou komerci (APEK)

nám. 28. dubna 48, 635 00 Brno
contact person: Mr. Leoš Prušvic, project manager
Tel. +420-603-559860 (mobile), e-mail: leos.prusvic@apek.cz
info@apek.cz, www.apek.cz

1.10. Relevant information sources

- European Information Technology Observatory - www.fvit-eurobit.de/def-eito.htm
- International Data Corporation - www.idccentraleurope.com
- Ministry of Industry and Trade of the Czech Republic - www.mpo.cz
- European Survey of Information Society II - www.ispo.cec.be/esis/default2.htm
- CzechInvest - www.czechinvest.cz
- Ministry of Foreign Affairs – www.czech.cz

2. Competitive situation

2.1. Hardware

2.1.1. Segment overview

Production of information technologies was started in the Czech Republic in early 1960's. The country, in partnership of other countries of the communist block, developed and produced different types of medium-sized and large computers with an original operation system, and adapted and modified smaller technologies, esp. from Digital Equipment Corporation. In the years 1989-1990, the Czech Republic had a production of several thousand personal computers IMB PC XT. When restrictions on imports of hi-tec products from the West were lifted in 1990 and the following years, domestic production became uncompetitive and gradually disappeared.

Currently, domestic producers of information technologies focus on assembly and installation often complemented with distribution of software and data processing services. The ability to offer comprehensive deliveries consisting of hardware, software and services, has lead to the evolution of the system integration market (see chapter 5.3 for details on major system integrators in the Czech Republic).

In 1998, local assemblers generated sufficient growth to resist growing pressure from brand vendors and retain still a dominant share of the PC market. These companies, including AutoCont, ProCa and ComFor (see 2.1.4 for details) achieved a 53.8% share on total sales. However, brand computers from Compaq, Dell and Hewlett-Packard have increased their share by reducing the share of local assemblers as well as of „no-name“ computers and reached 41.6 % of total sales. The two largest vendors are Compaq and AutoCont.

In the LAN hardware market (network interface cards, hubs, switches, routers), the two leaders in sales are Cisco Systems and 3Com - US Robotics, followed by IBM, Bay Networks and Cabletron. The market is expected to grow over the next three years.

See also chapter 5.1 for a comprehensive listing of hardware suppliers and distributors

2.1.2. Local producers

The majority of IT products are imported, including a wide range of computers, peripheries, and network components. There is limited domestic production of some components, such as A/D a D/A converters and other, PC mainboards, power supplies, cases, cables.

In 1997, following five years of partnership, First International Computer, Taiwan (FIC), one of major personal computer mainboard producers in the world, invested directly in its Czech partner company - AAC, České Budějovice. Totalling USD 100 million, FIC is the single largest investment of Taiwan in the Czech Republic. Initially, most components were shipped from abroad, especially from the Far East, and assembled in a facility near Prague. Later the company built a new production facility and started to substitute its suppliers with domestic or European companies. Eventually, the plant should employ over 150 people and produce 50,000 computers per month, 95% for export. The target capacity is to be achieved in the year 2000. The company is focused on EU markets, which are also supplied from its plant in Netherlands. FIC is now a leading domestic producer, accounting for a large part of growth of domestic production in the last few years.

First International Computer / FIC CZ s.r.o.
K Vypichu 986, 252 19 Rudná
Tel.: +420-311-601111, Fax: +420-311-601-130, -140, -150
info@fic.cz, sales@fic.cz, www.fic.cz

Another company that decided to invest into a local production facility is Lexmark Electronics, which is part of the Lexmark International group, the second largest producer of computer printers with annual sales of USD 3 billion. The production line, producing printer components, is located in Brno (second largest city in the south-eastern part of the country).

2.1.3. Foreign producers / local brand vendors

In the PC segment of the hardware market, all major international brands are represented, with Compaq being the market leader among foreign suppliers, followed by Dell and Hewlett-Packard. Compaq has also a dominant position in sales of PC servers with approximately one third of the market (Compaq ProLiant).

Sales of hardware have seen relatively low dynamics and price competition has become very fierce. Consequently, hardware suppliers tend to focus on offering added value to their clients in the form of their own operation system, customized solutions etc.

Apple Macintosh has a relatively weak market presence in the Czech Republic, with only around 2 % of the market (compared to nearly ten percent in the USA in late 1998). Its Czech clients include primarily local branches of foreign companies using Apple in their facilities in other countries and graphic design studios, where Apple has a very good reputation thanks to its graphic software such as Quark Xpress.

Details of major brand vendors

Compaq

Compaq Computer s.r.o.
Na Pankráci 26, 140 00 Praha 4
Tel. +420-2-6110-8316, Fax +420-2-6110-8112
www.compaq.cz

The Czech branch of Compaq was established in 1994 in Prague. Compaq Computer s.r.o. is the biggest supplier of SAP R/3 in the Czech Republic. Compaq is also the best selling brand of desktop computers (12.4%), notebooks (21.7%) and PC servers (27.6%). The company has 140 employees and 340 authorized partners throughout the country

Dell

Dell Computer s.r.o.
Sokolovská 84-86, 180 00 Praha 8
Tel.: +420-2-2-2283-2711, Fax: +420-22-2283-2714
czech_dell@dell.com, http://www.dell.cz

Hewlett Packard

Hewlett-Packard s.r.o.
BB Centrum, Vyskočilova 1, 140 21 Praha 4
Tel.: +420-2-6130-7111, Fax: +420-2-6130-7613
e-mail: info_cz@hp.cz; http://www.hp.cz, www.hp.com

Hewlett-Packard has a long business tradition in the Czech Republic. From 1967, it was present through its branch in Vienna, Austria. From 1997, HP had a business representative in Czechoslovakia. In 1991, Hewlett-Packard established Hewlett-Packard Československo, spol. s r. o., which later split into two after the division of Czechoslovakia. In 1999, Hewlett-Packard s.r.o. had 195 employees and its FY 1999 sales reached CAD 170 million.

Apple Computer

Czech Data Systems, s.r.o.
Apple Computer IMC
Na Šafránce 22, 101 00 Praha 10
Tel.: +420-2-7174-0202, Fax: +420-2-7174-0204
e-mail: info@apple.cz, http://www.apple.cz

Apple Macintosh has a relatively weak market presence with only around 2 % share. Its Czech clients include primarily local branches of foreign companies used to Apple from their facilities in other countries and graphic design studios, where Apple has a very good reputation thanks to its graphic software such as Quark Xpress.

Its weak position can be explained by two facts. One reason is the communist past of the Czech Republic. Until 1990, Apple Macintosh could not export to countries of the communist block because they were outfitted with Motorola chips used also in military applications. Larger machines were restricted by an embargo for another three years, which gave PCs a great margin against Apple in terms of market share. The other factor is a failure of its local representative (independent marketing company, IMC) TIS in 1997. Problems continued even with a new IMC (CDS), which was unable to build a strong and flexible distribution network with high quality of customer service. Disputes within the distribution network led two dealers (Quentin, MacDistribution) to form independent distribution channels connected to other foreign suppliers. This has led to strong competition among the three distributors resulting in prices lower than in a vast majority of other European countries. The competition has also led to much higher quality of customer service. On the other hand, the fight between CDS and the two alternative or unofficial distributors consumes resources that could be spent on promotion of Apple Macintosh to potential new customers and expanding the market share. An example is the iMac system which helped Apple to nearly double its share in the United States but failed to reach such popularity in the Czech market probably also due to lack of a concerted marketing effort.

2.1.4. Local assemblers & wholesalers

Details of major local computer assemblers & wholesalers

AutoCont

AutoCont CZ, a.s.
Nemocniční 12, 702 00 Ostrava 1
Tel.: +420-69-615-2111, Fax: +420-269-615-2112
info@autocont.cz, www.autocont.cz

AutoCont is one the largest IT companies in the Czech Republic and one of the three biggest PC vendors (32,216 PCs in 1999 of the total of 250,000, i.e. approx. 12.5 %). Its total revenues last year exceeded CZK 1.5 billion (CAD 60 million) and were 16% higher than in 1998. The company has been focused on sale of personal computers produced by its daughter company AT Computers, Ostrava (100 employees, maximum capacity 500 PCs per day), and also resells Hewlett-Packard. Recently, AutoCont has been putting a growing emphasis on IT services and implementation of information systems, which are significantly more profitable than PC distribution. AutoCont formed a division to concentrate on information systems for large companies - AutoCont Business Solutions with nearly one fourth of its total staff.

AutoCont distribution network consists of 30 stores and 26 franchisees. The franchise network sold computers worth over CAD 20 million (CZK 0.5 billion); the whole network thus exceeded 80 million CAD (CZK 2 billion) in revenues. AutoCont also launched two Internet shops: shop.autocont.cz and hpworld.cz. In 1999, these two shops achieved the highest sales among Internet shops (see chapters 1.6.4 and 2.5.3).

AAC/Libra Electronics/ProCa/Vikomt

AAC, České Budějovice, owns a number of important local distributors of IT, including two of the largest companies, ProCa (see above) and Libra Electronics (see below), and Vikomt. Through these companies AAC controls approximately 20% of the Czech market with revenues in excess of CZK 3 billion (CAD 120 million). AAC itself has a 60% ownership share by First International Computer (FIC), Taiwan (see 2.1.2).

AAC a.s.
Chelčického 15, 370 01 České Budějovice
Tel. +420-38-7312136

ProCa s.r.o.,
V Lužích 818, 142 00 Praha 4
Tel.: +420-2-67283111, Fax: +420-2-67283120
E-mail:info@proca.cz, www.proca.cz
One of largest domestic producers (assemblers) of computers sold under the name Brave.

Libra Electronics s.r.o.
Chelčického 13A, 370 01 České Budějovice
Tel: +420-38-7743201 Fax: +420-38-77432 04
E-mail: info@libra.cz; http://www.libra.cz

Libra Electronics sells Leo computers (made by FIC) and consumer electronics of Samsung. Total sales were CZK 1.19 billion (nearly CAD 50 million) in 1998, the company sold over 11,000 PCs. Libra Electronics used to sell Brave computers within a joint marketing venture with ProCa, but stepped out of the project to fully focus on Leo, for which it took over the Eastern European distribution network. Within the Czech Republic, Libra Electronics has its own retail centres in all major cities and also a retail network including its own stores, franchisees and around 80 Leo partners.

Vikomt CZ
Holoubkov 21, 33801
Tel. +420-181-951081, Fax: +420-181-951164
Email: info@ho.vikomt.cz, www.vikomt.cz

Vikomt CZ, a.s. is one of Czech largest IT wholesalers. Part of AAC group from mid-1999. Vikomt CZ is a producer/assembler of Monsoon computers and distributor of components and peripheries of foreign brand producers, and also Compaq and Acer notebooks.

ComFor

ComFor s. r. o.
Veská 35, 533 04 Sezemice
Tel.: +420-40-6028450, Fax +420-40-6028460
comfor@com4.cz; www.comfor.cz, www.com4.cz

ComFor is the third largest producer/assembler of personal computers and one of the largest wholesalers of general hardware/software products and components. ComFor is also active as a system integrator. In late 1999, ComFor was sold to Wstore Inc., Nevada, USA, a venture-capital based computer vendor focused on Internet commerce and currently operating in Great Britain and France.

Mironet

Mironet Computers
Pod Drinopolem 26, 169 00 Praha 6
Tel.: +420-2-2051-0535, Fax: +420-2-3335-3333
E-mail: praha@mironet.cz, www.mironet.cz

Mironet is a Czech assembler of personal computers sold under the name Mironet and vendor of personal computers, components, LAN hardware, accessories and software.

Abacus

Abacus Praha, s.r.o.
Koněvova 51, 130 00 Praha 3
Tel. +420-2-644-2841
www.abacus.cz

The key parts of the Abacus Computer group are Abacus Praha (Prague), Abacus Ostrava (Ostrava, Olomouc) and Abacus Electric (Č. Budějovice, Planá). The group is one of largest wholesalers of computer hardware and software. The group’s consolidated turnover in 1998 reached CZK 500 million (CAD 20 million). The group is focused on distribution, complemented with production of PC Abacus (sales of 2000 pieces in 1999).

2.2. Software

While foreign software producers dominate the market of operation systems and office products, there are a number of important local companies that have built up a significant market share in several segments of the market based on their knowledge of the local market and environment: antivirus programs, information systems (ERP), legal software, accounting, maps etc. Microsoft has a local competitor in office products - Software 602, a company established by authors of the Text602 text editor that was very popular in late 1980's and early 1990's. The following chapters introduce selected companies in each of these market segments.

See also chapter 5.2 for a comprehensive listing of software producers and distributors

Details of selected local software producers

2.2.2. Office products

Software 602

Software602 a.s.
P.O.BOX 1, Hornokrčská 15, 140 00 Praha 4
Tel: +420-2-2201-1602, Fax: +420-2-2201-1218
e-mail: infoline@software602.cz, www.software602.cz

Software602 was established in 1991 by authors of a popular text editor Text602. In 1993, a daughter company was founded in Slovakia. In 1996, Software602 created another daughter company, System602, based in Prague and focused on sale of network and communication solutions, and Software602, Inc., based in Jacksonville, Florida, USA. Software602 is also represented in G. Britain, Sweden, Netherlands and S. Africa.

Since March 1999, Software602 sells a full range of economic data management products, of which the most important is an office package called 602Pro PC Suite. 602Pro PC Suite won the 1999 Volba award as the most popular Czech software product.

Software602 a. s. is the Czech largest producer of programs for PC in the fields of office applications, communications, and databases. The total number of licenses on its programs exceeds 400,000.

2.2.3. Antivirus programs

In addition to antivirus programs of large foreign companies (Norton Antivirus, McAfee etc.), there is a selection of local programs of equally high quality (AVG, Avast, Dr. Solomon's Antivirus Toolkit, Scan, F-prot). The Czech Republic has not only a large number of infected computers but also significant local „production“ of viruses. Two major local producers of antivirus programs are described below.

Grisoft Software s.r.o.

Lidická 81, 602 00 Brno	GRISOFT Inc.
Tel: +420-5-412 438 65-7	5933 Pennyroyal Lane
Fax: +420-5-412 114 32	Pollock Pines, CA 95726-9006
E-mail: grisoft@grisoft.cz	Toll-Free Tel. +1-877-885-1812
www.grisoft.cz	Email: grisoft@grisoft.com, http://www.grisoft.com

Grisoft Software started to develop a first version of its antivirus program, sold under the name AVG, in 1990. In 1993, the company discontinued all other activities and fully focused on further development and distribution of the system. Grisoft, based in Brno, has 12 employees, incl. 6 developers. Since 1998, the company is fully owned by Grisoft Inc., USA.

Alwil Software

Průběžná 76, 100 00, Praha 10
Tel.: +420-27400-5666, Fax: +420-2-7400-5888
E-mail: sales@alwil.com, www.asw.cz, www.avast.cz

ALWIL Software is a Czech company established in 1991, specialized in data protection on IBM PC compatible computers. Its AVAST and the latest version AVAST32 have been regularly evaluated by the British Virus Bulletin (www.virusbtn.cz) as some of the best antivirus programs in the world. Avast is currently used by over 200,000 legal (!) users. The main distributor of the program for the Czech Republic and countries without a local distributor is a sister company – ALWIL Trade spol. s r.o., Průběžná 76, 100 00 Praha 10, tel. +420-2-7400-5111, fax -5222, e-mail: sales@alwil.com, www.alwil.com. Local distributors cover the USA, Canada (Sensible Security Solutions, Inc., www.canada-av.com), Austria, Germany, Netherlands, Slovakia, Iceland, Norway, Finland, Sweden, Danmark, Poland, Hungary, Australia, Portugal, Lithuania, India, and Singapore.

2.2.4. Information systems (ERP)

According to IDC, the Czech ERP market reached a total of CAD 55 million in revenues for licenses and service in 1998, i.e. 19 % growth against 1997. The dominant player is SAP (www.sap.com/cz) with a 52.3% share in 1998. SAP achieved a growth of 34% in 1998 and also 1999 (to a total of CZK 1.23 billion), thus improving its advantage against competitors and strengthening its position. Some of other foreign suppliers include Baan (BaanERP, BaanSCS; www.baan.com), Oracle (Oracle Applications; www.oracle.com), Intentia (Movex; www.intentia.cz), Navision Software (Navision Financials; www.navision.cz), Damgaard (Concorde XAL, Axapta, www.damgaard.com), JBA (JBA System 21; www.jba.cz), Great Plains Software (Dynamics; www.greatplains.cz) and others. Most of these companies have their own branch in the Czech Republic, but some are represented through or work in partnership with local companies.

The best business potential is now in the sphere of medium-sized information systems, which is thus in the focus of most market players. Large companies offer preset packages, often sold together with hardware and supported by leasing schemes. Producers of small systems struggle to extend their products in order to also obtain a share in the market of medium-sized information systems. Medium-sized systems offer special solutions for various industrial sectors and different types of production.

In view of this focus on the mid-range segment, SAP developed a preset package HP SAP StartKit, offered by some of the largest system integrators, including SAP, Logica, Hewlett-Packard and Microsoft. Other companies followed the move: Great Plains Software (IS Dynamics, www.greatplains.cz), Compaq (www.compaq.cz), LLP (SunSystems, www.llpgroup.com) and others. See also chapter 5.3 for details on system integrators.

A majority of ERP systems is implemented on Unix. Windows NT has approximately one fourth of the market. In terms of hardware platforms for ERP, IBM is the leader with around one third of all ERP installations.

There are also several local producers offering information systems; perhaps the best known among them are LCS International with its Noris, Cígler Software (Money) and Softprofes (SIS 21, SIS 27). See below details on these three local ERP producers.

Cígler Software

Rostislavovo náměstí 12, 612 00 Brno
Tel.: +420-5-4952-2511, Fax: +420-5-4952-2512
e-mail:info@ciglersw.cz, www.cigler.cz,

Cígler is Software is a local producer of economic systems (ERP) for medium-sized and smaller companies. Its Money has reached 36,000 installations in the Czech Republic and Slovakia, thus being one of the most widely used systems in the market segment. Cígler Software was established in 1990 as a fully privately owned Czech company. In 1999, Cígler Software changed to a joint-stock company with registered capital over CAD 3.2 million. In addition to producing, distributing and implementing Money, Cígler Software also supplies cash room systems and represents Elnec, a producer of equipment for work with EPROM and microprocessors. In 1999, Cígler Software entered into a partnership with Great Plains (www.greatplains.cz, www.gps.com).

Softprofes

Bratří Štefanů 60, 500 03 Hradec Králové 3
Tel.: +420-49-580-9211, Fax: +420-49-580-9212
E-mail: info@softprofes.cz, www.softprofes.cz

Softprofes is a fast-growing application software and information system producers, established in 1990. The company currently sells two systems named SIS 21 and SIS 27.

LCS International

Slezská 96, 130 00 Praha 3
Tel. +420-2-691-1380, -1317, Fax: +420-2-691-1365, -2425-66 61
E- mail: info@lcs.cz, helios@lcs.cz, noris@lcs.cz, http://www.lcs.cz

LCS International is a Czech software company focused on development and support of original economic information systems. LCS was established in 1990 and currently has 100 employees, including 30 developers. In 1999, LCS revenues amounted to CZK 107 million (CAD 4.3 million), which represented an 87% increase from 1998. Its most successful product is an ERP system for medium-sized and large companies sold under the name NORIS, which recorded a 140% growth of revenues in 1999. HELIOS, designed for smaller and medium-sized companies grew by 10 %.

2.2.5. Accounting software for small and medium-sized companies

The table below gives a list of selected 10 producers of small to medium-sized accounting software. It is not a comprehensive listing of all companies of this segment in the CR.

Company	Product	Address	Tel. (+420-) Fax (+420-)	E-mail Web site
PCS Software	EkoSW, Aconto	Na Dvorcích 18 140 00 Praha 4	2-692-0277 2-6122-5626	info@eko.pcs.cz www.pcs.cz
PeliCo	Kalkul	Žilkova 12a Brno - Řečkovice	5-41226747 (-9)	www.pelico.cz
APEX Computers	Kostka	Nerudova 600 293 01 Mladá Boleslav	326-24147, 728294-6 326-26447	info@apexcomp.cz www.apexcomp.cz
Cígler Software	Money	Rostislavovo nám. 12 612 00 Brno	5-4952-2511 5-4952-2512	info@ciglersw.cz www.cigler.cz
Stormware	Pohoda	Mahlerova 21, PS 22 58601 Jihlava	66-7309953 66-7322407	info@stormware.cz www.stormware.cz
KD Software	Mirage	Dukelská brána 4 796 01 Prostějov	508-330079 (-81) 508-26516	www.kdsoft.cz
Till Consult	Double, Simple	Čechova 29 750 00 Přerov	641-201915 (-19)	vedeni@tco.cz www.tco.cz
Tichý a spol.	Účto	Višňová 1416 473 01 Nový Bor	424-722211 424-722312	ucto@clnet.cz www.ucto2000.cz
Čapek	Duo, WinDuo	Chitussiho 13 710 00 Ostrava	69-6248585 69-6248545	winduo@winduo.cz www.winduo.com
Prodiss	WinStorm	Holandská 52/1052 101 00 Praha 10	2-7172-2012 2-7172-3115	admin@prodiss.cz www.prodiss.cz

2.2.6. Legislative software

Byll Software - ASPI

U nákladového nádraží 6, 130 00 Praha 3
Tel.: +420-2-22863411, Fax: +420-2-22863414
e-mail: obchod@byll.cz; www.aspi.cz, www.byll.cz

Byll software is a text database and text information system software producer, best know for its ASPI (Automated System of Legislative Information) - the largest and most widely used legislative application. ASPI contains all legislation beginning in 1811. ASPI has reached very wide distribution and is currently used by all state institutions, including the Parliament (standard installation on all computers of Members of Parliament), all ministries, the police, other national and regional authorities and courts. From January 1, 1999, ASPI practically drove out of the market its former competitor Codex Bohemia, which formerly produced its own system sold under the name JurixMax and now cooperates with Byll and refers to ASPI.

Ústav státu a práva AV ČR – LegSys

Ústav státu a práva Akademie věd ČR
(Institute of State and Law of the Academy of Sciences of the CR)
Národní 18, 116 91 Praha 1
Tel.: 420-2-2491-2224, Fax: 420-2-2491-2273
E-mail: legsys@legsys.cas.cz; www.legsys.cas.cz
Producer of LegSys – legislation database system

Stormware – WinLex

Stormware s.r.o.
Mahlerova 21, PS 22
58601 Jihlava
Tel.: +420-66-7309953, Fax: +420-66-7322407
e-mail: info@stormware.cz; http://www.stormware.cz
Producer of legislative system WinLex.

2.2.7. Other original Czech software producers

Zoner Software

Koželužská 5, 602 00, Brno
Tel. +420-5-4325-7243 (-5), Fax: +420-5-4325-7245
http://www.zoner.com, http://www.zoner.cz

ZONER software, s.r.o., established in 1993, is a Czech producer of graphic design, multimedia, Internet and e-commerce programs. Following several successful graphic, hypertext, office and games programs developed in the first three years from its start, Zoner expanded its business in 1996 and introduced a high-performance graphic editor Zoner Callisto and a multimedia system Zoner Context. Also from 1996, Zoner develops and administers web sites, currently with a 10% position in the web-hosting segment within in its Czechia project. Another program, Zoner inShop, an electronic commerce system, became the most frequently used e-commerce software only three months from its launch.

In 1997, Zoner expanded its activities internationally. The company opened several representations in the USA and started sales in Great Britain. In 1998, Zoner Callisto 3 (English version) won the Finalist Best of Show award at CeBIT, Hannover. Since 1999, Zoner is also represented in Scandinavian countries, Israel, France, Australia and New Zealand. A branch office in Bratislava, Slovakia, was opened in August 1999.

PJSoft

Službská 27, Praha 8
Tel./Fax: +420-2-688-6087, 8221
E-mail: pjsoft@pjsoft.cz, www.pjsoft.cz

Producer of interactive maps (InfoMapa) of the Czech Republic, major towns and other, sold on CD-Rom and also accessible on the Internet (www.mapy.cz)

2.3. System integrators

The top ten system integrators announced at INVEX 1999, a major local IT fair (see 4.2.1), included Anderson Consulting CE, APP Czech, Deloitte&Touche, EDS, Hewlett-Packard, IBM ČR, Logica, PragoData, PVT, and SAP ČR.

↳ *See Chapter 5.3 on page 50 for details of these and other system integrators*

2.4. IT services

The strongest company in this segment is IBM, followed by a local company PVT. Behind them are a number of other multinational and local companies including Compaq, Hewlett-Packard, APP Group, Andersen Consulting, Unisys, SAP, Deloitte & Touche and others.

Details of selected IT service companies

IBM

Murmanská 4, Praha 10, 100 00
Tel: +420-2-7213-1111
Fax: +420-2-7213-1401
www.cz.ibm.com

IBM is the market leader in IT services and a key player in the general IT market in the Czech Republic. IMB ČR, established in 1991, is based in Prague and has two branch offices in Brno and Ostrava; its total staff is nearly 400 employees. Recently, IBM has been trying to attract clients in the range of medium-sized and smaller companies and also putting marked emphasis on e-business.

PVT

PVT a.s.
Kovanecká 30, 190 00 Praha 9
Tel.: +420-2-684-9329, Fax: +420-2-684-9313
www.pvt.cz

PVT is an important 1.7 billion CZK company concentrating on IT services, including system integration, IT outsourcing, GSM and SMS services, hardware and software supplies, application development, internet services, intranet and others. Its growth of 16.5 % in 1999 was mainly due to continued expansion of the mobile communications and Internet sectors, where PVT is an important supplier to telephone and Internet providers. The company has a shared ownership of P.I.F. - 1. privatizační fond (12. 42%), IPB (Investiční a poštovní banka, 36.99 %), Restituční investiční fond (20 %), Tarpa Securities, B.V. Amsterodam (18,62 %), Coutts Bank Zürich (5,03 %), Lento Investments, Amsterodam (3,99 %) and a number of small individual shareholders.

2.5. Internet

2.5.1. Internet providers

TEN-155 CZ, the academic network with nearly 140,000 users (mainly students) is the largest Internet Service Provider in the country. The network is operated by Cesnet, an association of legal persons, which also built and operated a commercial network Cesnet, recently sold to Contactel, which thus became one of the largest Czech operators (see details further in this chapter).

The second largest ISP in the country is Internet OnLine, a division of the national telecommunication company Český Telecom, which controls a dominant share of the commercial segment of paying subscribers (nearly 20 %). Internet OnLine has made significant investments into a massive promotional campaign. As a first mover and thanks to good technical and financial background, IOL has most benefited from the fast growing popularity of the Internet. In late 1999, IOL started to offer free access to the Internet for subscribers of the largest local daily newspaper and to buyers of a new PC from a major local wholesaler.

In March 2000, three major providers were offering free access to the Internet (to anyone): Czech on Line, WorldOnline and Contactel.

Twenty of the key „upstream“ providers, accounting for more than 90% of all Internet services in the Czech Republic, have formed a peering association called NIX.CZ. (Peering means local interconnection of ISP networks allowing client requests towards local Internet sources to be handled locally.) The table below gives a list of NIX.CZ members and the current condition of their autonomous peering system:

NIX CZ z.s.p.o., Zikova 4, 160 00 Praha 6, Tel.: +420-2-2431-0790, fax. -6106, www.nix.cz

Table: Peering as of February 23, 2000 (http://www.lupa.cz/peering, www.nix.cz)

Member	AS	1902	2686	2819	2852	5407	5490	5610	5620	5588	6706	6721	6740	8316	8593	8747	8913	9080	9148	12461	12767
CESNET	1902	----	NIX	yes	yes	no	NIX	yes	NIX	NIX	NIX	NIX	yes	NIX	NIX	no	no	no	no	no	no
IBM ČR	2686	NIX	----	no	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	no
EUnet Czechia	2819	yes	no	----	yes	NIX	yes	yes	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX
TEN-155 CZ	2852	yes	NIX	yes	----	yes	NIX	yes	NIX	NIX	NIX	NIX	yes	NIX	NIX	yes	NIX	yes	NIX	NIX	no
Bohemia.Net	5407	no	NIX	NIX	yes	----	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX
PVT	5490	NIX	NIX	yes	NIX	NIX	----	NIX	NIX	NIX	NIX	NIX	NIX	NIX	yes	NIX	NIX	NIX	NIX	NIX	NIX
Český Telecom	5610	yes	NIX	yes	yes	NIX	NIX	----	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX
Luko Czech-Net	5620	NIX	NIX	NIX	NIX	NIX	NIX	NIX	----	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX
GTS INEC	5588	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	----	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX
Czech On Line	6706	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	----	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX
Terminal.cz	6721	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	----	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	no
CZ COM	6740	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	----	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX
Telenor	8316	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	----	NIX	NIX	NIX	NIX	NIX	NIX	no
Global One	8593	NIX	NIX	NIX	NIX	NIX	yes	NIX	NIX	NIX	NIX	NIX	NIX	NIX	----	NIX	NIX	no	NIX	NIX	NIX
InWay	8747	no	NIX	NIX	yes	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	----	NIX	NIX	NIX	NIX	NIX
Mopos	8913	no	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	----	NIX	NIX	NIX	NIX
IPEX	9080	no	NIX	NIX	yes	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	no	NIX	NIX	----	NIX	NIX	NIX
DirectNet-EOS	9148	no	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	----	NIX	NIX
Contactel	12461	no	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	NIX	----	NIX
Pragonet	12767	no	no	NIX	no	NIX	NIX	NIX	NIX	NIX	NIX	no	NIX	no	NIX	NIX	NIX	NIX	NIX	NIX	----

Codes in the first row / second column are Autonomous System numbers of individual providers.
„Yes“ means bilateral peering outside of NIX.CZ, „NIX“ means peering through a NIX.CZ node.

In 1999, several Internet Service Providers signed a memorandum of understanding anticipating a new peering centre. This move is explained by limits on potential growth of Internet operation through NIX.CZ. The new peering centre should be operated by Gemma Systems. The following companies are among the proponents of the new centre: Contactel, CZCOM, Czech On Line, EUnet, Global One, Internet OnLine, InWay, IPEX, MOPOS, Plus.Line and Telenor.

Details of selected Internet Service Providers

See also chapter 5.4 on page 51 for a comprehensive listing

Czech On Line

Burzovní palác, Rybná 14, 110 05 Praha 1
Tel.: +420-2-9625-1111, Fax: +420-2-9625-1113
info@vol.cz, www.vol.cz

Czech On Line, a.s., operator of Video On Line Internet services, is one of the largest internet providers in the Czech Republic and one of major on-line service providers. Having started its operation in late 1995, Czech On Line significantly contributed to growth of Internet in the Czech Republic over the last five years. In July 1998, the company was acquired by DBGEE (Deutsche Bank). This acquisition represents the largest in the Czech Internet market to date. In August 1999, Czech On Line a.s. as the first provider in the Czech Republic offered full Internet access free of charge. Video On Line (VOL) runs an internal network made up of 37 nodes (local POPs) with a 27Mbps direct international connection.

Internet OnLine

ČESKÝ TELECOM, a. s.
INTERNET OnLine
Thámova 11 – 13, 186 21 Praha 8
Tel.: +420-2-7146-6111, Fax: +420-2-7146-6000
prodej@hq.iol.cz; www.iol.cz

Internet OnLine is a division of Český Telecom a.s., the national telecommunication operator. IOL is one of the largest Czech commercial Internet service providers with 45,000 clients at the end of 1999 (compared to 22,000 in 1998 and 4,000 in 1997). Its services include dial-up access, fixed line, ISDN, wireless connection, web hosting and housing, domain registration. A most recent project, e-Store is focused on e-commerce. Internet OnLine has contributed to growth of Internet popularity in the country by a massive marketing campaign in the last two years. From mid-1999, IOL in co-operation with the largest daily newspaper, MF DNES, offer Internet access for a symbolic fee of CZK 1.00 per month to subscribers to MF DNES. IOL also guarantees two years of free access to buyers of personal computers Alivio from AutoCont, a major local computer distributor.

WorldOnline

CZCOM/WorldOnline
U soudu 388
500 02 Hradec Králové
tel. +420-49-5235033
info@worldonline.com, www.worldonline.cz

World Online, a multinational corporation based in Netherlands and working in 14 European countries (its shareholders include Sandoz Family Foundation, Intel, and Reggeborgh Beheer), recently acquired CZCOM, a Czech provider, and became the second Czech operator to launch a free access program (dial-up access, 3 e-mail addresses, 10 MB web site space). World Online is accessible within the Internet 2000 program. As a comparative advantage against its competitors, World Online offers access at the cost of local tariff in any of the sixteen countries where it is present. Other services – taken over from CZCOM – include fixed line and wireless connection. World Online also acts as an internet content provider with its own portal, its own Internet radio and direct audiovisual broadcasts.

Cesnet

CESNET z.s.p.o.
Zikova 4, 16635 Praha 6
Tel.: +420-2-2435-2996, Fax: +420-2-2431-6106
info@cesnet.cz; www.cesnet.cz

An association of Czech universities, the Czech Academy of Sciences and other institutions, established in 1996 to provide high-quality interconnection and Internet access to all of its members. One of the major internet service providers in the country operating its own academic network, TEN-155, with over 140,000 users, mostly students (details below), and also a commercial network called Cesnet – which Cesnet sold to Contactel in mid-March 2000 for CZK 775 million. Cesnet will use the acquired resources to establish a fund to promote scientific activities of its members. At the same time, Contactel has committed to deposit CZK 3.5 in a fund to promote student projects focused on telecommunications and the Internet.

TEN-155

TEN-155 CZ is a national academic network (originally with a capacity of 155 MB/s, now upgraded with a 2.5 GB/s line between Prague and Brno, the two largest cities). It covers all main universities, most institutes of the Czech Academy of Sciences and some other institutions. The backbone of the network uses bandwidth from 34 to 155 Mbps. The network is operated by Cesnet (see above). TEN-155 CZ is connected to the European TEN-155 network through one of main backbone nodes in Germany using 34 Mbps link. In the future, the TEN-155 network should be succeeded with a network called GÉANT. Its backbone should operate at the speed of 2.5 GB/s. The network has funding from the European Union in the amount of Euro 161 million for five years.

Contactel

Vinohradská 174, 130 19 Praha 3
Tel. +420-2-3301-1111, Fax: +420-2-3301-1112
info@contactel.cz; www.contactel.cz

Contactel was established in 1999 as a joint company of České radiokomunikace, a.s. (www.cra.cz) and Tele Danmark A/S, Danmark (www.teledanmark.dk) with equal shares of 50 %. At the end of 1999, Contactel had 130 employees. Contactel currently provides Internet and data services, and prepares to enter the voice communication market after full liberalization of the telecommunication market. České radiokomunikace is a major Czech communications company (see details below), which gives Contactel important technical background. Tele Danmark is the second telephone operator in Netherlands, Switzerland and Germany.

In 1999, Contactel carried out a major marketing campaign featuring the „Red Box“ and offering free Internet access to buyers of new multimedia PCs.

In mid-March 2000, Contactel bought Cesnet's commercial network. By this acquisition, Contactel grew to the third place among internet providers in terms of the number of users. Its newly acquired network has very good interconnectivity with other providers and also internationally. The network also hosts many of the major Internet servers.

From mid-March, Contactel started to offer free access to the Internet („Internet Raz Dva“), including dial-up and ISDN access, 10 MB e-mail box and 10 MB for web site.

Contactel uses the backbone network of České radiokomunikace operating at the speed of 155 Mbps. Its line to NIX (peering association, see chapter 2.5.1) has a capacity of 100 Mbps and its international connection uses Tele Danmark Carrier Services with a capacity of 8 Mbps or the Ebone network (European-wide Internet service provider).

EUnet / KPNQWest Czechia

KPNQwest Czechia s.r.o.
Slunná 25, 162 00 Praha 6 - Střešovice
Tel.: +420-2-24311329, 3117794, Fax: +420-2-24316598
info@kpnqwest.com; www.eunet.cz, www.kpnqwest.com

EUnet Czechia s.r.o. was established in 1993, originally under the name Conet, in 1995 changed to Internet CZ s.r.o.. In March 2000, EUnet Czechia s.r.o. changed its name again KPNQwest Czechia s. r. o. EUnet International, the mother company, has around 400 employees, 12 sister companies and 29 other operation companies, 500 connection points (POP) in 42 countries.

➯ *See Appendix 5.4 on page 51 for details of these and other Internet service providers.*

Cable television operators

KabelPlus, one of the largest operators of cable television, has a total of over 350,000 clients, including more than 100,000 in the capital of Prague. Recently, Kabel Plus and Kabel Net became part of the same group under UPC, Netherlands. In addition to cable TV, Kabel Plus also operates a pilot telephone network with 4000 clients in Liberec in North Bohemia. In early 2000, several cable TV operators started to offer or develop infrastructure to enable their clients to access the Internet. Dattelkabel announced a full-access program at only CZK 500 (CAD 20) per month.

➯ *See Appendix 5.5 on page 52 for details of cable television operators*

2.5.2. Internet content providers

Some of the major Internet content providers have formed the **Association of Internet Content Providers**:

Asociace poskytovatelů obsahu sítě Internet (APO)
Opletalova 5, Praha 1, 111 44
tel.: +420-2-2209-8383, fax: +420-2-2209-8439
e-mail: info@apo.cz, http://www.apo.cz

APO's members include Agentura Modré stránky, spol. s r. o., ČTK, Digital Media Production, a.s., Internet servis, a. s., Koncept MEDIA, s. r. o., Macron, s. r. o., Mobil server, s. r. o., Softec servis, k. s., and SPRINX, s. r. o..

Servers

The importance of internet content providers can be well assessed by ranking of their servers (January 2000):

Overall:

(1) Seznam (http://www.seznam.cz), a portal with 1,268 thousand page views per day;
(2) POST.CZ (http://www.post.cz), e-mail server, with 474,417 page views per day;
(3) Atlas (http://www.atlas.cz), a portal with 470,079 page views per day.

The survey also ranked servers in several specific categories, including news and sector specific:

News:

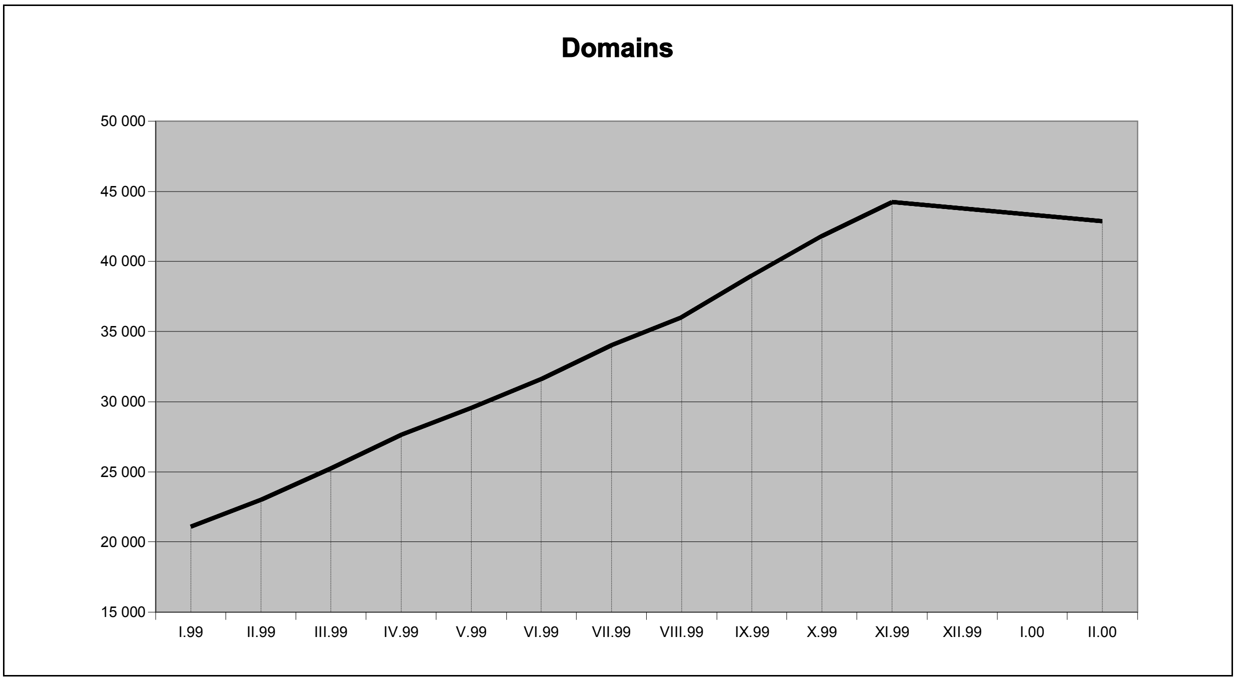
(1) Trafika (http://www.trafika.cz) - 134,762 pages/day
(2) IDnes (http://www.idnes.cz) - 80,425 pages/day
(3) Seznam Dnes (http://dnes.seznam.cz) - 72,609 pages/day

Sector specific servers:

(1) Mobil Server (http://www.mobil.cz) - 70,514 pages/day
(2) Živě (http://www.zive.cz) - 51,704 pages/day
(3) Svět Namodro (http://svet.namodro.cz) - 49,701 pages/day

Domains

The graph below shows the evolution of the number of Czech domains. The decrease recorded by the last measurement is due to a change in the policy of NIC, the national register of Internet domains, which on February 4, 2000 released all domains that had not been paid as of that date.



Date	1.1.1999	1.2.1999	1.3.1999	1.4.1999	1.5.1999	1.6.1999
Number	21 087	23 020	25 240	27 638	29 556	31 616

Date	1.7.1999	1.8.1999	1.9.1999	1.10.1999	1.11.1999	1.2.2000
Number	34 023	36 008	38 966	41 795	44 237	42 881

2.5.3. E-commerce

E-commerce is going through times of immense growth for both specialized Internet shops and companies using e-commerce as an alternative channel. In terms of volume of sales, AutoCont, a major IT distributor, is the leader with total 1999 turn-over of CZK 15.7 million (CAD 0.65 million). Other e-shops with 1999 sales exceeding CZK 10 million are Vltava.cz and Shop.cz.

- For AutoCont, a major Czech IT distributor (see 2.1.4, page 23), e-commerce has become a standard part of its marketing network. Shop.autocont.cz and hpworld.cz served 1868 customers in 1999 and achieved total sales of CZK 15.7 million which is seven times higher than total sales in 1998 and represents approximately one percent of AutoCont's total sales.
- Vltava.cz is a full-scale Internet shop specialized in books, music and video. Total sales in 1999: CZK 11 million (CAD 0.45 million). Started in 1998.
- Shop.cz
- Several other important Internet shops are cybex.cz, progolf.cz (golf equipment), kosmas.cz (books), gigamarket.cz (household appliances).

2.6. Telecommunications

See chapter 1.7 for general overview of the telecommunications market

Český Telecom a.s.

Olšanská 5, Praha 3, 130 00
Tel.: +420-2-7146-3359 (press dept.), 7141-1111 (receptionist), Fax: +420-2-7146-9896
e-mail press: tiskovy.odbor@ct.cz or press.dept@ct.cz, www.telecom.cz

Český Telecom, formerly SPT Telecom, is the monopoly in conventional telephone lines operation. In 1995, the state sold 27 % to TelSource, a consortium of KPN TELECOM Netherlands and SWISSCOM with know-how support, but without direct participation of AT&T. As of December 31, 1998, the state held 51.1% through the National Property Fund, TelSource controlled 27 % and individual owners and investment funds owned 21.9 %. TelSource and KPN Telecom Netherlands control a total of 33.5 % of Český Telecom.

The state-owned 51.1% share should be sold by the end of this year, according to Minister of Finance Pavel Mertlík. The method of sale is to be suggested by a consulting consortium of J. P. Morgan and Komerční banka with the basic criterion being the total revenue. Two alternatives are considered: 1) selling 17% to TelSource, which now controls 33.5%, and offering the rest at international stock markets; and 2) selling 51% to one strategic partner. The cost of the majority share is estimated at CZK 70 - 120 billion, market capitalization of 51 % of the company shares is 146 billion (mid-March 2000). Detailed information about the company's history, current status and development – in English – is available on its web site.

Český Telecom has an Internet division, Internet OnLine, which is the largest commercial Internet service provider with close to 50,000 clients. Český Telecom also owns 51 % of the largest mobile phone operator EuroTel (see below). It has also recently acquired one of major Internet advertising companies, MIA. Total revenues of Český Telecom reached CZK 52 billion in 1999 (including 8 billion from EuroTel) and its profit was CZK 6 billion (including 3 billion from EuroTel)

FIXED LINE NETWORK	1996	1997	1998	1999	*YOY Change*		
					97/96	*98/97*	*99/98*
Telephone lines in operation, e.o.p. (x 1000)	2 815	3 274	3 734	3 839	*16%*	*14%*	*3%*
Business (incl. service lines and payphones)	960	1 055	1 155	1 159	*10%*	*10%*	*0%*
Residential	1 855	2 219	2 579	2 680	*20%*	*16%*	*4%*
- ISDN channels (x 1000)	0	1	17	57	*n/m*	*1249%*	*235%*
Net number of new lines installed (x 1000)	417	459	459	105	*10%*	*0%*	*-77%*
Waiting list (x 1000)	577	406	141	74	*- 30%*	*-65%*	*-48%*
Payphones in operation, e.o.p.	26 349	28 437	29 877	30 068	*8%*	*5%*	*1%*
Coin operated	11 756	11 587	11 620	11 427	*-1%*	*0%*	*-2%*
Card operated	14 593	16 850	18 257	18 641	*15%*	*8%*	*2%*
Penetration as % of households	50%	60%	70%	72%	*20%*	*16%*	*4%*
Penetration as % of population	27%	32%	36%	37%	*16%*	*14%*	*3%*
Digitalisation	33%	50%	64%	77%	*52%*	*28%*	*20%*

EuroTel

EuroTel Praha, spol. s r.o.
Sokolovská 855/225, P.O. Box 49, 190 00 Praha 9
Tel.: +420-2-6701-6666, Fax: +420-2-6701-1150
e-mail: info@eurotel.cz, www.eurotel.cz

EuroTel Praha spol. s r. o. is the first and still the largest mobile phones operator in the Czech Republic. Established in November 1990 and formally registered in April 1991, the company launched its first NMT 450 network in September 1991. In July 1996, EuroTel started its GSM 900 network. Today, EuroTel covers 99 % of the Czech population and reported 1.2 million clients in March 2000. Total revenues in 1998: CZK 14.6 billion (nearly CAD 600 million).

EuroTel Praha, spol. s r.o., is a joint venture of Český Telecom, a.s. (51 %) and Atlantic West B.V. (49 %). Atlantic West B.V. has two owners with equal shares: Bell Atlantic, Inc. and MediaOne International, Inc., part of MediaOne Group.

RadioMobil

Londýnská 59, 120 21 Praha 2
Tel.: +420-2-2162-0201, Fax: +420-2-2162-0106
www.paegas.cz

RadioMobil, a.s. is the operator of the GSM network Paegas launched in 1996. Today, its network covers 99 % of the population and 99.8 % of all E-class roads. In March 2000, RadioMobil celebrated 1 million customers. Its total investment in 1999, focused mainly on further development of the infrastructure, reached 6 billion (CAD 240 million).

RadioMobil is a joint venture of České radiokomunikace and German-led consortium CMobil controlled by Deutsche Telekom (84.55 %). However, České radiokomunikace will sell its 51% share to CMobil in the nearest future for CZK 23 billion. Deutsche Telekom, which might also acquire České radiokomunikace itself (see details below).

Český mobil

Český mobil / Oskar
Vinohradská 167, 100 00, Praha 10
www.oskarmobil.cz, www.ceskymobil.cz

Český mobil, operator of the network Oskar, is the youngest of the three local operators. Český mobil was awarded the license for a GSM 1800 network in late 1999 following a public tender. Against expectations and defying the time limits, Český Mobil and its suppliers Ericsson and Siemens succeeded in meeting the aggressive rollout commitments agreed to in the bid and launched the first GSM 1800 MHz network in a record-breaking three month period after the license award date. On March 1, 2000 the network covered already 50% of the population (large cities and major roads) and Český mobil started to operate on commercial basis (opened for the public). The company plans to cover 85 % of the population by June and 95 % by the end of this year. Český mobil expects to invest over CAD 700 million into further development during the next three years. Its distribution is currently practically limited to telephone orders (pay on delivery), but should soon expand and included retail stores, regional dealers and the Internet.

Český Mobil is a consortium of Telesystem International Wireless (TIW, www.tiw.ca), IPB (Investiční a poštovní banka), and Priority Telecom. Telesystem International Wireless (TIW), Canada, is the majority owner of Český mobil. TIW is an international mobile communications operator with over 2 million clients in North and South America, Asia and Europe. IPB is the largest private bank in the Czech Republic with a majority share by Nomura, Japan. Priority Telecom is a daughter company of United Pan-Europe Communications (UPC), a leading cable network operator in the Czech Republic. With headquarters in Amsterdam, Netherlands, UPC operates in 12 countries in Europe and Israel. UPC's majority owner is UnitedGlobalCom Inc., Denver, Colorado, USA („United“, NASDAQ:“UCOMA“); Microsoft has a 7.8 % share in UPC.

Aliatel a.s

Administrativní centrum Karlín, Sokolovská 86, 180 00 Praha 8
Tel.: +420-2-8303-1111, Fax: +420-28303-1122
e-mail: mail@aliatel.cz, url: http://www.aliatel.cz

Aliatel was established in May 1996 as a joint telecommunication project of Czech regional power distribution companies. In April, RWE Telliance AG, part of RWE Group, Germany made an investment and entered into the company. As of December 31, 1999, Czech shareholders controlled 60 % and RWE Telliance the remaining 40 % of shares. Czech power distributors belong to the strongest business entities in the country. RWE Telliance AG is focused on the telecommunication sector in Germany and other European countries.

Basic economic indicators	1996	1997	1998	1999
Number of cities covered	0	0	15	30
Number of employees	16	61	139	168
Revenues (CZK million)	0.8	1.0	37.4	187.4
Investments (CZK million)	9	43	542	-
Total assets (CZK million)	80	138	966	-
Registered capital (CZK million)	89	215	810	930

In mid-March 2000, Aliatel a.s. introduced its first voice communications product, Business Call, based on Internet Protocol. Following approval of a new telecommunication act by the Parliament, which prevents alternative operators from real competition on conventional lines, Business Call is an alternative strategy to break exclusivity of the monopoly of Český Telecom.

Contactel

Vinohradská 174, 130 19 Praha 3
info@contactel.cz, www.contactel.cz

Contactel was established in 1999 as a joint company of České radiokomunikace, a.s. (www.cra.cz) and Tele Danmark A/S, Danmark (www.teledanmark.dk) with equal shares of 50 %. At the end of 1999, Contactel had 130 employees. Contactel currently provides Internet and data services, and prepares to enter the voice communication market after full liberalization of the telecommunication market. České radiokomunikace is a major Czech communications company (see details below) giving Contactel important technical background. Tele Danmark is the second telephone operator in Netherlands, Switzerland and Germany. *See also details on Contactel's Internet activities on page 33.*

České radiokomunikace

U nákladového nádraží 4, 130 00 Praha 3
Tel. +420-2-6700-5111, Fax +420-2691-9292
info@cra.cz, www.cra.cz

České radiokomunikace a.s. is a telecommunication company specialized in wireless signal transmission with over 3 billion CZK in revenues in 1999 (CAD 120 million). It has a dominant position on the Český Telecommunication market in the field of wireless transmission of telephone, data and other types of signal via the national network of microwave radio-relay and satellite communication resources. České radiokomunikace a.s. ensures nationwide, regional and local broadcasting and distribution of television and radio signal for statutory operators and operators with licences. It has a dominant position in virtually all wavebands on the radio broadcasting market.

České radiokomunikace is the majority owner (51 %) of RadioMobil, a.s., operator of the Paegas mobile telephone network. It also holds a decisive share (37.75 %) in Radiokontakt OPERATOR, a.s., which offers a paging service. Further, the company owns 100% of the shares of SOFTLINK s.r.o. (data communication and construction of WAN data networks) and owns 100 % of DATALINK s.r.o. (general designer and exclusive supplier of technology to the national private data network RadioNET).

České radiokomunikace and the Danish company TeleDanmark jointly founded the subsidiary company Contactel, in which both of the parties own a 50 % interest. Contactel provides services, services associated with the use of Internet and, after the liberalisation of the telecommunication market in the Czech Republic, it will become an alternative provider of public telephone services. See details on Contactel above.

České radiokomunikace a.s. was transformed from the state-owned Správa radiokomunikací s.p. into a joint-stock company on 1 January 1994 on the basis of a government-approved privatization project. In 1998, České radiokomunikace increased its equity through a global international share offer. A part of the state interest was converted into global deposit receipts (GDRs) through an international issue.

The most important shareholders in the company České radiokomunikace a.s. are the Fond národního majetku ČR (National Property Fund of the Czech Republic) with 51 %, Tele Danmark A/S with 20.8 % and The Bank of New York International Nominees (GDR depository) with 24 %. The majority share of the NPF (state) should be privatized in the near future. Two most important candidates are Deutsche Telekom (which will also buy České Radiokomunikace's share in RadioMobil) and Tele Danmark.

↳ *See Chapter 5.6 on page 53 for details of these and other telecommunication companies*

2.7. Canadian companies in the Czech Republic

Bi-Mac Graphics Inc.
ing. Oldřich Zika
P.O.BOX 6, 153 00 Praha 5
tel./fax +420-2-5731-3760
bimac@netforce.cz
Computer graphics - lithographies

Český mobil
Vinohradská 167, 100 00, Praha 10
www.oskarmobil.cz
Third mobile telephone operator, majority ownership by TIW – Telesystem International Wireless, 1000 de la Gauchetière Street West, 16th Floor, Montréal, H3B 4W5, Québec
Tel.: (514) 673-8497, Fax: (514) 673-8470, www.tiw.ca
See details on Český mobil on page 38

COREL Corporation CR
Radek Hofman
Šaldova 34, 186 00 Praha 8 - Karlín
Tel./fax: +420-2-2324175
radekh@corel.cz, www.corel.cz
Software producer

Gesto Computers s.r.o.
Mr. Milan Korenčík
Korunní 106, 101 00 Praha 10
Tel.: +420-2-6731-2115, Fax: +420-2-7173-3151
E-mail: akorencik@gesto.cz, www.gesto.cz
Partner of Simply.Com, supplier of videoconference system

MacSource
Mr. Anthony Hasek
Krkonošská 2, 120 00 Praha 2
Tel.: +420-2-627-2227, Fax: +420-2-627-2228
sales@compusource.cz, www.compusource.cz
Apple computer & PC sales, Consulting, Training, Service

PICODAS Prague s r.o.
Miloš Karous, director
Geologická 2, 152 00 Prague 5
Tel.: +420-2-581-4255, Fax: +420-2-581-4254
picodas@mbox.vol.cz
Exclusive representative of Picodas (Toronto, Ontario, geophysical and navigation instruments) and Novatel Inc. (Calgary, Alberta, GPS navigation)

RETIA, a.s.
Ing. Petr Novák, Director
Pražská 341, 530 02 Pardubice
Tel.: +420-40-685-2111, Fax: +420-40-685-2133
info@retia.cz, www.retia.cz
Sound & Graphic cards PIKA Technologies Inc..

3. Trends and growth sectors

According to the International Data Corporation, the information technologies market in the Czech Republic is expected to grow at a rate of 8 % through the next three years. The Czech Ministry of Industry and Trade estimates growth at 10 %. The Czech economy finally recorded moderate growth in the last quarter of 1999, following several years of recession, and record-breaking foreign direct investment for the year 1999, which will further support economic recovery. Also the effect of devaluation of the local currency and state budget restrictions has now been overcome to a large extent, the same applies to the effect of the Russian market crisis. Expected privatization of major banks, telecommunication companies and liberalization of the telecommunication market, fast growing popularity of the Internet, mobile communication and e-commerce are all likely to contribute to even stronger growth.

While most spending will remain focused on hardware, its share on total IT expenditures will fall due to growth in the software and services segments and also due to aggressive pricing policies of hardware suppliers. Particularly strong areas of growth aside from personal computers include networking hardware/software, LAN servers, networking services, software application development, professional services and customer support services. Overall growth in the IT market will be driven by a number of factors such as technological change, trend to networking, Internet and communication connectivity, demand for complex professional services, Internet/Intranet growth, electronic commerce, and growing popularity of client/server ERP solutions.

In 1999 and early 2000, the Czech Parliament passed several laws that are likely to contribute to positive evolution of the market. A set of copyright laws and changes to various trade and import regulations should improve enforcement of copyright, which is also a key requirement prior to the anticipated accession of the country to the European Union. If approved by the Parliament, a new act on electronic signature should come into effect in the fall of this year. This law is a necessary condition for wider expansion of e-commerce, Internet banking, stronger penetration of electronic communication between state authorities and the public, and other types of electronic business.

In the hardware market, we expect continued dominance of foreign suppliers (brand vendors), especially in LAN and networking hardware, telecommunications, servers etc. Local companies will continue to play an important role as assemblers of personal computers. Government incentives for foreign direct investors also give space to new joint ventures and green-field investments, which could involve sub-supplies for large multinational IT, corporations.

Also in the software market, foreign suppliers (Microsoft, Novell, newly Linux etc.) are likely to retain their strength, with local software companies producing niche products, mainly those with significant local content (accounting, legal, geographic etc.).

Among the fastest growing segments will be Internet and telecommunications. According to various estimates, currently around 5 % of the population (500,000) are regular users of the Internet. According to IDC, more than one half of all Internet access will take place through mobile telephones by the year 2003. In the Czech Republic, both mobile phone operators, EuroTel and Paegas, have made enormous investments towards connectivity of their networks with the Internet and support their effort by attractive pricing. Currently, accessing the Internet from a mobile phone via WAP (wireless access protocol) costs only little more than traditional dial-up access on a standard line and allows browsing through around 1500 web pages. Two major limits on wider use of WAP are low penetration of WAP-ready telephones and low capacity of data transfer. However, both Paegas and EuroTel plan to launch GPRS (General Packet Radio System) by the end of this year, which will allow twice the speed of traditional lines. The latter drawback is also expected to disappear in the near future as within two to three years, all mobile telephones should allow access to the Internet as a standard. According to some experts, the WAP technology is likely to see similar growth as the Internet experienced with the introduction of web sites. This will, of course, apply globally, but the Czech Republic as a mature and sophisticated market, will certainly be no exception.

4. Market access

4.1. Legislation

General requirements on starting business in the Czech Republic

Please refer to www.czechinvest.cz (CzechInvest), www.czech.cz (Ministry of Foreign Affairs), www.mpo.cz (Ministry of Industry and Trade), www.pwc.cz (PricewaterhouseCoopers – publication Doing business in the Czech Republic), www.dfait-maeci.gc.ca/~prague (Canadian Embassy Prague), www.exporthotline.com.

Tariffs

The Czech Republic is a member of the World Trade Organization (WTO) and has adopted a tariff code with an average tariff rate of approximately 5%. Specific duty rates are published in the Czech tariff schedule based on the Harmonized System of Classification:

HS Code	tariff (%)	HS Code	tariff (%)	HS Code	tariff (%)	HS Code	tariff (%)
8470100010	1.4	8471419010	0.0	8471705100	0.0	8473109000	3.0
8470100090	1.4	8471419090	0.0	8471705300	0.0	8473211000	1.6
8470210010	2.2	8471491010	0.0	8471705900	0.0	8473219010	1.6
8470210090	2.2	8471491090	0.0	8471706000	0.0	8473219090	1.6
8470290010	2.2	8471499010	0.0	8471709000	0.0	8473291000	1.6
8470290090	2.2	8471499090	0.0	8471800000	0.0	8473299000	1.6
8470300000	1.4	8471501000	0.0	8471900010	0.0	8473301000	0.0
8470400000	1.4	8471509010	0.0	8471900090	0.0	8473309010	0.0
8470500000	1.4	8471509090	0.0	8472100000	3.0	8473309090	0.0
8470900000	0.0	8471601000	0.0	8472200000	3.4	8473401100	0.0
8471101000	0.0	8471604010	0.0	8472300000	3.4	8473401900	2.3
8471109000	0.0	8471604090	0.0	8472901000	3.4	8473409000	2.3
8471300010	0.0	8471605000	0.0	8472903000	1.6	8473501000	0.0
8471300090	0.0	8471609000	0.0	8472908000	3.4	8473509010	0.0
8471411010	0.0	8471701000	0.0	8473101100	1.4	8473509090	0.0
8471411090	0.0	8471704000	0.0	8473101900	3.0		

Certification

Prior to introduction of a new product to the Czech market, importers/distributors must issue a *declaration of conformity* [with appropriate technical and safety standards] for each product. Czech law specifies products that need to be certified by an accredited person/organization before the declaration can be issued.

Labelling

Labelling and marking requirements depend on the type of product and the intended use. In general, however, labels must be in the Czech language and can be affixed to the product or on a leaflet attached to the product. Information must include the name of the product, name of producer, country of origin, and in some cases, instructions for use.

VAT

The Value Added Tax applies to all goods sold in the Czech Republic. VAT is 22 % for most products, including hardware. The reduced rate of 5 % applies to selected products such as food, pharmaceuticals, some services and also software.

4.2. Promotion

4.2.1. Fairs

Invex

Name:	Invex
Description:	International Fair of Information and Communication Technology; Invex-Computer is the most important trade fair of information and communication technology in the central and eastern Europe. Its prestigious position has been underlined by visits of such VIPs of the global IT industry as Bill Gates (Microsoft), Michael Dell (Dell Computer), Chuck Haggerty (Western Digital) and others.
Dates:	October 9 – 13, 2000
Venue:	Brno Exhibition Centre, Brno
Organizer:	Brno Trade Fairs and Exhibition Výstaviště 1, 647 00 Brno Tel.: +420-5-4115-2849, Fax: +420-5-4115-3057 invex@bvv.cz, www.bvv.cz
Web site:	www.invex.cz, www.bvv.cz/invex
1999 stats:	▪ 962 exhibitors (716 direct, 246 represented; 107 foreign companies) ▪ from 20 countries: Austria, Belgium, Canada, Czech Rep., Danmark, France, Germany, G. Britain, Hong Kong, Hungary, Ireland, Italy, Israel, Netherlands, Poland, Slovakia, Slovenia, Switzerland, Taiwan, USA ▪ 140 530 visitors ▪ 39,725 m2 of space, incl. 37,117 m2 covered, 1,666 m2 open-air, 942 m2 for promotion

ComNet

Name:	ComNet Prague 2000
Description:	8th international fair and conference of information and communication technologies
Dates:	May 23 - 25, 2000
Venue:	Výstaviště Praha - Holešovice (Prague - Holešovice Exhibition Ground)
Organizer:	IDG Czech, a.s. Seydlerova 2451/11, 155 00 Praha 5 Tel.: +420-2-5708-8111, Fax: +420-2-6520812 info@idg.cz, www.idg.cz
Web site:	www.comnet.cz
1999 stats:	166 exhibitors 19 786 visitors 13 500 m2

ITC Prague

Name:	ITC
Description:	Information Technologies and Communications
Dates:	April 4-6, 2000
Venue:	Výstaviště Praha, Průmyslový palác
Organizer:	Incheba Praha spol. s r.o. Opletalova 23, P.O.Box 555, 111 21 Praha 1 Tel.: +420-2-2289-4244, -4237, Fax: +420-2-2289-4249 e-mail: itc@incheba.cz, www.incheba.cz
Web site:	www.itc-expo.cz
1999 stats:	60 exhibitors 17 240 visitors 3807 m2

Prague Internet World

Name:	Prague Internet World
Description:	PIW is part of the international Internet World series of exhibitions and conferences featuring the Internet, intranet and web.
Dates:	April 18-20, 2000
Venue:	Veletržní palác, Prague
Organizer:	M.I.A., a.s., Jaselská 6/275, 160 00 Praha 6 tel.: +420-2-2431-4334, fax: +420-2-2431-5384 lned@mia.cz, http://www.mia.cz
Web site:	www.internetworld.cz
1999 stats:	▪ 673 participants at the conference ▪ 5,425 participants at the exhibition ▪ total participants at PIW 99: 6,098 ▪ 65 exhibitors ▪ 1,100 m2 of exhibition space ▪ 700 m2 additional space (conference and side events)

Fibex

Name:	Fibex
Description:	Fibex 2000 is a major finance and banking fair. In 2000, its importance will be further emphasized by the planned IMF and World Bank Annual Meeting in Prague in September 2000. The main branches of the fair are 1. Banks and their services, 2. Insurance companies and their services, 3. Stock exchanges and their services, 4. Investment companies, capital and market services, 5. Pension funds, 6. Leasing and financial services, 7. Accountancy, taxes, auditing, 8. Consultancies, 9. Postal services, 10. Strongrooms (safes), 11. Banking and exchange office technology, 12. Printing houses and mints, 13. Telecommunications, 14. Hardware, 15. Software, 16. Furniture and office technology, 17. Technical literature and other services
Dates:	May 16 - 18, 2000
Venue:	Brno Exhibition Center, Brno
Organizer:	Brněnské veletrhy a výstavy, a. s. obchodní skupina 3 Výstaviště 1, 647 00 Brno Tel.: +420-5-4115-3272, Fax: +420-5-4115-3054 E-mail: fibex@bvv.cz, www.bvv.cz
Web site:	www.bvv.cz/fibex
1999 stats:	N/A

4.2.2. Publications

Name	Company Address	Phone (+420-) Fax (+420-) Web site	Circulation		Description
BUSINESS WORLD	IDG Czech Seydlerova 2451/11 15500, Praha 5 - N. Butovice	2-57088181 2-57088174			Business World is an independent supplement of Computer World. The target group is IT purchase decision makers.
CAD	CCB Okružní 17 63800, Brno	5-45222779 5-45222499	maximum minimum	16 000 11 000	Specialized bi-monthly magazine for CAD systems and computer graphics.
COMPUTER	Computer Press Pod Vinicí 23 14300, Praha 4 - Modřany	2-61313930-1 2-61313934	average sale average circ.	36 408 46 400	Original magazine for medium-advanced and advanced users of PCs, software, peripherals and IT services
COMPUTER DESIGN	Computer Press Fráni Šrámka 5 70900, Ostrava	69-6624734 69-6634734	average circ.	9 000	CAD and computers graphics magazine. Computer design in engineering and construction, electronic file management, graphics, visualization and sign-making.
COMPUTERWORLD	IDG Czech Seydlerova 2451/11 15500, Praha 5 - N. Butovice	2-57088181 2-57088174	average sale average circ.	14 198 23 000	Aimed at PC users, experts, managers and anyone in contact with IT. Includes Technology World, supplement.
CONNECT !	Computer Press Pod Vinicí 23 14300, Praha 4 - Modřany	2-61313930-1 2-61313934 connect.cpress.cz	regular	10 000	Monthly magazine on communications, networks, open systems in the Czech market, and important events.
DATA SECURITY MANAGEMENT	Tate International Elišky Přemyslovny 404 15600, Praha 5	2-57920319-20 2-57922565	regular	5 000	Security & information system risk management magazine.
GAMESTAR	IDG Czech Seydlerova 2451/11 15500, Praha 5 - N. Butovice	2-57088116 2-6520812	average sale average circ.	22 062 30 000	Computer games magazine.
CHIP	Vogel Publishing Sokolovská 73, P.O.Box 77 18621, Praha 8 - Karlín	2-21808646 2-21808700	average sale average circ.	38 631 49 550	General computer magazine on information technologies.

CHIP SPECIAL	Vogel Publishing Sokolovská 73, P.O.Box 77 18621, Praha 8 - Karlín	2-21808568 2-21808500	regular 5 000	Individual issues feature multimedia, computer graphics, DTP, text editors, Internet, networks, sound processing, image processing, and video on PC.
INSIDE	Softwarové noviny Na Vyhlídce 68 19000, Praha 9	2-6841064 2-6841073-4	max.circ. 1 500 min. circ. 1 200	On Czech and global IT market, for dealers, distributors and B2B suppliers.
INTERNET	Trade & Leisure Publications Pernerova 35 18600, Praha 8	2-21897520-4 2-21897525	regular 20 000	Magazine for general Internet users.
IT DEALER	Vogel Publishing Sokolovská 73, P.O.Box 77 18621, Praha 8 - Karlín	2-21808664 2-21808700	max.circ. 5 000 min. circ. 3 000	B2B-type of IT magazine: contacts between suppliers/distributors and VARs, integrators, vendors and OEM partners.
IT-NET	Vogel Publishing Sokolovská 73, P.O.Box 77 18621, Praha 8 - Karlín	2-21808822 2-21808800	max.circ. 5 000 min. circ. 3 000	Analyses of communication and telecommunication products, technologies and services available in the CR.
LANCOM	LANcom Dopraváků 3 18400, Praha 8 - D. Chabry	2-6888961-2 2-6888963	regular 5 000	Computer networks and communication.
LEVEL	Vogel Publishing Sokolovská 73, P.O.Box 77 18621, Praha 8 - Karlín	2-21808744 2-21808700	average sale 49 698 average circ. 66 590	Aimed at public interested in computer games on IBM-compatible PCs and hemi console.
MEDIA SHOP	Vogel Publishing Sokolovská 73, P.O.Box 77 18621, Praha 8 - Karlín	2-21808568 2-21808500	max.circ. 120 000 min. circ. 100 000	IT sales catalogue inserted in other magazines incl. Chip, Level, Počítač pro každého, IT-Dealer , It-Net.
MICROTIME (M - TIME)	Microtime Kafkova 26 16000, Praha 6	2-3117255 2-24314200	max.circ. 60 000 min. circ. 50 000	Advertising magazine for IT and office equipment.
MOBILITY	Computer Press Pod Vinicí 23 14300, Praha 4 - Modřany	2-61313930-1 2-61313934	regular 38 000	Mobile computing magazine - pocket computers, palmtops, handheld, sub-notebooks and organizers, - mobile telephones and accessories, - digital A/V.
NEJLEPŠÍ HRY	Popular Computer Publishing Argentinská 17 17000, Praha 7	2-66712315-6 2-66712316	regular 20 000	Game magazine.
NEURAL NETWORK WORK			regular 500	International magazine on neuron and parallel computer and information systems.
OFICIÁLNÍ ČESKÝ PLAYSTATION MAGAZÍN	Art Consulting Šantrochova 16 16200, Praha 6	2-367950 2-367951	average sale 12 180 average circ. 14 400	Focused on PlayStation console.
PC GAMER	Mladá Fronta - nakl. a vydav. Radlická 61 15002, Praha 5	2-57321181 ext. 263	starting 25 000	International computers games magazine, est. in G. Britain in 1993.
PC MAGAZINE CZECH EDITION	Ikotech U Hellady 4 14501, Praha 4	2-22104113 2-22104112	regular 25 000	Monthly magazine on IT market.
PC WORLD	IDG Czech Seydlerova 2451/11 15500, Praha 5 - N. Butovice	2-57088182 2-6520812	average sale 25 607 average circ. 36 300	Specialized IT monthly magazine.
PIXEL (Atlantida Publishing)	Atlantida Publishing Čechova 4 17000, Praha 7	2-33371781 2-33372876	regular 7 000	Magazine on media, graphics and sound.
POČÍTAČ PRO KAŽDÉHO	Vogel Publishing Sokolovská 73, P.O.Box 77 18621, Praha 8 - Karlín	2-21808762 2-21808700	regular 50 000	Magazine focused on information about personal computers.
SCORE	Art Consulting Šantrochova 16 16200, Praha 6	2-367950 2-367951	average sale 44 190 average circ. 60 669	Local games magazine.
SCREENFUN	Europress Victora Huga 6 15000, Praha 5	2-57008233 2-57329886	starting 100 000	Games, computers, Internet, audio-video, communication technologies and entertainment. Target group age 11-19.
SOFTWAROVÉ NOVINY	Softwarové noviny Na Vyhlídce 68 19000, Praha 9	2-6841064 2-6841073-4	WIndows 2000 60 000	Magazine for professional IT users. Special supplement in October - guide through Invex Brno.
SYSTEM	CCB Okružní 17 63800, Brno	5-45222779 5-45222499	regular 10 000	Magazine focused on business information systems, data management etc.

5. Addresses & Data

5.1. Hardware suppliers & distributors

(selected large firms in alphabetical order)

Company name	Address Web site	Phone (+420-) Fax (+420-) E-mail	1998 revenues [CZK mil.]	brands sold	employees established	ownership
A & A	Jundrovská 33 624 00 Brno	5-4151-5112 5-4122-3135	1,320	Siemens, Yakumo, Compaq	68 1991	N/A
Asbis CZ s.r.o.	Obchodní 107, Čestlice 251 01 Říčany www.asbis.cz	2-7211-7111 2-7211-7316 info@asbis.cz	1,262	Intel, IBM, HDD, Quantum, Seagate	17 1998	Asbis Enterprises (Cyprus)
AT Computers	Uhlířská 3 710 00 Ostrava www.atcomp.cz	69-625-3111 69-624-1220 prodej@atcomp.cz	1,360	AutoCont, Acer, Triline, HP, Fujitsu, ASUS	115 1998	N/A
AutoCont CZ a.s.	Nemocniční 12 702 00 Ostrava www.autocont.cz	69-615-2111 69-615-2203 info@autocont.cz	1,325	AutoCont	310 1992	N/A
Comfor PC Mail s.r.o.	Cihlářská 15/17 658 98 Brno www.pcmail.cz	5-4132-1205 5-4124-8390 pcmail@pcmail.cz	409	Comfor	42 1998	Comfor Holding (CR)
Compaq Computer s.r.o.	Na Pankráci 26 140 00 Praha 4 www.compaq.cz	2-6110-8111 2-6110-8112	N/A	Compaq	138 1991	Compaq (USA)
CompuSource/ MacSource	Krkonošská 2 120 00 Praha 2 www.compusource.cz	2-627-2227 2-627-2228 sales@compusource.cz	N/A	Apple, Compaq, HP, IBM, SG, Microtek	20 1990	N/A
Dell Computer s.r.o.	Sokolovská 84-86 186 00 Praha 8 www.dell.cz	2-2283-2711 2-2283-2714 czech_dell@dell.com	N/A	Dell	45 1992	Dell Computer Corporation
DNS s.r.o.	Vídeňská 744/2 140 00 Praha 4 www.dns.cz	2-6100-3400 2-6100-3402 dns@dns.cz	500	HP, Compaq, SGI, Cabletron, Cisco & other	45 1997	CHS Electronics (USA)
Expert & Partner Engineering s.r.o.	Na Lysinách 852/41 147 00 Praha 4 www.epe.cz	2-6720-8111 2-6720-8333	2,000	HP, IBM, Compaq, Fujitsu, Toshiba	N/A 1991	N/A
Hewlett-Packard	Vyskočilova 1/1410 140 21 Praha 4 www.hp.cz	2-6130-7111 2-6130-7613 info_cz@hp.cz	3,728 4,203 in 99	Hewlett-Packard	190 1991	Hewlett-Packard (USA)
CHS Czechia s.r.o.	Veská 35 533 04 Sezemice www.chs.cz	40-602-8111 40-602-8121 chs@chs.cz	4,160	HP, Yakumo, Compaq, IBM	72 1993	CHS Electronics (USA)
IBM Česká republika s.r.o.	Murmanská 4 100 00 Praha 10 www.cz.ibm.com	2-7213-1111 2-7213-1566 czdirect@cz.ibm.com	N/A	IBM	390 1992	IBM World Trade Corp. (USA)
Konsigna Handel	J. Růžičky 1165 148 01 Praha 4 www.konsigna.cz	2-6799-3111 2-7191-3005 konsigna@konsigna.cz	1,150	DTK, Fujitsu, Canon, Phillips, ADI, Toshiba	65 1990	N/A
Libra Electronics s.r.o.	Chelčického 13A 370 01 Č. Budějovice www.libra.cz	38-774-3201 38-774-3204 info@libra.cz	1,190	Leo	120 1991	AAC a.s.
ProCa s.r.o.	Na Vinobraní 1792/55 106 00 Praha 10 www.proca.cz	2-6728-3111, -3777 2-6728-3120 info@proca.cz	1,545	Brave, Intel, Sony, 3Com, Mitsumi & other	104 1993	AAC a.s. (CR)
Tesco Trading s.r.o.	Lípová 24 586 05 Jihlava www.tesco.cz	66-732-1361 66-731-0095 info@tesco.cz	520	Tesco, Toshiba	64 1991	N/A
TH' System	28. října 86 702 00 Ostrava 2 www.thsystem.cz	69-610-7111 69-611-3742 thsystem@thsystem.cz	3,947	Compaq, HP, IBM, Toshiba	105 1990	CHS Electronics (USA)
Unisys s.r.o.	Máchova 18 120 00 Praha 2 www.unisys.cz	2-2159-5000 2-2159-5155 unisys@unisys.cz	N/A	Unisys	65 1992	Unisys Corporation (USA)

5.2. Software suppliers & distributors

(selected large firms in alphabetical order)

Company name	Address Web site	Phone (+420-) Fax (+420-) E-mail	1998 revenues [CZK mil.]	products	empl- [`98] established	ownership/ headquarters
Abacus distribution a.s.	Křižíkova 35 180 00 Praha 8 www.abdist.cz	2-2186-3120 2-2186-3999 sales@abdist.cz	300	Adobe, CA, IBM, Microsoft, Novell, Quark	32 1991	N/A CR
Agrodat CZ a.s.	Žižkova 532 Benešov www.agrodat.cz	301-23312 301-23783 agrodat@agrodat.cz	107	Microsoft, Corel Lotus, Adobe, Alwil, Grisoft	110 1997	N/A (CR)
APP Group a.s.	Na Strži 63 140 62 Praha 4 www.app.cz	2-6114-3400 2-422671 marcomm@app.cz	981	SAP, Oracle, Brio, Microsoft, Cognos	400 1993	N/A CR
Apro s.r.o.	Jindřišská 16 P.O. Box 596 111 21 Praha 1 www.apro.cz	2-24232308, 24234734 prodejna@apro.cz	175	Corel, Borland Microsoft, Inprise, Sybase, Symantec	25 1989	N/A (CR)
AutoCont CZ a.s.	Nemocniční 12 702 00 Ostrava www.autocont.cz	69-615-2111 69-615-2203 info@autocont.cz	1,325	Microsft, Adobe, Symantec AutoDesk,	310 1992	N/A CR
Bull, s.r.o.	Lazarská 6 120 00 Praha 2 www.bull.cz	2-2423-6635 2-2423-4550 bull.praha@bull.cz	220	Open Master, Access Master, Securware	30 1993	N/A
Coda Software s.r.o.	Peckova 9 186 00 Praha 8 www.coda.cz	2-2481-8111 2-2481-8110 info@coda.cz	N/A	Baan Coda / Financials	20 1994	N/A Greece
Computer Help, s.r.o.	Blanická 16 120 00 Praha 2 www.computerhelp.cz	2-2150-3111 2-2150-3333 cohe@computerhelp.cz	90	Microsoft, HP, Compaq	45 1993	N/A
GC System a.s.	Špitálka 41 602 00 Brno www.gcsystem.cz	5-4353-7301 5-4353-7480 info@gcsystem.cz	182	IBM, PC GC	75 1990	N/A CR
ICL ČR s.r.o.	M. Horákové 93 170 00 Praha 7 www.icl.cz	2-3332-4341 2-311-4216 servdesk@icl.cz	N/A	Microsoft, SCO, Cognos, MAX, Tetra, SAP R3	180 1991	N/A London, UK
London Logic Praha s.r.o.	Thámova 11-13 186 00 Praha 8 www.llpgroup.cz	2-8400-1611 2-8400-1622 contact@llpraha.cz	179	SunSystems, Fourth Shift	40 1992	N/A (CR)
Microsoft s.r.o.	Novodvorská 1010/14 142 01 Praha 4 www.microsoft.cz	2-6119-7111 2-6119-7100 msczech@microsoft.com	N/A	Microsoft, MSN	60 1992	Microsoft USA
OR Computer Systems Internatinoal	Velflíkova 4 160 75 Praha 6 www.orcz.cz	2-3332-2007 2-2431-0392 orcz@orcz.cz	287	OR-System. Prometheus, OR Media, Baan	203 1990	N/A CR
Oracle Czech s.r.o.	Římská 15 120 00 Praha 2 www.oracle.cz	2-2440-8150 2-2440-8151 mktg@cz.oracle.com	N/A	Oracle	110 1994	Oracle, USA
Pragodata a.s.	Pod Kotlářkou 34 150 00 Praha 5 www.pragodata.cz	2-5102-9111 2-5721-0795, -0775 info@pragodata.cz	181	Profis, Ekonfis, Oracle, Progress SW, Microsoft...	152 1990	N/A
PVT a.s.	Kovanecká 2124/30 190 00 Praha 9 www.pvt.cz	2-684-9329 2-684-9313 obch@pha.pvt.cz	1,989	IBM, Hewlett-Packard, APP	2,406 1991	N/A CR
SAP ČR s.r.o.	Pekařská 7 155 00 Praha 5 www.sap.cz	2-5711-4111 2-5711-4110	928	SAP	136 1993	Walldorf, Germany
SWS a.s.	Dostihová 1 763 15 Slušovice www.sws.cz	67-764-0111 67-798-1008 info@sws.cz	480	Microsoft, Novell, Corel. Lotus. Symantec	49 1991	N/A CR
Sybase ČR, s.r.o.	Tychonova 24 140 00 Praha 4 www.sybase.cz	2-2431-0808 2-2431-5029 sales@sybase.cz	N/A	Power Builder, Sybase Adoptive Server & other	25 1996	N/A
Unicorn a.s.	Roháčova 81 130 00 Praha 3 www.unicorn.cz	2-6121-6425 2-6121-6423 unicorn@unicorn.cz	149	Unicorn	140 1990	N/A (CR)

5.3. System integrators

(selected largest firms in alphabetical order)

Company name	Address	Phone (+420-) Fax (+420-)	Web site E-mail	empl- [`98] established
AGC a.s.	Sokolovská 141 180 00 Praha 8	2-6600-2111 2-683-0255	www.agc.cz agc@agc.cz	31 1990
Andersen Consulting	Jiráskovo náměstí 6 120 00 Praha 2	2-2198-4545 2-2198-4646	www.ac.com prague@ac.com	157 1991
APP Group a.s.	Na Strži 63 140 62 Praha 4	2-6114-3400 2-422671	www.app.cz marcomm@app.cz	400 1993
AutoCont CZ a.s.	Nemocniční 12 702 00 Ostrava	69-615-2111 69-615-2203	www.autocont.cz info@autocont.cz	310 1992
Compaq Computer s.r.o.	Na Pankráci 26 140 00 Praha 4	2-6110-8111 2-6110-8112	www.compaq.cz	138 1991
CompuSource s.r.o.	Krkonošská 2 120 00 Praha 2	2-627-2227 2-627-2228	www.compusource.cz sales@compusource.cz	20 1990
COM SYS Trade s.r.o.	Jagellonská 19 130 00 Praha 3	2-627-0179 2-627-0028	www.comsys.cz info@comsys.cz	6 1991
Debis Oasa IT Services s.r.o.	Kloboučnická 1435/24 140 00 Praha 4	2-41409033	www.debis.cz info@debis.cz	80 1998
EDS s.r.o.	Thámova 11/183 186 00 Praha 8	2-6722-0107 2-6122-0100	www.eds.cz info@eds.cz	20 1994
Expert & Partner Engineering s.r.o.	Na Lysinách 852/41 147 00 Praha 4	2-4401-7111 2-4401-7333	www.epe.cz epehq@epe.cz	N/A 1991
GiTy Holding a.s.	Mariánské náměstí 617 00 Brno	5-4512-9111 5-4512-9200	www.gity.cz info@gity.cz	246 1990
Global AmeriTech Company s.r.o.	Rytířská 10 110 00 Praha 1	2-2421-1354 2-2421-1729	www.gatc.com is-cz@gatc.com	N/A 1990
Grall a.s.	Beranových 65 190 00 Praha 9	2-6631-1909 2-826200	www.grall.cz grall@grall.cz	50 1991
IBM Česká republika s.r.o.	Murmanská 4 100 00 Praha 10	2-7213-1111 2-7213-1566	www.cz.ibm.com czdirect@cz.ibm.com	390 1992
ICL ČR s.r.o.	M. Horákové 93 170 00 Praha 7	2-3332-4341 2-311-4216	www.icl.cz sd@icl.cz	180 1991
Logica s.r.o.	Na okraji 335 162 00 Praha 6	2-8402-0111 2-8402-0112	www.logica.cz	340 1995
MC^2 International	Antala Staška 32 140 02 Praha 4	2-2213-5524 2-2213-5525	mc2@bohem-net.cz www.bohemia.net/mc2	10 1992
NEOS Computer a.s.	U Stavoservisu 1 100 40 Praha 10	2-8100-6301 2-704879	www.neos.cz neos@neos.cz	18 1991
OR Computer Systems Internatinoal	Velflíkova 4 160 75 Praha 6	2-3332-2007 2-2431-0392	www.orcz.cz orcz@orcz.cz	203 1990
PAMA s.r.o.	Letenská 1918 756 61 Rožnov p. Radh.	651-654130 651-654133	www.pama.cz pama@pama.cz	60 1991
Phillips Česká republika s.r.o., Profesion. systémy	Šafránkova 1 155 00 Praha 5	2-3309-9330 2-3309-9331	www.philips-profi.cz	45 1991
Pragodata a.s.	Pod Kotlářkou 34 150 00 Praha 5	2-5102-9111 2-5721-0795, -0775	www.pragodata.cz info@pragodata.cz	152 1990
PVT a.s.	Kovanecká 30 190 00 Praha 9	2-684-9329 2-684-9313	www.pvt.cz obch@pha.pvt.cz	2,406 1991
Siemens s.r.o.	Na Strži 40 140 21 Praha 4	2-6109-5111 2-6121-5032	www.siemens.cz hotmail@prg2.siemens.cz	481 1990
Soft Cell Česká Republika a.s.	Vídeňská 125 61900 Brno	5-4742-3511 5-4742-3510	www.softcell.cz info.scrb@softcell.cz	25 1993
Unicorn a.s.	Roháčova 81 130 00 Praha 3	2-6121-6425 2-6121-6423	www.unicorn.cz unicorn@unicorn.cz	140 1990
Unisys s.r.o.	Máchova 18 120 00 Praha 2	2-2159-5000 2-2159-5155	www.unisys.cz unisys@unisys.cz	65 1992

5.4. Internet service providers

Name of Service	Company name Address	Tel (+420-) Fax (+420-)	e-mail www	ownership	dial-up accounts*	corporate accounts*
Bohemia.Net	Bohemia.Net, a.s. Za papírnou 5 170 00 Praha 7	2-6671-2707 2-6671-2638	sales@bohemia.net www.bohemia.net	N/A	3,500	300
CESNET	CESNET, z.s.p.o. Zikova 4 166 35 Praha 6	2-2435-2996 2-2431-6106	info@cesnet.cz www.cesnet.cz			
Contactel	Contactel, s.r.o. Vinohradská 174 130 19 Praha 3	2-3301-1111 2-3301-1112	info@contactel.cz www.contactel.cz	České radiokomunikace, Tele Danmark		
CZCOM/ World Online	CZCOM, s.r.o. U soudu 388 500 02 H. Králové	49-5235033	info@czcom.cz www.czcom.cz	World Online		
CZECH-NET	Luko Czech-Net, s.r.o. Argentinská 38 170 05 Praha 7	2-2038-5111 2-2038-5112	info@czech.net www.czech.net	Euroweb, USA	6,000	150
EUnet	KPNQWest Czechia Gen. Janouška 902 198 00 Praha 9	2-8108-1081 2-8108-1082	info@eunet.cz www.eunet.cz	KPNQWest	10,000	20,000
GlobalOne	Praha City Center Klimentská 46 110 02 Praha 1	2-2208-5111 2-2481-3295	www.globalone.cz sales@globalone.cz	France Telecom		
GTS INEC	GTS INEC, s.r.o. Hvězdova 33 140 00 Praha 4	2-9615-7111, 2-9615-7630 2-9615-7632	info@gtsinec.cz www.gtsinec.cz	Global TeleSystems Group, Inc. (GTS Inc.)	6,140	300
IBM	IBM Česká republika Murmanská 4 100 00 Praha 10	2-7213-1111 2-7213-1401	czdirect@cz.ibm.com www.cz.ibm.com www.cz.ibm.net	IBM		
Internet OnLine	Český Telecom - IOL Thhámova 11-13 186 21 Praha 8	2-7146-6111 2-7146-6000 0800-123456	adminhelp@iol.cz www.iol.cz www.telecom.cz	Český Telecom	45,000	200-500
InWay	InWay, a.s. Na vinič. horách 10 160 00 Praha 6	2-2281-2203 2-2431-6787	info@inway.cz www.inway.cz	Mero (34%), TMP (34%), management (32%)	500	200
IPEX	IPEX spol. s r. o. Široká 37 370 01 Č. Budějovice	38-6357594 38-6357623	www.ipex.cz ipex@ipex.cz			
IPNet	MOPOS, s.r.o. Smilova 386 530 02 Pardubice	40-6612305 40-6612305	mopos@mopos.cz www.ipnet.cz			
Nextra	Telenor Internet s.r.o. Václavské nám. 4 110 00 Praha 1	2-9615-9411 2-9615-9422	nextra@nextra.cz www.nextra.cz	Telenor	4,000	140
PragoNet	PragoNet a.s. Korunní 98 101 00 Praha 10	2-7212-5111 2-7212-5999	www.pragonet.cz pragonet@ pragonet.cz			
PVTNET	PVT, a.s. Podvinný mlýn 6 190 00 Praha 9	2-6619-8111 2-684-9302	sales@pvtnet.cz www.pvtnet.cz, www.pvt.cz	PVT		
SkyNet	SkyNet, a.s. Ptašínského 6 602 00 Brno	5-4159-4159 5-4159-4100	skynet@skynet.cz info@skynet.cz www.skynet.cz	ECM Holdings		
SpiNet	SpiNet, a.s. Pod Smetánkou 12 190 00 Praha 9	2-6631-5727 2- 825493	info@spinet.cz www.spinet.cz			
Video On Line	Czech On Line, a.s. Burz. palác, Rybná 14 110 05 Praha 1	2-2184-4336 2-2184-4335	info@vol.cz www.vol.cz	Deutsche Bank Group Europe, Ltd. (100 %)	18,000	200

* Book of Lists 2000 by Prague Business Journal (www.pbj.cz) and Book of Lists 2000 by Prague Post (www.praguepost.cz)

5.5. Cable television operators

(selected largest companies in alphabetical order)

Name	Address	Tel (+420-) Fax (+420-) e-mail www	est. year # of empl.	ownership	clients [1998]	regions
Dattelkabel a.s.	Antala Staška 32 146 00 Praha 4 www.dattelkabel.cz	2-2213-5606 2-2213-5605 dattelkabel @dattelkabel.cz	est. 1997 30 empl.	United Pan-Europe Communications, NL	58,500 (March 2000)	Prague
Intes a.s.	Havlíčkova 841 530 02 Pardubice	40-518211 40-518211	est. 1990 12 empl.	N/A	7,500	Pardubice, Přelouč, Litomyšl
K+K cable v.o.s.	Masarykova 159 399 01 Milevsko	368-521294 368-521294 kkcable@mi.cesnet.cz	est. 1991 12 empl.	K+K cable	12,873	South Bohemia
Kabel Net Holding a.s.	Pod Višňovkou 21 140 00 Praha 4	2-425041 2-472-2242 posta@kabelnet.cz www.kabelnet.cz	est. 1993 67 empl.	United Pan-Europe Communications, NL	54,500	Prague, Brno
Kabel Plus a.s.	Závišova 5 140 00 Praha 4	2-6110-7111 2-6110-7100 dopisy@kabelplus.cz www.kabelplus.cz	est. 1991 540 empl.	United Pan-Europe Communications, NL	370,000	All of Czech Republic (97 towns)
Kabelová televize Ostrava s.r.o.	Čs. legií 20 702 00 Ostrava 1	69-612-6527 69-612-6557 all@ktv-ova.cz	est. 1992 15 empl.	N/A	8,200	Ostrava
Keli s.r.o.	Orlí 261/8 460 01 Liberec 3	48-510-5726 48-510-5726 keli-tv@keli-tv.cz	est. 1993 25 empl.	venture capital fund	6,000	Liberec, Jablonec, Semily, Česká Lípa
Pilskabel TV a.s.	P.O.Box 9 Vejprnická 56 318 69 Plzeň	19-287714 19-287724	est. 1991 23 empl.	Intercable Praha	13,160	Western Bohemia
TES Media s.r.o.	Lovosická 40/440 190 00 Praha 9	2-8388-2415 2-8388-2414 tesl@pha.pvtnet.cz	est. 1989 63 empl.	Baring Communications Equity Ltd., Chase Capital Partners, individuals	70,000	Prague, Central Bohemia, North Bohemia

5.6. Telecommunication companies

Company name	Address Web site	Phone (+420-) Fax (+420-) E-mail	Services/ Description	Owners	empl. [`98] established
Aliatel	Sokolovská 86, 180 00 Praha 8 www.aliatel.cz	2-8303-1111 2-8303-1122 mail@aliatel.cz	data and voice communications	local power distributors (60 %), RWE (40 %)	N/A 1996
BCH Enterprises Praha s.r.o.	Sokolovská 156 180 00 Praha 8	2-6631-4183 bch-tel@ini.cz	local, national, int'l services: satellite, data transmission, callback	CR/USA	15 1992
Contactel s.r.o.	Vinohradská 174 130 19 Praha 3 www.contactel.cz	2-3301-1111 2-3301-1112 info@contactel.cz	local and national services: data transmission, Internet, voice from 2001	Tele Danmark (50 %), České radiokomunikace (50 %)	54 1999
Český Telecom a.s.	Olšanská 5 130 34 Praha 3 www.telecom.cz	2-7141-1111 2-7146-9868	local, national, int'l services: conventional telephone network operator (monopoly until 2001)	National Property Fund, TelSource consortium, individual owners and investment funds	N/A 1994
Dattel / GTS	Hvězdova 1073/33 140 00 Praha 4 www.dattel.cz	2-9615-7131 2-9615-7130 dattel@dattel.cz	local services: private telecom. networks, ISDN, data transmission	GTS Inc., USA	
EuroTel Praha s.r.o.	Sokolovská 225 190 00 Praha 9 www.eurotel.cz	2-6701-1111 2-6701-1150 info@eurotel.cz	local, national, int'l services: mobile communication, data transmission	SPT Telecom (51 %), Atlantic West (MediaOne and US West, 49 %)	1300 1991
Future Product Design a.s.	Hvožďanská 3 149 00 Praha 4	2-799-2531 2-795-2561	local services: public network, ISDN	N/A	N/A 1996
GlobalOne Communication s.r.o.	Klimentská 46 110 00 Praha 1 www.globalone.cz	2-2208-5111 2-2481-3295 sales@globalone.cz	VoIP (Voice over Internet Protocol), data transmission, networks, cards & other	France Telecom	N/A 1994
Kabel Plus a.s.	Závišova 5 140 00 Praha 4 www.kabelplus.cz	2-6110-7111 2-6110-7100 dopisy@ kabelplus.cz	local service areas: public network, satellite, data transmission, cable TV	94 % MediaOne, Czech Cable Company, USA	540 1991
Multitone CZ s.r.o.	Jinonická 80 158 00 Praha 5 www.multitone.cz	2-5729-0470 2-5729-0471 info@multitone.cz	national service: paging	N/A	10 1994
RadioMobil a.s.	Londýnská 59 120 21 Praha 2 www.paegas.cz	2-2162-0201 2-2162-0106	local, national, int'l services: mobile telephone operator - Paegas network	České Radiokomunikace, TMobil	N/A 1996
Rapid Link	Vodičkova 28 110 00 Praha 1 www.rapidlink.cz	2-2416-2296 2-2416-2297 info@rapidlink.cz	small, medium businesses, International callback, direct dial, fax, mobile		
Telenor Česká republika s.r.o.	V Sadech 4/15 160 00 Praha 6 www.telenor.cz	2-311-9771 2-311-8217 info@telenor.cz	local, national, int'l services: satellite, distribution of RTV signal, Internet	N/A	N/A 1994