

Regulatory Authority for Telecommunications and Posts

Annual Report 1999

Annual Report 1999

Table of Contents

| | |
|---|-----------|
| 1. Consumer Advice | 6 |
| Telecommunications | 6 |
| • Conciliation | 6 |
| • Favourable status list | 7 |
| • Telecommunications Customer Protection Ordinance and call price computation | 7 |
| • Quality parameters | 7 |
| Postal Sector | 7 |
| • Universal service | 7 |
| • Consumer protection | 7 |
| • Measurement of service quality in the letter service | 9 |
| • Delivery times from the consumer's point of view | 9 |
| • Delivery times from the operational point of view | 10 |
| 2. Telecommunications and Postal Service Jobs | 11 |
| Telecommunications | 11 |
| Postal services | 11 |
| 3. Digital Signature | 12 |
| RegTP Trust Center | 12 |
| Approving certification authorities | 12 |
| Monitoring compliance with the legislation | 12 |

| | |
|---|---------------|
| 4. Market Watch and Growth | 13 |
| Growth in the telecommunications services markets | 13 |
| Telecommunications service providers | 13 |
| Growth in fixed-network connections (fixed-network services, voice telephony) | 14 |
| Price development | 15 |
| Growth in the mobile market | 16 |
| Growth in the Internet and online services market | 17 |
| Internet use in Germany | 18 |
| E-commerce | 19 |
| Broadband Internet access technologies | 20 |
| 5. Telecommunications Licences | 20 |
| Mobile licensing (Licence Class 1) | 20 |
| Digital cellular radio | 20 |
| UMTS/IMT-2000 (Third Generation Mobile Communications) | 21 |
| Analogue trunked radio | 21 |
| Digital trunked radio | 21 |
| Satellite licences (Licence Class 2) | 22 |
| Transmission line licences (Class 3) | 22 |
| Voice telephony licences (Class 4) | 22 |
| Licensing policy issues | 24 |
| 6. Number Administration | 24 |

| | |
|--|-----------|
| 7. Frequency Management and Assignment | 26 |
| Point-to-point radio relay | 26 |
| Point-to-multipoint radio relay tender (WLL) | 26 |
| Mobile communications | 27 |
| Satellite communications | 27 |
| Broadcasting | 28 |
| Tendering for T-DAB | 28 |
| Experimental radio services | 28 |
| Tracing and eliminating radio frequency interference | 28 |
| State of the art equipment and facilities | 29 |
| Certificates | 29 |
| Compatibility | 29 |
| 8. Electromagnetic Compatibility and the Electromagnetic Compatibility Act | 30 |
| Market surveillance | 30 |
| Powerline communications | 31 |
| High speed data transmission – ADSL | 31 |
| Provision of EMC standards | 31 |
| Notified bodies and competent authorities | 32 |
| 9. Electromagnetic Radiation and the Environment, Accreditation, Recognition | 32 |
| Protection of persons exposed to electromagnetic fields | 32 |
| Accreditation, Recognition | 33 |
| 10. Approvals for Connection, Installation, Modification and Maintenance Services | 34 |
| 11. Certification of Quality Systems | 34 |

| | |
|---|-----------|
| 12. International Activities | 35 |
| UMTS/IMT-2000/Third Generation (3G) Mobile Communications | 35 |
| New R&TTE Directive and Act | 36 |
| 13. Year 2000 Issues | 36 |
| Y2K preparations in the telecommunications sector | 36 |
| Y2K centre | 37 |
| 14. Postal Sector | 38 |
| Postal Act and Ordinances | 38 |
| Regulatory aims of the Postal Act | 38 |
| Postal Universal Service Ordinance | 38 |
| Content and scope of universal services | 38 |
| Minimum quality standards | 39 |
| Postal Rates Regulation Ordinance | 39 |
| Overview of the postal services market | 39 |
| Entry to the market | 40 |
| Postal licences/licensing obligation | 40 |
| Licensable services | 40 |
| Licences for higher quality services (D licences) | 41 |
| "Old-type licences" | 42 |
| Licensing | 42 |
| Applying for a licence | 42 |
| Number of applications | 43 |
| Licence grant | 43 |
| Licences granted/denied | 44 |
| Total number of licence applications/licensees | 45 |
| Breakdown of licences (data analysis: 14 January 2000) | 45 |
| Use of licence rights | 46 |
| Post-licence-grant control | 47 |
| Initial results | 47 |

| | |
|--|---------------|
| Legal proceedings | 47 |
| Development of the market (licensed sector) | 48 |
| Company size by revenues (excluding DPAG) | 49 |
| Revenues and sales in the licensed sector (including DPAG) | 49 |
| Licensees' revenues and sales (estimates) | 49 |
| Market shares | 50 |
| Licensees' market shares in the competitive areas (1999) | 50 |
| Postal services market in 1999 (licensed sector) | 51 |
| Licensees' staff (as at 1 November 1999) | 51 |
| 15. Data Protection Supervision for Telecommunications and Postal Operators | 52 |
| 16. Ruling Chambers | 52 |
| 17. Staffing and Budget | 61 |

1. Consumer Advice

Consumer Advice has become an important part of the RegTP's activities. In 1999 for instance, almost 19,000 consumers used the service to make inquiries or complaints.

Telecommunications

Compared with the previous year, the number of inquiries and complaints made by telephone, in particular, has increased (1998: 9,100 inquiries/complaints). Consumers are given help and support in clearing up problems they have with their service providers, quickly and unbureaucratically.

The breakdown of the issues is as follows:

| | |
|---|-------|
| Telephone charges (problems with bills) | 18.0% |
| Numbering issues (allocation of numbers) | 13.4% |
| Contractual matters | 11.8% |
| Information on providers (addresses, numbers) | 11.6% |
| Itemised billing | 9.5% |
| Rates/charges | 8.7% |
| Services provided (inquiries about best provider) | 4.7% |

Complaints made up 37 percent of the total but around 80 percent of the letters and faxes received. One third of the complaints were to do with bills consumers had difficulty understanding, eg charges for value-added services (0190 numbers). Complaints were also received on charges for Internet usage, particularly in connection with preselection contracts. The year under review also saw more complaints on contractual matters (eg on grounds for terminating a contract).

Internet users continued to express dissatisfaction with the level of online charges, local call charges and charges for special numbers.

Conciliation

The RegTP received in 1999 more than 200 requests for disputes between end users and public network access providers or voice telephony providers to be settled out of court. The vast majority of these requests, 90 percent, were disputes about the price of telecommunications services. It was possible for many of the complaints to be settled in expedited preliminary proceedings. Thus the conciliation procedures provided for in Section 35(1) of the Telecommunications Customer Protection Ordinance ("TKV") as a mechanism for extra-judicial dispute settlement between end users and service providers have been very well received.

Favourable status list

Having received further complaints on standard itemised billing matters – primarily from consumers with long-term contracts – and noting providers' growing interest in being included on the favourable status list, the RegTP decided to continue this service. Currently, 35 companies are listed. The updated list can be viewed on the RegTP's website under the heading "*Verbraucherservice*" (Consumer Advice) ▷ "*Verbrauchermittellungen*" (Answers to FAQs) ▷ "*Positivliste zum Einzelverbindungs-nachweis*".

Telecommunications Customer Protection Ordinance and call price computation

In computing their call prices, providers of publicly available telecommunications services must undertake to observe the principles of Section 5 of the TKV. This is the legal basis on which the technical requirements for metering and billing systems (procedures and checks for establishing and processing call records) were drawn up, made the subject of a public consultation and published. Compliance with these requirements is designed to ensure that metering and billing systems perform to guaranteed minimum levels of accuracy so that consumers may have confidence in the accuracy of their bills.

Quality parameters

As provided for by Sections 32 and 33 of the TKV, voice telephony providers and operators of fixed public telecommunications networks must record the quality parameters referred to in Section 32(1) subparas 1 to 9. The definitions, indicators and measurement methods for these parameters were published by the Regulatory Authority in December 1999. In future, it will publish statistics on quality parameters once a year.

Postal Sector

Universal service

The services designated as universal services in the Postal Universal Service Ordinance ("PUDLV") are in appropriate and adequate supply in the market. The minimum quality standards as required by the Ordinance are all met; this is particularly true in respect of the fixed-location facilities and of letter delivery times. No intervention by the Regulatory Authority has been necessary to date; nor, most importantly, has any company had to be charged with providing universal service.

Consumer protection

Following the principle of consumer protection, the PUDLV determines that anyone may make proposals to the Regulatory Authority with a view to ensuring these quality standards.

In assessing the proposals it should not be forgotten, however, that some of the consumers are not entirely satisfied with the service changes made since the privatisation of the former Deutsche Bundespost. Complaints have been made about the following, in particular:

- aspects of delivery (time of delivery, reliability);
- collections from letter boxes (last collection too early, in some cases before delivery even);
- letter delivery times (too long, sometimes over a week);
- loss of mail;
- reducing the number of fixed-location facilities to the minimum required by the PUDLV;
- transformation of postal branches into agencies;
- services offered by Deutsche Post AG ("DPAG").

However, considerably fewer complaints were received on postal than on telecommunications issues. Answered in 1999 were some 250 written submissions and around 350 telephone inquiries. This is likely to be because the consumer protection provisions for telecommunications are considerably more detailed and extensive at the moment than those for postal services.

In by far the majority of cases it was necessary to make clear to consumers that the situations they perceived as poor did not in fact constitute a breach of the provisions of the PUDLV. It was particularly necessary to point this out to customers complaining about isolated incidences of long letter delivery times. The Ordinance requires delivery times of 1 or 2 days for a specified percentage of mail only (80 percent D + 1/95 percent D + 2) on average over the year. These targets are comfortably met at present. There will always be a certain percentage of mail that takes longer; it is intrinsic to the system, so to speak. Longer delivery times now and again therefore have to be tolerated. In individual cases it was not appropriate for the RegTP to intervene as the cause of complaint was a "regulation-exempt" service, for example one offered by Postbank AG.

In these cases, the RegTP also had to point out that it was not a general centre for complaints about postal services and that it could only respond to matters of consumer protection to the extent that the Postal Act and the PUDLV allowed it to do so. It is not currently intended that the RegTP establish its own conciliation procedures for the settlement of disputes between consumers and postal service providers.

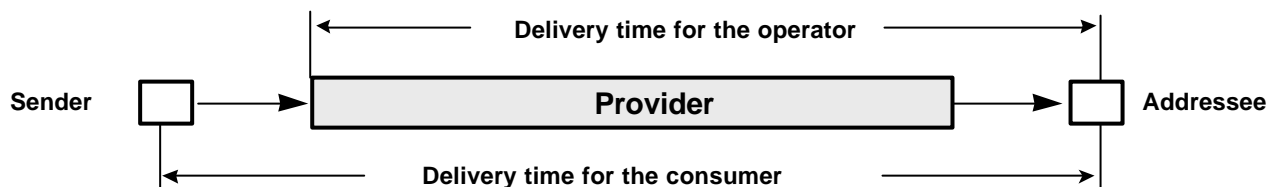
Of course, this information was often unsatisfactory for the consumers – at least to begin with. But the RegTP cannot, even as the champion of the consumer, lay claim to

intervention rights vis-à-vis postal service providers for which there is no provision in the Postal Act and related Ordinances.

Be that as it may, it was often possible, in cooperation with DPAG, the company concerned in by far the majority of cases, to make improvements for the customers. In this, DPAG generally showed a cooperative spirit.

Measurement of service quality in the letter service

The RegTP and, previously, the now defunct Federal Office for Posts and Telecommunications have regularly monitored the quality of the letter service since 1993. Measured are the delivery times achieved by DPAG as the dominant company. Measurements are recorded throughout the country and over time on a continuous basis. They provide information on the delivery times from the consumer's point of view and from the operational point of view. Delivery times are shown in business days.



Measuring is done by sampling, which uses test letters to ascertain delivery times across the country. Each year, some 300,000 test letters are analysed. Using a daily dispatch schedule with time and place targets, staff from the RegTP's regional offices send out the test letters. Given the extent and nature of the sampling, the results can be regarded as representative of the letter business as a whole.

Delivery times from the consumer's point of view

Delivery time for the consumer means the time taken between posting a letter in the letter box or depositing it at the provider's office **at the usual times of business or times of day**, and receipt by the addressee. Delivery time begins as soon as the consumer "surrenders" the letter. Measured, then, is the end-to-end delivery time – from sender to addressee.

In measuring delivery times from the consumer's point of view the RegTP uses as its reference the so-called "postal day" instead of the usual times of business or times of day. The end of the "postal day" is currently fixed at 1700 hours for these measuring purposes. Accordingly, what is established is the delivery times of letters posted or deposited in the course of a "postal day", ie until 1700 hours. Test letters posted after this time and only delivered on the next but one day are treated as if they had been posted on the following "postal day". The delivery time measured is then corrected by a day.

Providers' latest times of mailing (latest time for posting at the counter; last collection at letter boxes) have no bearing on the results in this particular procedure.

The following delivery times were recorded for 1998 and 1999 (average over the year) with this consumer-oriented procedure:

| Period | D+1 – rate [%] (1) | D+2 – rate [%] (2) |
|----------|------------------------|------------------------|
| 1999 (Æ) | 86.0 | 12.8 |
| 1998 (Æ) | 86.0 | 12.8 |

(1) Percentage of letters D + 1 (day of posting + 1 business day)

(2) Percentage of letters D + 2 (day of posting + 2 business days)

Delivery times from the operational point of view

In operational terms, delivery time means the time taken between the letter entering the provider's operating system and delivery to the addressee. Delivery time only starts when the provider has the letter in its "possession", as it were. Hence measured here is the internal delivery time – from provider to addressee.

It makes all the difference whether a letter is posted or deposited before or after the time limits dictated by operational requirements (latest time for posting at the counter; last collection at letter boxes). Letters posted or deposited by the sender after these set times can only be delivered to the addressee on the next but one business day because of the way the system operates.

The RegTP takes account of this by making a number of further adjustments to this latter procedure. It establishes the delivery times of letters posted or deposited **before** the operator's time limits. Test letters posted after these times are treated as if posted on the following day, before the latest time for posting at the counter or the last collection. This is also done when the time limits are considerably earlier than 1700 hours (⇒ end of the "postal day").

Crucial here are the time limits set by the provider, since he can influence the result of conveyance by, for instance, bringing the time limits forward in order to gain more time for processing.

Operations-based measuring produced the following delivery times for 1998 and 1999:

| Period | D+1 – rate [%] | D+2 – rate [%] | Average Æ delivery [days] (1) | Maximum delivery [days] (2) |
|----------------------------------|----------------------------|----------------------------|--|--|
| 1999 (Æ) | 95.0 | 4.5 | 1.06 | 2 |
| 4th quarter 99 | 94.3 | 5.0 | 1.07 | 2 |
| 3rd quarter 99 | 95.2 | 4.3 | 1.06 | 2 |
| 2nd quarter 99 | 95.5 | 4.1 | 1.05 | 2 |
| 1998 (Æ) | 94.8 | 4.7 | 1.06 | 2 |

(1) Average delivery time for all letters, in business days

(2) Number of business days after which 99 percent of all letters have reached the addressee

2. Telecommunications and Postal Service Jobs

Telecommunications

Developments in telecommunications have had a positive effect on employment figures. In mobile communications alone, 30,000 jobs can be expected by the end of 2000, representing growth of over 15 percent. Whereas DTAG reduced its staff levels in 1999 by 4 percent to around 173,000, staff levels at competing operators rose. These competitors (those in the broadband cable segment included) had more than 50,000 employees on their payrolls at the end of last year. More than 223,000 are now working in the telecommunications services market – a 1.5 percent increase in the number of jobs as compared with late 1998. Added to this are knock-on effects on jobs in online and Internet services, for instance, and in e-commerce.

Postal services

The new licensees currently employ some 6,900 staff full and part-time, while around 13,900 are in so-called insignificant employment. The percentage of staff liable to social insurance in the total number of staff has now risen to 65 percent (previous year: 54.5 percent).

DPAG reduced in 1999 the number of staff in the licensed area by around 10,000, both full and part-time staff. The reduction is not attributable to lower revenues or sales, however; DPAG increased these by 1.7 percent and 2.5 percent respectively in 1999.

3. Digital Signature

RegTP Trust Center

In its capacity as competent authority, the RegTP has been carrying out the tasks prescribed by the Digital Signature Act ("SigG") since its enactment. One of these tasks is to issue certificates for the signature keys of the certification authorities.

The RegTP's national certification authority, or root, set up for this purpose, was ready for service on 23 September 1998. It went live on 21 January 1999 when the first certificate from a certification authority was placed in the public directory along with the RegTP certificates. Since then, the RegTP has issued 41 signature key certificates, all stored in the directory for public retrieval. With a view to interoperability, the RegTP is aiming to provide the certification of keys it does not generate itself (non-root keys) for applicants using other signature products. Specifications for an interface to certify these non-root keys have therefore been developed and implemented in conjunction with potential operators. This will enable the root authority to adapt to the rapidly evolving chipcard market.

Approving certification authorities

One of the RegTP's main tasks under the Digital Signature Act is to certify the certifier, as it were. The first authorisation to operate a certification authority was given on 22 December 1998 to *Deutsche Telekom AG, Produktzentrum TeleSec* in Siegen. A second authorisation procedure began in the fourth quarter of 1999. The applicant's security concept has been scrutinised in respect of its IT, operational, legal and conceptual content (organisation, representation arrangements, separation of roles, infrastructure, etc). The operator's reliability and specialised skills in IT and legal affairs, in particular, have been examined. Approval of the certification authority for *Deutsche Post AG, Produktbereich PostCOM*, is now imminent.

Monitoring compliance with the legislation

The RegTP is entitled to take action against any person not, but professing to be, authorised under the SigG to operate a certification authority (deceptive impression). The action taken may even extend to a general ban on operation. The RegTP has had to investigate on several occasions – and the trend is upwards. The number of cases in which companies – in press reports and elsewhere – have wrongfully claimed that their products and services are compliant with the Act is growing steadily. Thus cases of potential deceptive impression are regularly having to be investigated.

4. Market Watch and Growth

Growth in the telecommunications services markets

Provisional figures for the 1999 financial year for DTAG and a number of its competitors, first available in January, indicate that the RegTP's expectations will be surpassed. Revenues in the services market in 1999 were clearly above DM 90 billion, making the increase in growth over the previous year an expected seven percent. This was due in no small measure to the mobile telephone service which posted the largest growth in its history with 23.2 million users in the digital networks. In its 1998/1999 report on its activities published in early December 1999 the RegTP estimated moderate revenue growth of one percent for the telecommunications services market as a whole.

The figures on the 1999 market volumes will be further consolidated in the course of the year when the companies publish their final annual financial statements. More accurate prognostications will then be possible. In light of last year's growth, the RegTP is also expecting strong growth for this year. The revenue forecasts, however, will have to take account of the continued price cuts in mobile communications and in the interconnection market. Revenue in excess of DM 96 billion is likely. Further analysis will show whether the DM 100 billion mark will be reached by the end of 2000.

By the end of 1999, 252 companies had been granted a network or a voice telephony licence. This high number of licences is an indicator of the robust competition in the telecommunications market. The competitive opportunities in the German market are also recognised internationally. For instance, foreign companies have a majority stake in 20 percent of the above licensees. Half of these stakeholders are North American companies. And in satellite communications, over 30 percent of the licences (19 of 59) have been awarded to foreign companies. Foreign investors' confidence in the German telecommunications market is reflected not least in their sustained investment in infrastructure. In 1999, companies with foreign majority shareholdings invested more than DM 1 billion in telecommunications infrastructure. It may be assumed from the projects planned that this investment activity will continue unabated in the coming years.

Telecommunications service providers

The intensity of competition in the German telecommunications market is reflected in the consistently high number of providers – mergers in the industry notwithstanding. Currently registered are more than 1,700. Under Section 4 of the Telecommunications Act ("TKG"), everyone providing service must notify the RegTP accordingly. Most of the new providers are to be found in the business of voice telephony and the Internet (access provision). The list of providers and licensees can be called up on the RegTP's homepage by clicking the button "*Regulierung Telekommunikation*" (Telecoms regulation) and then the button "*Anbieter TK-Dienstleistungen*" (Telecoms service providers) or "*Lizenzen nach dem TKG*" (Licences under the TKG). The last update was March 2000.

Growth in fixed-network connections (fixed-network services, voice telephony)

Well over 100 companies now offer voice telephony. The number of businesses leaving the market on account of mergers or acquisitions has been more than compensated for by the number of new entrants. Of these, many (over 40) operate as resellers.

In early 2000 there were already 61 agreements in place between DTAG and its competitors on access to the local loop. Now, as a result of these agreements or because competitors have built their own subscriber networks, there are currently some 40 licensees besides DTAG providing direct access to the customer. In roughly half of the 84 large German towns and cities and surrounding areas customers can therefore choose completely between DTAG and another competitor. In many towns, they have a choice of more than two already.

Interconnection agreements have been signed between DTAG and 100 competing operators to date. The RegTP determination of 23 December 1999 lowering interconnection charges by 24.4 percent has boosted competition in the German market. The changes made to peak and off-peak times has made cheaper rates possible in the evenings and at weekends, and will encourage home use of the Internet in particular.

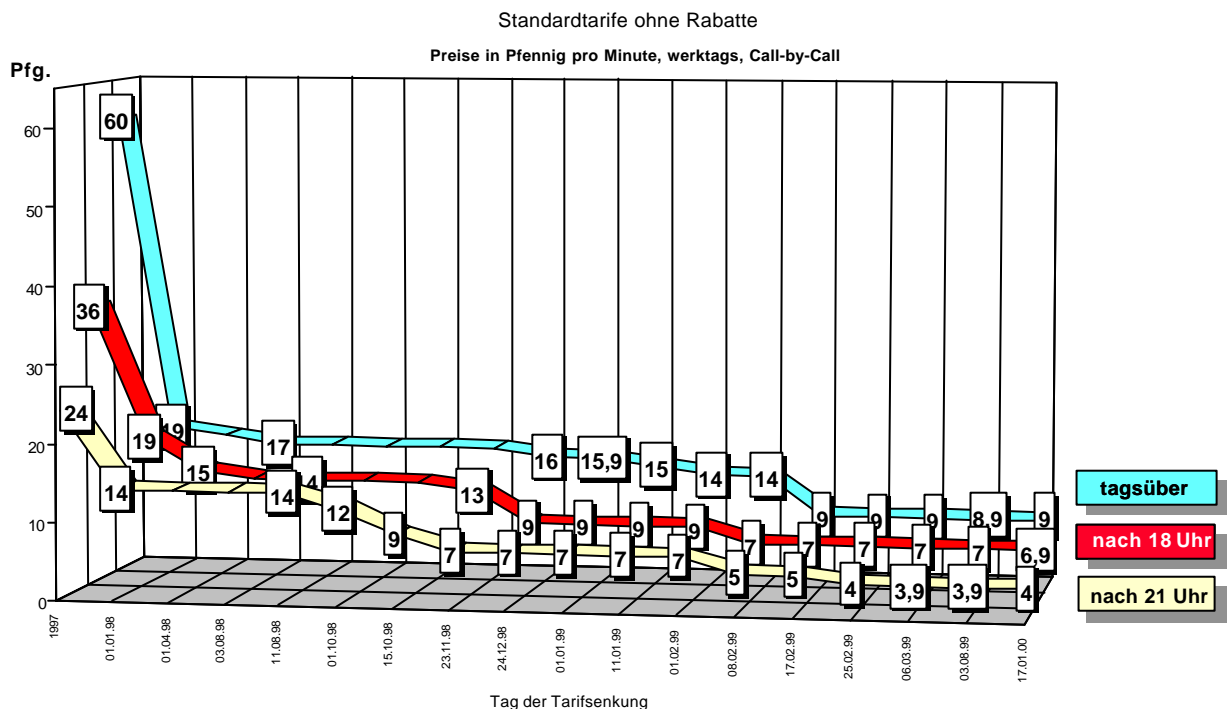
Traffic volumes in the fixed network will continue to grow in 2000, the main growth driver being the Internet. The number of telephone lines supplied by DTAG and the new entrants is rising steadily as the competitors roll out their networks and DTAG records more growth in its ISDN lines. In the course of the year competing operators will also begin significant operation of fixed wireless, or wireless local loop. Competition at local level will then really get off the ground. Revenues for fixed-network services are thus expected to remain stable at the 1999 level of around DM 40 billion. The expected reductions in call charges will be offset by a continued rise in connections and traffic volumes.

The average daily volume of calls in the fixed network was well over 650 million minutes at the end of 1999. In terms of the total minutes generated every day in Germany, the new entrants' market share reached some 20 percent, a remarkable rise compared to the 14 percent posted at the end of June 1999. This share translates into some 130 million call minutes per day at year's end (compared to 85 million minutes in late June 1999). When the volumes of domestic long-distance, international and fixed-to-mobile calls are considered, the new entrants currently achieve a 40 percent share of the market, a slight increase over 35 percent at the end of June 1999. After two years of a fully deregulated market, Germany is thus in the vanguard of liberalisation in Europe.

Price development

Since the market was fully deregulated on 1 January 1998 Germany has seen the price of long-distance calls plummet as a result of competition. Now, depending on the time of day, the customer pays anything up to 85 percent less for a domestic long-distance call on a weekday. Call-by-call prices stabilised at the beginning of 2000 at present levels. However, the new interconnection charges are already making an impact in the shape of the price cut windows announced.

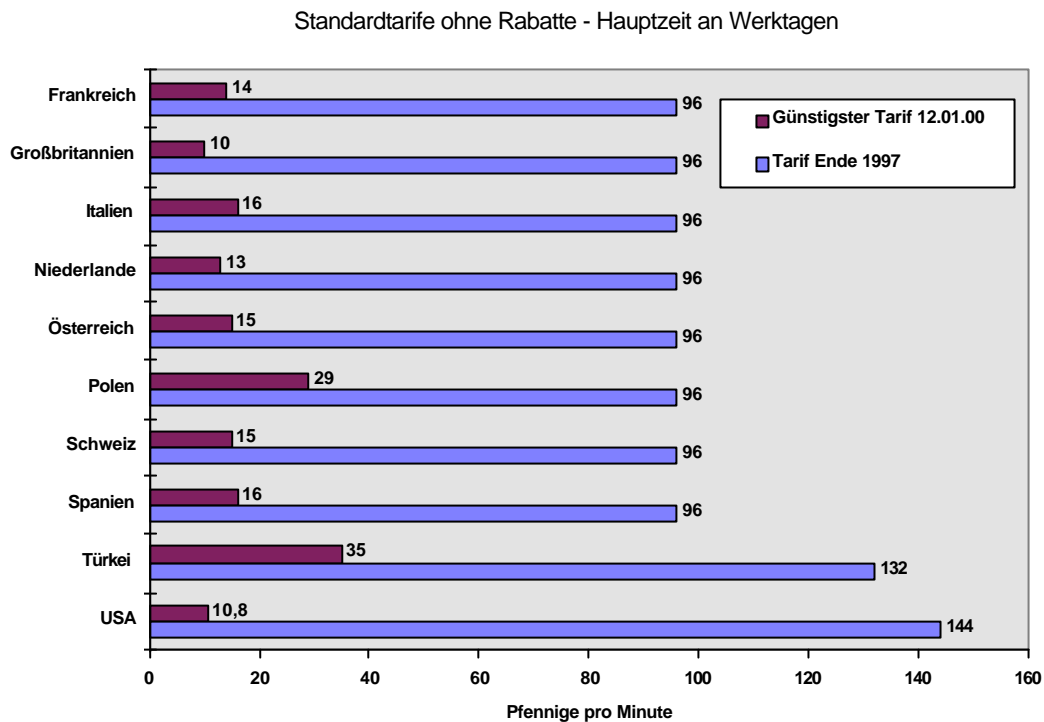
Minimum prices for long-distance calls in Germany in the fixed network (Call by call)



Even lower prices are possible with preselection or the default case.

Competition for international calls has also brought the consumer huge savings. Prices have fallen steadily. Since the market was fully deregulated in January 1998 prices on the 10 major international routes at peak periods during the day have fallen by up to 93 percent. This is illustrated by the following chart, which includes both call-by-call and preselection services.

Price development for international calls to 10 major destinations



Growth in the mobile market

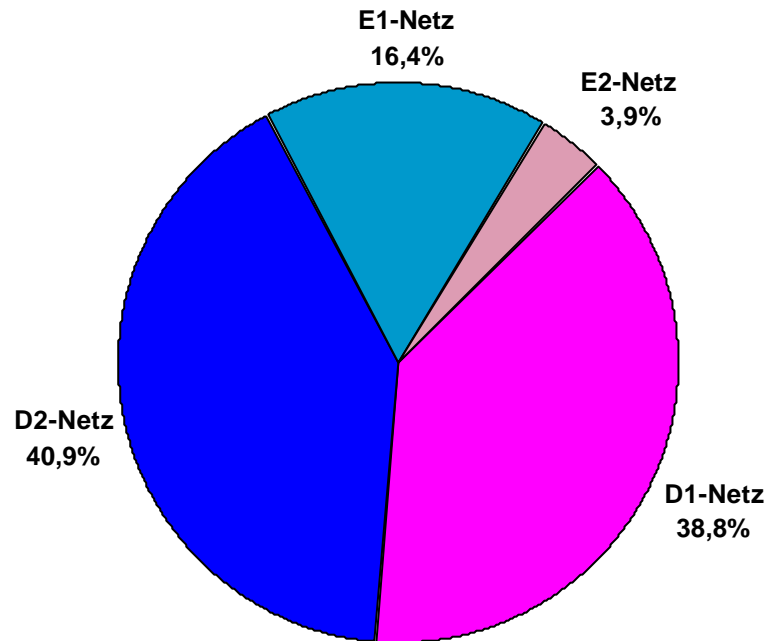
Mobile services experienced record growth in 1999. The number of users in the digital mobile networks rose by 9.7 million to reach a total of 23.2 million users at year's end. Measured by the absolute number of users, Germany ranked third behind Italy and the UK in a European comparison. Measured by its penetration rate of 28.3 percent, however, Germany occupied a lower middle position.

The enormous rate of growth of 70 percent in 1999 indicates that today's forecasts of just over 30 million users will be surpassed in 2000. Assuming customer-friendly pricing, a figure of 35 million by the end of 2000 is entirely realistic. This would represent a penetration rate of 42.7 percent.

The main reason for this explosive growth is the breakthrough in the non-business customer segment. Packages combining free handsets with 24-month contracts, attractive schemes with pre-paid cards and low call charges in the so-called city zones or for calls to special rate numbers have made the mobile telephone an attractive proposition for the ordinary consumer, too. According to the Federal Statistical Office price index for mobile communications services, prices fell by 20.5 percent on average, compared to 1998. Yet by international standards, there is still considerable scope for cuts in per-minute prices in particular.

How the total number of mobile users at year's end is distributed among the four operators DeTeMobilNet GmbH (D1 network), Mannesmann Mobilfunk GmbH (D2 network), E-Plus Mobilfunk GmbH (E1 network) and VIAG Interkom GmbH & Co. (E2 network) is shown in the following chart.

Subscriber percentages in the four digital mobile networks in Germany

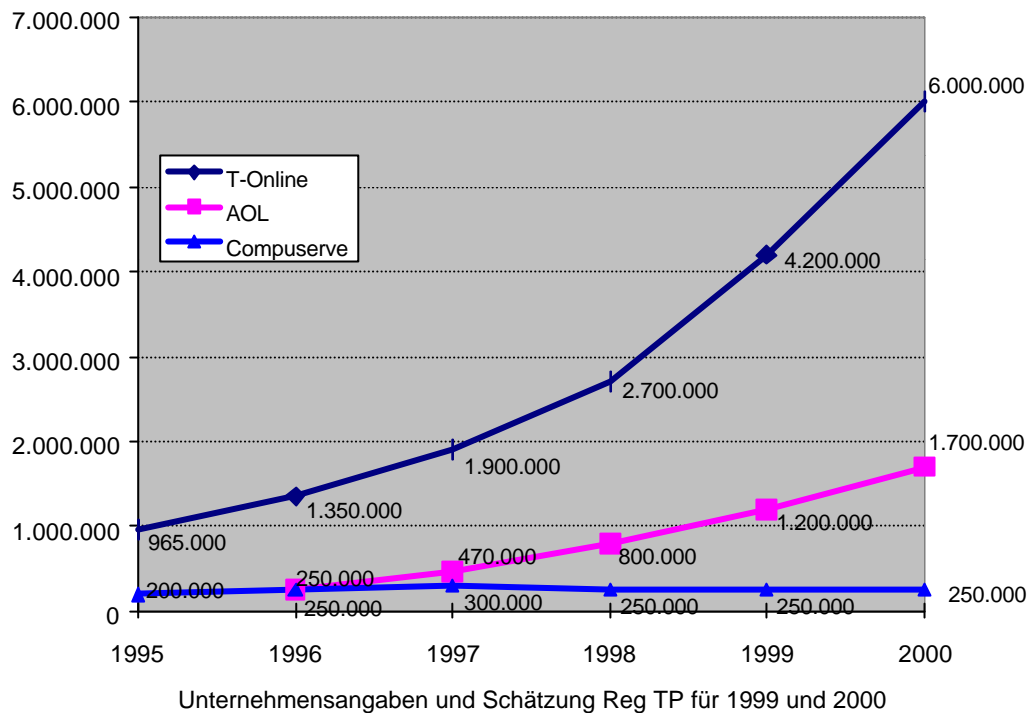


With a total of 23.2 million users in all four digital networks at the end of 1999 average monthly growth was 800,000 users, exceeding the expectations of all the mobile operators in Germany.

Growth in the Internet and online services market

Between them, the three largest online providers (T-Online, AOL and Compuserve) had almost 5.5 million customers at year's end. This figure is set to rise to 7.95 million by the end of 2000.

Development of online subscriber numbers in Germany



Internet use in Germany

The number of Internet users is estimated to have risen to over 12 million at the end of 1999. In light of the growth experienced so far, up to 20 million users can be predicted by the end of 2000. The European Commission even posits a figure of 32 million users in Germany for 2001.

The percentage of people using the Internet at work (salaried employees, the self-employed, civil servants) rose from 53 percent in 1996 to 69.2 percent at the end of 1999 according to a study by the market research institute Fittkau & Maaß (www.w3b.de). Over the same period the percentage of users in education (schoolchildren, students, postgraduates) almost halved, falling from 40.7 percent to 22.3 percent. The age pyramid of Internet users has flattened out each year; thus the average age of 30 in 1996 climbed to 35.5 at the end of 1999.

Today, one hour on the Internet, including dial-up costs, costs less than DM 3.00 on average. The average length of time users at home spend on the Internet is 20 minutes a day, or 10 hours a month.

According to a survey by Fittkau & Maaß, users access the Internet by a variety of means. Almost a quarter use the Internet-by-call facility. The breakdown is as follows:

Internet/online access by means:

- 47.6% online service (eg AOL)
- 25.3% Internet provider (eg germany.net)
- 22.3% Internet-by-call (eg Arcor)
- 41.1% via employer, (own) business
- 16.4% via school or university
- 3.5% via friends or acquaintances
- 3.5% via friends or relations
- 4.3% through an Internet café
- 3.6% other

(These categories are not necessarily mutually exclusive.)

Every second household now has (at least) one PC, according to data from the market research company Infratest Burke. With some 37.6 million households in Germany this represents 18.8 million privately owned computers.

E-commerce

Already, sales of media products account for 35 percent of all goods sold online around the world. Books, notching up 25 percent, are ahead of music products (approx 10 percent). The market analyst Jupiter Communications estimates that, in 2002, consumers worldwide will spend more than US\$ 4 billion online on books and music alone.

The German Internet industry association, eco Electronic Commerce Forum e.V. in Cologne, the multimedia industry association dmmv in Düsseldorf and the Association of German Retailers in Cologne predicted for 1999 electronic business in Germany worth well over DM 5 billion, rising to DM 40 billion by 2003. This translates into 5 percent of revenues in the German retail trade as a whole.

Any remaining doubts about making purchases or conducting legal transactions online can be put to rest through the use of a digital signature. The value of online business is set to rise as digital signatures become more widely accepted. Marketing experts assume that in future, one fifth of car sales and distribution will take place over the Internet. Electronic signatures were introduced in Germany in 1999 with a high level of security prescribed by the Digital Signature Act. Chipcards generating authentic digital signatures are currently available from DTAG and will soon be available from a number of other certified providers such as Deutsche Post AG, TC Trustcenter GmbH, the Federal Printing Office and Telecash. Costs are similar to those for credit cards. At

national level, the task of certifying certification authorities and issuing their signature keys is performed by the RegTP.

Late 1999 saw the adoption of an EU Directive on a Community framework for electronic signatures. Considerable headway can thus be expected in the course of 2000 on the mutual recognition of digital signatures within Europe, and hence a substantial boost to cross-border Internet trade.

Broadband Internet access technologies

Under the name xDSL (digital subscriber line), a broadband access technology based on copper pairs has now come onto the market. Depending on the variant chosen [eg A = Asymmetric Digital Subscriber Line (ADSL), H = High Bitrate Digital Subscriber Line (HDSL), V = Very Highspeed Digital Subscriber Line (VDSL), S = Symmetric Digital Subscriber Line (SDSL)] speeds of 1.5 Mbit/s (eg for video) right up to 53 Mbit/s are possible, at least downstream, whereas transmission in the reverse direction is generally significantly slower. This technology is suitable for instance for high bit rate Internet access.

xDSL services are currently only provided by DTAG to any appreciable extent. DTAG tested this ADSL technology in a pilot project in 1998. Since April 1999 business customers have been offered ADSL access of up to 6 Mbit/s downstream and 576 kbit/s upstream. Service for residential customers has been available since July 1999. Roll-out has focused on the centres of population; another 40 local networks were set to follow by the end of 1999. To date, DTAG has installed around 100,000 xDSL connections.

Some of the new entrants are in the process of introducing these services or running trials.

5. Telecommunications Licences

Mobile licensing (Licence Class 1)

Digital cellular radio

In April 1999 the President's Chamber decided to auction as so-called complementary spectrum the 2 x 10.4 MHz spectrum available in the 1800 MHz band for applications based on the GSM standard, among the current GSM operators (D1, D2, E1 and E2). The auction rules were set at the same time. Accordingly, 9 packages, all carrying 2 x 1 MHz, and 1 package carrying 2 x 1.4 MHz were auctioned. The auction for this complementary spectrum was held on 28 October 1999 at the RegTP's Mainz office.

Five spectrum packages of 2 x 1 MHz were awarded to DeTeMobil Deutsche Telekom MobilNet GmbH for a total price of DM 200.04 million. The four remaining packages of 2 x 1 MHz and the one package of 2 x 1.4 MHz were awarded to Mannesmann Mobilfunk GmbH for the price of DM 216 million.

UMTS/IMT-2000 (Third Generation Mobile Communications)

The evolution of mobile communications towards broadband applications is making the licensing of a third generation of mobile communications (3G) possible and necessary. Unlike the second generation GSM, UMTS/IMT-2000 will support mobile multimedia applications at speeds of up to 2 Mbit/s.

The RegTP is currently drafting the regulatory framework for UMTS/IMT-2000 licensing, based on the Telecommunications Act. It plans to auction the licences by summer 2000.

Analogue trunked radio

There has been a significant change in the development of licensed trunked radio over the last two years. The trend has been towards mergers, in view of the competition from GSM services. Licences have also been returned to the RegTP. Of the original 42 Type A licences granted, only 16 are still in the holders' possession.

In 1999, the RegTP granted one Type B trunked radio licence. Currently, only 36 of the 55 Type B licences originally granted are still in the holders' possession. This number will fall as well when the networks are consolidated as mergers take place. Of the Type C licences for networks on public properties, now licence-exempt under the Telecommunications Act, 14 are still being used. Another 12 frequency assignments for on-site trunked networks, 4 in 1999, have additionally been made.

Digital trunked radio

Since 1998 the trunked radio market has been showing the need for digitisation – in the existing analogue networks, too. Once it was clear that, following the merger activity in late 1998/early 1999, sufficient spectrum would become available for a new digital concept for trunked radio, the RegTP published in August 1999 a list of administrative principles in a document entitled "Introduction of digital technology for protected trunked radio licences in the band at 410-430 MHz". Holders of analogue trunked radio licences are now able to have their licences and spectrum converted to digital technology. A specific digital standard has not been prescribed.

Meanwhile, the RegTP has also drawn up key elements for a new trunked radio concept and the award of a national licence using digital technology, making them the subject of a public consultation in October 1999. This had become necessary as the 1991 "Three Operator Concept" for Type A trunked radio licences had been overtaken by developments in the market. Depending on the outcome of the consultation it is planned to award a national licence in late 2000 using digital technology (either TETRA or TETRAPOL).

Satellite licences (Licence Class 2)

In the Federal Republic of Germany, the number of licences held remains constant at 58 satellite licences and three licences for satellite personal communications services (S-PCS). Two licences were awarded in 1999, but the total figure remains unchanged on account of the mergers that have taken place. The S-PCS licences – unlike the traditional satellite licences – are a combination of Licence Classes 1 and 2 (mobile and satellite licences), as the terminal equipment used is mobile (eg satellite mobile phones).

Transmission line licences (Class 3)

Voice telephony licences (Class 4)

Class 3 licences are granted upon application, with no restrictions. To date, 365 Class 3 licences (for transmission lines) have been granted, and 262 Class 4 (for voice telephony).

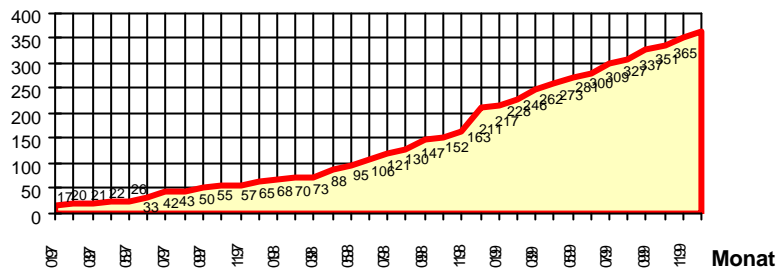
| | In 1996 | In 1997 | | In 1998 | | In 1999 | |
|----------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | 2 nd half | 1 st half | 2 nd half | 1 st half | 2 nd half | 1 st half | 2 nd half |
| Class 3: | 14 | 19 | 32 | 41 | 105 | 70 | 84 |
| Class 4: | 3 | 10 | 29 | 52 | 70 | 62 | 36 |

These 627 Class 3 and 4 licences are **in the possession of 252 companies**, 66 of which are spin-offs from public utilities and municipal plants.

Fifteen Class 3 licences and 55 Class 4 licences have been granted for nationwide operation. This shows how dynamic the market has become since the infrastructure and voice telephony monopolies were lifted.

Lizenzklasse 3

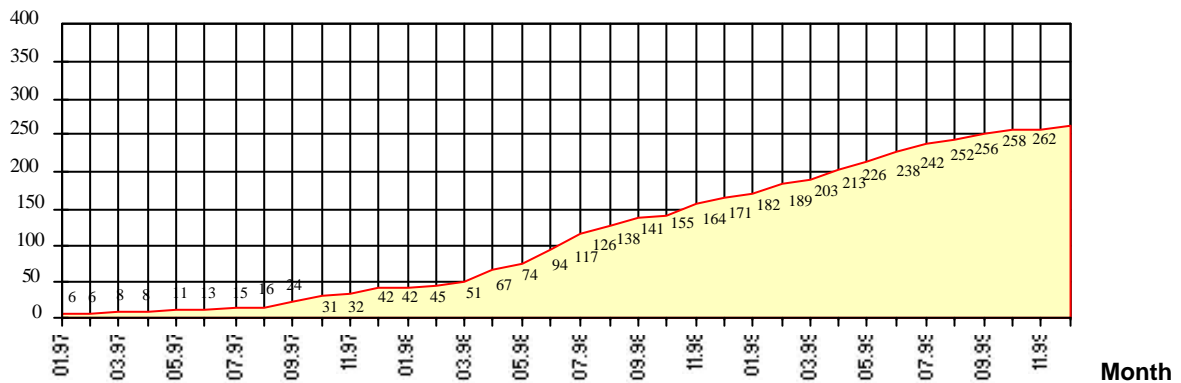
Summe der erteilten Lizenzen (einschließlich Änderungen)
am Monatsende (ohne Lizenzen von
Rundfunksenderbetreibern)



Currently, there are 200 holders of a Class 3 licence.

Licence Class 4

Total number of licences granted (modifications included)
at month's end



Currently, there are 157 holders of a Class 4 licence.

Licensing policy issues

In connection with the roaming arrangements made between the GSM licensees DeTeMobil Deutsche Telekom MobilNet GmbH and VIAG Interkom GmbH & Co., principles for the regulatory treatment of national roaming were drawn up in summer 1999 and agreed with the Federal Cartel Office and the European Commission.

Following the consultation on the regulatory treatment of carrier networks and public telecommunications networks in respect of the interconnection provisions of the Telecommunications Act the RegTP published the results and adopted in March 1999 a set of rules for licensing these carriers. Former Class 4 licence award practice was then brought into line with these new rules. Principles on obliging future mobile operators to provide a choice of operator (call-by-call and preselection) and on providing access for service providers, content providers and virtual mobile network operators were likewise drafted in 1999 in connection with the rulings and drafts on UMTS/IMT-2000 licensing.

6. Number Administration

With deregulation of the telecommunications market, it became the responsibility of the RegTP to administer and allocate call numbers in Germany.

The term "call number" is usually associated with "telephone number", which means something definite to most people. Yet there are many kinds of call number, all of which occupy German numbering space.

Number administration first involves structuring the national numbering space. Every section of the national numbering space for the public telephone network/ISDN is covered, from 0 for the national prefix, 012 for innovative services, 017 for mobile communications or 0700 for personal numbering right up to 118xy for directory information services. The so-called technical numbers – carrier portability codes, signalling point codes (NSPCs and ISPCs), charging reference branches, closed user group interlock codes (CUGICs) and equipment manufacturers' codes for network operators and service providers, for instance – are also seen to.

However, structuring alone is not enough. Allocation rules that every user must observe must be adopted for the different types of number. These rules also set out who is eligible to apply, what requirements must be met when the allocated numbers are used, what happens to numbers returned and, last but not least, that fees are payable for allocation.

Once the framework is in place, allocation can begin. Thus service providers apply to the RegTP for blocks of 1,000 numbers for local networks in order to provide their customers with numbers, or for numbers for directory information services they wish to offer, or for codes they need in a capacity as long-distance operator. Other applicants are individuals or companies in other branches. Applications can be made for the

allocation of 0700 personal numbers, 0800 freephone numbers, 0180 shared cost service numbers and 0190 premium rate numbers.

Applicants often feel they need sound advice and support on all aspects of numbering before making their application. A call centre was therefore set up in January 1999, serviced by 6 members of staff. Each month it deals with around 2,500 calls.

The following figures on the allocation of number blocks in the local networks show the trend of competition:

If, on **31 December 1998**,

3,088 blocks of 1,000 numbers each
had been allocated to 53 operators for 710 local networks,

only **one year later**

6,750 blocks of 1,000 numbers each
had been allocated to 72 operators for 2,636 local networks.

| Local network development | 1998 | 1999 |
|----------------------------------|-------------|-------------|
| Operators | 53 | 72 |
| Local networks | 710 | 2,636 |
| Blocks allocated | 3,088 | 6,750 |

Demand is rising steadily in the value-added sector and for the technical numbers. The 0190 range for the premium rate services is being discontinued. The numbers will be migrated before year's end to the 0900 range.

| Type of number | | 1997 | 1998 | 1999 | |
|-----------------------|------|----------------|---------------|---------------|----------------|
| Total | | | | | |
| Personal numbers | 0700 | - | 13,016 | 19,862 | 32,978 |
| Freephone numbers | 0800 | 39,396 | 27,547 | 39,762 | 106,705 |
| Shared cost numbers | 0180 | 183,762 | 21,084 | 29,152 | 233,998 |
| Total | | 223,158 | 61,647 | 88,776 | 373,681 |

7. Frequency Management and Assignment

Point-to-point radio relay

Digital point-to-point radio relay systems continue to be in great demand, and will be even more so with the upcoming connection of WLL-PMP central stations via point-to-point radio links. Currently, there are 44,875 fixed radio links. Of these, 6,375 were new assignments in 1999.

Demand in 1999 was heaviest in the following bands:

| | Total | New assignments |
|--------------|--------|-----------------|
| 7 GHz band: | 2,110 | 290 |
| 15 GHz band: | 2,580 | 1,080 |
| 23 GHz band: | 12,100 | 1,510 |
| 26 GHz band: | 3,170 | 1,210 |
| 38 GHz band: | 10,100 | 2,050 |

Point-to-multipoint radio relay tender (WLL)

Tendering began in April 1999 for frequencies for the implementation of WLL by means of point-to-multipoint radio relay systems. Put out to tender were 662 frequencies in the bands at 3.5 and 26 GHz in 262 coverage areas. All the major centres of population in Germany were included in the coverage areas, in which spectrum was to be awarded by tender owing to the imbalance between the spectrum available and the demand. Point-to-multipoint radio relay, also known as Wireless Local Loop (WLL), allows the so-called last mile to the customer to be bridged by radio means and supports telephone service and other services using high bit rates. Fixed wireless access creates the technical environment for competition at local level. Taking part in the tendering procedure were 32 companies submitting a total of 1,450 separate applications, assessed against the criteria of specialist knowledge, efficiency, technical planning, business planning and degree of coverage. Twelve successful companies received 610 awards for frequencies; no applications were made for 52 possible assignments in the 26 GHz band. In those regions in which spectrum was not determined as scarce in the first stage of the award procedure (by application in 1998) and for which tendering was not therefore required, some 250 assignments were made in both the 3.5 GHz and the 26 GHz band. More than 270 assignments were made in the 2.6 GHz band; tendering was not required here either as frequencies were not in short supply. In Landshut the first PMP central station was put into service in mid-October, enabling competition in voice telephony and other telecommunications services to begin with realisation of the local loop. More central stations are set to go live this year.

It is now clear that more spectrum will become available in the 3.5 GHz and the 26 GHz band for WLL-PMP radio relay in some coverage areas through optimisation of frequency award. This spectrum will be the subject of a further tender.

Mobile communications

1999 facts and figures:

- Processed were 22,400 new assignments, modifications and handbacks in the field of private mobile radio, 4,400 of these being new assignments. Private mobile networks are used for internal communication purposes in businesses and industry (eg industrial undertakings, transport companies), public administration (eg local authorities, highway maintenance depots) and internal security/public safety (eg police forces, fire brigades, rescue services);
- 2,100 acts in the fields of mobile data, telemetry and telecommand, eg remote control of equipment, remote data retrieval, road transport management systems, warning systems, 1,100 of which were new assignments;
- 23,500 CB radio acts, 9,800 of which were new assignments, and
- 10,200 acts, 7,800 of which were new assignments concerning radio equipment for the remote control of models;
- 5,900 acts concerning 3,800 new assignments in other areas of non-public mobile radio such as private paging and radio microphones;
- 25,737 cases of mobile radio frequency coordination with Germany's 10 neighbouring countries were completed. This comprised 20,468 German inquiries and 5,269 requests for coordination from other countries. Activity is currently focused on the mobile networks operating to the GSM standard, whereby strong growth in the neighbouring countries is expected;
- 3,884 frequencies were assigned for short-term assignments for foreign users, eg for sporting events, media events, state visits and the like.

Satellite communications

1999 saw new assignments for 1,223 transmitting earth stations. Coordination was required for 98. This concerned 1,565 frequencies. The total number of transmitting earth stations for which individual assignments were necessary now stands at 9,511. In addition, the RegTP issued general assignments for mobile terminals to be used in the mobile-satellite service.

Also in the year under review, the RegTP submitted to the International Telecommunication Union (ITU) in Geneva on behalf of the Federal Republic of Germany 2 new filings for geostationary satellite systems and initiated there 39 publications of 22 existing German satellite network filings.

Broadcasting

1999 facts and figures:

| | |
|-----|--|
| 781 | frequency assignments for normal T-DAB operation |
| 21 | frequency assignments for experimental T-DAB operation |
| 51 | frequency assignments for DVB-T |
| 106 | frequency assignments for analogue TV |
| 206 | frequency assignments for VHF |
| 291 | frequency assignments for HF |
| 4 | frequency assignments for MW. |

Tendering for T-DAB

Frequency award proceedings for T-DAB have now been completed in the German federal states of Baden-Württemberg, Bavaria, Berlin, Brandenburg, Rhineland-Palatinate, Saxony, Saxony-Anhalt and Thuringia and the individual frequency assignments granted for the T-DAB transmitters. Transmitter networks are already up and running in Baden-Württemberg, Bavaria, Berlin, Brandenburg, Saxony and Saxony-Anhalt. Award proceedings were launched in the Saarland on 22 December 1999. The other federal states have declared their intention to apply for proceedings to begin shortly. Award is therefore expected to be completed for all the federal states by the second quarter of 2000, paving the way for the operation of T-DAB across the country.

Experimental radio services

In the year under review, some 800 frequency assignments were made for experimental radio services, 160 of which were new assignments.

New in 1999:

- first assignments for TDD (Time Division Duplex) radio relay systems in the band at 58 GHz for the connection of base stations in mobile networks;
- a transmission speed of 340 kbit/s was recorded in a UMTS network.

Tracing and eliminating radio frequency interference

In 1999 the RegTP's radio monitoring and inspection service dealt conclusively with around 17,500 cases of interference, ie it was able to identify the source of interference and restore normal levels of service. In about 51 percent of these cases it was sound and TV broadcasting equipment that was affected.

Seen to apart from the predominantly national cases of interference were also 334 international interference reports, of which 306 cases of interference originated in other countries and affected radiocommunications in Germany. There were 22 recorded cases of foreign radio services being affected by interference from Germany.

State of the art equipment and facilities

Not only does the RegTP have highly skilled staff, but it also has state of the art equipment and facilities. Thus the radio monitoring and inspection service has a fleet of specially equipped vehicles based throughout the country so that measurements can be carried out optimally for the consumer. For measuring at fixed locations there are the monitoring facilities at the regional offices and the unattended monitoring and direction-finding facilities operated by remote control. The RegTP's many workshops and its calibration facilities in Göttingen and Itzehoe ensure high standards of safety and quality in the monitoring service as a whole.

Certificates

Awarded in 1999 were

- approx 3,780 operator's certificates in the aeronautical mobile service, and
- approx 13,640 operator's certificates in the maritime mobile service.

The number of amateur radio permits and assignments at year's end totalled some 83,800.

Compatibility

Again in 1999, a number of compatibility studies were started or continued in order to ensure efficient and interference-free frequency usage. These activities centred for the most part on the following:

- Alongside work on developing and standardising 3G, many compatibility studies needed to be revised so as to provide a pan-European technical environment for timely, feasible licensing.
- Both nationally and internationally, intensive debate began and compatibility studies made necessary by the development and planning of powerline systems were launched.
- Studies on compatibility between terrestrial digital television (DVB-T) and other radiocommunication services were carried out in connection with the introduction of DVB-T. These included two reports on compatibility between DVB-T and radio microphones and between DVB-T and radioastronomy.

8. Electromagnetic Compatibility and the Electromagnetic Compatibility Act

Market surveillance

According to information available, some 65,000 types of equipment comprising 250 million electronic or electrical components and appliances with such components are put on the German market every year. This represents around 30 percent of the market of the European Economic Area. Under the German Electromagnetic Compatibility Act, the RegTP is responsible for:

- ensuring compliance with the CE marking requirements;
- checking the plausibility of the EC declarations of conformity issued; and
- ensuring compliance with the relevant EMC protection requirements.

The RegTP carries out checks on electrical apparatus in the market, a task it is required to do by law. These checks are based on the EMC Directive 89/336/EEC and the Terminal Directive 98/13/EC and their transposition into national law through the German Electromagnetic Compatibility Act ("EMVG") and the Telecommunications Type Approval Ordinance ("TKZulV"). In the year under review the RegTP inspected a total of 46,500 items of equipment. Faults relating to the CE marking or the declaration of conformity were found in 1,628 pieces of equipment, ie 3.5 percent of the products checked. Also tested were 1,593 series with a total of 7,484 items of equipment. Irregularities were found in 1,871 items, ie 25 percent of the equipment tested did not conform to the prescribed electromagnetic compatibility ("EMC") requirements. Representative samples of the different product groups in the German market are taken. The sample sizes are determined by market volumes, and the products grouped in line with the applicable European or national testing standards. In 1999 a scaled procedure was introduced for assessing compliance with the protection requirements set out in Section 3 of the Electromagnetic Compatibility Act. This provides greater differentiation in dealing with breaches of the Act. Initially, a temporary ban on distribution is pronounced and the offending party given the opportunity to state his case. Only when all the records have been examined is it decided whether to lift or to make the ban definitive. The EMC Cost Ordinance can thus also be applied with greater differentiation.

During the year under review, 119 such bans were imposed on account of non-compliance with the protection or the CE marking requirements. Of these, 29 led to invocation of the safeguard clause, 70 were lifted after the hearing and 20 are still pending. Under the provisions of the Telecommunications Type Approval Ordinance there were 57 cases of violation and 45 definitive bans on sales. In 330 cases the EMC Cost Ordinance was applied in dealing with breaches of the Electromagnetic Compatibility Act and thus around DM 600,000 collected.

| Breakdown of product groups | | | |
|------------------------------------|---------------------------------|----------------------------|------------|
| Product group | No of items of equipment tested | No of non-conforming items | Quota |
| 1 Domestic appliances | 2,147 | 278 | 13% |
| 2 Power tools | 1,749 | 381 | 21% |
| 3 Lighting equipment | 600 | 194 | 32% |
| 4 IT/office equipment | 714 | 239 | 33% |
| 5 Consumer electronics | 1,051 | 340 | 32% |
| 6 Telecoms equipment | 366 | 72 | 20% |
| 7 Radio equipment | 546 | 297 | 54% |
| 8 Industrial equipment | 110 | 34 | 31% |
| 9 Medical devices | 16 | 8 | 50% |
| 10 Scientific equipment | 45 | 15 | 33% |
| 11 Installation materials | 95 | 15 | 16% |
| 12 Other | 0 | 0 | 0% |
| Total | 7,439 | 1,873 | 25% |

Powerline communications

In order to implement the protection aims of the Electromagnetic Compatibility Act the RegTP is actively involved in various EMC standardisation bodies. Considerable attention was given in the year under review to the issue of communication via low voltage electricity cables, commonly referred to as powerline communications. It also became possible to conduct the debate on the introduction of emission limits in a more objective manner.

High speed data transmission – ADSL

Valuable results were provided by joint investigations by the RegTP and DTAG into electromagnetic compatibility in telecommunications networks using ADSL (high-speed data transmission) technology. It was shown that ADSL would not require any special EMC arrangements in practice and that it complied with the EMC requirements of the harmonised European standards.

Provision of EMC standards

At ETSI, the foundation was laid for the more effective and streamlined drafting of EMC standards for radio equipment, with significant input provided by the RegTP. The trend is towards a single standard covering all the essential EMC requirements and applicable to all types of radio equipment, in place of individual EMC standards for each product. The 26 existing ETSI product standards for radio applications will thus be replaced in 2001 by a single EMC standard designated ETSI EN 301 489.

Notified bodies and competent authorities

The RegTP performs the functions of notified body and competent authority under the German Electromagnetic Compatibility Act and takes part in the work of the national and European associations of these bodies. It also provides the Vice Chairman of the Association of European Notified Bodies according to the EMC Directive (NBEMC = Notified Bodies and the EMC Directive).

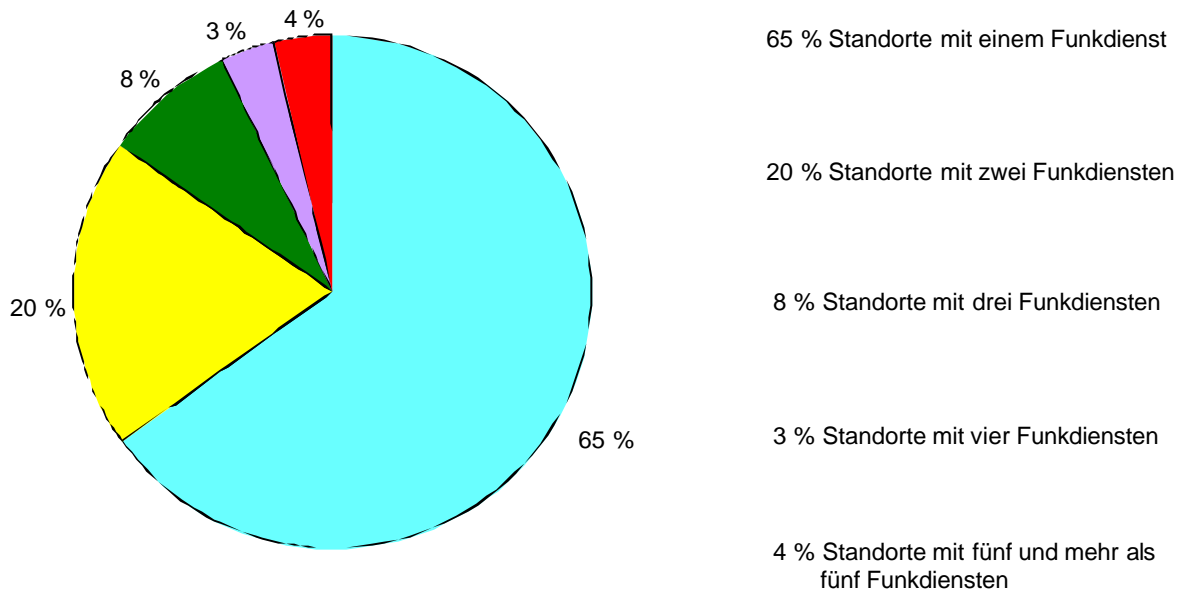
Discussed at the meetings of the Association of European Notified Bodies at the initiative of the RegTP was the question of an EC type-examination certificate for installations assembled on site and also determining the immunity class for short range telemetry and telecommand devices. Applicable to installations assembled on site is, in addition to the statements on installations in Section 6(6) and (7) of the Electromagnetic Compatibility Act, Section 5 on radio transmitting equipment; ie only one EC type-examination certificate issued by a notified body is required in each case. Regarding the immunity classes for short range telemetry and telecommand devices the Association agreed to the German proposal to give the manufacturer the right to determine the immunity class and to give the notified body the advisory function. The new EC Radio Equipment and Telecommunications Terminal Equipment ("R&TTE") Directive will bring a sea change in the work of all notified bodies. Hence this year's second meeting was attended by the Association of Designated Laboratories and Notified Bodies ("ADLNB") as well. Both Associations will draft and submit to the Telecommunication Conformity Assessment and Market Surveillance Committee ("TCAM") – provided for by Article 13 of the R&TTE Directive – a proposal on their future work together in view of the developments initiated by this new Directive.

9. Electromagnetic Radiation and the Environment, Accreditation, Recognition

Protection of persons exposed to electromagnetic fields

To protect all such persons, the RegTP carries out site certification procedures to make sure that the fixed radio transmitters operating there comply with certain defined personal safety and cardiac pacemaker limits. These tests follow the recommended limits of the International Commission on Non-Ionising Radiation Protection ("ICNIRP") and the DIN VDE 0848 standard relating to pacemaker limits. In 1999 the RegTP issued a total of 16,285 site certificates. In mobile communications, the number of shared sites has risen noticeably. 35 percent of the 28,772 mobile base stations (in the C network, the D and E networks), are located on shared sites.

Nutzung der Mobilfunkstandorte in der Bundesrepublik Deutschland durch mehrere Funkdienste



Bundesrepublik Deutschland
28 772 Mobilfunkstandorte

Accreditation, Recognition

The RegTP accreditation office is responsible for the accreditation of test houses, product certification bodies and certification bodies operating quality system certification schemes in the statutorily regulated field of telecommunications and in the field of electromagnetic compatibility, the two focal points of the RegTP's accreditation activities. Independent experts determine whether the test houses are properly equipped to carry out certain tests or types of test for electrical or electronic equipment and whether certification bodies are able to properly certify compliance with the applicable standards or statutory requirements. Since 1992 the RegTP and its predecessor organisation have recognised 109 test houses for one or more areas (most notably for EMC, telecommunications and radio) and the 32 competent bodies in existence today. Additionally, 4 certification bodies operating quality system certification have been accredited for the statutorily regulated field of telecommunications. Annual reviews and monitoring of the accredited bodies are necessary following initial accreditation to ensure that they continue to perform to the required levels. Also in the remit of the accreditation office are the annual reviews of the current 7 notified bodies for telecommunications as provided for by the Functions Assignment and Accreditation Ordinance. Assigning functions to the notified bodies is based on the Telecommunications Act.

The RegTP accreditation office had been involved since mid-1998 in drawing up the Functions Assignment and Recognition Ordinance, enacted on 22 June 1999. This Ordinance is to EMC what the Functions Assignment and Accreditation Ordinance is to telecommunications. Amongst other things, it lays down the conditions for the recognition of competent bodies based on the Electromagnetic Compatibility Act.

10. Approvals for Connection, Installation, Modification and Maintenance Services

Under the TKG and relevant implementing Ordinance, persons and organisations wishing to connect telecommunications terminal equipment to the public network and to install, maintain and modify this equipment must first be approved by the RegTP. The aim is to ensure that solely persons who have the appropriate formal training, specialist knowledge and adequate measuring and testing facilities are admitted to this field. In the year under review the RegTP issued 617 new approvals and amended, upon request, 216 existing ones.

11. Certification of Quality Systems

The RegTP has been certifying quality systems to DIN EN ISO 9000 ff standards since 1996. Certified quality systems have long given the holders a competitive edge. A number of statutory requirements have been introduced in recent years however, particularly with a view to protecting the customer. These oblige certain groups of service provider to prove compliance with defined requirements of due care. It is becoming more and more usual to prove compliance by the presentation of a certificate issued for an approved quality system. Telecommunications terminal equipment can now also – since 1997 – be approved by means of a certified quality system. Customers in the public sector in particular tend to make contract award dependent on proof of a certified quality system. Such certification also gives entrepreneurs greater legal certainty. In 1999 the RegTP issued first certifications for five companies, renewed certification for six companies and carried out its surveillance procedures in another 15 companies. Contractually agreed so far for 2000 are 3 first certifications, seven renewed certifications and 21 surveillance procedures.

12. International Activities

37 experts from the RegTP represent Germany's interests in over 40 national and some 200 international working groups at, for example, the International Telecommunication Union (ITU), the European Telecommunications Standards Institute (ETSI), the European Conference of Postal and Telecommunications Administrations (CEPT), the International Standards Organisation/International Electrotechnical Commission (ISO/IEC), the German Standards Institute/German Electrotechnical Committee (DIN/DKE), and the European Commission. They take an active part, presenting papers and assuming responsibility for particular tasks and functions (eg ETSI Board membership, study and working group chairmanship). The RegTP was represented in the year under review in

- 18 project teams and working groups at the CEPT's European Radiocommunications Committee (ERC) and European Committee for Telecommunications Regulatory Affairs (ECTRA);
- 55 bodies in the ITU Radiocommunication Sector (ITU-R);
- 15 bodies in the ITU Standardization Sector (ITU-T);
- 69 bodies at ETSI;
- 16 other international meetings (eg EU workshops);
- 87 national meetings (eg DIN/DKE, Committee on Technical Regulation in Telecommunications (ATRT)).

UMTS/IMT-2000/Third Generation (3G) Mobile Communications

Harmonised regulation at global level will be a deciding factor in the success of 3G mobile communications. In November 1999 the ITU – with the RegTP's participation – approved the Recommendation on the IMT-2000 radio interface. The Recommendations on quality of service and high altitude platform stations (HAPSs) were also adopted. The HAPSs Recommendation describes the existing satellite interfaces and the five terrestrial interfaces standardised for 3G. ITU-R will deal with the further development of IMT-2000 – in cooperation with the two 3G partnership projects (ETSI's Third Generation Partnership Project (3GPP) and 3GPP2) – and the future IMT-2000 systems. A difference of opinion between the ITU's Member States has delayed approving the planned Recommendation establishing the regulatory framework for global approval/recognition of mobile radio equipment (mobile telephones). Work on the Recommendation will need to be resumed, with the RegTP maintaining its high level of involvement. Work on the draft 3GPP specifications is running to schedule, with timely completion of Release 1999 on 17 December 1999 (3GPP defines the UMTS components of IMT-2000).

New R&TTE Directive and Act

The new Radio and Telecommunications Terminal Equipment Act ("FTEG") to come into effect on 8 April 2000 will bring sweeping changes in the way access can be gained to the marketplace for radio and telecoms terminal equipment, and will overhaul the present approval regime. Manufacturers will, in general, take full responsibility for conformity assessment. Only in the case of special equipment or where a manufacturer does not use standards will it be necessary to consult a notified body. Manufacturers will need to declare that their products comply with the applicable essential requirements of the Act. Where harmonised standards are used, they give a presumption of conformity. Manufacturers will then need to affix the CE marking to their products before they can place them on the market direct. This procedure will considerably speed up and simplify market access routes for new products. The EU's R&TTE Directive will be transposed into national law by the Act and the new Ordinance concerning the Requirements and Procedure for the Recognition of Notified Bodies in respect of Radio and Telecommunications Terminal Equipment ("FTEV"). Responsible for implementing the Act will be the RegTP.

The RegTP has been involved in drawing up the new Act and Ordinance, and is now formulating the rules for the tasks assigned under the Act. Under development are most notably some 80 interface specifications for non-harmonised bands that will supplant the current type approval regulations. The RegTP is playing an active role in the technical committee set up by the European Commission – the Telecommunication Conformity Assessment and Market Surveillance Committee (TCAM). TCAM addresses, amongst other things, technical and administrative aspects of the implementation of the R&TTE Directive, with a view to guaranteeing harmonised application throughout the EU.

13. Year 2000 Issues

Under Article 87(f) of the Basic Law, the federal government is committed to ensuring, in accordance with the provisions of a federal law, the availability of adequate and appropriate postal and telecoms services throughout the country. This is taken up by Section 87 of the TKG, which requires licensed telcos in particular to take appropriate technical precautions or other measures to protect their telecoms and data processing systems against, say, malfunctions that could result in considerable harm to telecoms networks. This set the context for the debate of problems that could arise in connection with Y2K and the date change. The possibility of disruption to infrastructure processes needed to be explored and clarified.

Y2K preparations in the telecommunications sector

The RegTP conducted a series of surveys in an effort to identify the Y2K readiness of the licensed telecoms operators. The first campaign was launched back in 1998 and was followed up by a second in May 1999.

The telcos were sent a questionnaire and an information sheet setting out a model Y2K action plan. The responses received indicated that all the larger operators were Y2K-

aware and had taken appropriate action. In many cases they had set up crisis groups whose action was directly controlled by members of the management (eg management boards) or which reported to the management at regular intervals. Some telcos had initiated action to inventory and identify critical components back in 1997. Many had already completed their impact analysis and contingency planning at the time of the poll.

Y2K centre

In spite of the great effort made to protect business and the consumer, the possibility of individual computer-based systems experiencing malfunctions after the millennium rollover could not be totally ruled out. Many companies had set up Y2K centres to monitor events after the rollover. And similar action was also required in the political arena. The federal government therefore established a Y2K centre in Berlin to be on the spot to record and assess any problems arising at the turn of the millennium.

A fully functional telecoms infrastructure is crucial to both the public and the economy. Thus the Economics and Technology Ministry decided to set up a Y2K centre in Bonn specially for telecommunications, and tasked the RegTP with its establishment and round-the-clock management.

The aim of this Y2K centre was to build a supraregional information base using all available data, with a view to learning from other countries' experience. Direct contact with the relevant bodies in the economy aimed to track the status of critical infrastructures through the Y2K transition and to make a comprehensive assessment of the overall situation. This put the spotlight on telecommunications as an infrastructure of some significance.

The results confirmed the sound Y2K preparedness of the German telcos: although the public telecoms systems had to manage moments of enormous demand around midnight on 1 January 2000, there were no outages or major disruptions.

14. Postal Sector

Postal Act and Ordinances

The new Postal Act entered into force on 1 January 1998. The purpose of the Act is, through regulation of the postal sector, to promote competition and to guarantee the availability of appropriate and adequate services throughout Germany.

Regulatory aims of the Postal Act

- To safeguard customer interests and maintain postal secrecy;
- To ensure fair and effective competition in the postal services market, in both rural and urban areas;
- To ensure nationwide provision of basic postal services (universal service) at affordable prices;
- To safeguard public safety interests;
- To meet social requirements.

Postal Universal Service Ordinance

The Postal Universal Service Ordinance ("PUDLV") was promulgated in the Federal Law Gazette on 15 December 1999 and took retroactive effect on 1 January 1998. The Ordinance defines the content and scope of postal universal services, including minimum quality standards and criteria for pricing.

The Ordinance serves as a yardstick for determining whether or not a universal service is being appropriately and adequately provided in the market. Should this not be the case, or should there be reason to believe this will not be the case in the future, the RegTP may oblige one or more companies to provide universal services. The Ordinance does not impose any such obligation on a particular company, not even on DPAG.

Content and scope of universal services

- Conveyance of letter items weighing up to 2,000 grammes (including registered, insured, cash-on-delivery and express delivery items)
- Conveyance of addressed parcel items with specific dimensions weighing up to 20 kilogrammes
- Conveyance of newspapers and magazines (⇒ normal press coverage)

Minimum quality standards

- A minimum of 5,000 fixed-location facilities, at which contracts on letter and parcel conveyance services can be entered into and performed, must be operated with the company's own staff by 31 December 2002.
- Customers in urban areas should in principle be within 2,000 metres of a fixed-location facility and as a rule within 1,000 metres of a letter box.
- Average annual transit times (day of posting D + n working days): at least 80 percent D + 1 and 95 percent D + 2 for letter items, and at least 80 percent D + 2 for parcels.

Postal Rates Regulation Ordinance

The Postal Rates Regulation Ordinance ("PEntgV") came into effect on the day following its promulgation on 10 December 1999 in the Federal Law Gazette. The Ordinance mainly details the rates regulation procedures referred to in the Postal Act, and most notably the procedures for approving rates.

The Act provides for the following basic procedures for approving the rates charged by dominant companies:

- approval on the basis of the costs of efficient service provision apportioned to the particular service (individual approval), and
- approval on the basis of the benchmarks prescribed by the RegTP for the average rates of change in the prices for a basket of combined services (price capping).

The Ordinance lays down price capping as the rule and individual approval as the exception to this rule: individual approval is only applicable where there are substantial reasons for not grouping a particular service in a basket. The approval for DPAG's basic rates, granted in 1997 by the now defunct Posts and Telecommunications Ministry under the old postal legislation, will expire on 31 August 2000. After 1 September 2000 these rates will be subject to approval in accordance with the procedures of the Act and the Ordinance.

Overview of the postal services market

In 1999 revenues in the German postal services market amounted to some DM 42 billion, nearly half that in the market for telecoms services. Some two thirds of this market – mainly courier, express and parcel services – is now open to competition. The Postal Act makes provision for deregulation of the entire market by limiting the term of DPAG's statutory exclusive licence to 31 December 2002.

Nearly two thirds of revenues in 1999 were generated by DPAG, the other third being shared by a large number of mostly courier, express and parcel service providers. 1999 revenues in the licensed sector (conveyance of letter items weighing up to 1,000 grammes) were in the order of DM 19.6 billion. DPAG still commands more than 99 percent of this market, even though some areas have been opened up to

competition. The company still also captures over 95 percent of the liberalised market for the conveyance of letter items with identical contents weighing over 50 grammes (Infopost items, bulk mail).

Entry to the market

Under the constitution, postal services are provided as a matter of private enterprise by DPAG and other private operators. This means that anyone has the right to offer postal services in the market.

This applies without exception to the conveyance of letter items weighing over 1,000 grammes, parcels, and newspapers and magazines, and to courier services as defined in the Postal Act. Under the Act, no special authorisation is required for these commercial activities.

By contrast, authorisation (a licence) is required for the conveyance of letter items weighing less than 1,000 grammes. Applicants have a legal right to a licence provided they meet the licence requirements. The number of licences is not restricted.

Certain other letter conveyance services are subject to the statutory fixed-term exclusive licence defined in the transitional provisions of the Postal Act, granted to DPAG with expiry on 31 December 2002.

Postal licences/licensing obligation

A licence is required by anyone conveying, ie collecting, forwarding or delivering, letter items (⇒ written, addressed communications) weighing up to 1,000 grammes, for other parties, when this is done on a profit-oriented basis. This also applies to those services which by virtue of the legal definition given are not covered by the statutory fixed-term exclusive licence, and will continue to apply even after expiry of the exclusive licence.

Note: Anyone conveying, ie collecting, forwarding or delivering, letter items weighing up to 1,000 grammes without a licence is deemed to be committing an administrative offence, punishable by a maximum fine of DM 1 million.

Licensable services

Until the statutory fixed-term exclusive licence expires, licences can be granted for the following services only:

- A** Conveyance, on a profit-oriented basis, of letter items weighing between 200 and 1,000 grammes and/or the conveyance of letter items costing more than five times the rate applicable on 31 December 1997 for corresponding postal items in the lowest weight category (⇒ letter items ≥ 200 g or $> DM 5.50$).

- B** Conveyance, on a profit-oriented basis, of letter items having identical contents and weighing over 50 grammes, the sender mailing a minimum of 50 items (⇒ letter items with identical contents > 50 g and ≥ 50 items).
- C** Conveyance, on a profit-oriented basis, of letter items handed in by the sender at a document exchange and collected by the addressee from the same or another document exchange of the same service provider, sender and addressee using this service under a contract for the performance of a continuing obligation (⇒ document exchange service).
- D** Services distinct from universal services, having special features and higher quality (⇒ higher quality services).
- E** Conveyance, on a profit-oriented basis, of letter items collected on the sender's behalf from the sender and mailed at the nearest DPAG acceptance office or at another DPAG acceptance office within the same community (⇒ mailing at DPAG acceptance office).
- F** Conveyance, on a profit-oriented basis, of letter items collected on the addressee's behalf from DPAG PO box facilities and delivered to the addressee (⇒ collection from DPAG PO box facilities).

These restrictions will cease to apply with the expiry of the exclusive licence. Licences can then be granted for any kind of conveyance service (⇒ collecting, forwarding or delivering) for letter items weighing up to 1,000 grammes.

Licences for higher quality services (D licences)

The Postal Act does not clearly define the prerequisites to be met in order for a service to qualify as a higher quality service: distinct from universal services, having special features, of higher quality (in relation to the service as a whole and not merely to individual features). Thus it does not establish any clear and readily comprehensible identifying criteria.

The RegTP has therefore drafted the following standardised criteria as a basis for determining when the requirements for the higher quality services outlined in the Postal Act can be considered met:

- (1) Collecting letter items from the customer at fixed times or on request
- (2) Delivering letter items to the addressee
 - on the day of collection (mailing) and/or
 - when they are collected after 1700 hours: by 1200 hours at the latest on the following working day
 - as agreed (on a day agreed by the customer on a case-by-case basis)
- (3) Subsequent accounting at fixed periods

- (4) Revised arrangements between the times of collection and delivery
- (5) Contractually agreed non-payment in the event of late delivery
- (6) Service provision in a major part of the territory of the Federal Republic of Germany.

A service generally qualifies without further examination as a higher quality service if it comprises the standardised features (1) to (5) and is provided in a major part of Germany (criteria no (6)). Regarded as a major part of the territory of the Federal Republic without any further examination is an area corresponding to the smallest territorial state of the Federal Republic (the Saarland, some 2,500 km²).

Services with features differing from those cited from (1) to (6) may likewise qualify, but this is subject to further examination in the individual case.

"Old-type licences"

The "old-type licences" for bulk mail weighing over 100 or 250 grammes, granted before 1 January 1998 as an exemption under the now defunct Postal Law, will remain effective for their term as specified in the exemption notice, but no longer than 31 December 2007. Such an exemption – in accordance with and to the extent of its content – takes the place of a licence granted under the Postal Act. If an exemption holder applies for a licence under the Act, the exemption granted under the Postal Law will become ineffective on licence grant.

Licensing

Applying for a licence

Licences for letter conveyance services are granted in writing (licence certificate) by the RegTP on written application. The application must describe as accurately as possible the activity to be licensed and define the area in which the activity is to be performed.

The RegTP published in Official Gazette 8/99 of 12 May 1999 a communication on how to apply for licences for the conveyance of letter items. The aim was to set out the requirements clearly, in order that applications might be made accurately and in full from the outset. Only when all the necessary supporting documents are submitted can a licence be granted within the six-week period specified in the Postal Act.

Applicants are required to provide information on, amongst other things, their efficiency, reliability and specialist knowledge. They are also required to supply the following credentials relating to their efficiency and reliability:

- a certificate of good conduct for presentation to a public authority,
- an extract from the Central Trade Register, and
- a SCHUFA notice.

Number of applications

| Data analysis: 14 January 2000 | 1st half of 1998 | 2nd half of 1998 | 1st half of 1999 | 2nd half of 1999 | Total |
|---------------------------------------|--|--|--|--|--------------|
| Licence applications processed | 101 | 292 | 156 | 183 | 732 |
| ↳ Incomplete applications (1) | 3 | 19 | 12 | 64 | 98 |
| ↳ Complete applications | 0 | 1 | 1 | 5 | 7 |

- (1) Incomplete documentation (notably extract from the Central Trade Register, certificate of good conduct, SCHUFA notice) and/or licence requirements not/not yet met

Licence grant

Applicants have a basic legal right to a licence for any of the six "licensable services". A licence must be granted unless one of the following reasons for denial exists:

- failure to possess the necessary efficiency, reliability or specialist knowledge;
- danger to public safety or order;
- failure to a not inconsiderable degree to meet the working conditions common in the conveyance of letter items weighing up to 1,000 grammes.

Possession of the necessary efficiency, reliability and specialist knowledge is verified on the basis of the applicant's supporting documents, while compliance is secured, where appropriate, through licence conditions (collateral clauses).

As regards public safety and order, the RegTP verifies in particular that the planned service is not in breach of the statutory fixed-term exclusive licence. This is taken to be the case where the planned service constitutes a service which is not covered by the exclusive licence by virtue of the legal definition given.

In respect of the basic working conditions common in the licensed sector, the RegTP currently assumes that there is no reason for denial where, beyond a particular start-up phase, the licensed activity will be performed for at least 75 percent of the total working time by employees covered by social insurance. Relevant licence conditions are then inserted.

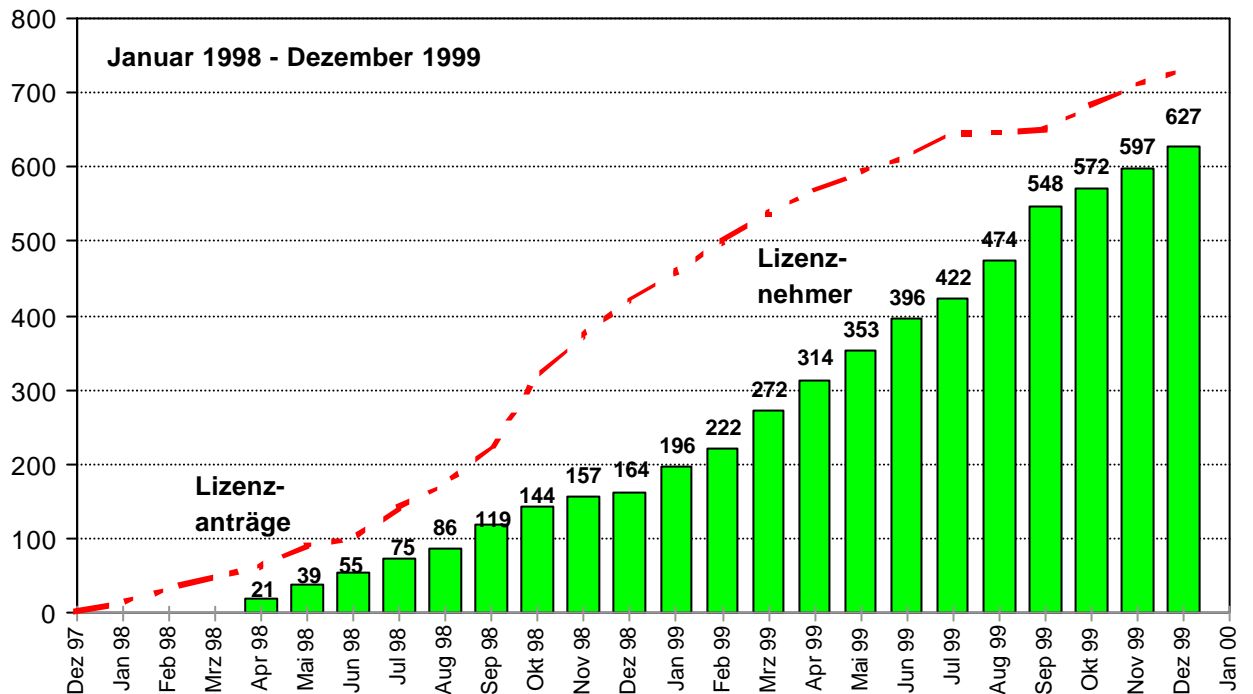
A fee is payable for licence grant but has yet to be fixed, the relevant ordinance being still outstanding. The licence fee will be specified in a separate notice after the Economics and Technology Ministry has issued the ordinance. The licence certificates contain a note to this effect.

Licences granted/denied

| Data analysis: 14 January 2000 | 1st half of 1998 | 2nd half of 1998 | 1st half of 1999 | 2nd half of 1999 | Total |
|--|------------------------------------|------------------------------------|------------------------------------|------------------------------------|--------------|
| Licences granted | 101 | 273 | 145 | 108 | 627 |
| Licences denied | -- | 2 | 1 | -- | 3 |
| For information: "old-type licences" (<i>granted before 1 January 1998</i>) | | | | | 68 |

Two licences were denied because there were grounds (entries in the Federal and Trade Central Register) for assuming that the applicants did not possess the necessary reliability and efficiency. No other such entries were found in the documents submitted by the other applicants. The third licence could not be granted to the applicant, it being a *Verein*, or association, to which licences may not be awarded.

Total number of licence applications/licensees



Breakdown of licences (data analysis: 14 January 2000)

| Breakdown by federal state | | | | Licensed activity ¹⁾ | | | | | |
|-------------------------------|---------------|------------|-------------------------------|---------------------------------|----|----|----|----|----|
| Federal state | Applica-tions | Licens-ees | Licence density ²⁾ | A | B | C | D | E | F |
| Baden-Württemberg | 49 | 46 | 4.4 | 34 | 34 | 13 | 37 | 36 | 37 |
| Bavaria | 54 | 41 | 3.4 | 28 | 24 | 16 | 30 | 33 | 33 |
| Berlin | 29 | 25 | 7.3 | 17 | 15 | 11 | 22 | 20 | 21 |
| Brandenburg | 50 | 41 | 15.9 | 16 | 19 | 7 | 37 | 32 | 35 |
| Bremen | 3 | 3 | 4.4 | 2 | 2 | 1 | 3 | 2 | 2 |
| Hamburg | 27 | 23 | 13.5 | 15 | 10 | 0 | 4 | 19 | 21 |
| Hesse | 34 | 32 | 5.3 | 16 | 17 | 9 | 27 | 30 | 29 |
| Mecklenburg-Western Pomerania | 40 | 35 | 19.4 | 13 | 11 | 6 | 34 | 27 | 26 |
| Lower Saxony | 94 | 82 | 10.5 | 51 | 50 | 27 | 72 | 72 | 67 |

| | | | | | | | | | |
|----------------------------|------------|------------|-------------|-----|-----|-----|-----|-----|-----|
| North-Rhine/ Westphalia | 155 | 133 | 7.4 | 75 | 76 | 35 | 95 | 96 | 94 |
| Rhineland- Palatinate | 24 | 19 | 4.7 | 9 | 9 | 4 | 13 | 15 | 16 |
| Saarland | 6 | 6 | 5.6 | 5 | 5 | 4 | 5 | 5 | 5 |
| Saxony | 55 | 47 | 10.4 | 23 | 24 | 9 | 41 | 30 | 29 |
| Saxony-Anhalt | 45 | 35 | 12.9 | 21 | 17 | 11 | 32 | 30 | 30 |
| Schleswig- Holstein | 39 | 36 | 13.1 | 33 | 30 | 20 | 30 | 31 | 31 |
| Thuringia | 28 | 23 | 9.3 | 12 | 13 | 7 | 22 | 19 | 19 |
| Total | 732 | 627 | 7.85 | 370 | 356 | 180 | 504 | 497 | 495 |

¹⁾ See "Licensable services" for a description of activities A to F

²⁾ Licence density = number of licensees per 1 million inhabitants

| Breakdown by licensed area | Number | Most frequent combinations ¹⁾ |
|-----------------------------------|---------------|---|
| Nationwide | 122 | A, AEF, ABCDEF, ABD |
| Federal state | 207 | ABCDEF, EF, ABEF, DEF |
| Regional | 298 | A, ABCDEF, DEF, D |

¹⁾ See "Licensable services" for a description of activities A to F

Use of licence rights

A licence entitles the licensee to perform the activities detailed in his application, in accordance with the Postal Act and the ordinances issued under the Act. The licensee must also observe any collateral clauses (licence conditions) attached to the licence. However, the licence does not oblige the licensee to take up the activity as such: this depends entirely on the licensee's business plans.

A market survey conducted by the RegTP in December 1999 showed that nearly half of the 627 licensees granted a licence on application under the Postal Act were not, or not yet, using their licence. This was no surprise in the case of the 110 or so licences not issued until the last quarter of 1999. What was unexpected, however, was the relatively high proportion of licensees who had been granted a licence some time before but who had not, or not yet, taken up their activities. Only some 15 out of the 68 valid "old-type licences" are still in use.

Post-licence-grant control

Licences are granted upon application when the requirements are met, ie when there is no reason for denial as defined in the Postal Act. Licences are valid for as long as and to the extent that applicants qualify. Qualifying is monitored by the RegTP. To do so, the RegTP has set up a monitoring scheme that focuses on three main areas:

- compliance with requirements in general and specifically with those deriving from Section 6(3) subpara 3 of the Postal Act (working conditions);
- continued compliance with the requirements, notably those relating to higher quality services (including serving a major part of the Federal Republic); and
- compliance by postal service providers with the licence or notification requirement (non-compliance is deemed an administrative offence).

This is a system of regular checks after licence grant. Every licensee is monitored at least once a year. Additional checks are made if occasioned internally or externally. In both cases, checks are made on site according to a predetermined checklist. The RegTP expects this scheme to act as an effective deterrent. Licensees are given the opportunity to take remedial action if faults are found. The licensee is informed in writing of any shortcomings in the exercise of the licence rights and requested to take remedial action within a given period. When the licensee remedies the faults within the specified period and informs the RegTP accordingly, a renewed check is made after three months. Of particular importance is whether the faults have been eliminated on more than just a temporary basis.

If the licensee fails to comply with the request within the given period, proceedings may be instituted to revoke the licence, if need be. This may lead as a last resort to the licence being revoked wholly or in part. Revocation is carried out in line with the principles of the Administrative Procedures Act ("VwVfG"). The checks are managed by the licensing sections of the RegTP.

Initial results

Two licences have been revoked because facts subsequently came to light which justified the assumption that the licensee did not possess the necessary efficiency and reliability. 12 licensees have returned their licence on account of termination of business or bankruptcy. Three licences have expired as the holders no longer operate independently.

Legal proceedings

DPAG believes that the RegTP has wrongly granted licences for higher quality services (D licences). It has therefore applied firstly to an administrative court for rescission of the D licences (action for rescission), and secondly to civil courts for injunctions to prevent competitors from offering such services (action for injunction).

- ❑ **Status of proceedings before Cologne administrative court (31 December 1999)**

- Actions pending – DPAG v RegTP: around 250
- Judgments rendered (test case in July 1999): 5

Four out of these five judgments dismissed DPAG's action (⇒ same day delivery); in the fifth case DPAG was partly successful (⇒ overnight delivery).

DPAG has applied in all five cases for admission of appeal on the grounds that even same day delivery does not constitute a higher quality service. The RegTP has applied for admission of appeal in the case where DPAG's action was partly successful: it maintains its view that when items are collected after 1700 hours, delivery by 1200 hours at the latest on the following working day also constitutes a higher quality service, since – as with same day delivery – one calendar day is as a rule saved compared to DPAG's standard service. A decision on admission of appeal is still outstanding.

❑ **Status of civil court proceedings**

According to the information available to the RegTP (and derived mostly from the courts direct) the status of the proceedings is as follows:

- proceedings pending (regional/higher regional courts): 38;
- completed proceedings (regional/higher regional court judgments/rulings): 43.

The civil courts' judgments and rulings do not all coincide, but do show the following tendencies:

- where the competitor has not been licensed by the RegTP, DPAG wins in the vast majority of cases (14 out of 16);
- where the competitor has been licensed by the RegTP, the licensee wins in the majority of cases (22 out of 27).

Attention should also be drawn to the fact that admission of appeal on points of law has been applied for in the case of a higher regional court ruling against a licensee. A decision has yet to be taken and, according to current information, is not expected before the end of April 2000.

Development of the market (licensed sector)

In December 1999 the RegTP requested DPAG and all companies licensed by 30 September 1999 to supply information for 1998 and 1999 on revenues, sales and employees (as at 1 November 1999). 517 companies (some 83 percent) responded by the deadline. Computer forecasts were made to estimate the revenues and sales of all the 626 companies polled. The staff figures were left unchanged.

Company size by revenues (excluding DPAG)

| Revenues | Up to DM 10,000 | DM 10,001 to DM 100,000 | DM 100,001 to DM 1m | Over DM 1m |
|----------|--------------------|----------------------------|------------------------|---------------|
| 1998 | 20 | 35 | 35 | 9 |
| 1999 | 61 | 137 | 90 | 23 |

Revenues and sales in the licensed sector (including DPAG)

| 1998 | | 1999 | |
|---------------|----------------|---------------|----------------|
| Revenues [DM] | Sales [volume] | Revenues [DM] | Sales [volume] |
| 19,200m | 15,000m | 19,600m | 15,750m |

Licensees' revenues and sales (estimates)

| Licensed activity | 1998 | | 1999 | |
|--|------------------|-------------------|------------------|-------------------|
| | Revenues [DM] | Sales [volume] | Revenues [DM] | Sales [volume] |
| A Letter items > 200 g or > DM 5.50 | 27m | 6m | 50m | 12m |
| B Letter items with identical contents > 50 g and ≥ 50 items | 20m | 25m | 18m | 25m |
| C Document exchange | 0.5m | 0.2m | 2m | 2.2m |
| D Higher quality services | 8m | 6m | 43m | 40m |
| E Mailing at DPAG acceptance offices | 1.75m | | 2.6m | |
| F Collection from DPAG PO box facilities | 1.75m | | 2.4m | |
| Conveyance of bulk mail ("old-type licences") | 57m | 68m | 84m | 71m |
| Total | 116m | 105.2m | 202m | 150.2m |

Note: In 1999 higher quality services (D licences) accounted for some 21 percent of the total revenues yielded by new licensees. The considerably larger part of the revenues was generated from letter items weighing over 200 grammes, express letters, and letter items with identical contents weighing over 50 or 100 grammes (Infopost items, bulk mail, etc).

Market shares

Licensed sector (exclusive licence included)

| Market shares | 1998 | | 1999 | |
|------------------------------------|------------------|-------------------|------------------|-------------------|
| | Revenues [DM] | Sales [volume] | Revenues [DM] | Sales [volume] |
| Total market | 19,200m | 15,000m | 19,600m | 15,750m |
| Licensees (without DPAG) | 116m | 105.2m | 202m | 150.2m |

| | | | | |
|--------------------------------|--------------|--------------|------------|------------|
| Licensees' market share | 0.6% | 0.7% | 1% | 1% |
| DPAG's market share | 99.4% | 99.3% | 99% | 99% |

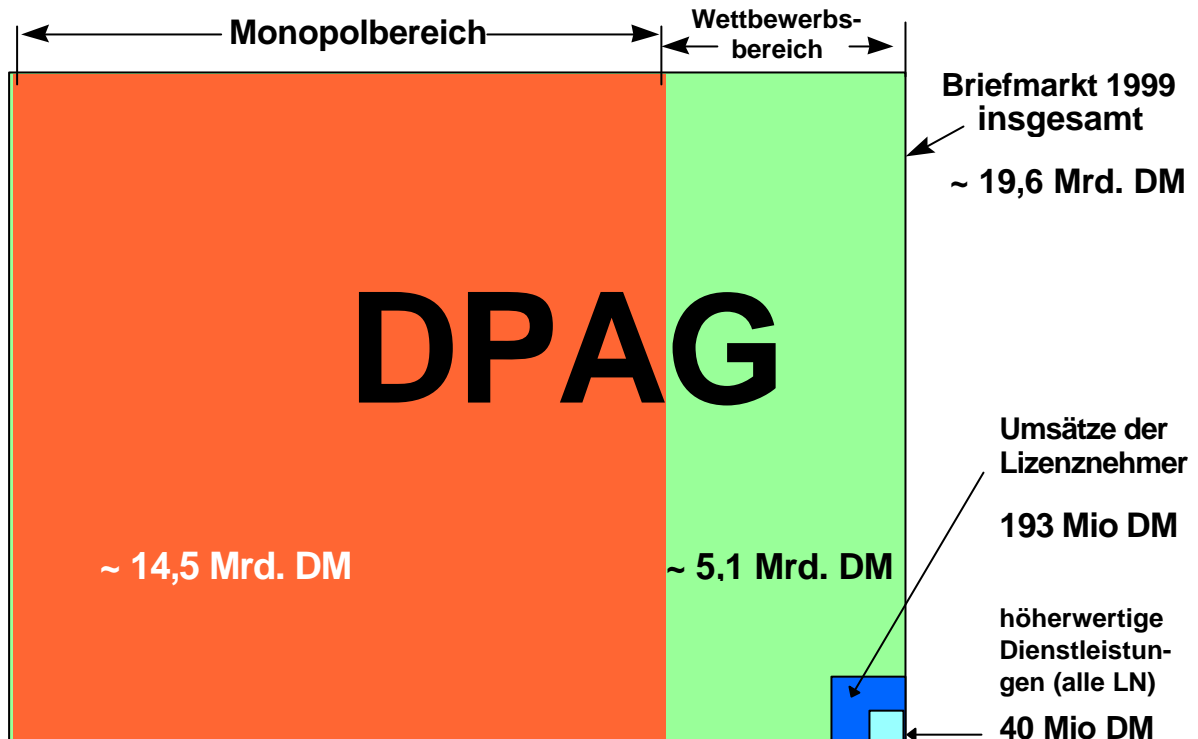
| | | | | |
|-------------------------------------|--------------|--------------|-------------|--------------|
| D licences (total) | 8m | 6m | 43m | 40m |
| Market shares for D licences | 0.04% | 0.04% | 0.2% | 0.25% |

Licensees' market shares in the competitive areas (1999)

| Licensed activity | Total revenues [DM] | Revenue per licensee [DM] | Market share per licensee |
|--|------------------------|------------------------------|------------------------------|
| A Letter items > 200 g or > DM 5.50 | 1.707m | 50m | 2.9% |
| B Letter items with identical contents > 50 g and ≥ 50 items | 2.541m | 102m | 4% |
| + Bulk mail > 100 g | | | |

Postal services market in 1999 (licensed sector)

(areas correspond to revenues)



Licensees' staff (as at 1 November 1999)

| Employees | Total | | | | |
|--------------------------------------|--------|--|--|--|--|
| | | Open-ended employment contracts | | Fixed-term employment contracts | |
| | | Liable to social insurance contributions | Not liable to social insurance contributions | Liable to social insurance contributions | Not liable to social insurance contributions |
| Full-time | 2,637 | 2,495 | 33 | 103 | 4 |
| Part-time | 4,205 | 3,885 | 73 | 213 | 34 |
| In insignificant employment | 13,910 | 2,872 | 8,951 | 22 | 2,126 |
| Subcontractors/ auxiliary persons | 660 | | | | |

The new licensees employ some 6,850 full and part-time staff and around 13,900 staff in insignificant employment. The percentage of working time with liability to contribute to social insurance out of the total working time increased to some 65 percent (compared to 54.5 percent in the previous year). These jobs would not have been created without the licensees' own initiative (helping to ease unemployment).

15. Data Protection Supervision for Telecommunications and Postal Operators

In the private sector too there is a basic interest in telecoms and postal operators maintaining secrecy and protecting data. The RegTP's supervisory activities included unoccasional and, in several cases, occasional checks on some 100 telcos to verify their compliance with data protection legislation. The RegTP also reminded numerous postal operators of their obligations and requested information on measures. The checks revealed a breach of obligations in only a few individual cases. These breaches were, however, remedied following request and consultation, thereby eliminating the need for the RegTP to impose fines or even serve partial or absolute prohibition notices.

The RegTP also provided information and advice for the public, industry and professional organisations, assisted other public authorities in data protection and technical matters, and participated in working groups addressing legal issues together with the Federal Data Protection Commissioner, the federal states' commissioners and supervisory authorities, and telecoms and postal operators. The RegTP and the Federal Commissioner will continue to build on their sound basis of cooperation in data protection matters.

16. Ruling Chambers

Ruling Chamber 1 (Licensing and universal service in telecommunications and posts, and scarce frequencies)

3G mobile communications (UMTS/IMT-2000) licensing

The RegTP's President's Chamber (Ruling Chamber 1), after consultation with the Advisory Council, ruled on 10 May 1999 on the procedure for the award of licences for 3G mobile communications, and notably that UMTS/IMT-2000 constitutes a new product market distinct from that of cellular mobile communications (GSM networks). The number of UMTS/IMT-2000 licences will be limited as provided for by Section 10 of the TKG on account of insufficient spectrum, and will be awarded by way of an auction. Eligibility to take part in the auction, subject to minimum fitness, will not be restricted. No provider-specific licence conditions will be needed to supplement the statutory provisions. The coverage obligation for national licences will be 50 percent of the population, and the licences will run for a period of 20 years. The Rulings on the Award Conditions and Auction Rules are imminent, with the auction due to be held in mid-2000.

Point-to-multipoint radio relay tender (wireless local loop – WLL)

The frequencies for the implementation of WLL as point-to-multipoint radio relay were awarded by application and tender. The award represents a further step in promoting competition in local networks. Taking part in the tendering procedure were 32 companies submitting 1,450 separate applications for a total of 662 frequency applications. The frequencies allow the use of radio links as the last mile connection to customers. The President's Chamber ruled in August 1999 on the award of the frequencies in the coverage areas put out to tender.

Ruling Chamber 2 (*ex ante* regulation of rates subject to approval for transmission lines and voice telephony)

Subject to approval are rates and rate-related components of general terms and conditions for the offer of transmission lines and voice telephony within the framework of Licence Classes 3 and 4 according to Section 6 of the TKG, where the licensee has in the relevant market a dominant position according to Section 19 of the Restraints of Competition Act ("GWB") (Section 25(1) of the TKG). Ruling Chamber 2, being responsible for rates regulation as provided for by Section 25(1) of the TKG, ruled in the year under review on 21 rates proposals, two cases of liability to approval (rates for fast fault clearance), and one case of price capping. Four applications for rates approval were withdrawn by the applicants, while one was rejected.

Rates for transmission line offerings

DTAG, being the only dominant company in the German market for transmission line offerings, is to date the only company required to seek approval for its rates and rate-related components for its transmission line offerings under Licence Class 3; the majority of the offerings in this market are in fact DTAG's offerings for analogue and digital standard leased lines and digital carrier leased lines. Carrier leased lines in particular – being essential for competitors' network build – constitute a major contribution to ensuring fair and effective competition. In 1999 Ruling Chamber 2 dealt with seven rates proposals for Licence Class 3 transmission line offerings, and two cases in which it was to decide whether or not the rates for fast fault clearance services (standard and carrier leased lines) were subject to approval. DTAG's competitors were – as a rule – summoned to attend the proceedings, the Rulings being made after public oral hearing. DTAG's proposed rates had to be examined against costs of efficient service provision (Section 27(1) subpara 1 of the TKG). However, traditional cost accounting methods were found unsuited to providing the data now required under the TKG and Telecommunications Rates Regulation Ordinance ("TEntgV"). The complex process of developing a bottom-up model was therefore embarked upon. This was the first model to cover DTAG's entire network infrastructure – excluding switching equipment not used for leased lines – and to guarantee service-specific allocation and apportionment of costs. It produced increasingly detailed cost statements – reflected in the enormous scope of the rates proposals – and, after various corrections by the Chamber, better proxy efficient service provision costs. Ruling Chamber 2 – within its legal scope – also assessed DTAG's rates against rates in other countries. In this connection, it initiated improvement of the OECD's international leased line tariff comparison – the common basis for such assessments – through comprehensive expert studies focusing on the

choice of countries and companies covered and the methodology. The RegTP published a call for comments on this in its Official Gazette. The Chamber also ruled on four international interconnection rates proposals. International interconnection guarantees competitors access to border crossings or submarine cable landing points where traffic is transferred to foreign networks or submarine cables. Although classed as special network access, it bears a particular similarity to carrier leased line provision.

Rates for voice telephony offerings

DTAG, being the only company with dominance in the German voice telephony market, is currently the only company whose rates and rate-related components of general terms and conditions for Licence Class 4 voice telephony offerings are subject to approval.

Price cap regulation

Rates for voice telephony services are regulated by means of the price cap regime established in 1997 by the now defunct Posts and Telecommunications Ministry. In the first price cap period from 1 January 1998 to 31 December 1999 DTAG was required to lower its average price for the services in the residential and the business basket by at least 4.3 percent, without increasing its charges for calls within the "City Zone" (a radius of 20 km). The required decrease was based on revenues generated from the services grouped in the two baskets in the reference period from 1 January 1996 to 30 June 1997. As long as the prescribed benchmarks and conditions are met, the rates are taken not to exceed the costs of efficient service provision.

DTAG had already met the 4.3 percent price cut target (with a cut of 4.40 percent for the residential and 4.55 percent for the business basket) when on 30 January 1998 it was granted its first approval under the price cap regime. The Chamber ruled in the period under review on a total of seven such rates proposals.

Numerous other Rulings opened the way for DTAG to offer new product options to its residential and business customers. The 16 April and 24 April 1999 Rulings led to an overall price cut – based on reference revenues – of some 19.10 percent for the residential and 27.79 percent for the business basket, without an increase in DTAG's "City Zone" call charges.

Restructuring of baskets to include new services for the price cap period commencing 1 January 2000

The main points of the new price cap regime are as follows:

1. The current basket structure will remain unchanged.
2. In the second price cap period (2000/2001) the business basket will also include DTAG's "BusinessCall 500", "BusinessCall 700", "City Plus 600/800" and "Select 5/10" options, and the residential basket its "City Plus 600/800" and "Select 5/10" options.
3. The Federal Statistical Office's June 1999 consumer price index for all private households was up 0.4 percent compared to June 1998. In accordance with No 8 of Communication 202/1997 the price cut target in the second price cap period will be 5.6 percent.

The decisions are underpinned by the following considerations:

- In its decision making the Ruling Chamber is bound by the price cap regime established in December 1997 by the now defunct Posts and Telecommunications Ministry.
- The current basket structure (1 residential and 1 business basket) has proved appropriate. The (unexpected) price cuts far in excess of 20 percent in the first price cap period exceeded the 4.3 percent target many times over.
- The risk of highly competitive services being cross-subsidised by less competitive ones can be countered by continuing to check all rates, prior to approval, for obvious anti-competitive discounts and discrimination, on the basis of the individual services and interconnection rate benchmarks.
- Against a background of a loss-making local loop and an unchanged target (price cut $X = 6$ percent), the creation of subbaskets for long-distance and international calls and for subscriber line access and local calls – as requested by the Federal Cartel Office and competitors – could lead to excessive price cuts and hence possibly to loss-making local services. This would make a detailed cost study necessary before such an approach could be taken.

Ruling Chamber 3 (special control of anti-competitive practices, *ex post* rates regulation – telecommunications)

Increase in charges for feeding programmes into DTAG's broadband cable network

In its 24 March 1999 Ruling the Chamber required DTAG to adjust without undue delay the charges agreed with programme providers for feeding analogue TV programmes (including sound subcarriers and programme associated data) into its broadband cable network. DTAG was prohibited from making different charges for different types

of programme: (1) media services or broadcast programmes; (2) scrambled or other programmes; (3) regional/local programmes (except "open channels" required under federal state law to be fed free of charge) or other programmes; and (4) typical local programmes for terrestrial reception or national analogue satellite programmes. It was also banned from charging the same for full and part-time programmes without taking account of the shorter amount of usage time for part-time programmes. DTAG consequently developed a new price model which – like the old one – provides for different charges depending on the number of households within range. The model took effect at the beginning of 2000 and helps to eliminate the price discrimination identified. There was no cause to challenge DTAG's increase in charges as such.

Interconnection rates for mobile-to-fixed calls

In its 29 March 1999 Ruling the Chamber ordered DTAG to adjust its rates for terminating calls from mobile networks to its fixed network. With effect from 1 July 1999 DTAG was to charge the same rates as for terminating calls from other fixed networks, as no differences were found in the individual service elements and costs to justify different charges.

Rates for online service provider access

The Chamber on 16 June 1999 ruled *ex post* against DTAG's rates for online service provider access, ie connections from the customer to an Internet service provider's point of presence. Such access is procured by service providers as a resale offering and is intended for those with their own Internet platform. While the rates themselves were not challenged, DTAG was required to align the rates for its T-InterConnect OnlineConnect originating services – for providers without their own Internet platform – with the corresponding online access rates. The Chamber also ruled that the use of online services as a whole does not constitute a telecommunications service as defined in Section 3 subpara 18 of the TKG, and hence is not subject to rates regulation as provided for by the TKG. Rather, the use of online services falls within the regulatory scope of the Teleservices Act ("TDG").

Connection of collocation rooms via carrier leased lines

The Chamber's 2 July 1999 Ruling required DTAG to allow competitors to connect collocation rooms via carrier leased lines. The Ruling was underpinned by Section 33 of the TKG, which provides for special control of anti-competitive practices, since DTAG uses carrier leased lines as a service internally and therefore may not withhold the service from others without proper justification.

Ruling Chamber 4 (special network access, including interconnection)

Ruling Chamber 4 dealt in 1999 with a total of 68 rates proposals for special network access and public telecommunications network interconnection, 28 other rates proposals, and 40 applications for interconnection orders.

Seven applications for interconnection orders were withdrawn, eliminating the need for a Chamber Ruling.

The following cases should be highlighted:

- In its Ruling on local loop access rates the Chamber – following several other proceedings – approved in part the rates DTAG charges to its competitors for accessing its subscriber lines. This Ruling is of outstanding importance in promoting competition in local networks.
- The Chamber on 25 May 1999 rejected DTAG's request for approval of an increase in its interconnection rates for "atypical traffic flows". DTAG had justified its proposed mark-up by the build-up of traffic at certain interconnection points, but approval was denied in the absence of relevant incremental cost statements.
- The Chamber on 23 December 1999 approved in part the rates for basic call termination (Telekom-B.1) and origination (Telekom-B.2), on the basis of an international comparison. The result was an overall decrease of 24.44 percent compared to the previous interconnection charges, achieved through a noticeable reduction of the peak time period and lower charges.
- In connection with several applications for interconnection orders as provided for by Section 37 of the TKG, the Chamber in spring 1999 clarified a number of points relating to the existing interconnection regime. The Chamber granted DTAG the right to connect its competitors to a second interconnection point at the level of the 23 basic service areas when incoming and outgoing traffic in the area is expected to exceed a particular level (48.8 Erlang) on more than a temporary basis. This was necessary in order to forestall atypical traffic flows in DTAG's network, and any consequent negative impact ("migration rule").

Ruling Chamber 5 (rates regulation and special control of anti-competitive practices – postal markets)

Ruling Chamber 5 is currently considering action against DPAG on account of divergence from approved rates according to Section 23 of the Postal Act: DPAG has introduced rates – notably for telegrams, express letters, and special Infopost ("*Infopost-Kreativ*") items – without the RegTP's prior approval.

Following a number of complaints, the Chamber is also making preliminary investigations into whether or not DPAG has given large volume customers discounts on postal services as defined in Section 4(1) of the Postal Act, resulting in non-compliance with the criteria given in Section 20(2) sentence 1 subparas 2 and 3 of the Act or divergence from the approved rates according to Section 23 of the Act.

On account of a further complaint the Chamber is also investigating whether or not DPAG's kilo rate for international letters is to be reviewed in respect of possible discrimination as provided for by Section 24(1) sentence 1 in conjunction with Section 20(2) sentence 1 subpara 3 of the Postal Act, since the company does not offer such favourable kilo rates for domestic letter mail.

In spite of a number of complaints about an anti-competitive price increase, the

Chamber did not initiate a review of DPAG's letter rates approved with effect on 1 September 1997. Section 24(1) sentence 1 in conjunction with Section 20(2) sentence 1 subpara 1 of the Postal Act does not provide for a review of approved rates in respect of an anti-competitive price increase: Section 24(1) sentence 1 of the Act provides for *ex post* review in respect solely of discrimination within the meaning of Section 20(2) sentence 1 subpara 3 or discounts within the meaning of Section 20(2) sentence 1 subpara 2 of the Act.

The Chamber has also launched preliminary investigations into DPAG's parcel rates following numerous complaints from different sources that the rates charged are not cost covering. Its aim here is to determine whether or not it has the grounds necessary to initiate a review as provided for by Section 25(1) sentence 1 in conjunction with Section 20(2) sentence 1 subpara 2 of the Postal Act. A review may only be initiated if DPAG has a dominant position in the relevant geographical and product market, in this case the German parcel services market. Furthermore, a review of rates subject to approval as provided for by Section 25(1) sentence 1 in conjunction with Section 20(2) sentence 1 subpara 2 of the Act may only be initiated if the Chamber has become aware of facts warranting the assumption that the parcel rates in question comprise anti-competitive discounts which prejudice the competitive opportunities of other companies in the same market.

In accordance with Section 34 sentence 4 of the Postal Act, the approval of rates for service of documents in accordance with the provisions of the relevant rules of procedure and acts constitutes a special form of rates regulation. In this case, the rates regulation criteria given in Section 20(1) and (2) of the Postal Act, developed for the regulation of dominant companies only, are to be applied accordingly to all – hence also non-dominant – providers of such conveyance services. This has not given rise to any problems in practice. The average rate regularly proposed for approval by the mostly regional licensees is about DM 8.00 (excluding VAT), some 30 percent below DPAG's rate of DM 11.00. In the course of 1999 the Chamber approved 39 rates proposals for service of documents.

Another – special – form of rates regulation is the procedure provided by Section 31(2) of the Postal Act. Under certain circumstances the Chamber is, on request, to determine the basic conditions of a contract between a dominant provider and a competitor relating to incidental services according to Section 28 of the Act or access to PO box facilities and change of address information according to Section 29 of the Act, where the parties fail to conclude a contract within three months from the time the competitor first requested such services or access. In contrast to the rates approval and review procedures as provided for by Sections 19ff and Sections 24 and 25 respectively of the Act, the Chamber is in this case obliged to fix both the price structure and the prices themselves, as the parties cannot usually agree on the price to be paid for the particular service or access.

In connection with contracts on access to PO box facilities, the Chamber – in agreement with the Federal Cartel Office – considers reasonable a maximum rate of DM 0.17 (0.09) for each letter item deposited by a DPAG staff member in a PO box facility. As DPAG's past cost statements were insufficiently detailed, the rate was determined by means of a comparative analysis. In 1999 the Chamber issued three orders requiring application of the rate.

Furthermore, in connection with contracts on access to change of address information, the Chamber – in agreement with the Cartel Office – considers reasonable the following maximum rates, according to the means of access:

- DM 0.23 (0.12) plus VAT for matching old and new address data via remote data transmission,
- DM 5.54 (2.83) plus VAT for each data record electronically processed and transmitted via remote data transmission in the case of a permanent change of address, and
- DM 6.94 (3.54) plus VAT for each data record electronically processed and transmitted via remote data transmission in the case of a temporary change of address.

In view of DPAG's failure in the past to submit adequate cost statements, the rates were determined by means of model calculations. The Chamber ordered their application on one occasion in 1999.

The special control of anti-competitive practices as provided for by Section 32 of the Postal Act constitutes *ex post* control similar to that under anti-trust law. It is a special legal supplement to the general prohibition of anti-competitive restraints and discrimination as provided for by the former Sections 22 and 26 of the GWB. Section 32 of the Postal Act is founded on the fact that – after the opening-up of the postal services market as provided for by the Act – DPAG will enter the competitive environment with an almost 100 percent share in many submarkets. It is therefore important in particular in the early stages of competition to ensure that the established dominant player does not stifle burgeoning competition by creating unfair obstacles. The Chamber is conducting preliminary investigations into, amongst other things, whether or not DPAG has, on account of alleged unauthorised remailing, unfairly made the conveyance of letter items conditional on payment of an additional domestic postage rate pursuant to Article 25 of the Universal Postal Convention.

Following complaints the Chamber is also investigating whether or not DPAG is unlawfully cross-subsidising its philatelic products.

Chamber proceedings

1999

| Ruling Chamber | Rates regulation | | Control of anti-competitive practices | | Licensing | | Frequency award | Interconnection orders | | Other proceedings (conciliation, complaints, authorisations, etc) | | Total no of proceedings |
|----------------|------------------|----------------|---------------------------------------|--------------|-----------|----------|-----------------|------------------------|---------------|--|---|-------------------------|
| | T | P | T | P | T | P | | T | P* | T | P | |
| 1 | - | - | - | - | - | - | - | - | | - | - | - |
| 2 | 35 (7) | - | - | - | - | - | - | - | | 1 | - | 36 (7) |
| 3 | 11 (1) | - | 20 (3) | - | - | - | - | 2 | | 1 | - | 34 (4) |
| 4 | 27 (9) | - | - | - | - | - | - | 39 (15) | | - | - | 66 (24) |
| 5 | - | 93 (55) | - | 6 (3) | - | - | - | - | 24 (6) | - | | 123 (64) |
| Total | 73 (17) | 93 (55) | 20 (3) | 6 (3) | - | - | - | 41 (15) | 24 (6) | 2 | | 259 (99) |

T = telecommunications; P = post

The figures in brackets () relate to **proceedings still pending**

*Access to PO box facilities and change of address information, access to incidental services

1998

| Ruling Chamber | Rates regulation | | Control of anti-competitive practices | | Licensing | | Frequency award | Interconnection orders | | Other proceedings (conciliation, complaints, authorisations, etc) | | Total no of proceedings |
|----------------|------------------|---------------|---------------------------------------|----------|--------------|----------|-----------------|------------------------|----------|--|----------|-------------------------|
| | T | P | T | P | T | P | | T | P* | T | P | |
| 1 | - | - | - | - | 3 (3) | - | 2 (2) | - | | - | - | 5 (5) |
| 2 | 35 (2) | - | - | - | - | - | - | - | | 1 | - | 36 (2) |
| 3 | 3 | - | 13 | - | - | - | - | 1 | | 1 | - | 18 |
| 4 | 21 | - | - | - | - | - | - | 27 | | 1 | - | 49 |
| 5 | - | 23 (2) | - | 5 | - | - | - | | 4 | - | 2 | 34 (2) |
| Total | 59 (2) | 23 (2) | 13 | 5 | 3 (3) | - | 2 (2) | 28 | 4 | 3 | 2 | 142 (9) |

T = telecommunications; P = post

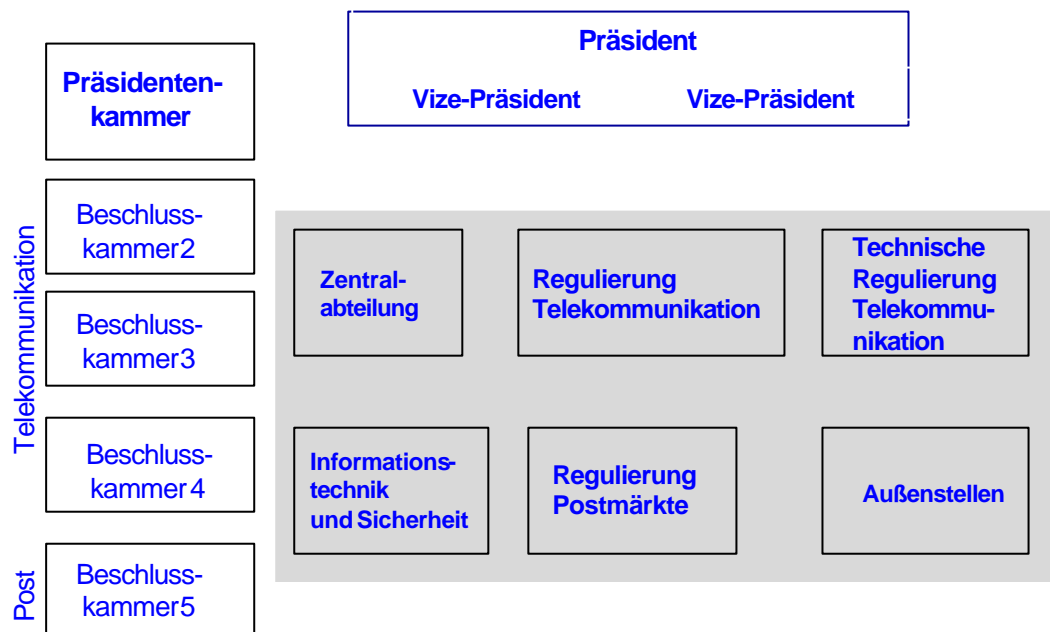
The figures in brackets () relate to **proceedings still pending**

*Access to PO box facilities and change of address information, access to incidental services

17. Staffing and Budget

The RegTP was restructured with effect on 1 August 1999. Its new, streamlined organisation in departments and Ruling Chambers is designed to mirror its tasks and enhance efficiency. To better integrate the 50 or so regional offices which act as the RegTP's local contact points for consumers and industry, a separate department was created specially to oversee and coordinate their work.

Regulierungsbehörde - Organisation



The budget in outline

The RegTP's income and expenditure is budgeted for in Section 09, Chapter 0910 of the federal budget. This Chapter is essentially incorporated in the flexible budget management system. The tables below show the RegTP's income and expenditure budget for 1999 and 2000, and actual income and expenditure in 1999.

Income

| Type of income | 1999 target (DM'000) | 1999 performance (DM'000) | 1999 performance against target | 2000 target (DM'000) |
|---|----------------------|---------------------------|---------------------------------|----------------------|
| Administrative income | 1,042,220 | 1,046,024 | 100.4% | 302,650 |
| 1. Fees and contributions payable under the TKG | 896,000 | 993,435 | 110.9% | 171,000 |
| 2. Other fees and contributions | 144,000 | 50,379 | 34.9% | 129,000 |
| 3. Other administrative income | 2,220 | 2,210 | 99.6% | 2,650 |
| Other income | 92 | 67 | 72.8% | 101 |
| Total income | 1,042,312 | 1,046,091 | 100.4% | 302,751 |

The differences in income for the financial years 1999 and 2000 are accounted for by non-recurring fees, notably those levied under the Telecommunications Number Fee Ordinance ("TNGebV"), and by auction proceeds.

Expenditure: (1999 performance as at 10 January 2000)

| Type of expenditure | 1999 target (DM'000) | 1999 performance (DM'000) | 1999 performance against target | 2000 target (DM'000) |
|--|----------------------|---------------------------|---------------------------------|----------------------|
| Staff costs | 180,810 | 177,320 | 98.0% | 177,707 |
| General administrative expenditure, appropriations | 70,219 | 53,663 | 76.4% | 70,992 |
| Investments | 62,532 | 32,263 | 51.6% | 51,461 |
| Minus: Efficiency dividend, blocked funds | - 23,678 | ----- | ----- | - 9,794 |
| Total expenditure | 289,883 | 263,246 | 90.8% | 290,366 |

Staff numbers

In 1999 the RegTP experienced a decrease of 90 in staff numbers.

1999 saw the RegTP award traineeships for the first time ever: five young people were awarded places as office communications trainees.

| | |
|----------------------------------|-------|
| Total staff in post | 2,679 |
| Analysis of total staff in post: | |
| Civil servants | 2,401 |
| Salaried employees | 247 |
| Wage earners | 26 |
| Trainees | 5 |
| Analysis of part-time staff: | |
| Civil servants | 231 |
| Salaried employees | 23 |
| Wage earners | 1 |

The RegTP's new task-oriented structure is teamed with an appropriate staffing structure and staff development policy. Proactive staff management is a priority. Matching the right staff with the right positions is a vital resource for a modern authority. The RegTP's highly interdisciplinary field of activity requires experts from a wide range of backgrounds such as law, economics, engineering, mathematics, information technology, and administration.

The RegTP has about 2,700 staff; some 900 are based at its headquarters, and the rest work in its nationwide network of regional offices. The grades of the posts held by both the civil servants and the 300 or so non-civil servants reflect the staff grades of the German civil service (basic, medium, upper, and senior).

Analysis of staff according to grades:

- Senior grade (about 200 staff, including some 70 graduate engineers)
The non-technical posts are filled by economics and business economics graduates with various core areas of expertise, legal experts, and other graduates in disciplines specific to their specialised field of work. The 70 or so technical graduates include construction and mechanical engineers as well as communications engineers as typically employed by the former Deutsche Bundespost.
- Upper grade (about 950 staff, including some 800 engineering and technical specialists)
Most of the non-technical staff are administrative and business economics graduates from higher education colleges; the 800 or so technical staff are mainly communications engineers.

- Medium grade (about 1,400 staff, including some 600 technical staff)
Most of the non-technical staff have completed civil service traineeships in administration; the technical staff have had vocational training as telecommunications workers or, for those training later, communications electronic technicians.
- Basic grade (about 70 staff, including 20 technical staff)
The staff, some with a completed apprenticeship, work in a variety of areas such as internal administration and maintenance.

Published by:

Regulierungsbehörde für Telekommunikation
und Post

Press and Public Relations Section
Heussallee 2 - 10, Haus IV, 53113 Bonn
Telephone: +49 228 14-99 21
Fax: +49 228 14-89 75
<http://www.regtp.de>

Edited by:

Harald Dörr
harald.doerr@regtp.de

Translated by:

RegTP Translation Service

Printed by:

Kissel-Verlag
65614 Beselich
Tel. +49 6484-6058
Fax +49 6484-6063

Layout:

gekko mbH
Rathausallee 10
53757 Sankt Augustin
public@gekko.de