Summaries and notices

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Concept of ISDN and Involvement in Switzerland with Swissnet

F. Zbinden, Berne

Swissnet began operational experimenting in October 1988. About three years were necessary to set up the required plans to carry out the development, to test the installations and to make it operational. A really short time if one takes into consideration the complexity and the extent of the whole project. The present article characterizes, on the one hand, ISDN in the technical functional respect and, on the other hand, describes the first phase of the introduction of Swissnet 1.

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Signalizing System CCITT no. 7 Message Transmission Part (MTP)

M. Freudiger, E. Isler and R. Santschi, Berne

In the second half of 1988, the first intercentral signalizing lines were put into operation with the signalizing system no. 7 of the CCITT by the Swiss PTT. The author describes the task and function of the message transmission part which is given a central role in this system. Besides the theoretical aspect, the procedure by the internal PTT inspection of the signalizing report between the CDN-exchange is shown and the application of the message transmission part by means of a telephone connection explained. The conclusion consists of a small outlook into the further development of the signalizing system no. 7.

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Coherent Optical Transmission Components

C. Béguin, Berne

The coherent optical transmission on monomode glass fibres has been tested in many laboratories for some time now, as it will play an important role in future light conductor systems. In this technique, as in the super heterodyning radio reception, the optical carrier frequency, which can be modulated in amplitudes, in frequency or in phases, is demodulated with the help of a local oscillator. The advantages arise in the fact that this process of heterodyning results in increased sensitivity and selectivity as compared with the direct optical reception technique used up to now. The author describes the components used in coherent optical systems and their properties and deals with the demands which have to be faced.

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Interferences and Expansion Distortions Frequency-Modulated Signals

W. E. Debrunner, Berne

It is shown how the effects of interferences may be reduced by increasing the frequency deviation of FM-systems. However, as this also results in a rise of the distortions due to multipath propagation, the optimum amount of the frequency deviation has to be determined by taking into account quantitative data. Obviously, descriptions that are simultaneously simple, accurate and of general validity cannot be expected. A computational procedure to determine the power spectra of interferences and distortions by using Personal Computers is briefly described in this paper. Thus, accurate answers to specific questions are quickly obtainable by computer-aided analysis.

News Items

Telephone

The prototype **of an optical 140 mbit/s line installation** was successfully tested by the PTT services. The installation will be put into operation on the district exchanges and the inter exchanges network in autumn 1989.

The **electronic telephone book** (ETB) complies now with the regulations preset by the Federal Department of Justice for the protection of the privacy of personal data (limited search standards and search possibilities).

The **fully automatic telephone traffic from Switzerland with ships at sea** via INMARSAT was inaugurated on 1 April.

Teleinformatics

Within the framework of the new **PTT System Management service,** the first network contract was concluded with a large Swiss firm. In the final development, the international network will include 4 intercontinental rented lines, 8 European rented lines, 4 national rented lines as well as special installations at the clients and also in the leased lines control centre (MLKZ). The PTT will supervise this network by the MLKZ on a 24 hour service basis.

Up to now the **public Video conference traffic,** thanks to increased interest, has been opened in direct connection with 10 European countries as well as USA, Japan and Australia; in transit over France connections could be made with the French overseas territories and over FRG with the PR of China, Hong Kong and Singapore. Australia and Taiwan utilize lines via Switzerland in transit to other countries.

At the end of March, the PTT signed a contract with the European Community for cooperation in the **Project TELEMED of the RACE programme** (**R**esearch in **A**dvanced **C**ommunications in **E**urope), which should prove the applicability of a wide band-ISDN in the area of medicine. In cooperation with hospitals and the telecommunications industry, the PTT is partner of 15 EC and 4 EFTA countries. The telecommunications connection of the local university network of the Cantonal University Hospital of Geneva with partners abroad is intended via the planned 140 Mbit/s wide band pilot installation BASKOM in Basle.

Radio, Television and Radio Communications

The **CEPT working group T/GT15 RARF** (Radio Administration, Regulation and Frequency Management) met from 10-14 April in Agno near Lugano. It dealt with, among others, four draft recommendations, two of which – concerning the frequencies for ERMES (European Radio Message System) as well as concerning the free frontier crossing circulation of radio transmitters – were adopted, whereas those concerning the mutual recognition of permits of types and concerning the regularization of radio equipment of little capacity had to be deferred because of fundamental problems. During the course of the conference, a meeting also took place with representatives of the EC. This meeting concerned a better mutual coordination of the actions taken in the field of radio.

Miscellaneous

With a **special exhibition 'Telecommunication today – no boundaries, no distances'**, the PTT was guest at the Trade and Industry Exhibition (HIGA) in Chur; the PTT was also represented at the LOGIC 89 in St. Gallen and at the Visp spring exhibition (VIFRA).