



Experience with transportable PRX exchanges

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Summary

Since 1979 a number of transportable, containerised, PRX type public telephone exchanges have been installed in several countries. The largest order, from Saudi Arabia, comprised as many as 53 of these mobile exchanges. This type of exchange is used where the erection of permanent exchange buildings poses problems, or where temporary switching facilities are needed. The article highlights the experience acquired with these exchanges over the past years in their installation, maintenance and use. It amply demonstrates that they have answered expectations.

1 Position of containerised exchanges in the public network

Transportable PRX telephone exchanges [1] have already been installed in a number of countries, with Saudi Arabia foremost. The contract with this country calls for 53 such exchanges as part of the large national network in course of installation [2]. The background to this project is the fast economic growth of oil countries. This causes explosive growth in their communication needs, which in turn demands dynamic, and therefore highly flexible, planning of the telephone network. In a country where 'everything is far away' this places a premium on ease of exchange installation and maintenance and on remote controllability.

Containerised PRX exchanges fulfil these requirements. They are self-contained, easy to install, and easy to disconnect and relocate.

Fig. 1. PRX containerised exchange installed in Saudi Arabia



Introducing PRX in the world

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Summary

The number of PRX exchanges in the world is growing at impressive speed. This article mentions the main areas of introduction and gives an idea of the problems of adapting to local demands. The experience obtained over several years in The Netherlands is summarized in some figures on software and hardware reliability. These prove that after a stabilizing period the reliability meets the stringent design objectives.

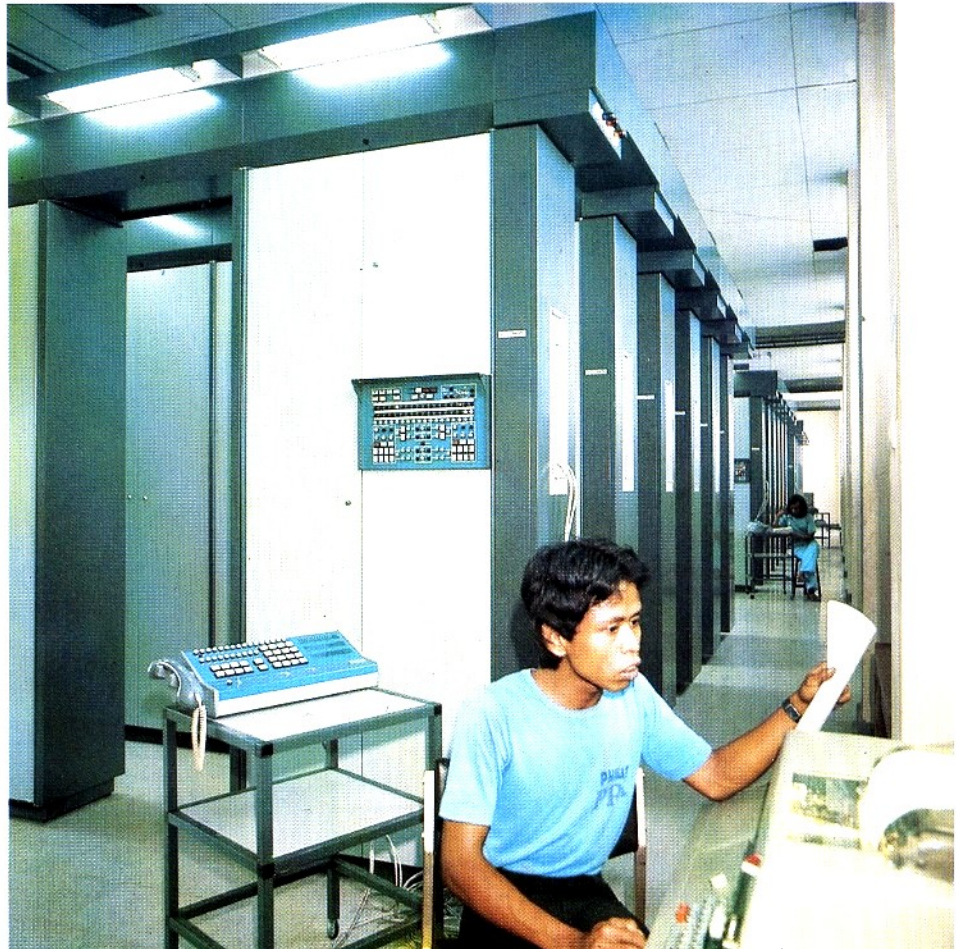
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Introduction

In the second half of this year the millionth line will be installed on a PRX system. Since the introduction in Wormerveer of the first production exchange in 1974 [1] considerable progress has been made. Following widespread installation in the Netherlands, the PRX system is introduced in a number of countries in various parts of the world.

Each new application of the PRX system requires adaptations to already existing telephone networks and usually a number of new features to fulfil the specific require-

Fig. 1. PRX exchange in Jakarta, Indonesia



PRX - the marketing story

PTR's September 1973 issue [1] was completely devoted to our PRX system, an advanced stored-program controlled telephone exchange system with very good prospects. Already today a rapidly increasing number of Administrations have decided in favour of SPC systems.

The Dutch PTT Administration took that decision many years ago and by the end of this year the Philips' PRX factory in The Hague will be running close to full capacity to satisfy the Dutch demand (half a million lines for the next four years) and the demands of an expanding export market.

At the time of publication of our PRX issue, a contract was signed in London with the Jersey Telephone Board for the introduction of two PRX exchanges on Jersey. This means an early introduction of SPC into the British telephone network.

In Brazil, Telebras, the newly formed Telecommunication Administration of Brazil, decided to go SPC and published a program for its introduction, starting with a number of trial systems. Philips was the first supplier to sign a contract for the installation of a 5000 lines PRX system in Saõ Paulo. This will be the first SPC system in South America.

Further Brazilian systems, both hardware and software, will be supplied from brand new Brazilian factories.

With only a few days difference, Peru became

the second country in South America to install PRX systems. In December 1973 agreement was reached with Entel for the large-scale introduction of PRX systems in the country. Initially 9 cities in Peru will be provided with PRX exchanges totalling some 60 000 lines. Completion is expected in the years 1976/1977, and by that time Peru will have a solid backbone for the next stages leading to a national, fully automatic, telephone system on an advanced international level.

Key arguments in selecting PRX systems are the considerable (and predictable) savings in maintenance and administrative costs, and the hardware-oriented characteristics such as fast installation and sharply reduced floor space. Important arguments speak in favour of our reed-switch, which give the system significant advantages over other reed systems, mini-crossbar and, of course, conventional crossbar systems.

A remarkable thing was that hardly any demands for new subscriber facilities were heard. In discussions with the Administrations on future demands, the interest largely went in the direction of new telephone management systems including implementation of centralised maintenance and overall central control.

H. Krijl

[1] Special PRX issue, *Philips Telecommunication Review*, Vol. 31, No. 2, 1973.

PRX/A in Armenia

After the earthquake that hit Armenia in December, AT&T-NSI offered a containerised PRX/A switching system to the Russian PTT to bring telecommunications back in service in the stricken area. The switch was handed over at the Amsterdam airport on the 21st of 1989 December. Thanks to the close cooperation with the Russian PTT, it was in full service as a local switch in Leninakan only two days later, offering communications to helpers and reconstruction workers. The switch is now fully connected to the national network of the USSR.

