

## CASE STUDY - EMBEDDED SYSTEMS

# The telecommunication platform of the new generation

HERMES SoftLab initiated, researched and developed a prototype for a telecommunication platform, which could represent the base for a broad range of sophisticated transmission systems products.

### The challenge

In the world of telecommunications, the circuit switched data transmission was recently successfully complemented by the packet oriented one. The latter is proving to be more and more popular due to optimal connection usage and connectivity with the computer world.

As these two systems exist in parallel, HERMES SoftLab experts investigated possibilities for their integration and the suitability of a specific cross connect system for such an application and recognized a strong marketing potential in this new set of features.

### The solution

Based on the initiative of HERMES SoftLab experts the project was designed and carried out for a major vendor. As a result, the proposed platform is seriously considered as a basis for the production of a series of products in the area of transmission systems.

The study, performed by our team of embedded systems specialists, covered:

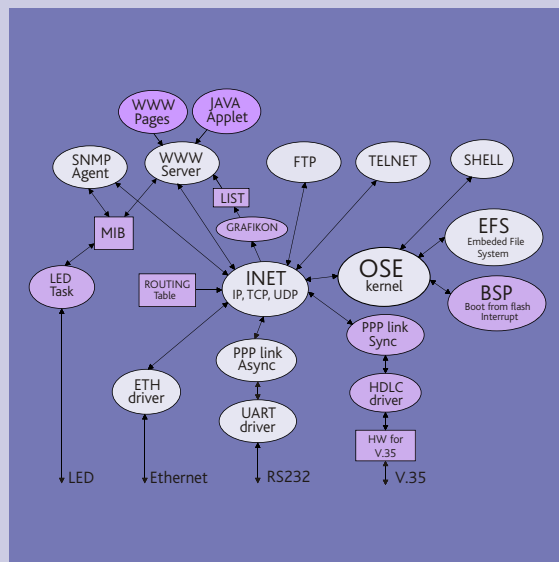
- integration of TCP/IP protocol stack
- integration of various synchronous and asynchronous interfaces (Ethernet, V.35, RS-232.)
- various approaches to network management (Web and SNMP based).

### Target environment

- Real Time Operating System ENEA OSE
- TCP/IP routing, SNMP and Web based Management
- Ethernet, T1 and V.35 synchronous PPP interface, HDLC
- Embedded WEB server and dynamic
- HTML pages
- Javan

### Development technology

- Mirocontroller PPC860, special HW (Motorola MBX board and modified RAX HW)
- Diab Data C/C++ compiler, SDS
- Single Step C/C++ debugger
- Windows NT/2000, Visual C/C++



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