



Success Story

A US-based Startup Company

VxWorks Device Driver Development

The Challenge

The client required the Network Programs team to develop an onsite PoP solution for BLECs and CLECs. This includes development of customer premises equipment (CPE) with voice and data connectivity and a central box to multiplex the traffic from various devices.

The Solution

Network Programs successfully fulfilled the client requirements by developing the following features:

- Providing power on self-test
- BSP diagnostics
- Porting, integration and configuration of data protocol stacks involving RouterWare and WindRiver IP stacks for IP, TCP, UDP, NAT, DHCP, and RIP.
- Porting, integration and configuration of data transport protocol stacks involving DCL stack of IPOA and RouterWare stack of PPP and PPPoE
- Writing call control engines for JetStream and CopperCom protocols for call handling of access network
- Writing device drivers to interface with the DSPs for AAL functionality and for voice DSPs
- DSP code maintenance for AAL handling and voice time slots to ATM sample conversion activities
- Statistics collection for voice and data traffic and reporting that periodically to proxy agents
- Database interfaces for accessing configuration and event data
- Integration of embedded web-server, Agronet EmWeb/CLI, onto the accordion boxes
- Design and implementation of the interface between the web-server and SNMP Agent
- Design and implementation of the complete CLI

Benefits

- ◆ Provides 10/100 Mbps Ethernet connectivity for data communication. IP traffic can be exchanged with Internet or with customers connected with another switch over this link.
- ◆ Provides 16 voice ports for telephone connection and E1/T1 trunk for PBX connection so that customer can make phone calls to customers connected to another switch or with users connected to PSTN.
- ◆ BEST (Bandwidth ElaSTisizer) provides VDSL connectivity to switch for upto 56 Mbps bandwidth and DS3-based trunk connectivity to ATM network.
- ◆ Provides end-to-end PVC links from switch to voice gateway for voice traffic and from VODEM to ISP for data traffic.