



## OPERATOR CONSOLE DEVELOPMENT



### THE CLIENT

The client is a market leader in networking and telecom industry.



### BUSINESS NEED

The client envisaged to launch a high end EPABX supporting voice modules (both POTS and ISDN) & data modules. The client was looking for a console which would support 90 extensions, handle all voice related functionalities. The Console was also supported by a character LCD. The challenges faced in the process includes:

- To integrate all these functions in a single box supporting
- Ethernet /RS422, communication interface, 90 voice extensions, handle voice related functionalities, support 90 extensions and a solution which has provisions for future expansion



### TECHNOLOGY USED

- **Hardware :** ARM 9, Ethernet(10/100), RS422, I2C, USB 2.0, SPI, DTMF
- **Software:** Linux 2.6



### BUSINESS BENEFITS

- One consolidated platform
- Multi-functionality support



### SOLUTION DELIVERED

- The Operator Console is designed around Atmel's ARM 9 processor AT91SAM9263. With so many functions integrated into multiple boards as below read the cash drawer open/close status.
- Mother board houses the CPU, memory, Ethernet, RS232, RS422, USB 2.0 and I2C interfaces for Keypad. The operating system chosen was Linux Kernel 2.6 and drivers developed were I2C, Keypad, Watchdog, Speaker phone, DTMF generator, SPI driver and RS422 for communication with EPBAX.
- Telephone Line Unit (TLU) was built for handling voice calls from the EPABX or directly from the exchange in case of EPABX failure.
- User interface board handled console LED and Console Keypad interfaces. Expansion Direct Station Selection unit (EDSS) supported 90 other extensions.



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