

## Embedded Ethernet Library

The project objective is to define and create a communication library which acts as an extension of an existing USB library with layered approach, introducing transport and protocol layers. The library encapsulates TCP/IP networking functionality and security for a residential power generator controller.

Functionality of the library is designed to allow products developed on the NXP LPC2468 family of processors to add automatic configuration feature and simplify remote configuration and administration of devices. The solution includes a specific customer tool that provides monitoring and remote configuration of devices thru TCP/IP protocol.

### Project Objectives

- Provide library with simple API for network communication
- Provide additional network services for easy remote configuration of customer products
- Accommodate security mechanism for network data exchange

### Scope

- Design of Ethernet Library and Library API
- Full integration with the custom USB KPDP protocol implementation
- DHCP protocol integration
- TCP/IP transport layer integration
- USB library refactoring
- Integration security layer into the custom KPDP protocol
- Integration and functional testing
- Full source code review
- 2.5 person project for 9 week duration

### Technologies

- C/C++
- Keil uVision IDE
- Keil RTX RTOS for NXP LPC2468 processor
- Team Foundation Server
- MS Project



### Project Management

- Weekly updated project plan and budget
- Weekly status meetings
- Weekly status report
- Web access to Bug Tracking System