Case Study:
BACnet Implementations for 3rd Parties

Introduction:

Chipkin Automation Systems (Chipkin) has developed over 50 protocol drivers for various gateways and are recognized as leaders in their field with special recognition with BACnet.

When a company manufacturers a sensor/device/system they need to provide methods for remote monitoring and control. That typically requires them to implement communication protocols based on the type of customers who purchase their products.

Chipkin is often selected to provide the toolkits and intellectual property in the form of source code to allow these companies to provide products which have native support for the protocols required. In the Building Automation industry the heavy hitter protocol is BACnet. In particular the serial form (MS/TP) and the Ethernet form (IP).

Customer – Example 1 – Kiltech Controls – BACnet for Chillers.

Chipkin Automation Systems Inc. were selected by Kiltech Controls to provide BACnet interfaces for their Central Plant Optimization System and for their Chillers.

Chipkin were selected because of their reputation in the industry as well as for the novel way in which they perform this type of technology transfer. In providing the package, Chipkin provide an engineer who attended Kiltech offices to introduce them to BACnet and how it is used and abused as well as how to use the Chipkin toolkit.

In addition, Kiltech (and other customers) are provided direct access to Chipkin engineers during the implementation phase. **kiltechcontrols.com**

Customer – Example 2 – WindowMaster – Microprocessor Challenge

WindowMaster manufacture actuators and other products used in the indoor climate control industry. The actuators are used for shade and blind control systems. WindowMaster required native BACnet on its products but were limited by the small memory size of the microprocessor range it used for control of the actuators.

Chipkin were selected because of their ability to customize their BACnet toolkit for use on the small memory footprint device. WindowMaster engineers attended Chipkin's offices to learn how to use the toolkit and to learn about BACnet and how it is used. Chipkin also prepared the WindowMaster system for certification by the BACnet Test Lab.

Customer – Example 3 – Fortune 100 Company – CO2 Sensor

This confidential customer selected Chipkin to implement native BACnet on their CO_2 and other sensor controllers. Chipkin were selected because of their reputation in the industry and because only Chipkin (according to our customer's legal department) could deliver an indemnity against copyright breach. Chipkin were able to do this because every line of code was developed by Chipkin from scratch. No open source or other software was used in making the BACnet toolkit.

The customer selected Chipkin to prepare the devices for BACnet Test Lab certification and to adjust as required for certification.

This customer has subsequently had Chipkin implement, update, audit BACnet on other devices as well as aiding the customer through the certification process.