

# **Plus** Power Line Ultimate System

## P L U S F O R S C H O O L S

The educational market has dramatically changed in the last decade. From blackboard and chalk, it has moved into the multimedia and distant learning arena, using Internet and computer networks as powerful educational tools.

Nowadays, schools face new challenges. On the one hand, they need to provide their pupils with Internet, network computing, distant learning facilities as well as monitoring their attendance and safety. On the other hand, schools and campuses are located in buildings that do not have the required telecom infrastructure.

Educators and governments are conscious of these challenges and are turning more and more to power line communications as the preferred technology to fulfill all these needs, since it uses the existing power lines within the building(s).

### **PLUS in the schools**

Main.net's PLUS system solution provides broadband Internet/Intranet for the entire school, whether the school is in one building or in several. Main.net's PLUS is based on the existing electricity infrastructure so no new wiring in the building(s) is needed. Broadband access is available from any electrical outlet. PLUS enables optimal mobility of computers in classes, since computers can immediately be connected to the network at every electrical outlet in each classroom.

This enables teachers to present multimedia and educational presentations to their pupils anywhere in the school building, and they are therefore not limited to one computer room.

Using PLUS, pupils can access the local server containing educational materials, multimedia, emails, etc. Several pupils can access the remote server sharing the same computer, while securing the privacy of their work.

For security purposes, PLUS enables connection of IP- cameras to PLUS units throughout the building enabling monitoring of events for security and surveillance purposes.

The PLUS platform also supports the option of real time monitoring and feedback of school attendance with the Power PLUS Reader over power lines. Schools can decide to go for PLC LAN, Internet/Intranet that is supported by the classic PLUS system solution, or select the Power PLUS Reader for monitoring entrance and attendance. A combination of both is possible as well.



### **Services provided by PLUS for schools:**

- ▶ High speed Internet/Intranet
- ▶ Internal networking (PLC LAN)
- ▶ Virtual LAN (VLAN) for separating the units between administration and classes
- ▶ Mobile use of computers between classes
- ▶ Platform for web hosting, storage, email, e-learning and others
- ▶ Security, surveillance, and alarm services

### **Advantages of Main.net's PLUS:**

- ▶ Cost-effective system
- ▶ Uses the existing electricity infrastructure (no new wires)
- ▶ Easy to install; plug & play
- ▶ Auto-configuration
- ▶ Connection from every electrical outlet throughout the building
- ▶ Remotely managed and controlled
- ▶ Always-on service
- ▶ Coverage of entire school/campus by using smart repetition
- ▶ Flexible and scalable: "pay as you grow"

# PLUS FOR SCHOOLS

## Power PLUS Reader

A new optional addition to Main.net's PLUS system for schools is the Power PLUS Reader application. The Power PLUS Reader is especially designed for school attendance, using card reading and processing technology. Each student enters the school grounds with a smart card that includes personal data and a photo. This prevents unauthorized entrance to the school building, classrooms or administrative offices. Once the student swipes his card through the Power PLUS Reader, information is passed to the school computer database over power lines, which informs teachers and principal about the student's whereabouts.

Using the Power PLUS Reader, school management receives immediate and up-to-date data on truancy per day, per week, per class and or by subject. Via an Autodialer, an SMS or a voicemail can be sent to the parents to inform them about the absence of their child. The Power PLUS Reader application records attendance history, enabling the schools and parents to act accordingly.

The Power PLUS Reader can be installed at any school gate or room entrance at the choice of school management, since it uses the existing electrical infrastructure. Since PLUS is a modular system, school management and parents can decide what features meet their needs best. The Power PLUS Reader seamlessly integrates into the PLUS platform. School management can therefore start with the Power PLUS Reader and later extend it to PLC LAN/Internet/Intranet or vice versa.

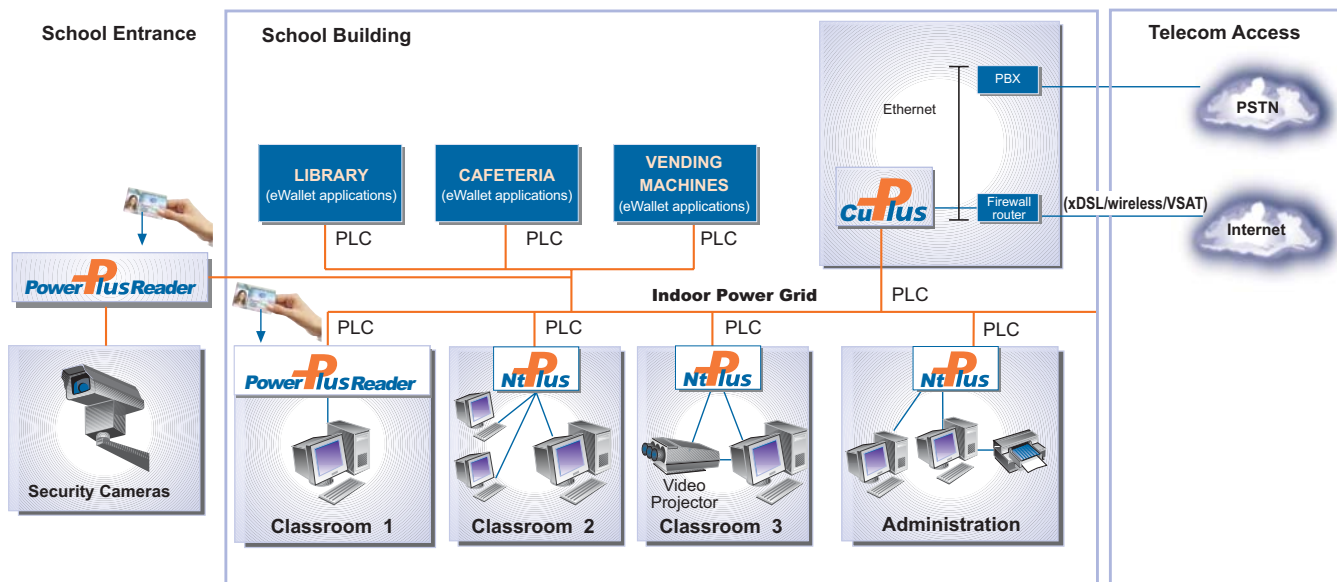
## Advantages of Power PLUS Reader:

- ▣ Real time monitoring and feedback of student's attendance in the school and classroom
- ▣ Reduces truancy and enhances school environment
- ▣ Modular system to fit the pedagogic outlook of school and parents
- ▣ Support eWallet applications (school cafeteria, vending machines, library books)
- ▣ Seamlessly integrates into the PLUS platform

## PLUS system elements

PLUS consists of network terminal units (NtPLUS) located inside the classrooms and administration offices, repeater units (RpPLUS) located in the corridors, and a central concentration device (CuPLUS) located in the computer room or basement. The concentration device is connected to the chosen service provider by any available method (e.g. fiber, XDSL, wireless, or PLC). The PLUS system is remotely or locally managed and controlled by a Web-based management and control system. The optional Power PLUS Reader is located at any entrance (school gate, areas within the building) chosen by school management.

Note: once the concentration device is plugged into the electricity, every electrical outlet in the building is connected to the IP network. By simply plugging the NtPLUS unit in a different classroom each time, the moved PC can seamlessly resume network connection.



## Your power to communicate

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