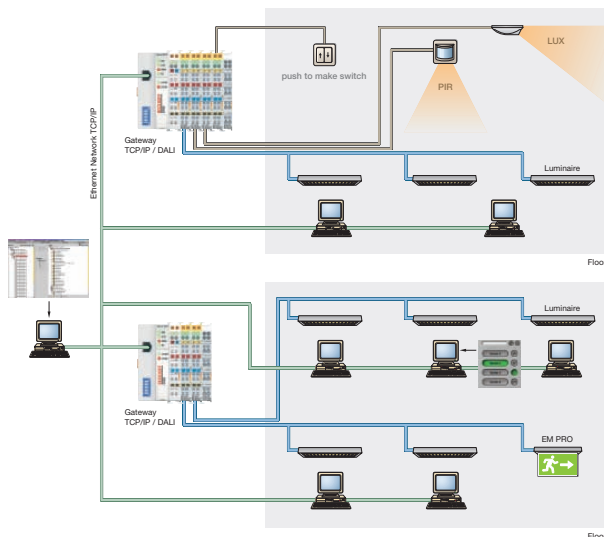


# New Generation Controls & TCP/IP

**Advanced controls are being used on most elements of building services to provide greater comfort at reduced energy consumption. However these controls are only as good as their design, configuration, operation and maintenance.**

## Convergence

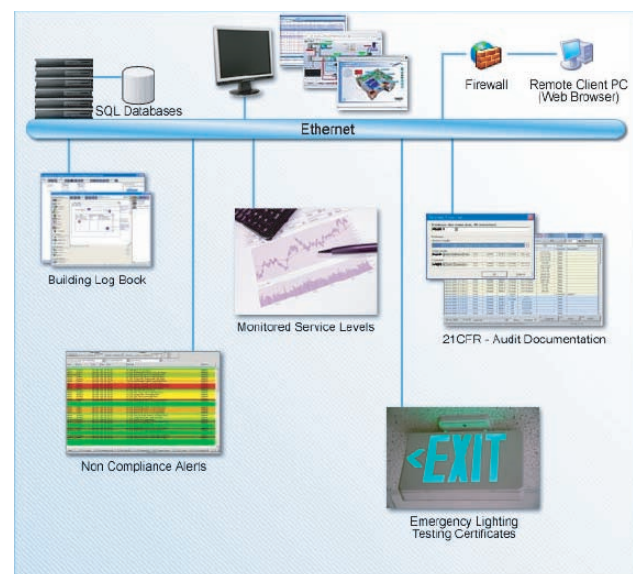
Awareness of the problems caused by a complex of multiple parallel controls systems has led to a demand for simplification. This demand supports a move away from esoteric proprietary systems – and towards convergence of systems onto standardised equipment and software.



## TCP/IP

The current trend is towards the TCP/IP protocol used for the Internet and for using standard computer cabling (Ethernet) within buildings. In principle multiple sets of individual wiring are replaced with just the standard data cabling that has to be installed anyway.

The software of these systems can then be integrated on a common platform with easy to use customer interfaces, such as those present in Windows type programmes. Central information collection and analysis software allows building managers to take active control of their buildings in relation to energy use. This facility for real time intervention is at the heart of automatic Monitoring & Targeting (aM&T) software and one of the critical tools for identifying weaknesses in the implementation of energy reduction programmes.



## The Front End

Reference to “The Front End” of control systems is now a common element in evaluating how effective they are likely to be in allowing an individual user to manage energy across a building or estate of buildings. Too often this vital aspect of controls is neglected and users are sometimes surprised that many DALI systems do not include the customer interfaces that allow for accurate monitoring and control. Evaluation of a customers needs for the front end of their system is an important part of the controls specification process.