

Delivering Performance



networking today



lock solution

Controlling Access

Integrated Proximity Access Locking Handle

By controlling access to the rack, the risk of intrusion, sabotage and user error is greatly reduced. The i-PAL brings a simplified solution to rack security. The handle has been designed to incorporate a proximity reader, LED, buzzer and locking mechanism, therefore ensuring only authorised personnel can gain access to the rack.

This whole solution is fitted to a standard Access rack handle reducing the need for any special installation whilst allowing retro-fitting to existing cabinets. The controller is integrated into the rear of the handle and is connected directly to a power supply unit with a 2.5 metre lead.

Each i-PAL kit is supplied with one program card and three user cards paired with three delete cards. Further user cards can be added or deleted to each kit as necessary.

The i-PAL is a fully upgradeable solution where administrators can be confident that should a requirement arise, for the system to be fully upgraded to an i-BOX remote monitored platform, the existing installed handles can be utilised.



Six Modules One Integrated Rack Solution

The need for continuous system availability is clear, from small business to major enterprises the delivery of IT performance is critical in today's business environment. Faster processors and complex IT hardware along with the need for real time information demands that an integrated and scalable solution must be deployed.

The challenge facing Rack manufacturers is even more demanding when working in the mission critical installation. Cooper B-Line has recognised the challenge and as a leading manufacturer of rack solutions we are now able to supply the i-BOX solution, a totally integrated system which will ultimately provide the following.

enclosure

The provision of a totally integrated rack solution for mission critical applications.

security

An online system which can initiate immediate security deployment, a scalable system that offers flexible access control.

thermal

Validation and thermal analysis of the rack design to challenge thermal issues and rising heat densities now and in the future.

environmental

The requirement for maintaining a stable environment whilst delivering pro-active management of IT equipment and the rack.

power

The ability to monitor rack power requirement along with ups solutions and remote managed supply.

remote monitoring

24/7 IP based management for LAN/WAN or Intranet/Internet. Allowing system administrators multiple site access.



enclosure

The Rack Solution for Mission Critical Applications

Rack innovation is crucial in today's IT environment. Designs need to bring un-rivalled advantages so that installations are made easy. Climate control, Security solutions and Integration need to deliver enhanced performance whilst addressing the known problems and challenges. Ultimately the total cost of ownership and rack operating costs need to be reduced.

- **Innovative Enclosure System**
- **Highly Advanced Design**
- **Rack Operating Costs Reduced**
- **Exceptional System for High Density Equipment**

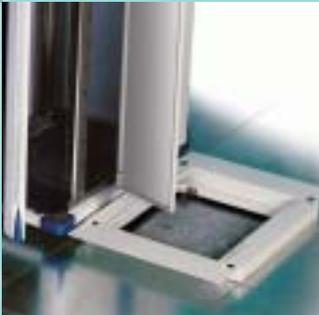
As part of the i-BOX solution the Access rack system is not just a standard cabinet with a comprehensive product range, the highly advanced design is capable of being modified and customised resulting in a rack solution which can accommodate a wide range of applications. The Access rack provides an exceptional system for housing servers and associated equipment.

By utilising the revolutionary design of the Access frame excellent accessibility and maximum useable space is available. Ultimately the Access rack becomes the heart of the i-BOX solution.

Cooper B-Line has now risen to the next level in providing rack solutions for mission critical applications. By solving the known problems and challenges B-Line can now deliver a rack design that can be easily adapted to accommodate high density equipment now and in the future.

Rack Configuration

The Access configurator software has been developed to provide a unique method of assisting with the design, configuration and layout of the Access cabinet range. It allows the user to construct a cabinet to their own specification by using a building block approach to select cabinet components from the many options available. Once the user has built their 'Virtual Rack' they are able to visualise the design by using a fully active 3D Model.



security

Controlling Access to Critical Business Assets

In today's data centre environment companies are increasing the number of users, customers, partners and employee's all requiring secure access to the IT environment. IT departments are constantly under pressure to provide more secure solutions with less resource in turn driving down costs. In the mission critical installation the ability to manage the secure access to IT infrastructure is becoming increasingly difficult due to the nature of the identity life cycle of a user. In the modern day data centre there can be many local administrators who use manual processes to implement user changes. The security of data along with the physical infrastructure starts with the enclosure system and unless an integrated solution can be applied the integrity of the system can be exposed.

The i-BOX security system brings a comprehensive solution to the physical security and user access of the enclosure system by implementing a dynamic and productive on line IP based system allowing the administrator to control the access to the enclosure whilst maintaining a flexible security policy. When deployed, the i-BOX can simplify and automate the management of user identities, access rights and privacy policies for the small business or major enterprise.

i-BOX also offers the ability to implement visual communication with the enclosure system with the addition of remotely monitored cameras which can be monitored through the internet or LAN.

Cooper B-Line recognises that access authorisation is a key factor for corporate security, whether you are updating the security of your existing enclosures or are a new data centre we can analyse and configure the i-BOX so the right security solution can be implemented, safe in the knowledge that you can modify expand or upgrade your security solution at anytime.

- **Immediate Security Deployment**
- **Identity Management**
- **Online System**
- **Flexible Access Control**
- **Scalable Solution**



**COOPER B-Line**

thermal

Challenging Rising Heat Densities

With rack space becoming a crucial element within the planning of IT infrastructure, the ability to maximise the amount of equipment into the rack increases.

Servers get thinner and deeper, IT compaction and cable management becomes critical leading to rising heat densities causing equipment failure and costly system downtime.

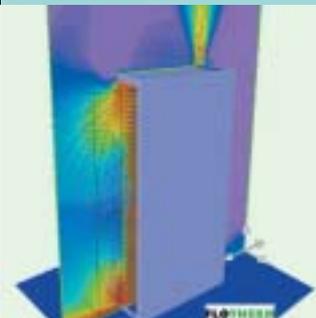
- **CFD Validation**
- **High Density Cooling System**
- **Efficient Cooling Where Required**
- **Flexible Solution Up To 12KW per Rack**

As part of Cooper B-Line's Critical Asset Protection Solution, the rack system supplied can now be validated using computational fluid dynamics (CFD). Flotherm has become the standard for many electronics companies worldwide. This evolution of thermal analysis allows B-Line to ascend to the next level of productivity, by greatly enhancing its integration into the rack design process, the most challenging thermal problems can be solved.

Cooper B-Line has recognised that the challenge of solving rising heat densities within the rack environment is a crucial part of critical asset protection. By adopting Flotherm and it's new approach to analysis software called "Design Class Analysis" rack solutions which cater for the direct needs of design engineers are now available.

FLOMERICS

Pioneering Design-Class Analysis



●●● i-BOX

environmental

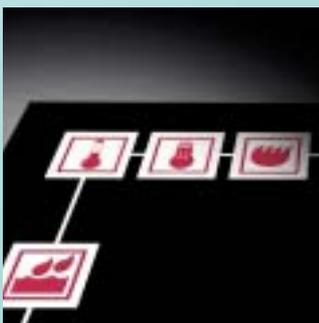
Maximising System Reliability

Stable environmental conditions are vital to the reliable operation of IT infrastructure. Environmental monitoring and control can maximise system reliability, if conditions are not monitored equipment life can be shortened, overheating can cause intermittent difficult to locate faults and in extreme cases, equipment failure occurs. Critical business asset downtime leads to lost productivity, lost business and lost time and overall increases in cost.

i-BOX provides extensive environmental monitoring of the rack. Using strategically placed 'Smart Sensors' the system administrator has a clear picture of the condition in different parts of the enclosure. Temperature measurements taken in different parts of the rack can vary significantly. Concentrations of equipment can produce hot spots. i-BOX can measure the temperatures between equipment giving you early warning of approaching problems. As the load on Servers, Switches, and Routers varies so does the heat output. Maintaining both temperature and humidity within acceptable limits is vitally important. i-BOX monitors Temperature, Humidity, Flood and Hot spots preventing environmental conditions exceeding recommended thresholds, this in turn gives unrivalled protection to sensitive IT equipment.

Cooper B-Line is providing the solution to help eliminate the causes of critical system downtime. IT administrators require detailed information on environmental conditions within the rack. Careful Environmental Monitoring using the i-BOX will give you a clear picture coupled with alerts. In turn, the system will give you ample warning before conditions become critical or out of control. In addition essential remote network visibility to environmental sensing equipment can be provided allowing the pro active management of critical business assets.

- **Extensive environmental monitoring**
- **Smart Sensors**
- **Temperature, Humidity, Flood...**
- **Remote Network Visibility**
- **Pro-active Management**



power

The Platform for Power Management

The current projection of the industry with regards to power density requirements are uncertain. However, rack systems will need to meet these demands despite the evolution of IT equipment.

Power failure and interruptions to the power supply within the mission critical application can have serious consequences for business. Power systems along with the power supply to the rack must be adapted to the constantly changing requirements of sensitive IT equipment.

The i-BOX solution provides a platform for power management. The system design can be configured, adapted or even retro-fitted to high density racks. The integration of UPS systems along with remote monitored, in line protected and sequential start power distribution units are essential in maintaining the supply to the rack. As an addition a practical system for power metering can also be supplied.

Cooper B-Line is now delivering a rack power infrastructure system that will allow the user to manage the power density requirement of racks over the coming years. The ever changing demands and constant development of IT systems have created new power related problems. B-Line is now ready to deliver an integrated electrical solution which will identify the power requirements of the rack system now and in the future.

- **Power Management**
- **Integral Electrical Solution**
- **UPS System**
- **Remote Monitored PDU's**
- **Power Metering**



riello ups



●●● **i-BOX**

remote monitoring

24/7 Remote Monitoring Bringing Peace of Mind

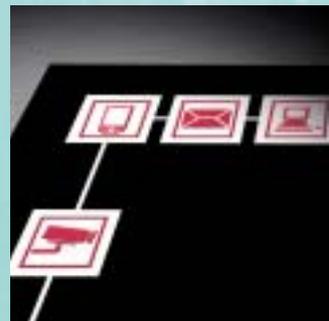
Providers and installers of mission critical systems face ever increasing challenges with regards to the monitoring of their networks and infrastructure.

From security, to data protection and IT equipment failure, managing and monitoring security for enclosure systems in multiple locations is time consuming, very expensive and can put unnecessary strain on limited resources. The ability to manage and monitor an enclosure system remotely via LAN or WAN or the internet is paramount in delivering IT performance.

The i-BOX solution provides IP based remote monitoring software which offers un-rivalled global management of rack security in many locations from a central location. This powerful, flexible and simple application can deliver a cost effective global management system that can drive down costs whilst speeding up deployment of mission critical system security policies. As part of a scalable solution i-BOX offers centralised monitoring from one rack to thousands of systems along with environmental and thermal management solutions. A comprehensive audit of all activity is recorded allowing the administrator to provide an audit trail of IT performance on a global basis. Email and SMS alerts provide an even greater peace of mind.

Cooper B-Line understands that the fusion between Security and IT is essential to provide a global solution for the monitoring of multiple sites. The integration of the i-BOX within the IT infrastructure delivers the key ingredient for delivering maximum IT performance.

- **IP Based**
- **Multiple Site Access**
- **Environmental Access Monitoring**
- **Security Alerts**
- **Simple, Flexible, Easy to Use**



i-BOX Configuration

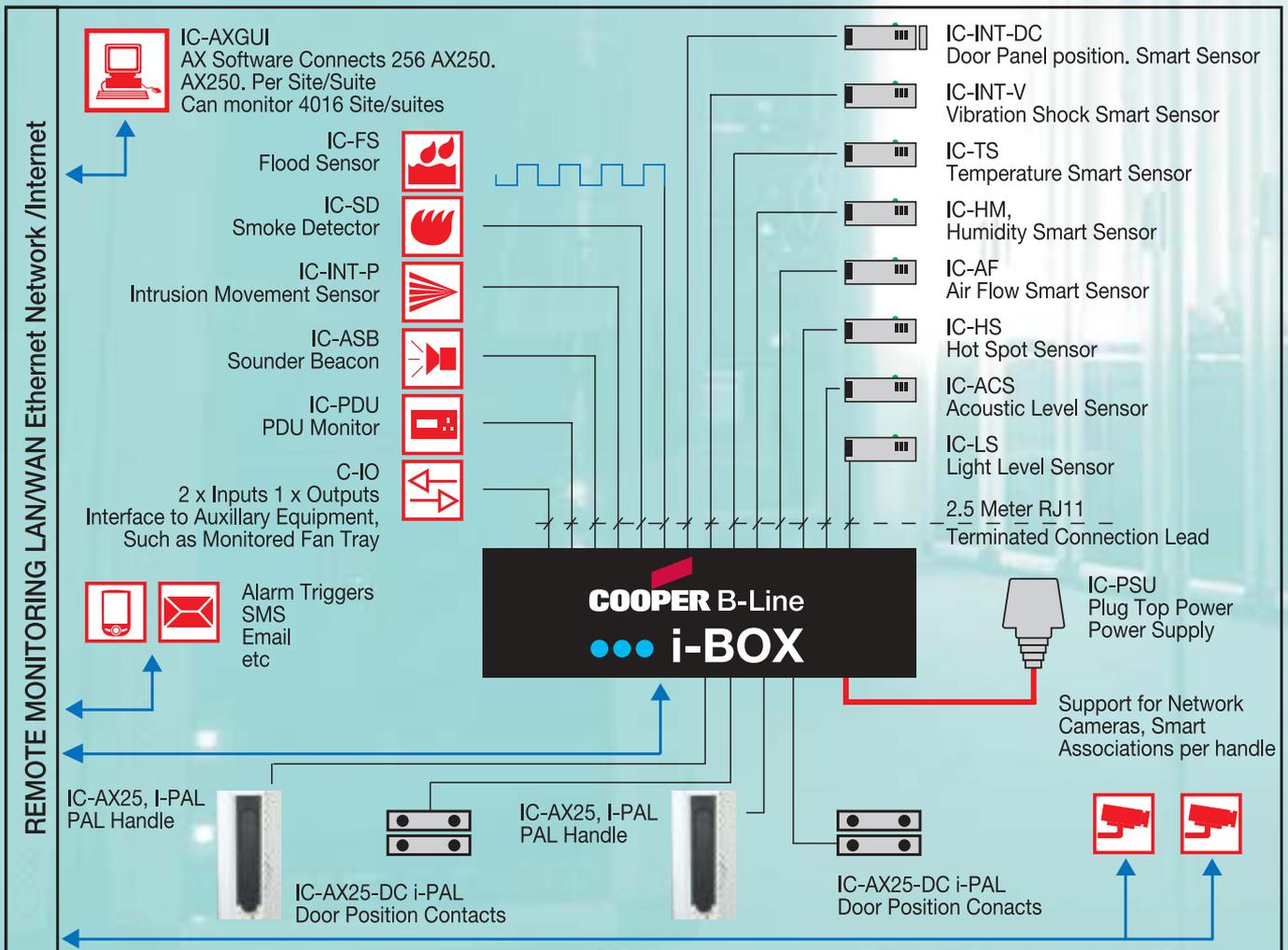
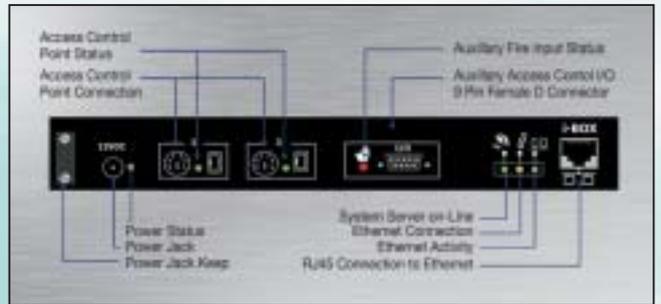
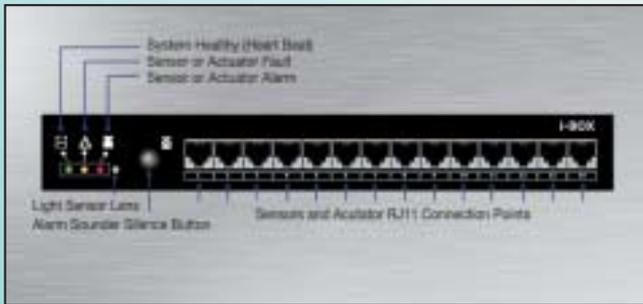
The i-BOX is a small and compact intelligent unit designed for enclosure system security and monitoring. Network connection is made via a 10BaseT Ethernet plug allowing access to LAN/WAN or Intranet/Internet using TCP/IP and UDP protocols. This scalable unit allows multiple i-BOX systems (devices) to be remotely monitored and administered.

Any combination of up to 14 smart sensors can be connected using a standard RJ11 plug connector. Wizard menu's automatically recognise the sensor type and are therefore configured accordingly. The current range of sensors listed below can be adapted to meet future respective applications.

As an additional benefit, the i-BOX has unique "on board" temperature, humidity and light level sensors. By the use of a small internal fan air is aspirated through the unit which in turn relays data to the supplied software.

The whole configuration process is assisted by a series of wizard menu's which will guide you through the set up process.

As highlighted in the diagram below each i-BOX can be paired with an appropriate IP network camera.



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