

## INTELLIGENT INFRASTRUCTURE MANAGEMENT

### What is an IIM system?

IIM (intelligent infrastructure management) is a system that uses a combination of web-based software and intelligent hardware, allowing the Infrastructure Manager to maintain an accurate, real-time connectivity database of active equipment and physical layer components. The system is designed to bring a traditionally inert network infrastructure under control and align it to management and diagnostic processes within the IT function. This gives an unprecedented level of visibility of network assets, how they are connected together and where they are physically located.

An organisation may be good at managing and monitoring active equipment, but often neglects the “nuts and bolts” physical layer portion of the network infrastructure – an IIM system makes it possible for items such as patch panels, outlets and patch cords to be factored into an overall database that updates itself automatically with every change in physical connectivity, effectively extending the capabilities of traditional ‘logical’ network toolsets down to the physical layer.

### Why do I need it?

So-called traditional methods of maintaining network documentation, like hand-written records or Excel spreadsheets, are dependent on manual updating if they are to be kept accurate. This is a process that is time-consuming, not real-time, and prone to human error. Particularly for large companies, or those with multiple network sites, this can become a major administrative challenge. Indeed, 80% of organisations admit that their records are inaccurate. This can result in a number of issues, such as extended periods of unplanned network downtime, high levels of asset wastage, reduced productivity and generally less value from an already constrained IT budget.

An IIM system will streamline documentation processes and substantially reduce the operational costs of network ownership, bringing a much-needed focus to quality service provision.

Provision for cabling administration is also a requirement of the Standards – this is referenced in EN 50174,

EN 6701, ISO 14763, TIA 606 and ISO 20000 (a recent standard for IT service delivery management).

Service Provisioning efficiency can be massively improved in terms of better response, reduced planning time and more accurate deployments and documentation by utilising the system’s automatic provisioning capability. This capability can be customised by the client to guarantee compliance with corporate security and connectivity policies and to further enhance ITIL compliance.

### What about the intelligent hardware and software?

Software is based on a Client/Server application on top of an SQL relational database. It works in combination via standard SNMP with a network topology of intelligent hardware (SPMax devices that perform scanning functions, and patch panels with LED indicators over each port) in order to control, map and monitor both the physical layer and active LAN equipment. SP4E includes a unique feature called P-LET (Proactive LAN Equipment Topology) that tracks end-to-end network connectivity from the Terminal Equipment (PCs, telephones, IP phones, printers etc.) through the connecting hardware, to the Network Equipment (LAN switches, PBXs, hubs etc.).

IIM typically operates on a cross-connect topology and can be installed in Category 6 and 6A cabling systems, in either unshielded or shielded variants and unshielded Cat5e. Fibre options include all current standard fibre types in SC, MT-RJ and LC formats. An intelligent patch cord with a 9th wire must be used between IIM panels in the wiring racks in order for connectivity to be managed and monitored. All patch panels are connected to a scanner system that sends and receives real-time connectivity information to and from the SP4E management station.

In some situations, it is also possible to retrofit certain IIM systems such as Brand-Rex SmartPatch technology into a legacy non-intelligent network.

### Doesn't this type of technology cost a fortune?

Assuming the customer is the right “fit” for the technology, the premium paid for IIM on day one is easily off-set by the savings achieved through process improvements and greater operational efficiency. Return on investment depends on the degree to which the system is deployed and how it is aligned to and utilised by related process and applications but could be realised after 12-24 months. It is vitally important to be able to demonstrate the ways in which savings will be made in addition to having a product argument. Using IIM for proactive rather than reactive infrastructure management can actually extend the life of an organisation’s investment in their network.

### Who uses this type of system?

Larger companies in general are more likely to see the benefit of using IIM – small organisations may be able to cope by just using off-line database methods – though even small companies can benefit from record keeping without human error.. Companies that perform a large number of moves and changes, have immature processes, or who have multiple locations to manage, are often good candidates for intelligence.

Sectors like banking and retail that are heavily IT-dependent and conduct high value transactions, need a resilient network which is a benefit that a real-time system like SmartPatch IIM can provide.

IIM is also a highly complementary tool for organisations adopting ISO 20000 and ITIL best practices for process optimisation and service management. These best practice disciplines include, for example, processes for configuration management, capacity management, change management and problem management. The ability to improve MTTR and Root Cause Analysis, along with the automatic population of the CMDB with real-time, reliable connectivity information are among many clear and attractive synergies between the features of IIM, and the disciplines set out in ITIL and ISO 20000.

### What about warranty and support?

SmartPatch hardware and software is included in the Brand-Rex warranty. Over and above warranting the components and performance of the system, consideration has also to be given to other parts of the intelligent proposition with options available for system maintenance, delivery of software upgrades, hardware replacements and Day One services such as database build and system commissioning.