

InfraStruXure™ safeguards crucial software development at EDS

Development labs benefit from APC's power distribution and management solution

EDS Business Acceleration Services (BAS) was formed to optimise business processes and deliver solutions through an iterative approach that typically enables clients to realise business value in 90-120 days and generate savings. Its aim is to apply proven and emerging technologies through a number of service practices including EAI and Web Services, Web Application Development, Mobile Applications, Web Content Management, Microsoft Consulting Services, Portals and Dashboards, and Application Security, all built on proven technology platforms.

One pivotal result of BAS work is the concept of the "Integrated Solution" which is a broad offering, pre-built in a laboratory to produce specific business solutions. Integrated Solutions comprise multiple EDS service offerings, combined to improve a complex integrated business process and delivered through a continuous programme of fast cycle solutions.

Says Alastair Miller, Regional Service Line Director, Business Acceleration Services, EDS Solutions Consulting: "Our holistic view of the integrated solution approach in solving organisational issues showed us that ROI and value release could significantly improve when multiple integrated point solutions, across different client business units, share a common infrastructure."

Integrated solutions

An example of an Integrated Solution is the Digital Work Environment, (DWE). "DWE allows a client to improve their SG & A costs and a percentage of revenue by enabling employees access to everything they need to do their work, activity based services and perform HR and Administrative functions, common services, in a single environment," says Miller.



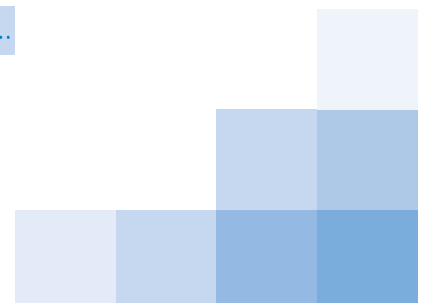
"The modular solution has allowed us to deliver our proof of concept developments with minimum fear of downtime. I think the fact that so far with InfraStruXure™ we have not experienced any downtime speaks for itself."

Satnam Gidda

Software engineer with Business Acceleration Services, EDS - United Kingdom



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Delivering high availability and uptime, on projects such as DWE, was key to BAS in order to deliver solutions on time and enable clients to begin generating income and making savings as quickly as possible. Faced with increasing demands from their clients to provide “proof of concept” models and proven integrated solutions, BAS required a development infrastructure that would be as free as possible from power outages and downtime.

Mike Wittenburg, head of the EDS Microsoft Practice (Southern Region) says: “EDS needs optimum reliability to allow its portal and prototype work to proceed unhindered by technology and power problems.”

For its Uninterruptible Power Supply (UPS) needs, EDS Business Acceleration Services turned to American Power Conversion's (APC) InfraStruXure™ UPS solution, a modular approach to power management that is well suited to EDS growing requirements and use of different operating systems for different projects.

EDS installed InfraStruXure™ in their proof of concept laboratory to power the servers on which software integration and development is carried out. The equipment installed is the InfraStruXure™ A 12kVA model, which includes one UPS rack, a one row expander rack and an expansion rack. Running at half load (6kVA) the A model provides EDS with a doubling of capacity and 200% redundancy; if one spare power module (power or battery) fails, another is available to take over.

The A model allows for additional, updated modules to be added as requirements grow. This makes it well suited to environments where growth is anticipated and where new technology modules can give the benefits of the latest developments in power management and distribution.

A modular architecture

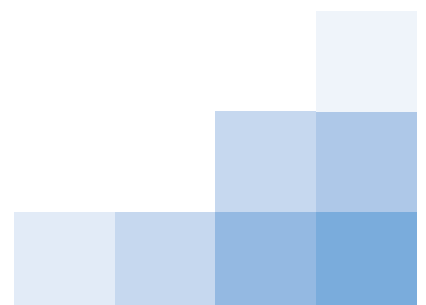
Traditional power management architectures are often rigid with a central UPS system, fixed cabling and circuitry to distribute power, based on the perceived power requirements when the datacentre was first built. Often these projections are inaccurate with UPS systems running below capacity, however since the systems themselves are inflexible they cannot be added to should the organisation need to upsize.

InfraStruXure™ challenges traditional datacentre architectures by offering a “pay as you grow” approach. Modular increments of power can be purchased, as and when required, and fitted within standard 19in rack enclosures. Similarly, the cables and circuitry required for power distribution are all modular and built into racks, enabling the solution to be quickly and easily extended, re-organised or moved, as required.

With its quick deployment of power infrastructure, InfraStruXure™ has clear benefits to any company that deploys data, enabling the power supply to be tailored exactly to meet demand as customer power requirements change, ensuring IT infrastructure investment is protected.

Scalability and flexibility means reduction of costs

For EDS this was an attractive proposition. “InfraStruXure™ means you can be far more flexible with your planning, and grow data centre power management accordingly,” says Satnam Gidda, a software engineer with Business Acceleration Services. “Scalability like this can reduce costs, which can either be passed directly on to clients or through lower priced projects. The InfraStruXure™ approach also enables servers to be configured to allow various architectures on various platforms such as Unix and Windows.”



The system has one screen for monitoring server performance, which is a big plus. Without the 'one screen' environment the client would have to have one screen per server and a lot of cabling. InfraStruXure™ allows the client to deal with the power management system from a single screen and that makes for a manageable, modular way to handle its resources.

Mike Patterson, European Strategic Alliance Manager for APC believes that the solution is ideal for companies like EDS: "InfraStruXure™ is much more than just a UPS - it's a power distribution and management solution that also handles UPS and load distribution needs. These features are realised through software that interrogates customer equipment and allows the customer to set a threshold for power requirement in a network environment."

"One benefit of the solution approach, particularly for EDS is that the right power goes into the right rack, and load distribution can be optimised," says Patterson.

InfraStruXure™ can shut down the main power supply and supply power from batteries to customer equipment. It also allows the customer to monitor the status on the UPS, run self-diagnostics to ensure it is functioning properly and to check if maintenance is required. It also judges if the batteries are in prime performance mode. If there are problems, InfraStruXure™ simply alerts the customer via alarms,

including an email message, if one of the batteries is under performing.

"It allow the customer to access their servers, even remotely if required, in the event of a mains power failure, and still benefit from all the features as if mains power is still on and functioning 100%," says Patterson.

For EDS, having a "clean" power supply that can be fine tuned over a network to provide customer-selected load distribution per server, is only one benefit of using a power distribution and management solution like InfraStruXure™. When it comes to software development and ensuring projects are ready for the bid stage, such a solution can come into its own by ensuring that the servers

continue to operate regardless of whether there are power outages or 'spikes' in the power supply.

The installation of InfraStruXure™ has changed the way EDS can view their power protection needs, concludes Gidda: "We aim to utilise the most appropriate technologies in order to augment our customer offering. The modular solution has allowed us to deliver our proof of concept developments with minimum fear of downtime. I think the fact that so far with InfraStruXure™ we have not experienced any downtime speaks for itself."

Ensuring that the proof of concept labs at EDS receives the optimum power for their needs is only part of the story. Growing and adapting to the labs' requirements in a demanding environment remains the challenge.



EDS headquarters

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