

Green Project of the Year:

It seems that nearly every vendor is jumping on the green bandwagon. So far, environmental issues have not been at the forefront of many organisations – but that's beginning to change. Which workplace has done most in the past year to reduce its carbon footprint; this could be through a change in policy (such as increased teleworking), a switch to virtualisation or a renewed emphasis on energy-efficient products.

Name of the project:

Comtec Datacentre

Aims of the project:

To become a more environmentally sustainable business by implementing a datacentre which used the most energy efficient technologies available today.

This would not only allow Comtec to provide its hosted services in the most environmentally sustainable fashion possible, but would further act as a showcase for all Comtec's own datacentre build/consultancy customers. All of this is consistent with an overarching strategy employed by Comtec that also incorporates numerous other green measures.

Green Credentials:

Comtec Power designed and installed a datacentre using technology from the innovative APC MGE InfraStruXure® range. By using the APC product suite, Comtec's datacentre benefits from being 'right-sized', meaning it uses only the power and cooling that is needed today, which helps manage the energy efficiency - and expenditure - of the datacentre.

APC InfraStruXure® Technical Specifications

- APC SX rack enclosures that address high-density server and networking applications to balance power distribution and cooling
- APC Symmetra PX UPS power protection system, scalable to 80kW N+1, providing resiliency, redundancy and scalability
- APC InRow RC cooling units for greater temperature control, preventing the recirculation of exhaust air to sensitive IT equipment
- APC InfraStruXure Manager to provide central monitoring of entire APC solution
- APC Switched Power Distribution Units providing managed power to all cabinets and monitoring back to management systems
- APC Environmental Monitoring deployed to flag-up changes in the datacentre environment, allowing remedial action to be taken quickly, and remotely

Perhaps the most progressive environmentally sustainable aspect of the datacentre is its hydrogen fuel cell. Comtec's new datacentre incorporated one of the first fully operational hydrogen fuel cells within a datacentre environment. Not only does this bolster Comtec's own green credentials, but it also enables its existing and prospect customers to gain a tangible insight into the advantages of new, emerging technologies. The hydrogen fuel cell represents the epitome of green energy, emitting only water and air as waste products, giving Comtec customers an insight into the future of the datacentre environment.

The new facility demonstrated the Comtec 'eco-structure' philosophy for datacentre design, which balances the requirements of power and cooling for maximum efficiency and minimum waste; providing existing and prospective customers with a visible, functional example of datacentre best practice.

Scalability was a critical requirement for the datacentre, enabling Comtec to balance the needs of power and cooling with what the business requires here and now, and the ability to scale as and when is required. From the outset, energy efficiency was at the top of the agenda in order to become more environmentally and economically efficient in the use of energy.

The design truly delivers on scalability and being 'futureproof'; where infrastructure is right-sized to meet the needs of the business today, with the modularity to scale with the business, not ahead of it. The datacentre at Comtec, one of only a few recognised as 'blade-ready', has the resilience and back-up power to ensure business continuity for Comtec and its managed service customers.

Another significant hurdle to overcome was space. Rather than build an extension to the premises, to maximise the space available at its head office, Comtec had a particularly innovative solution; they quite literally looked to the heavens. By planning the amount of *ceiling* space that the datacentre should occupy, Comtec set about installing a new 'cut for size' re-enforced mezzanine floor plugged minimally and non-disruptively into the upper reaches of valuable warehousing space.

Due to the thorough prior planning and extensive technical expertise leveraged by Comtec, the datacentre implementation resulted in maximum efficiency in terms of space, energy use, carbon emissions and maintenance. The datacentre is also fully capable of supporting high-density environments and uses rack-based architecture to maximise scalability of UPS systems, cooling and application platforms, adhering to the 'pay as you grow' ethos.

Outside of the green ethos that underpinned the designing and building of their new datacentre, Comtec underpinned this with a 'practice what you preach' mentality to carrying out the companies work in the most environmentally friendly manner. This included;

- Installing sensor activated lighting to ensure lights were only used when needed
- Specially designed waterless urinals have been installed to keep water use to an absolute minimum
- Policies are in place to ensure that all cardboard and paper is recycled
- Battery/UPS (Uninterruptible Power Supply) disposal procedures make sure that hazardous materials cannot affect the environment
- Nick Claxson, Managing Director, even swapped his Hummer 4X4 for a Toyota Prius hybrid car, one of the most environmentally friendly motor vehicles available.

Success:

The new datacentre is the central tenet to the Comtec green ethos; both to companies Comtec supports via its hosted ICT services and to datacentre build and consultancy

customers who can witness firsthand the possibilities of energy efficient technologies. Couple this with the obvious and visibly apparent cost savings that having such energy saving kit delivers, Comtec has been delivering growth that this green for themselves and their customers.

“It was a crucial requirement that at all stages this datacentre delivered on what I think are very high green standards that are embedded into Comtec’s strategy. We wanted to send out a very strong statement that we could back up our words with actions; environmental sustainability has not only meant we are maintaining our green ethos, but by utilising such things as the hydrogen fuel cell we are investing in the technology that is fuelling our growth.”

Nick Claxson, Managing Director of Comtec

“Efficiency and sustainability are key attributes for modern datacentre deployment, our Gold partner community of which Comtec is part, are equipped to meet these needs.”

Nick Tardieu, Mid Market Sales Manager - UKAPC-MGE Critical Power and Cooling Solutions

“As a company we are dedicated to pursuing greener business operations that complement our CSR goals and our first step towards this has been to ensure the datacentre at our new Southampton headquarters is designed with maximum uptime, efficiency and economical considerations. The fact that dealing with Comtec will help us achieve this and consequently result in a reduction in Garmin’s carbon footprint is a distinct bonus.”

Bob French, Facilities Manager, Garmin Europe (www.garmin.co.uk):