

storage | data capture

Still reliant on clipboards and pens? Steve Yellen, **Aperture Technologies**, and Joe Coschera, **Information Systems Associates**, say it's time to migrate to the 21st century.

Helping hand

Data centres are as unique as the organisations they serve, but there's one thing that we've found holds true for all of them: the documentation is always less accurate and complete than expected. Whether data centre management believes the documentation is 90% true, or even only 50%, they're in for a nasty surprise.

At one major financial services institution, we collected inventory

information from its data centres and found that it had 40% more devices and racks than the managers thought they had. At one commercial bank, we discovered more than 1,000 devices that the data centre managers didn't realise existed.

It's not just paper figures, either. There's money at stake. If you don't know what you've got, you can't consolidate or move it; you can't optimise your data centre for your business needs, assess your energy or cooling requirements, or effectively manage lease and maintenance costs. You end up buying new equipment because you can't find existing devices. When invoices arrive for leased equipment, you have no choice but to pay them on trust. And hope that the leasing company has better records than you do.

When companies take their first steps towards Data Centre Service Management, introducing disciplined, service-oriented management of physical assets in the data centre, the first step is to create an accurate inventory of what is already there. For most companies, the way this is done



Above:
Steve Yellen,
Aperture
Technologies

hasn't changed much since the 1970s. It involves visiting each rack, clipboard in hand, and writing down what's there. Later on, the data is transferred into a spreadsheet or two. Much later on, the errors become apparent: how can two servers be in the same place, for example, or why is this power load so inconsistent with what we'd expect from the inventory?

The data centre industry lags so far behind other sectors in this regard. In retail, stock counts have used handheld data capture devices for decades now. In civil engineering, ruggedised handheld devices are used on the construction site to ensure data is entered once only, to avoid any transcription errors. And yet in the data centre, many still depend on the trusty and rusty clipboard.

Handheld data capture technology is available for the data centre to dramatically improve the accuracy of documentation. On the first pass, organisations using manual data capture processes sometimes achieve an accuracy as low as 25%. Documentation accuracy improves with subsequent passes, but it's a laborious, costly process. Using handheld data capture devices, it's possible to achieve accuracy of 95% on the first pass, and as high as 98-99% on the second pass. Many organisations would be satisfied to have 95% accuracy at any time, let alone with the potential to push it higher still.

There are two reasons for the improved accuracy. Firstly, there are no transcription errors – data is transferred

electronically from the handheld device into the configuration (inventory) database. Secondly, the data capture device can provide intelligent feedback as data is entered. It can show a picture of the device for visual verification and use a symbol library populated with device specifications to fill in some of the blanks. The handheld device can also conduct on-the-spot error detection, noticing if two devices overlap or are incompatible with the physical resources available, for example. By providing feedback to the right people at the right time, the time taken to fix human error is reduced to seconds. With manual input, it can take days to spot a conflict and then revisit the rack to re-record the data.

For that reason alone, handheld data capture is much quicker. Once the time savings are added from not having to transcribe data from paper to PC, the data capture process can be cut from between two and five months to just a couple of weeks.

Data capture is only half the battle, of course: change is continuous so it's essential that organisations have the tools and processes in place to keep this information current. The inventory will only be useful as long as the initial data capture is accurate, and all subsequent moves, installs and decommissions are recorded properly. There's no point in having bad data but managing it well, and there's no point in having good data and allowing it to decay through neglect.

Faced with the prospect of running a data capture project, managers can despair. But a good partnership between data collection and configuration management systems can reassure data centre managers when they need to have their hand held. It'll be all right. ●