IT analytics: The key to maximising business performance
Businesses turn to analytics to reap maximum benefit from IT resources

Companies are looking to gain optimum efficiency and output from their IT departments. Lisa Kelly reports on how IT analytics could be the key to reducing costs and increasing performance

The pressure for businesses to get the most out of their IT environments is fuelling interest in IT analytics. Businesses want to extract the information necessary to drive down costs, push up performance and ensure that IT is finely tuned to business requirements.

“In the past, it was possible for CIOs to set up IT infrastructures in a static fashion: Applications would have dedicated servers and the same network and storage. CIOs would keep an eye on an application, but not much would change as things were built once, based on the worst-case scenario they could afford, and left alone. Server capacity was often only 10-15%,” says Tony Lock, programme director at Freeform Dynamics.

Overprovisioning of infrastructure at 90% is not tolerated in today’s tough budgetary climate, where efficiency and cost optimisation are vital and there is real pressure to reduce IT operating and capitalisation costs. Advanced IT analytics is not just about measuring resource allocation however – it should also measure what really matters to the business to optimise business performance.

“It is now possible with IT analytics tools to optimise the IT environment, which makes the infrastructure more dynamic and flexible. But not all application usage changes at the same time as demand varies. You need to know how the separate business functions rely on the IT infrastructure, what the business is doing, and why, in real time,” says Lock.

Lock points out that it is not just large businesses with extreme variations in business cycles that can benefit from this real-time insight.

IT analytics can show you how heavily each business unit uses the IT infrastructure and how they are using it, in real time
“All businesses will show variability in their use of resources including sales cycles, end-of-quarter report cycles and particular job functions within an organisation. This can vary on a weekly or hourly basis,” he says.

Advances in the science and technologies of IT analytics tools mean the most sophisticated are able to exploit big data to give real-time insight, says Ovum principal analyst Michael Azoff.

“Today IT analytics is not just about aggregating metrics about the infrastructure: the tools make use of individual time series and advanced correlation technologies, some of which are based on traditional statistics while others are based on advanced pattern recognition and neural networks,” says Azoff. He says these advances mean the tools are making use of the latest developments in data processing and capturing, allowing the business to process in real time and pick up things that were not possible in the old days.

“If a server fails everyone notices, but businesses want to be able to pick up problems before users are affected and pre-empt them. Deploying IT analytics that can pick up faint signals enables the CIO to see the trend of a problem arising,” he says.

Some businesses are better placed to make use of IT analytics than others but even a startup relying on a cloud provider is likely to benefit indirectly.

Brendon Petsch, IT director of GRITIT, a risk management specialist that provides gritting and snow clearance services, says IT analytics is on the agenda to explore further in his organisation. “As an internet-based business, uptime is foremost. We rely on cloud services and receive routine reports on uptime and resolutions within and outside service-level agreements, but we could do a lot more with IT analytics and there is going to be a focus on analytics to become more proactive,” says Petsch.

Increased use of big data

Petsch wants to use analytics to prevent problems before they happen and make more use of micro and local monitoring. He is also interested in using IT analytics to maximise the use of big data within the company to give real-time insight about how the business is performing.

“We use a lot of real-time big data in our operations and continually collect data from all aspects of the business. We could use more of the data to a finer degree to measure other aspects of IT and business performance,” he says.

Businesses with complex IT environments, retailers and other organisations that interact with customers in real time and online have the most to gain from the deployment of IT analytics.

“A retailer that interfaces with customers can’t allow the tiniest glitch, or else it will lose customers to competitors. In the new world customers are very impatient about the slightest transactional delay. IT analytics is not just about maintaining a high performance, it can mean not losing business,” says Azoff.

Azoff says the business cares about metrics but traditional measures such as uptime don’t register with business users. “Uptime is a rather blunt indicator and doesn’t address the finer points of e-commerce, where a few seconds of delay can make all the difference between a satisfied customer and one that is lost to a competitor. Businesses need meaningful metrics, as they need performance to be optimal throughout any process, and IT environments need to be optimised, including during peaks of activity such as lunchtime and break times,” says Azoff.
Decisions have to be made if there are competing demands on resources and Lock says this is where IT must work closely with the business. Ensuring that business needs are met in real time is a case for deploying IT analytics, as well as the principle that the software can save money. “IT analytics help CIOs to operate the IT environment, but IT cannot select the most important business processes in a vacuum. Business leaders need to make these decisions at a user level. Understanding response times needs monitoring that is active all the time, so users can look at what is happening in real time,” Lock says.

When deploying IT analytics, businesses should determine what they want to monitor and decide on the business service-level requirements. “Measuring IT in terms of business impact such as user response time is getting better as tools improve. CIOs should use service levels to help decide what to monitor and to meet business user needs,” says Lock.

CIOs are stressing that businesses can work more effectively by deploying IT analytics. There are many variables that can affect the efficient use of an IT environment, including power, licences, infrastructure, software and people.

Better understanding and communication

“Businesses need to understand what is going on and why – only then can CIOs ensure resources are allocated in line with the business. Monitoring, management, analysis and automation can be wrapped together with policy to decide what happens when and why. For the best outcome IT and the business must work together on the questions of what we are doing, what we should be doing and what is important to the business,” says Lock.

Optimising IT services for positive business impact to minimise cost and maximise profit is a goal for organisations, but sometimes the inefficiencies that IT analytics uncover is surprising.

Steve Wallage, managing director of the consultancy BroadGroup, argues that there are some tasks that IT should not run blindly. “A company drove a crude cost allocation between departments, but after deploying IT analytics it was discovered that the unit, which was perceived as being very profitable, had IT costs that were far higher and its profits were not so stellar,” he says.

Wallage says deploying IT analytics should be regarded as a journey. “It allows businesses to look at optimisation and also to understand future execution and deployment. The first stage may be consolidation to gain efficiencies and cost savings, but it can help with issues that CIOs often struggle with, such as evaluating the most effective environment for the business of the future, including what works well within a cloud environment,” says Wallage.

CIOs need to understand their IT environment as it develops. “IT analytics can uncover what is happening within the IT environment and determine future requirements, risks and issues. Tools originally just measured utilisation and efficiency on the hardware side, but now they are more sophisticated and can reveal issues such as software, apps and licensing,” Wallage says.

Inefficiencies within the IT environment may encourage organisations to deploy IT analytics to take out costs, but there is more to IT analytics than that. “Look at broader issues, not just cost savings, such as how to use the cloud in a three- to five-year plan, or how to pursue a greener strategy,” says Wallage.

“To exploit the power of IT analytics, it should be treated as a way to allocate IT investment so it is in line with business goals. Improved evaluation of IT resources and aligning IT investments with business requirements today and going forwards can add to the CIO’s authority.”

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CIOs can raise their authority in an organisation by using IT analytics to align IT investments with business requirements