

## Positive impact

Climate Change Agreement for UK data centres already driving change

### SPECIAL FEATURE: SOFTWARE & APPLICATIONS



#### SOFTLY, SOFTLY...

A software defined approach

### PRODUCTS & INNOVATIONS



AIT Partnership Group has added a mobile App to its AIT PIMs software solution.

### INTERVIEW



#### MEET...

Aaron Auld of Exasol



# NEW TRICKS



**Bharani Kumar Kulasekaran** at **ManageEngine** explains why today's IT teams need a software defined approach to data centres

**N**o matter what their size or the sector in which they operate, IT is an integral part of today's enterprises. It improves productivity and by bringing in a degree of automation to routine tasks it ensures business continuity, enhances processes and helps to nurture growth.

As a crucial part of any company, an IT department's chief aim is to cater to its end users, making it easy for them to adapt to changes in information technology, while searching out new ways of improving IT infrastructure so a business can achieve its organisational goals.

This may seem straightforward enough, but IT teams now face

an ever increasing number of management complexities and problems that occupy their time as never before. Dealing with these questions is all the more vital when all businesses and enterprises rely so heavily on IT, especially for the data used for internal purposes such as running CRM or certain legacy applications. It is equally critical

for external applications, such as an online bill payment portal, that involves the customer directly, making uninterrupted service delivery the IT administrator's top priority.

### The data centre

Data centres have an irreplaceable function in today's IT scene, which is true for all organisations, whatever their scale. Small, in-house data centres meet the requirements of some businesses, while others utilise several small and medium sized data centres, offered by various providers.

At the other end of the spectrum, many organisations opt for Google or Amazon, depending on their requirements and budgets.

However, whichever of the three structures is selected, the basic problems of managing IT are similar. The primary concern for an IT team, whether working for the data centre or the client, is ensuring uninterrupted, 24 hour service delivery. This has to be a golden rule, given that levels of dependency on data centres are so high and downtime so horrendously expensive.

### Priorities and challenges

With this in mind, the top three challenges faced by IT teams responsible for providing services via a data centre are visibility, scalability and ensuring end users have a trouble free experience.

Achieving end-to-end visibility is a major challenge for most data centres. There are tools on the market that make it possible to a degree, but pinpointing the exact factors that affect service delivery is quite challenging. For example, a monitoring tool could raise an alarm when a critical server is down, but it may not have the intelligence

to map the services affected, precisely because it normally relies on the server.

Unfortunately, it is the data on the services that are affected which is more important than knowing which device is down. The reason, of course, is that the end user's concern is about the service and not whether a device is working.

From an end user experience point of view, it is important to make sure that the hardware/software footprint is not widened.

This applies where an IT department has to roll out a new service in an organisation. This situation could very well be a disruptive experience for teams within the department such as those responsible respectively for the network, the server, Apps and security. There are several strings that need to be pulled from several ends and the whole exercise can become increasingly complex, depending on the nature of the service and the number of users it has to reach. All of this has to happen without the end users noticing any difference in the existing services that are affected.

### Virtualisation

This is where the software defined data centre (SDDC) comes in. It could well be the difference between success and failure when addressing the challenges mentioned above. A software defined data centre is one where the hardware components are completely abstracted from the service delivery components. This effectively means virtualising the data centre and central control of all its aspects – computing, storage and network.

This means that the physical problems suffered by the data centre,

when for instance, a device goes down due to faulty temperature, do not affect the services used by an end user. In fact, the end user will not even be aware that something went wrong, because the service will continue uninterrupted.

Since the physical aspects can be controlled by high level software, SDDC gives better control over these elements, meaning that troubleshooting activity takes less time.

### Service without interruption

The primary aim of a software controlled data centre is to focus on service delivery without interruption, giving IT teams reassurance that the end user experience will be unaffected, even if a server is down or a switch failed to work.

The easy scalability of SDDC means adding new services is no longer a painful activity, which relieves pressure on IT teams and helps bridge the technical gaps between them when new services are launched. Further to that, SDDC gives them the flexibility and agility they require when offering different services. It literally takes seconds to extend a service many notches higher across multiple levels or vice-versa.

As a result, IT will benefit from minimal troubleshooting, while all their routine tasks are automated through intelligent software. This leaves them free to focus on their primary objective of improving an enterprise's efficiency through IT instead of battling recurring problems.

Thus, SDDC simplifies IT and makes life much easier for the teams behind it. It is a trend set to be adopted widely in the near future and may well redefine how IT works in the years to come. 