

Facing location-independent computing challenges

 By [Brent Lees](#)

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The explosion of mobile, cloud and social technologies has dramatically changed the business landscape. Today, distance is no longer a barrier to business success. An organisation's applications, data centre and offices can be opposite sides of the world, yet the business can still achieve the same reliability and performance that it has come to expect.

This is the definition of location-independent computing. The ability to turn distance and location into a competitive advantage by hosting applications and data in optimal locations, while ensuring flawless application performance and the best user experience.

Achieving true location-independent computing requires an application performance platform that maintains visibility no matter where or when the applications are located or accessed. But what challenges are IT leaders facing when moving towards location-independent computing?

BYOD is the new norm

Long gone are the days when computers were constrained by being bulky, immovable devices, tethered by cables to the corporate network in a corporate office. Smartphones and tablets now surpass all other forms of computing both in terms of innovation and consumer interest. These new platforms require a different approach to application development, in order to support variations in form factor, differences in browsers, and the variety of operating environments.

The Corporate Network has changed

The corporate network has evolved to support access literally anywhere. Technologies like Wi-Fi have freed users from the constraints of physical cabling and widespread accessibility has been made available by Internet Service Providers such as cable operators and mobile phone companies. This means that IT does not control the entire delivery path for modern enterprise applications, which introduces challenges in terms of performance and availability.

Apps 24x7

The expectations for availability of information and applications have never been greater. Today, we operate in a 24/7 global workplace. Therefore, IT must ensure that the systems supporting the business and systems used for remote access for employees are always available to support these increased expectations. Even a small performance issue or momentary application outage could result in substantial revenue loss or damage to customer relationships.

Billions of apps

The number of business critical applications in the typical enterprise has grown significantly. This has resulted in a substantial portion of the IT budget being allocated to the groups responsible for building and delivering applications and has led to IT having an even greater role in the success of the business. With IT's success intrinsically linked to these critical business applications, having comprehensive visibility into application performance and end-user experience has never been more important.

Cheaper, faster and better

Organisations are under pressure to reduce costs. As a result, many are turning towards initiatives such as data centre consolidation, cloud computing and virtualization to ensure that capacity is aligned with demand and shift it outside of the

traditional data centre. Implementing any of these solutions significantly changes how an application is delivered. This means applications can no longer be treated as "static" because the underlying infrastructure that services the application might completely change over time.

Virtualisation is not just for servers

Over 15 years ago the move towards virtualisation started with the creation of technology to virtualise servers. That trend has continued with the move towards virtualisation of network infrastructure commonly known as the Software Defined Data Centre (SDDC) or the Software Defined Network (SDN). As this trend develops, it will further confound any effort to understand why an application is unavailable or performing poorly as there may be nothing about how the application is being delivered that is the same as it was when initially deployed.

With a multitude of challenges to overcome, providing visibility into critical services is a daunting task. As a result, businesses need the support of a trusted application performance management solution that can understand both the logical network and physical infrastructure.

For IT teams, this means implementing a flexible monitoring solution that can be embedded as part of the infrastructure, monitors end-user experience directly and can efficiently store and retrieve the relevant data quickly. Only those businesses that invest in monitoring solutions that are able to adapt to this new fluid environment, will be able to fully embrace the benefits of location-independent computing.

ABOUT BRENT LEES

Brent is senior product manager at Riverbed Technology. Brent joined Riverbed Technology early in 2012 following a career in IT & Communications spanning over 30 years.

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