Solving your Cloud Testing Challenges with the Maxwell Family of Network Emulators

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App Deployment Was Easy

Ten years ago, it was straight forward for a company to deploy a new application. The enterprise decided on a new application or technology that would improve its bottom line. IT staff installed the new application on the server. Users learned the new system, and accessed it from their PCs on the local area network. User perceived response time and performance were non-issues as the network consistently delivered. There were no surprises.

As the enterprise expanded, the number of users expanded. More users meant heavier loads on the server. At some point, the number of clients degraded server performance and IT staff had to upgrade the server to increase capacity and maintain performance.



Today, deploying applications is no longer so straightforward. A new application typically resides on multiple virtual servers that may be load balanced and distributed worldwide. Users access the app from PCs on the LAN, PCs at home, smart phones, tablets, and other wireless devices. Authentication of users and data encryption are both paramount, and yet security breaches still occur. Backups are no longer local, but occur at odd times over the Internet to hosted storage services. All these situations create relentless challenges to application performance.

Given such a challenging operating environment, application performance should be tested under a full range of network conditions, ranging from the routine to the extreme. The application developer may have tested his or her app on a server with a PC on the LAN, and with one smart phone over one local wireless access point. In most cases, that is the extent of testing. Yet such limited testing represents about 10% of possible usage scenarios.

Is that sufficient? Does one need to know prior to deployment how the app will perform under 100% of our usage scenarios? Why not just try it out? Why not give the app to a handful of users and see how they like it?





Case Study: Video Collaboration and Distribution

A company deployed a new video collaboration and distribution system for the chicago headquarters and other North American branch offices. The successful deployment meant cost savings and decreased time to market due to the new communication and collaboration efficiencies

As staff usage increased, however, certain situations proved problematic. For home office users in the midwest, employees in hotel rooms throughout the country, and employees working at key customer sites, the video performance degraded significantly. Staff in these situations simply could not use the system!

The company had a major problem. While some staff enjoyed high performance from the system, just as many experienced significant limitations. What could the company do?



How can YOU avoid this experience?

Managing Pre-deployment risk

InterWorking Labs offers the Maxwell family of network emulators to emulate real-world network scenarios in the lab, before deployment. The plan for deployment, limited deployment, or non-deployment, begins when you understand the characteristics of the new application.

With pre-deployment testing, you identify possible connection points (e.g. DSL, satellite). The ITU G. 1050 model defines the characteristics of these connections and Maxwell Pro then emulates the performance based on the ITU spec. Using Maxwell Pro to test the application over each type of connection pinpoints the real-world performance issues.

The pre-deployment testing uncovers embarrassing failures in the usage scenarios for the video collaboration and distribution application. Armed with specific performance data, facts, and figures, the implementation team can meet with the network engineering team to discuss options for addressing the issues, such as:

- Re-engineering key points of the network infrastructure.
- Reconsidering connectivity options at remote locations (alternative ISPs?)
- Finding a video collaboration solution with better compensating algorithms



Save Face; Save Money

Don't get caught unprepared! InterWorking Lab's Maxwell family of network emulators can help your IT department fully test promising new equipment and apps before you deploy them. Allow us to save you and your business from pricey failures.