Companies could reap rich rewards through cloud computing, but they need to build a solid foundation.

Cloud computing is ubiquitous in technology conversations. It’s not just a buzzword, but a catalyst to a new wave of thinking. Cloud is still yet to show its full capabilities as the demands on the world’s datacentres continue to rise – open source and virtualisation are spearheading this movement.

There are many opportunities for organisations to benefit from cloud computing and slot it into their overall IT strategy. However, instead of getting overwhelmed and “eating too many elephants” it’s important to prepare the groundwork for cloud and pace the business by laying a solid foundation.

**Evolution Not Revolution**

Cloud is not a simple, linear, plug-and-play project. Any cloud roll-out should be at a steady pace that is comfortable to the adopter, while ensuring that portability, manageability and inter-operability remain consistent across the IT environment.

Your in-house infrastructure is crucial to finding the best way to adopt an emerging technology and where to add cloud into the mix. The flexibility inherent in open source solutions is ideal for this evolutionary approach.

Cloud computing is highly dynamic and flexible enough to handle workloads of all different sizes. It’s mobile too, with applications running from multiple locations, all at different points in their life cycle.

At the core of cloud is the ability to manage many virtualised images – naming them, storing them, version control etc – and the more images you have in play, level of difficulty rises when configuring, patching and updating them. Handling this growing web of information is not a straightforward process.

**The Benefits of Standardisation**

With such complex system management requirements, standardisation, underpinned by a common or standard operating environment (SOE) is of paramount importance. Having an SOE is essential to gaining the
maximum benefit from cloud computing. It helps in managing and containing the complexities that inevitably arise when configuration variance has spread across the IT and one-off configurations and silo systems have multiplied.

As numbers of platforms begin to grow, it is worth the time and effort to review existing systems and plan a migration to a standard operating environment. Indeed, without the standardisation of platforms and process, it’s impossible to add further functions that make up a fully operational cloud deployment.

At Red Hat our view is that there is simply no point investing time and energy in transferring imperfect solutions and processes into the cloud.

DON’T KEEP REINVENTING THE WHEEL

It is a fact that most IT infrastructures will have grown in a fairly ad hoc way over the years, with a server being added here and extra storage there. Few IT managers have the luxury of starting from scratch in designing the infrastructure that underpins the business.

Red Hat customers have mentioned that moving from Unix to Linux has resulted in a productive consistency across their server estates with the alleviation of siloed management resources being the main advantage conducive to the balance sheet and upcoming and existing cloud projects.

Also, the introduction of automation is critical to driving standard, repeatable IT system management processes, which in turn minimises and can even cut time-intensive manual interventions. Consistently capturing and recording knowledge of IT systems helps to create a viable, sustainable system management process, with all the efficiency benefits and impressive economies of scale that repeatability brings.

The financial services industry is certainly a great supporter of expanding their open source estates from a few physical systems, to thousands of virtualised platforms, which run a range of workloads. Without a scalable management environment or SOE, getting beyond fifty systems, each running two or more workloads just does not happen.

REASONS FOR MIGRATING TO CLOUD

The goal of creating a standard operating environment is to develop standards that can be implemented during future migrations, meaning that resources can be redirected to developing other innovative and strategic initiatives that drive value back into the business.

Increasingly, as datacentres have become more virtualised, the standard operating environment has encompassed virtual platforms (versioning, deployment tools and so on). Move beyond SOE and add further functionality to cover aspects such as customer self-service and metering, and you have a cloud solution that will serve the business well from both management and financial perspective.

Malcolm Herbert is director of infrastructure consulting, EMEA, Red Hat – follow Red Hat on Twitter @RedHatNews