Mobile virtualisation

A valid response to consumerisation in the workplace?

By Josie Sephton, June 2010

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Given the push towards platform virtualisation as a way of optimising hardware resources, it was only a matter of time until mobile popped into the mix. Mobile virtualisation has been around for a couple of years now, and while it has a few proponents, it has been met with a lukewarm response from many. In terms of the end user domain – both consumer and enterprise – mobile virtualisation is still very much in its infancy. However, several companies, VMware and OK Labs have already invested heavily in this area and are starting to push it in a big way.

Is mobile virtualisation something that needs to be on the CIO's radar however? Like all new developments in IT, it can be difficult to separate the hype from the substance. While it is undeniably early days for the technology, it is worth examining just what mobile virtualisation might deliver, to the benefit of both users and the companies they work for.

Undoubtedly, the concept is an interesting one – allowing a phone to run multiple operating systems (OS) and a range of applications that don't need to take into account the platform, potentially gives users more flexibility in terms of what they really want from a mobile device. But at the end of the day, to many, this may seem a somewhat idealistic, nice-to-have solution. Do everyday consumers really need to run more than one OS on one device? Probably not. Individuals will often display a greater loyalty to one particular OS running on one specific device precisely because it delivers the interface and the applications that the user wants in the form that they want, and the need to change and extend that is questionable.

For example, people buy an iPhone or a Blackberry because of the whole package – physical device, interface and applications. And the importance to the end user of this relationship between the OS, applications and physical device should not be underestimated. From a consumer perspective, people often seem to value lock-in over flexibility, which renders arguments around mobile virtualisation redundant.

A more important potential benefit raises its head when we think about how mobile devices are being provisioned in the workplace. On the one hand, companies are increasingly focussed on the rising cost of mobility in the business, and there is a downwards pressure on corporate mobile subscriptions. On the other hand, they are having to more explicitly acknowledge the expectations of users in terms of form, function and desirability of technology they have been exposed to in their non-working lives as consumers.

A follow on from this is, with the proliferation of ever more seductive smartphones, users increasingly want to bring their own multifunctional, all-singing and all-dancing device into the office, in preference to using a dull, application-light corporate issue one.

This shift of consumerisation into the workplace is an increasingly hot topic among businesses. If users are allowed to bring in any device, with no constraints, certain processes will need to be addressed, such as properly configuring email, along with secure web access and corporate applications. The cost, risk and support overhead presents a worrying headache for IT managers, and might not even result in a device that is fit for work purposes. On this point of 'bringing your own device' into the workplace, it is difficult to mention this without the iPhone springing to mind. When we talk about virtualisation in this context, it is worth pointing out the fact that Apple's overarching approach is to totally lock down its devices, precisely to prevent this kind of approach being taken.

At the other end of the scale, if companies completely restrict choice around mobile devices, the likelihood is that individuals will bring them in anyhow, and try to hook into work applications irrespective of whether they are being properly configured and secured. Alternatively, if they are given a work device that they don't like, there is a possibility that they simply won't use it, which will negatively impact the value of implementing a mobile solution within the business. Worse still, irrespective of corporate policy, they may try to download personal applications on their company device, and unwittingly let something nasty in.

In this increasingly common scenario, what mobile virtualisation brings to the party is that it will allow for the company to create a corporate identity on the phone that sits alongside the user identity. With this, users can run both a work profile which provides access to corporate files and applications, and a personal profile which contains their own files, applications etc., without compromising company security or data. So the need to carry two devices – one for work, one for personal - or use a personal device in an unsupported way neatly disappears. Additionally, data on employees' handsets can easily be ported from device to device, meaning that it is easier for the business to recover from lost or damaged phones.

Using virtualisation in this way does not reduce the liability of a business if the device is lost, however. Liability is only reduced if the virtual machine – in this case the mobile device - and device data is well secured / encrypted. What is helped is the ability of the organisation to send out a copy of the virtual machine to a new device to speed recovery. But even this depends on the virtual machine being properly backed up or synchronised with a central data repository.

While all this sounds like good news from both a user and an IT management perspective, it isn't all going to be plain sailing. There are a number of possible downsides that need to be addressed. For example, the issue of phone ownership, maintenance and service delivery has the potential to open a rather large can of worms. While the user may be happy to have his mobile device configured with a work profile, if something goes wrong with it, who is responsible for repairing or refreshing it, particularly if work use overshadows personal use? How will financial considerations work around billing? And what will be the impact on general resource usage on the device itself? At the end of the day, will mobile virtualisation create more problems than it solves? All of these issues will need careful consideration.

To some extent there is there is something of the 'solution looking for a problem' about mobile virtualisation, and for many, it does beg the question of 'why bother'? But as consumerisation hits the workplace, businesses clearly need to address the issues it poses. And while mobile virtualisation may not be the ultimate answer, it may provide an alternative that, at the very least, merits further investigation.

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