



White Paper

Application Delivery Strategies for Today's Increasingly Mobile Workforce

Sponsored by: Parallels

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IDC OPINION

Organizations in Asia/Pacific are increasingly going mobile to get closer to not only their customers but their employees and business partners too. The rising need for organizations to transition to a mobile-first environment comes with its own set of challenges that every IT leadership team needs to grapple with. From securing the mobile access to corporate resources to managing the myriad device usage policies as well as the integration headaches that these new technologies present, it is no wonder that there is still a significant gap between the organization's vision for mobility versus its actual execution. While this may seem counter-intuitive to some, IDC believes that this is where virtualization technology can help IT departments address a lot of the challenges they face when rolling out and managing their mobility solutions. To get a better gauge of the trends shaping mobility and to uncover the relationship between mobility and virtualization, IDC conducted a survey across 10 countries across the Asia/Pacific region. Some of the key takeaways from this survey include:

- BYOD is a prevalent trend among organizations in Asia, with countries in ASEAN as well as Australia leading the way when it comes to support for BYO. **Seven out of 10** organizations in the region either already have a BYO policy in place for mobile devices or are planning to roll out an initiative within the next 12 months. Even for laptops, over half of the organizations surveyed have a BYOD policy in place. Nearly half of those surveyed also support corporate-liable mobile devices, thus reinforcing the observation of how well mobility is adopted within enterprises in the region.
- Having such a mixed bag of devices and policies creates significant challenges for IT in managing and supporting these devices, as well as providing a seamless access to corporate resources on these devices. This sentiment is echoed by the survey respondents as the 3 main challenges cited by organizations with their BYOD policy are around:
 1. Securing the data/content exposed to these BYO devices
 2. Application provisioning and management for these BYO devices and
 3. Device management/support itself
- Nearly **one-third** of the organizations that support BYO policy use some form of virtualization technology to deploy applications to these user-owned devices. This number is even higher for corporate-liable mobile devices with **nearly 4 out of 10** organizations using either remote application publishing or virtual desktop infrastructure to support application deployment and access, thus confirming the view on how virtualization technology enables mobile access for enterprises.

METHODOLOGY

The findings in this IDC White Paper are based on an IDC survey conducted over the phone between June and August 2016 across 10 countries across the Asia/Pacific region: Australia, Hong Kong, Japan, Korea, Malaysia, Philippines, the People's Republic of China, Singapore, Taiwan and Thailand. IDC interviewed 706 senior manager- and IT director-level respondents, all of whom either make or influence application delivery related decisions for their companies. These respondents were from organizations with at least 100 employees globally and across a broad cross-section of industries, including financial services, manufacturing, public services, telecommunications, media and utilities (refer to Appendix for more detailed segmentation).

SITUATION OVERVIEW

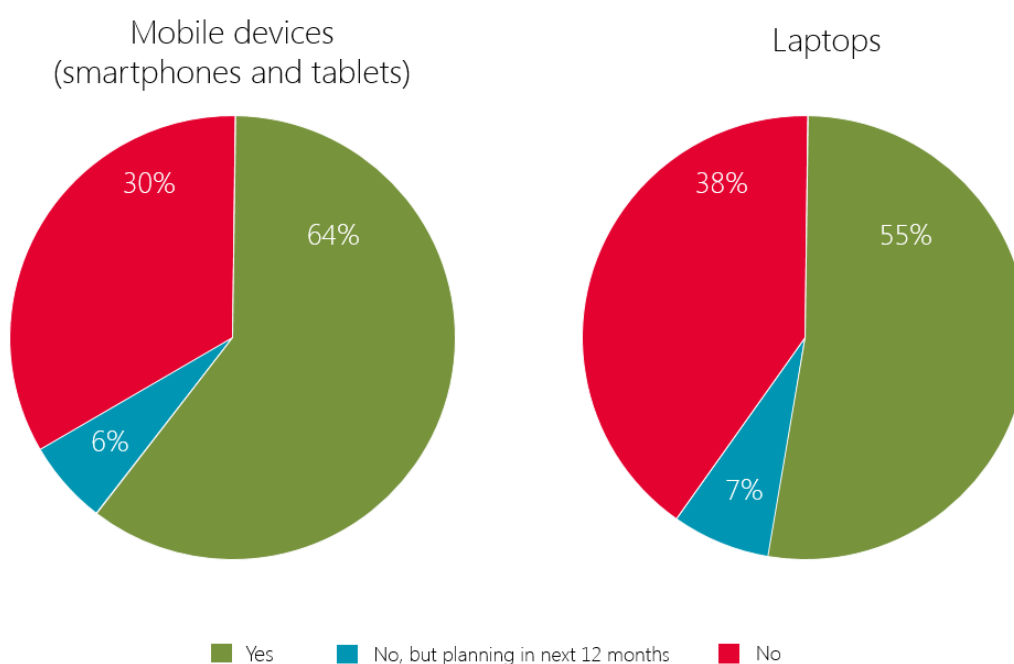
Enterprises All Geared Up for Mobile

Mobility's role in an organization is fairly well-understood today, given not just the maturity of mobile technology, but also its rapid adoption by consumers and their willingness to use it for both personal and business use. These trends are fairly consistent in Asia as well, with BYO adoption and support broadly accepted among enterprises in the region. Figure 1 shows that at least 2 in 3 surveyed have a BYOD policy or plan to put one in place within the next 12 months for smartphones, tablets as well as laptops. This is a good sign as it helps to reduce an organization's potential exposure to security threats and risks.

FIGURE 1

In a BYOD Policy We Trust

Q. Does your organization have a BYOD policy?



N = 706

Source: IDC Remote Application Delivery Survey, 2016

Interestingly enough though, this policy does not yet extend to the entire organization. Only 20% of the organizations that have a BYO policy in place extend it to the entire workforce across laptops and mobile devices. Geographically, Australia and ASEAN countries lead the region in BYOD adoption for both laptops and mobile devices, with Japan having the lowest share in the region. From a verticals perspective, professional services companies lead the way in enabling BYOD for laptops, although when it comes to mobile devices, banking and financial services institutions are most supportive of BYOD, with over three-quarters of the respondent companies in this sector having a BYOD policy in place. Even from a corporate-liable mobile device adoption perspective, more than half of the organizations have either deployed or are planning to deploy them within the next 12 months.

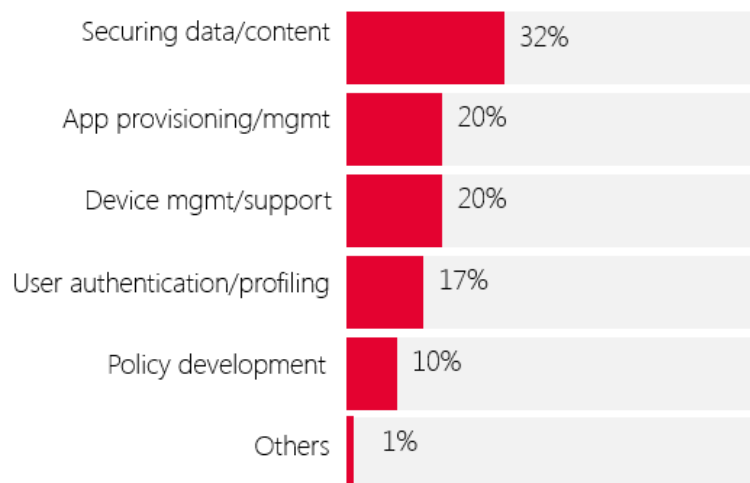
However, this support for user-owned and/or corporate-liable mobile devices comes with its own set of challenges. The organizations that have adopted a BYOD/CYOD (bring your own device/choose your own device) policy for either laptops or mobile devices face three key challenges in enabling and supporting these devices (see Figure 2):

1. Securing the data and content accessed through employee devices. This remains, and will continue to remain the biggest challenge for CIOs with their mobile deployments.
2. Device/Application provisioning and management. Allowing BYOD access increases the cost of provisioning and managing corporate applications as the device configurations are no longer in IT's control and hence manageability becomes a challenge with the diverse device types that enter the corporate environment. More critically, most organizations' technology investments still straddle across new and legacy environments, which need a bridging approach to enable legacy application access on the new environments (more on this in the next section).
3. User authentication and profiling and associated policy development efforts. Users bringing their own devices into the workplace require a different form of authentication protocol as the typical single sign-on approach is not feasible anymore, thus requiring other forms of trust policies and, in many cases, a more restrictive access to the corporate network.

FIGURE 2

Securing Data Tops BYOD/CYOD Deployment Challenges

Q. What are the top challenges that your organization faces with BYOD/CYOD?



N = 555

Source: IDC Remote Application Delivery Survey, 2016

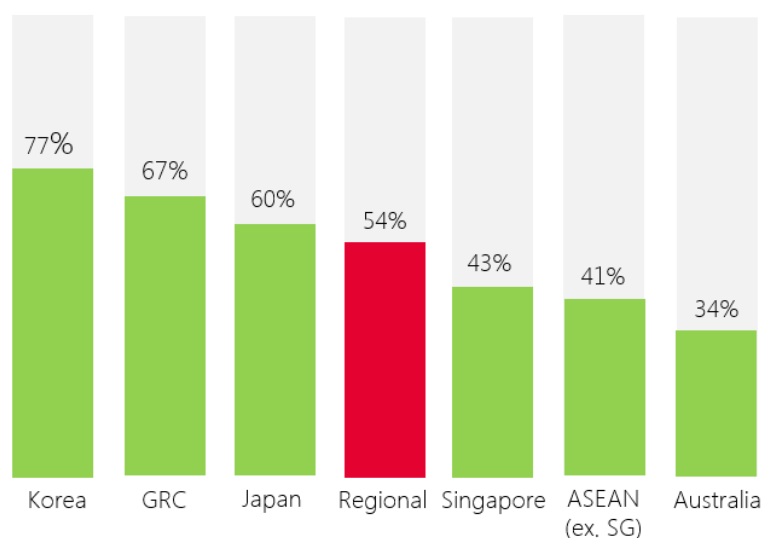
APPLICATION DELIVERY IN THE NEW DEVICE ECOSYSTEM

With BYO and corporate-liable mobile devices in the organization mix, there is a need to alter the application delivery strategy as well, as the traditional corporate-liable PC-based approach will no longer work in this mixed-device context. One of the challenges with this changing device dynamic is the need to deliver legacy applications, which continues to have a presence in many organizations across the region even today. IDC's survey reveals that nearly half of the organizations in the region have a need to deliver legacy applications to these new mobile environments, with those in North Asia – Korea, Greater China and Japan – showing the highest need (see Figure 3).

FIGURE 3

A Need for Legacy Application Support

Q. Does your organization have legacy Windows applications and/or peripherals that need to be supported on new environments?



N = 706

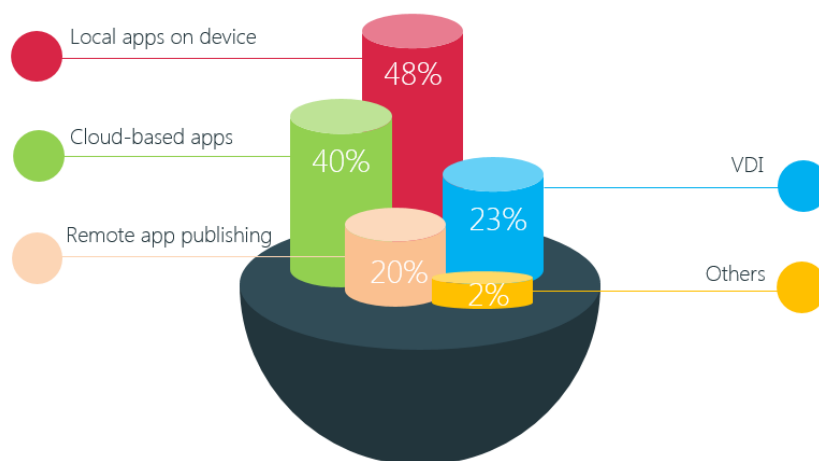
Source: IDC Remote Application Delivery Survey, 2016

Of course, applications themselves have undergone a sea-change in terms of their cross-device interoperability and accessibility. There are multiple options available in terms of how these applications can be delivered to mobile users in the organization. This fact is also well-reflected in IDC's survey results, with most organizations relying on either native apps or cloud-based apps as a delivery medium. However, **more than 2 of out 5** organizations surveyed indicate that they rely on some form of virtualization technology to deliver applications to the mobile devices in their organization, be they employee-liable or corporate-liable (see Figure 4).

FIGURE 4

Application Delivery On Mobile Devices

Q. How do you currently support corporate applications on mobile devices (BYO or corporate liable)?



N = 555 (multiple responses allowed)

Source: IDC Remote Application Delivery Survey, 2016

Virtualization Considerations and Challenges

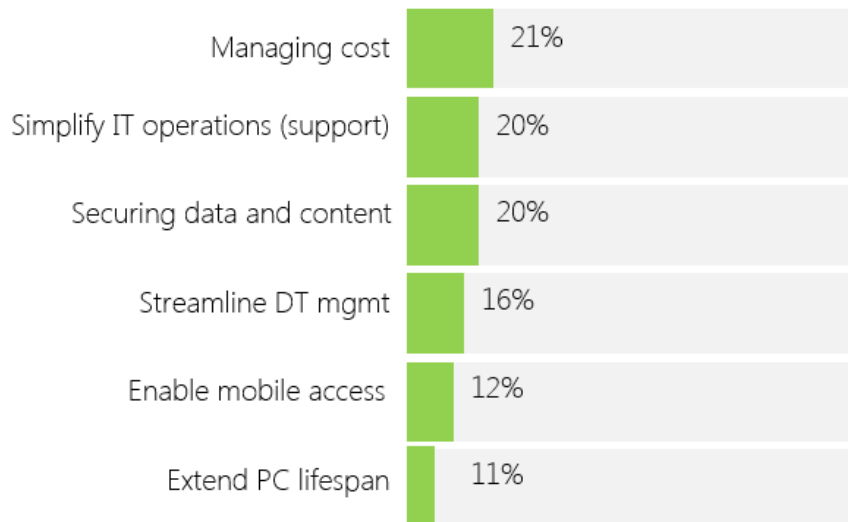
Virtualization technology's usage and prevalence in organizations is thus fairly well-entrenched, although adoption does vary by country as well as vertical. More importantly though, there is a real need for remote access and virtualization technology to deploy applications to mobile devices, with nearly half of the surveyed respondents in the region indicating their interest in leveraging virtualization for delivering applications. This result is, of course, not homogenous across countries or verticals, with the banking/financial services sector and communications/professional services being the most interested in the region. From a country perspective, the Greater China region showed the most interest, which also aligns with the penetration of mobile technology in these countries, necessitating a need for using all available means to enable mobile access.

Interestingly, when asked what parameters these organizations looked at to evaluate a virtualization solution for application delivery, the main considerations were fairly aligned with the concerns they had around mobility as well – namely managing costs which aligns well with the goal of supporting BYOD, simplifying IT operations as VDI solutions provides a good solution to managing application delivery, and securing the data and content when it is exposed on mobile devices (see Figure 5). In fact, enabling mobile access is now one of the top 5 considerations when evaluating virtualization technology, thus making it critical for the vendor community to focus on this aspect of their product/solution offering.

FIGURE 5

VDI/App Publishing Roll-Out Considerations

Q. What were the top considerations for rolling out your VDI / application publishing platform?



N = 597

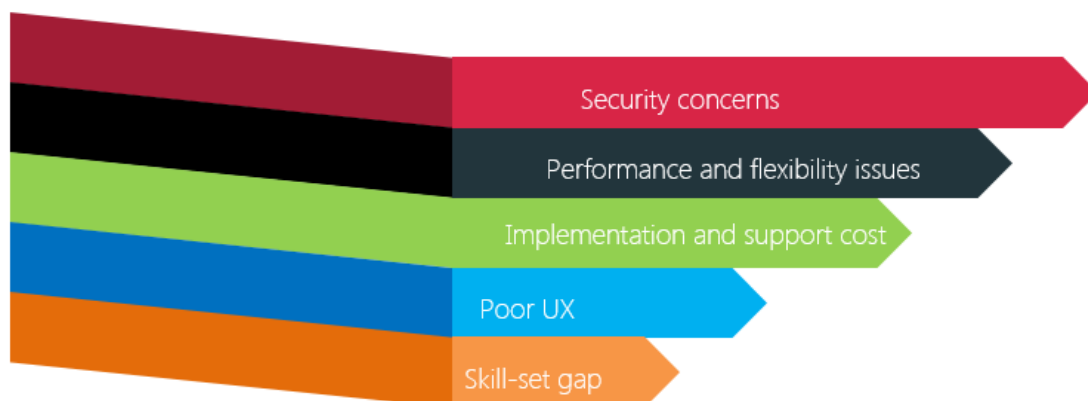
Source: IDC Remote Application Delivery Survey, 2016

However, as any CIO who has run through a virtualization deployment solution will admit, there are significant challenges in deploying and managing this solution, not to mention the constant user angst on a sub-optimal user experience – given the inherent nature of the technology itself (native versus remote-rendering) – albeit there have been significant improvements over the years. When asked to name their top challenges when deploying virtualization, the feedback centered around performance and flexibility issues as well as the implementation and support costs needed to keep the solution running, although cloud-based deployment models do make it easier now to adopt a more dynamic scaling approach for VDI. However, it still does not compare as well to a native experience, and there are still investments needed in technical skill sets to keep the systems up and running (see Figure 6).

FIGURE 6

VDI/App Publishing Roll-Out Challenges

Q. Please rank the following challenges your organization faces in rolling out corporate applications via VDI/application publishing faster.



Source: IDC Remote Application Delivery Survey, 2016

These challenges and considerations dictate the vendor selection criteria that organizations typically go through when identifying their virtualization implementation and management partner of choice. Given CIOs' security concerns today, a vendor's credentials in security are now more like table stakes needed to gain entry into the game. This fact is well-reflected in IDC's survey in which tech buyers across the region rated security credentials as their top criteria when considering a solution provider. The other major considerations include the solution provider's deep vertical and business consulting expertise as well as their experience in ensuring smooth integration with the organization's existing legacy systems. The last major hurdle that the vendor community needs to cross is around the ease of implementation as well as the ability to provide multi-platform support. Both these considerations are especially important in the case of virtualization, especially given the disparate client, middleware and back-end infrastructure that is present in most organizations today as well as the challenges in implementing a system that seamlessly bridges the different platforms (see Figure 7).

FIGURE 7

Top VDI Solution Provider Selection Criteria

Q. Please rank the following attributes according to how important they are for you in choosing a VDI solution provider.



Source: IDC Remote Application Delivery Survey, 2016

CONCLUSION

BYO as well as corporate-liable mobile devices continue to gain significance within Asian organizations. More critically though, their pre-eminence has not diminished the need for virtualization solutions that were originally designed to help deploy legacy applications in a desktop environment. If anything, there is a significant positive correlation between the rise of this mobile workforce with virtualization solution deployments. That being said, virtualization technology does compete against the more convenient mobile/cloud-based app deployment models to enable the broad range of mobile use-cases. But there are still use cases showing virtualization to be the most cost-effective solution to deliver these applications to mobile users, partly because these applications are just too expensive to port over to a mobile context.

ESSENTIAL GUIDANCE

As a technology decision maker, understanding both the scenario and the use case for mobile deployment is the critical starting point to identifying the type of solution that will best address the application delivery needs for your organization. Beyond this principal consideration though, the other strategic considerations should also focus on the need for multi-platform support and adopting a solution that is quick and easy to implement as these criteria often get overlooked when having the initial conversations around the solution's capabilities. Evaluating vendors based on these capabilities can result in significant cost-savings for your organization upfront, which typically happens to be a very important KPI for getting buy-in from the leadership team for any IT project. Specifically, IT decision makers -

- Need to keep up with the pace of new OS and application software and the diversity of end-points devices they will be expected to run on
- Must learn to do more with less as the budgets for IT staffing will not likely increase at the same rate as the users, applications, and devices these organizations will be expected to support
- Should position VCC deployments as enabling secure use cases as opposed to solutions to IT problems and/or cost down initiatives

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