The Digital Workspace Checklist

Strategies for sparking workplace creativity and innovation

Summary

Catalyst

Products, services, and rewarding customer experiences are designed, delivered, and managed by employees, so businesses and institutions must do all they can to spark creativity and facilitate productivity in the workplace, wherever that might be and using whatever device is at hand. Every organization has its own unique mix of line-of-business applications and packaged solutions, plus an array of productivity and collaboration tools.

But as every CIO and business executive knows, provisioning, supporting, and integrating these IT systems in a suitable, safe, and secure manner can be a costly and complicated undertaking, especially in a highly dynamic working environment that is peppered with legacy applications and devices. Bring your own device (BYOD), enterprise mobility, and shadow IT have added new dimensions to the "digital workspace challenge," which means that business and IT managers must reexamine their end-user computing strategies to ensure they are fit for purpose.

Ovum view

Every business wants to be consistently successful, but it is the ability to remain persistently relevant to customers and markets that separates the winners from the losers. These "customer-adaptive" enterprises exhibit similar behaviors in a number of key areas, but they always try to maintain the kind of business agility that enables them to capitalize on new market trends and industry opportunities. Modern business agility demands many things, but high on the list is the kind of digital workspace that employees want to use, that IT teams are able to support, and that organizations can afford.

The modern enterprise digital workspace is an employee-centric computing environment that is delivered, as a service, by those who understand the business, its challenges, and its goals. While this might be the in-house IT team, organizations are increasingly looking to system integrators and IT outsourcers to support accelerated business transformation programs. The modern digital workspace is not a product, it is an approach and a discipline. CIOs and business leaders should therefore think of it as a set of components, policies, practices, and tools that align the employee's digital working environment with the organization's priorities, goals, and objectives.

Issues relating to business risk and compliance are forever omnipresent within the world of enterprise IT, but CIOs and IT managers also cite the lack of suitable IT skills and resources when questioned about inhibitors to progress in the area of end-user computing strategies. The sheer breadth of IT developments means that IT leaders and their teams cannot expect to cover all aspects of IT strategy and operations without a good deal of help. The pace of change is such that IT decision-makers no longer have the time to conduct detailed studies, evaluations, and implementations of the ever-changing end-user computing landscape, so technology suppliers, service providers, and system integrators need to step up to the plate and help their enterprise customers discover and implement new ways of working, sharing some of the risk while gaining some of the reward.

Key messages

- A modern digital workspace should promote productivity, collaboration, and business innovation.
- A modern digital workspace has to suit an expanding range of digital workstyles.
- A modern digital workspace needs to meet real enterprise requirements: identities, devices, applications, and data.
- A modern digital workspace should enhance the employee experience, rather than detract from it.
- A modern digital workspace is expected to be flexible, mobile, and agile.
- A modern digital workspace is designed to preserve the confidentiality, integrity, and availability of corporate data and information.
- A modern digital workspace must be compliant.
- A modern digital workspace has to be well implemented, well supported, and always up to date.

Recommendations

Recommendations for enterprises

CIOs and business executives should not think of the modern digital workspace as a product, but as an approach and a discipline. Finding the "right approach" will require business and IT decision-makers to engage with system integrators, technology providers, and system outsourcers.

If enterprises want to gain maximum impact and maximum value from the digital workspace, then it must be tailored to fit the employee. IT departments can find off-the-peg digital workspace solutions to fit common business roles and activity-based requirements, and system integrators can be called upon when a "made-to-measure" approach is likely to add differentiation and business value.

IT departments need to develop, deploy, and support end-user computing environments that suit the needs of an expanding range of digital workstyles. However, because every business is different, and change programs are difficult, enterprises should aim for an optimized mix of scarce in-house resource and system integrator expertise.

It is important for organizations to design and promote a digital working environment that maintains employee engagement and encourages productive, efficient ways of working. Proactive support and ongoing end-user training are essential to deliver on the full potential of technology investments. If this is not considered a core activity by the business, then third-party services should be sought.

IT managers will naturally advocate the use of new technology, but non-technical business managers must recognize that having a progressive end-user computing, communication, and collaboration strategy is a key enabler of employee engagement and a driver of enterprise productivity. The execution of this strategy is inextricably linked to customer satisfaction and business success, so organizations should lean on proven third-party expertise where necessary.

The design goal of the modern digital workspace should be that of providing a useful, safe, and secure end-user platform that is capable of delivering any application the employee is likely to need, on any device the employee is likely to use, from any location the employee is likely to be.

A digital workspace checklist

A workspace that promotes productivity, collaboration, and business innovation

A consensus is forming: future competitive advantage will be created through data and analytics; business models will be shaped by cloud; and engagement will be powered by mobile and social technologies. Continued growth in the use of employee-owned devices and self-selected applications is changing the face of the end-user computing environment, but this should not obscure the fact that most knowledge workers in established economies expect their employer to provide the tools and technology required for the role or business activity.

A modern digital workspace must promote productivity, collaboration, and business innovation by being fit for purpose and context. A knowledge and understanding of that purpose and context makes a huge difference when organizations are trying to scale to hundreds or thousands of employees across different business functions, geographies, and operational environments, and this is why businesses and institutions often choose to work with systems integrators and outsourcers that understand the scale of their challenge and the practical issues they face.

Figure 1: The eight attributes of the customer-adaptive enterprise

Source: Ovum

Ovum studies of successful organizations highlight the importance of employee engagement supported by a collaborative culture and productive working environment. Implicit in this assessment is the quality and nature of the end-user computing environment, with success being more likely for those businesses and institutions that adopt progressive end-user computing environments. A customer-adaptive enterprise (see Figure 1: The eight attributes of the customer-adaptive enterprise)

will have a well-equipped, well-trained workforce that is engaged, collaborative, informed, and innovative. A visionary leader will fully appreciate the business value of such a workforce, including the business agility it enables, the innovations it generates, and the customer satisfaction it delivers.

A workspace that suits an expanding range of digital workstyles

Employees, especially knowledge workers, are the fountain of ideation, innovation, and business growth. They spot the new business opportunities, design the next product or service, and ensure customer satisfaction. But if one were to examine in detail how each business professional goes about his or her job, one would quickly realize that no two people work exactly same way. The tools of the trade may be the same, but the way in which they are used can differ significantly.

It is important to state that organizations should not ignore the developing digital workstyles of other segments of the workforce, especially where service and manual workers represent a significant proportion of the employee base (see Figure 2: Workforce distribution of a developed economy). Business and IT managers look outside of the organization for inspiration and insight, especially to case studies published by system integrators and technology consulting firms.

Standard operating environments (SOEs) can be useful in reducing cost and complexity, but only when they are applied to a role in a prescriptive manner and in an environment that is tightly controlled. So, if enterprises want to gain maximum impact and maximum value from the digital workspace, it must be tailored to fit the employee. Accomplishing this at scale, and at an affordable rate, is a challenge that all large enterprises and multinational companies face.

Figure 2: Workforce distribution of a developed economy (selected industries)
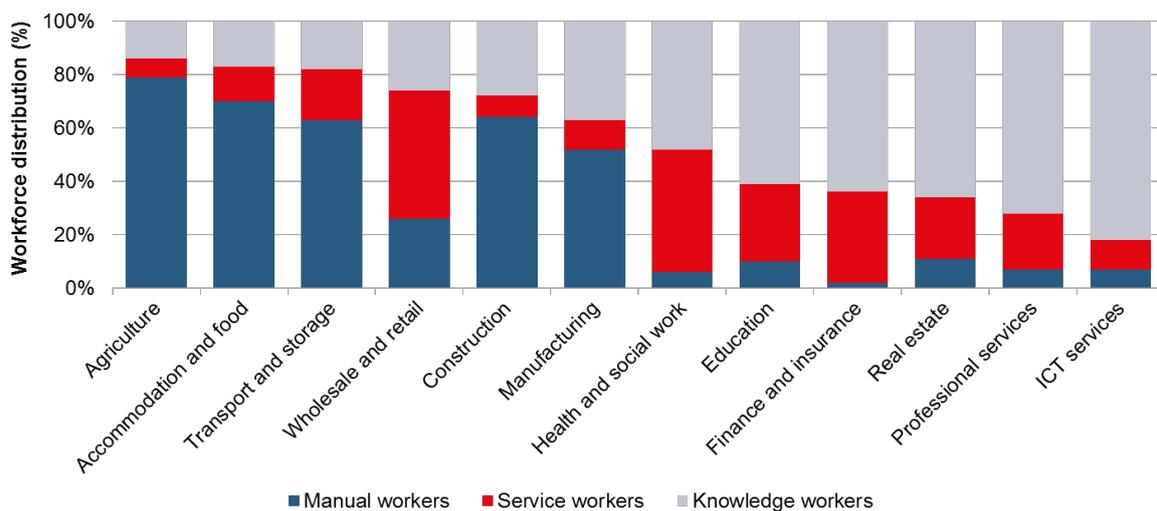
Based on workforce statistics in the UK, 1Q15

Source: UK Office of National Statistics, Ovum

Management's role is to direct, orchestrate, and empower the organization's top talent, and develop an enduring business value proposition that is greater than the sum of its parts. Maintaining and developing an engaged and collaborative workforce is no easy matter, especially when that workforce is large and geographically dispersed. So while business leaders and staff managers need to master modern communication and collaboration mediums to maximize employee engagement and efficacy, IT departments need to develop and deploy digital working environments that suit the needs of an expanding range of workstyles.

The increasing pace of change, and sheer breadth of IT developments, means that business and IT leaders cannot monitor every employee to ensure that the end-user computing environment is optimized for their specific role. But the concept of delivering a digital workspace as a service brings with it the expectation of telemetry and insight to better understand what is working well and what is not. This is the business value that the modern enterprise digital workspace brings to the organization.

A workspace that scales to meet real enterprise requirements: identities, roles, devices, applications, and data

The consumerization of enterprise IT continues to spread throughout the workplace, with employees often having to service their own IT needs as IT departments focus on patching, protecting, and upgrading technology that was conceived in a different era. So, while IT departments are primarily concerned with technologies from the past, employees are using technology from the present (and often it seems from the future) to get work done. Employee-owned smartphones and tablets are in use within most organizations, as are apps and consumer-oriented cloud services. Accommodating and managing these technologies at enterprise scale and across enterprise dimensions is a challenge that would stretch any IT department, but it is essential that they do so for the business to remain progressive.

Figure 3: Business challenges
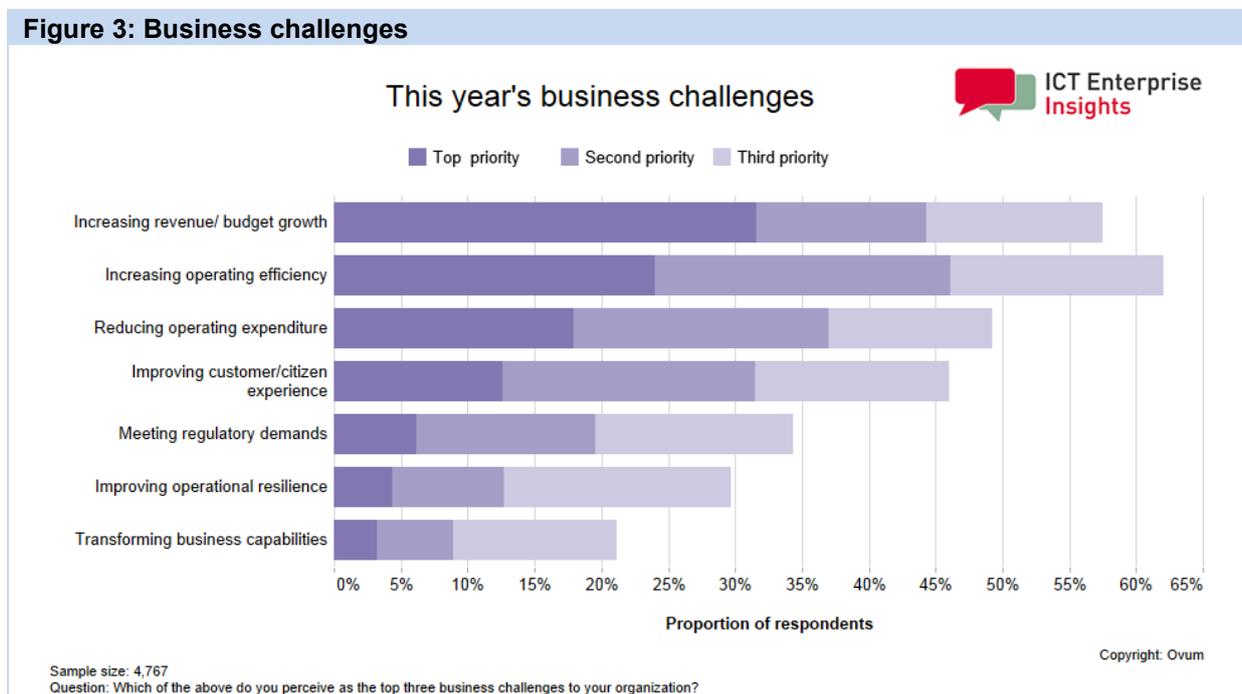
Source: Ovum's ICT Enterprise Insights program*

It is also important for organizations to design and promote a digital working environment that maintains employee engagement and encourages productive, efficient ways of working. Without this, output will fall, costs will rise, and business growth will stall, i.e. the opposite of what businesses want (see Figure 3: Business challenges). But enterprise IT involves thinking about issues that extend well beyond the individual employee and their immediate requirements. Business continuity, security, identity, cost management, interoperability, and service and support are just some of the factors that need constant attention due to their broad implications across all aspects of the business.

The old saying of "a problem shared is a problem halved" has real significance in the world of corporate IT, as many of the problems and issues being faced by CIOs are not unique to their situation. System integrators and outsourcers can use their own scale (they generally employ a very large workforce that is geographically dispersed and apt to work under a variety of security and governance regimes) to target and resolve common issues relating to the digital workspace, and their handling of IT vendor and service provider relationships can also free up scarce enterprise resource that can be redeployed to address more specific business challenges.

A workspace that enhances the employee experience, rather than detracting from it

When it comes to employee engagement, many organizations have lost the full attention and commitment of the workforce. There are various reasons for this, but low levels of investment, clunky software, ill-suited devices, and draconian IT policies certainly do not help matters. The mobile-first, cloud-first world has crept up on many enterprises. This is because many executives have been focusing on business survival in many cases, and many IT budgets have been reduced or flat for a significant period of time.

A determined or empowered employee might decide to do something about this themselves, with BYOD and shadow IT being the visible and less visible elements of this, particularly where the tech-savvy employee is concerned. When embraced appropriately, and with tools that help IT departments manage a wide range of devices, BYOD can be a positive enabler of the modern digital workspace, but not all employees see the appeal. So what about the technology-ambivalent employee – how is he or she reacting? The answer is somewhere on the way to disillusionment, disenchantment, and ultimately disengagement.

This is not what managers and business leaders want, because they know that such moods affect productivity, collaboration, and, eventually, the business innovation that powers growth and progress. A modern digital workspace should enhance the employee workplace experience rather than detract from it. This means reevaluating the current situation and doing things differently. Having a progressive end-user computing, communication, and collaboration strategy is a key enabler of employee engagement and a driver of enterprise productivity, and the execution of this strategy is inextricably linked to customer satisfaction and business success. High-performing organizations pay close attention to all aspects of the digital workspace. They tend to work with their IT partners and suppliers, contributing feedback and influencing design with the aim of driving continuous improvement and better business outcomes.

A workspace that is flexible, mobile, and agile

The power and capabilities of new end-user computing devices, the applications they run, and the services they connect to continue to increase the business transformation potential of the enterprises that use them. As we have seen with the smartphone and the tablet, these devices make waves in the market, prompting CIOs and IT departments to engage with their business colleagues as they reexamine the art of the possible, exploring new business opportunities and markets. New devices, such as smartphones and tablets, extend the reach and range of the digital workspace, and provide real alternatives to traditional PC-based systems. These new devices are always on, always present, and nearly always connected. As such, organizations can often be more responsive to customer requirements without necessarily adding undue burden to the employee.

Provisioning the modern digital workspace requires an effective end-to-end understanding and management of the deployment stack. This includes all matters relating to connectivity and communications management; device, storage, and compute management; application management; information security management; and service management. Few IT departments, even those of large multinational corporations, have resource to spare, so keeping up with best practice, exploiting new developments, and optimizing operational processes is a significant challenge, and business benefits do not always flow visibly to the "bottom line."

This is where system integrators and system outsourcers add value, with solutions and services that help enterprises implement modern digital workspace solutions that are better suited to prevailing business conditions and the changing technology landscape. Companies such as Accenture, Atos, Capgemini, CSC, Deloitte, IBM, Infosys, and Wipro are partnering with key enterprise technology vendors, such as VMware, in new and innovative ways, bringing their vertical market experience and business transformation expertise to the table.

Even when organizations do spend time looking at the end-user computing environment, it often centers on upgrading or rolling out a new version of Windows or an associated project – hardly a game-changing move or the best use of shrinking IT budgets. The notion of what constitutes the modern digital workspace already extends beyond the familiar model of the Windows-based PC, and within five years' time it will probably have extended beyond the smartphone and tablet computer too. So, if enterprises want to avoid device lock-in, a new approach has to be considered, one where the device is considered more of a container for applications rather than a prerequisite substrate. Only by adopting such an approach can enterprises hope to gain increased levels of digital workspace flexibility, mobility, and agility.

A workspace that preserves the confidentiality, integrity, and availability of corporate data and information

The general ambivalence of the workforce toward centralized information management systems, combined with the continued increase in enterprise mobility and remote working patterns, has led to a situation where an increasing amount of business information is located at the edge of the corporate network, stored on laptops, smartphones, tablets, employee-owned devices, and the ubiquitous "cloud drive." Indeed, the number of ways in which corporate data can be exposed and leaked is increasing every day. Because this information is often produced and acquired by customer- or partner-facing employees, it tends to be high in commercial value and can be sensitive in nature. The business impact of this can be seen in Figure 4: Important IT trends, with the management of security, identity, and privacy ranking near the top of Ovum's *ICT Enterprise Insights* survey.
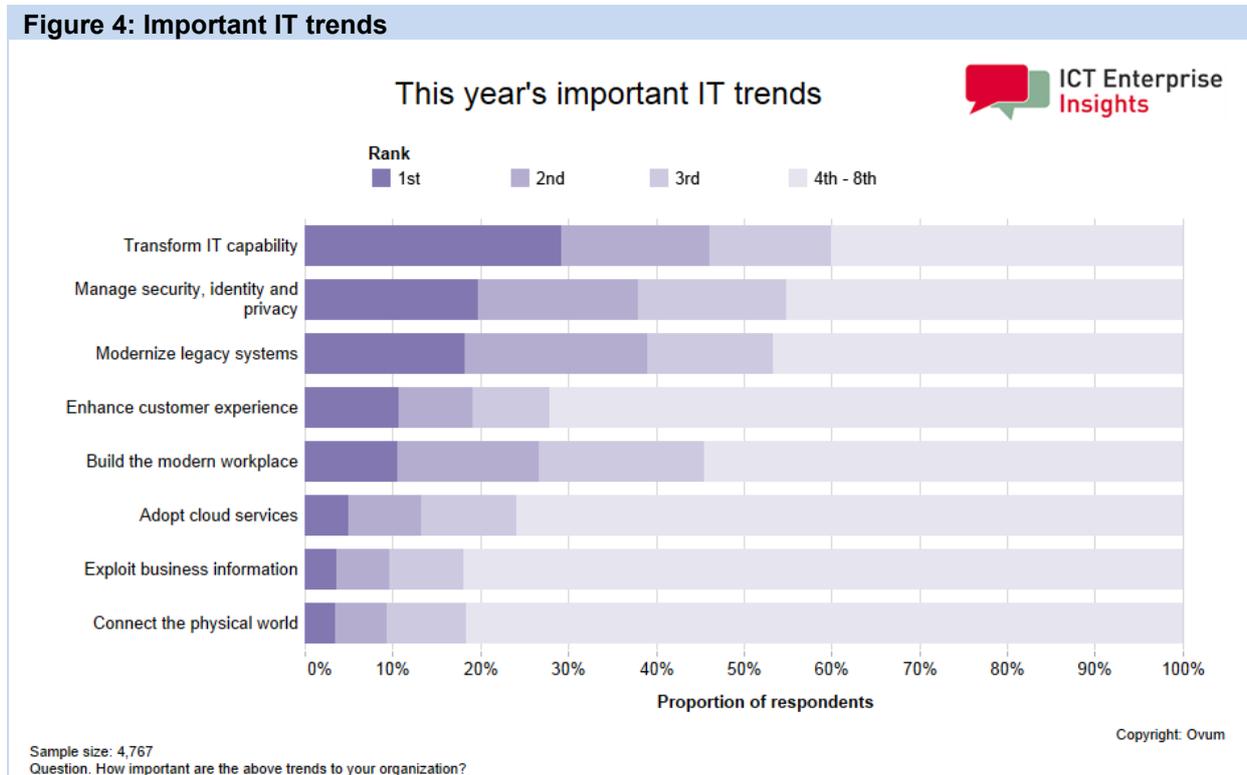
Employees and business managers generally appreciate the need for information security management systems, especially when they are clearly linked with the protection and preservation of sensitive corporate data. But this appreciation can start to wane when the implementation of policies results in cumbersome processes, additional burden on the business, and a poor IT experience for the employee. When it comes to end-user computing, Ovum surveys suggest that more than half of enterprises are demanding more than the IT department is currently able to deliver.

Experienced security professionals know that this is the point when organizations become vulnerable, because it is human nature to look for the path of least resistance and optimum performance. Thus, a modern digital workspace must seek to embrace popular storage and collaboration solutions,

enhancing manageability and auditability where possible, or replacing the functionality that such solutions provide with something equally as useful, if not more so.

Executives are constantly on the lookout for opportunities that can help them grow their businesses. From an IT perspective, this desire manifests itself in the constant search for trustworthy partners that can shoulder some of the burden associated with the provision, operation, and automation of enterprise IT. And nowhere is this desire felt more strongly than in the search for affordable, practical services that help address the issues and challenges associated with end-user information security management. Other examples high on the list include accelerated business transformation, enterprise mobility, and on-premise/cloud hybridization.

Figure 4: Important IT trends

This year's important IT trends
ICT Enterprise Insights

Sample size: 4,767
Question. How important are the above trends to your organization?
Copyright: Ovum

Source: Ovum's ICT Enterprise Insights program*

A feature of the modern digital workspace has to be its ability to adapt to changing business requirements while maintaining an appropriate threat protection posture. Enterprise mobility management is clearly part of the solution, integrating the management of multiple different devices, along with the applications and data associated with them. But a fully managed digital workspace solution has to go one step further: it has to free business leaders so they can better focus on identifying new business opportunities; it has to free employees so they can better focus on serving customers; and it has to free IT departments so they can better focus on adding value to the business. Service outsourcers, managed service providers, and systems integrators can help to create this freedom, and can also add value to lines of business with specific expertise and industry knowledge.

The modern digital workspace also has to accommodate specific industry, corporate, and geological data protection requirements. This means that solutions and their implementations must be appropriately certified and audited. Recent changes in the US-EU Safe Harbor agreement serve to highlight the kind of issue that can arise almost without warning, and that enterprises and government departments must be ready to respond to.

A workspace that is compliant

Bring your own device and "use your own app" are the manifestations of liberal IT policies designed to attract tech-savvy employees to innovative business start-ups and forward-thinking enterprises that are open to new ways of working. BYOD has clearly changed the end-user computing model in some organizations, and for others it offers a way to extend access to business communication and collaboration solutions without the need for massive capital investment. But this liberalization of corporate IT, whereby employees are able to use any sanctioned device to access corporate applications and data, also raises significant governance, risk, and compliance issues – one of the primary business challenges identified by Ovum's *ICT Enterprise Insights* survey (see Figure 3).

Senior IT managers have told Ovum that risk and compliance are inhibiting their efforts to design new ways of working, yet the sheer breadth of IT developments means that IT leaders cannot expect to cover all aspects of IT strategy without a good deal of help. The pace of change is such that IT executives no longer have the time to conduct detailed studies and evaluations of business communication and collaboration technologies; in-house knowledge relating to the hybrid (cloud/on-premise) deployments of these technologies, and associated migrations, is in short supply too.

System integrators, system outsourcers, and IT suppliers need to "step up to the plate" and help their enterprise customers discover and implement new ways of working, sharing some of the risk while gaining some of the reward. Local presence, industry expertise, and skilled resources are the standout requirements that enterprises look for when undertaking a major IT initiative, together with an innovative approach and some degree of tangible certainty.

A workspace that is well implemented, well supported, and always up to date

Meeting the digital needs of employees, while simultaneously transforming the organization, is easier said than done. From the employee perspective it is about keeping things "consumer simple," while from the business perspective it is all about keeping things "enterprise secure." So the design goal of the modern digital workspace is that of providing a simple and secure end-user platform that is capable of delivering (and managing) any app that the employee is likely to need, on any device that the employee is likely to use.

Attaining this goal is no easy matter, and most organizations are going to require some help along the way for the following reasons:

- **Design, deployment, provisioning, and migration:** because every business is different, and change programs are difficult.
- **Ongoing support and workspace development:** because nothing ever stays the same.
- **End-user training and support:** because this is different to what we have had before and every employee is unique.
- **Information security management:** because the cloud is removing boundaries and barriers between people and organizations, and because information is an organization's most valuable digital asset.
- **Bespoke integration of line-of-business applications:** because business systems and the digital workspace do not exist in isolation.

- **Application packaging and modernization:** because there are some legacy applications enterprises cannot do without.
- **Device management:** because we work in a post-PC world, where the devices we used last year are unlikely to be the same as the ones we use next.
- **Application management:** because traditional applications are no longer tied to physical PCs or corporate-owned devices; because new app models, architectures, and platforms are an implicit part of the future; and because application licensing is switching from purchase to rental.
- **System outsourcing:** because there are more important burdens that the business has to carry.
- **Managing end-user computing costs:** because pay-as-you-go and subscription-based pricing reduces CapEx when you are starting, and OpEx when you are running.

Systems integrators, digital service providers, technology suppliers, and IT outsourcers are an integral element of the digital workspace ecosystem, especially where large enterprises and multinational companies are concerned. Established players in this space have the experience, the reach, and the range that enterprises are looking for, and they are working with vendors† to architect practical solutions that meet the varied needs of the market. System integrators and system outsourcers are generally able to address some or all of the points above, but it is important to note that the modern digital workspace is not a product, it is an approach and a discipline. CIOs and business leaders should think of it as a set of components, policies, practices, and tools that align the employee's digital working environment with the organization's priorities, goals, and objectives.

Appendix

Methodology

This white paper was sponsored by VMware and draws on Ovum's research and analysis of the enterprise end-user computing market as well as referencing Ovum's proprietary tools and databases. The views expressed in this white paper are based on Ovum's ongoing research into the technology and services markets, including conversations with IT vendors, system integrators, service outsourcers, and enterprise clients.

Author

Richard Edwards, Principal Research Analyst, Enterprise Productivity & Mobility

richard.edwards@ovum.com

Notes

* Ovum's *ICT Enterprise Insights* program provides the primary data source for the charts in this report, and is based on surveys with 6,500 senior IT executives across more than 60 countries and in 17 vertical markets and 38 lines of business.

† www.vmware.com/partners/siso/

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We hope that this analysis will help you make informed and imaginative business decisions. If you have further requirements, Ovum's consulting team may be able to help you. For more information about Ovum's consulting capabilities, please contact us directly at consulting@ovum.com.

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