



Strategy for a Digital Workplace

Building an operating model for
End User Computing 2.0 transformation

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Introduction

According to Gartner, “digital trends, along with opportunities enabled by AI, are driving the next generation of digital business and the creation of digital business ecosystems.”¹ Consumerization of IT, emerging digital technologies, and the rise of millennials in the global workforce is leading to a growing demand for enhanced enterprise user experience. Employees are increasingly seeking to use their own devices and choice of work locations with seamless access to data. How does this affect the end point and mobile strategies of end user computing (EUC) leaders?

EUC leaders must align end user needs and business goals by shifting their focus to delivering exceptional user experiences rather than mere device management. Catering to the needs of end users who bring in consumer class SaaS productivity apps and various devices to work, demands a complete revamp of the traditional EUC engagement model. It requires enterprises to redefine EUC strategies, including IAM, device management, security and privacy, and support. This paper aims to help EUC leaders revamp their strategies to adapt to the changing trends while ensuring maximized productivity.

Trends

Generational changes drive the need for end-point neutral content delivery mechanisms and interoperability of applications

Users increasingly prefer self-service and self-help based end user computing management models that cut through time consuming approval processes. To cater to digital needs of the evolving workforce, IT must adopt a new approach to mobility that drives seamless access to data and apps anytime, anywhere. Gartner research predicts that “enterprise-supplied, no choice” managed devices will decrease in favor of a mix of enterprise-managed choose your own (CYO) and personally managed bring your own (BYO) devices, forcing EUC leaders to focus on endpoint-neutral content delivery mechanisms.² In addition, EUC leaders will have to create an architecture that enables interoperability because existing applications will have to be configured, updated, or replaced for cross-device and cross-platform use. So, what are the key trends driving these changes and what are their impacts on EUC?

At the device layer, a major trend is the surge in mobile device adoption and the consequent fragmentation of form factors of devices and operating system versions. At the application level, in addition to the rise of SaaS-based business apps, end users are increasingly adopting smaller, inexpensive apps that are usually SaaS-based, instead of monolithic company-provided tools. These trends are driven by the changing demographic profiles of enterprise users and the surge of millennials into the workforce. Driven by notions of instant gratification and individual freedom, a significant part of the millennial population prefers lower pay over EUC policies that restrict mobility, BYOD, and social media access.

What the future holds for EUC strategy

What could be the impact of emerging trends as far as EUC is concerned?

Firstly, growing digitization is forcing enterprises to adopt artificial intelligence (AI) and machine learning (ML) driven point solutions, along with intelligent apps and analytics, as well as intelligent devices and things. To meet end user requirements shaped by these trends, EUC leaders must be prepared to offer bot-based and omni-channel support that drive **persona-based contextual experiences**. With the use of intelligent things, unified end-point management must also account for enterprise IoT devices.

Secondly, the requirements of edge computing, conversational platforms, and immersive experiences led by virtual reality and wearable end points, are worth mentioning. With the adoption of conversational platforms, EUC will have to focus on providing chatbots for support and self-service kiosks. Immersive experiences led by the use of wearable and VR-based end points will require organizations to ensure unified end point management that supports end users’ preferences.

Scenarios such as financial and manufacturing applications- where even a millisecond of latency is untenable or IoT scenarios where it is not efficient to send data to a central cloud server – will drive the surge in edge computing. This will require mobile application

¹ Gartner Inc., *Top 10 Strategic Technology Trends for 2018*, 3 October 2017, G00327329

² Gartner Inc., *Embrace Unified Workspaces to Deliver on Your Digital Workplace Vision*, 7 October 2016, G00314808

management (MAM) at the end points, including IoT devices, due to the limited utility of mobile device management (MDM) in such scenarios.

Lastly, continuous and adaptive risk and trust is a key security trend that is evolving. Security must be adaptive at all points to leverage opportunities and manage risks introduced by the digital world, or in other words, security must move at the speed of digital businesses. This requires EUC to ensure distributed Identity & Access Management (IAM) and comprehensive security and privacy for digital identities.

Challenges

EUC 2.0 brings challenges across four broad areas

Compared to traditional EUC, the challenges for implementing EUC 2.0 fall into four broad areas:

- Leverage digital technologies that create value for both business and users.
- Drive adoption of these technologies among users in an enterprise environment.
- Manage identify and access and security in a diverse environment.
- Focus on user experience management and related KPIs.

While measurement of KPIs traditionally focused on device and app performance, scaling, stability, and reliability, with EUC 2.0, the KPI focus shifts to user experiences based measurements and metrics that focus on agility and interoperability.

Moving away from the management of desktop and web apps and app packaging, EUC 2.0 will also bring challenges in the shape of mobile app management, app wrapping, containerization and management of app stores. End point management will require expertise in Enterprise Mobility Management (EMM) tools such as Airwatch, instead of expertise in client management tools. With regard to Identity and Access Management (IAM), EUC 2.0 requires enterprises to implement and integrate cloud-based identity and cloud access service brokers. New security measures include identity based access control, establishment of application and data containerization as well as EMM policies.

The use of AI, ML, conversational platforms and emerging apps demand changes to the EUC operating model

In essence, user experience based millennial preferences, deployment of digital technologies, and cloud-based unified communication and collaboration apps are forcing enterprises to transition to EUC 2.0. In order to do so, the organizational EUC operating model will need to be modified. Service desk operations will need to be transformed from transaction or ticket-based monitoring to omni-channel, AI-based support desk management with user experience monitoring as part of the function. Under the EUC 2.0 operating model, service desk support services that are typically managed with user profiles, require self-service options, knowledge bases, 'genius bar' type walk-in services, and Service Your Own Device (SYOD) options. While device support in the existing EUC operating models are designed only for standardized hardware, EUC models of the future will need to support all devices.

Another operational change is the move to user centric and 'evergreen' or continuous upgrades with regard to device image management. Instead of data being locked to a device, data is stored in the cloud with multi-device access. To enable a truly digital business, the EUC operating model for mobility involves Mobile Application Management (MAM), Mobile Content Management (MCM) and an enterprise app store to publish and install line of business apps. While traditional desktop management revolves around image-based management that standardizes images with lockdown to the device, the new model leaves users free to install apps that they like. With regard to end point management, the use of EMM tools and unified end point management become essential. Traditional virtual desktop infrastructure affords limited virtualization but the new model should involve full-option virtualization with cloud-based delivery mechanisms.

While technology-based teams are the first resort in existing operating models, the new EUC operating model calls for unified teams because of the consolidation of tools and platforms. Traditionally, perimeter security means that corporate IT networks are the perimeter for secured firewalls. But, EUC 2.0 demands that devices become the new perimeter, requiring security with EMM. Finally, the limited user experience focus of today's EUC has to give way to a UX-first approach for all EUC services.

Strategy

Building a strategy to drive EUC 2.0 transformation

So where do organizations start their EUC transformation journey? Most organizations start their journey from IAM infrastructure and end-point modernization. But, each enterprise needs to choose a journey customized to their circumstances, considering the level of legacy IT and 'technology debt'. A one-size-fits-all approach is inadvisable, particularly for enterprises that have operations across the world, with multiple end user computing technologies supported by related organizational structures.

Figure 1 depicts a suggested EUC 2.0 operating model across different layers: underlying infrastructure, cloud/datacenter, networks, endpoints/devices, applications, and user data. This framework helps build an EUC 2.0 operating model ground up. The model should ideally be supported by overarching security and compliance policies, and a NextGen service desk support across all layers.

Recommendations: Aligning operations to EUC 2.0

The following recommendations are designed to help EUC leaders align their operations to the emerging end user computing 2.0 model:

- **Assessment:** Start with a EUC assessment exercise to assess the current maturity, benchmark against industry standards, and prioritize EUC projects for transforming to EUC 2.0.
- **User experience:** Implement Phase 1 projects: for example, BYOD, CYOD, chosen apps, and invest in user experience
- **Productivity:** Evaluate benefits of MS Office cloud solutions against existing productivity tool investments. Migrate to Cloud office if there is a viable business case.
- **Applications:** Include app portfolio in EUC assessment exercise, and thoroughly evaluate legacy apps. Typically, after an assessment exercise, organizations discover that up to half of the apps listed might not have any business use. Plan to make apps independent of OS and devices.
- **Alignment of EUC teams:** Align EUC teams to a unified end-point management model: for example, merge mobile device and PC management teams.

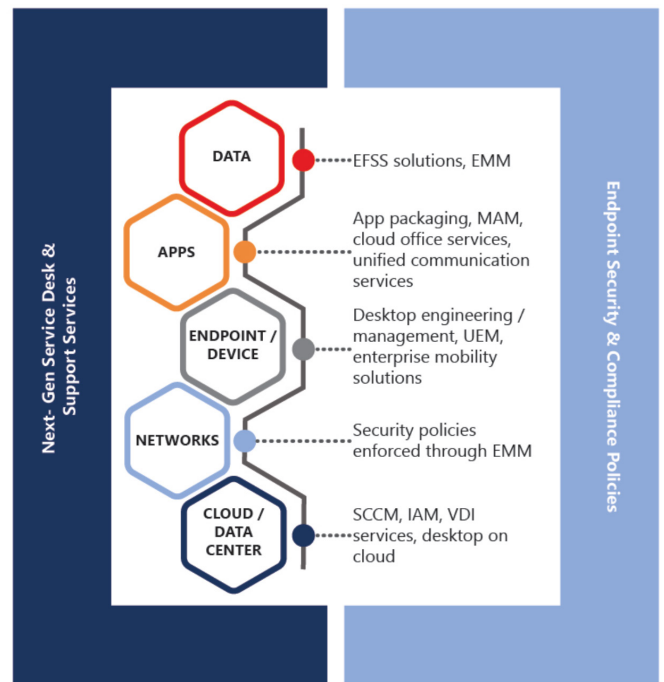


Figure 1. Operating model to transition to EUC 2.0

How Microland can help EUC leaders stay abreast with the trends

Identification of key EUC transformation action areas helps EUC leaders realize the full benefits of a digital workplace strategy. Microland identifies key EUC areas that businesses will need to consider for transformation – from NextGen service desk services to EMM and information security. By understanding all the factors that contribute to a digital workplace, EUC leaders can prioritize their projects and develop a stronger business case for transformation. The result: enhanced ability to go beyond mere cost cutting measures and take real steps that propel an organization on the path to becoming a digital business.

Microland's set of digital workplace services address each aspect of enterprise workplace, in addition to conducting proprietary Digital Workplace Assessments and helping organizations chart out their best fit transformation journey. Figure 2 highlights suggested EUC transformation projects along with the role Microland plays in supporting the EUC 2.0 transformation journey.

EUC Areas	Quick Wins	NextGen	How Microland can help
Productivity tools deployment	<ul style="list-style-type: none"> Consolidate Azure Active Directory forests & configure Azure AD for single sign-on Conduct cost-benefit analysis of email infrastructure against MS Office cloud apps & migrate if necessary 	<ul style="list-style-type: none"> Drive adoption of productivity tools through effective communication & change management Enable usage of all tools including conferencing and collaboration tools on MS Office cloud Use analytics to gain executive insights for the organization 	<p>Microsoft productivity solutions and Microland's depth of expertise in MS Office cloud deployments realize true value from Office cloud solutions</p> <p>(Microland is a Microsoft Gold partner for Microsoft's cloud, datacenter, and enterprise mobility solutions)</p>
Application delivery	<ul style="list-style-type: none"> Package LoB apps to make them available across devices Provide security of access for users logging into SaaS apps using CASB tools or through EMS 	<p>Unify end-point management by orchestrating CMT, EMM tools and other solutions:</p> <ul style="list-style-type: none"> Build Corporate apps store for LoB apps Upgrade and push apps to all end-points seamlessly Ensure easy, seamless, & secure access to almost all enterprise SaaS apps Create a unified view for all devices including mobile & IoT devices 	<p>Digital workplace assessment & services chart out a customized transformation journey to EUC 2.0:</p> <ul style="list-style-type: none"> Endpoint modernization services Desktop management services Enterprise mobility solutions deployment Application packaging services
Mobility management	<ul style="list-style-type: none"> Implement basic MDM and MAM and enable BYOD & CYOD policies Derive and implement conditional access policies for mobile devices by involving all divisions 	<p>Unify end-point management by orchestrating CMT, EMM tools and other solutions:</p> <ul style="list-style-type: none"> Build Corporate apps store for LoB apps Upgrade and push apps to all end-points seamlessly Ensure easy, seamless, & secure access to almost all enterprise SaaS apps Create a unified view for all devices including mobile & IoT devices 	<p>Digital workplace assessment & services chart out a customized transformation journey to EUC 2.0:</p> <ul style="list-style-type: none"> Endpoint modernization services Desktop management services Enterprise mobility solutions deployment Application packaging services
Endpoint management	<ul style="list-style-type: none"> Standardize gold image for provisioning across office locations & sites Upgrade endpoints to Windows 10 for security and ease of management Enable seamless provisioning / de-provisioning 	<p>Unify end-point management by orchestrating CMT, EMM tools and other solutions:</p> <ul style="list-style-type: none"> Build Corporate apps store for LoB apps Upgrade and push apps to all end-points seamlessly Ensure easy, seamless, & secure access to almost all enterprise SaaS apps Create a unified view for all devices including mobile & IoT devices 	<p>Digital workplace assessment & services chart out a customized transformation journey to EUC 2.0:</p> <ul style="list-style-type: none"> Endpoint modernization services Desktop management services Enterprise mobility solutions deployment Application packaging services
Security & compliance services	<ul style="list-style-type: none"> Data loss prevention and end-point protection solutions for devices Conditional access policies across devices 	<ul style="list-style-type: none"> Rights management solutions for privacy & GDPR preparation 	<p>Proven end-point protection services secure end-points, provide analytics, and prepare systems for compliance</p>
User data / information protection	<ul style="list-style-type: none"> Configure cloud storage and backup 	<ul style="list-style-type: none"> Secure information by deploying behavioral analytics tools such as advanced threat analytics Secure information by implementing rights management solutions across documents 	<p>End-point protection strategies, including RMS solutions deployment and GDPR preparation enable comprehensive protection for data</p>
Workplace support services	<ul style="list-style-type: none"> Consumer style catalog based services Chatbot support 	<ul style="list-style-type: none"> RPA for productivity & reduced tickets Self-service & self-healing methods 	<p>Next-gen service desk services, including chatbot and AI-powered solutions optimize enterprise service desk operations</p>

Figure 2. Suggested EUC projects for EUC 2.0 transformation

Source: Microland Limited

About the author



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Raj Kumar Thakur is an Associate Vice President at Microland and leads the Digital workplace services. As part of this role, he is responsible for building service capabilities in the areas of digital workplace, cloud- based messaging and collaboration, and NextGen end user support ecosystem. He has over 18 years of experience in the IT Infrastructure Management space and in his previous roles at Microland, he has led the company's ITSM consulting practice with a focus on IT Operation Strategy Consulting, ITIL and ISO 20000 Consulting services. Raj is a certified ITIL®V3 Expert with very strong IT operations and ITSM consulting background and has successfully taken many global organizations through their IT service improvement journeys.

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About Microland

Microland accelerates the digital transformation journey for global enterprises enabling them to deliver high-value business outcomes and superior customer experience. Headquartered in Bangalore, India, Microland has more than 3,800 professionals across its offices in Australia, Europe, India, Middle East and North America. Microland partners with global enterprises to help them become more agile and innovative by integrating emerging technologies and applying automation, analytics and predictive intelligence to business processes.

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