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DESKTOP VIRTUALIZATION

Future of Smart Secure Workspaces

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PURPOSE OF THE DOCUMENT

The purpose of this document is to provide a perspective on developing a strategic roadmap on Smart Secure Workspaces through Desktop Virtualization. This document also provides the various factors that need to be considered and addressed while creating Smart Secure Workplaces, and their key benefits to enterprises.

DEFINITION, ABBREVIATION AND ACRONYMS

The terms used in this document are explained below

Acronym	Description
ROI	Return on Investment
BYOD	Bring Your Own Device
IT	Information Technology
OS	Operating System
IMSS	Infrastructure Management and Security Services
EUCAssure	End User Computing Assure

BACKGROUND

Industries and Enterprises worldwide have to deal with the new reality of consumerization of IT. This has led to a growing demand to access information more easily and has become an unstoppable trend with the influx of powerful, easy-to-use mobile devices such as smartphones, laptops and tablet computers. These devices are being used by employees, partners, vendors and distributors to connect and access the 'right' information at the 'right' time—'On Demand.' The Enterprise IT team becomes the critical enabler for this lifeline and must ensure that the 'right' platforms are designed, provisioned, monitored and maintained.

By 2014 about 90% of all organizations will support corporate applications on personal devices.

— Gartner Research

The trends in mobile technologies, the business drivers and the market requirements provide constant inputs to develop the technology platform that best fits the Enterprise eco-system. The IT team is at the center of action here, aligning IT goals to the business strategy and also to the security and compliance needs of the industry sector and Enterprise.

TRANSFORMATION – THE KEY FOR THE FUTURE

Desktops, PCs, laptops and desk phones have traditionally been managed and maintained by the IT team as enterprise-owned end-user devices. These devices are used by the employees, branch offices, back office, etc. to access the required information within the enterprise for conducting day-to-day operations.

These end-user computing devices have a typical lifecycle process of procurement, imaging, securing, deployment, monitoring, maintaining and refresh. However, this lifecycle process is long drawn out and is time consuming for the IT team. The other challenges of this traditional ecosystem are the custom installation of the OS and apps on each device, daily operations management for each device and monitoring and support for every end-user device. This results in an increase in desk-side support calls and increasing dissatisfaction among users with respect to their experience in accessing Enterprise resources.

A typical enterprise ecosystem is represented below:



In the Enterprise, there is constant pressure on the IT team to optimize costs, increase the availability of the technology systems, improve user satisfaction, and provide frequent device refresh and OS migrations. To add to the traditional challenges, increasing consumerization is changing the way people use their end-user devices. New devices such as smart phones, tablets, and thin or zero clients are making their way into the Enterprise in large numbers.

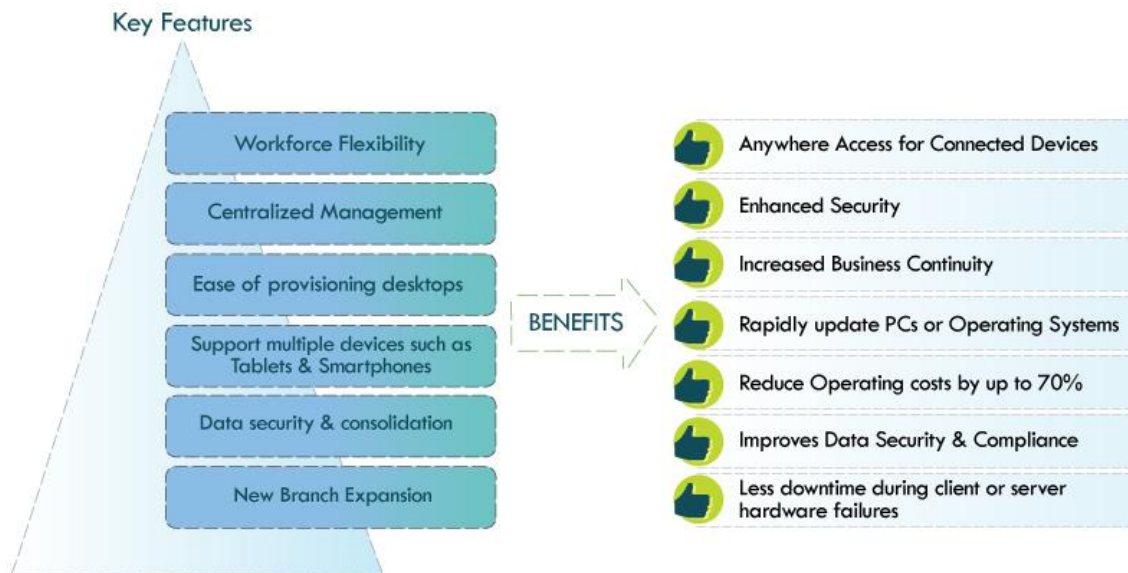
Recognizing that consumerization of IT is an unstoppable trend, the Enterprise IT team should develop a comprehensive strategy to transform the eco-system and deliver smart secure workspaces that provide ease of management, increased security and compliance, greater scalability and increased availability.

The identified transformational strategy should cover two broad areas:

- Desktop virtualization
- Bring Your Own Device (BYOD)

The combination of Desktop virtualization and BYOD allows the Enterprise IT team to adopt the 'right' platform to disseminate the 'right' information to the 'right' stakeholder. The adoption of Desktop Virtualization and BYOD mentioned technologies facilitates Enterprises in their attempt to create **smart and secure workspaces solutions**.

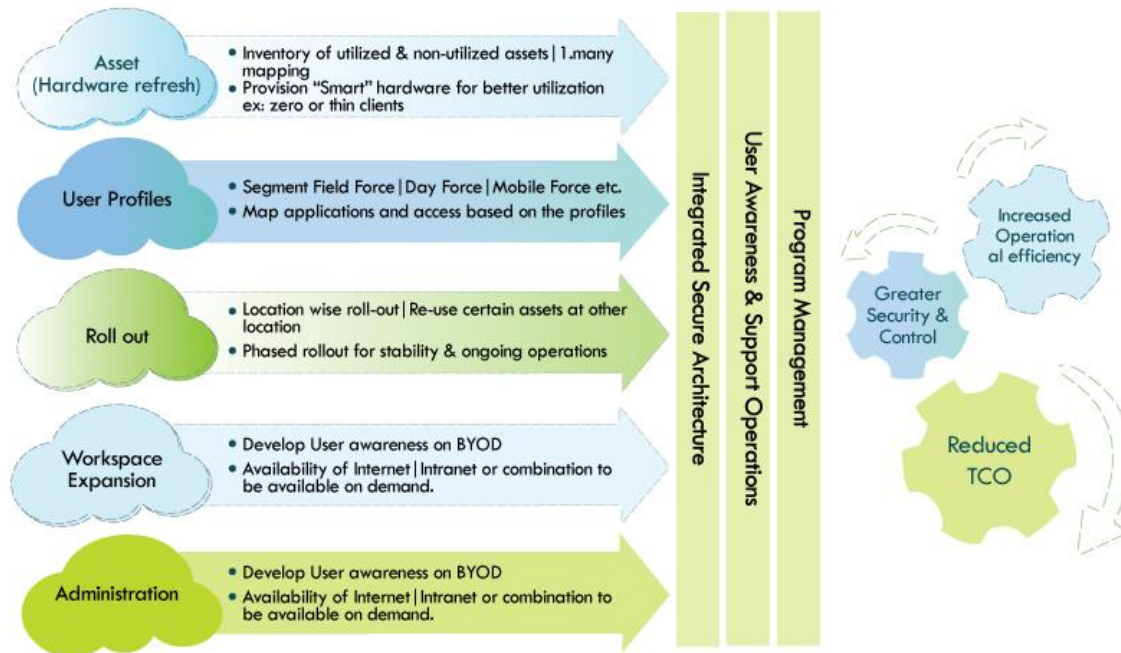
A typical enterprise ecosystem is represented below:



THE STRATEGIC ROADMAP

The Enterprise IT has to embark on a transformation journey through a new and untried landscape of consumerization. This requires a well-defined strategy that covers three key areas – Security and Compliance, Serviceability and Scalability.

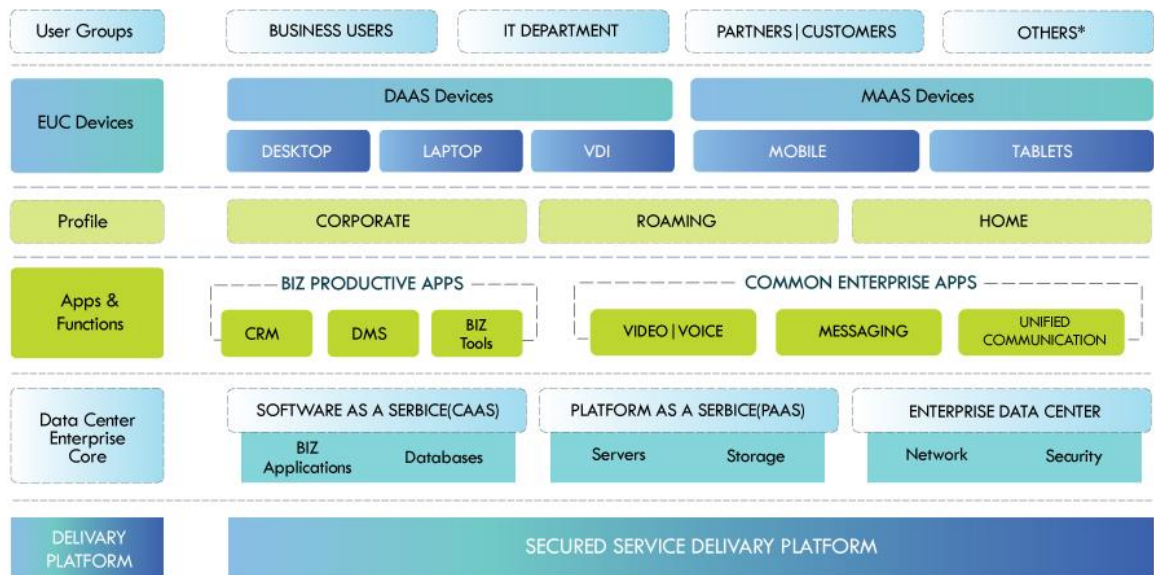
As a first step, the strategy should identify the areas that must be considered for the roadmap to maximize the operational efficiency, provide greater security and control and reduce the overall Total Cost of Ownership (TCO), while aligning with the overall business objectives. This is represented as follows:



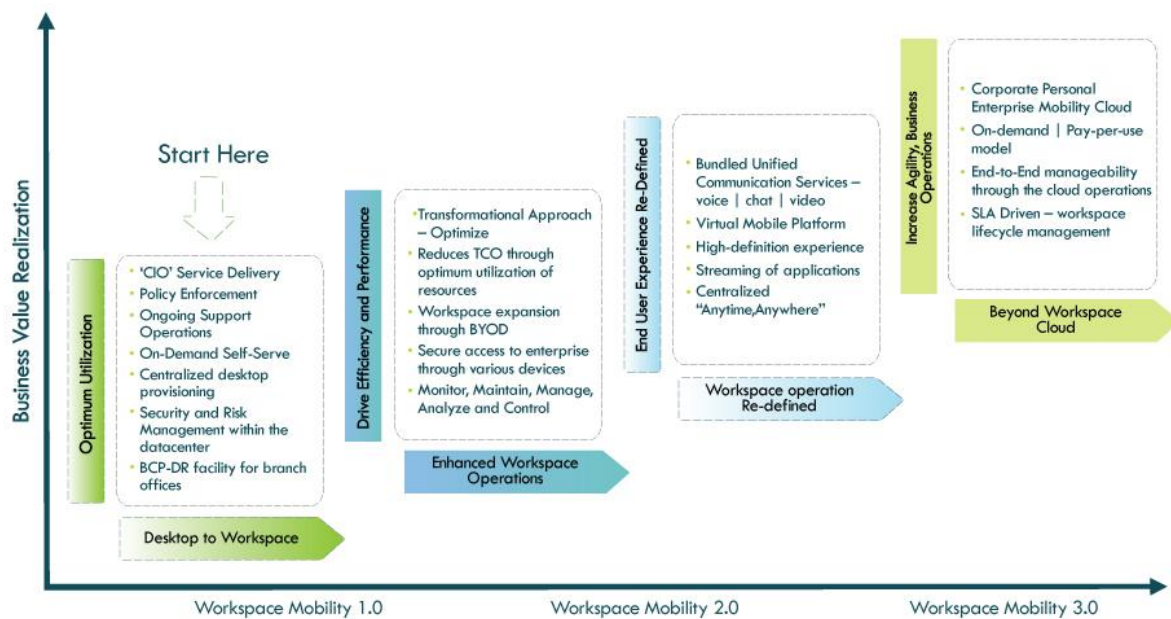
The roadmap must include

- Integrated, secure architecture for current and future expansion
- User awareness and support operations aligned to support the various end-user devices and to handle the provisioning and decommissioning of the systems
- Program Management to track the progress of the roadmap implementation

The reference architecture should cover the end-to-end services to the end users as represented below:



In addition, the roadmap should define a phase-wise approach towards a desired end state and constantly evolve with the changing needs and requirements of the market, as given in the figure below:



BUSINESS OBJECTIVES AND BENEFITS

The strategic roadmap should take into consideration some of the key business objectives that must be addressed when implementing a consumerization strategy. Some common business and operational objectives as well as the resultant benefits have to be stated explicitly, to create awareness and understanding of the consumerization initiative, as illustrated below¹.

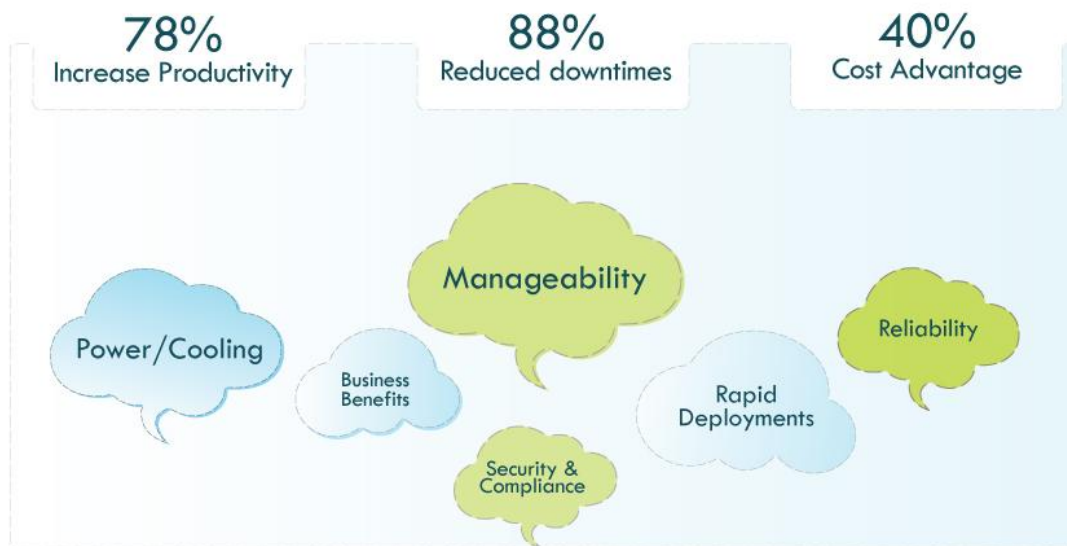
Business Benefit	Operational Objective	Operational and other benefits	An Illustration
Improved Productivity	Ease of use	Lowest overall TCO	A typical task worker performs non-complex and repetitive activities to get the job done. These workers need no desktop customization and generally are measured on the volume of work that can be completed during a given time frame. The partners coming into the offices to perform routine tasks could be the sample chosen for desktop virtualization under shared model
Optimized TCO	Minimize application launch time	Centralized data protection with increased information security	
		Eliminate PC Move/Add/Change costs	
		Fast boot and application launch	
		Centralized management and application deployment	
IP Protection	Ease of use & access	Centralized source code protection	A knowledge worker adds value by processing existing information to create new information that can be used to define and solve problems. Knowledge workers rely heavily on desktop automation to perform their jobs. They require the ability to personalize and control their desktop with minimal limitations. The typical sales manager within the branch office
Time to productivity	Personalization	Centralized data protection	
Security/Compliance	Isolated OS	Eliminates remote access and data	
Workforce flexibility/continuity	Multiple custom desktop images	Unlimited isolated virtual machines	
		Eliminate PC Move-	

		Add-Change costs	could be classic candidate for deploying the dedicated virtualized desktop. A hybrid model of desktop virtualization and BYOD can be explored
Maximize revenue generating knowledge work productivity	Fastest CPUs possible	Eliminate local PC's space, noise & heat	There is another type of knowledge worker who requires not only the ability to control and customize their desktop, but also maximum desktop performance. The expectations for desktops in this environment are 100% availability, the fastest-possible processor speeds and unlimited personalization options. The branch managers, head offices can be provided with an option of BYOD and standard desktop virtualization client to be accessible on the BYOD.
Limited & expensive office space	Personalization	Centralized data protection	
	Multiple monitors	Centralized management and flexible resource allocation	
	Zero down time	Eliminates down time due to local PC's	
		Eliminate PC Move-Add-Change costs	

¹ Inference derived based on resources from Citrix

CONCUSION

Smart and Secure Workspaces with a combination of Desktop Virtualization and BYOD can provide significant business value and benefits. Industry experts are betting on these technology transformation programs in which are expected to providethe following tangible benefits,



To conclude, the Enterprise IT strategic roadmap should create the 'right' environment for the success of business. The following **eight step procedure summarizes how Enterprise can embrace the transformation,**

1. Align IT objectives to Business strategy
2. Develop the strategic roadmap
3. Define and design the suitable architecture for deployment
4. Implement the design through a strategic program management office
5. Create user awareness with a phased rollout
6. Redefine the security policy related to workspaces
7. Baseline and measure frequently against the overall objectives
8. Stabilize and transform to the next stage of Smart Secure Workspaces

Happiest Minds IMSS offers End-User-Computing (EUC) Services, as a focused transformational service. Our EUC aims at **'Simplifying Enterprise Mobility.'** Our EUCAssure (packaged solution) delivers a comprehensive platform that provides built-in security, availability, and scale coupled with robust enterprise services. EUCAssure provides:

- Smart and Secured Workspace
- Predictable services – anytime, anywhere, any device
- End to End services from envisioning, architecting, implementing and providing ongoing operations

- Stack built on Industry benchmarked tools and products, coupled with right commissioning and provisioning Innovative solutions stack, assisting in adopting the next-generation technologies for improved end-user productivity

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About the author:

Sahana Subramanya (Sahana.subramanya@happiestminds.com) heads the solutions for Workspace and Mobility for Enterprises in Happiest Minds Infrastructure Management and Security Services. She brings expertise in end to end mobility solutions, workspace transformation, infrastructure management, end user computing and experience through technology innovation. Most recently, she worked at MindTree Limited where she has spearheaded Service Delivery, Consulting and Presales – Solutions to customers globally. Has handled various global customer engagements where she was responsible for providing service delivery and managing very large distributed IT infrastructure, providing consulting and implementation services in the areas of Mobile Infrastructure solutions, technology overhauls, tools customization and consolidation, IT Risk Assessments.