



REIMAGINING END POINT MODERNIZATION JOURNEY FOR A GLOBAL MANUFACTURER

Abstract

This whitepaper explores how adept endpoint modernization solutions can be leveraged to revolutionize IT landscape for organizations, whilst creating a harmonious, user-friendly, and intelligent system.

Executive Summary

Communication, collaboration, and connectivity have been going through an evolution curve. This can be attributed to the disruptive technologies of today that are shaping the future of work beyond imagination. Especially, with the emergence of Artificial Intelligence and Cloud, digital mobility has pushed the workplace outside of cubicles and rendered it as an omnipresent entity that is not hinged to time, device, or location. Thus, giving organizations and its employees the superpower to explore the endless possibilities.

To sustain this empowered state of being fluid and seamless, the need of the hour is –

Cloud and AI powered modern end-point management solutions

To tackle the challenges rising through the trials faced by on-prem technologies such as slower paced rollouts and lesser automation.



Equipping organizations with tools for simplified management, compliance monitoring, and improved user-experience

For employees to unlock productivity from anywhere, any time and on any device.



Consequently, many global enterprises today, are embracing their future of work journey by unlocking the new dimensions of hybrid work viz., flexibility, productivity and efficiency, while being cognizant about the security aspects. That said, end point management is one of the prominent areas of the future of work paradigm, that deals with auditing, monitoring, patching, updating, and deploying to the endpoints.

Infosys, backed by its experience and expertise, has enabled seamless hybrid work leveraging modern endpoint management for many organizations over the years. With modern endpoint management, work can be reimagined to be a flexible activity that is not confined within an office space.

In this paper we will be sharing some of the best practices that Infosys has adapted for a client while successfully helping them through their endpoint modernization journey.

Background

A Summary of the Digital Workplace Operations Program:

Infosys, in a long-term association with this leading global manufacturing company having a workforce of over 150,000 employees, has offered services across application and infrastructure in the enterprise and office domains. Engaged in a multiyear Digital Workplace Operations program through endpoint modernization, Infosys is accelerating the company's digital transformation journey.

Monitor, manage and maintain end point inventory, applications, and corresponding tools, and server infrastructure

Improve the efficiency of day-to-day operations

Accelerate their journey through end point maturity into a truly modern digital workplace

Objectives of this multiyear program

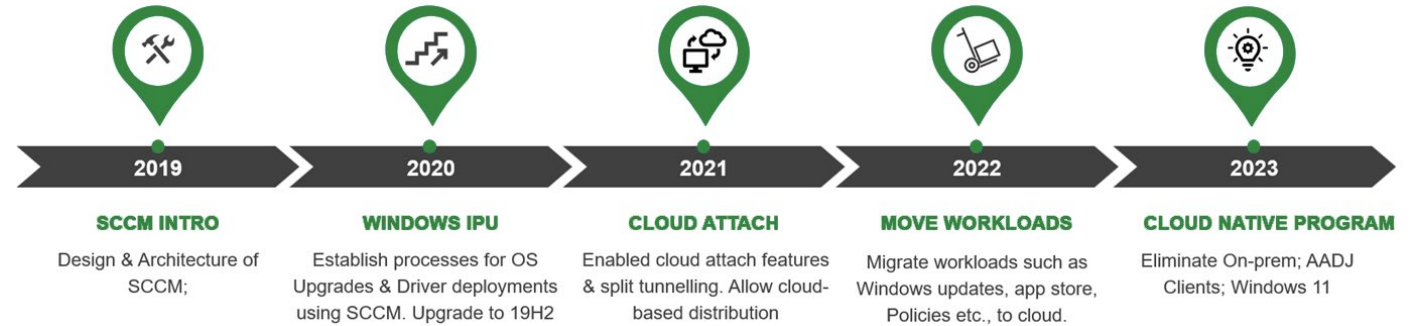
Before embarking on this modernization journey with Infosys, the client had employed a distinct product suite for enterprise device management, necessitating numerous customizations that ultimately led to a significant amount of technical debt within the system. Adding to this the pandemic disrupted services forcing the offices to close their doors in 2020 leading to an urgency to move to cloud to ensure business continuity. The client zeroed in on an ambitious "cloud-first" roadmap to reap the business benefits of cloud, such as secure access from anywhere, improved SLAs and cost optimization.

A well-planned and well executed digital workplace transformation can revolutionize the IT landscape, thus creating a harmonious, user-friendly, and intelligent system. Infosys facilitated the client's Modern Endpoint Management journey, harnessing the power of robust Infosys best practices, solutions, and accelerators. The outcome was a flawlessly controlled administration of endpoints, accessible securely from any location and patchable with velocities witnessed like never before.

The end-result:

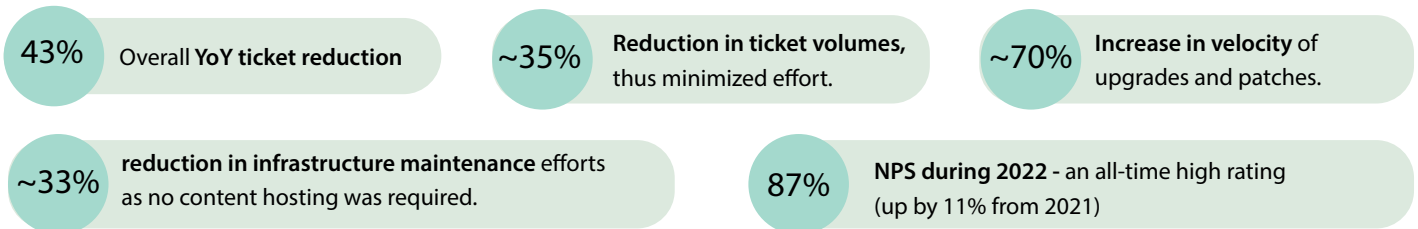


The Modern Endpoint Journey



<p>SCCM INTRO - Design and Architecture of SCCM</p> <p>The initial phase began with the introduction of Microsoft's System Center Configuration Manager (SCCM) into the environment. This marked a pivotal shift, affording the client an opportunity to leverage the inherent capabilities provided by SCCM's out-of-the-box. This transition facilitated a more streamlined and efficient approach to device management.</p>	<p>WINDOWS IPU - Establish processes for OS Upgrades and Driver deployments using SCCM. Upgrade to 19H2</p> <p>This was followed up with established In-Place Upgrade (Windows IPU) processes and workflows around OS upgrades, drivers, and application deployments. The OS upgrade processes were dependent on on-prem content distribution network and the deployment rings had to be restricted to a threshold to limit network bandwidth utilization.</p>	<p>CLOUD ATTACH - Enabled split tunneling and co-management features. Allowed cloud-based distribution</p> <p>Next, during the pandemic when there was limited or no access to workplaces; the client realized the need to host the content on cloud management gateway and established split tunneling on their VPN. Thus, a roadmap was defined to move the workloads to cloud, and co-management/ Cloud Attach was enabled.</p>	<p>MOVE WORKLOADS - Windows Update, App Store and Policies among others to Cloud</p> <p>At this juncture, the most challenging workload that needed utmost attention was the applications workload. The client's aspiration to replace the on-premises application store with a Microsoft Intune-based company portal was brought to fruition through the implementation of a highly automated application onboarding process, which migrated all existing eligible store applications. Moreover, to streamline the integration of new applications and upgrades, a self-service portal was meticulously crafted. This innovation empowered application owners to autonomously onboard their applications, marking a significant departure from conventional packaging practices. Also, rest of the workloads such as compliance policies, browser and Office policies among others, were re-created on Intune based on the existing Microsoft's Group Policy Object (GPO) policies. This has helped in cleaning up and consolidation of the device policy management.</p>
<p>WINDOWS 11 UPGRADE WITH WUFB POLICIES - Eliminate On-prem: AADJ Clients; Windows 11</p> <p>Introduction of a new Windows Operating System in an enterprise demands a substantial amount of attention and effort. Activities such as evaluating compatibility, remediating application issues, and testing across different machine models typically constitute the readiness phases. Infosys played a pivotal role in streamlining the process by automating the procedure of subscribing to insider and early adopter releases, further bolstered by support through PowerShell scripting and Intune policies.</p> <p>The modern OS upgrade processes for the client's end users today are handled by assigning Windows Update for Business (WUFB) Policies to the deployment rings as opposed to the traditional task sequence-based OS upgrade methodology. Infosys played a pivotal role in elevating the OS upgrade process by seamlessly transitioning the entire eligible fleet of approximately 100K qualifying devices to Windows 11, employing the WUFB method. The Windows 11 upgrade took about 13 weeks, which otherwise would have taken about 9-12 months with a traditional IPU method, improving the velocity of the upgrade by 2.5 times.</p>			

Business Benefits Delivered



What's Next?

Taking the modernization journey further, Infosys is assisting the client with a cloud native client program, where in the Windows endpoint identities are untethered from on-premises active directory and have cloud identities powered by Microsoft Entra ID (formerly known as Azure Active Directory).

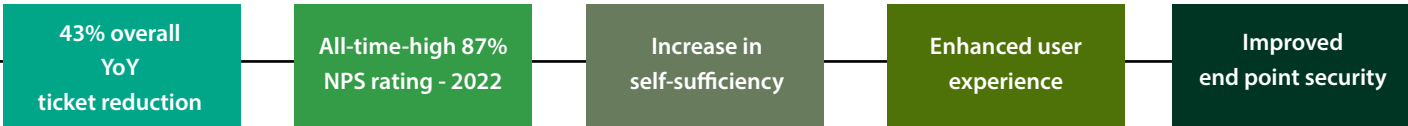
Benefits Expected from the Cloud Native Client Program

Technology Adoption	Benefits
Windows Autopilot and OOBE (Out of the box experience)	Allow end users to configure devices themselves (self-service) instead of a build technician
Patching and Updating devices using WUFB and DS	Improved velocity and accuracy in patching
Reporting powered by Azure Analytics and Intune Datawarehouse	Real time data and reporting capabilities
Elimination of On-Prem MECM Setup	Reduction of tech debt and infra spend

Conclusion

In the new normal, employees are empowered to use laptops, mobiles, and other hand-held devices on the move. Truly embracing the hybrid work era, the employees today check and respond to emails and engage in conversations on personal smartphones/devices, carry out their day-to-day activities anytime, anywhere and on any device, access data securely on cloud, thereby rendering the traditional on-prem model almost obsolete. This profound impact on the overall work, workplace, and workforce dimensions of enterprises can be credited to the power of Modern Endpoint Management.

The quantitative and qualitative KPI indicators shared below are evident enough to support this claim –



To conclude, navigating the landscape encompassing modern clients, hybrid devices, various OS versions, and the involvement of insider and early adopter channel users within the environment presents a complex management challenge. With advanced capabilities and experience, and leveraging the industry best practices, efficient and effective endpoint device management can be carried out empowering enterprises to meet the challenges in new ways of working.

About the Author



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