WHITEPAPER

Dealing with Complexities of Windows 10 Migration

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Abstract

Windows 10 has created quite a buzz in the market with positive responses from both consumers and enterprises. This is primarily on account of the additional features that are designed for user experience, security, mobility and adaptability to the cloud. However these new features make migrating to Windows 10 a much more complex exercise than previous versions of Windows.

Some key factors that increase the complexity of migration are:

- **Hardware & Application compatibility**
- **Security features that you want to deploy**
- **Right Fit Deployment Models**
- **Handling updates**

Due to these complexities, leading analysts have recommended a 12 month timeline for Windows 10 migration.

Microland with it's expertise in carrying out complex, large scale migrations, has carved out a unique methodology for Windows 10 migrations. This methodology specifically focuses on initial readiness assessment to identify incompatible applications and hardware through an automated solution supported by a formal testing methodology that is focused on security features and identity & access controls. This is followed by migration which is executed by Microland's industrialized factory model for quick and cost effective migration. The entire migration journey is governed by, a strong governance framework to ensure that the migration goes off without any hassles as per timelines.

Dealing with Complexities of Windows 10 Migration

Key drivers for Windows 10 deployment in Enterprises

1. Security improvements
2. Better user experience with 2-in-1 devices
3. Uniform apps for PCs, phones and tablets
4. Cloud integration capabilities
5. Leverage free upgrade

Potential issues in Windows 10 migration

1. Application and hardware incompatibility
2. In place upgrades not working
3. Security and encryption tools not supporting Windows 10
4. Issues with VDI environment

Windows 10 is receiving very good and positive responses from both consumers and enterprises. However, enterprises are yet to find the right approach and timing for migration to Windows 10. The new version is significantly different from the past versions in many important aspects and therefore the migration approach has to be different from the one that enterprises have taken to migrate from Windows XP to Windows 7.

Windows 10 has many features and functionalities that are specifically designed around user experiences, enterprise security and cloud adaptability. It is built for both desktop & mobile devices and is packed with touched-optimized experience. Universal Windows Apps allows users to easily build apps that run great and scale across all form factors. It comes with enterprise mode of Internet Explorer 11 as well as modern Edge browser. It supports new input types like pen and touch and also comes with Cortana for highly interactive user experience. It powers 2-in-1 devices like the Surface Pro 3, Lenovo Yoga and many other such devices.

Windows 10 brings a number of advanced features in security and identity protection such as Device Guard, Credential Guard, Microsoft Passport, Windows Hello etc. Furthermore advanced security features are planned in the future roadmap such as Enterprise Data Protection, multifactor authentication or Windows defender advance threat protection etc.

By introducing Windows 10, Microsoft has extended built-in mobile device management (MDM) capabilities to traditional laptops and desktops. EMS Intune can be used to manage both mobile as well as Windows 10 enabled desktop and laptop devices.

Deploying any new version of Windows requires a lot of effort for enterprises, however given all the new features that Windows 10 is packed with, which is significantly different and focused around user experiences & security, it would require an exhaustive and careful planning for any organization to migrate their devices and users to this new version. There are many challenges & complexities involved in Windows 10 migration through which organizations need to navigate.

Factors to consider when migrating to Windows 10

Hardware & Application Compatibility: Whilst Microsoft claims that the migration from Windows 7 to windows 10 will be smooth and application compatibility will not be an issue, but they do not guarantee the same. Enterprises still need to validate application compatibility for Windows 10. This will require tools, expertise and effort. Also hardware compatibility needs to be checked to plan for new features that Windows 10 promises, such as credential guard, device guard, Windows hello and touch enablement. Along with laptop and desktop compatibility enterprises need to test the compatibility of the third-party devices such as printer, scanners, specialized mouse or keyboards to work with Windows 10 devices. There are third-party vendors who have not yet updated the drivers for their devices to work on Windows 10.

Security features that you want to deploy: The big promise of Windows 10 is the enterprise security features such as Enterprise Data Protection, Microsoft Passport etc. Organizations needs to plan which security features and how they should plan to deploy the same. Also, one needs to understand what products or tool set that organization has invested and currently in use and can these be leveraged with Windows 10. There could be situations where there will be overlap between the features that Windows 10 provides with the existing security products that organization has already invested on.

Right fit deployment model: For Windows 10, Microsoft provides a few deployment choices such as Wipe & Reload, In-place Upgrade and Provisioning. Not all users or all devices in enterprise will suit for one deployment model. Based on devices/users a combination of deployment models needs to be planned. Therefore a thorough analysis for devices/user profiles need to be carried out. Also, enterprise need to focus on Zero touch and Zero Impact deployment models that are standardized across users.

Handling updates: One of the biggest differences between Windows 10 and previous Windows operating systems is how updates are handled. Microsoft has taken the auto-update approach for Windows 10. Enterprises need to choose from the two models of updates CBB and LTSB. The choice will depend upon the criticality of the user machines and how enterprise wants to control the updates. This has to be planned for and tested before large scale migration within the organization.

Security features to test and deploy

1. Biometrics and hardware-based multi-factor authentication using Windows Hello, Microsoft Passport & Credential Guard
2. Protection against malware leveraging Windows defender, Secure Boot and Device Guard
3. Identify compromised devices using Advanced threat protection environment

Recommendations for Windows 10 migration

1. Start early, focus on planning, evaluating and testing
2. Finalize and test security features
3. Avoid 3rd party security tools overlap
4. Build standard processes & procedures for roll out
5. Leverage automated tool sets & scripts for zero touch zero impact roll out
6. Plan and implement Windows 10 update method based on user/system criticality

Analysts view on Windows 10 migration approach

While Microsoft claims that Windows 10 migration will be more cost effective than Windows 7 it will still be expensive. Leading Industry analysts have quoted between $1,035 and $1,930 per user to migrate from Windows XP to Windows 7. While there are no such figures that have been released for Windows 7 to Windows 10 migration, it is a costly affair for many enterprises who have large user base.

On deployment of new security features, Analyst recommend evaluating the new features and setting up potential timelines for adoptions. Security features such as Device Guard and Credential Guard will require relatively new hardware and specific configuration options to function.

On Windows updates leading analysts suggest that most enterprises will face at least one Windows update during the first six months of their deployment, and hence organizations must begin developing a plan for dealing with these mandatory updates before the first production deployment occurs.

For Windows 10 deployment the overall recommendations from leading industry analysts for enterprises are to allocate sufficient time for image creation & testing, comprehensive planning with defined milestones & resource requirements, having formal testing methodology and selecting the right deployment tools for easy migrations.

Migrating to Windows 10 – The Microland way

Microland's Windows 10 migration service capabilities are built on 25 years of experience in migrating and managing over half a million desktops and users. This enables us to roll out Windows 10 and integrate it into the client's IT infrastructure seamlessly. Our notable partnership with Microsoft, as its Best IT Infrastructure Services Partner in India for eight consecutive years puts us in a unique position to offer superior migration services. Microland co-invests and collaborate with Microsoft to leverage their best practices while adding service layers to suit the requirements of large enterprises.

We have leveraged all our experiences and built our own philosophy for Windows 10 migration, which we believe are the pillars for successful migration to Windows 10.

Microland's philosophy for Windows 10 migration

1. Focus on initial assessment of user environments. Otherwise, planning and testing could be a hit or miss
2. Standardization and industrialization are the cost-effective way for large-scale migration. Our off-shore industrialized factory model supports quick and-cost effective migration
3. Adopt a formal, appropriate and repeatable testing methodology that ensures issues are identified and categorized during the image-creation and testing phase
4. Deploy strong governance framework and outline project timelines to ensure stakeholders are in sync with project timing, budgeting and planning
5. Allocate time and resources for upfront activities to lower costs and effort during migration

Microland's automated approach ensures easy, quick, and seamless Windows 10 migration

1. Reduce migration cost
2. Enhanced business operations
3. Reduced manual processes

Case Study

Global professional services firm ensures superior user experience by enabling smooth Windows migration

Reduces business risk and operational complexity with zero downtime and no data loss in transition

Goals

ORCHESTRATING SEAMLESS TRANSITION WITH MINIMAL BUSINESS IMPACT

The client wanted to migrate to the latest version of Windows in a seamless manner to modernize the end user workplace environment without affecting business continuity. The project was complex because the client had to manage a diverse end user operating environment across multiple countries, each with a diverse set of policies and standards of operations. Multiple standard operating environments (SOEs), applications resulting from inorganic growth, and the lack of expertise in application compatibility assessment and remediation further compounded the client's management challenges. The client also wanted to facilitate global rollouts with agility.

Scale of Operations

- Over 60,000 desktops and laptops
- Over 5,000 applications
- Multiple business units with diverse requirements
- Over 500 locations
- 70 countries

Microland

ENABLING FLEXIBLE AND AGILE MIGRATION

We proposed an efficient solution for seamless migration, leveraging our deep domain expertise in Windows migration lifecycle services, remote migration factory, and global deployment capabilities.

Transformation

PROVIDING INTERRUPTION-FREE MIGRATION WITH ROBUST TOOLS AND PROCESSES

Microland's experience in migration projects along with our processes and project management, robust governance, and right toolsets supported by highly-skilled resources ensured the success of the migration project.

The solution steps included:

- Project Planning
- Migration factory approach
- Round-the-clock support

Outcome

ENHANCED USER EXPERIENCE, OPERATIONS, AND REDUCED COSTS

We enabled the client to maximize efficiencies and successfully migrate over 200,000 mailboxes across the globe in six months. The client also realized the following key benefits:

ENHANCED USER EXPERIENCE

- Enabled transformation to a centralized end user environment across all businesses and 70 countries
- Ensured business continuity by migrating to the new environment with zero defects and zero downtime by training the client's IT operations team

IMPROVED COST-EFFECTIVENESS

Reduced deployment costs by 20% with demand-based resourcing

Based on the Microland's philosophy on Windows 10 migration, Microland has built the right set of service offerings and capabilities combined with robust compatibility assessment framework and automation tool sets for migration and execution capabilities for deployment of Windows 10 at a scale.

Our readiness assessment framework ensures that a thorough and quick compatibility assessment for applications and end point devices are carried out to identify incompatible applications and its remediation measures. We leverage our industrialized and standardized factory based approach for assessments at scale.

Image build and engineering is another key phase in the migration journey. Especially with Windows, we recommend a comprehensive plan for image build and test. The focus of test should be on the security features and identity & access controls. In Windows 10 User/Device identity & access control has gone beyond enterprise boundary to the sophisticated cloud-based authentication system, hence enterprises needs to test these functionality in great detail. Our experienced consultants leverage our Windows 10 image engineering framework to ensure that the build and test go through a robust validation mechanism which is aligned to organization's requirements.

Once the image is tested and validated, migration has to be executed in a phased manner. During the migration stage the focus should be on Zero Impact to users. Microland leverages automated tools sets to enable users to schedule their own migration time and execute a zero touch migration. We leverage our industrialized and standardized factory based approach for large scale migrations.

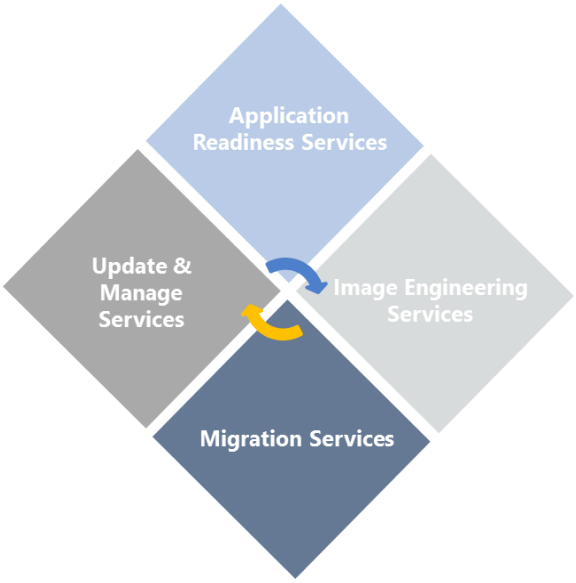

Figure 1: Windows 10 Services Portfolio

Our migration methodologies ensure an accelerated deployment life cycle and an efficient migration solution at every stage

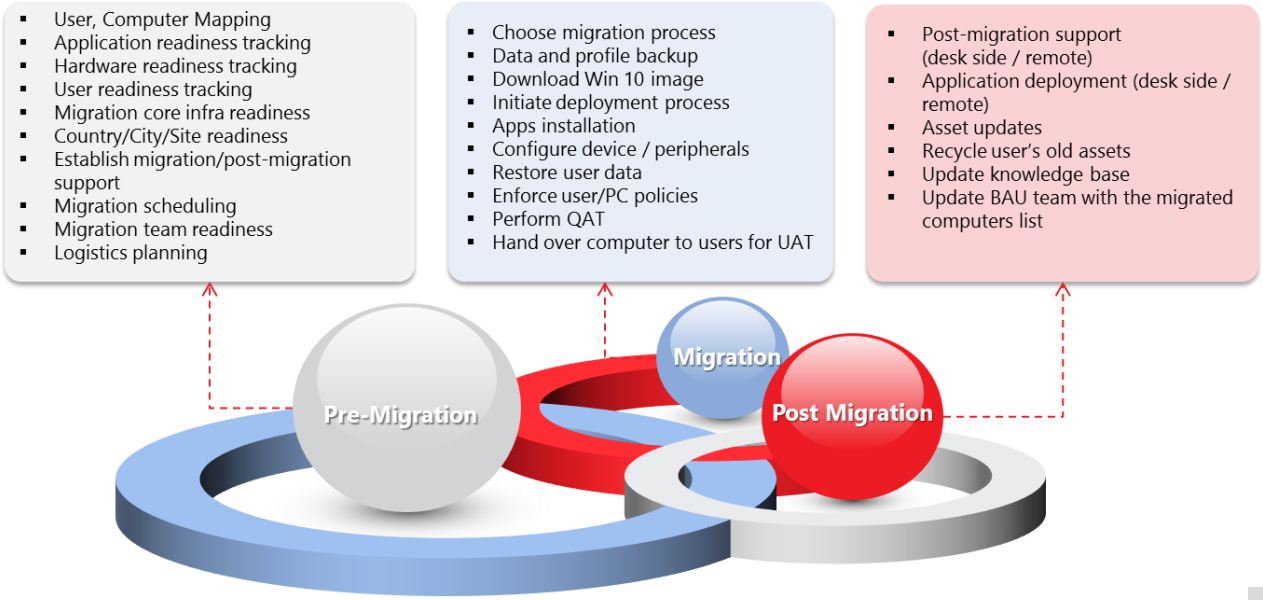

Figure 2: Migration Methodologies

Conclusion

Windows 10 is an inevitable migration for organizations running Windows PCs. There are a broad number of factors that must be considered by enterprises for Windows 10 migration. Application compatibility on Windows 10 is good, but not perfect. New security and management features will require comprehensive planning and significant effort. Windows 10 deployment & Update model has to be finalized based on criticality of user. Large scale migration and roll out will require standardized approach for cost efficiency.

Microland has invested significant time and effort in developing capabilities, processes and automated tools for Windows 10 migration. Microland's Windows 10 migration service capabilities are built on strong foundation of our expertise and experience of global OS migrations for various large-scale customers. Through these capabilities, Microland strives to make the Windows 10 journey, for enterprises, efficient and cost effective.

5 phases of Windows 10 Migration Journey

1. Application Compatibility Assessment
2. Hardware & Support Environment Readiness Check
3. Image Engineering and Testing
4. Windows 10 migration Roll out
5. Strategy for Updates & Support

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About the author

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Raj Kumar Thakur has over 17 years of experience in the IT Infrastructure Management space and has played various roles in Service Creation, Service Delivery, Service Management Consulting and Solution Engineering. As Senior Director & Practice Lead – End User Services Practice, he is responsible for building service capabilities in the areas of Digital Workplace, Cloud based messaging & collaboration and NextGen End user support ecosystem. As part of this role Raj is responsible for bringing innovative ideas and initiatives that sets out to improve the employee experience with various technology solutions.

In his previous roles in Microland he was responsible for building service capabilities in Cloud and Mobility area. He has also led ITSM consulting practice for Microland with focus on IT Operation Strategy Consulting, ITIL & ISO 20000 Consulting services.

He 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.

For further information

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About Microland

Microland is a leading Hybrid IT Infrastructure Service Provider and a trusted partner to enterprises in their IT-¬as-a-Service journey. Incorporated in 1989 and headquartered in Bangalore, India, Microland has more than 3,400 professionals across its offices in Europe, Middle East, North America and India. Microland enables global enterprises to become more agile and innovative through a comprehensive portfolio of services that addresses hybrid IT transformation, workspace transformation, service transformation and end-to-end IT infrastructure management.

Lear more about us at:

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