MSIX TECHNOLOGY FUNDAMENTALS WITH ARCHITECTURE

GROUP C

MSIX Technology Fundamentals with Architecture

- MSIX is Microsoft's modern packaging format that combines the best features of MSI, AppX, App-V, and ClickOnce into one unified solution.

- Works for both modern apps (UWP) and traditional apps (Win32/.NET).

KEY FUNDAMENTALS:

- Universal format

- Container-based installation

- Declarative model

- Digital Signatures

MSIX Architecture (high-level):

- MSIX Package
- MSIX Installer
- App Container
- Virtual File System (VFS) & Registry
- Update/Uninstall Engine

WHAT IS MSIX & KEY BENEFITS of MSIX1

WHAT IS MSIX

- Modern Windows application packaging format.•
- Combines the best of MSI and AppX.
- Clean installation, updates, and uninstallation.
- Supports Win32, .NET, and UWP apps.
- Provides security with digital signing and containerized execution.

KEY BENEFITS of MSIX:

- Reliable Install/Uninstall – Ensures no leftover files or registry entries.
- Improved Security – Digitally signed packages and containerized execution.
- Simplified Updates – Supports differential (delta) updates.
- Enterprise Deployment – Works with SCCM, Intune, Microsoft Store, and Azure.
- Consistent Experience – Predictable behavior across all windows devices

Why MSIX

- Reliable & Clean Installation – No leftover files or registry entries.

- Improved Security – Digitally signed packages and containerized execution.

- Easy Updates – Supports differential updates to save time and bandwidth.

- Enterprise Deployment – Works seamlessly with SCCM, Intune, and Microsoft Store

Current Limitations:

- Limited Backward Compatibility → Older Windows versions have partial support.

- Complex Conversion → Converting existing MSI/EXE apps to MSIX is not always smooth.

- Third-Party Tool Support → Some enterprise tools and legacy systems don't fully support MSIX.

- Driver & Service Limitations → Apps requiring kernel drivers or certain services may not work well.

- Customization Restrictions → Limited flexibility compared to MSI for advanced installation scenarios.

- Adoption Challenges → Not yet widely adopted across all industries and vendors.