

## ***Application Compatibility Testing & Troubleshooting in APP packaging***

### *Application Compatibility Toolkit (ACT)*

*The Application Compatibility Toolkit (ACT) is a tool made by Microsoft. It helps users check if old applications work on new versions of Windows. If there are problems, ACT can fix them using small changes called shims. This way, the user does not need to change the app's original code. In this assignment, we will learn how to use ACT for testing and fixing app problems.*

### *Application Compatibility Toolkit (ACT) Testing and Troubleshooting*

*It's a Microsoft tool designed to help businesses test, identify, and fix application compatibility issues when upgrading Windows OS.*

#### *Testing with ACT*

- *To ensure apps continue working after a Windows upgrade (e.g., Windows 10 to Windows 11) and Avoid system crashes or app failures after OS migration.*



#### *Steps:*

1. *Install ACT (part of Windows ADK).*
2. *Use the Compatibility Administrator Tool to:*
  - ❖ *Scan all installed applications.*
  - ❖ *Detect potential compatibility issues.*
3. *Create a software inventory using the Inventory Collector tool.*
4. *Analyze collected data in the Application Compatibility Manager.*
5. *Match with Microsoft's known issues database.*

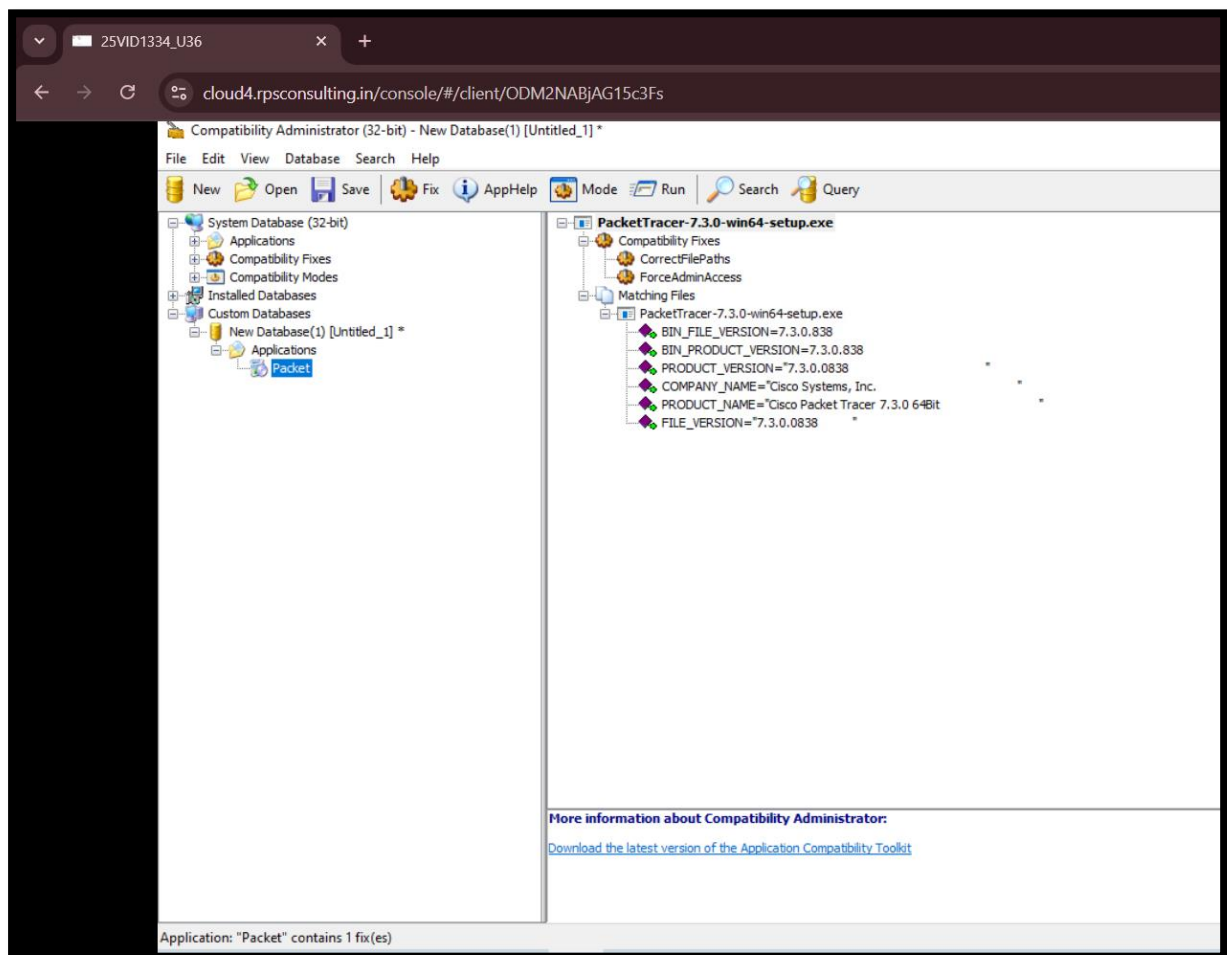
#### *Troubleshooting with ACT*

1. *Common Issues:*
  - ❖ *Older apps not working on new Windows versions.*
  - ❖ *Permission or file access errors.*

- ❖ Apps depending on outdated Windows features.
2. Troubleshooting
    - ❖ Shim Fixes: ACT allows you to apply "shims"—small code adjustments that trick the app into thinking it's running on an older OS.
    - ❖ You can simulate earlier environments (like Windows 7 or XP).
    - ❖ Apply compatibility fixes without changing the original app code.

### Benefits of Using ACT

- Saves time during OS migrations.
- Avoids manual testing of hundreds of apps.
- Centralized tracking and reporting of compatibility issues.
- Reduces IT support calls post-deployment.



### Tools to use alongside ACT

1. Process Monitor (ProcMon): Tracks file, registry and process activities.
2. Event Viewer: Logs app and system errors.
3. App Verifier: Performs runtime checks on applications.
4. Windows Compatibility Troubleshooter: Built-in tool for minor compatibility fixes.

5. *Dependency Walker*: Scans Windows module and builds a hierarchical tree diagram of all dependent modules.

