Here is the **most comprehensive sentence-by-sentence study note breakdown** of the document titled **“65. Update and Security”**, tailored for **CompTIA A+ 1102 Objective 1.6**: *“Given a scenario, configure Microsoft Windows Settings.”* All-important configuration, protection, recovery, and activation tools within this applet are thoroughly explained.

**📘 STUDY NOTES – Update and Security (Windows Settings Applet)**

**🔹 Concept Overview**

* **Update and Security** is an applet in the **Windows Settings** application.
* Located at the **bottom of the main Settings menu**.
* Purpose: Manage **system updates**, **security tools**, **troubleshooting**, **recovery**, **backup**, **activation**, and **developer settings**.

**🧩 Section-by-Section Breakdown**

**1. Windows Update**

* Central hub for checking, downloading, and installing **Windows updates**.
* Displays:
  + **Last checked time**
  + Optional and mandatory updates (e.g., Cumulative Update Preview)
* Options include:
  + **Download and install now**
  + **Restart after install**
  + **Pause updates for 7 days** (not recommended unless necessary)
* Includes **Active Hours**:
  + Customizable time window (e.g., 8AM–5PM)
  + Updates/installations are scheduled **outside of active hours** to avoid disruption
* **View update history** and access **advanced update settings**

**2. Delivery Optimization**

* Controls how updates are downloaded:
  + Default: From **Microsoft servers**
  + Optional: Allow updates from **other PCs** to **speed up delivery**
* Options:
  + Allow downloads from:
    - **Local network only** (recommended)
    - **Internet + local PCs** (less secure)
* Benefit:
  + Saves bandwidth in offices with many PCs

**3. Windows Security**

* Launches **Windows Security app** for built-in protections:
  + **Virus & Threat Protection**
  + **Account Protection**
  + **Firewall & Network Protection**
  + **App & Browser Control**
  + **Device Security**
  + **Device Performance & Health**
  + **Family Options**
* Can turn on/off features directly (e.g., App & Browser Control)
* Monitors **malware protection** and **cloud-based recovery features**
* Notes:
  + **Backups to OneDrive** are suggested to protect against ransomware
  + Can dismiss non-critical warnings if desired

**4. Backup**

* Provides backup options:
  + **Sign in to OneDrive** for cloud backup
  + **Add a drive** for **local backup** to an external hard disk
* Allows configuration of file and folder backup schedules

**5. Troubleshoot**

* Built-in **diagnostic wizard** to identify and resolve problems:
  + Network
  + Audio
  + Bluetooth
  + Printer
  + Windows Update, etc.
* First-line tool for resolving issues before escalation

**6. Recovery**

* Used for **resetting or reinstalling Windows**:
  + **Keep my files**: Reinstalls OS while keeping user data
  + **Remove everything**: Clean reset
* Often used after malware attacks or system corruption

**7. Activation**

* Verifies Windows license:
  + Activation status shown (e.g., “Windows is activated with a digital license”)
  + Change product key to switch versions (e.g., Pro to Enterprise)
* Uses **digital license linked to Microsoft account**

**8. Find My Device**

* Locates lost/stolen PCs, laptops, or tablets
* Must be enabled and **linked to Microsoft account**
* Once active, device reports its location when online

**9. For Developers**

* Enables developer-specific configurations:
  + Install apps from **any source**
  + Activate **device portal/device discovery**
* Used when building or testing custom apps (advanced use)

**10. Windows Insider Program**

* Grants access to **pre-release (beta) builds** of Windows
* For developers or IT professionals who want to **test features early**
* Configuration includes **channel selection** (e.g., Dev, Beta, Release Preview)

**🔐 Key Functional Categories**

| **Feature** | **Description** |
| --- | --- |
| **Windows Update** | Delivers system updates, drivers, and security patches |
| **Delivery Optimization** | Peer-assisted update downloads to save bandwidth |
| **Windows Security** | Built-in anti-malware, firewall, and system health tools |
| **Backup** | Save files to OneDrive or a local drive |
| **Troubleshoot** | Fix common Windows issues automatically |
| **Recovery** | Reset or reinstall Windows |
| **Activation** | Ensure license validity or upgrade Windows version |
| **Find My Device** | Locate lost/stolen Windows devices |
| **For Developers** | Enables non-store app installations and test modes |
| **Windows Insider** | Early-access builds for testers and developers |

**✅ CompTIA A+ 1102 Exam Inclusion Notification**

**Yes – Fully covered in Objective 1.6**

You must be able to:

* Explain the role of **Windows Update** and **Windows Security**
* Perform a **system reset** using Recovery
* Understand **OneDrive and local backups**
* Recognize **Activation status** and modify product keys
* Use **Delivery Optimization** efficiently
* Understand **Windows Insider** and **Developer Mode** for advanced scenarios

**🧠 Memory Hook – “U.P.D.A.T.E.S. R.A.F.I.”**

| **Letter** | **Feature** | **Description** |
| --- | --- | --- |
| **U** | **Updates** | Manage and install Windows updates |
| **P** | **Pause/Plan Updates** | Schedule updates outside of working hours |
| **D** | **Delivery Optimization** | Share updates locally across PCs |
| **A** | **Antivirus/Firewall** | Managed through Windows Security |
| **T** | **Troubleshooting Tools** | Resolve OS-level issues automatically |
| **E** | **External Backup (OneDrive)** | Cloud and local backups |
| **S** | **System Recovery/Reset** | Reinstall or reset Windows installation |
| **R** | **Registration/Activation** | Change product key or verify licensing |
| **A** | **Advanced Developer Mode** | Sideload and test applications |
| **F** | **Find My Device** | Locates lost PCs or tablets |
| **I** | **Insider Program** | Beta access for pre-release Windows builds |