

# Self Healing BIOS



# A New Self-Healing BIOS Powered by ThinkShield

## ThinkPad 2019 Innovation: Security & Authentication

### • What we did:

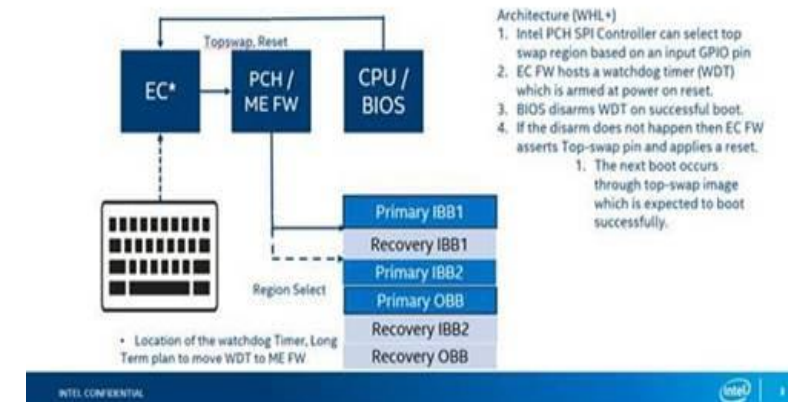
- Developed a new self-healing BIOS that will recover when corrupted or maliciously attacked
- When BIOS is corrupted or maliciously attacked, the BIOS will “self-heal” and revert to known good backup copy

### • Why it matters to customers:

- Prevents hackers from infiltrating the lowest level firmware code on the device
- Provides customers with a resilient BIOS which results in less down time
- Prevents “bricking” if a BIOS update is interrupted or fails



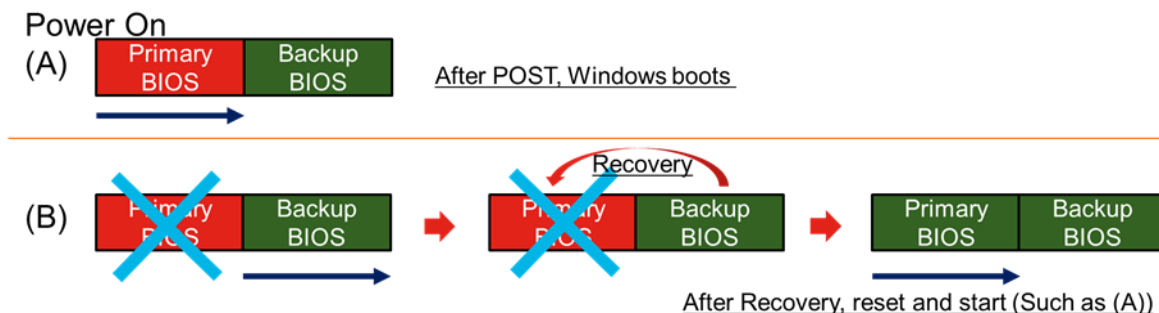
### Resilient BIOS Recovery



# How Does Self-Healing BIOS Work?



- Each system will have 2 versions of the BIO (primary and backup)
- At each
  - , the integrity of the BIOS is verified.
    - If BIOS corruption is found, the system will revert to backup BIOS
    - IF BIOS code or Initial Boot Block has been modified, Intel Bootguard will trigger the self-healing process.
- The Backup BIOS is intended to be a short-term recovery solution. Users are advised to update to the latest BIOS after a self-healing event
- The backup BIOS is not updated each time the primary BIOS is updated



System has self-healed by restoring BIOS from backup.  
Please check BIOS version and then update BIOS if needed.  
Press Esc key to hide this message.

# thanks.

**Transform**<sup>2.0</sup>

