



**Notes:**

1. racadm-fw-list-catalog: Retrieve all software list via racadm tool. These software are more likely to be understood as firmware. That to say, in this layer, software is firmware, firmware is software.
2. Redfish API layer:
  - A. Firmware and software are identified by component type in catalog data. That is to say, in redfish API layer, software(firmware, retrieved by racadm task graph) are identified to software and firmware.
  - B. Firmware includes FIRMWARE and BIOS component types, or named Non-APPLICATION component type.
3. WSMAN Inventory: As investigated, WSMAN inventory task graph collects four types catalog: software, hardware, nics, manager. And the catalog data of software is the most similar to racadm firmware list data.