Intel BKC – PPM Package

What? Why? How?

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1. What is Processor Power Management (PPM) Package

Windows* 10 OS provides support for IHVs (Independent Hardware Vendors, such as Intel®) to customize and tune PPM (Processor Power Management) behavior on their platforms for optimal energy efficiency and performance. This support is provided by a new PPM Package that includes a number of PPM settings, including controls for adjusting processor frequency and idle state transitions.

The PPM Package is installed on top of Windows 10 OS to become part of the OEM Windows 10 image, similar to a driver package. See Section 3 for the full description.

The PPM Package contains multiple profiles for typical scenarios:
    a. Default – default OS PPM tunings (active most of the time)
    b. Low Latency – used during boot or application startup
    c. Low Power – used during phases of media applications, such as audio or video playback
    d. Constrained – used when the battery is low

Each power profile contains two settings: AC mode and battery mode. For new platforms, the PPM settings are included for the Default profile only. It is up to the IHV to set the values of the other profiles, and optionally set more optimal values for the Default profile as well.

Intel® uses this Windows 10 capability to provide customized PPM policy settings to OEMs via the PPM Package that is included in the Intel BKC (Best Known Configuration).

2. Why? What's the benefit of installing this package

Installing the PPM Package enables you to benefit from platform specific customized tunings, including support for the latest PPM features available in recent processors.

Also, it provides optimal energy efficiency and performance for Intel Processors by modifying PPM policy settings for multiple Windows 10 Profiles and Power Schemes.

For latest updates and benefits refer to official BKC communication.

3. How to inject/apply the PPM package into a Windows 10 OS system

In order to measure the benefit of the PPM Package, OEMs normally measure the performance and power consumption of their workloads of interest without and with the package installed.

You can use DISM to inject PPM package into a Windows 10 image, or apply the package to a running Windows 10 system using the below steps.
   a) Run the <platform>.ppkg file
   b) Wait a minute
   c) Restart

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