Unified Extensible Firmware Interface  
Engineering Change Request (ECR)

*Draft for Review*

Title: Deprecate PPTT Type 2 - Processor Id

Document: ACPI 6.3

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Summary

## Summary of Change

Deprecate PPTT ID structure – Type 2 in 5.2.29.3

## Benefits of the Change

The PPTT Type 2 structure was proposed to enable SoC vendors of certain architectures (e.g. Arm) to have a way to provide the SoC ID to the OS kernel and to other software.

However, SoC vendors cannot guarantee that the Type 2 structure will always be available on all platforms.

Given that the SoC ID is used for critical security patches and fixing Si sightings, it is our belief that this structure cannot be relied upon for such crucial tasks. Instead, we believe that SoC vendors (or CPU vendors) provide a more canonical format that is a fundamental part of the SoC.

We are therefore requesting that the PPTT Type 2 be deprecated before any OS has had a chance to support it.

For Arm SoCs, a replacement will be in the form of an SMCCC API architectural call (SMCCC\_ARCH\_SOC\_ID) that is being defined in SMCCC v 1.2 spec available at <https://developer.arm.com/docs/den0028/c>

## Impact of Change

Deprecate PPTT ID structure – Type 2 in 5.2.29.3

## References

<https://bugzilla.tianocore.org/show_bug.cgi?id=2492>

Detailed Description of the Change  
and Special Instructions

**Detailed Description:**

**Deprecate section 5.2.29.3**

~~Text Removed~~ , Text Added , New Sections

5.2.29 Processor Properties Topology Table (PPTT)

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{deprecated} 5.2.29.3 ID structure – *Type 2*

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{deprecated} Table 5-158 ID Type Structure

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Appendix C: Deprecated Content

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C.2 Deprecated Content

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**5.2.29.3 ID structure – *Type 2***

The ID type structure is described in Table 5-158. The ID structure can be used to provide an ID (or vendor specific part number) for a particular processor hierarchy node structure. The ID structure is optional, and may be used by software to determine special features and/or errata workarounds for that processor hierarchy node. This ID structure can also be used to identify all underlying hierarchy nodes and components, which may include identifying proprietary hardware components that are not explicitly described in this table.

This ID structure would typically be used to describe an ID of a physical package node, but may be optionally used at any node level.

Example: In the case where this ID structure is used to uniquely describe a physical package node, it could represent a single system-on-chip (SoC) on a single die and all nodes and components within that node (e.g. processors, caches, system buses and DMA engines, interrupt controllers, on-chip peripherals, etc.). The silicon vendor of this SoC has a known erratum with a particular hardware component in that SoC that could impact behavior and/or correctness. An operating system vendor may query this ID structure to first determine the silicon vendor, then later acquire the remaining ID fields to determine part number, matching it against the part with a known erratum. The operating system may then remedy errata by either disabling relevant features or applying an appropriate software work around.

Table 5-158 ID Type Structure

|  |  |  |  |
| --- | --- | --- | --- |
| **StructureField** | **Byte Length** | **Byte Offset** | **Description** |
| Type | 1 | 0 | 2 – ID structure |
| Length | 1 | 1 | 30 |
| Reserved | 2 | 2 | Must be zero |
| VENDOR\_ID | 4 | 4 | This identifies the node vendor using the vendor ACPI ID as described in the ACPI ID registry is available at http://www.uefi.org/acpi\_id\_list |
| LEVEL\_1\_ID | 8 | 8 | Vendor specific value to identify first level unique node ID (e.g. chip family ID) |
| LEVEL\_2\_ID | 8 | 16 | Vendor specific value to identify second level unique node ID (e.g. chip ID) |
| MAJOR\_REV | 2 | 24 | Vendor specific value to identify major revision of the node |
| MINOR\_REV | 2 | 26 | Vendor specific value to identify minor revision of the node |
| SPIN\_REV | 2 | 28 | Vendor specific value to identify spin revision of the node |

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**Special Instructions;**

Addition/Change to original request

**Addition/Change Date:**

**Addition/Change:**