BoF: Powering up "discoverable bus-attached" devices on DT-based platforms



Agenda

- Devices attached to discoverable buses need to be powered up for discovery
- No generic way in kernel to do that currently
- USB Onboard Hub handles that by using a separate (fake?) platform device
- Proposed solution: introduce a PCI slot driver to power up the device
 - Problems:
 - Power sequence shared between multiple devices
 - Power sequence might be complex
 - Power Sequencing Subsystem ?
 - Could handle shared resources for both devices
 - Devicetree wise might not be HW accurate

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X13s: Wi-fi & Bluetooth





X13s: Bluetooth devicetree node

&uart2 {

```
status = "okay";
```

```
bluetooth {
```

, , ,

};

};

```
compatible = "qcom,wcn6855-bt";
```

```
vddio-supply = <&vreg_s10b>;
vddbtcxmx-supply = <&vreg_s12b>;
vddrfacmn-supply = <&vreg_s12b>;
vddrfa0p8-supply = <&vreg_s12b>;
vddrfa1p2-supply = <&vreg_s11b>;
vddrfa1p7-supply = <&vreg_s1c>;
```

```
enable-gpios = <&tlmm 133 GPIO_ACTIVE_HIGH>;
swctrl-gpios = <&tlmm 132 GPIO_ACTIVE_HIGH>;
```



X13s: Wi-fi devicetree node

&pcie4 {

};

```
...
pcie@0 {
    device_type = "pci";
    reg = <0x0 0x0 0x0 0x0 0x0>;
    bus-range = <0x01 0xff>;
    wifi@0 {
        compatible = "pci17cb,1103";
        reg = <0x10000 0x0 0x0 0x0 0x0;
    };
};</pre>
```



Thank you

