Device power management based on platform firmware

Continuing the attempts to reducing fragmentation in power management on ARM platforms, there are discussions if something similar to ACPI can be done i.e. device centric power management.

Currently, a device has power, performance, reset, and clock domains associated with it. SCMI provides interface to deal with these domains directly. This was simpler approach to start with the SCMI specification to keep the OSPM related changes minimal. So for a given device it’s power, performance, reset, clock,...etc domains need to be known and appropriate requests should be made on those domains when needed. Since this list seem to ever growing on ARM platforms, like pinmux, gpio, iomux,...etc, the current approach is not sustainable for long.

Instead of this, there’s a thought on making these device centric and drive it. So OSPM need not care which power/perf/reset/clock domain it belongs. All the details are abstracted from OSPM completely.

This talk is to discuss and understand where how to drive this platform firmware based device power management from Linux kernel. Which existing subsystem to reuse?

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