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Rack Management Solution by Wiwynn



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Rack Management Solution by Wiwynn

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HW MANAGEMENT



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Agenda

1. System Overview

2. System Bootup and SLED Discovery

3. OpenRMC Northbound API Implementation

4. Demo



HW MANAGEMENT

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System Overview



Standard Telecom Friendly Form Factor

EIA 19" Width

Compact Design Good for edge Applications

Less than 17" Depth

Expedite Open Source Eco-Systems

AKRAINO
O-RAN
OpenRMC System Management

Power Supply

2x 2000W Slim AC/DC or DC($\pm 48V$)/DC 1+1
Redundant Hot-swappable PSU.

Integrated Stand-Alone Design

Chassis Level RMC & OCP 3.0 NIC
1 X 1Gb RJ45 for Management
2 X 10G SFP+ for Data or Chaining Multiple Chassis



EP100 System



EP100-1S Half Tray



RMC Module



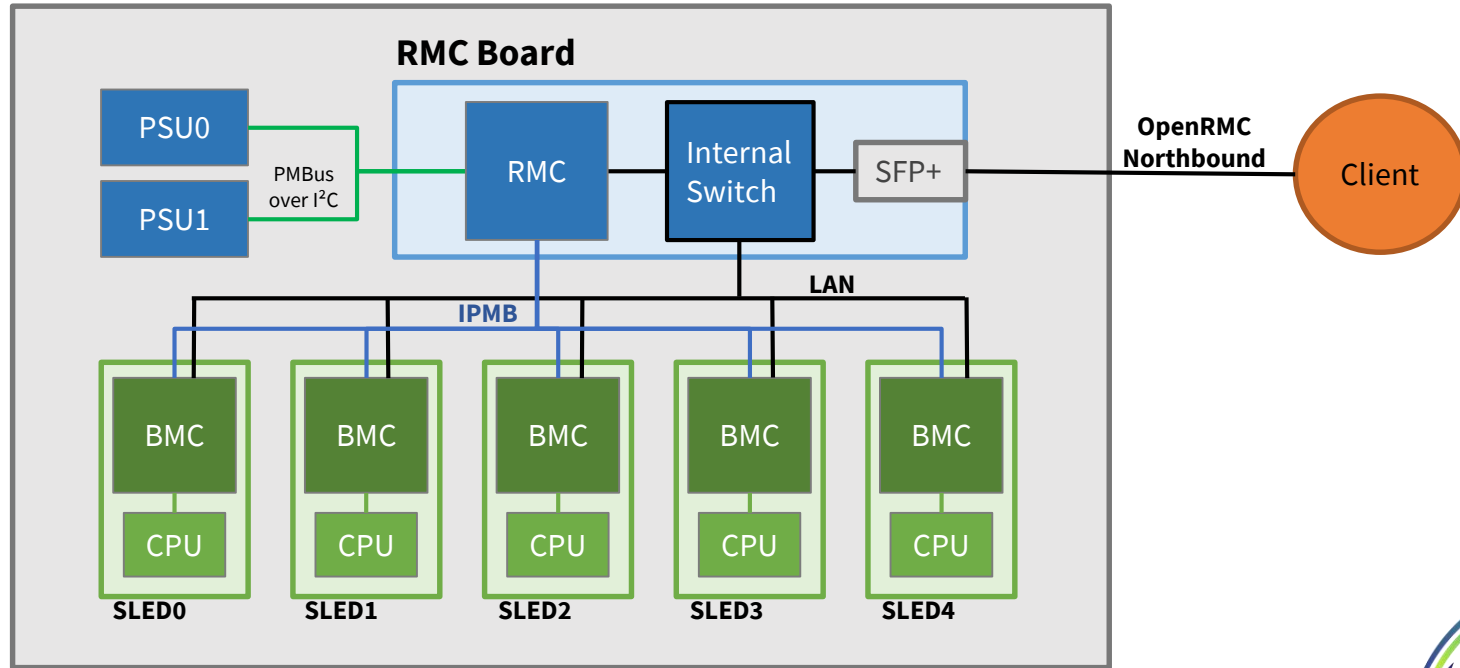
<https://www.opencompute.org/products/379/wiwynn-ep100-1s-1u-openedge-server-node>

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Hardware Stack Overview

EP100



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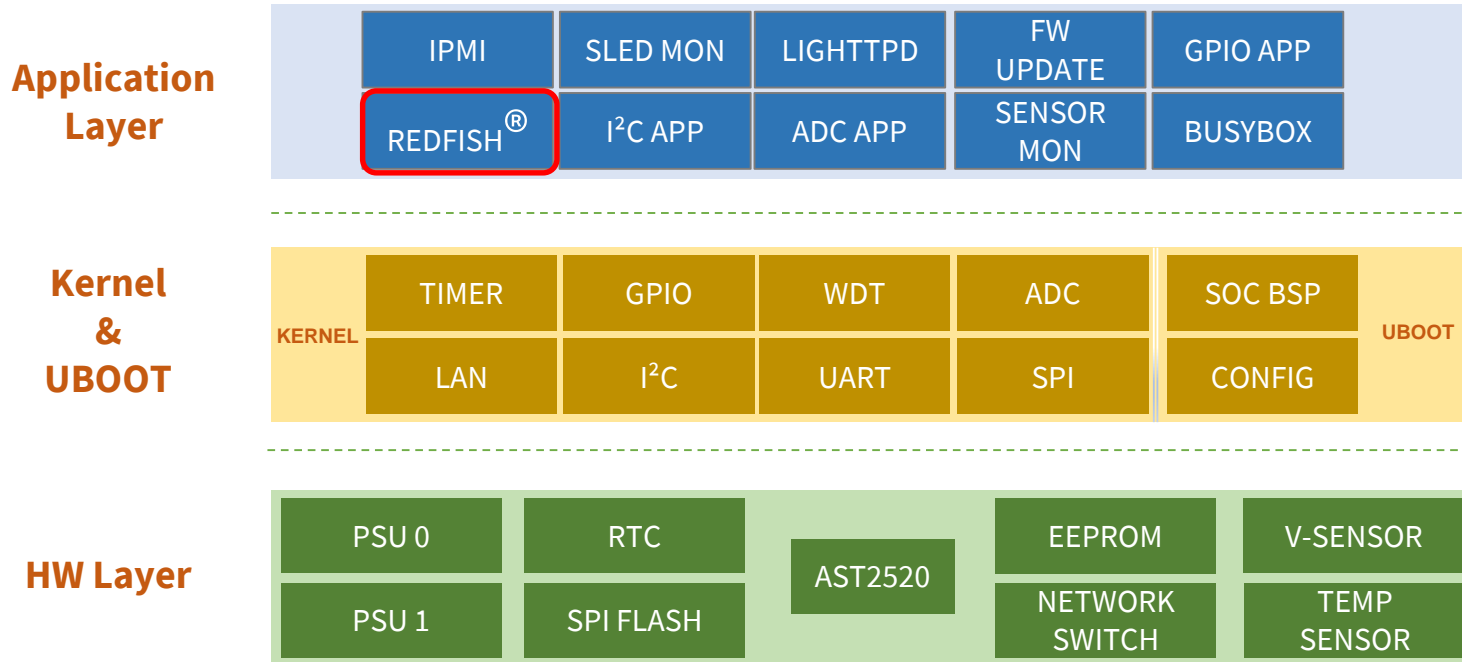
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Software Stack Overview



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System Bootup and SLED Discovery

- After power up, RMC boots from UBOOT then Linux kernel, and load IPMI stack , Services and Chassis device monitor task when initializing
- SLED Monitor Task get initialized for message exchange between RMC and SLEDs
- RMC discovers each SLED and has the dedicated IPMB bus to monitor system status
- Redfish stack collects the SLED System information and populates them in OpenRMC Northbound API Specification format

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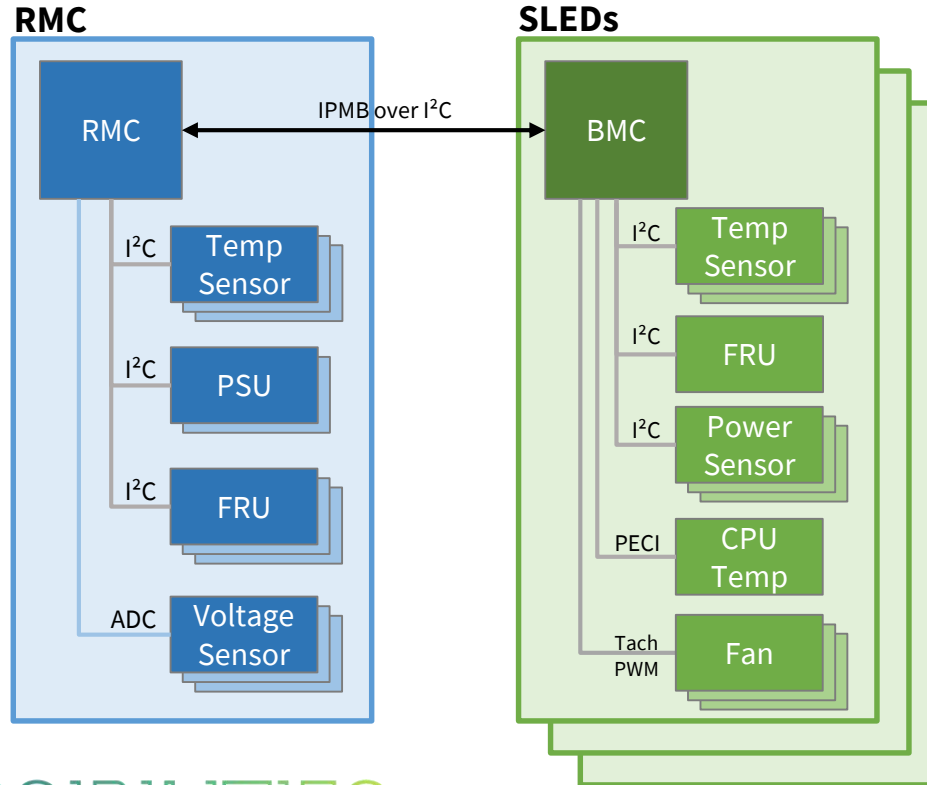
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Collect System Information



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OpenRMC Northbound API Implementation

- Current supported items as below and the rest are under development (ETA will be the end of this year)

Feature	Capacities
PSU Status /Health	Obtain the status and health of PSU
Node Power Status	Obtain the node power readings
Node Power Control	Determine the power status of the node
Node Temperature	Obtain the node temperature
Firmware	Obtain the firmware revision of RMC Update RMC firmware
Account Management	NB Admin/User accounts

<https://www.opencompute.org/documents/openrmc-1-0-0-usageguide-final-b-1-pdf>

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Demo

```
root@Pine:~# curl -ks -uadmin:wiwynn -G https://10.248.41.207/redfish/v1/ |jq . |less
```

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Thank you!



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