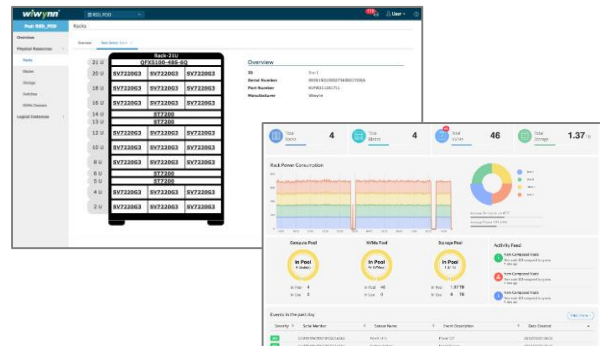# Wiwynn® Cluster Manager with Intel® RSD
Quick Start Offering

Wiwynn® Cluster Manager is a system software that makes data center easier to manage with features such as resource planning, massive firmware and OS deployment, real-time rack level visual monitoring.
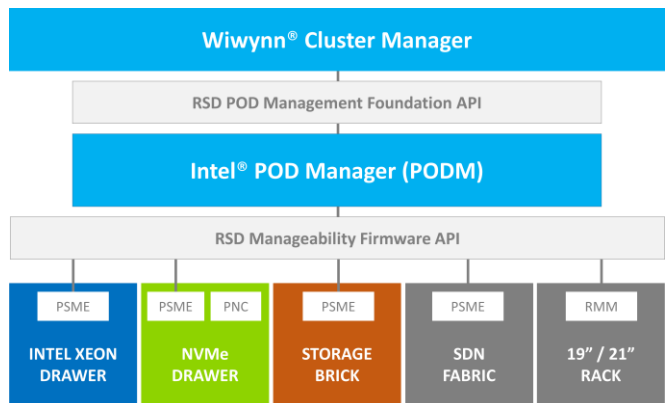
Intel® Rack Scale Design (RSD) is a logical architecture that disaggregates hardware from preconfigured servers and deploys them in sharable resource pools.

For advanced software define data center capabilities, Wiwynn integrates Intel® RSD into Wiwynn® Cluster Manager.

The integrated software solution provides real-time resource management, agile node composition and optimized hardware utilization to enhance data center management.

BENEFITS

- Reduction of operational and capital expenses
- Delivery of new services in minutes, not hours or days
- Addressing application workload needs with agility
- Scaling capacity without interruption

It takes only minutes instead of hours or even days to compose a new compute node to meet dynamic workload changes.

Wiwynn® Cluster Manager acts as the orchestration software above Intel® RSD technology and provides web based user interface. Software components includes:

- Pod Manager (PODM): manages the physical infrastructure in a pod by communicating with the lower-level software modules via standard API.
- Rack Management Module (RMM): handles rack level functions such as security certificates, IP address assignment, power and thermal control and monitoring
- Pooled System Management Engine (PSME): issues requests and reports telemetry of drawer or chassis and asset information to PODM
- Pooled Node Controller (PNC): manages pooling of NVMe devices

For example, an e-commerce company can utilize the same IT equipment for both instant online transaction on VM and big data analysis on bare-metal by allocating different resources based on peak and off-peak times.

Key features of Wiwynn Cluster Manager

Asset management

- Auto discover new devices on network
- Check server inventory (CPU, DIMM, Mainboard, HDD, etc.)
- Check JBOD inventory (need an in-band agent in the connected storage server)
- Check Ethernet connectivity and topology
- Take out-of-band power actions
- Identify asset location (auto by recognizing switch port connectivity)
- Check graphic rack view
- Set smart power capping policy

Monitoring

- Check out-of-band sensor readings
- Check events in SEL
- Check JBOD sensor readings and HDD health (need an in-band agent in the connected storage server)
- Notify users on hardware events

Large-scale SW deployment

- Update BIOS FW
- Update BMC FW
- Deploy OS to local drive
- Deploy OS to iSCSI volume
- Deploy BIOS/BMC configurations

Resource provisioning

- Compute node provisioning
- NVMe SSD provisioning
- iSCSI volume provisioning
- VLAN provisioning

Wiwynn® RSD Enabled Product List

	WiRack19 Series	WiRack21 Series
Intel Xeon Drawer	SV300G3	SV7221G2、SV7220G3
NVMe Drawer	ST300	ST7200
Storage Brick	ST5110-75	ST7110、ST7110G2
Rack	SR2000G2	SR1000、SR1000G2

For More Information
Design Concept Overview https://goo.gl/8ci3aK
RSD 2.1 Overview https://goo.gl/EkRnR2
OS Deployment & Monitoring: https://goo.gl/RQQcGp

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