

DCIM Core Reference

Data Center Infrastructure Management — assets, space, power, and cooling as data

The four core domains

Assets

Devices, components, warranty, and U position

Space

Racks, rows, and floor layout with capacity

Power

PDU load, circuits, and energy consumption

Cooling

Temperature, airflow, and thermal hotspots

Monitoring vs DCIM vs BSM

Dimension	Monitoring	DCIM	BSM
Core question	Is this device healthy right now?	What do we have, where is it, how much capacity is left?	Which business services are affected, and how badly?
Objects	Metrics, thresholds, alerts	Racks, U-positions, power paths, cooling, assets	Services, dependencies, SLAs
Time horizon	Seconds to hours	Weeks to years	Real-time impact + SLA reporting
Typical output	"CPU temperature critical on node 7"	"Rack B-12 has 4U and 1.8 kW of headroom"	"Payment service degraded; database tier at risk"

What teams use DCIM for

- Placing new hardware with U-space, power, and cooling headroom
- Finding stranded capacity behind idle equipment
- Energy and PUE reporting per rack, room, facility
- Failures with location context — right rack, right part
- Decommissioning cleanly: space, power, ports released together
- Audit-ready inventory from continuous discovery

Why DCIM projects fail: the data decays. Manual entry after every install, move, and change slips; records drift within months; trust collapses. Automated, agentless discovery (Redfish, IPMI, iDRAC, iLO, XCC, iBMC, SNMP) removes the manual-entry dependency that caused most failures.