

Neutron DCIM – Data Center Infrastructure Management Software

Intelligent, scalable, and centralized platform for complete data center control

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1. Introduction

Complete Visibility & Control

Neutron DCIM (Data Center Infrastructure Management) is an intelligent, scalable, and centralized software platform designed to monitor, manage, and optimize the complete physical infrastructure of a data center in real time.

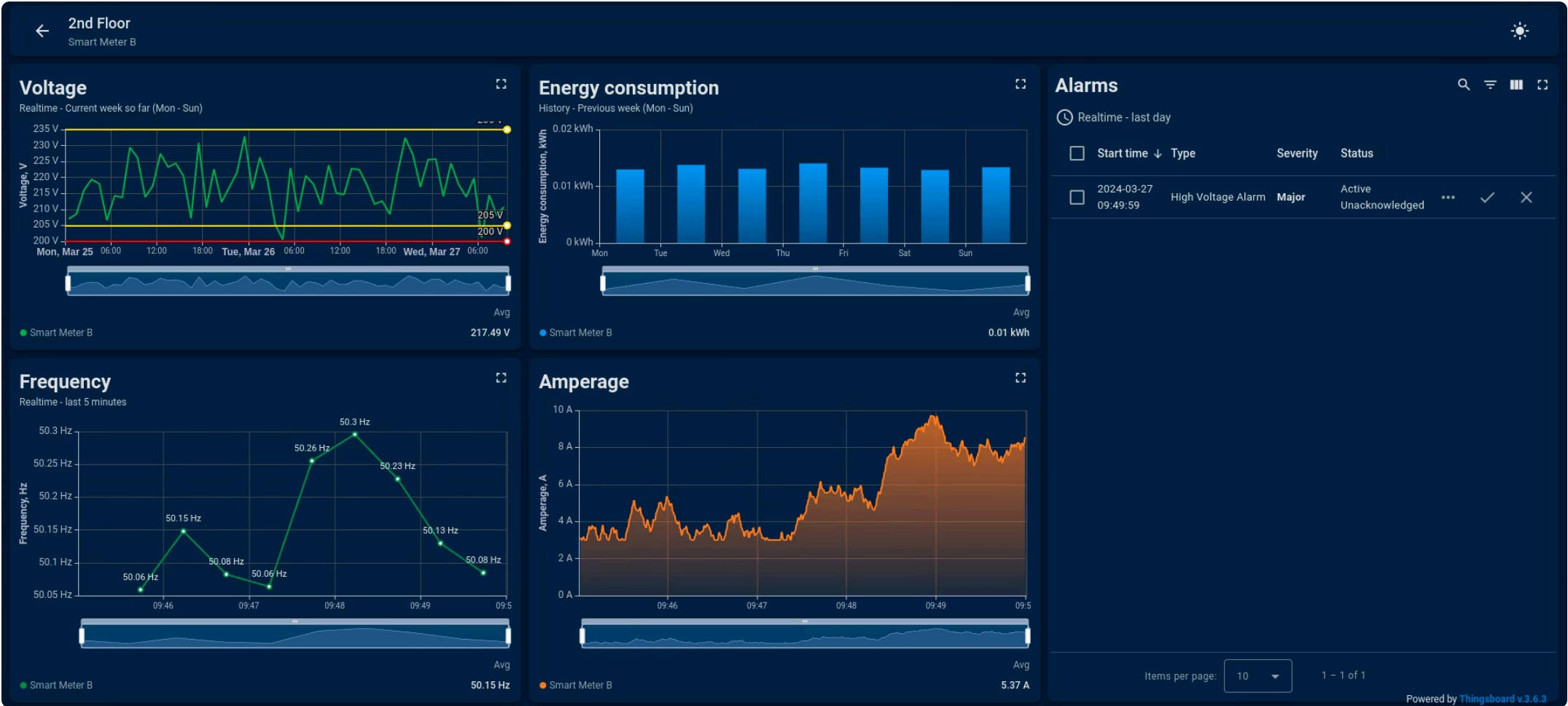
It provides complete visibility into:

- Power Systems
- Cooling Systems
- IT Assets
- Environmental Conditions
- Space Utilization
- Network & Security Systems

Neutron DCIM helps data center operators improve uptime, energy efficiency, operational control, and capacity planning from a single unified dashboard

1. Key Features of Neutron DCIM

A. Real-Time Monitoring



Power Infrastructure

- UPS, PDUs, Power Meters
- DG Sets, Transformers

Cooling Systems

- PAC/Precision AC, Chillers
- Server Racks

Environmental

- Temperature, Humidity, Water Leak
- Fire Alarm & VESDA

Security

Access Control & CCTV (Integration)

B. Energy Management

Real-time kW, kVA, kWh
monitoring

Energy usage by rack, zone, floor,
building

Power factor, demand,
harmonics

Solar & renewable energy
integration

Billing & cost allocation

C. Asset & Capacity Management

Comprehensive tracking and planning for optimal resource utilization

1

Rack space utilization

Monitor and optimize physical space allocation across your data center

2

Power capacity per rack

Track available power capacity for each rack to prevent overloading

3

Cooling capacity availability

Ensure adequate cooling resources for all equipment

4

IT asset tracking

Complete inventory management of all IT infrastructure

5

Future expansion planning

Data-driven insights for capacity planning and growth

D. Alarm & Event Management

Real-time alerts via:



Dashboard



Email



SMS



WhatsApp

-
- Threshold configuration
 - Alarm escalation matrix
 - Root cause analysis

E. Preventive & Breakdown Maintenance (CMMS)

01	02	03
Preventive maintenance scheduling Automated scheduling to prevent equipment failures	Call logging & ticketing Streamlined issue tracking and resolution workflow	Technician assignment Efficient resource allocation for maintenance tasks
04	05	
Asset maintenance history Complete historical records for all equipment	SLA tracking Monitor and ensure service level agreement compliance	

F. Reports & Analytics

Comprehensive reporting capabilities for informed decision-making

Operational Reports

- Daily, monthly, yearly reports
- Energy consumption reports
- Downtime & incident reports

Performance Metrics

- PUE, DCIE Reports
- Compliance & audit reports

G. Remote Access & Control



Web-based dashboard

Access from any browser, anywhere



Mobile-friendly UI

Responsive design for on-the-go management



Secure VPN-based access

Protected remote connectivity



Role-based access control

Granular permissions management

H. Protocol & Device Integration

Seamless connectivity with industry-standard protocols

Modbus TCP/IP

Ethernet-based communication protocol

Modbus RTU (RS485)

Serial communication standard

SNMP

Simple Network Management Protocol

BACnet

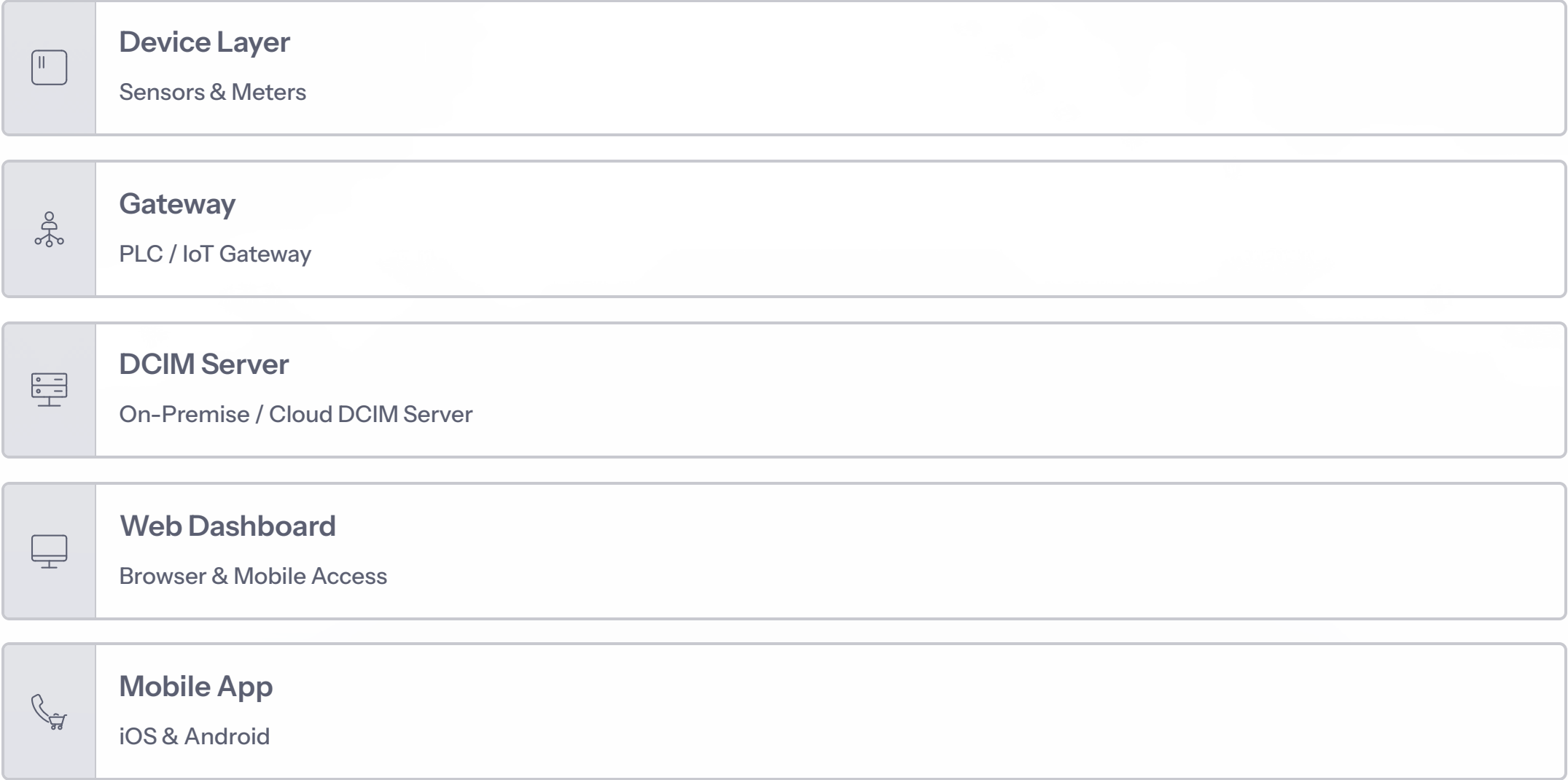
Building automation and control networks

OPC

Open Platform Communications

1. DCIM Architecture

End-to-End System Design



1. System Requirements for DCIM Software

Technical Specifications

A. Server Requirements Component Minimum Recommended:

Component	Minimum	Recommended
CPU	4 Core	8-16 Core
RAM	8 GB	32 GB
Storage	500 GB SSD	1-2 TB SSD
OS	Ubuntu 20.04 / Windows Server	
Database	Influx DB / MySQL	

B. Network Requirements

- Static IP address
- LAN/WAN connectivity
- VPN for remote access
- Firewall port configuration

C. Client System Requirements

- Browser: Chrome, Edge, Firefox
- Resolution: 1366×768 or above
- Internet / LAN connectivity

1. Cyber Security Features

Enterprise-Grade Security

Role-based user access

Granular control over user permissions and capabilities

Encrypted data communication

End-to-end encryption for all data transmission

Secure API access

Protected interfaces for third-party integrations

VPN-based remote access

Secure tunneling for remote management

Audit trail & user activity logs

Complete tracking of all system activities

1. Integration Capabilities

Seamless Ecosystem Integration

Neutron DCIM can be integrated with:



ERP Systems

Enterprise Resource Planning integration



Billing Software

Automated billing and cost allocation



BMS

Building Management Systems



NMS

Network Management Systems



VMS

Video Management Systems



ITSM Tools

IT Service Management platforms

1. Deployment Models

Flexible Deployment Options

On-Premise DCIM

Complete control with local infrastructure deployment for maximum security and customization

Cloud-Based DCIM

Scalable, accessible solution with reduced infrastructure costs and automatic updates

Hybrid Model

Best of both worlds combining on-premise security with cloud flexibility and scalability

1. Why Choose Neutron DCIM?

The Smart Choice for Data Centers

- ✓ Indian OEM Product
- ✓ Scalable from 5 racks to 50,000+ racks
- ✓ Open Protocol Integration
- ✓ Energy + Facility + IT in One Platform
- ✓ AI-Based Predictive Alerts (Optional)
- ✓ Cost-Effective Compared to Global Brands
- ✓ Local Support & Custom Development