

Granular DC Power Systems Monitoring

Real-time Power Supply and Distribution Monitoring

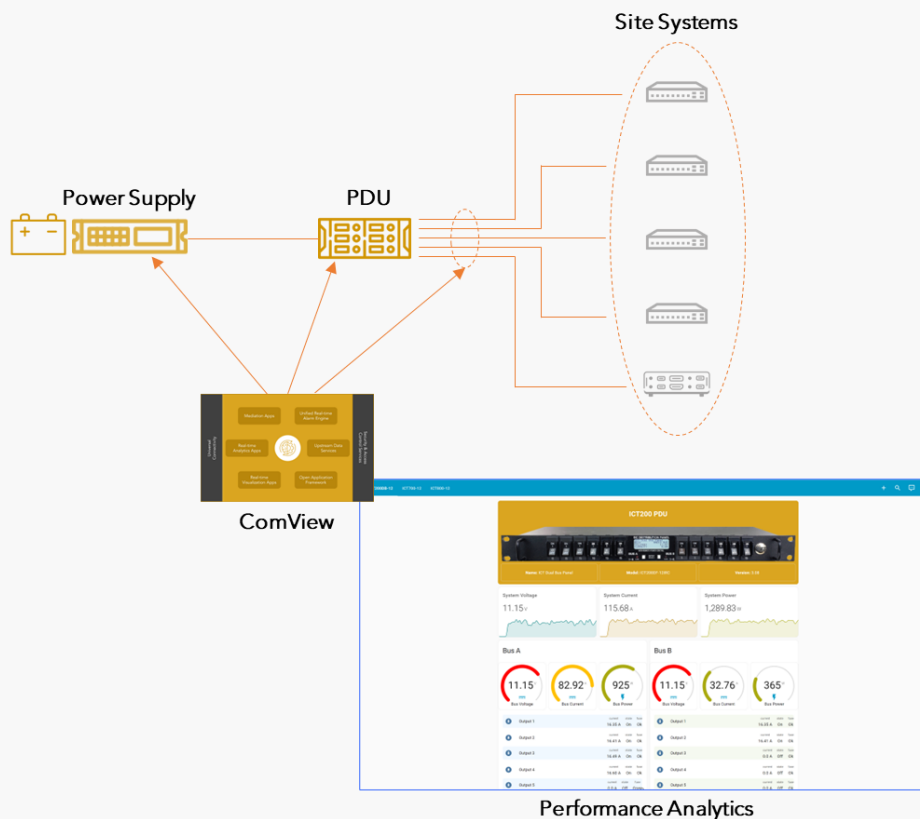
The Challenge — The Visibility Gap in Power Distribution

In mission-critical RF and cellular sites, the DC power system is the backbone that keeps every onsite device operational — repeaters, combiners, routers, backhaul radios, environmental systems, and security infrastructure. Yet real-world power issues often develop silently: unstable AC mains, drifting DC output levels, or a single port drawing abnormal current. Without granular visibility into system, bus, and port-level behavior, these conditions go unnoticed until they escalate into equipment faults, service degradation, or unexpected outages.

AC mains may fluctuate, DC output can drift, or a single distribution port may begin drawing abnormal current — all early indicators of underlying electrical or equipment problems. Without visibility into how the power plant behaves at the system, bus, and port levels, these conditions remain hidden until they escalate into equipment faults, degraded RF performance, or unexpected service outages.

The ComView Solution — System, Bus, and Port-Level Precision

ComView delivers a comprehensive DC power monitoring solution that treats the power plant as a collection of individual, mission-critical components. By monitoring AC input, DC output, and per-port distribution behavior, ComView provides the edge-side intelligence needed to detect early degradation and prevent service-impacting events.





DC Power Supply Monitoring

ComView continuously monitors AC mains presence and loss, AC input voltage levels, DC output voltage and current, user-defined over/under voltage and current thresholds to ensure early detection of utility power issues, power supply degradation, or unstable DC output conditions.



PDU Monitoring

ComView provides deep insight into the DC distribution layer: system-level DC voltage and current, per-port voltage and current monitoring, fuse/circuit breaker status for each output port, user-defined thresholds for over/under voltage and current conditions. This granular visibility allows Operations teams to pinpoint exactly which device lost power, why it happened, and whether the issue is electrical or equipment-related.



Immediate Alarm Reporting

Send alarms to ComView ARC, NOC/NMS platforms, enterprise systems, or cloud services.



Power as a Diagnostic Tool

Because ComView monitors current draw at each port, it becomes a powerful diagnostic tool for the systems connected to the PDU: over-current spikes may indicate cooling fan failures or internal component degradation, under-current conditions may signal a device that has partially failed or is no longer operating at full load, repetitive anomalies reveal early-stage equipment degradation long before a complete failure occurs. This transforms the DC power system into an intelligent sensor network for monitoring the health of RF repeaters, combiners, routers, and other onsite systems.



Performance Analytics

Beyond real-time alarms, ComView generates performance analytics that allow users to visualize subtle degradation trends, correlate electrical behavior with equipment performance, identify slow-developing issues long before they become service-impacting events.

The Results — Proactive Site Survivability

ComView elevates DC power systems from passive infrastructure to active operational intelligence:

- Eliminate blind spots with system, bus, and port-level visibility
- Detect early degradation in both power systems and connected devices
- Reduce unplanned site visits through proactive maintenance
- Protect expensive RF and network equipment from electrical damage
- Ensure predictable runtime during AC mains failures
- Standardize power monitoring across all sites

For Operations management, this means higher uptime, lower OPEX, and a more resilient remote-site footprint.

Who It's For

- RF and cellular site operators
- Public-safety communications networks
- Utilities and energy providers
- Transportation and railway communications sites
- Industrial and mining operations
- Any organization relying on DC power plants and distributed DC loads