

## Power reliability, real-time equipment analytics, and simulation

Paladin<sup>®</sup> Live™ is the only power system analytics solution that provides organizations that manage mission critical facilities with unprecedented new levels of power systems reliability, manageability, and energy management. It is the only electrical power system management platform to maintain an uninterrupted 360° view of electrical power infrastructures, to intelligently predict when and where vulnerabilities – or costly energy inefficiencies – have the potential to occur, and send proper alerts to operations personnel. Introduced in 2010 and installed in major enterprise data centers for “single pane of glass” power management, Paladin<sup>®</sup> Live™:

- Diagnoses the real-time “health” of a facility, using the original design model as an operational benchmark
- Codifies the facility designer’s embedded expertise into the design model; when it is compared to “live” readings, even the smallest variation can be isolated and diagnosed
- Enables site personnel to keep facility perfectly tuned for balancing performance, reliability, and energy efficiency
- Manages factors like reliability, availability, capacity, and configurability are always known and cost/benefit trade-offs can be made in real-time in order to continually ensure the lowest possible operating costs, without jeopardizing the integrity of the system



## **Gateway**

Paladin® Gateway™ is the industry's most advanced power systems data integration platform, and the only system that allows anything-to-anything connectivity between electrical energy monitoring and management systems from major vendors. It is proven in some of the world's most mission-critical applications, including data centers, oil drilling platforms, and microgrids. It is an integral part of all standard Paladin® platforms.

Paladin® Gateway™ gives facility and electrical system operators a data integration solution that, when used with the Power Digital Twin™ platform, aggregates all the real-time data being generated by formerly proprietary equipment and systems within their infrastructure. As a result, a single, seamless body of information can now be created from industry-leading management systems such as the OSIsoft® PI System®, Square D®, SMS®, Siemens®, Apogee®, Eaton® Foreseer®, Honeywell® Niagara Framework®, Johnson Controls® Metasys®, Viridity Energy's Vpower®, Dassault Enovia®, and Catia® systems, or directly from sensors or intelligent devices.

Armed with this virtually limitless supply of power systems data, Paladin® Gateway™ enables Paladin® Live™ and Paladin® Microgrid Power Management System™ to make highly accurate predictions about the operational state of power infrastructure, by not only attaining access to real-time data, but by comparing data results back to the original design model; variations between the as-is and as-designed readings allow operators to isolate and preempt potential problems at their earliest stages and ensure optimal performance and energy efficiency. By serving as a “universal translator” for any data acquisition system, BMS, or data-producing component in an electrical network, Paladin Gateway ensures that no clue that could point to downstream operational power problems is overlooked.

## **DesignView**

Paladin® DesignView™ is a real-time scientific visualization software tool that lets users easily create detailed dashboards that provide up-to-the-millisecond detail about their power infrastructure performance.

Leveraging real-time data retrieved using the Gateway™ data interoperability platform, DesignView™ lets users – by utilizing simple, drag-and-drop methods, with no programming involved – quickly build custom dashboards that display the status of their power infrastructure in facilities worldwide wherever the source and whatever the format.

This delivers three valuable benefits for organizations with mission-critical power requirements, but limited technical support expertise:

- **Aggregation:** Raw data generated in disconnected “silos” – e.g., proprietary SCADA, monitoring, or building management systems that were not designed to exchange data with other applications – can now be easily unlocked, made interoperable, and seamlessly used in conjunction with other real-time applications.

- Customization: Whatever the original source, data can be easily depicted in user-defined dashboards to create a complete tailored users experience. Dashboards can also be personalized for individual users' need-to-know requirements, e.g., IT, facilities, and maintenance personnel may have very different information needs.
- Presentation: Once dashboards are completed, they can be securely accessed by authorized users from anywhere with an Internet connection and browser, on a mobile device in your choice of browsers.

