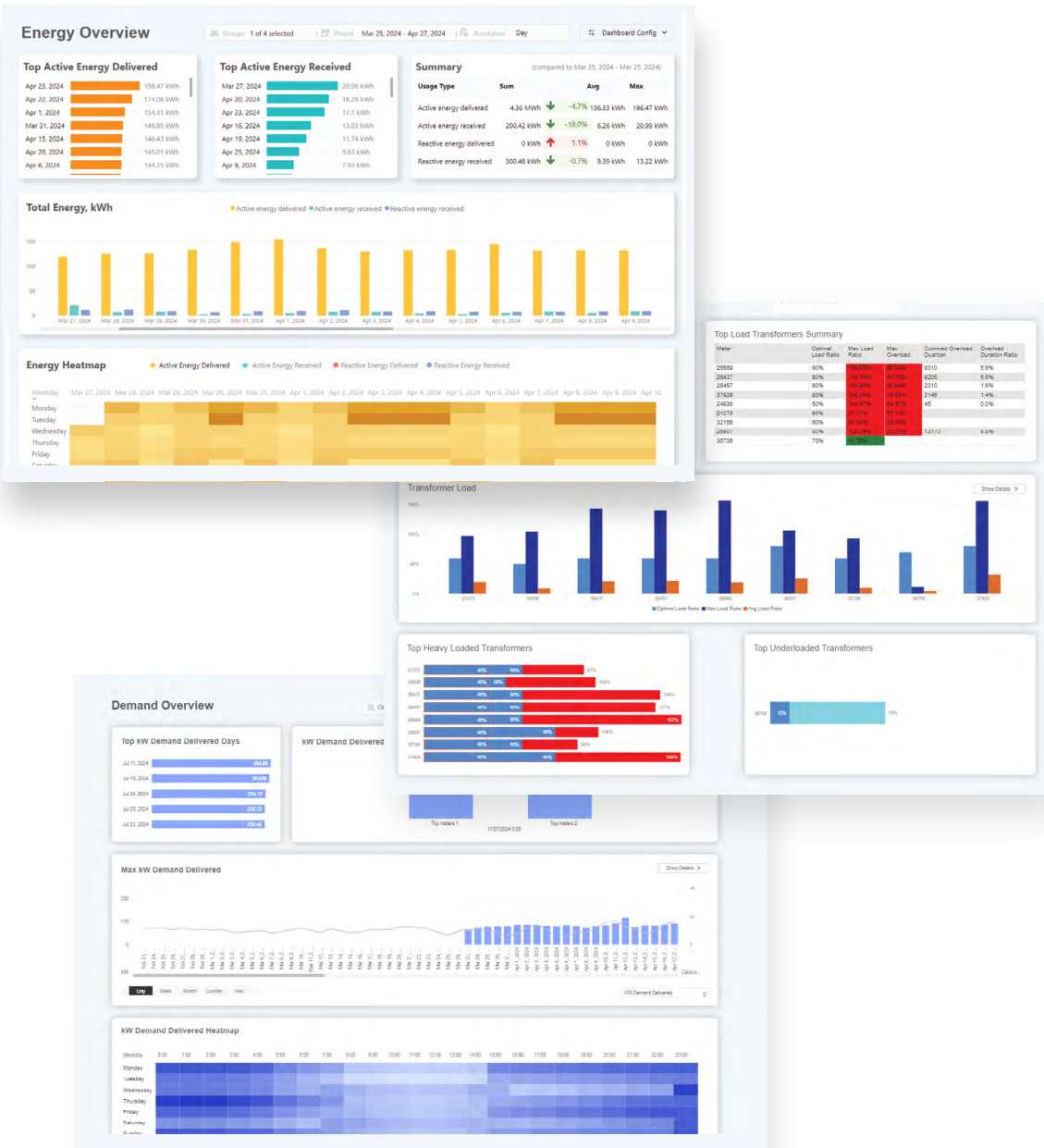expertpower

EXPERTPOWER MDM

PRODUCT DESCRIPTION

INTRODUCTION TO EXPERTPOWER

With over 15 years of expertise in Energy Management Systems, Expertpower is a leading provider of innovative Meter Data Management (MDM) solutions. Our rapidly evolving platform, built on Microsoft Azure, delivers robust and secure data management capabilities. We specialize in collecting, processing, and analyzing meter data to help businesses optimize their energy usage, enhance operational efficiency, and achieve cost savings. Now integrated with Microsoft Power BI, our MDM solution offers enhanced data visualization and reporting, enabling deeper insights and proactive energy management strategies.

Discover how Expertpower's cutting-edge MDM solution can transform your energy management approach and drive sustainable growth.

KEY BENEFITS OF EXPERTPOWER MDM

Scalability

Expertpower is an ideal Meter Data Management system since it is configurable for both small and large utilities.

The system's substantial data delivery capacity with a decentralized architecture allows optimization for diverse needs. As a result, various strategies to optimize the system cost, reliability and performance are available. Expertpower's architecture is not only reliable and cost-efficient but also ensures high system uptime.
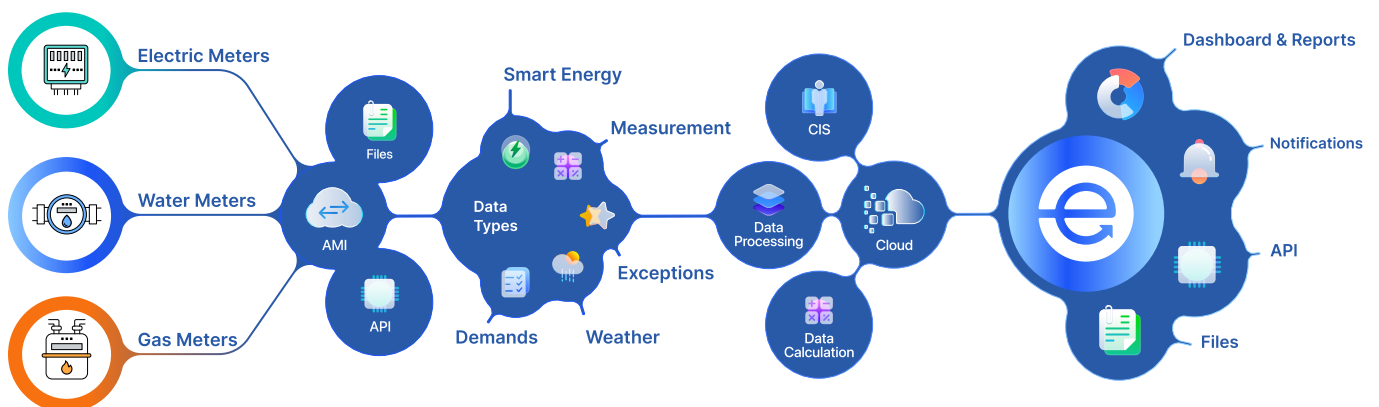
Easy Integration

Integration processes are achieved by customizing the integration layers in each involved system. The complexity of this approach arises from the need to precisely define interfaces and assign the responsibilities of each vendor and potential third-party integrators. Often, not all relevant details are addressed during the specification phase, and when issues arise, it can be challenging to identify the responsible party to complete the integration.

This is where Expertpower excels. Our carefully designed architecture significantly mitigates these challenges, ensuring seamless integration with any platform.

Interoperability

Interoperability is crucial for Meter Data Management (MDM) systems, enabling system flexibility and efficiency. At Expertpower, we actively engage in standardization activities leveraging global, non-proprietary standards and protocols in our research and development. This approach fosters openness and ensures seamless bi-directional communication with hardware and software platforms from other manufacturers, facilitating robust interoperability across multi-utility infrastructures.
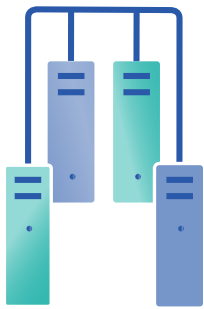
SYSTEM TOPOLOGY

Validation, Estimation, and Editing (VEE)

Ensuring the accuracy of collected data is crucial for an MDM system. Expertpower's VEE process is instrumental in validating the data, estimating missing values, and editing any discrepancies to maintain data integrity. This primary method not only flags inconsistencies for user review but also facilitates necessary corrections, ensuring that only clean and validated data is entered into the database.

If data is found to be missing or invalid, the VEE process estimates and allows for editing to rectify these issues. Any modifications made through this process generate an "exception," which is then reported. This reporting mechanism ensures transparency and allows for manual intervention when further investigation into anomalies or missing data is required.

Third-Party Data Integration

Expertpower MDM supports comprehensive data integration capabilities, enabling the import of data from manually read meters through various formats such as CSV, Excel, and other similar file types. Additionally, Expertpower MDM features a robust API that facilitates data retrieval by other systems. This integration ensures seamless data flow and enhances compatibility across different data management platforms.

AMI / AMR / HES Systems

Expertpower features advanced web service interfaces and offers customizable solutions to integrate seamlessly with third-party data collection services. It supports the polling of interval data at configurable regular intervals—multiple times daily. This includes capturing detailed interval consumption data (e.g., every 5, 15, or 30 minutes) and self-read data. Expertpower efficiently manages contingencies and addresses missed reads, ensuring data integrity. Additionally, it generates automated billing export files tailored to meet the specific requirements of third-party billing systems, facilitating a smooth billing process.

Web Access

Expertpower provides secure and convenient access from any web browser, enabling users to log in and engage with the system seamlessly. Through the Expertpower website, users can view historical consumption data, generate reports, perform data analysis, and manage administrative tasks. Our secure portal features configurable permissions for each user account, ensuring tailored access and enhanced security. With 24/7 availability from any device including PCs, laptops, tablets, and smartphones Expertpower ensures that you have the flexibility to manage your data from anywhere, at any time.
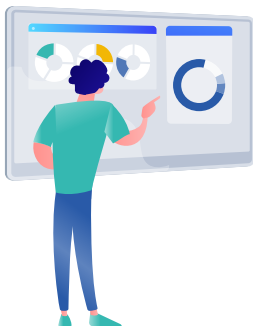
Intuitive and Powerful Data Analysis and Visualization

Expertpower enhances your data engagement with its intuitive and powerful visualization tools. Users can easily access and interpret commodity data through user-friendly graphics that display intervals ranging from hourly to annual consumption. The system integrates advanced graphing capabilities, which include interactive mouse-over features and effortless adjustments to time-range and data resolution, powered by Microsoft Power BI.

For comprehensive data management, Expertpower allows users to combine dashboard views with summary data, aggregate information from multiple devices quickly, and export data directly from analysis dashboards. Additionally, the platform includes advanced reporting wizards, enabling users to create configurable, on-demand data reports that cater to specific analytical needs.

Event Monitoring

Expertpower provides robust event monitoring by flagging and generating alerts for built-in standard events. These events can trigger alarms and notifications via SMS or email, ensuring efficient communication to multiple users. Notifications are customizable and can be sent according to predefined user roles within the platform, enhancing security and response efficiency.

Flexibility

Expertpower is designed to accommodate projects of any size, from small setups to extensive enterprise deployments. Leveraging advanced data management tools and expandable cloud database resources, the system can efficiently manage and process vast quantities of interval data. This scalability ensures that as your data demands grow, Expertpower can seamlessly adapt, providing consistent performance and reliability.

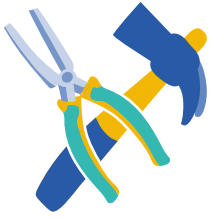# Customer Interface & Administration

Expertpower equips utility service and assistance teams with advanced tools to provide swift and effective responses to customer inquiries. The system features a user-friendly customer interface that facilitates easy access to detailed analyses of client profiles, consumption patterns, events, and usage history. This capability ensures that service teams can efficiently manage customer interactions and maintain high standards of customer support.

Cyber Security

At Expertpower, we uphold a rigorous cyber security policy to safeguard against evolving cyber threats and adhere to diverse privacy policies. Expertpower accreditation includes ISO 27001 Compliance. We adhere strictly to the ISO 27001 standard, covering an extensive range of security layers. This includes secure development environments, robust development processes, human resources issues, site and application infrastructure security, and privacy policies for various users.

Third-party companies perform penetration testing on our system annually, using the OWASP top 10 approach. These tests help identify potential vulnerabilities and threats, enabling proactive updates and security enhancements to mitigate risks before they manifest.

Disaster Recovery

Utilizing Microsoft Azure's Disaster Recovery services, we ensure data is continuously backed up across multiple servers. This strategy enables us to restore full system functionality within 24 hours, minimizing downtime and preserving data integrity.

Virtual Metering

A key strength of Expertpower lies in our advanced Virtual Metering capabilities, which are particularly effective for both residential and commercial customers. This full-featured solution supports the aggregation of various meter types, including production meters, as in the case of solar farms, and enables net metering with both forward and reverse calculations. Additionally, it offers the flexibility to select meters for billing purposes based on any attribute stored in the database, facilitating tailored and efficient billing processes.

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