# IPS®ENERGY

**Integrated solution platform for power utilities.**

# Table of Contents

# 1. About Us

Two decades ago, IPS Intelligent Process Solutions GmbH (IPS) was founded with a vision to develop software intelligence for power utilities. Today, IPS is a German based company and a leading provider of software solutions and services for the global energy supply industry. Our offices can be found in eight countries globally, with a dedicated team of nearly 100 employees that develops and delivers innovative solutions to our clients.

We offer an integrated solution platform for power utilities. We develop and deliver comprehensive enterprise tools for asset and network data management, supported by advanced analytics and investment planning.

Our tailored solutions help utilities improve operational efficiency and enhance the reliability of network operations. Today, we offer the widest portfolio of solutions that meet all customer requirements. The portfolio is expanded with multitenant fleet monitoring SaaS solutions.

We specialize in developing and delivering a wide range of asset and network data management tools enhanced by advanced analytics, workforce management, investment planning, and more. Our off-the-shelf solutions are seamlessly integrated and can be fully customized to work together.

## 2. Our Clients

Our main customers are handling the generation, transmission, and distribution tasks in the global energy supply industry, from relatively small utilities to large companies such as American Electric Power in the US, the largest utility company in North America.
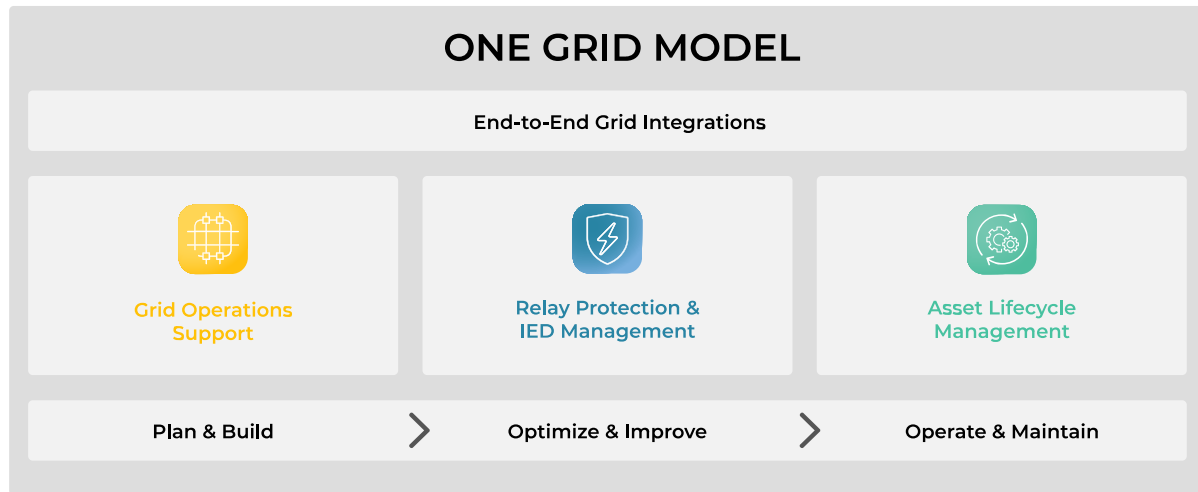
We focus on Asset Management for electricity, gas, and water infrastructure. We provide specialized solutions for transmission, distribution, generation, renewable energy, combined utilities, and utility infrastructure service providers.

# 3. IPS Portfolio

We offer integrated, future-ready software platforms tailored for the unique demands of power utilities. By combining cutting-edge analytics, intuitive interfaces, and industry expertise, IPS®ENERGY enables utilities to optimize asset performance, enhance grid reliability, and accelerate digital transformation.

Clients choose IPS®ENERGY for its proven track record, personalized approach, and unwavering commitment to operational excellence and innovation.



**ONE GRID MODEL**

End-to-End Grid Integrations

Grid Operations Support

Relay Protection & IED Management

Asset Lifecycle Management

Plan & Build  ›  Optimize & Improve  ›  Operate & Maintain

## Our Solutions

Our standardized, ready-made system caters to power transmission, distribution, and generation needs. It can be deployed either on-premises or in any cloud, giving businesses the flexibility to choose the infrastructure that best suits their needs.

The platform includes extensive types, models, and analytical libraries shared across our entire customer base. Featuring a modular design, our system allows customers to add individual solutions based on their specific requirements and implement the system gradually.

| | | | |
|---|---|---|---|
| ENTERPRISE ASSET MANAGEMENT | ASSET PERFORMANCE MANAGEMENT WITH ADVANCED ANALYTICS | PROTECTIVE RELAYS AND IED MANAGEMENT | WORKFORCE MANAGEMENT |
| OUTAGE MANAGEMENT | ASSET INVESTMENT PLANNING | CIM-BASED NETWORK MODEL MANAGEMENT | MOBILE PLATFORM SOLUTION |
| ADVANCED FACILITY RATINGS MANAGEMENT | INTELLIGENT DATA LAKE | KNOWLEDGE MANAGEMENT | IPS®TIC TRANSFORMER INTELLIGENCE CENTER |

# 4. Enterprise Asset Management (EAM)

We offer a robust and reliable system for managing highly complex networks in the power generation and utilities sectors. Our IPS®EAM solution empowers organizations to efficiently maintain, control, and analyze their physical assets and infrastructure throughout every phase of the asset lifecycle.

**Benefits**

With efficient asset management systems, all historical and real-time data are always available to analyze and take appropriate actions to maximize asset lifetime and extend asset lifecycle. IPS®EAM provides necessary asset information to decrease unplanned downtime, extend asset lifetime, and move from reactive to preventive practices.

- Save resources
- Real-time asset tracking
- Extend asset lifespan
- Data-driven insights

A reliable EAM system provides broad data and analytics for informed decision-making regarding asset investment and future strategies.

### 🧊 Maximize Asset Lifetime and Extend Asset Lifecycle

We offer a complete journey for setting up an efficient Enterprise Asset Management system, whether starting from scratch or integrating with the existing system. Our solution enhances any current EAM platform, such as SAP or IBM Maximo, by providing additional functionality and advanced data models that bridge existing gaps.

### 🧊 Modular Design for Tailored Solutions

Our solutions are distinguished by their modular design, allowing customers to extend individual solutions according to specific functional requirements. This flexibility enables a gradual implementation approach, ensuring seamless integration and scalability.

With IPS®EAM, historical and real-time data are always available for analysis, helping to maximize asset lifetime, reduce unplanned downtime, and shift from reactive to preventive maintenance.

- Asset Tracking and Inventory Management
- Preventive and predictive maintenance
- Work Order Management
- Data analysis and reporting
- Compliance and safety management

# 5. Asset Performance Management (APM)

The IPS®APM (Asset Performance Management) is one of our solutions designed to enhance the performance and reliability of assets, reducing costs and extending their lifetime. Advanced analytics assess asset health and importance, along with risk evaluation algorithms calculate the Probability of asset Failure (PoF). The solution seamlessly integrates with various systems, including SCADA, GIS, and ERP (e.g., SAP, Maximo), enabling efficient data exchange and improved decision-making.

IPS® Asset Performance Management solution is intended for organizations that rely on strategic assets to drive operational efficiency and maximize asset reliability. It is developed for industries such as power utilities, oil and gas, and water and wastewater utilities.

**What are the main benefits of APM?**

IPS®APM provides comprehensive capabilities for managing asset performance in the electrical power transmission and distribution industry.
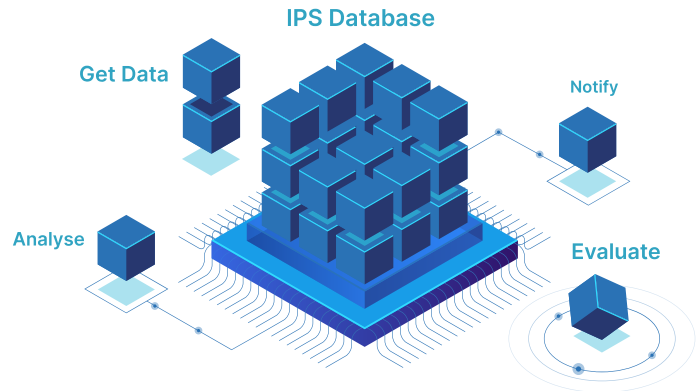
The solution offers a strategic approach to enhancing asset performance, efficiency, and reliability during their lifecycle. IPS®APM leverages data analytics, predictive maintenance, and various integrated technologies and algorithms to ensure that all assets operate at their top performance. This reduces downtime and extends asset operational life, consequently lowering maintenance costs.

Implementing APM is crucial for maintaining the highest operational standard possible. IPS's strategic approach to APM implementation enables utilities to operate more efficiently in an increasingly complex and competitive landscape.

A reliable APM system always keeps track of assets, and with advanced analytics implemented, it can successfully fight downtime, reduce risks, and consequently lower costs.

- Make Informed Decisions
- Analytics Aggregation
- Asset Aging Models
- Investment and Planning Prioritization

# 6. Protective Relays and IED Management

Our Protective Relays and Intelligent Electronic Devices (IED) Management Solution ensures the highest power system security, reliability, and flexibility standards. Designed for protective relays and IEDs, our solution helps utilities effectively manage data throughout the entire setting and configuration lifecycle - from the initial request for change through development, approval, and commissioning to final verification.

### 🟦 Native Integration with Network Model Management

The solution offers an extensive library of complex data models and a master-type library for IEDs. Its advanced integration with Network Model Management across all protection areas sets it apart. It aligns with international standards IEC 61850 and IEC 61970, ensuring seamless interoperability and compliance. Additionally, it complies with NERC regulations (including PRC-023, PRC-025, PRC-026, PRC-027, and others), providing robust support for the highest power system protection and reliability levels.

### 🟦 Component Management

Our platform enables detailed modeling of digital assets through a component-based structure, allowing for the classification and organization of individual parts. Each asset can include multiple components arranged hierarchically for easier management. We've developed a standardized type-level design, similar to the IPS® asset type concept, to streamline tracking, analysis, and version control. Predefined component hierarchies can be auto-assigned during asset creation or later. IPS® Component Management offers advanced tools for managing digital devices and software components, ensuring compliance with regulatory, cybersecurity, and asset management standards. The system's rich data structure supports efficient tracking, filtering, and browsing, providing quick insights into vulnerabilities and maintenance needs for full IPS®SYSTEMS support.
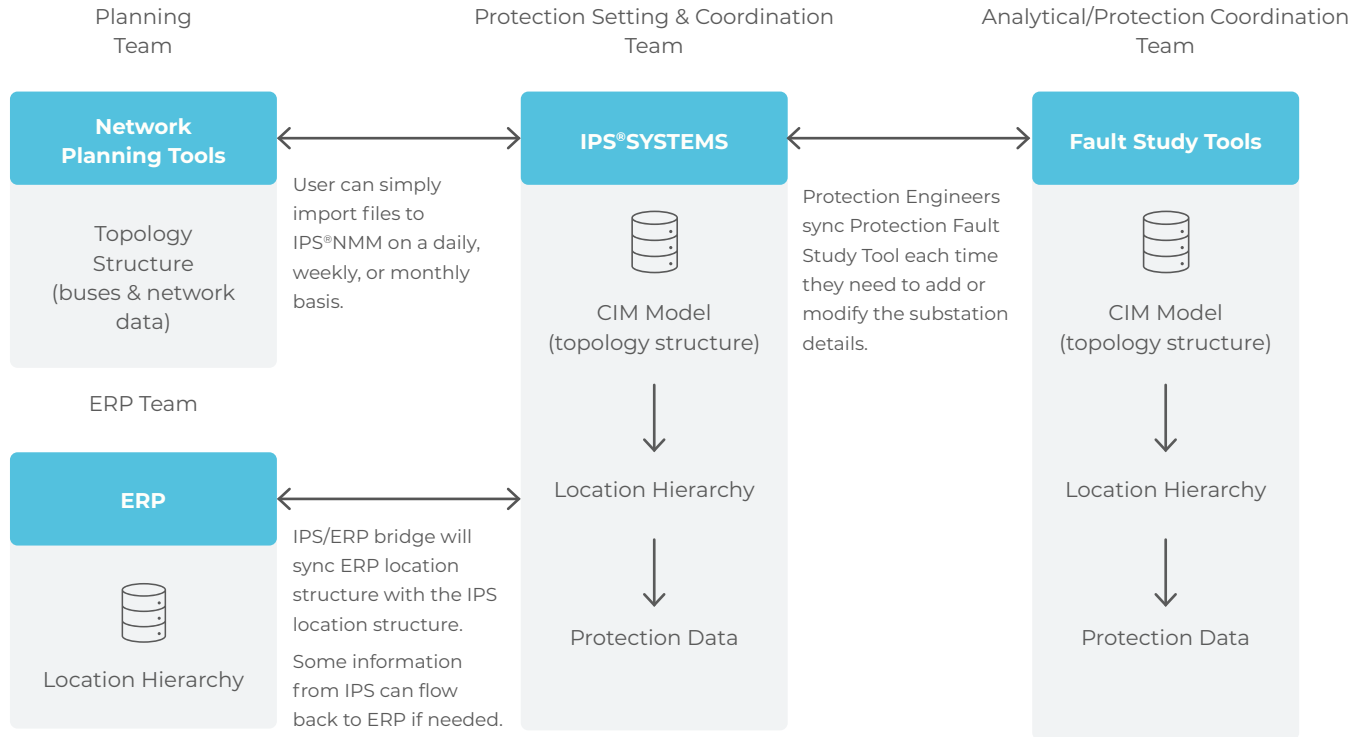
### 🟦 Setting Workflow Management (IPS®SWM)

It is part of the solution, and it allows users to control all activities related to relay settings by utilizing a three-tiered structure. System Change Notification (i.e., description of any event or situation that may result in the modification of one or more relay settings), Global Setting Requests (affecting several physical relays), and Relay Setting Requests (involving one single physical relay). Each level has its workflow – the Global Setting Request (GSR) workflow is fully customizable.

### 🟦 Enterprise Wide Area Protection Coordination Process

Protective relay settings information is exchanged with third-party settings calculation tools and a network model. This exchange is the base and precondition for any Wide Area Protection Coordination (WAPC) study, resulting in settings change requests from the WAPC. The study can be sent back to the IPS® maintenance management process and distributed to protection maintenance teams for their commissioning.

# IPS® Integration in the Scope of Enterprise Wide Area Protection Coordination Process

Planning Team

Protection Setting & Coordination Team

Analytical/Protection Coordination Team

**Network Planning Tools**

Topology Structure (buses & network data)

User can simply import files to IPS®NMM on a daily, weekly, or monthly basis.

**IPS®SYSTEMS**

CIM Model (topology structure)

↓

Location Hierarchy

↓

Protection Data

Protection Engineers sync Protection Fault Study Tool each time they need to add or modify the substation details.

**Fault Study Tools**

CIM Model (topology structure)

↓

Location Hierarchy

↓

Protection Data

ERP Team

**ERP**

Location Hierarchy

IPS/ERP bridge will sync ERP location structure with the IPS location structure.

Some information from IPS can flow back to ERP if needed.

# 7. Workforce Management (WFM)

Workforce Management Solution (WFM) helps companies strategically allocate staff and resources to optimize productivity and reduce risks. It is designed for different power utility sector users responsible for maintenance, operations, and management. With IPS® Advanced Scheduling Module within WFM Solution, users can dynamically plan and assign work based on resource availability. It automates scheduling by considering asset health, priorities, budgets, and outages while geo-visualizing scheduled and ongoing tasks through dashboards. This offers a clear view of maintenance and inspection activities on a map.



PLANNING → WORK ORDER → EXECUTION

### 🔷 How does Workforce Management work in IPS®

Planning is an essential part of Workforce Management. The integrated planning wizard creates short- and long-term plans in minutes. Expanded filtering allows users to select asset groups, apply action templates, and let the system do the magic. A planning wizard is a tool that organizes all activities and defines execution dates with predefined maintenance cycles and tolerances. Assets are paired with action templates, and a maintenance plan is created. Workforce Management can be enhanced with the IPS® Asset Investment Planning solution.

After the plan is created, with triggers in IPS®SmartGridDI, work orders are made, and notifications are triggered. These triggers may launch follow-up actions such as e-mail notifications, web alerts, or a work order action generation. Save valuable resources by effective work scheduling and control.

Executing maintenance is the last step, where the fieldworker gets the job done. With advanced IPS®MobApp WFM, all data is directly synchronized from the central database. Field workers are always up to date with work orders and tasks. Also, an overview of maintenance action history and asset location-related tasks are available.

### 🔷 Advanced Scheduling Module

IPS® Advanced Scheduling Module (IPS®ASM) is a web-based application developed to simplify work scheduling and dynamically plan and assign work based on resource availability. It's a flexible application focusing on work management that can be used stand-alone or with other ERP systems. IPS®ASM is an automated process that gives proposals and recommendations, considering asset health, dynamic cycles with priority calculations, budget constraints, and outages.

It includes the following modules:

- Planning
- Scheduling
- Human Resources
- Materials
- Inventory
- Budgeting

# 8. Outage Management System (OMS)

Our (Common Information Model) CIM-Based Outage Management System is a solution designed specifically for transmission organizations. By utilizing an AUTOMAP CIM Network Connectivity Model integrated with comprehensive Asset Management Data, we provide a seamless experience for managing network topologies and real-time situational awareness. IPS®OMS combines modules for Planned and Unplanned Outage Management and Switching Order Management. It offers native integration with other systems such as SCADA, DMS, PSS®E, various mobile solutions, lightning and weather data, Lidar, and many others.

**IPS® Outage Management System Modules**

### 🟦 Planned Outage Management

Natively integrated functionality for Planning Outages within IPS®OMS simplifies the process of scheduling and managing planned outages. It is designed to perform the outage planning function of power system utilities, including managing all outages.

### 🟦 Unplanned Outage Management

Within the Unplanned Outage Module, users collect valuable information related to outage events, including fault/disturbance events, outage items, circuit breaker operations, and protection devices operations, which can be used for further investigations resolving outages and root-cause analyses.

### 🟦 Switching Order Outage Management

IPS®OMS Switching Order Management presents an important part of IPS®OMS and it is developed for managing the processes of providing conditions for safe operation on elements that are subject to disconnection requests.

**How IPS®OMS Work?**

The outage lifecycle begins with notifications, typically as unstructured textual data. Alternatively, notifications can be automatically generated by interfacing with IPS® Network Model Management (IPS®NMM), which reads various event logs and historians to create notifications within IPS®OMS.

Based on these notifications, an outage request is then created. IPS®OMS features advanced built-in functionality for Bundling Outages, which aims to reduce risks and lower costs by automatically suggesting the creation of a single outage instead of multiple smaller ones on interconnected elements.

The outage planner can identify the primary outage object, such as a line, power transformer, busbar, or compensator, and associate it with the outage request. Once the relevant equipment is identified, the planner determines the appropriate course of action.

# 9.  Asset Investment Planning (AIP)

Asset Investment Planning (AIP) solution is part of an extensive IPS portfolio. It provides powerful capabilities and enhanced intelligence to assist in planning and managing asset investments and optimizing the benefits, costs, and risks of high-value assets.

AIP solution is designed for anyone who manages strategic assets, focuses on creating and managing investment strategies, optimizing asset allocation, and achieving financial goals.

### Enhance the Value of Investment Decisions

While Asset Performance Management and Enterprise Asset Management solutions support primarily the daily or weekly operational decisions and actions to improve the reliability and availability of the assets, IPS® Asset Investment Planning software enhances complex, longer-term tactical and strategic decisions relating to the CAPEX/OPEX budget allocations and overall asset management planning. IPS®AIP systems leverage asset data (primarily sourced from APM and EAM systems) to predict the current and future performance of the asset base over a predefined time frame.

### Why IPS®Asset Investment Planning

IPS®AIP solution provides the powerful ability and intelligence to plan and manage Asset Investment, with the best optimization of the benefits, costs, and risks for high-value assets. The Asset Investment Planning Solution brings together all the powerful functionality of IPS®SYSTEMS relating to Asset Health and Risk, Asset Management, Outage Management, and Business Process Management module. It provides an integrated solution to streamline Asset Investment Planning by including all relevant information, data, and factors in the analysis of needs and options.

Optimal Asset Investment Plans are produced to suit your business needs and priorities, considering regulatory and budget constraints as well as consideration of risks, costs, and benefits associated with reliability, performance, safety, and environmental factors.

| ASSET INVESTMENT MANAGEMENT | DECISION AND APPROVAL FRAMEWORK | AIP EXECUTION MONITORING |
| --- | --- | --- |

# 10. Network Model Management

IPS®NMM offers a single repository concept for all consumers of the Network Model. Moreover, it supports multiple users, model parts, boundary parts, workspaces, and model assemblies. As opposed to simpler solutions that track only the current version of the network model, the IPS® solution offers a complete audit trail over each granular change in the network model.

A Common Information Model (CIM)-based Network Model Management (NMM) Solution provides and maintains valuable connectivity with users' databases, data sources, applications, and Asset Management hierarchy. It effortlessly manages power system planning and development activities with the assurance of data quality and integrity and a fundamental single-source-of-truth basis.

CIM-Based Network Model Management Solution will ease integrations with your external sources of network and substation data, validate data before importing it, and maintain a full audit trail of changes. In addition, it will save time with Auto-Layout Diagrams Creation based on CIM Data.

### 🔷 Network Model Management – Ready for CIM CGMES 3.0

IPS ensures compliance with CIM CGMES 3.0 by supporting CIM profiles within CIM 16 (IEC 61970 and IEC 61968 standards), including profiles for power flow, dynamics, short-circuit analysis, and other relevant applications.
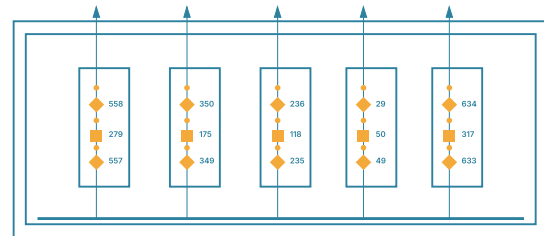
IPS actively participates in ENTSO-E CGMES 3.0 interoperability workshops to ensure seamless exchange of grid models and data among different utilities and systems and to demonstrate and to validate its compliance with CGMES 3.0.

During these workshops, IPS collaborates with other vendors, identifies potential interoperability issues, and stays updated on latest developments and best practices related to CGMES 3.0.

### 🔷 Features

IPS®NMM uses CIM 16 as its base, defined by the IEC 61970 and IEC 61968-4 standards and provides a standardized framework for exchanging grid models and operational information among different enterprise systems in the electrical power industry.

- Native CIM-based Data Repository
- User Interface and visualization
- Version Control System
- Advanced validation rule engine and scripting

# 11. Mobile Platform Solution

The mobile platform solution is designed for different power utility sector users responsible for maintenance, operations, and management. A simple and intuitive user interface allows field technicians to perform onsite maintenance, repairs, and inspections of power grids and field managers to assign tasks and monitor their progress. Additionally, it can help asset and infrastructure managers plan long-term maintenance and optimizations of utility assets. It has both online and offline capability and dynamically changes work tasks and action lists. It is based on Field Data Collection with instant Asset Analytics. It provides superior predictive maintenance capability and Voice Recognition, Machine Learning, Asset Nameplate, and Condition Photo Recognition Analysis.

### 🔷 IPS®MobApp

IPS® MobApp mobile application was specially developed for field crews in the electrical power utilities industry. The solution supports complex data models

required for advanced performance analytics, on-site tracking of failure modes, and root-cause analysis. It is designed for maximum flexibility.

- **GPS Awareness**

Supports Google Maps for viewing workorders, assets, and locations on a digital map. Provides step-by-step directions to job sites and displays work orders by location.

- **Integration**

Integrated with IPS® Identity Provider, IPS®WEB Services, IPS®SmartGridDI, and common services.
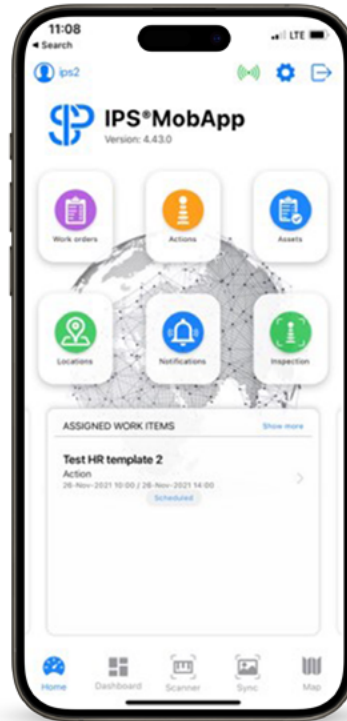
- **Data Collection**

It supports data collection through QR and barcode scanning or through visual and voice recognition.

- **Dynamic Work Tasks and Action Lists**

Allows instant access to asset analytics and provides superior predictive maintenance capability.

- **Performance Analytics**

It supports complex data models required for advanced performance analytics, on-site tracking of failure modes, and root-cause analysis.

# 12. Advanced Facility Ratings Management

IPS® Advanced Facility Ratings Management (IPS®AFRM) is a solution developed for transmission providers and is fully compliant with FERC 881. It helps utilities meet all the requirements of the Order. All transmission providers, inside and outside organized markets, must use ambient-adjusted ratings to evaluate near-term transmission service to increase the accuracy of near-term line ratings.

The requirement is intended to replace the typical practice of using conservative, worst-case weather assumptions for line ratings, which often leads to underutilization of the transmission grid. By using ambient-adjusted ratings within IPS®AFRM, transmission providers will be able to more effectively manage grid capacity, enhance grid reliability, and optimize the use of existing transmission infrastructure.

### 🔷 FERC 881 Compliance within IPS® Portfolio

IPS®AFRM uses the connectivity defined in the network model to identify all electrically connected equipment to ensure accurate and transparent facility ratings. The system utilizes all established rating types for this equipment and includes calculated line limits imposed by the protection system. Using current and forecasted industry-recognized weather data, these rating types can be calculated on any needed time frame, utilizing any defined calculation for Base, Seasonal, AAR, or Emergency ratings.

IPS®AFRM is a CIM-based solution capable of dynamically responding to changes in the network model based on available data. It can intelligently process all dynamic and static data from the lines and within the substations and can be connected to real-time monitoring systems. It is available as an on-premises or cloud solution.

### 🔷 FERC 881 Requirements

- Public utility transmission providers to implement ambient-adjusted ratings on the transmission lines over which they provide transmission service.

- Regional Transmission Organizations (RTO) and Independent System Operators (ISO) to establish and implement the systems and procedures necessary to allow transmission owners to electronically update transmission line ratings at least hourly.

- Public utility transmission providers to use uniquely determined emergency ratings.

- Public utility transmission owners to share transmission line ratings and transmission line rating methodologies with their respective transmission provider(s) and with market monitors in RTOs/ISOs.

- Public utility transmission providers to maintain a database of transmission owners' transmission line ratings and transmission line rating methodologies on the transmission provider's open access same-time information system site or another password-protected website.

# 13. Intelligent Data Lake (IDL)

The IPS® Intelligent Data Lake (IPS®IDL) is a tool designed to collect, store, and deliver certain data for further use in analytics and reporting. It ensures data quality and consistency, allowing for immediate decision-making. IPS®IDL is a centralized repository that stores structured and unstructured data at any scale. It features configurable data models and built-in integration functionalities for large data integrations like NMM, SCADA, GIS, historians, and more.

🟦 **Benefits of IPS® Intelligent Data Lake**

IPS® Intelligent Data Lake offers a robust and versatile infrastructure that can benefit integration and analytical applications. IPS®IDL enables the development of accurate and reliable ML models by providing scalable storage for different data types, enabling data integration, and ensuring high data quality through effective preprocessing and governance. Additionally, strong security measures and cost-efficient storage solutions make IPS®IDL a necessary asset for organizations aiming to integrate complex systems into one centralized portfolio used for strategic decisions.

- **Scalability and Performance**
  IPS®IDL efficiently manages and processes large amounts of data, which is essential for training complex ML models. Intelligent layering and integration also achieve optimal resource allocation, minimizing the need for computational and storage resources.

- **Cost Efficiency**
  Affordable storage solutions enhance cost efficiency, allowing organizations to maintain the extensive datasets required for machine learning economically. Additionally, built-in automation and effective data management practices significantly reduce overall operational expenditures, further improving financial viability.

- **Security and Compliance**
  Security and compliance are achieved through robust measures that safeguard sensitive information and ensure adherence to regulatory standards. Moreover, comprehensive security protocols significantly reduce the risk of data breaches and unauthorized access, providing an extra layer of protection for valuable data.

- **Advanced Analytics**
  Analytics are supported by results collected within maintenance process, which utilizes integrated, high-quality data to enhance decision-making processes. Furthermore, effective data integration and preprocessing techniques play a crucial role in mitigating overfitting, resulting in more accurate and reliable models.

- **Data Integration**
  Comprehensive data integration merges multiple data sources into an unified repository, offering a holistic view that improves the accuracy and reliability of machine learning models. This diverse integration of data sources results in richer inputs, which contribute to developing more robust and generalizable models.
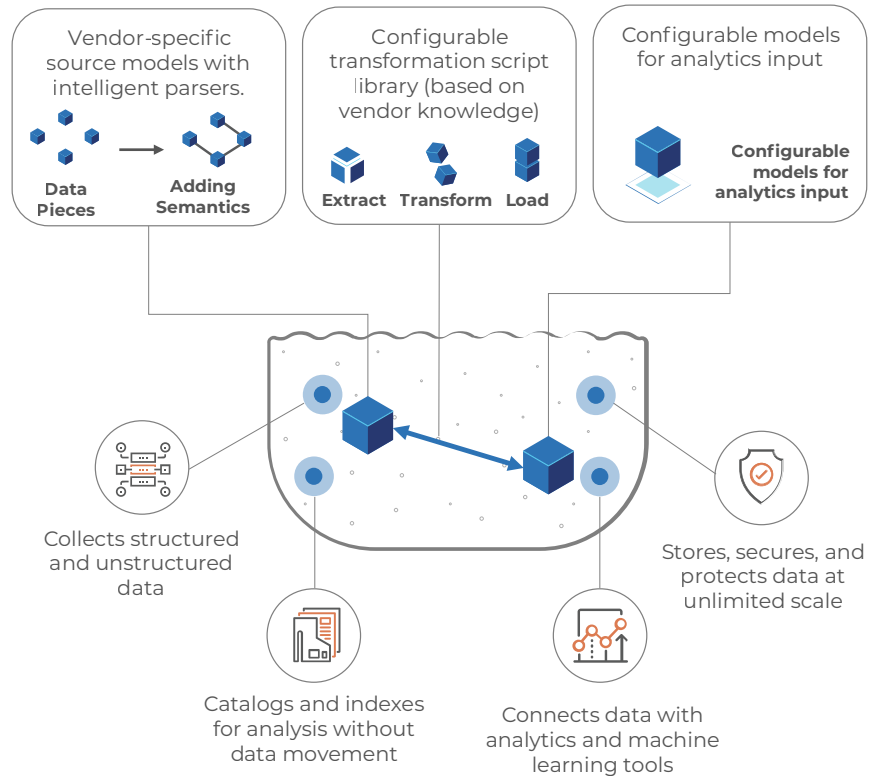
### How does it work

IPS®IDL can be integrated into existing data lakes already in production by embedding the data lake functions as part of IPS®SYSTEMS (Asset Performance Management, Enterprise Asset Management...) or as a separate IPS®IDL, typically for cloud multi-tenant systems.

It delivers an out-of-the-box extensive library of existing data models and parsers with transformation to standardize and normalize analytical models.

All models are configurable and extensible without hard coding or software development. IPS® Intelligent Data Lake allows users to prepare for fast racing in the future and manage data foundation with the lowest costs.

Sophisticated normalized analytical models are already embedded in the IPS®IDL solution. The system operates on a secured network and provides multisource input for analytics with built-in ETL and normalized data models. Data in the data lake is automatically stored in different storage tiers based on its properties and source models with intelligent parsers. IPS®IDL automatically adds semantics to the collected data.

IPS® Intelligent Data Lake offers a modern and comprehensive web API for accessible data import and export.



Vendor-specific source models with intelligent parsers.

**Data Pieces** → **Adding Semantics**

Configurable transformation script library (based on vendor knowledge)

**Extract  Transform  Load**

Configurable models for analytics input

**Configurable models for analytics input**

Collects structured and unstructured data

Catalogs and indexes for analysis without data movement

Connects data with analytics and machine learning tools

Stores, secures, and protects data at unlimited scale

# 14. Knowledge Management

Our Knowledge Management Solution addresses the core challenges of passing knowledge to end users and keeping it within the company. We have developed a solution that makes knowledge easily accessible and, as a result, reduces costs and time spent seeking out relevant information and instructions. We recognized knowledge transfer as a two-way process and decided to change its approach from the root.

IPS Knowledge Management provides specific knowledge transfer for each software segment and user. The knowledge base is integrated into the software and always available where needed, allowing users to learn at their own pace and send feedback.

The Knowledge Management solution can be implemented in various industries to avoid knowledge leakage through staff turnover. We have created an online educational platform for training, user testing, and certification. It is highly configurable and adaptable to special use cases.

■ Within the knowledge management system, account owners with special administrative rights to use the platform can set up the entire process, starting with creating a team of managers to help administer online training.

■ The learning content is centrally managed. The platform is the centralized storage of customized multimedia lessons and knowledge checks.

■ Managers can use IPS® content or create learning content and tests, invite employees (students), and grant them access to specified training content with the account owner.

■ Management has access to detailed, comprehensive analysis on the level of the entire online training and course level and can also track the progress and achievement of each user individually.

**IPS® Learning Platform within IPS Solutions**

· IPS® Learning Platform streamlines workflows by linking knowledge libraries across all IPS® modules.

· The platform allows creating quizzes, awarding an IPS® Certificate upon successful completion.

· The integrated quick analysis tool allows you to get a preview of the responses for selected services.

· IPS® Learning Platform uses Machine Learning and Artificial Intelligence algorithms that help locate know-how deficits.

· Identifying knowledge gaps enables corrective actions and continuous skill improvement.

# 15. Fleet Management

Fleet Management is a repository of asset fleet-based solutions for efficiently managing power transformers, cables, protection devices, circuit breakers, and their test results, with robust reporting and advanced analytics capabilities.

IPS® Fleet Management comes with seamlessly integrated EAM and APM solutions, capable of collecting test results in a predefined, structured format.

Designed to be versatile and easy to use, the Fleet Management environment is accessible on mobile phones, tablets, and PCs. This user-friendly, cost-effective solution requires no specialized training, allowing users to efficiently manage individual asset fleets using proven engineering practices.

Hosted on a reliable multi-tenant infrastructure, the platform ensures scalability, accessibility, and high performance while maintaining the highest standards of security and data protection.

## Transformer Intelligence Center

IPS® Transformer Intelligence Center (IPS®TIC) is an innovative power transformer fleet management solution. This solution addresses unique customer requirements by combining an extensive oil test database with Megger's expertise in transformer testing and IPS's excellence in analytics. Utilizing advanced machine learning techniques on a vast oil test database, IPS®TIC provides predictive insights, enabling proactive maintenance and asset investment optimization.

> IPS®TIC Transformer Intelligence Center provides insights into asset risk assessments and performance evaluations, enabling investment prioritization based on asset health, criticality, and financial impact.

🧊 **What you get**

Optimized Maintenance and Asset Planning:

- Off-the-shelf, centralized and uniform transformer oil tests result management;
- Individual chemical physical assessment (CPA);
- Industry-proven specialized transformer analytics and ML based diagnostics (APM).
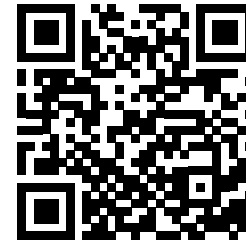
Improved Decision-Making:

- Transformer Condition Assessment;
- Advanced Fleet Health Summary Reporting;
- Investment Planning and Prioritization;

# Why IPS

Seamlessly integrated solutions come with a continually growing library of assets, technical data, and expanded analytics. Driven by engineers and powered by Machine Learning and Artificial Intelligence, our portfolio capabilities feature software and analytics that accurately evaluate asset health, predict asset lifespans, perform what-if analyses, and optimize both CAPEX and OPEX.

One of our key differentiators is our highly intelligent asset configuration management for Protective Relays and Intelligent Electronic Devices (IEDs), which is essential for ensuring high levels of power system security, reliability, and flexibility.

We continually enhance and expand our suite of specialized tools for power systems to stay ahead of the rapidly evolving needs of the global electricity industry, driving innovation into our digital future.

## Book a 60-minute demo

See our portfolio in action. Schedule your personalized demo now and learn how our solutions can work for you.