GRID VISION®

Asset Information Management

Today's
Environment

Asset management and maintenance of the grid infrastructure is more crucial than ever, with an increase of renewables, aging infrastructure and shifting of loads straining the grid. Utilities often lack complete digital models and visual-based view of their infrastructure assets.

The quality of the asset information in core IT systems is often questionable. Asset information can be residing in multiple sources with limited visual-based view of the assets. Existing visual documentation tends to be unstructured and not easily available.

This gap and lack of quality in asset information has a direct impact on:

- Asset management decisions including maintenance and investment decisions
- Outage and response time to critical events
- Meeting regulatory requirements and customer expectations
- Wasted time on locating the correct asset information
- Delays and challenges in digitalization projects

**Good Asset Information Management
is a prerequisite for good Asset Management.**

$3 Trillion[1]

per year costs due to bad data.

33% of analysts[2]

spend more than 40% of their time vetting and validating analytics data before it can be utilized for strategic decision-making.

Poor data quality[3]

is the leading cause of digital transformation failure.

30% of revenue[4]

is spent on handling data quality issues.

1: Source: HBR - Bad Data Cost the US 3 trillion per year, 2016
2: Source: Anodot - Price You Pay for Poor Data Quality
3: Source: It Proportal - Poor data quality is the leading cause of digital transformation failure, 2018
4: Source: UK Government - Hidden Cost of Poor Data 2021

Case Study

The power of having the right data

Ability to identify impacted substations with no field visits required.

A utility had a serious asset failure in one of their substations. Using the data from their newly acquired visual repository they were able to **classify the condition** of the asset before more failures occurred and were able to **identify 42 substations** out of 22,000 that were impacted with the same potential failure **within hours** with **no field visits required.**

Our Solution

Bridging the gap in asset data

We provide customized services to improve the quality and digitalize the information on your physical assets down to a single component by capturing onsite photos and data. We help you comply to regulation requirements and standards such as the ISO 55000 series.

We process your dataset utilizing advance tooling based on Artificial Intelligence and harmonize the dataset to your data standards, models and business rules.

Our services include:

Asset Inventory

Establish and maintain a trustworthy Asset Inventory in your core IT systems by utilizing visual documentation.

Conditional Assessment

Capture the condition of assets, by utilizing visual documentation to ensure the objectivity of the conditional assessment is recorded.

Digitizing Technical Asset Documentation

Digitize all technical asset documentation.

Asset Data Modelling

Establish or revise your data models.

Industries we serve:

We provide services for infrastructure assets for power generation, transmission, and distribution utilities.

Why Grid Vision Asset Information Management?

Proven Field Service

We are providing Asset Information Management services to more than 10 major utilities and have inspected more than 45,000 substations.

Tried & Tested Process

We have an established methodology to capture and integrate your data into your IT systems e.g. NIS, Maintenance Management etc.

Extensive Domain Expertise

With over 20 years of asset inspection experience, we have multidisciplinary teams that understand utility assets and data needs.

Established AI-Toolset

We have developed AI-powered software tools which help utilities to get in control of their data and remain in control. We have taken 9+ million photos and processed 10+ million documents.

Unlocking
New Opportunities

Our services help you bridge the gap in your asset register and assist you in establishing trustworthy data. Working with our customers, we have seen them realize the following benefits once they start utilizing the improved data.

Reduced Field Visits

Access to more visual based data at your desk.

Confidence In Your Data

Correct information for regulator and auditors and improved asset management decisions.

Accurate Asset Inventory

Data quality is consistent, accurate & validated by engineers.

Improved Safety Training

Visual document for emergency and simulation training.

Complete Audit Trail

All data in one central data repository with visual documentation linked to asset data.

Reduced Unplanned Outages

Implementation of a condition based maintenance strategy based on improved digital information on your assets.

Our **Approach**

We have an established methodology that has unlocked value to our customers. Our four-step process ensures that you get in control of your asset information and remain in control. The Plan phase is about understanding your asset information needs and establishing a starting point. We then move to the capture phase, where we collect the information and imagery in the field. This information is used as a basis for the in-house processing and structuring of the asset information. We do have the capability to conduct this field work with our own personnel, or we can work with local partners and/or our customers own field personnel. When working with 3rd parties, we provide full training and equipment for the field work. We process this data in the Analysis phase utilizing Artificial Intelligence and then populate your IT systems, so you can visualize your asset information in the Insight phase. Our journey does not stop there, once you are in control of your data you need to remain in control and we can help you do that.
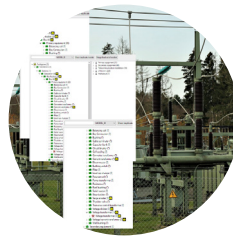
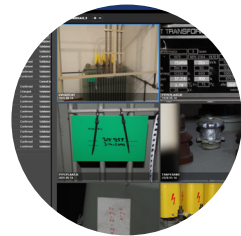| Plan	Capture	Analysis	Insight
Understanding asset information needs.	Colllecting information in the field.	Processing and structuring asset information.	Populating IT systems and visualizing asset information.

Customer Case Studies

We have worked with transmission and distribution operators inspecting over 45,000 substations and processing over 9 million photos and 10+ million documents. Below are a few of our references.

22,200 Secondary substations	**150** Substations documented & delivered weekly	**2.8+MM** Photos taken	**1+MM** Assets digitalized	**7.8+MM** Attributes populated

STEDIN.NET

Improving the quality of asset information

Stedin wanted to establish a trustworthy Asset Repository in their BM-GIS solution for all of their secondary substations.

Solution: We have delivered updated and detailed asset inventory data, schematics, connectivity details and linked photo documentation for all secondary substations in line with Stedin's data model standards and business rules.

"This is our 4th attempt at trying to get our asset information updated. Colleagues who have been involved in the previous projects still don't believe it's going to work. That says something about how challenging it is."

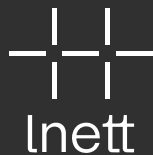*Thijs Janssen, Team lead, Asset Data Enrichment Team, Stedin*

Case Studies

Customer Case Studies

3,800	**>34,000**	**>2.3MM**	**>30K**
Secondary substations	Substation inspections	Estimated # of photos taken	Unique findings reported

lnett

Improving asset information to meet regulatory requirements.

Lnett wanted to implement a yearly combined conditional assessment and inventory program to meet regulatory requirements and to establish a trustworthy and detailed Asset Repository in their asset management solution (SAP-PM).

Solution: We provided yearly conditional assessment results, verified and updated asset inventory and linked updated photo documentation for all secondary substations. We also provided a hosted version of our Inspection portal, this is an analysis solution combining asset data, historical conditional data and photo documentation.

"We're very satisfied with the work Verico* has done for us. The authorities have stated that they haven't seen any grid operator with better control of data and data acquisition than Lyse. That is thanks to Verico.*"

Frank Boholm, Head of O&M, Lyse Elnett

*Verico is now part of eSmart Systems.

Case Studies

Customer Case Studies

151 Primary substations	>4,000 Binders processed	>300K Drawings/ documentation	>150K Photos taken	>140K Asset attributes populated

Statnett
The future is electric

Improving the quality of asset data for primary substations.

Statnett wanted to establish accurate technical information on their primary substation assets for their IFS Documentation Management System.

Solution: We provided trustworthy digital sets of technical documentation, verified and updated Asset Inventory and photo documentation in line with Statnett's data model and documentation requirements.

"We are very pleased with the work Verico* has done for us. They have tools, expertise and work processes of the highest quality. In addition, they are concerned with continuous improvements and make adjustments to processes and methodologies continuously."

Thomas Lyngstad, Head of Asset Information, Statnett

*Verico is now part of eSmart Systems.

Case Studies

Customer Case Studies

>165	>900K	200K
Primary substations	Attributes populated	Structured photos

TENNET

Improving the Asset Inventory of primary substations.

Tennet wanted to establish a trustworthy Asset Inventory database in their ERP solution (IFS). They want to focus on all primary, secondary and tertiary assets in their primary substations.

Solution: We delivered structured assets, asset data (attributes/ characteristics) and photo documentation. We provided our AssetGuide portal solution as a front-end to asset information in IFS and photo documentation.

Case Studies

GRIDVISION®

Powered by eSmartSystems