



# The Key to the IT Network of the Future

Modules and pricing

Version 1.0

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# Future-Proofing IT Networks with AI-driven ontology and Big Data

The complexity of IT networks continues to grow due to the increasing diversity of devices, users, and protocols. For organizations where uptime and security are critical, managing these networks presents a significant challenge. Metadino offers an innovative solution by combining big data and AI technologies into an advanced platform that stands out with its AI-driven ontology. This enables organizations not only to structure data but also to uncover hidden connections and generate automated recommendations for faster and better decision-making. In this whitepaper, we introduce Metadino, feature insights from its two founders, share a case study of a successful client, and demonstrate how our approach empowers organizations to future-proof their IT networks.

## The Vision behind Metadino

### A Unified IT Solution

Erik Witte, founder of Umbrio in 2013 and co-founder of Metadino in 2024, states: "Metadino started in 2020 as a business unit within Umbrio, a Dutch Elite Splunk partner, and became an independent spin-off in 2024. The name Metadino stands for **Meta Data Informed Next-gen Ontology** and reflects the essence of our approach: developing an AI-driven ontology for IT." The ontology is the logical successor to taxonomy, the model upon which most current tools and methodologies are based.

Jeffrey Nelissen, co-founder and visionary of Metadino, adds: *"Our ontology provides organizations with a structured framework that combines facts and logical rules. By applying reasoning rules, new facts can be generated. This completely solves the traditional challenges of manual data management and process discipline. The result is a consistent and accurate overview of the IT environment, which we have given the honorary title 'Golden Source.'"* A consolidated 'single source of truth' also forms an excellent foundation for advanced and extensive automation possibilities within IT and cybersecurity functions.

Metadino makes big data insights accessible and practically applicable for IT networks. For example, an organization can immediately identify connections between vulnerabilities and network segments, enabling faster prioritization and risk mitigation. This allows organizations to detect vulnerabilities more quickly, solve problems more efficiently, and optimize their network performance.

## A Case Study

### Client Challenges and Approach

A major Dutch government agency faced a significant challenge when replacing critical equipment in two data centers. Twenty-eight firewalls from three different brands needed to be consolidated into sixteen firewalls on a completely new platform. The primary challenges were:

- **Maintaining real-time oversight** during the migration.
- Transitioning to a **dynamic policy system** for improved scalability.
- Resolving **fragmentation in address books and firewall policies**.

Metadino provided a structured model that made this complexity manageable. Thanks to our modular approach and automated insights, the migration was flawless. Even after the migration, Metadino continued to add value. Jeffrey adds: *"The client now uses the insights daily for operational tasks, making our solution indispensable."*

## Results and Successes

### Flexible, fast and without disruption

The migration was completed three times faster than planned, saving over €500,000. Thanks to a formula-based approach, strategies could be adjusted during the project without disruption. Within two weeks, a new target platform was designed, tested, and successfully implemented. Erik Witte adds: "They gave us a truly fantastic compliment. What we literally heard them say was:

"We've never seen anything like this,  
from any vendor,  
under any circumstances!"

Significant progress was also made in IT asset management. By automating and optimizing processes, 50% less time was spent on IT inventory. This allowed the client to allocate freed-up resources to strategic projects.

In addition, MetaCheck resolved a large number of network issues at lightning speed. **In just six weeks**, 2,116 zone issues were resolved—**33 times faster than usual**. This not only **saved more than €600,000** but also significantly **minimized downtime**.

Finally, firewall management was drastically simplified. Over 1,000 outdated firewall rules were eliminated, resulting in improved data quality, enhanced compliance, and lower operational costs. The team reported a noticeable reduction in 'firefighting' incidents, contributing to a calmer and more efficient work environment.

## Other Examples & Applications

The modular architecture of Metadino enables a gradual improvement of both data structure and data quality across the entire organization. This creates vast opportunities for automation and AI4IT investments, all built on a rock-solid foundation. Throughout implementation and incremental adoption, significant benefits can be realized in key areas such as:

- **IT Service Management (ITSM):** Enhanced incident and problem management through automated correlation and root cause analysis.
- **Observability:** A more complete understanding of how and why systems behave the way they do, enabling optimization and rapid issue resolution.
- **Capacity Planning & Resource Management:** Data-driven insights into usage patterns and trends to optimize resource allocation.
- **Security Management:** Improved threat detection and response through pattern recognition and anomaly detection.
- **Innovation & R&D:** Identifying opportunities for technological advancements and optimization based on data-driven analysis.
- **Governance, Risk & Compliance:** Translating cybersecurity and data privacy controls into all major compliance frameworks, enabling end-to-end automated compliance reporting.

## Conclusion

# Metadino opens the door to AI4IT

Metadino's approach demonstrates how big data and AI-driven ontology revolutionize the management of complex IT networks. Organizations gain not only better insights and efficiency but also a robust foundation for the future.

Moreover, Metadino opens the door to AI4IT: a tailored AI system for organizations, comparable to 'ChatGPT' for IT and cybersecurity challenges. What sets AI4IT apart from other AI solutions is its ability to fully rely on consistent, validated data that is specifically tailored to the organization's IT environment. Through the unique combination of ontology and reasoning rules, Metadino not only responds to queries but also provides in-depth analyses and proactive solutions. This is made possible only with reliable, crystal-clear data as a training base. Implementing Metadino ensures precisely that, optimizing the network while preparing it for the next step in technological innovation.

## Functional Description per Module

The Metadino ontology is built modularly, is holistic in nature, and is applicable across the entire organization. Each module independently delivers value and **improves both the data quality and the data structure** of the entire organization. The modules are delivered as a managed service. Splunk can be an integral part of our managed service, we also offer BYO license and platform options.

Overview of Modules and Pricing (ex VAT)		Daily ingest <= 300GB
Module	Description	Subscription (p/a)
Splunk as a Service	[n] GB p/day Splunk Enterprise (MSP), Azure, AWS or on-prem Appliance, 24x7 available, 5x12 active management	Optional/On request
MetaMatch	IT-Asset Due Diligence	€ 35.000
MetaSight	Insights in IT-Asset Relations	€ 85.000
MetaCheck*	Policy Compliance Check	€ 135.000
MetaArc**	Automated Architecture Audit	€ 135.000
MetaTron**	Security Governance, Risk & Compliance Audit	€ 250.000

The above prices are annual subscription fees, excluding VAT. As part of the MetaMatch implementation, we conduct a Due Diligence Assessment to jointly define the scope and identify key data sources. While this has not yet occurred, if the assessment determines that data ingestion exceeds 300GB/day, we will provide a customized pricing proposal.

\* MetaCheck may require additional implementation and onboarding services. Example: if combined with migrations.

\*\* MetaArc and MetaTron do require additional implementation and onboarding services.

## MetaMatch

### IT-Asset Due Diligence

- Scope establishment and data sources identification
- Compares machine data with design expectations and administrative reality
- Analyzes data accuracy and correlation
- Highlights inconsistencies and indistinct objects

**Result:** a unified, reliable repository of correlated data – the ontology-based Golden Source.

## MetaSight

### Insights in IT-Asset Relations

- Identifies relationships across the network
- Establishes generic context to data sets, policies and rules
- Enriches data sets with ownership and application context
- Highlights gaps, duplication, and blind spots

**Result:** adding ontology-based relations to the Golden Source.

## MetaCheck

### Policy Compliance Check

- Analyzes and optimizes policies
- Maps dependencies and eliminates blind spots
- Performs compliance checks on policies
- Real-time reporting

**Result:** adding ontology-based data quality validations to the Golden Source.

## MetaArc

### Automated Architecture Audit

- Provides end-to-end application insights
- Supports compliance and process optimization
- Enhances security and efficiency

**Result:** creating an ontology-based application portfolio leading to unparalleled insights and reporting abilities.

## MetaTron

### Security Governance, Risk & Compliance Audit

- Automates compliance reporting
- Real-time audit reporting for all major compliance frameworks
- Monitors compliance with internal standards
- Aligns security governance with business strategy

**Result:** seamless compliance, improved governance and full alignment between security and business strategy.

# Product Overview

Modular build up of an ontology-based data quality assurance engine

## Due Diligence Assessment

- Scope establishment
- Identification of data sources
- Data accuracy analysis
- Data correlation
- Highlight indistinct objects
- Delivery of DD reports

## Data Quality Assurance

- Naming conventions
- Translations old > new
- Data cleansing
- Unique object creation/validation

## Legend

- Data feed
- Data feedback loop
- Data injection

Prerequisites for use of the suite

Due Diligence Assessment

Golden Source

metablueprint

grid

patterns

controls

Data Quality Assurance Engine

AI requires high quality data and an information architecture.  
AI requires IA.

AI/IT Ready

metatron

Automated Compliance Reporting

metarc

Automated Architecture Audit

metacheck

Policy Compliance Check

metasight

Insight in IT-Asset Relations

metamatch

IT-Asset Due Diligence

splunk>

## First step:

## Creating the Golden Source

Correlation of existing sources (**metadino**) leveraging the unique ontology of **metadino**

An ontology differs from a taxonomy (database) in that an ontology contains not only facts but also rules, captured in logical formulas. Metadino has an automatic reasoning program that can derive new facts from rules. The result is such a clear and consistent picture of the actual situation that we have given it the honorary title **Golden Source**.

Examples of Data Quality results:

### CMDB accuracy

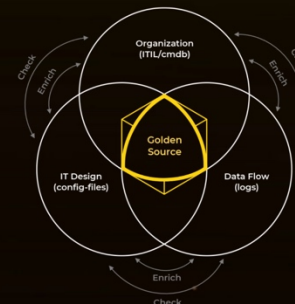
Customer 1: from 50-60% to 100%

Customer 2: from 25% to 90+% (in progress)

### IPAM accuracy

Customer 1: from 75% to 100%

Customer 2: from 45% to 100%



# Curious about how Metadino can benefit your organization?

Schedule a free demo to discover how we can add value to your IT landscape

[Request a demo](#)

**metadino.ai**