Ontology 3 semantic search to align OSS/BSS data for CSPs

Ontology 3 is a powerful semantic search product that non-invasively aligns and links enterprise data with minimal up-front integration effort and low cost of ownership.

Communication Service Providers (CSPs) are using Ontology 3 to finally join up data from their misaligned business, operational and infrastructure systems. Using state-of-the-art semantic search technologies, Ontology 3 quickly finds and aligns business entities to provide a single, accurate enterprise-wide view of customers, services and network assets.

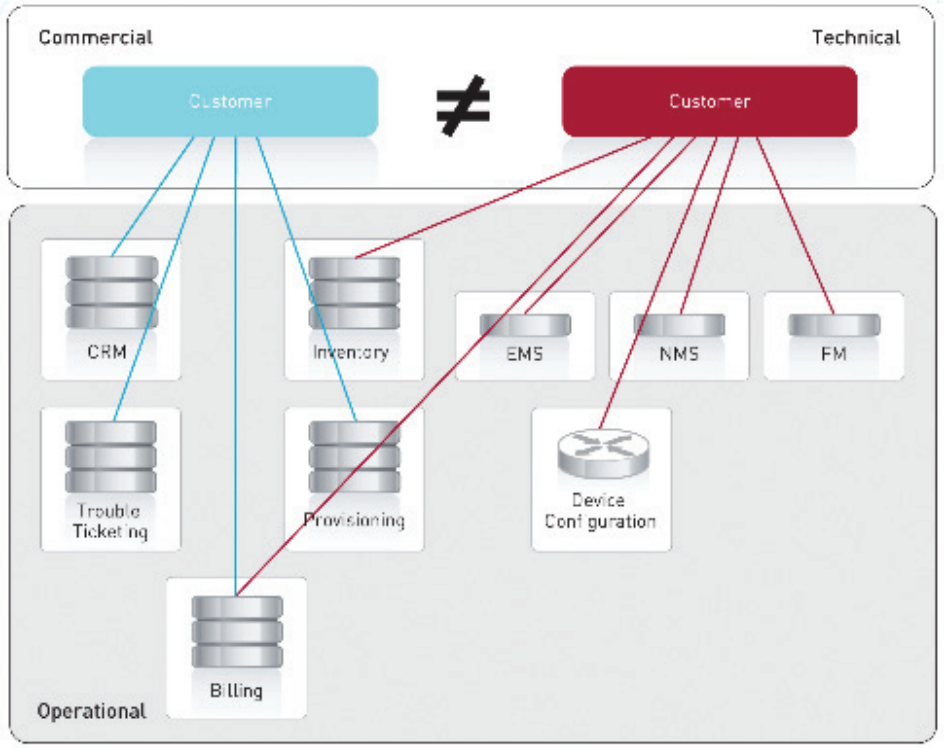
This linked and aligned view can be used to speed and de-risk major transformations, or can be combined with Ontology's Intelligent 360 search apps to provide full featured tools for end users. They include real-time revenue-prioritized service impact notification, customer care, end-to-end multi-vendor/ technology topology, and margin management, to name but a few.

Commercial vs technical view of OSS/BSS data

The business side of a CSP is concerned with things like customers and services while the operational and technical side is concerned with things like network equipment, databases and enterprise IT systems.

The views of these things – for example, a customer – derived from across the systems within the OSS/BSS contain misalignments. This makes it especially hard to achieve a consistent view of them across the technical and commercially focussed areas of the enterprise. Aligning these views is essential if the business is to be led by commercial, not technical, concerns.

Customer and Services Misalignment



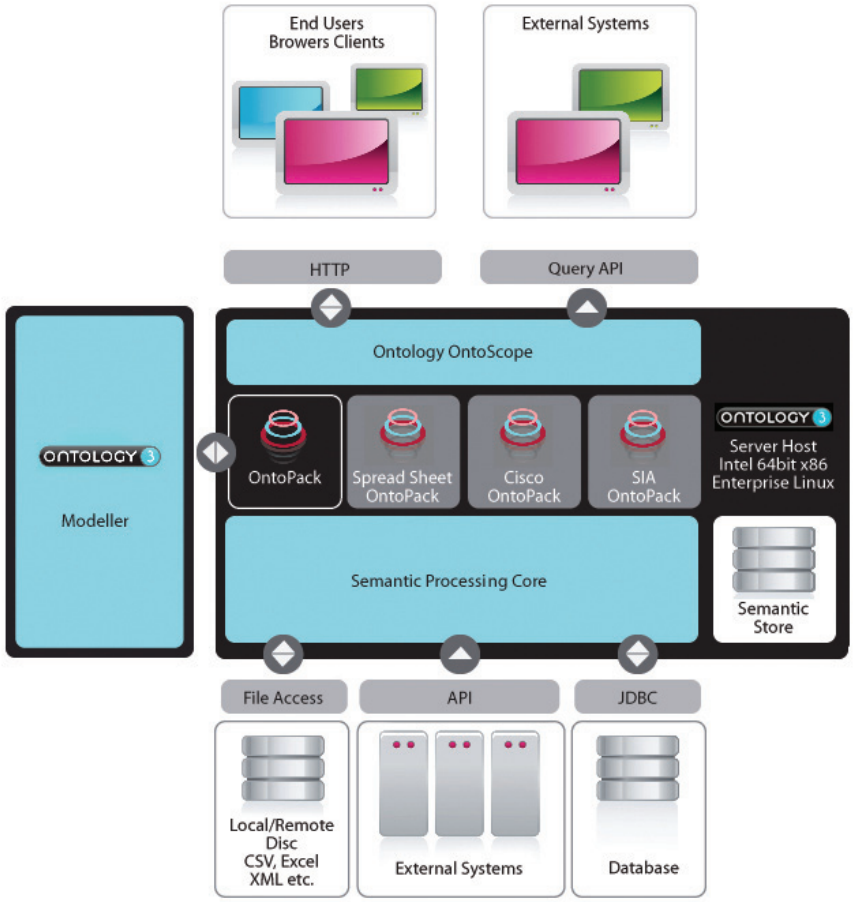
Enterprise Data Alignment (EDA) is the technology and activities that do this. It reduces cost and increases revenue per customer because the goals of business activities (such as revenue assurance, stranded asset recovery, customer retention and customer service) become easier and cheaper to attain.

Ontology product overview

Ontology 3 has four main components:

- Semantic Processing Core (SPC),
- OntoScope,
- Semantic eXchange Interface (SXI) and
- Modeller:

Semantic Processing Core (SPC), OntoScope, SXI and Modeller



Ontology 3
Semantic Processing Core

SPC is Ontology's semantic processing environment and the core of Ontology 3. It is the workhorse that loads, interprets and searches an organisation's data. It:

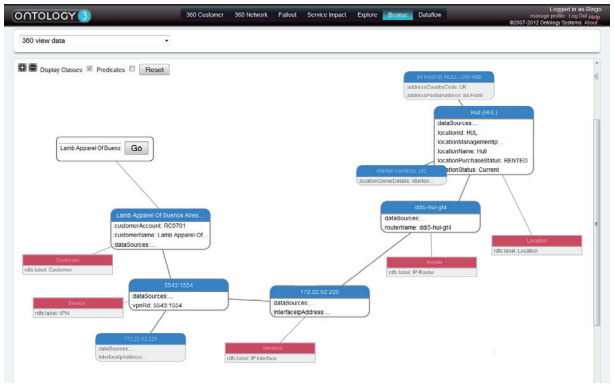
- Hosts Ontology 3 solutions and applications
- Delivers Ontology 3 OntoScope, the browser-based GUI for end-users
- Is 100% Java, runs on commodity Intel hardware running 64-bit enterprise Linux (Redhat or Ubuntu)
- Can be hosted by Ontology or deployed on-site
- Can upload data from practically any custom data source with little configuration
- Incorporates out-of-the-box data loaders for many standard data sources and formats including relational databases, XML, Excel and device configurations for common vendors.

Ontology 3 is usually extended with the suite of Intelligent 360 apps to provide out-of-the-box functionality for:

- Service Impact Analysis
- Change Management
- Customer and Service Management
- Multi Technology Topology Explorer.

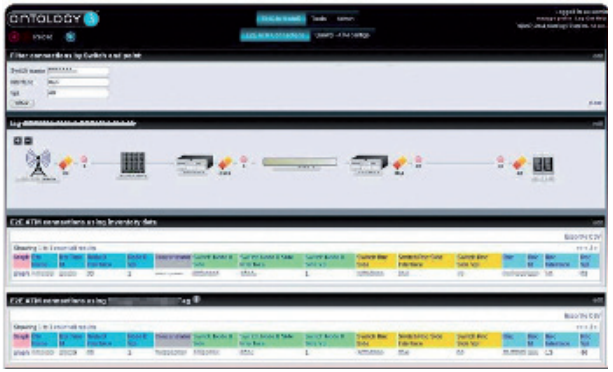
Please refer to the Ontology Intelligent 360 Datasheet for more information.

Investigate service implementations end-to-end service view from multiple services



Customer Service Impact Analysis

Multi-vendor SDH Topology view



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Ontology 3 OntoScope

Ontology's Web-based UI for end-users. It:

- Delivers interactive views and reports for operational tasks such as:
  - Service impact analysis
  - Customer and service management
  - Data conformance and alignment
- Can be customised via a palette of configurable widgets such as:
  - A table, pie chart, tree view etc.
- Requires only a web browser to use
- Hosted by the Ontology 3 SPC.

SiFi – Semantic Information Finder

SiFi is a graphical web-based semantic search interface for business end-users (such as operations, planning or revenue assurance professionals).
Using SiFi, users are able to construct contextual semantic search and explore the ssociations in their OSS/BSS data without the help of IT.

Ontology 3 Query API

Ontology 3 Query API serves data to applications like automated correction, migration, reporting or data enrichment. It uses queries to return the results of semantic searches and can be configured to deliver these in formats suitable for client applications, such as XML.

Ontology 3 Modeller

Ontology's integrated workbench for creating Ontology 3 solutions. It is:

- Aimed at delivery partners and customers who want solution ownership
- A user-friendly environment for fast and intuitive modification, deployment and management of Ontology 3 configuration, including:
  - Configuring data import from external systems
  - Creating the semantic rules and ontologies that search and classify data, including customer-specific business rules
  - Deploying of out-of-the-box semantic models over OSS/BSS data
  - Verifying and testing solutions.
- Runs on commodity workstations under Windows or Linux.

New features:

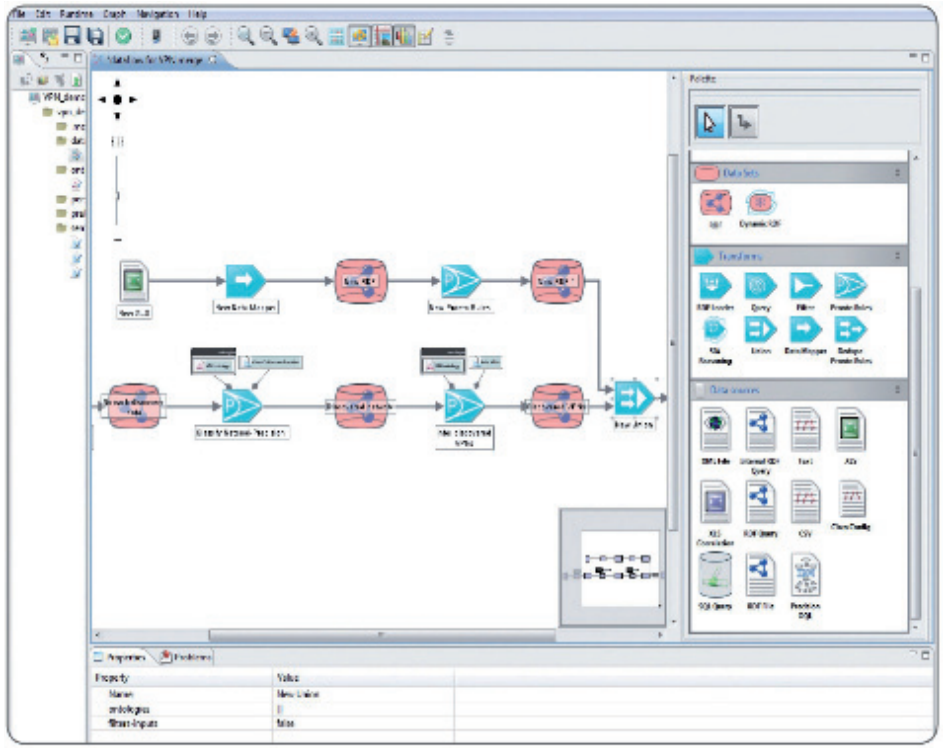
- Out-of-the-box SDH and IP network ontologies enabling IT staff to deploy models for networks without involving any complex set-up. The semantic model will classify OSS data from the different NMS and Discovery applications to provide a single, unified view of SDH and IP networks
- Data Import Assistant for easy and rapid OSS/BSS data import to the model
- Semantic Data Explorer to visualise linked data.

Configuring Ontology 3

Ontology 3 configuration is built and managed using the Ontology 3 Modeller. Ontology 3 Modeller is an intuitive, visual, tightly-integrated workbench for configuring Ontology 3 and extending existing solutions. It is based on the open industry-standard Eclipse framework for software engineering tools, presenting a familiar environment to implementers.

Data import, ontologies, data classification, business rules and web UI configuration are all configured, managed and deployed to the Ontology 3 Semantic Processing Core (SPC).This uses the Ontology 3 Modeller's round-trip configuration capabilities that support agile, short-iteration implementation practices to reduce project risk and deliver value as early as possible.

Ontology 3 Modeller



Deploying and using Ontology 3

Solution deployment from the Modeller to Ontology 3 SPC is a one-click process, which, once completed, makes the solution available to end-users logging in through the OntoScope Web UI.

End-users are then presented with the task-based interfaces configured by the Modeller, aimed at providing them with user-friendly effective tools to do their job better and faster.

Revenue Assurance and Data Governance Applications

- Define and manage complex data and RA controls spanning and mixing many data sources
- Track open cases and manage exception lists
- Research and investigate specific cases and control breaches.

Ontology Intelligent 360

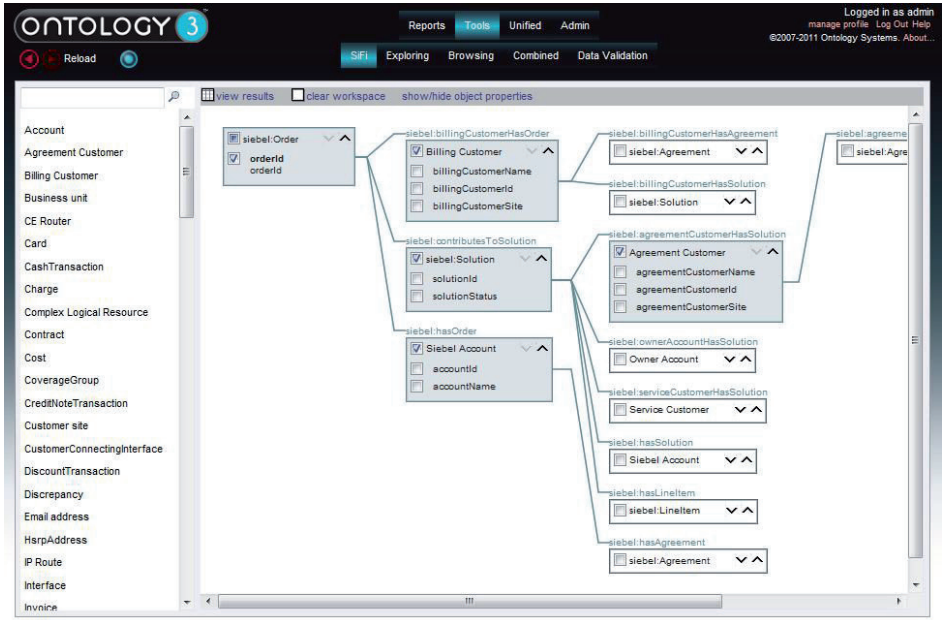
- 360° customer service views – everything a CSP knows about their customer in a single page – explore infrastructure, service and CRM information for a customer seamlessly from a single starting point
- Real-time Service Impact Analysis – enrich alarms with BSS information to enable business-centric fault prioritisation (for example, by revenue impact)
- Change management – fully understand the impact on customers and services of proposed changes to the network.

Ontology 3 Data Output Interfaces

Ontology 3 is able to serve data from its semantic models to other systems. This enables it to fulfill functions such as data correction, data provision for business intelligence and 3rd party reporting tools and providing dynamic configuration for ETL systems in migration projects.

- Datasink: write data to a relational database; can be configured to create tables, update, delete and insert rows
- Versioning Datasink: updates-only version of the Datasink
- Query API: extract data from Ontology 3 for integration with other applications and systems. Provides a flexible and easy-to-use REST API that allows an external client to extract specific parts of semantic models.

Search across multiple systems with SiFi



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Benefits

Ontology 3 sets new industry benchmarks for speed of deployment, cost of ownership and scope of results:

Speed

In astonishingly short timescales, semantic re-use of existing data makes it possible to get results from areas that used to require intensive integration, such as service management, revenue assurance and data alignment. Operational systems based on Ontology's Intelligent 360 can be delivered in as little as 12 weeks, while large scale migrations using Ontology 3 can take half the time and deliver 50% more accuracy than traditional approaches.

Low Cost

Faster deployment means bigger OPEX reductions; better accuracy means bigger bottom-line savings and better a customer experience. Put together, this brings forward OPEX savings and means faster and better automation of key business functions. More accurate identification of customer impacts means fewer costly SLA breaches, the result being a more profitable customer. More accurate searches for margin leakage in end-to-end service deployments simply results in larger savings.

Low Risk

Ontology 3's unprecedented speed means that it is practical to deploy it as a low cost SaaS solution. Compare this to traditional perpetual enterprise software where a high cost is absorbed up front, without any guarantee of success. Ontology 3 replaces Big Bang risk of failure with incremental assurance of success. Additionally, when using Ontology to provide customer and service management, the complete customer view means faster resolution of customer problems leading to a more satisfied customer with less risk of churn.

About Ontology Systems

Search, Don't Integrate

Systems have caused Communications Service Providers (CSPs) to rethink the way they find and align customer, equipment and service information. CSPs spend vast sums of money attempting to do this via integration but getting usable results across misaligned heterogeneous systems is hard. The world's largest misaligned system is the Internet and you search the Internet. Ontology believes you should search your systems too.

Using state-of-the-art semantic search technologies, Ontology quickly finds and aligns business entities in operational, business and infrastructure systems. We provide a single, accurate, enterprise-wide view of customers, services and network assets.

Industry awards and recognition

Awards

Ontology is the product at the centre of BT's award winning 'Semantic Toolset to Optimise Business Transformations' project, which won both the TM Forum Business Innovation Award 2010 and Global Telecoms Business Innovation Awards 2010.

Analyst Recognition

Ontology is named in both Gartner's 'Cool Vendors in Telecom Operations Management Systems, 2010' and Stratecast's 'Global OSS/BSS Rat Pack – Stratecast's 10 To Watch in 2010'.

Learn More

To learn more about Ontology Systems, or to access more detailed information about this data sheet, please either:

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