BLUE ELEPHANT SYSTEMS

GI - MITA 2014

Disaster-Readiness as Example for Ontology-based IT Management in Business Context

Peter Klotz, Blue Elephant Systems GmbH

Blue Elephant Systems

- Founded 2001
- More than 100 customers worldwide
- HQ in Stuttgart
- Sales office in US, Kuwait, Brasil
- Focus IT Managment/Monitoring
- Product development
  - MIDAS boom
  - MIDAS for HPOM
- Custom development
- IT services and training

Peter Klotz
Blue Elephant Systems GmbH

Co-founder, Head of R&D,
Chief Architect

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Whooops where is the Computer Center?

Guatemala Citiy sinkhole
Huffington Post, 2010

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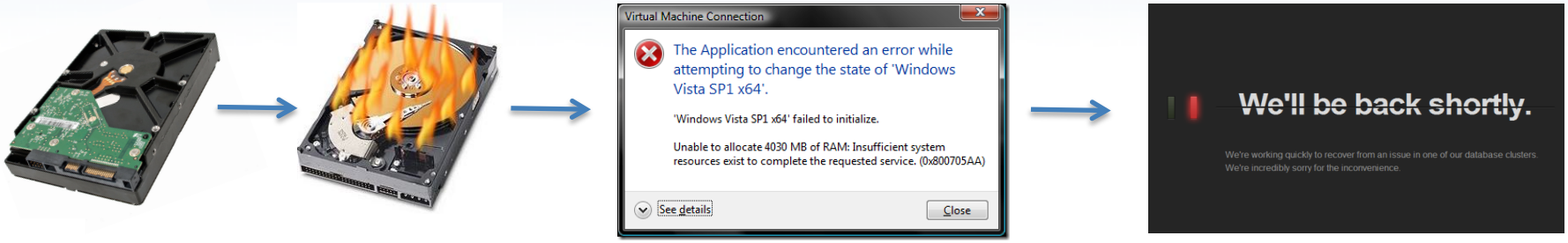
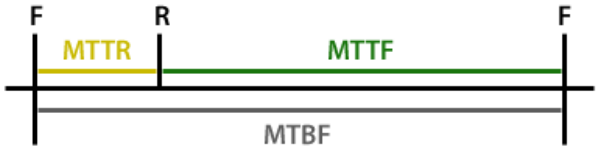
IT Risks and Risk Management



A **Risk** is the **Possibility** of the occurrence of a **Damage**



Chance e.g. revenue

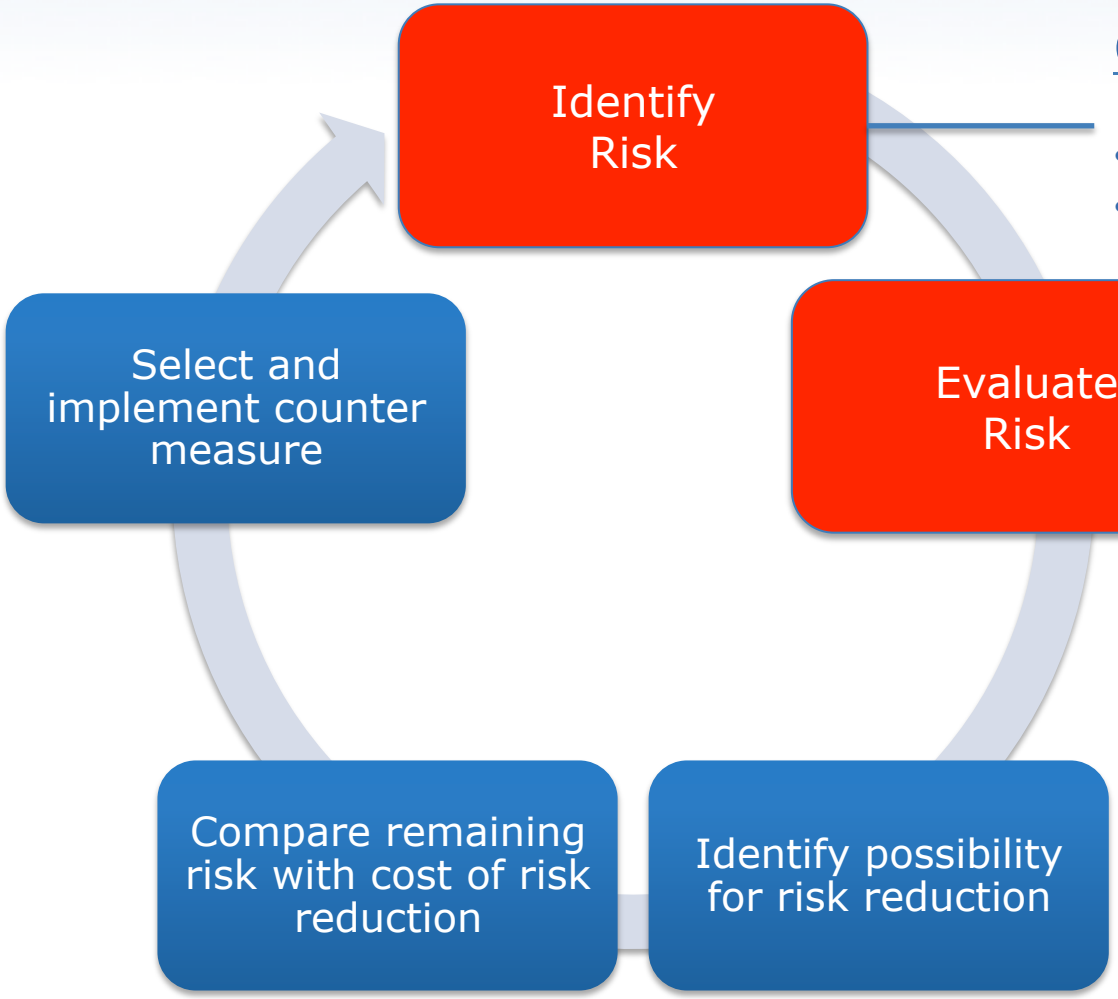
Accident

Incident

Event

A rationale IT Risik Management requires most notably a Relationship **Management**!

Risk Management Cycle



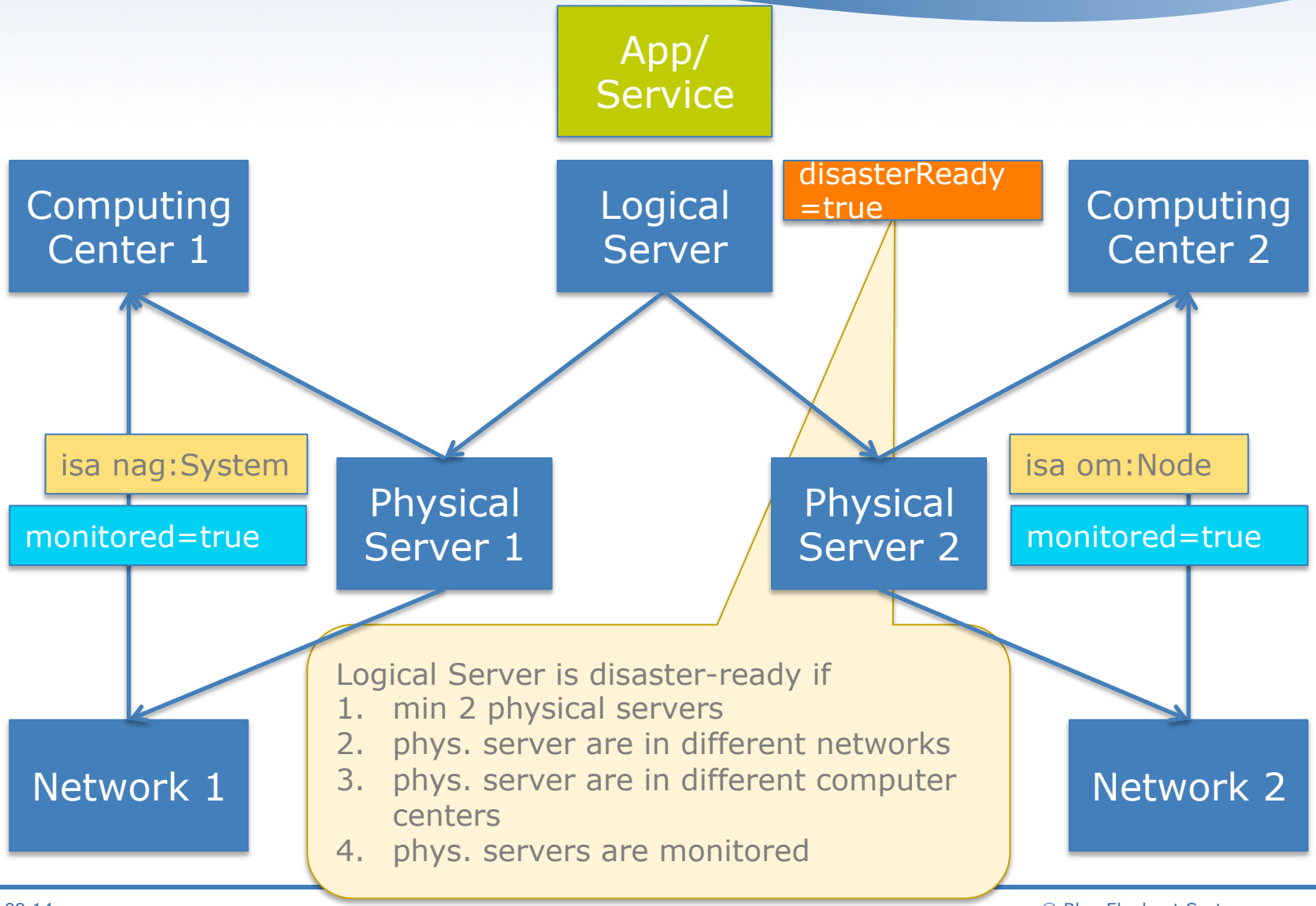
Challenges:

- ***Dynamics!***
- ***Complexity!***

Challenges:

- ***data quality!***
- ***holistic!***
- ***validation!***

Usecase: Disaster Readiness - Cluster



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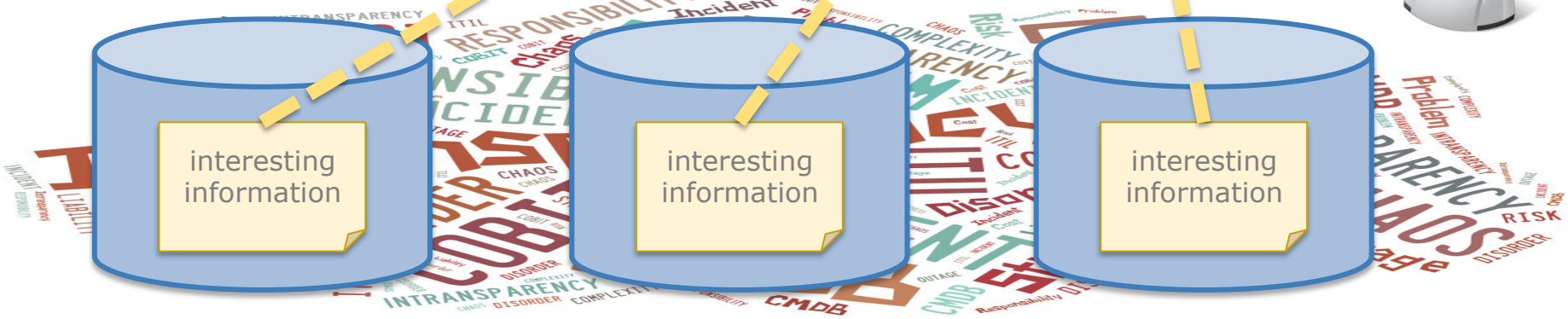
Chasm in IT

Business

interesting questions and applications with relevance!

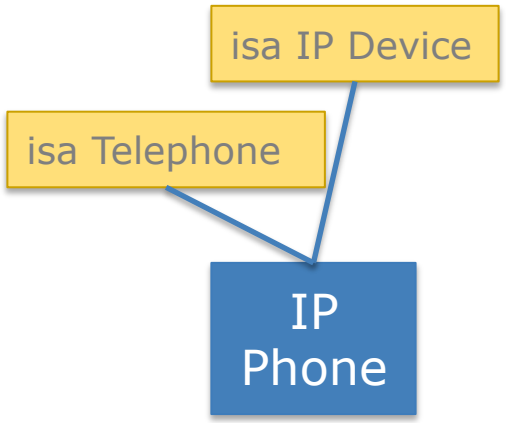
Gap,
different terminologies, different goals,
different tools, different approaches

ITOM Data Silos



Why use Ontologies for IT Management?

- Iterative modelling
  - add properties later
- Different views on the same instance model
  - company-specific data model and still talk about same thing
- UML is made for modelling software,
  OWL for concepts and systems
  - constraint-based or set-based class definitions
  - one individual can have multiple classes
  - modelling like a human: example red wine
- Built-in integration capabilities
  - OWL sameAs



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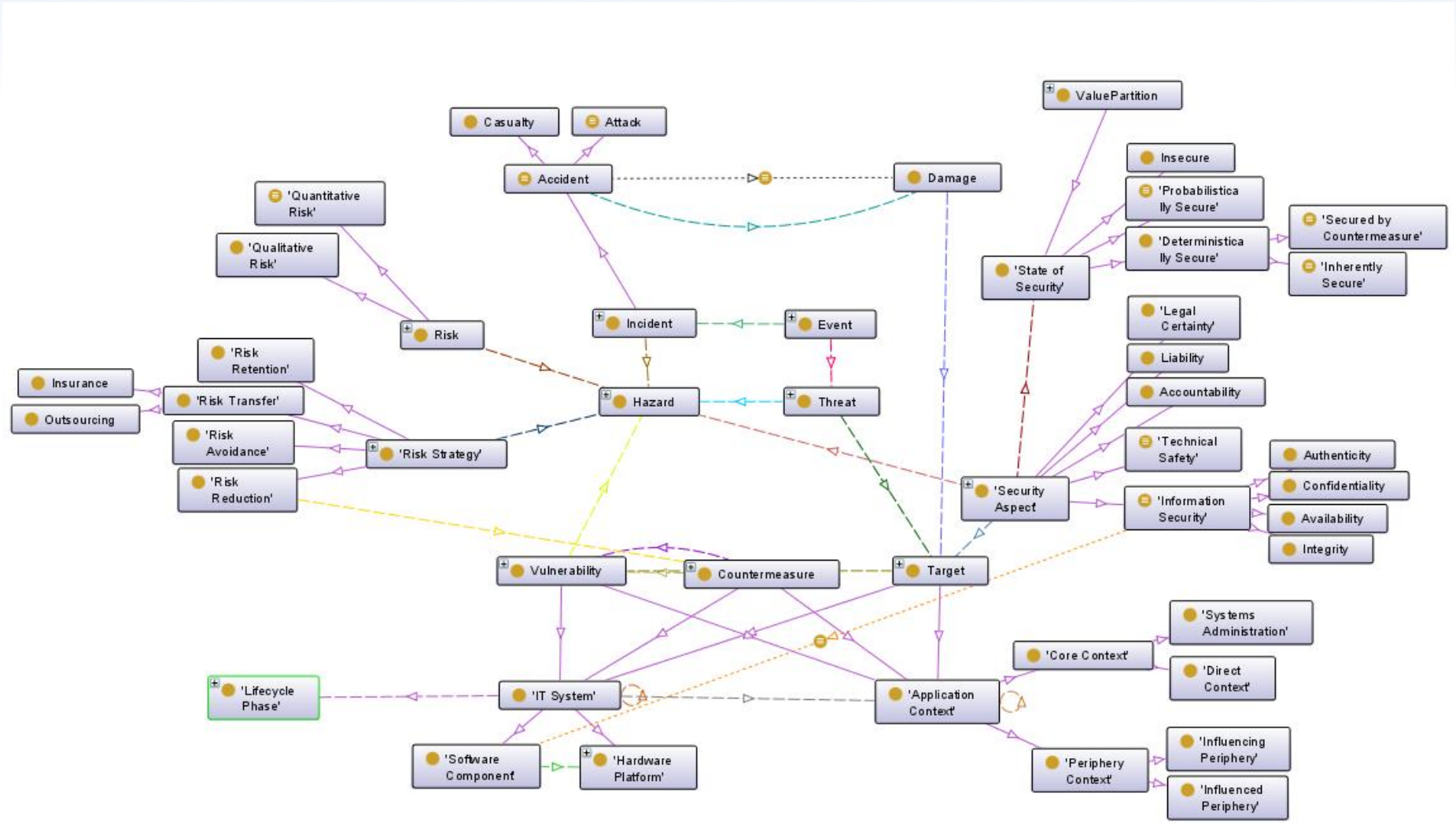
Riskmanagement Ontology



IT Business Model

Performance
Revenue

Service

Risk related
IT Resource

Cost related
Object in IT

Contribution
Service

Person

Project

Application
Software

Server
Hardware

IT Asset

Cost

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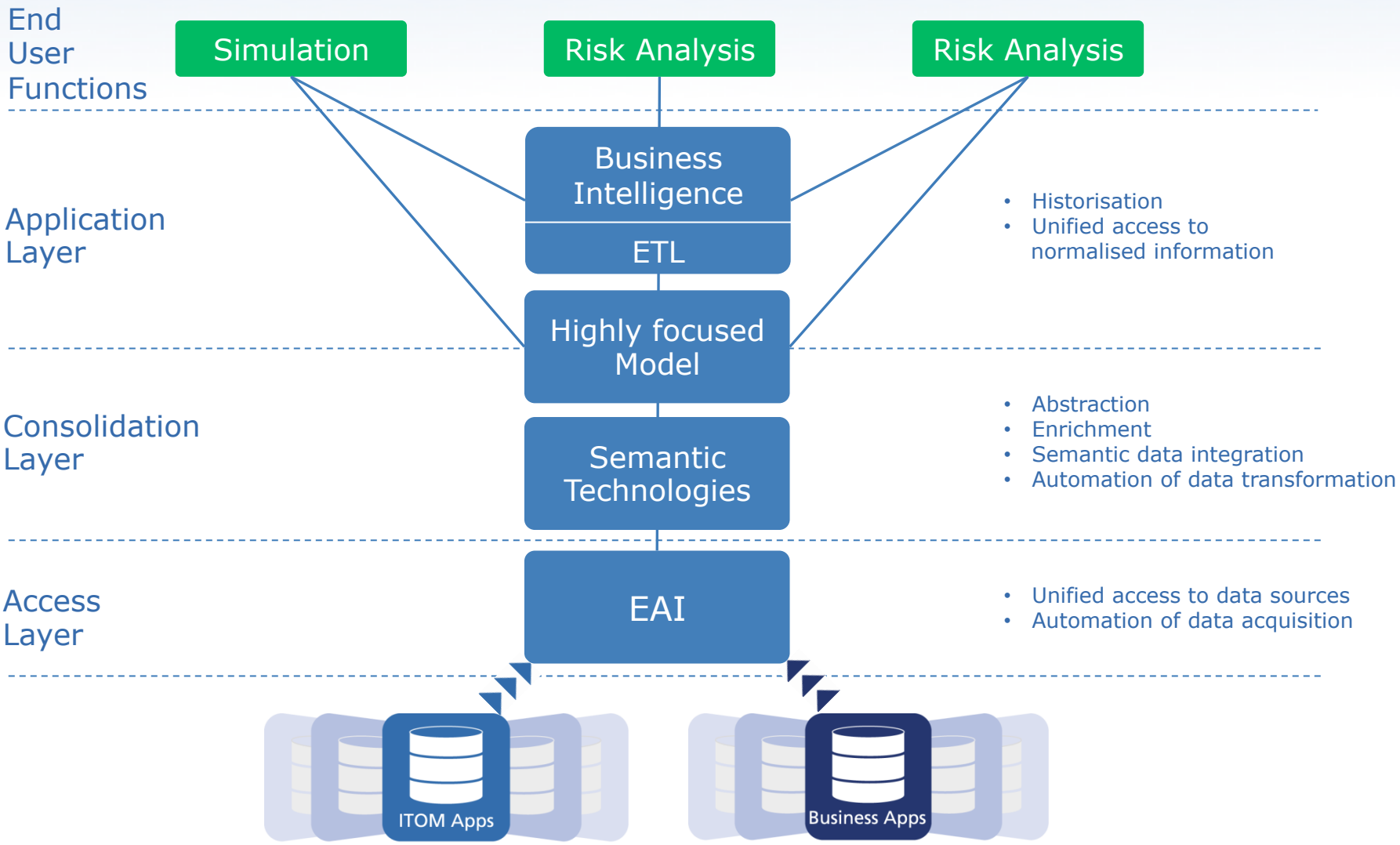
Reference Architecture



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Semantic IT Risik Management

Domain Experts
- Risik Manager
- IT Operations Head

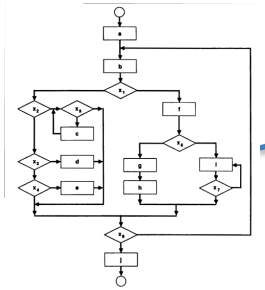
Structure Information

Expert Knowledge

Relationships

ITSM &
IT Configuration

Semantic Model



Context

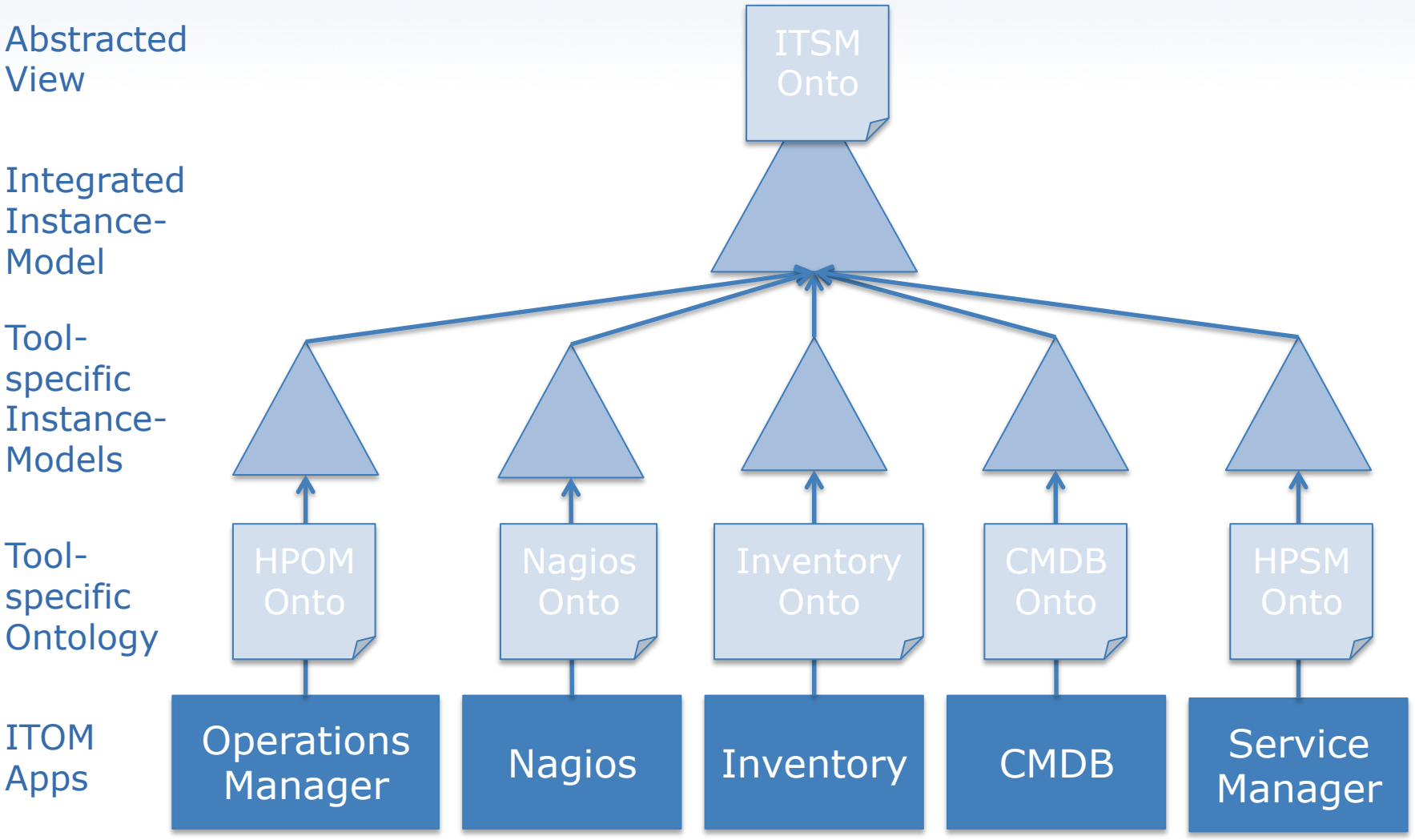
IT Infrastructure

Instance Information

Information about business processes

IT Infrastructure

Ontologies for IT Monitoring Integration



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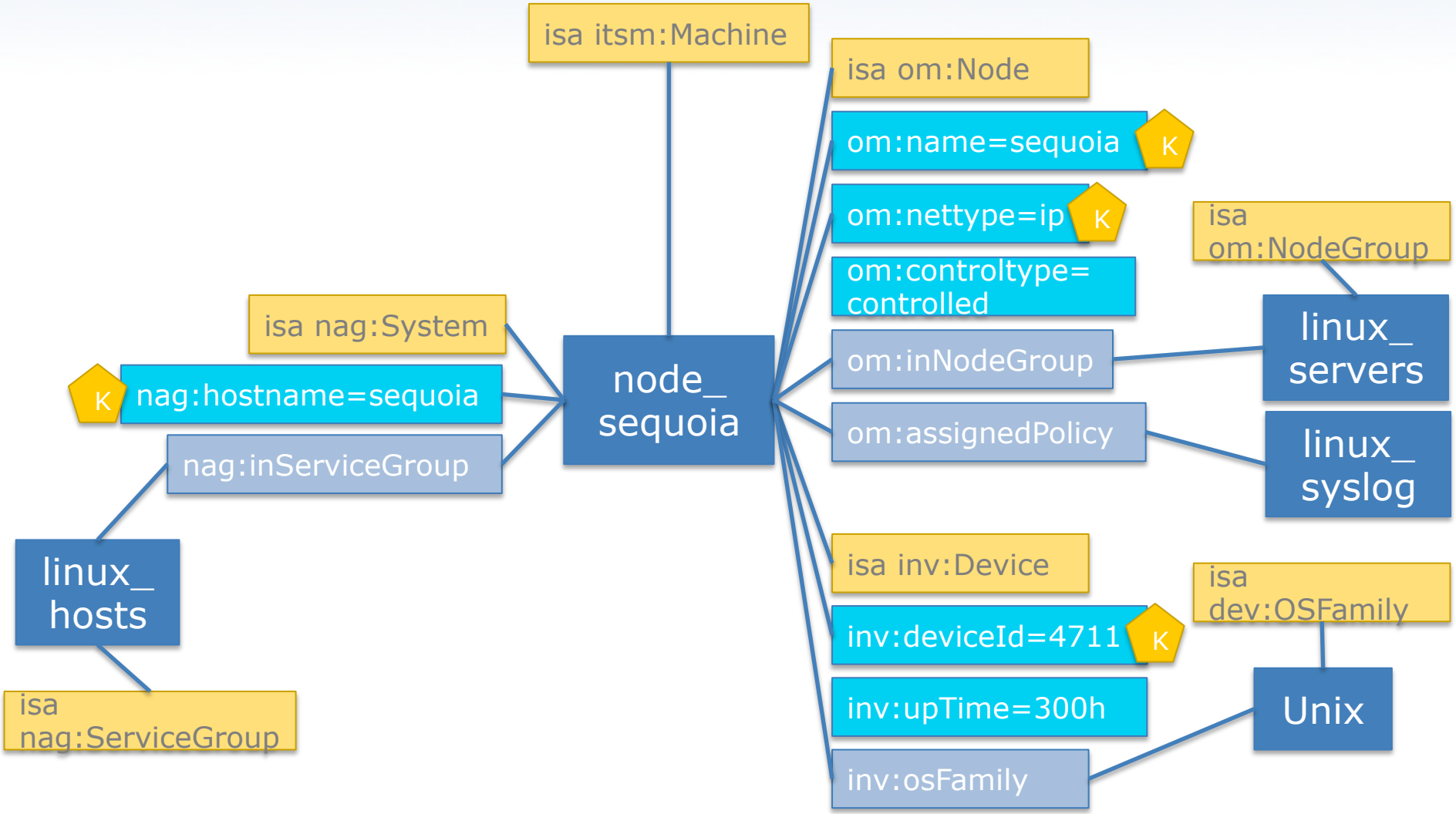
Practical Integration with Ontologies



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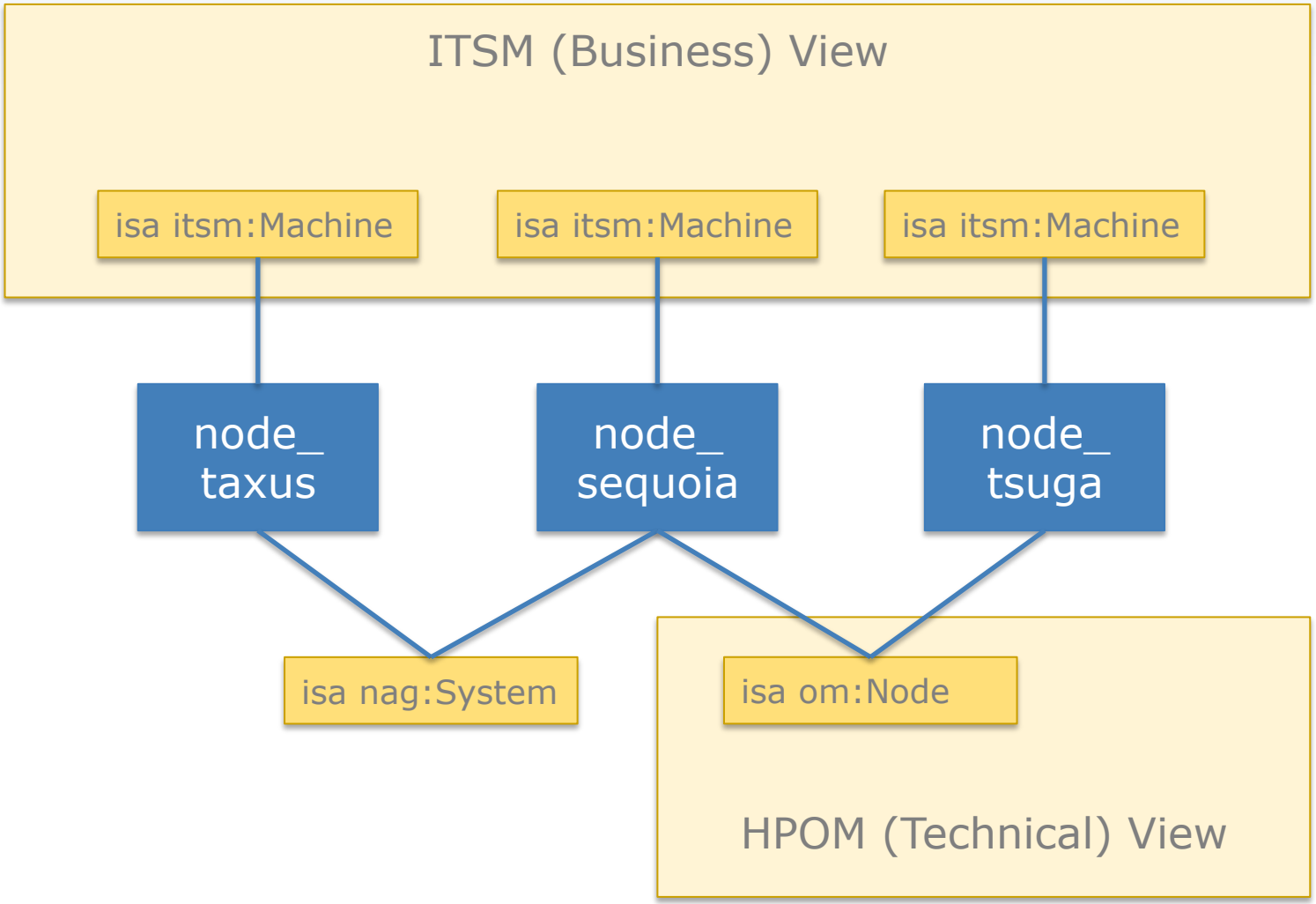
Ontologies allow multiple Views



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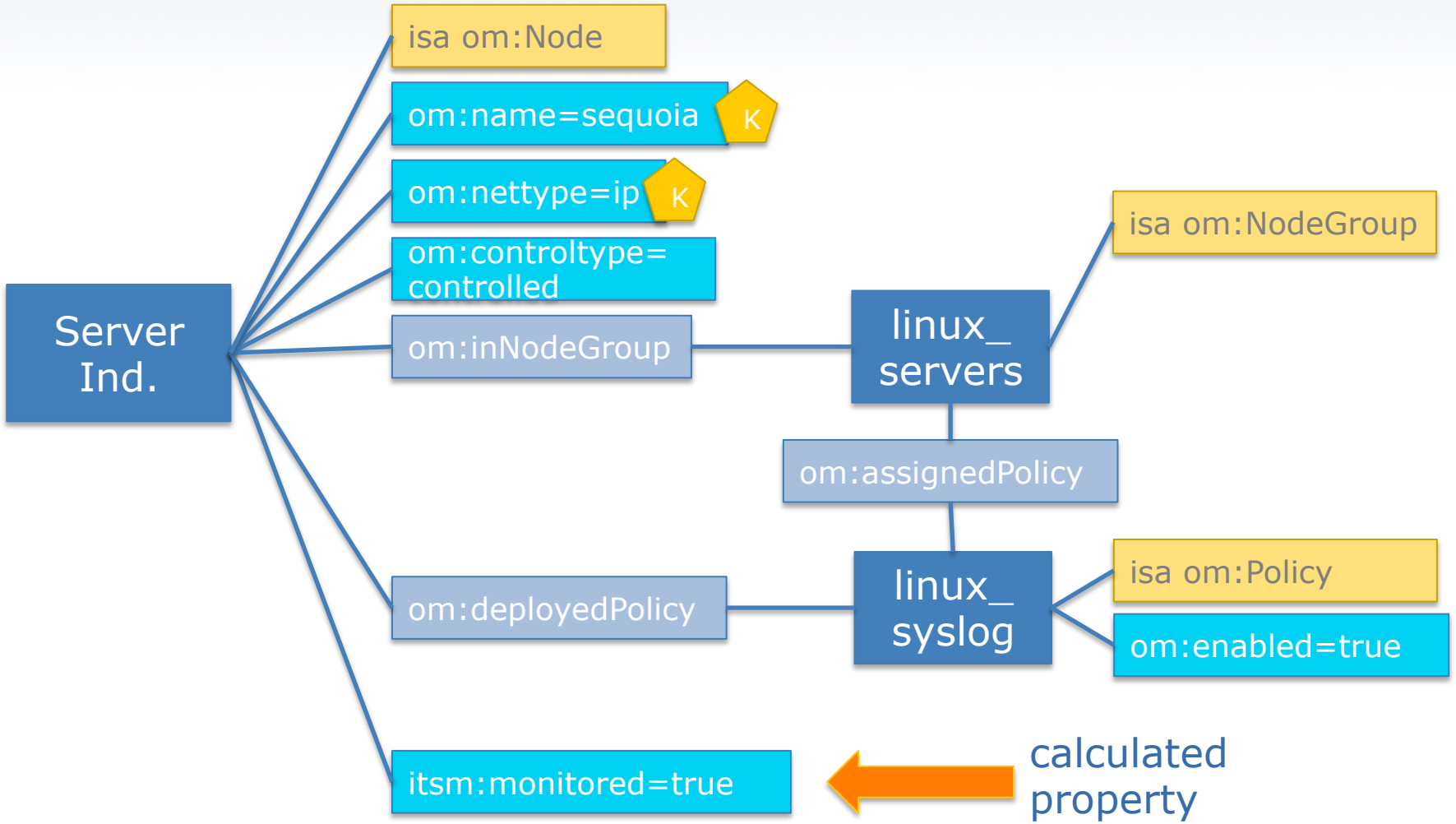
Enrichment



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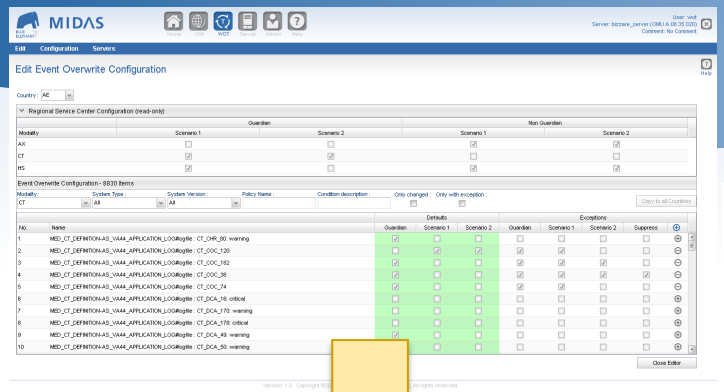
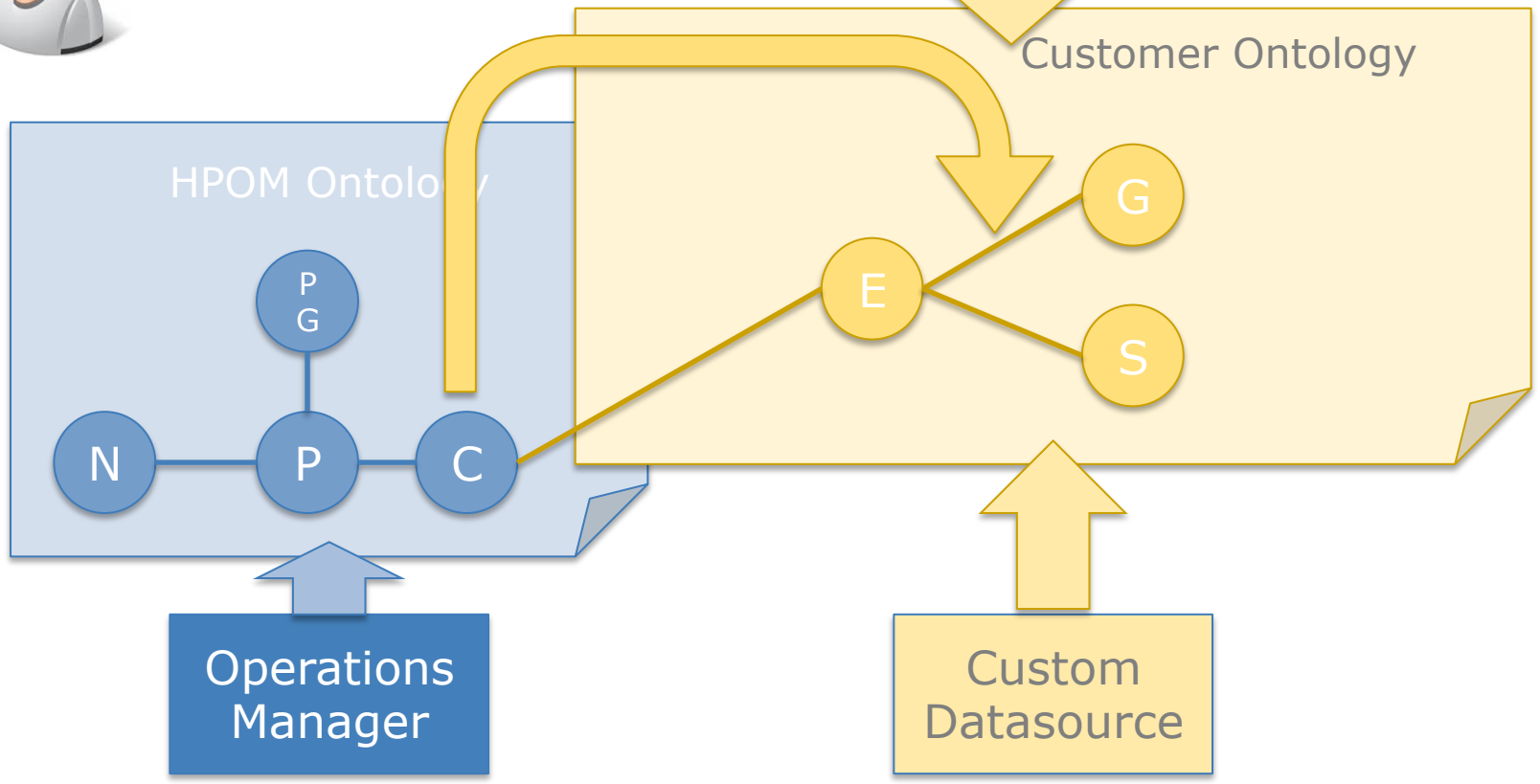
Usecase: Extend ITOM Application with Customer Concepts



Technical User
IT Admin

Business
User
Application
Expert



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Use Cases for Ontology-based IT Management

- Risk-Management: disaster-readiness in HA-systems
- Cost-Management: service costing and allocation based on infrastructure management data
- Technology and IT knowledge and lifecycle management
- License and contract management
- Consistency of ITOM applications and CMDBs
- Outsourcing decisions and supplier management
- IT automation
- Transparently extending ITOM applications with custom concepts
- IT operations and maintenance

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Vielen Dank für Ihre Aufmerksamkeit!

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