

# keeperSAFE™ with IDMT

Intelligent Data Management Technology

Keeper Technology delivers the best data storage and management solutions possible, including tapping into the power of metadata. To bring sense and structure to your unstructured data, keeperSAFE is offered with integrated Intelligent Data Management Technology (IDMT).

IDMT is a paradigm shift in data governance. In addition to cataloging files by directories and folders, IDMT extracts and organizes with metadata, or data about your data, so you can search and control by any number of variables including annotations, labels, tags, comments, or workflow actions.

## IDMT brings structure to unstructured data.

IDMT is the missing link. It's invaluable for discovering and tracking digital assets and gaining new insight from existing data through metadata. While offering information control in ways never before possible IDMT augments your existing workflows through increased efficiencies. keeperSAFE with IDMT provides comprehensive asset management and security.

## The Data Management Challenge

Organizations are collecting mountains of data from a myriad of business-critical initiatives. So much so that data repositories have become digital dumping grounds. CIOs and IT administrators rank managing data growth at the top of their concerns – the costs of storing and protecting volumes of data compete with doubts about whether that data is worth preserving, and how to extract value from it. Data stovepipe issues, data protection, and security access concerns also abound.

## The IDMT Metadata Solution

Metadata is the key to the rapid discovery of data and the solution to top data management challenges. With IDMT, metadata is:

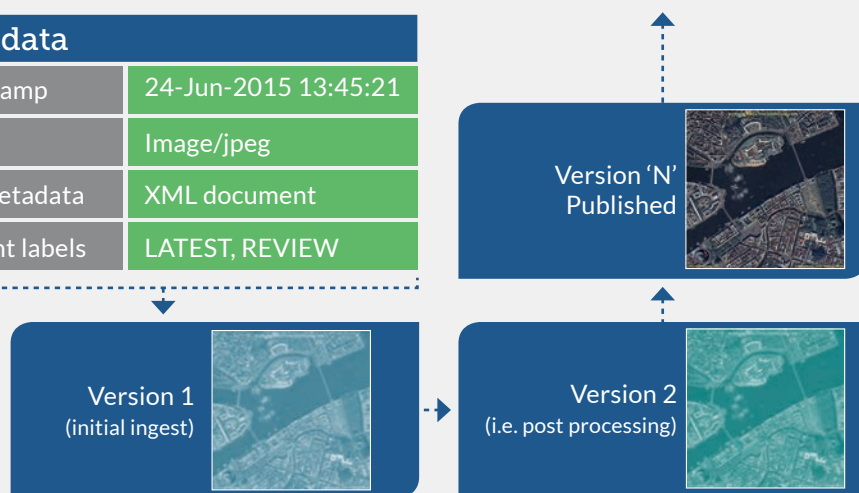
- Automatically extracted as data is ingested
- Automatically tracked – for revision histories and audit trails
- User extensible, with updates or new metadata added manually or programmatically

### Anatomy of a Digital Asset Content + Metadata = Asset



Content	
IDMT Unique ID	Unique 64-Bit Number, fixed to an asset
Citable Identity	1.1.2.34
Namespace	/a/b/c
Name	"harbor view.jpg"
Related assets	CONTENT (34,222,...) ATTACHEMENT (67,87)
Locks	Checked out by "Analyst 1"
Access Control	Update requires "Group X"

Metadata	
Timestamp	24-Jun-2015 13:45:21
Type	Image/jpeg
Rich metadata	XML document
Content labels	LATEST, REVIEW



As new technologies generate exponential stockpiles of data, it's collected, stored, tracked, and logged, but what do you really know about the who, what, where and when regarding your data cache.

We believe it's important for IT organizations to add data intelligence, management, and governance to their digital repositories. IDMT provides a powerful analyzer engine that can index and manage existing data stores, while improving data efficiency, access, and workflow. IDMT can be used for replication and federation on data repositories across the globe. IDMT enables you to know what you have, where it is, who has access to it, and what they are doing with it.



- Enables and optimizes your unique workflow and collaboration
- Able to scan and index external data systems
- Comprehensive asset management
- Improves data efficiency and access
- True data management: Automated, high performance metadata extraction; policy-based data management; and comprehensive access management and action logging

**IDMT Functionality includes:**

- Metadata Extraction and Indexing
- Query Engine
- Compound Search
- Undelete
- File Versioning
- Role Based Access
- Full Audit Trail Log
- Open API
- External Namespace Ingestion
- User Interface
- Replication
- Federation

**INGEST**

Metadata is automatically analyzed and stored

- Hundreds of common formats
- New file formats, specific to your organization, can be added to the system

Assets can be acted upon at ingest

- Push to specific storage locations
- Transformed
- Grouped together with other assets

Integrates into existing workflow processes

**DISCOVER**

Fast and efficient searches

- Unstructured queries, i.e. content, name
- Structured queries, i.e. metadata, time, type, labels
- Spatial queries
- Text-based searching
- Compound searches

Remote file shares can be indexed and analyzed

Federation allows for assets to be searched across multiple sites with single query

**MANAGE**

Create and enforce effective data governance policies

Replication of metadata across multiple dispersed sites

- Uni- or bi-directional
- Sync or asynchronous
- Many-to-many

Granular access control tied into AD/PKI schemes

Centralized metadata registry

Full audit trail logging

# The Value of IDMT Enhanced keeperSAFE Functionality

## Powerful queries

IDMT supports queries for all aspects of metadata analysis including structured, unstructured, and spatial queries. Distributed queries federate to peer servers and generates merged results.

## Fine-tune access management

Access management beyond user, group or ACL. Privileges can be defined down to a granular level for system-wide access control. Queries and data visibility can be restricted by access privileges.

## Track action and audit trails

IDMT offers unprecedented insight, with practical critical alerts and real-time reporting based on your own rules. Unalterable audit tracking and versioning is ideal for collaboration, security, and incident response.

## Feature rich API

IDMT delivers a robust API supporting multiple interfaces and software development kits enabling future workflow extension.

## Index and manage existing data repositories

Many file types are supported by IDMT, including video, audio, and imagery. IDMT can index and manage data stores external to keeperSAFE, safely eliminating data stovepipes, ultimately facilitating streamlined migration to current technologies.

## Many-to-many replication

Enables the sharing of data between multiple IDMT systems, regardless of physical location. Replication takes existing metadata and data into account and only merges in required versions. The “replicate everything” feature serves as the basis for disaster recovery.

## Data Federation

IDMT federation enables multiple IDMT environments to act in concert, so that services and queries may be executed across any or all of them in parallel from a single command. Federation enables distributed operations across multiple sites, from across a campus to around the world.



## TRANSFORM

User defined metadata can be added

Augment existing workflows

Multi-featured API

- Completely integrates into current applications
- Supports new applications
- Extends to future workflows

Correlate metadata

Policy- and trigger-based actions on assets, folders, metadata



## CONSUME

Handles large amounts of data and jumbo file sizes

Automatic alert services

Gain Intelligence from indexed and federated data

- Expedited pattern discovery
- Complete tag, search and ID
- Widely distributed queries

Access data via either API, NFS, Desktop or CLI

Role-based access control limits



## STORE

The best of open source software and commodity hardware

Purpose built, scalable appliance

Asset versioning for both data content and metadata

Data resiliency and protection

- Isolates component failures
- Supports new applications
- Extends to future workflows
- SWARM enabled rebuilds

Storage tiering to private, public and hybrid cloud environments



# keeperSAFE with IDMT in Action

IDMT offers robust tools for intelligent data storage, a necessity for business in a world where billions of connected ‘things’ produce data at a rate never seen before. Researchers estimate that more data will be created in one year than in the previous 5000. IDMT harnesses your valuable metadata for business intelligence and data-driven decision-making.

keeperSAFE with IDMT is ready for new applications and the Internet of Things (IoT) model, from enterprise processing workflows to customized metadata scraping for proprietary data formats, and data management based on metadata to metadata analysis. The applications are endless.



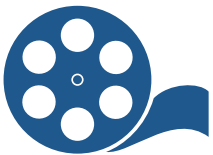
## Cyber

There’s been a breach; a key researcher has released data files to the public. The post-event forensics spell out exactly which files have been compromised, when and how. It’s not science fiction, its IDMT using metadata to build complete audit trails with results that can be traced back to the data’s origin. The insight provides expedient intelligence derived from a more secure foundation allowing for true data governance.



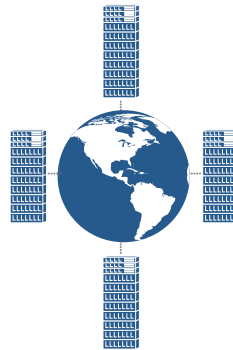
## Internet of Things (IoT)

Alerted by a silent alarm, law enforcement now can access mapping and metadata to gather images from bank surveillance, speed cameras, toll booths and ATMs to track their suspects. They ultimately compare time-stamped images from a nearby parking lot, identify the car, and quickly build their case file. This data extrapolated under IDMT control is carefully managed to ensure complete and controlled chain of custody.



## Video

The new footage is in and production is kicking into high gear. Metadata has been captured, files have been tagged with the work order number, and hi-res formats have been relocated to high-performance storage. Nothing has to move during the workflow and everyone who needs it has access. IDMT’s metadata extraction and policy based management has just become the hero of this production.



## Dispersed Systems

In a large consulting firm, analysts in Washington share data collected in field offices located in Asia with colleagues in Chicago. IDMT’s policy engine swings into action to facilitate effective collaboration between various sites allowing for unified access. Replication features push data to multiple systems while dispersed queries mine interconnected servers.



## Imagery

Got data? Go fish! When the data from geographical information systems (GIS) is combined with other analytical tools and models using IDMT tags, fisheries have access to spatial monitoring, improving the efficiency and production of fish farms. IDMT can be used to help correlate information from both images and tracking systems, such as satellite, airborne, ground, and even undersea sensors that monitor temperature, currents, waves, and water chemistry. This type of intelligence can save commercial fisherman both money and time.