

Geospatial Intelligence:

The “Safe” Way



Perform. Xcel. Lead.

Presenter

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About PIXEL



- Incorporated in 1996
- HQ in Bangalore, India, Offices in Delhi and Chennai
- Subsidiary company PIXEL Softek, Inc. based in Atlanta, USA
- 200+ employees, most with GIS / IT background
- Technical staff from varied domains
- ISO 9001:2008, CMMI Level 3 certification
- Focus on customer-specific IT / GIS solutions using industry-standard technology platforms
- Competitive cost structure with sustained QA / QC standards
- Clients include major companies and public organizations in India, US and APAC

Technology Portfolio



Utility Network Design/Mapping



Solutions Provider
GE Energy



Geospatial



Google Maps



PostgreSQL



Data Conversion & Migration



SAFE SOFTWARE™

AUTHORIZED
PARTNER

Satellite Imagery & Processing



Mobile App



Geospatial Intelligence



- Geospatial intelligence is about timely collection, exploitation and analysis of geospatial data, including sensor data, imagery etc to maximise operational capabilities, assess risk and informed decision-making.
- The ability of GIS to add spatial perspective to any data being analysed or monitored is the key to geospatial intelligence.

- Geospatial intelligence is a critical component in today's complex operations of the intelligence, defence and law enforcement communities.
- “Data is Power” and a key component that drives any geo-intelligence solution.

“Right Information”

at the

“Right Time”

in the

“Right Form”

Data is POWER

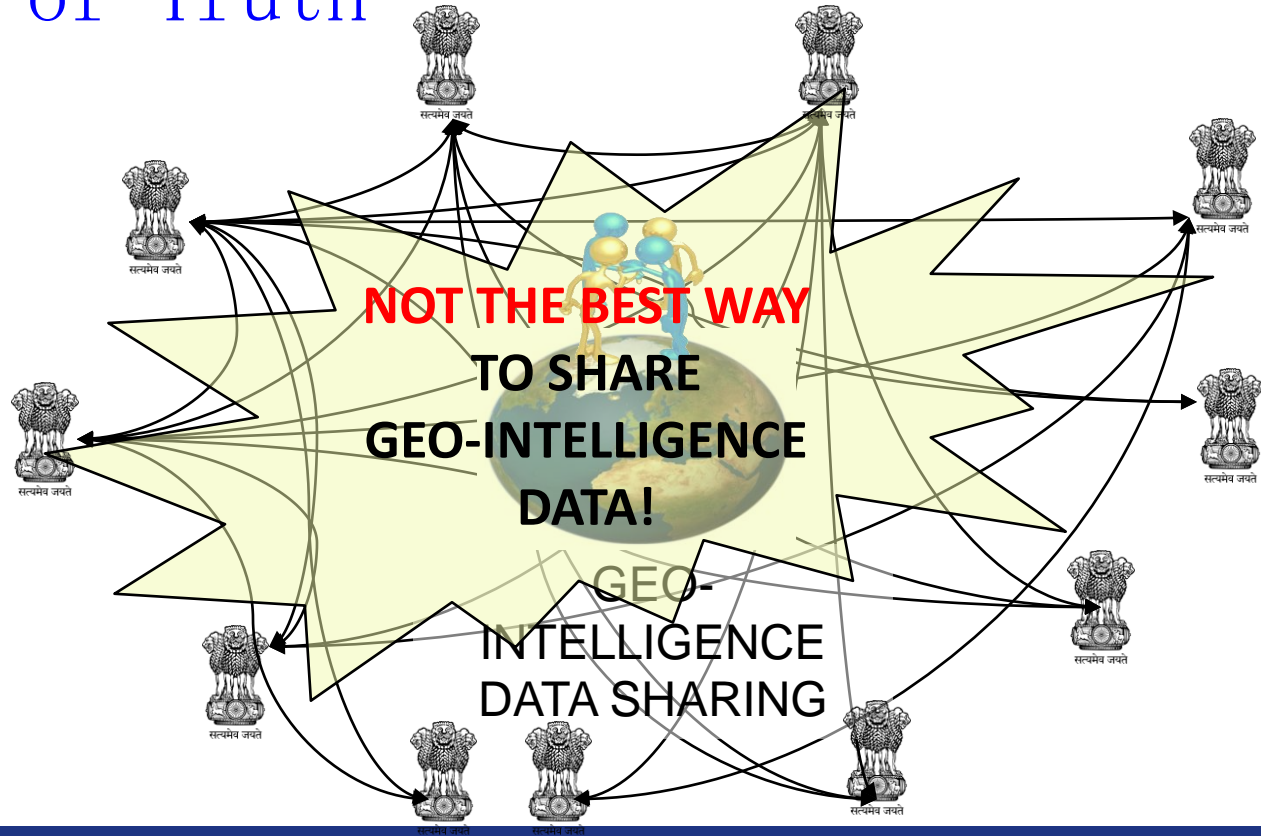
However big your GIS may be, but without
Right data, at the **Right time**, in the **Right**
Form your GIS cannot take off, it will be
grounded!

GIS interoperability

To fully realize the capability and benefits of geographic information and GIS technology, systems need to be interoperable, even though different agencies are on different GIS platforms and therefore file formats and data models



Geo-intelligence data sharing: Single Source of Truth



GIS Interoperability

GIS interoperability is the ability to integrate or exchange information between different components of any geospatial (intelligence) solution, even though different agencies are on different GIS platforms and therefore file formats and data models



Bottlenecks to GIS interoperability



One size does not fit all!

Bottlenecks to GIS interoperability



So many GIS formats!

So many data models/ types!

CAD

VECTOR

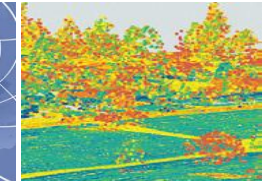
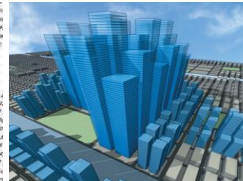
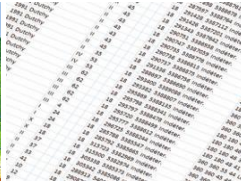
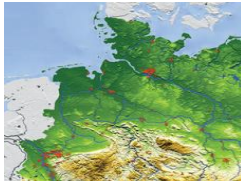
RASTER

DATABASE

BIM/3D

WEB

POINTCLOUD



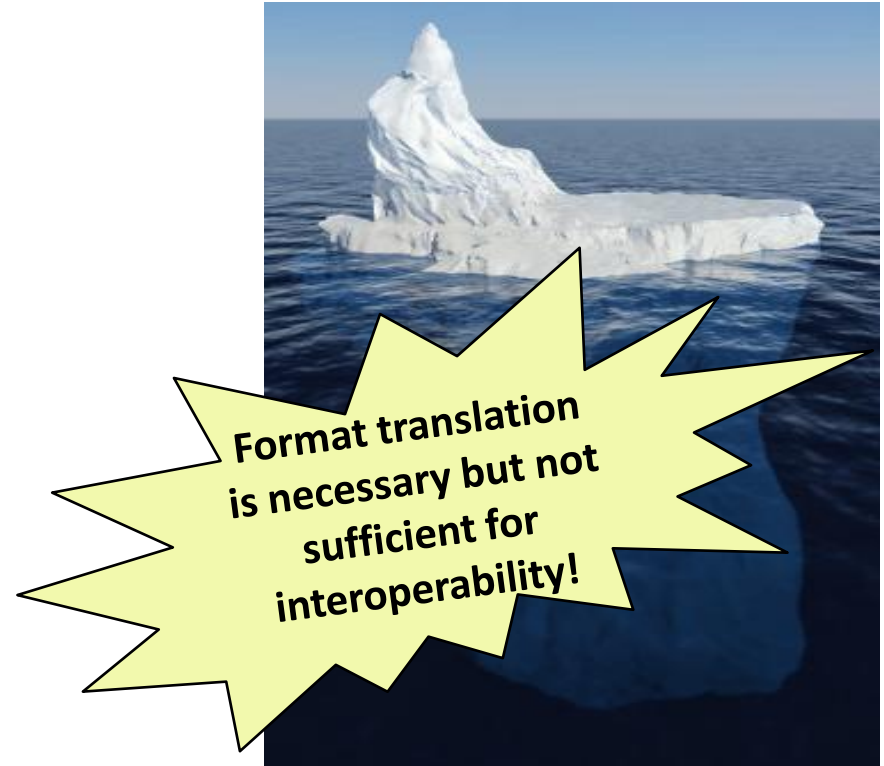
Bottlenecks to GIS interoperability



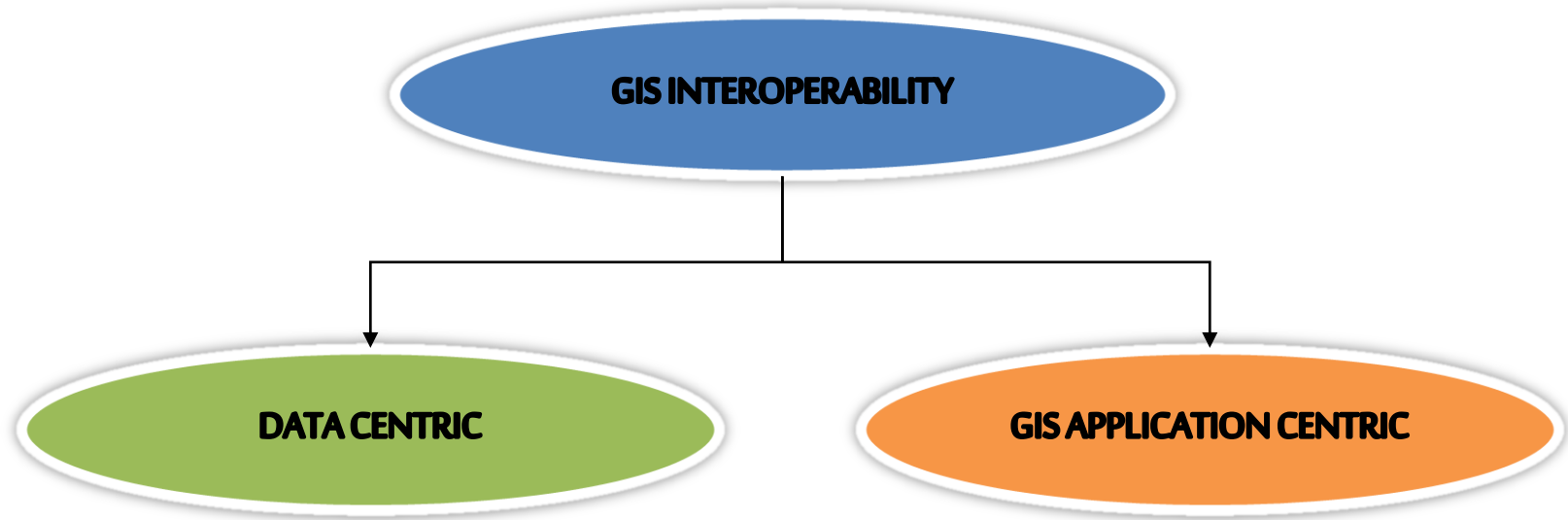
It isn't just about format!

It isn't just about format!

- Data format
- Data model
- Schema
- Data quality issues
- Content issues
- Coordinate/Projection issues
- Data sharing framework
- Data sharing policy
- Semantics...



GIS Interoperability: The right approach



Welcome to this **new GIS world !**



Where format's don't matter 😊



Rise above GIS file format barriers and achieve total spatial data

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FEATURE MANIPULATION ENGINE

FME (Feature Manipulation Engine)
a spatial ETL (Extract, Transform & Load) tool from
Safe Software, Inc., Canada



SAFE SOFTWARE

FME: Formats don't matter!



CAD

VECTOR

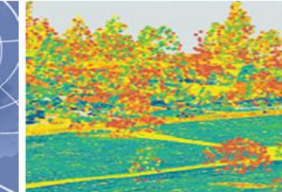
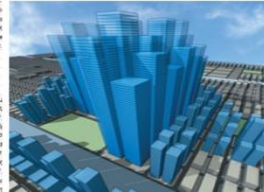
RASTER

DATABASE

BIM/3D

WEB

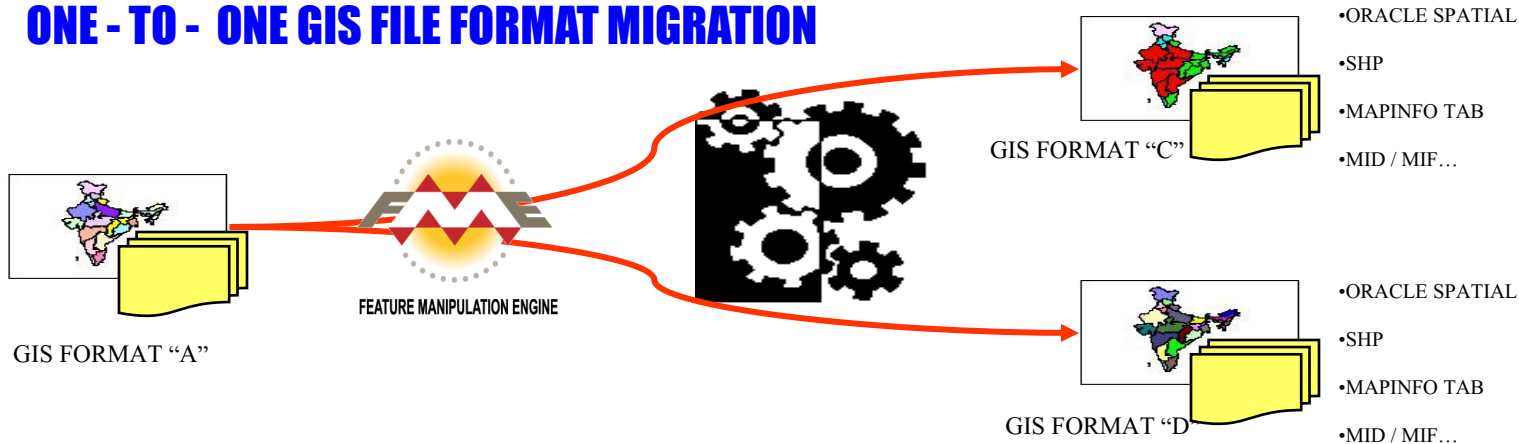
LiDAR



You name the format...Support for over **325+ CAD/ GIS/Database/Web formats** (including several OGC formats)

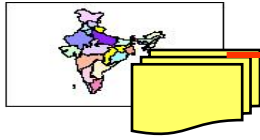


ONE - TO - ONE GIS FILE FORMAT MIGRATION

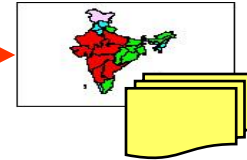


ONE – TO - MANY GIS FILE FORMAT MIGRATION

- ORACLE SPATIAL
- SHP
- MAPINFO TAB
- MID / MIF...

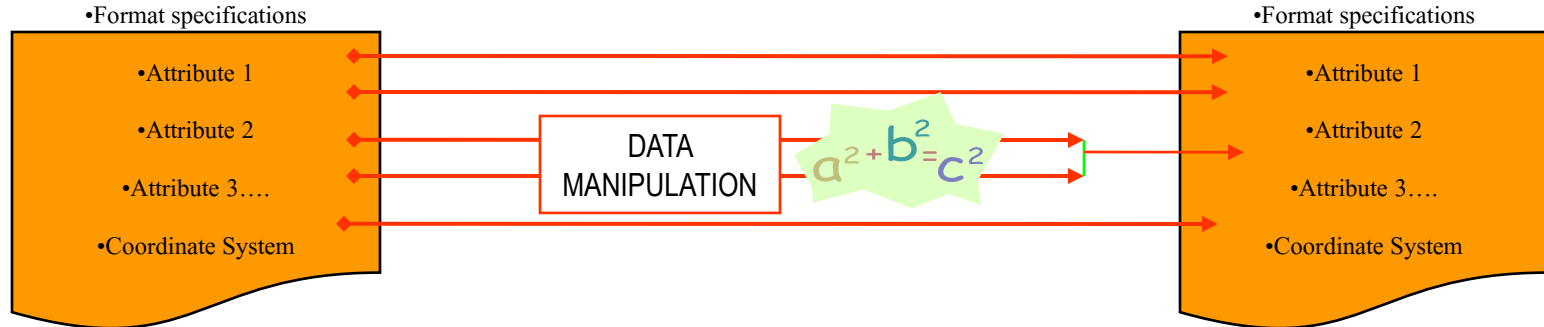


GIS FORMAT “A”



GIS FORMAT “B”

- ORACLE SPATIAL
- SHP
- MAPINFO TAB
- MID / MIF...



Manipulate data

FME – Feature Manipulation Engine



FME Desktop



FME Server



FME Cloud

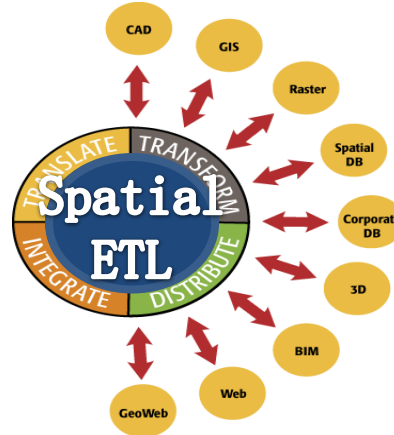
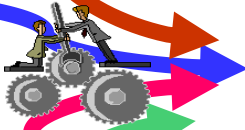
Geospatial Intelligence: The "Safe" Way

Create GIS data

Transform GIS data
(on the fly)

Federate GIS data

Consume GIS data

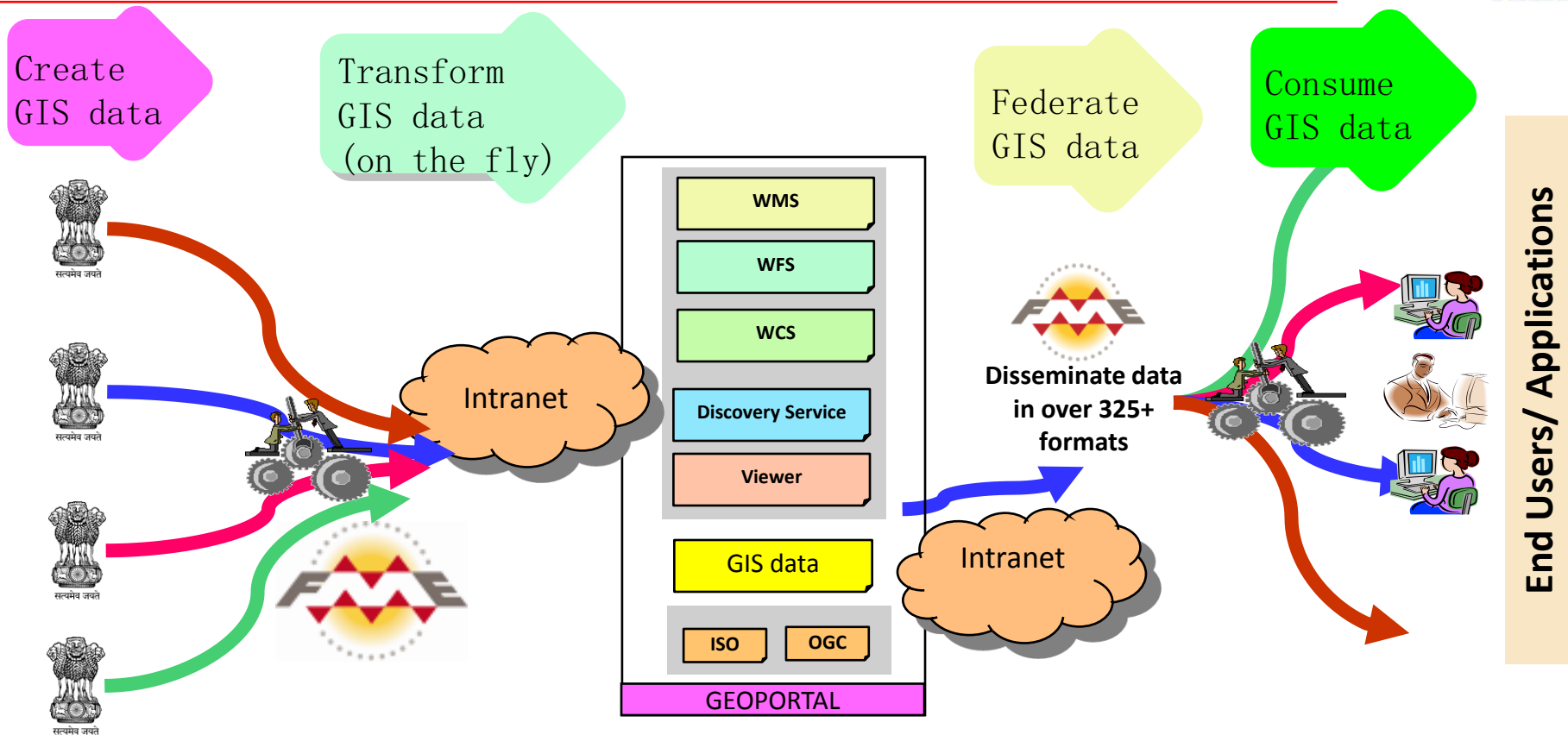


Disseminate data in over
325+ formats



End Users/ Applications

Geospatial Intelligence: The "Safe" Way



End Users/ Applications

- Keep ahead of evolving sensors, IoT & big data, ever increasing disparate data types to integrate and instantly make use of urgent intelligence
- Removing data integration barriers: Increase operational efficiency
- Build situational awareness by collecting, filtering, and analyzing information from vast data volumes
- Make sense of your sensor data with FME to derive useful, actionable information from sensors in real or near real-time



007

Trust me,

"FME"

could be your trusted
agent in any of your
challenging geo-
intelligence missions...

Thank You



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