

# Scalable Language Technology

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# ■ Pity the poor Translation Project Manager!

- Content often not very “translatable”
- External, often very remote, resources
- Complex Translation tools
- Multiple formats, lack of standards
- Consistent quality very difficult to verify
- Intellectual work which is difficult to automate
- Cost and time pressures
- Supply base can be financially weak
- Translation has no visibility on CxO level

# ■ The Translation Supply Chain

## Multinational Enterprises

- Create Content
- Contract Work
- Proof Quality
- Provide Funds

## Translation Departments

- Manage Project
- Translate
- Contract Work
- Proof Quality

## Service Providers

- Manage Project
- Translate
- Contract Work
- Proof Quality

## Professional Translators

- Translate



- Requires collaboration of heterogeneous groups
- Fragmented: geographically, in process, technology, media, know-how, and so on
- Lack of standards

# ■ Multinational Enterprises

## ■ Create:

- Content in different formats and in different places

## ■ Want:

- Time, cost, quality

## ■ But:

- Generally have little knowledge about the translation process
- Not interested in tools
- Or additional head count!

## ■ Need:

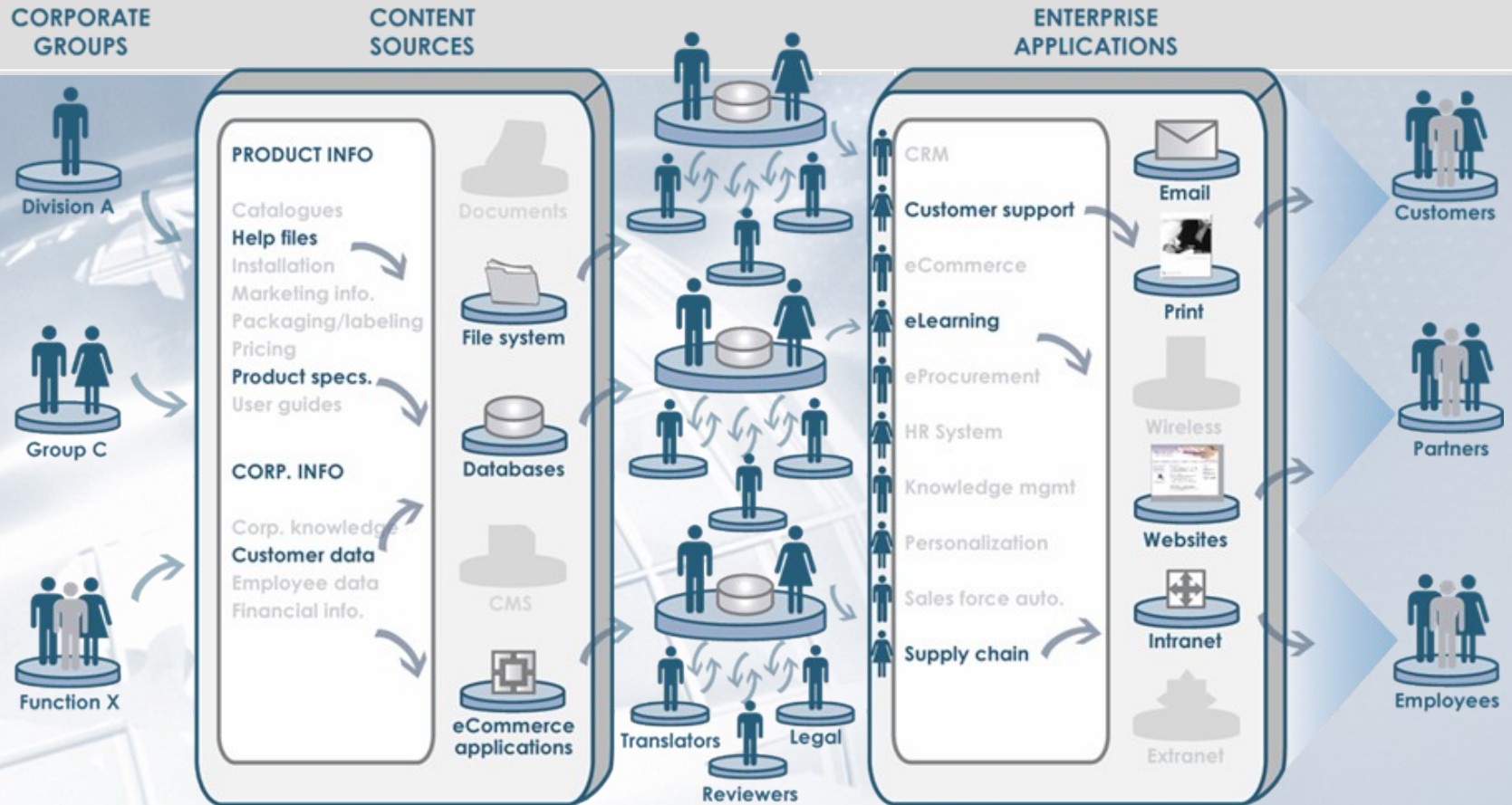
- To automate procurement
- Manage multilingual content

## ■ Prefer:

- A “throw-over-the-wall” process



# ■ Content Flow in Multinational Enterprises



# ■ Translation Departments

- Create and maintain linguistic assets
- Manage translation projects
- Sometimes do critical translation work in-house
- Evaluate and contract service providers
- Perform quality assurance (where they can)
- Select and support translation tools
- Process only parts of the enterprise's translation load
- Little influence on content creation
- Pushed to do more with less

**Carry enterprise's multilingual efforts, but their work is not always very visible**

# ■ Service Providers

- Do mainly project management
- Need to sustain a global organization like a huge audit or law firm with a fraction of their hourly rates
- Have to:
  - Be compatible with their client's tools
  - Provide time, cost, quality
- Provide intellectual work, but paid by the word
- Difficult to:
  - Sell on value
  - Scale business model

# ■ Professional Translators

- Freelancers or small translation companies all over the globe
- Get their work from Service Providers and maybe a few direct clients
- Subject matter specialists
- Use translation tools
- Have to perform all kinds of non-standardized production tasks

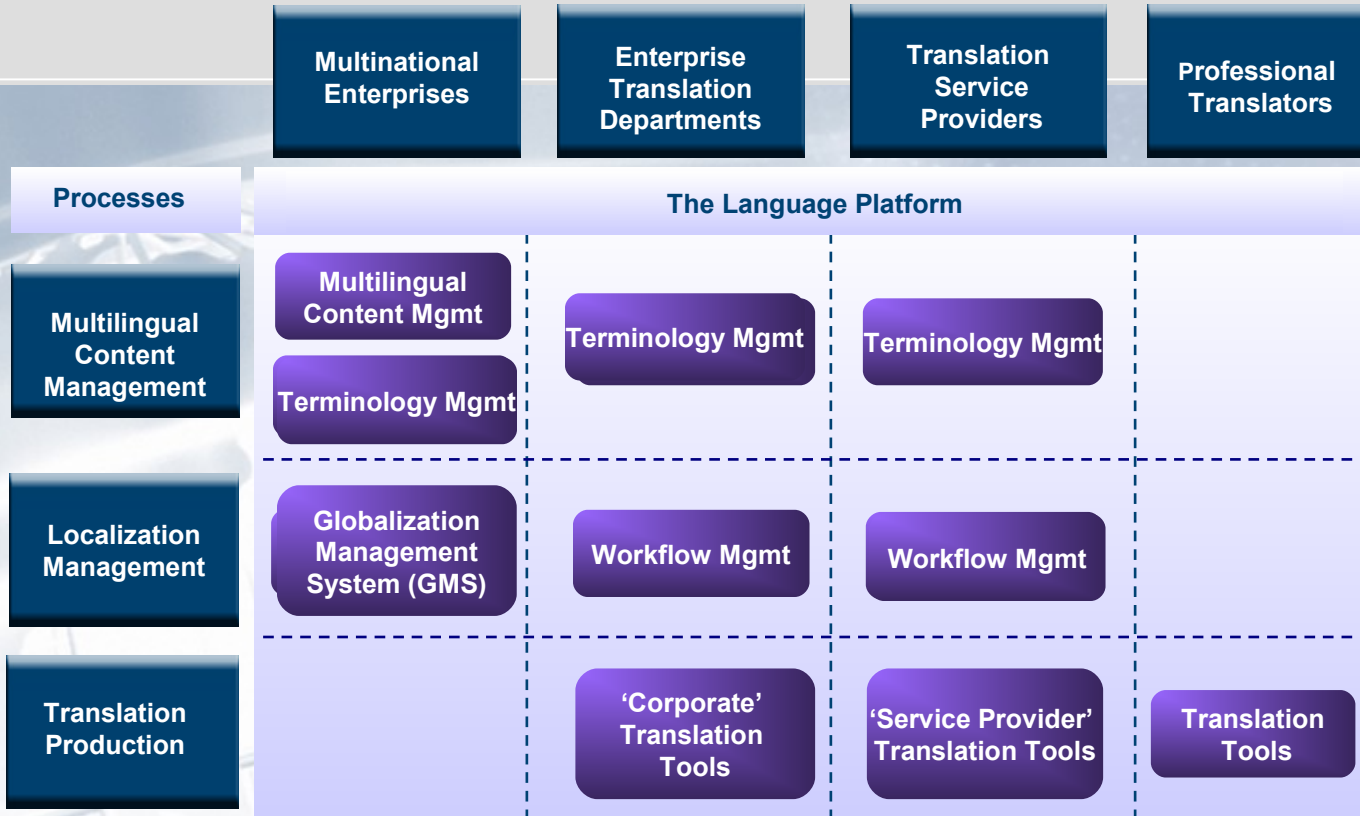


# ■ Is Technology the Solution for this Supply Chain?

We say **YES!** But:

- Software has to be based on the same platform
  - Linguistic assets are created through the value chain
  - Word counts, for example, should be 100% consistent
- Solutions must scale up to Enterprise needs, but also down to the freelancer's desktop
- Production steps need to be standardized and supported by customizable Workflow systems
- Solutions must:
  - Integrate into corporate IT (ERP, CMS, etc.)
  - Flexible and customizable (APIs)

# ■ Solution Building Blocks



# ■ The Language Platform

- Common language processing building blocks
- Ensures consistent sentence segmentation, tokenization, word counting, stemming, and other natural language processing
- Provides fuzzy matching algorithms and basic translation memory technology
- Supplies filters and SGML/XML parsing
- Provides a standard DTD for all tagged and DTP/WP formats
- Exposes its functionality through an API

**A solution can only fully support the translation supply chain if all of its components are built on the same platform**

# ■ Translation Production Software

- Translation memory supporting both database and reference file approach
- Terminology recognition and extraction
- Translation editors integrated into standard applications such as Word, PowerPoint, Excel, etc
- Alignment program
- Quality Assurance tools
- File management
- Links to Globalization Management System (GMS) and workflow

Ergonomic UI and rich feature set mandatory to ensure broad installed base



# ■ Workflow Management

## ■ Fully (user) customizable workflow

- Graphical workflow editor
- Definition of own activities (human or automatic)
- Execution of workflow distributed over the value-chain

## ■ Role based user management

## ■ Project and file management

- Customizable datasets (accounting, specifications, instructions, etc.)
- Progress tracking
- Distributed databases
- Interface to other systems (ERP, HR, etc.) Through API and XML business documents

## ■ XML-based development

- Worldwide collaboration through browser based clients
- Scales down to the freelancer and up to large corporations and organizations

# ■ Terminology Management

- Multilingual knowledge management
- Indispensable for high quality translations but also content creation
- XML based for easy data modeling and exchange
- Needs to support a distributed work model
- Enterprise wide distribution of information through intranet or even worldwide through the internet
- Same client software for freelancer glossaries and large corporation's term bases

# ■ Global Content Management

- **Links / Connects to:**
  - Enterprise's file systems and databases
  - Content management systems
- **Automatically:**
  - Detects changes in source material
  - Creates projects in the GMS
  - Places translated content into a dedicated location
  - Applies business rules

**Functions as the bridge between content and the translation process**

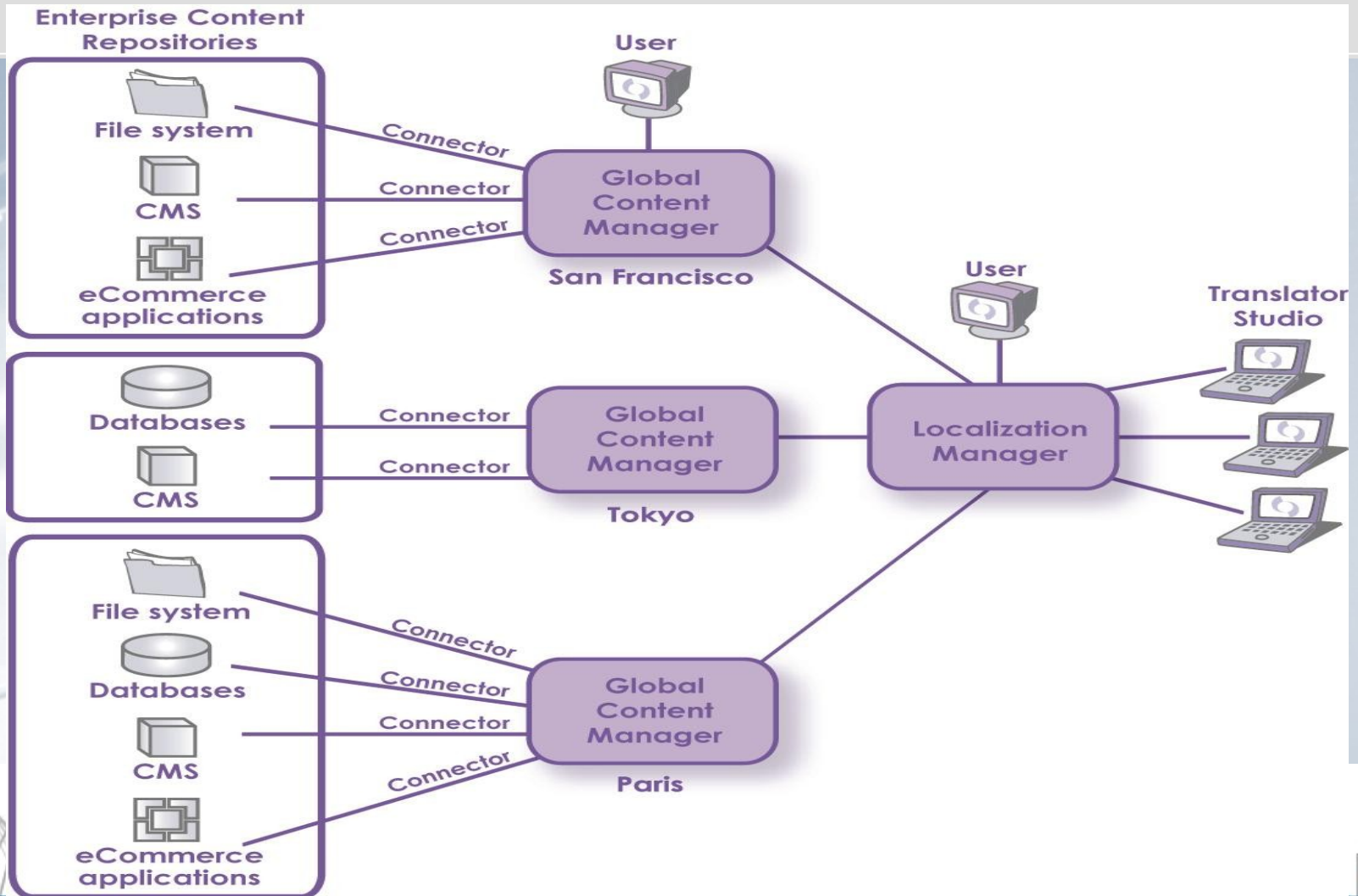
# ■ Globalization Management System

- Based on a scalable central translation memory GMS provides:
  - Access to translation technology and resources for translation consumer
  - Web interface which hides complexity of the translation process
  - Aggregation of all an enterprise's translation work
  - A standard workflow to channel all translation work
  - Automated procurement process by interfacing with ERP
  - Standard way for service providers to obtain translation contracts
  - Links into different content sources such as file systems, databases, CMS, DMS, etc

**GMS overcomes the fragmentation of the enterprise translation process**



# ■ Translation Supply Chain Solution



# ■ Nice Vision. And the Reality?

- TRADOS translation supply chain solution implemented at a leading IT equipment manufacturer
- Used to localize over 900 web sites
- Brought word price down from \$.45 to \$.25
- Adds potentially up to \$100m to their bottom line over the next 5 years!

# ■ Questions & Answers



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