

Large Scale Production Using Project Maps

Youssef BENNANI
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Agenda - DITA-OT Conference – Munich 2016

This presentation will show how SAP has integrated the **DITA Open Toolkit** to create a large-scale production infrastructure able to build 60 000+ outputs daily for SAP product documentation. This covers the end-to-end process from DITA CMS to delivery channels, using **project maps** as a key ingredient.

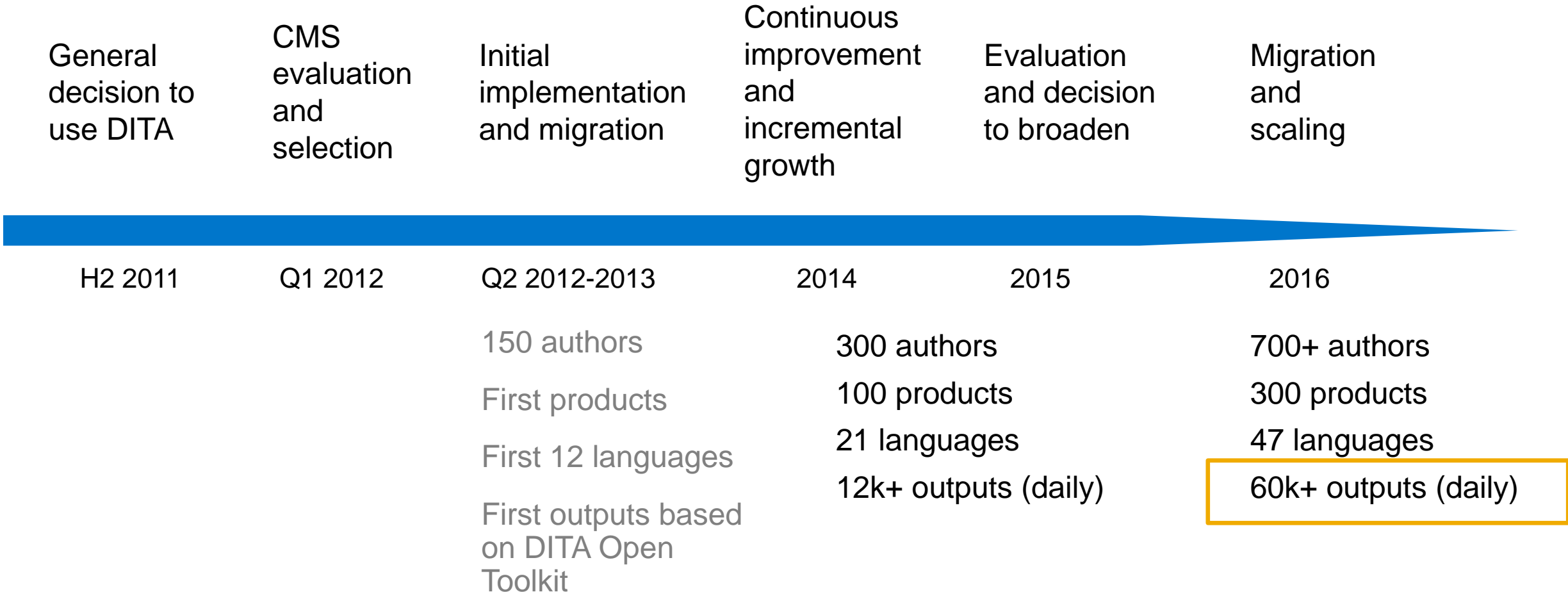
- **Introduction : SAP environment**
 - DITA Adoption and growth
 - DITA Process and Landscape overview
- **DITA Production process @SAP**
 - Project(*) production life cycle based on **project map**
 - **DITA Open Toolkit** integration into the production landscape
 - Peer linking across outputs as example of advanced feature
 - Infrastructure optimization to scale

(*) Project : documentation set for a product shipment

Introduction : SAP environment



DITA implementation @SAP



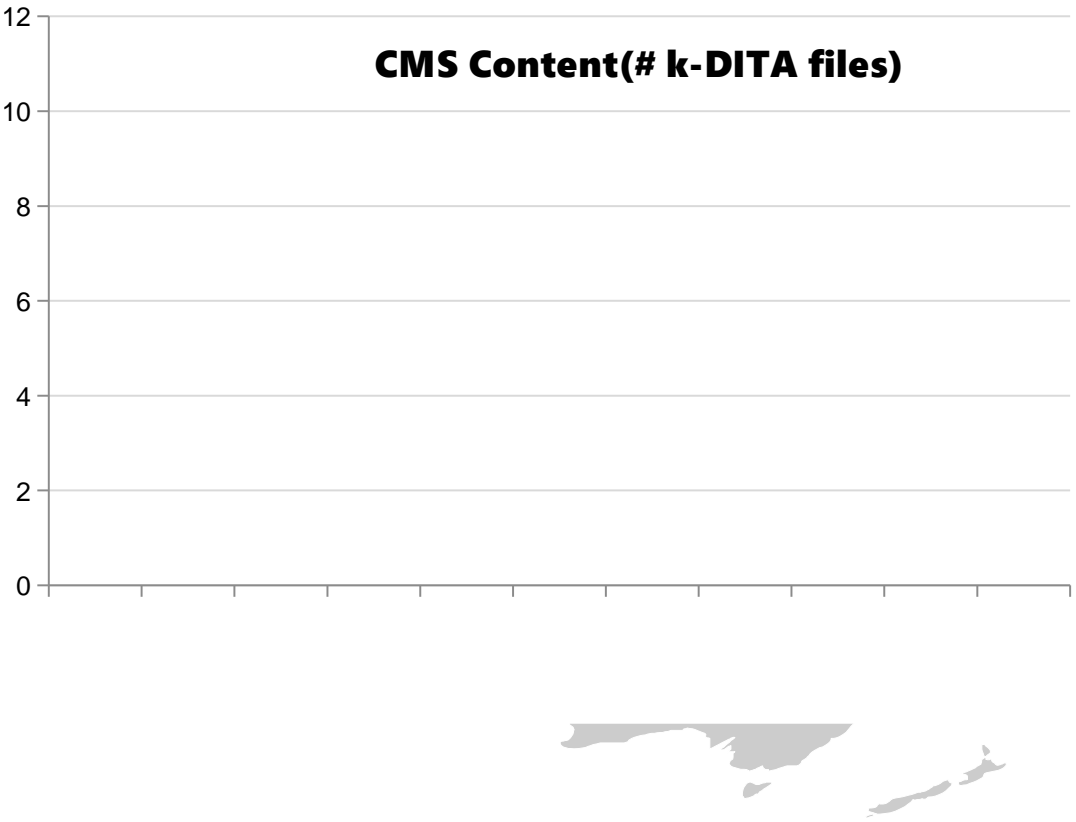
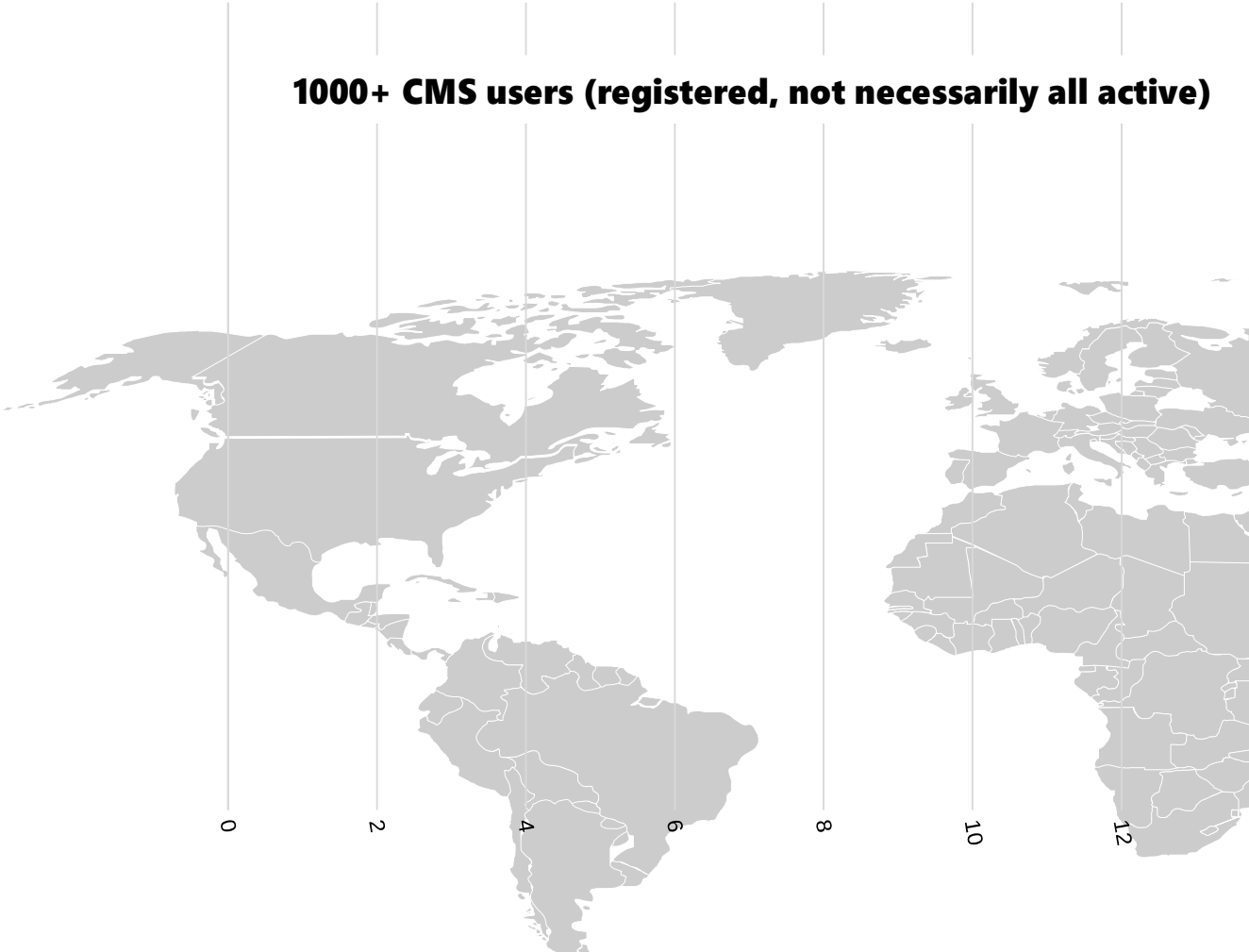
Some statistics

1000+ CMS users (registered, not necessarily all active)

3+ Million DITA files
x2 increase in 2Y

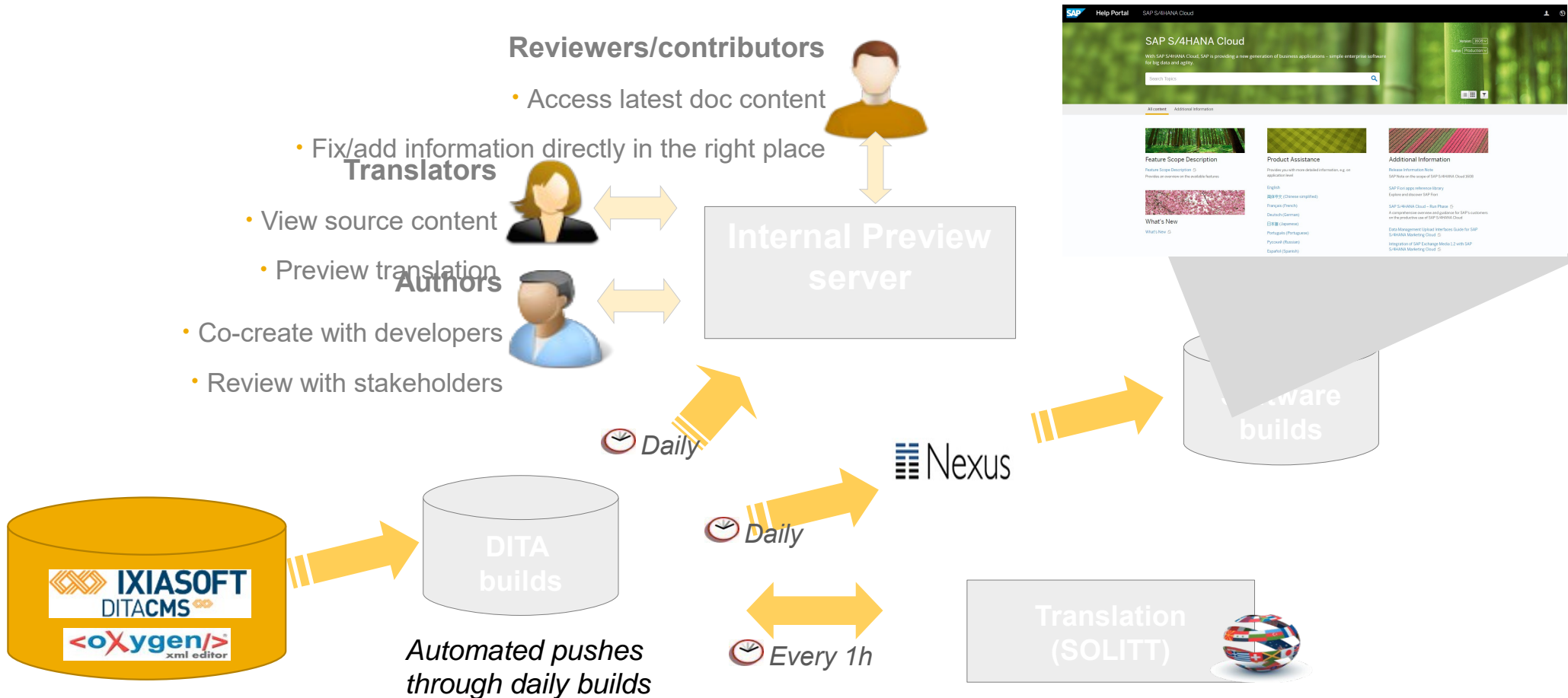
50% Migrated content
x1.4 increase Y2Y

3200+ Projects
x2 increase Y2Y

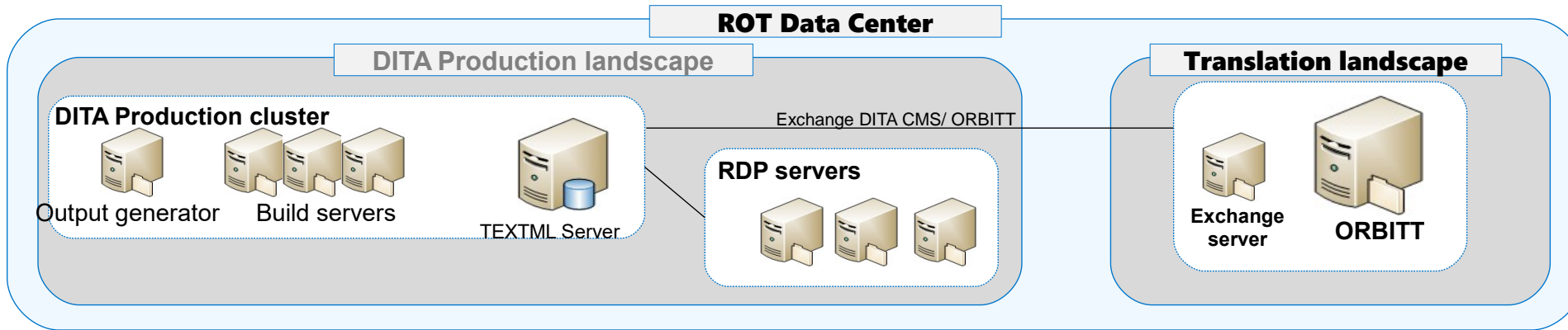


Day-to-day process overview

- Content validation, technical checking, and translation of documentation begins early and is performed continuously
- Final preparation before publication is reduced to minimum



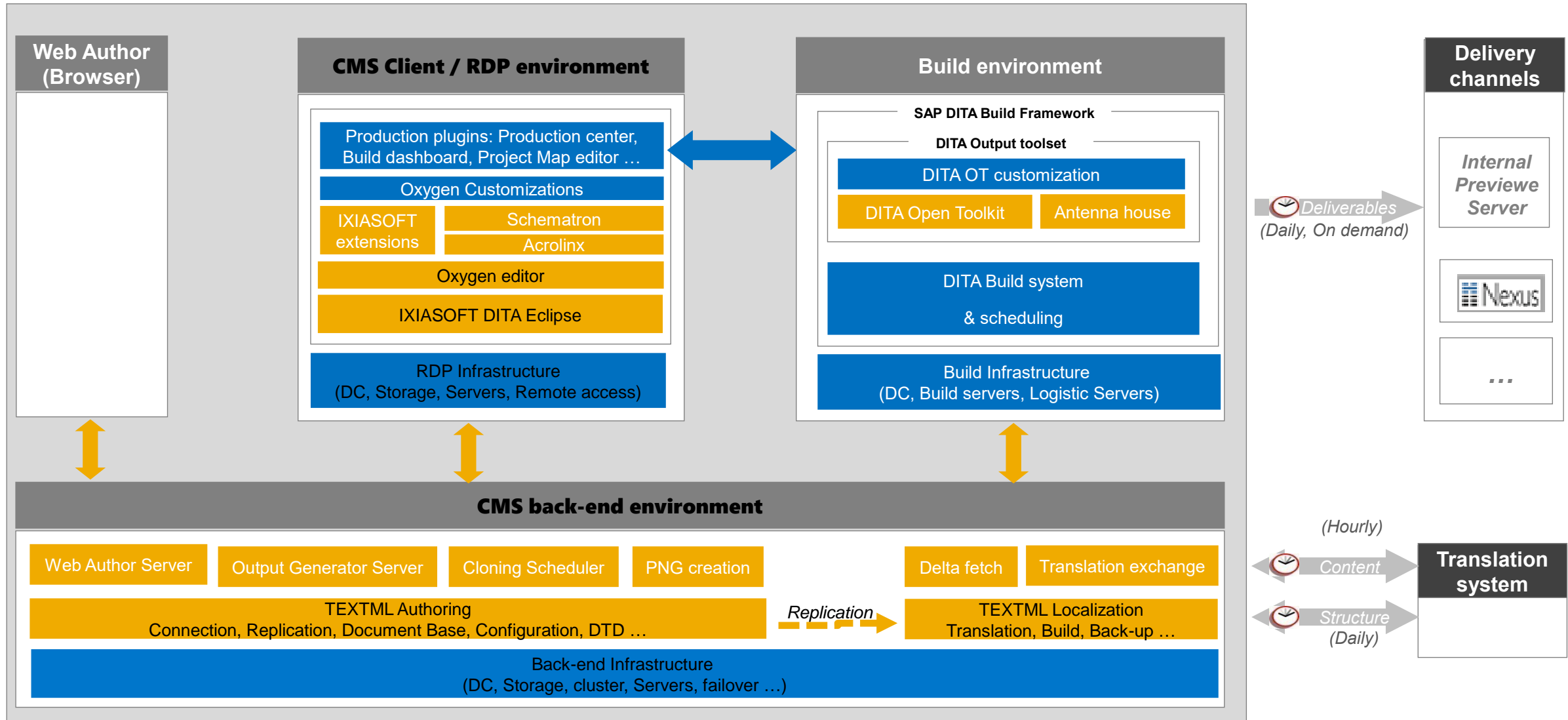
SAP DITA Landscape overview



- ~40 servers in central data center, operated by IT
- Central admin team
- RDP access for users around the world



SAP DITA Landscape detailed view

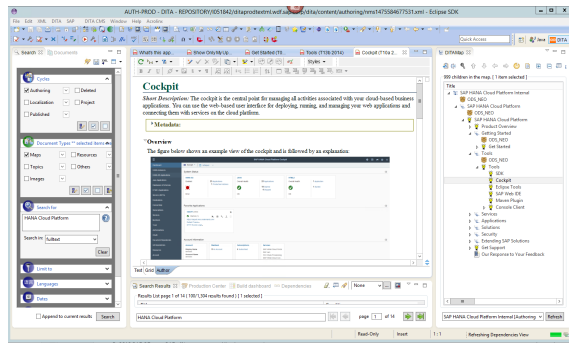


DITA Production process



Project production lifecycle

- The **project map** defines the configuration of project's outputs and publishing
 - The consistency and enablement of the project production lifecycle is defined in one place : **project map**
 - It's a ticket free life-cycle : moving across the cycle is either self-service or automated



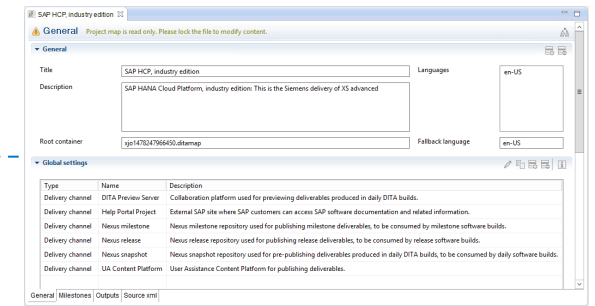
IXIASOFT CMS / Oxygen XML editor



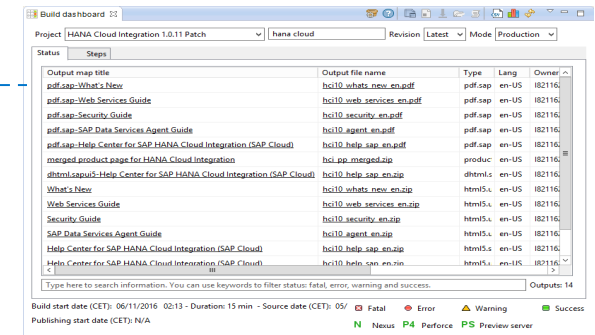
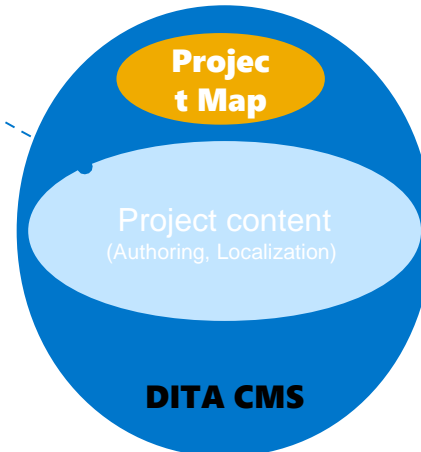
Author



Doc lead



Project Map Editor



Build Dashboard

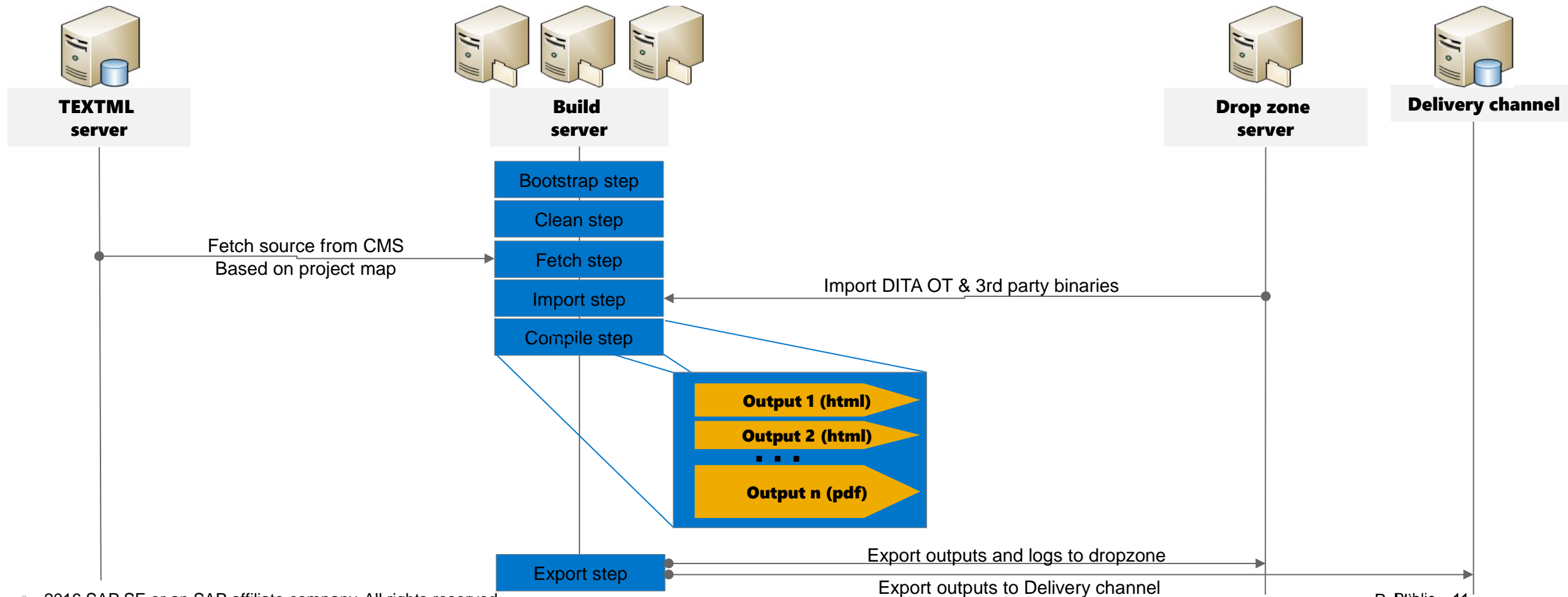
Internal Preview Server

DITA build landscape

Build step

DITA Output toolset (using DITA Open Toolkit)

- Build lifecycle uses highly performant production framework with **parallel compilation**
- Project configuration information defined in project maps is:
 - transformed into properties passed to DITA Open Toolkit for producing branded SAP outputs (with SAP customizations)
 - used for automated publishing to delivery channels (e.g. Nexus, UA Content Platform...)



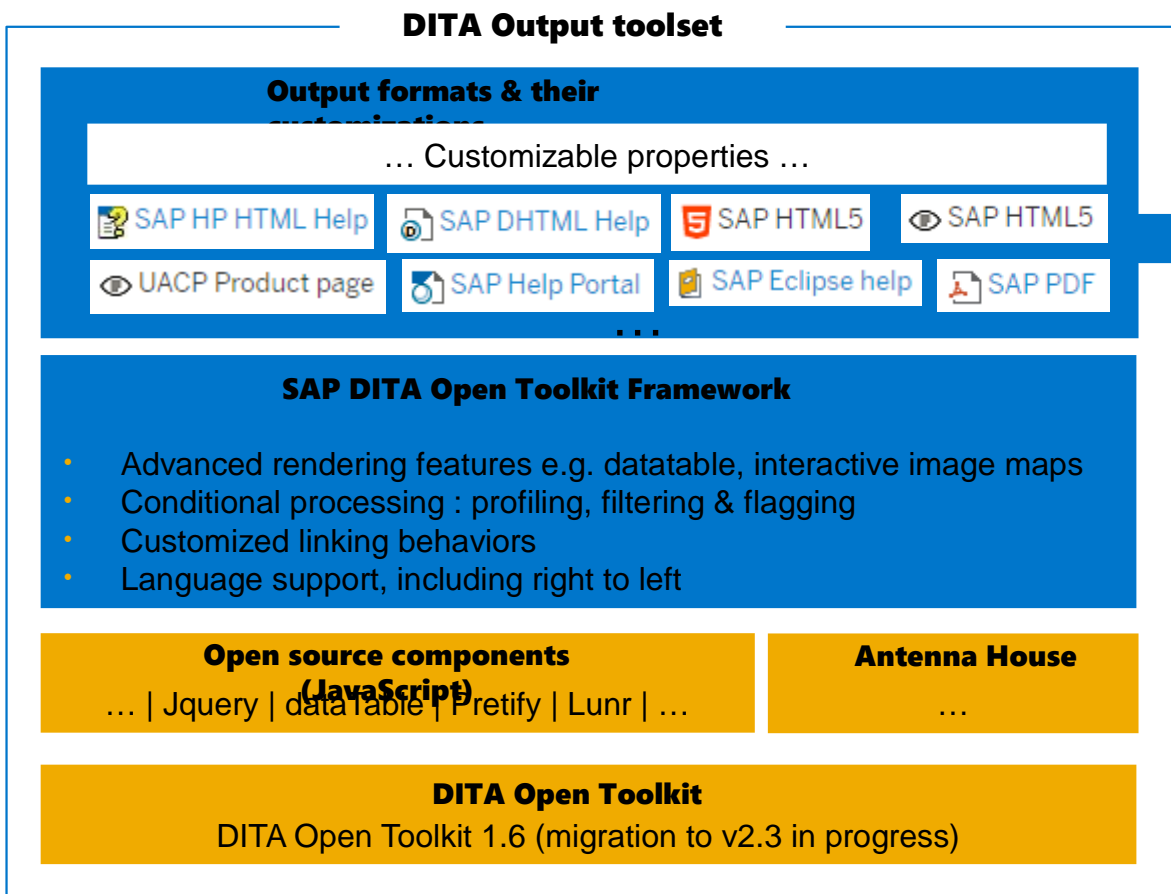
DITA Output toolset enhancement cycle



SAP

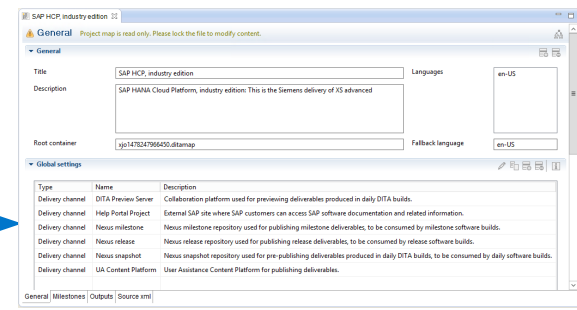
Non-SAP

- Continuous improvements in **DITA Output toolset**
 - Output formats (**20+**) and their customizable properties (**100+**) are **exposed** to Doc Leads through Project Map Editor
 - Integration of Open source components where applicable for better user experience
 - Toolset changes are **pushed** automatically to daily builds after passing acceptance tests → Quality assurance to +60k daily outputs



Exposed to

Pushed to



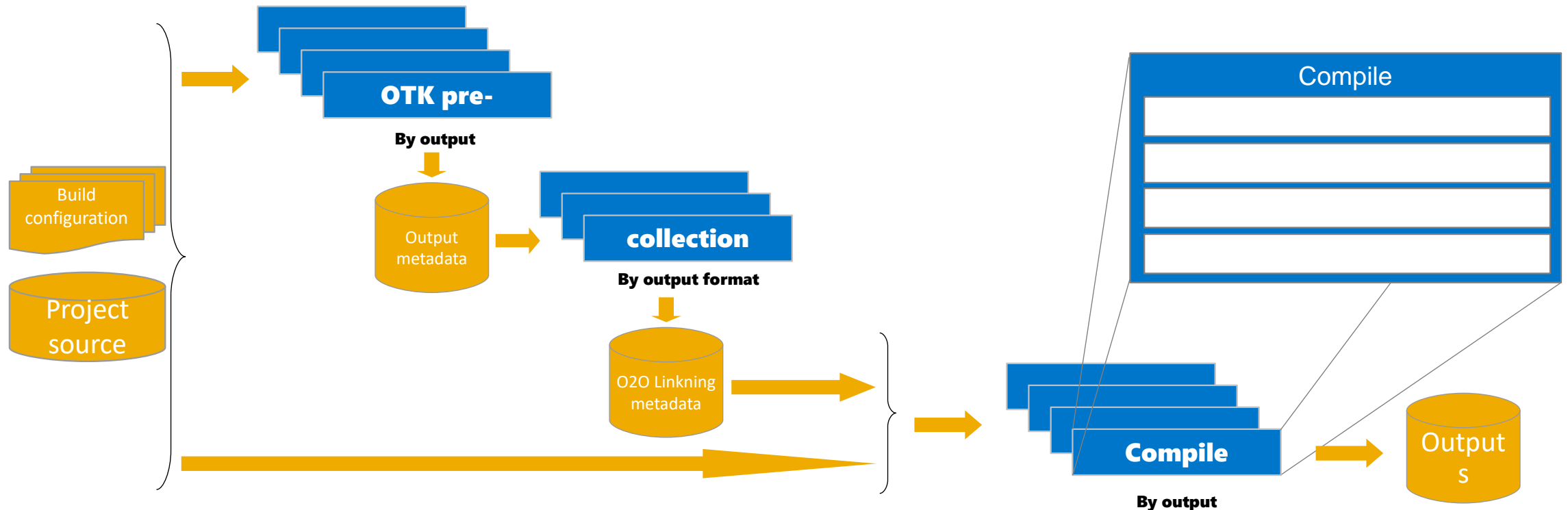
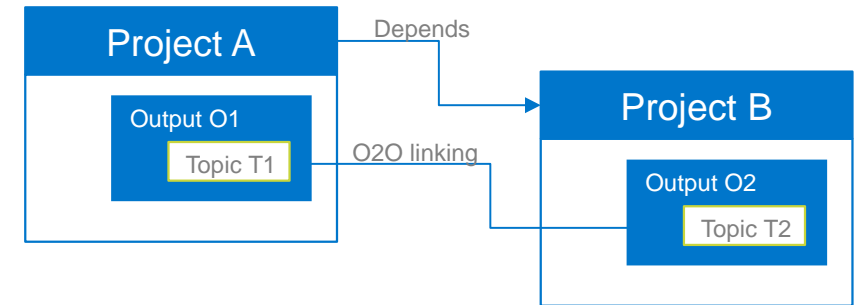
Project Map Editor

Average daily #outputs



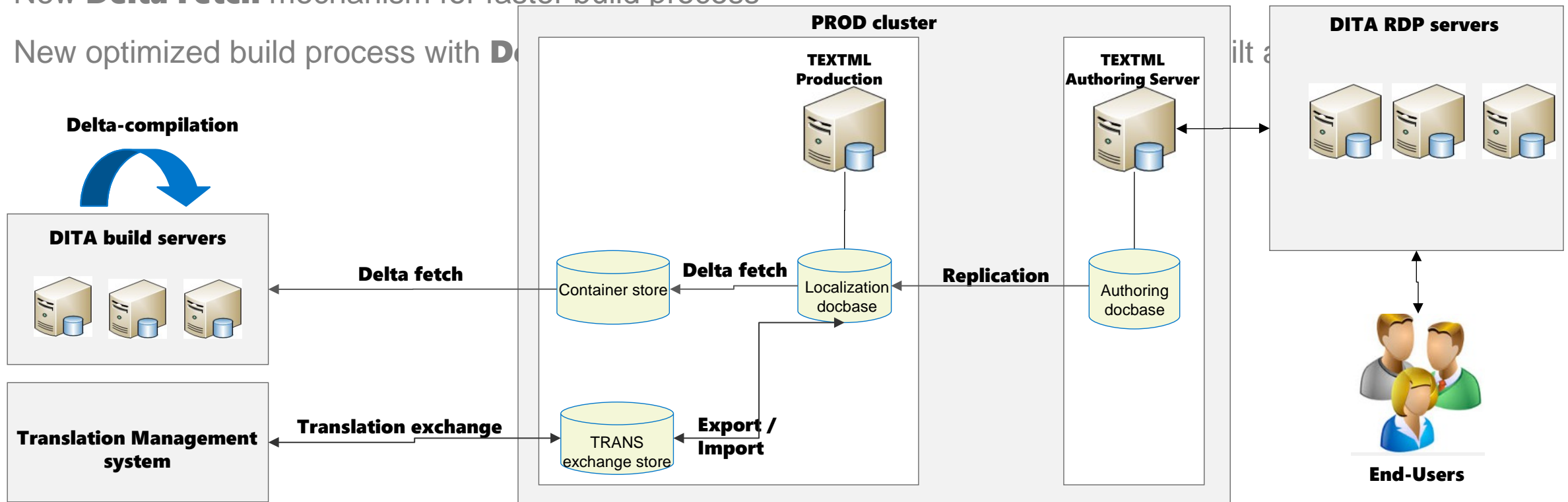
Output-to-output (O2O) linking within documentation set

- Enables linking between outputs of the same collection (output format e.g. html5) within the same project or in the project dependency tree
- Implemented in daily Build (compile step)



Recent scaling activities (to accommodate growth)

- New architecture to support **project dependencies** in the CMS (project map) and in the build process
- New Document base split architecture (one document base for authoring, another for localization and production) with **replication process** to insulate authoring work from the performance impact of translation and production
- New **Delta Fetch** mechanism for faster build process
- New optimized build process with **Delta-Compilation**



Key takeaways and learnings

- Rely on leading industry solutions and Open Source technologies where applicable
- Large volume requires continuous optimization of the landscape
- It's key to build an internal community of stakeholders and experts to foster innovation and internal support
- It's important to have a regular upgrade strategy (e.g. DITA Open Toolkit) and engage with external community to take advantage of updates and recent enhancements





Thank you

Contact information:

Youssef Bennani

Head of Engineering Services France

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