Change Notification Architecture

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Change Notification Architecture Walkthrough

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Background

There are many information systems contributing data
… with irregular update periodicity
… in different metadata formats
… stored and managed in very different platforms
… some of which will reference data in other systems
… and some of which will copy data from other systems

All of which needs to be discoverable via a single system

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Technical Assumptions

Records can be made available as Web Resources

… either internal only, or also externally

… at stable URIs

Systems can generate a list of their Records

… and will be able to publish that list as a Web Resource

The Web is the Discovery Platform

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Requirements

Discovery data should be reasonably up to date

… where “reasonable” may differ between systems

Loading updated data should be automatic, not manual

… including addition of new systems

Discovery is broad and high level in the aggregate

… and provides deep links enabling specific queries

Discovery is about finding, not about researching

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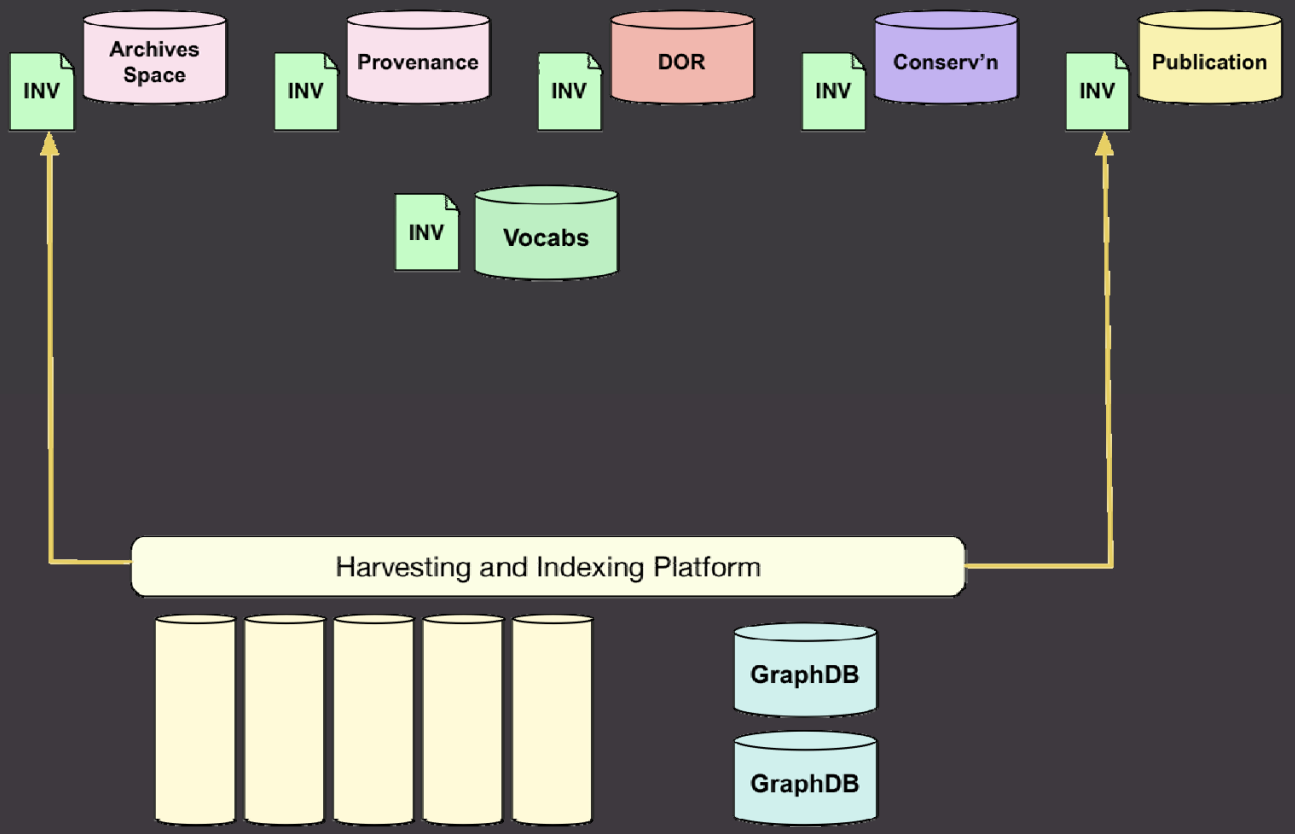
Baseline: Get Inventory



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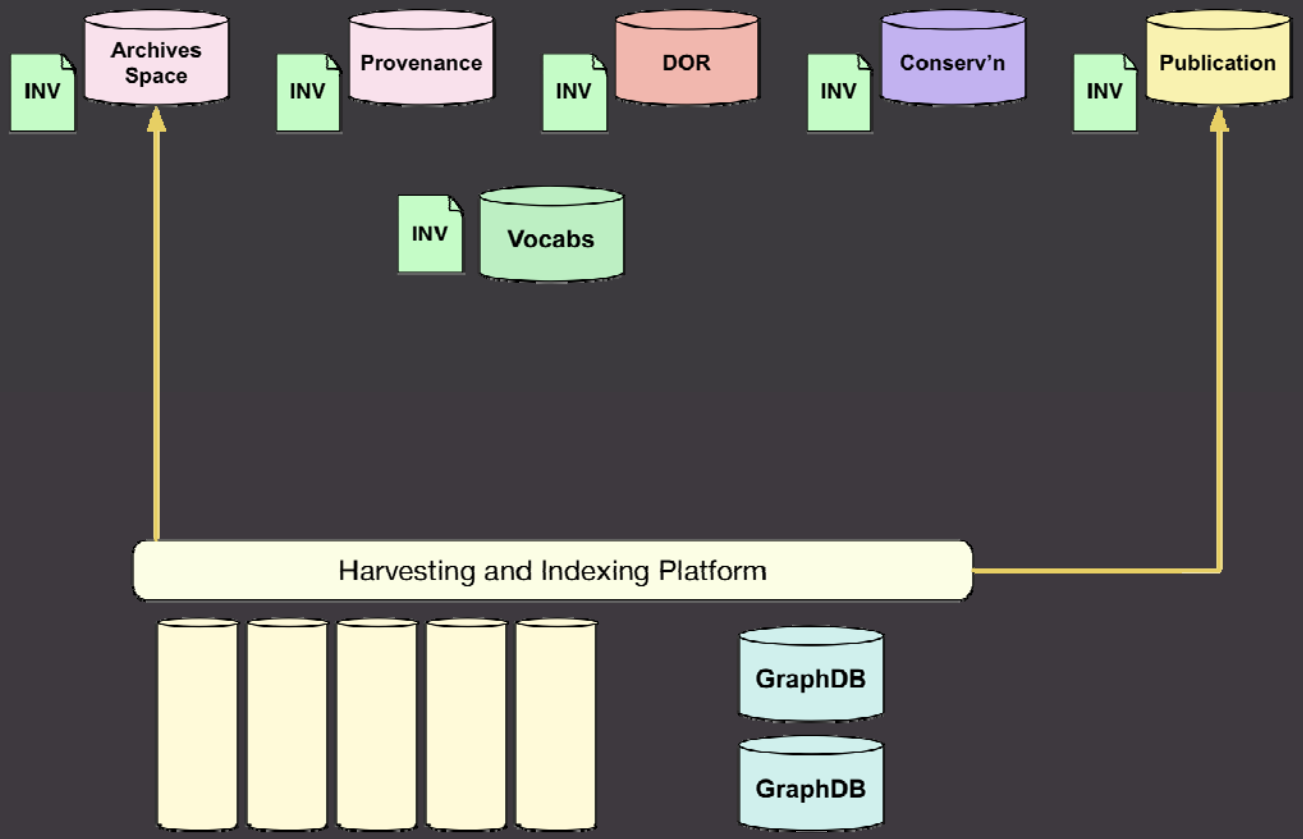
Baseline: Get & Index Records



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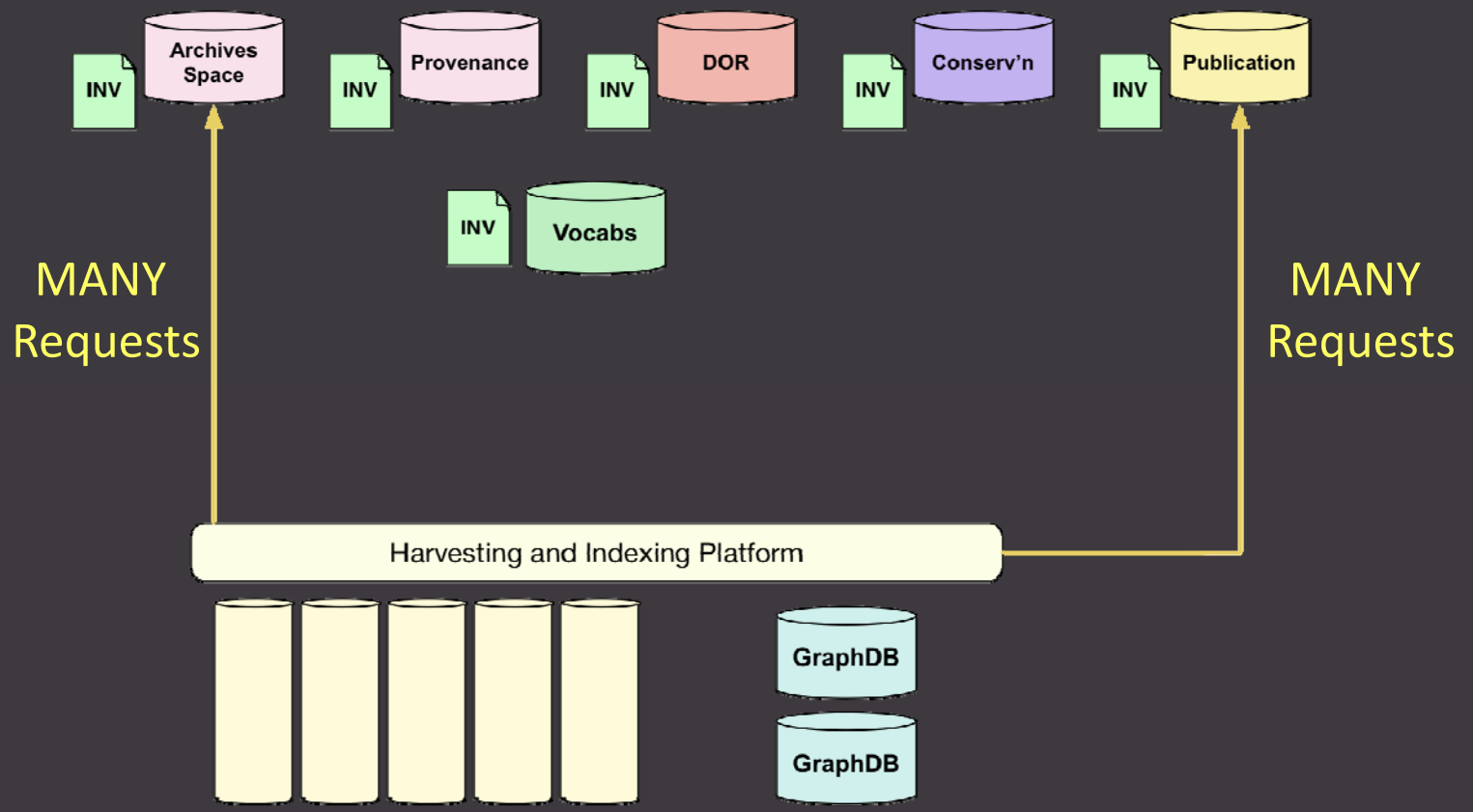
Baseline: Get & Index Records



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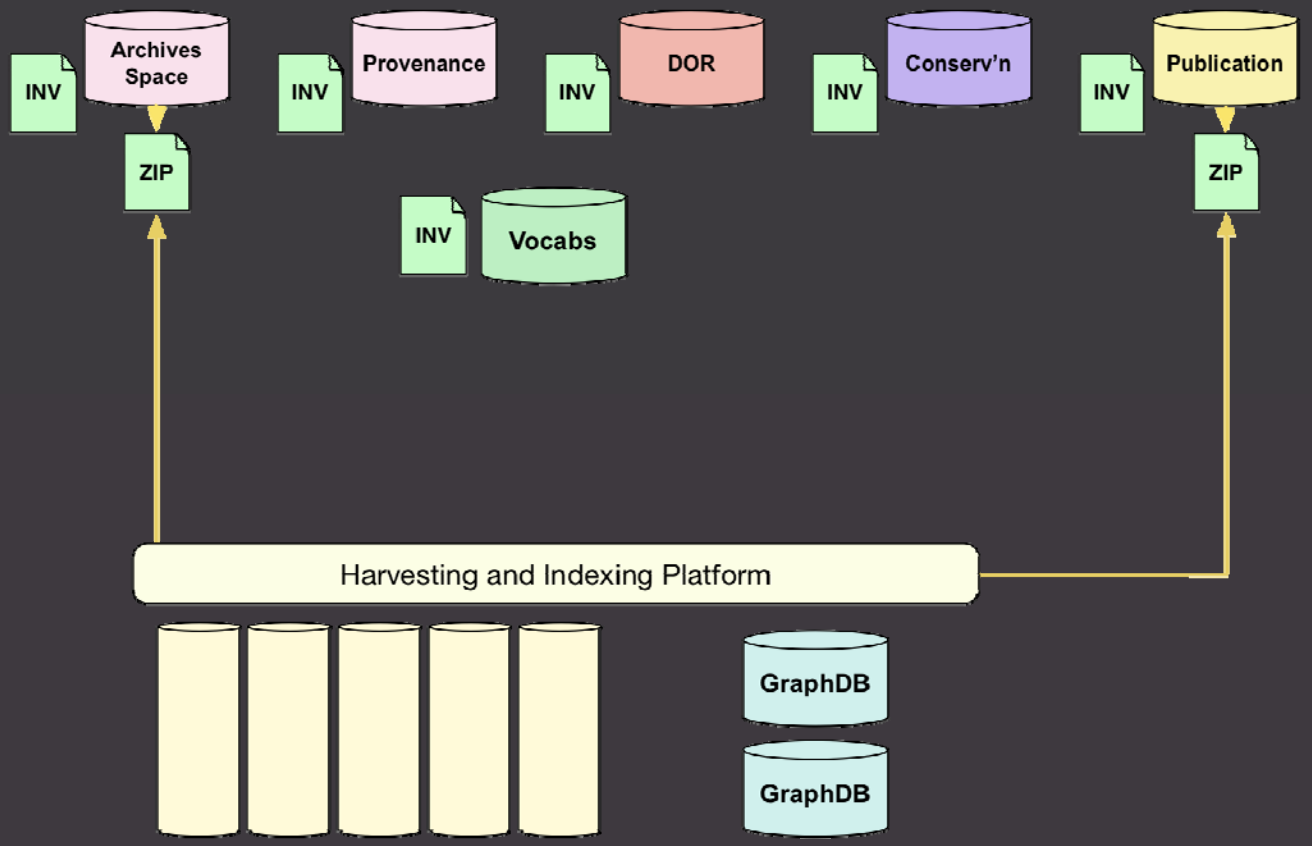
Baseline: Optimization



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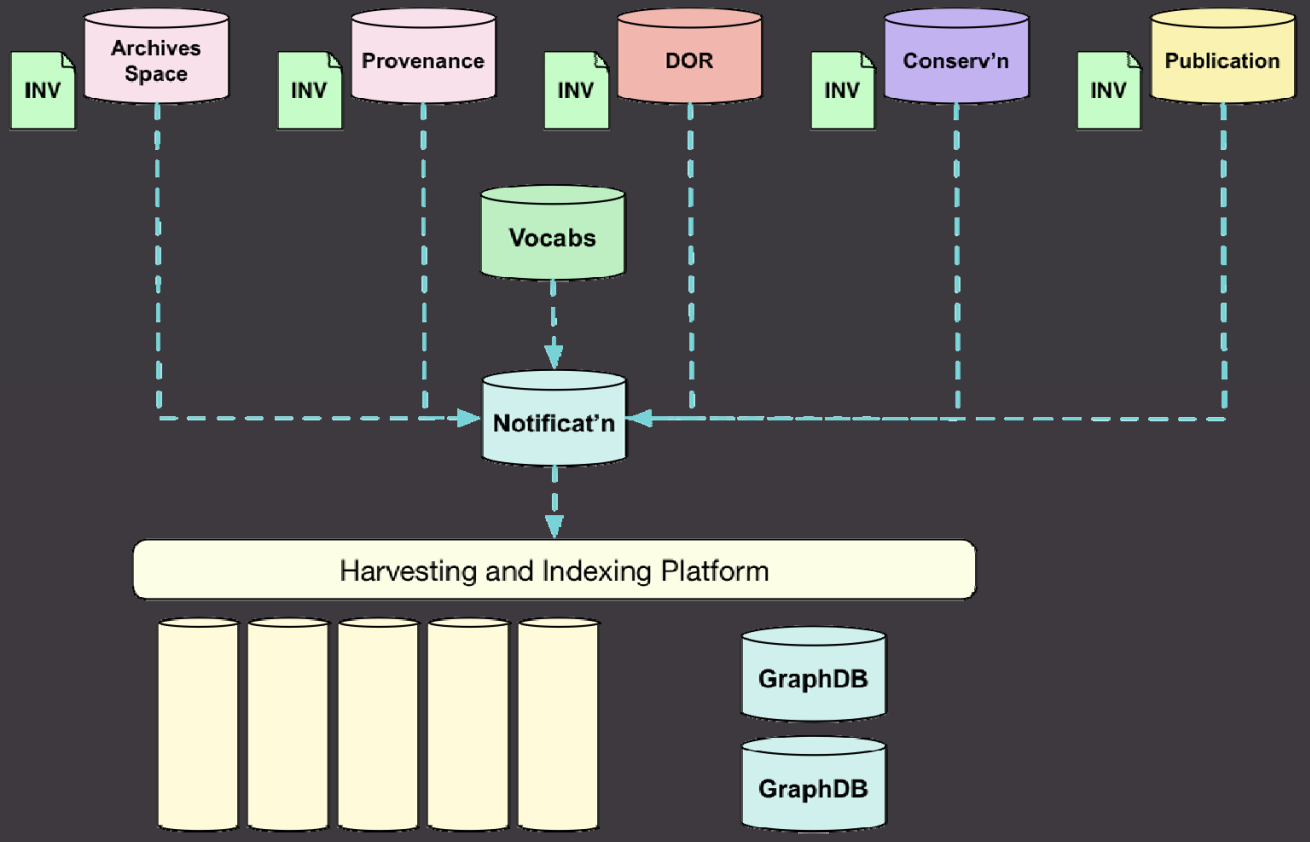
Incremental: Notification



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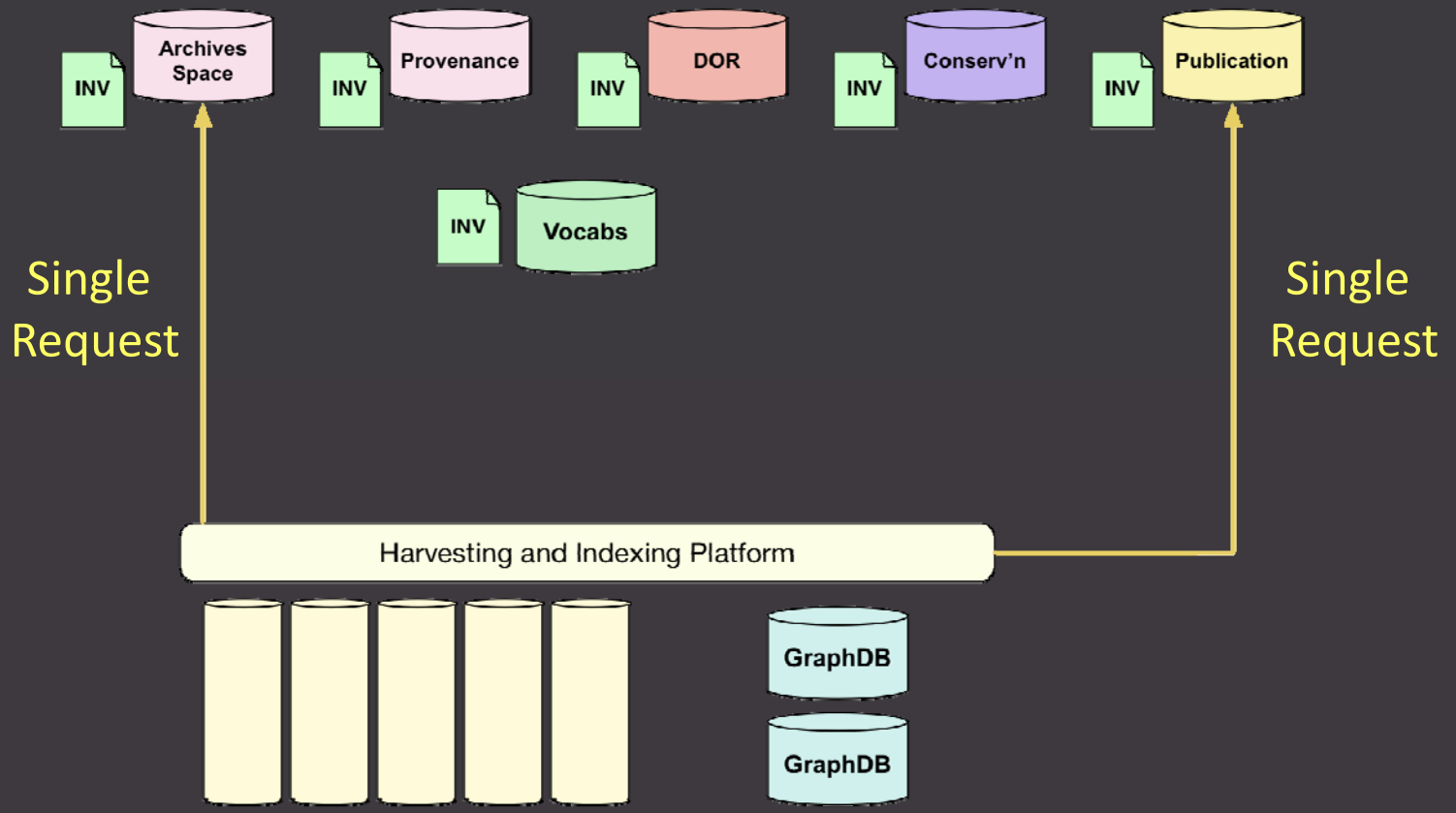
Incremental: Get Updated Record



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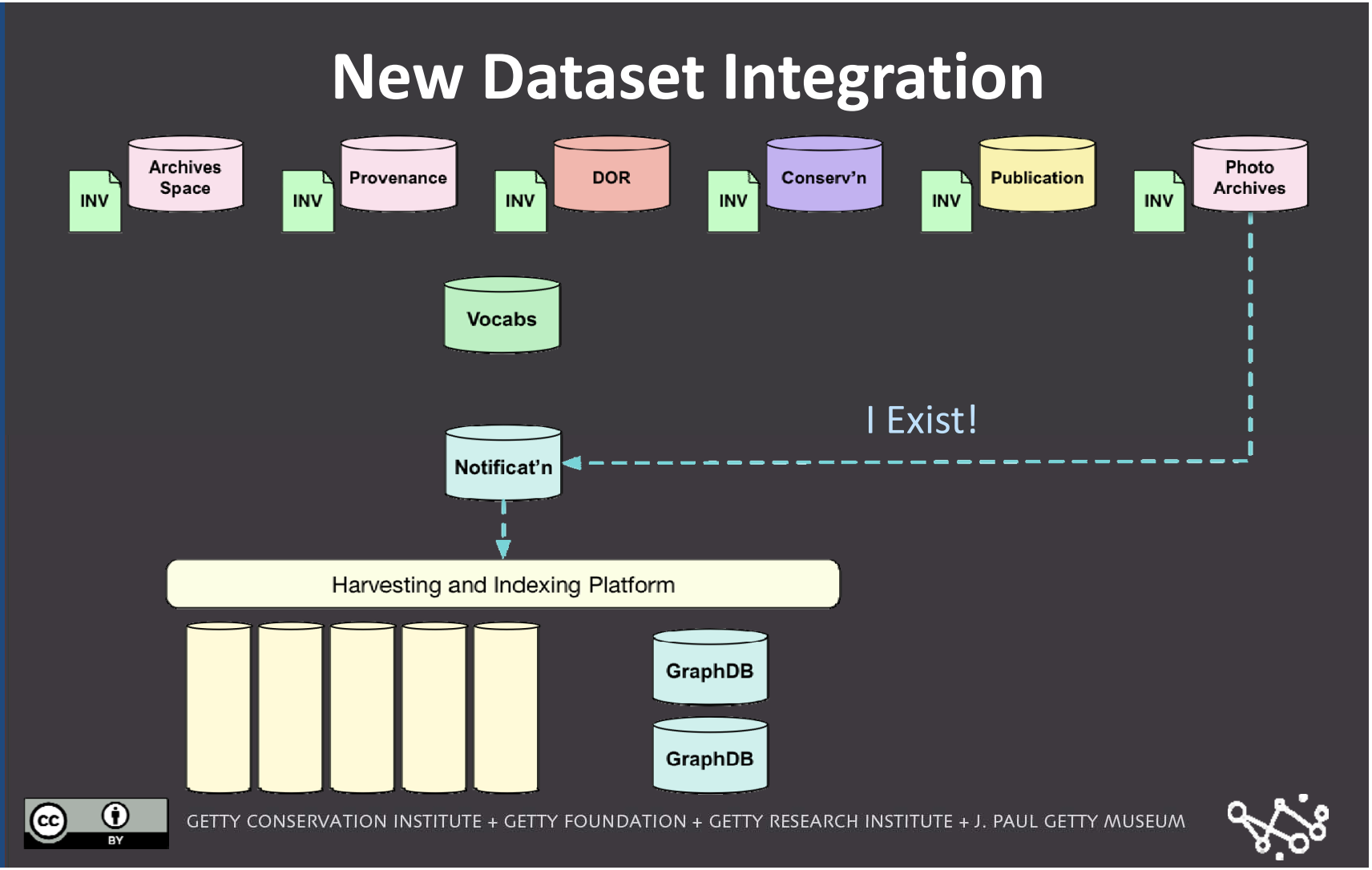

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Wait … Wut?

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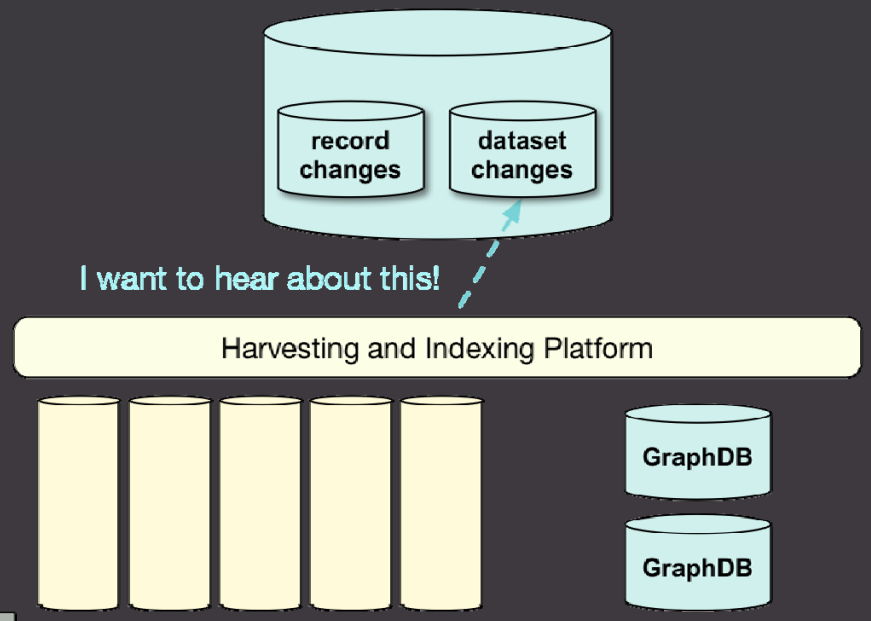
Subscription to Channels



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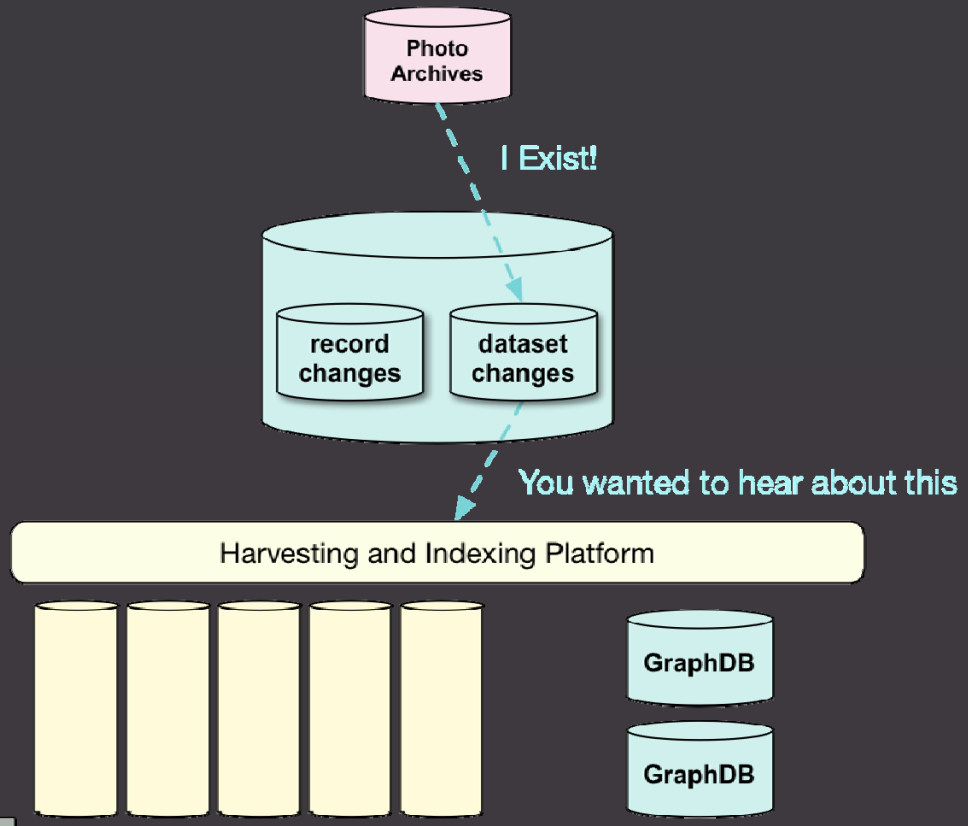
Notifications go to Channel Subscribers



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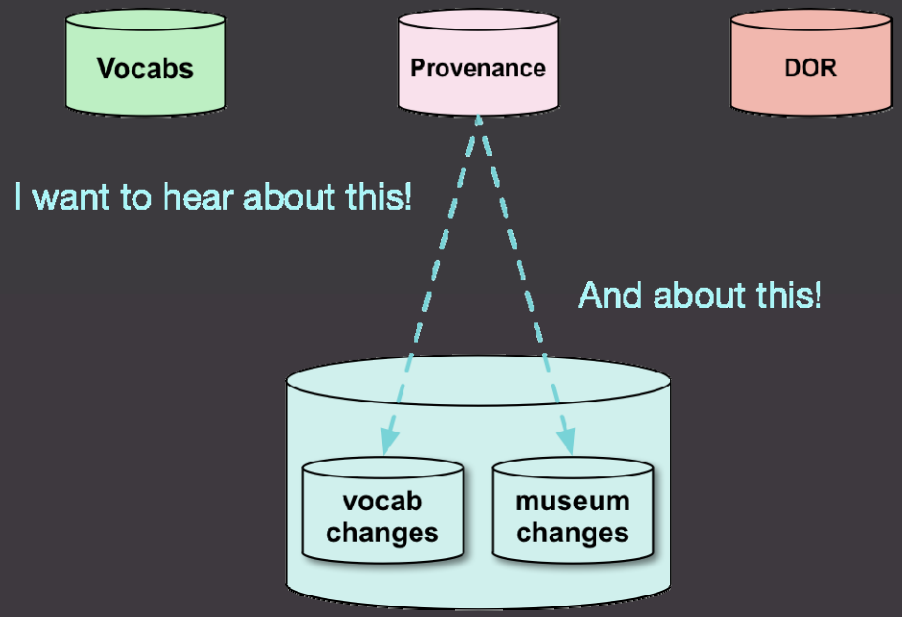
Channel per Content Provider



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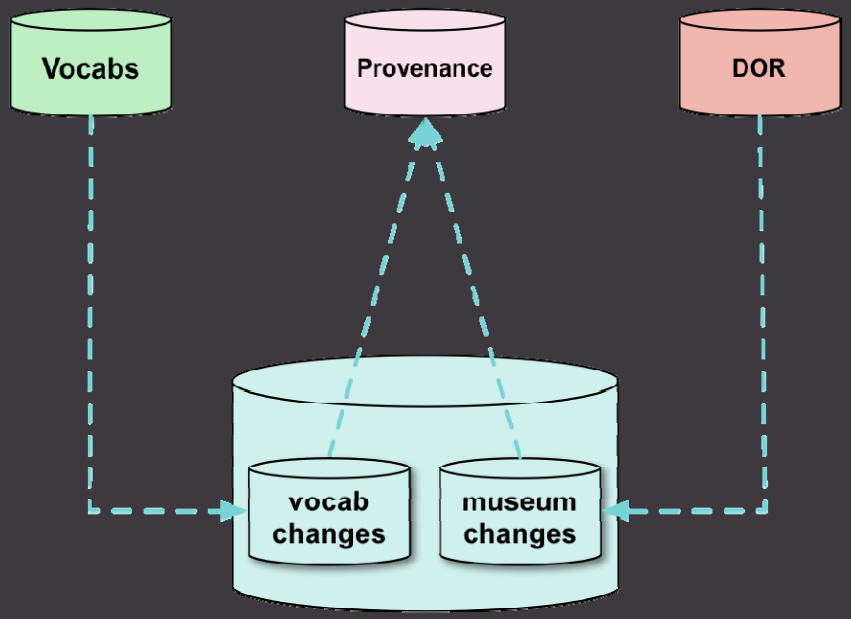
Channel per Content Provider



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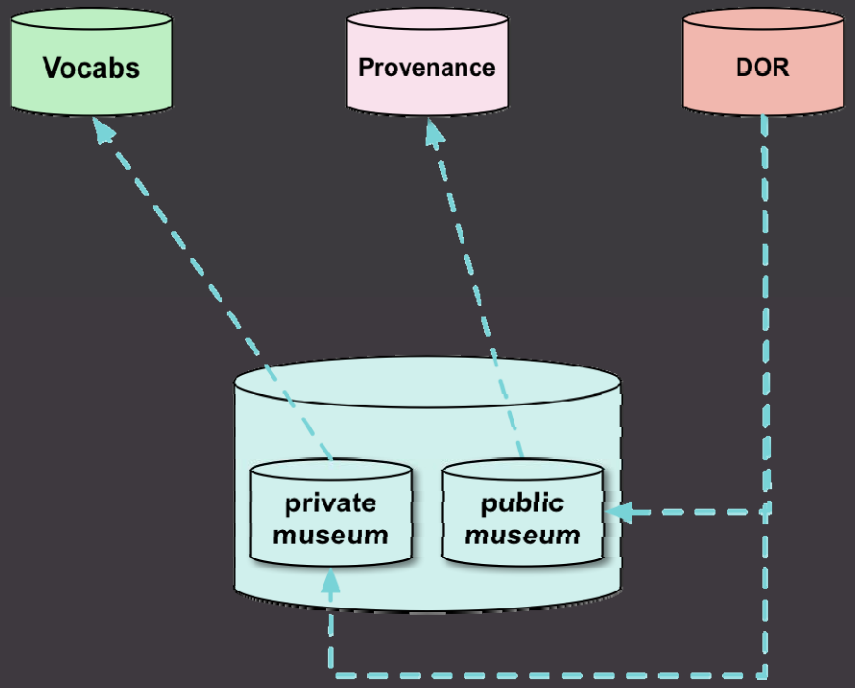
Multiple Channels per Content Provider



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Standards

Subscription:

W3C WebSub

Notification:

W3C WebMention or W3C LDN

Inventory:

Google Sitemaps with NISO ResourceSync

Zip:

(duh) with NISO ResourceSync manifest

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Discuss!

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