

# Couchio

## Assay Depot - CouchDB Filtered Replication

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### Case Study

Assay Depot is the “Home Depot” for biological assays; an “assay” is the term for an experiment in the pharma industry. They own and operate [www.assaydepot.com](http://www.assaydepot.com), a Contract Research Exchange (CRX), in which they have over 150 service providers (CRO’s) offering thousands of assays. Their research customers are using the public CRX to discover and purchase assays, but their large pharmaceutical customers also wanted the ability to use the exchange for their own internal use.

To accommodate these large customers, Assay Depot wanted to create private CRXs, which could be customized to their needs. Their problem was, how to create these separate systems, but still allow the service providers to manage their services and respond to orders in a single location.

### Solution

The solution was to break the shopping and administration responsibilities into separate applications with separate CouchDB instances and use filtered replication to keep them in sync.

Each service is now modeled as an individual document in CouchDB. Using the central administration interface (“back office”) the CROs are able to update and edit all of their services in a single location. The CRO can then decide if their service should be published to the public or private exchanges or both. At that point, CouchDB takes over, and using filtered replication, ensures that the service will then get replicated out to the appropriate exchange(s).

This solution built on CouchDB has made it possible for Assay Depot to take an external facing exchange and create a private version of it for internal use at a top 5 Pharma company.

### Results

Using CouchDB has had a profound impact on the Assay Depot. It allowed them to get to market quicker, it’s schema-less design makes customization easier and their response times have been cut in half. However, the biggest impact of CouchDB is the enablement of their private CRX strategy.

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#### About Assay Depot

Assay Depot is an online exchange for contract research services - or a Contract Research Exchange (CRX). Assay Depot's customers are of two kinds; Providers and Buyers. Providers or Contract Research Organizations (CRO's) do small, medium and large experiments on a contract basis. Buyers are researchers at some of the world's top Pharmaceutical companies and Academic institutions.

#### Quote

Chris Petersen, CIO of Assay Depot says, “CouchDB feels like the way web apps should be written. We started using it because of the replication and we quickly came to enjoy the fact that it’s schema-less. However, in the end, it’s the organization of data into rich documents that can be viewed or edited that most excites me. Gone are the days of normalizing your data and updating 10 tables in a single transactions, from now on I’m organizing my data into documents and editing those one at a time!”.

# Who we are

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## About CouchDB

Apache CouchDB bridges the cloud and the local network by making it simple to write web apps that can scale up to the datacenter and scale down for local use on a smartphone. The synchronization engine (inspired by Lotus Notes) allows sharing of data and applications across ad-hoc groups. Offline replication gives mobile devices better performance (lower latency) while saving battery life by avoiding radio usage. With offline replication solved in a simple way, application developers are free to focus on the code that matters

CouchDB is popular with developers because its document model is a closer fit for many domains, leading to less overall complexity. The JSON HTTP API allows developers to write dynamic database-backed applications without a middle tier: 2-tier CouchApps require only a web-browser and a CouchDB, and can be written by anyone with Ajax / jQuery experience. We firmly believe that empowering people to share data and custom applications at the edge of the network will lead to a more humane web.

Apache CouchDB is currently deployed by the BBC, Meebo, Assay Depot, Engine Yard, (among others) and is an integral part of the Ubuntu operating system.

# Couchio

## About Couchio

Couchio <http://couch.io> (founded by 3 CouchDB core committers) offers support, hosting, and professional training for CouchDB.

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### Contact couchDB

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