

NASA Engineering Database (NED) Prototype

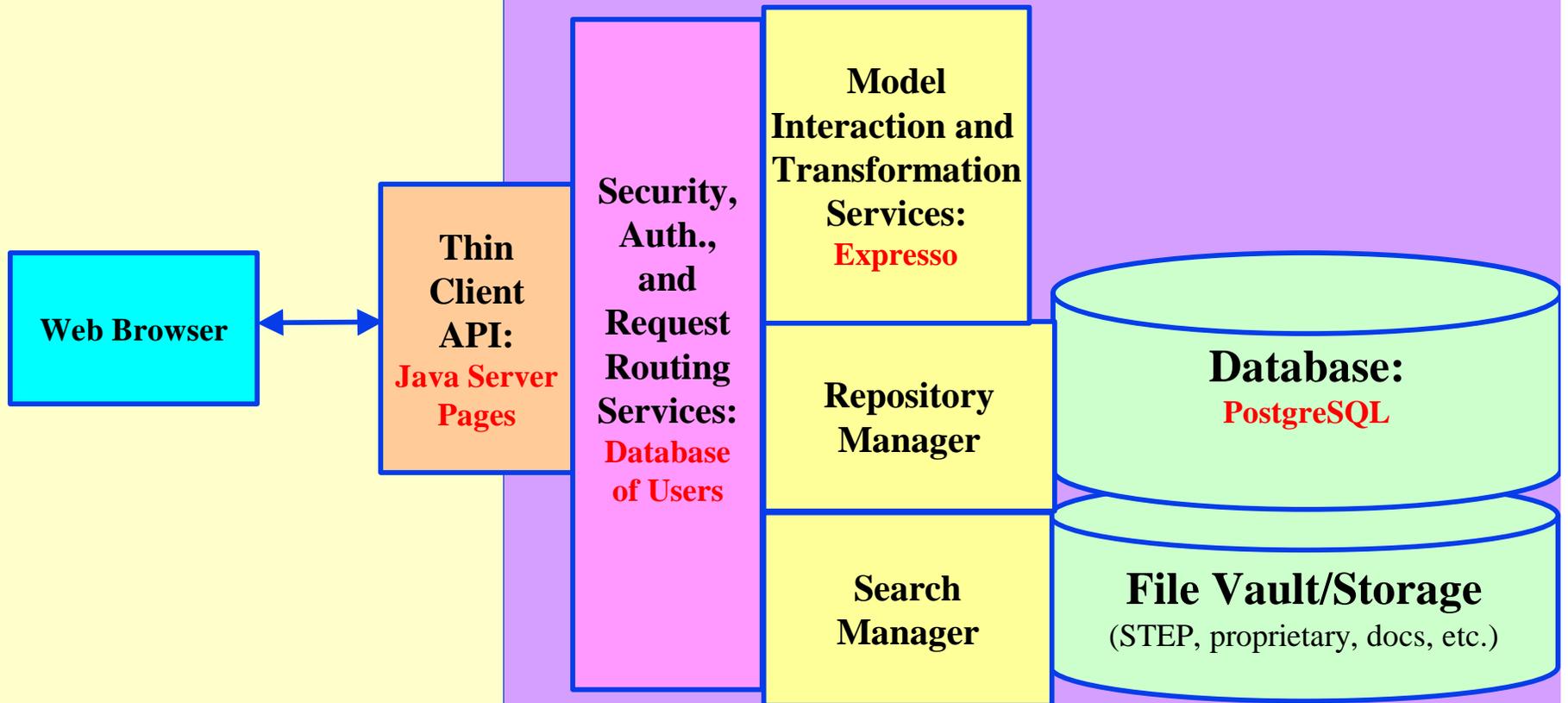
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NED prototype

(NASA Engineering Database)



NED Target Architecture

External Systems
(PDM, etc.)

CAD/CAE Tools

Utility Tools
(Viewers, Special Editors, etc.)

Web Browser

System API
(peer/peer, federation, global search)

Thick Client API

Thin Client API

Security, Auth., and Request Routing Services

MetaServices
(Dictionaries, MOF, etc.)
(read/write)

Control Services
(Roles/Perms)
(read/write)

Library Services
(read/write)

Model Interaction and Transformation Services
(translate and transform models, generate views)

Transaction Manager
(reads/writes)

Search Manager
(reads only)

MetaRepository

Directories
(people, orgs, licenses, products, etc.)

Libraries
(part models, IP, etc.)

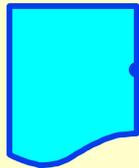
Databases and Caches
[R/O/O-R] DBMSs
(Master Model Repository)

File Vault
(p21, proprietary files, docs, etc.)

NED prototype

(NASA Engineering Database)

AP210 File



1

Repository
Manager

2

Expresso

3

PostgreSQL

4

File Vault/Storage
(Unix Filesystem)

Check-in Process

1. File upload via Web browser
2. RM calls Expresso to run Express-X to extract PDM data.
3. Expresso outputs XML-encoded PDM data.
4. RM executes transaction to write PDM data into PostgreSQL and AP210 file to "vault" (PDM data contains reference to file).