

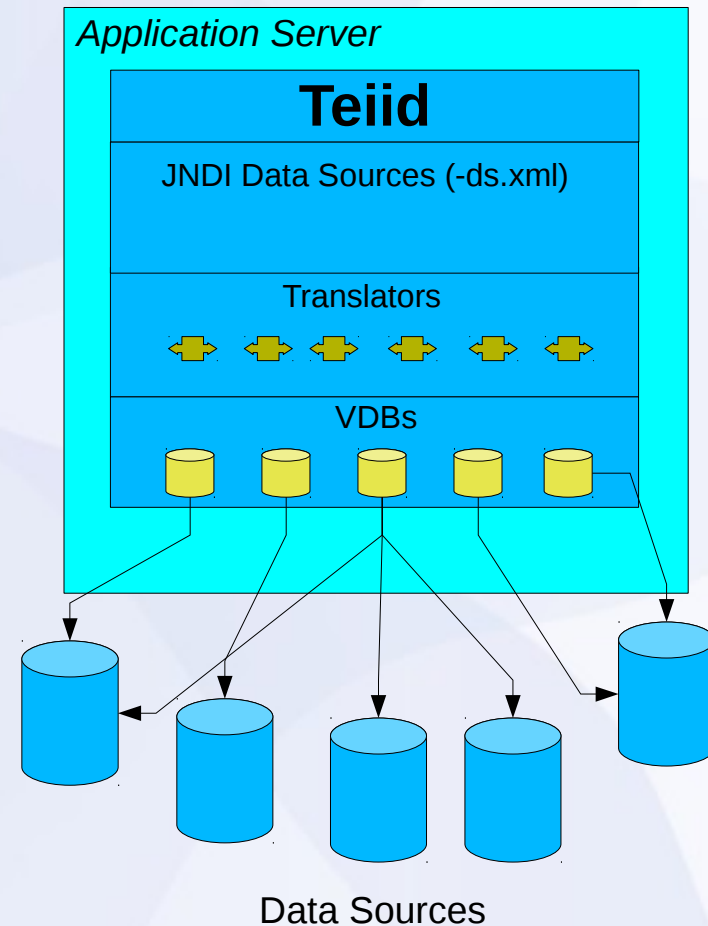
Overview

Red Hat JBoss

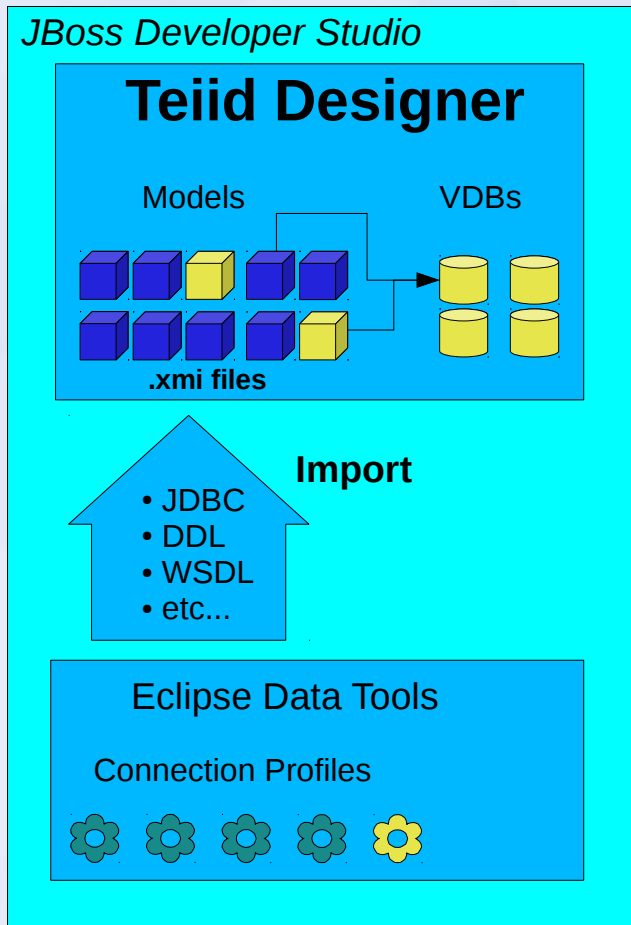
Current Architecture

Data Virtualization

- **Virtual Data Base** definition
 - > Data source schema definition
 - > View model transformations
- VDB represents “catalog”
- Translators > DB-specific data
- Query plan development & execution
- Data access via JDBC call



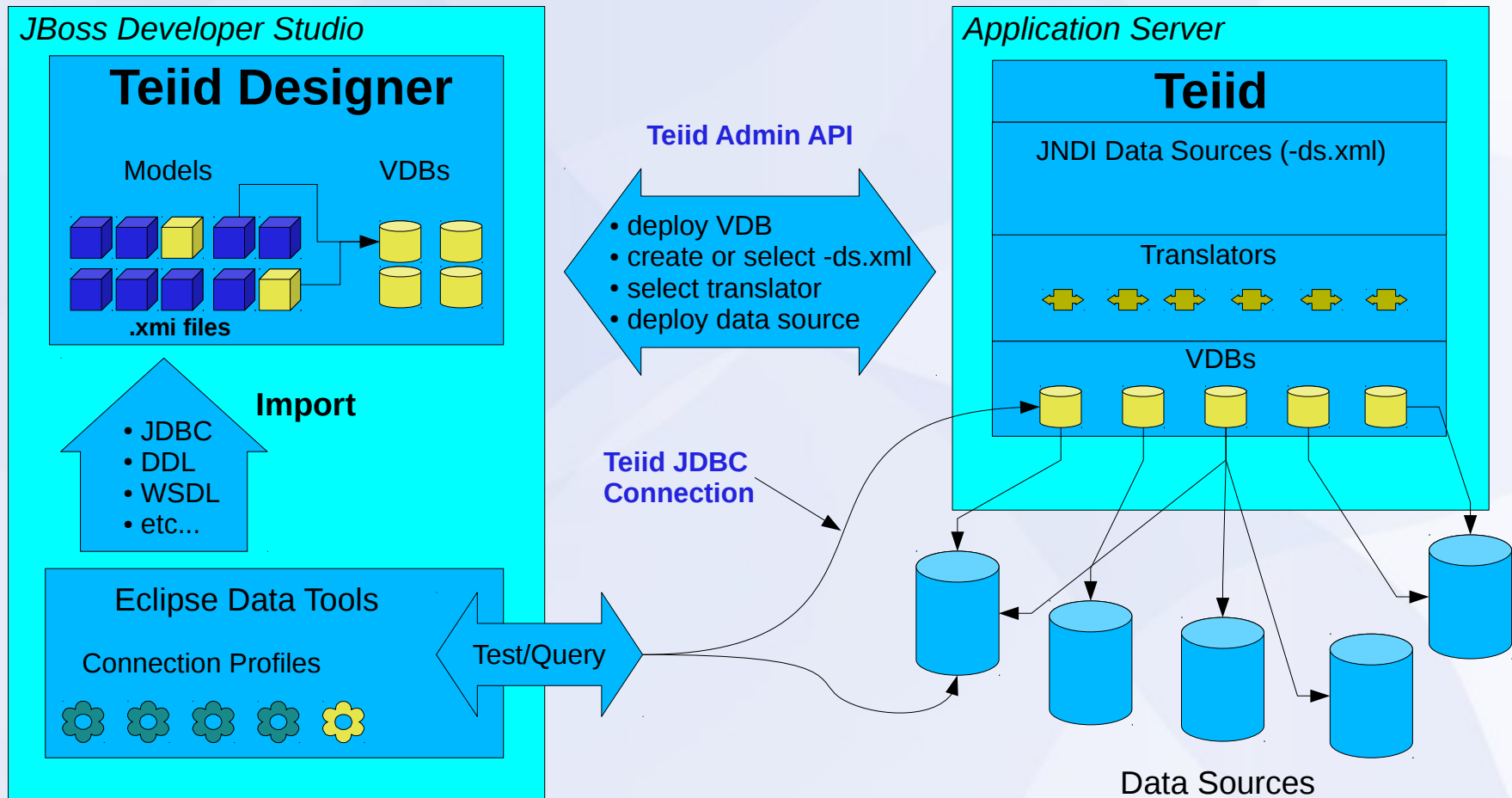
Current Architecture



Modeling

- VDB development and management
 - > source model definition
 - > view model transformations
 - > data roles (security, data access)
- Testing VDBs
- Query plan analysis

Current Architecture



History

- **MetaMatrix - Modeler**
 - Java
 - Versions 1 thru 2 - JLoox and Swing
 - custom metamodels
 - Versions 3 thru 5 – Eclipse/Draw-2d/EMF
 - E-core/EMF metamodels
- **JBoss - Teiid Designer**
 - Versions 6 thru 8 – Eclipse/Draw-2d/EMF
 - E-core/EMF metamodels
 - 8.3 Final due in 2013 Q4
 - Follow-on 8.x releases to support Teiid 8.6+ releases

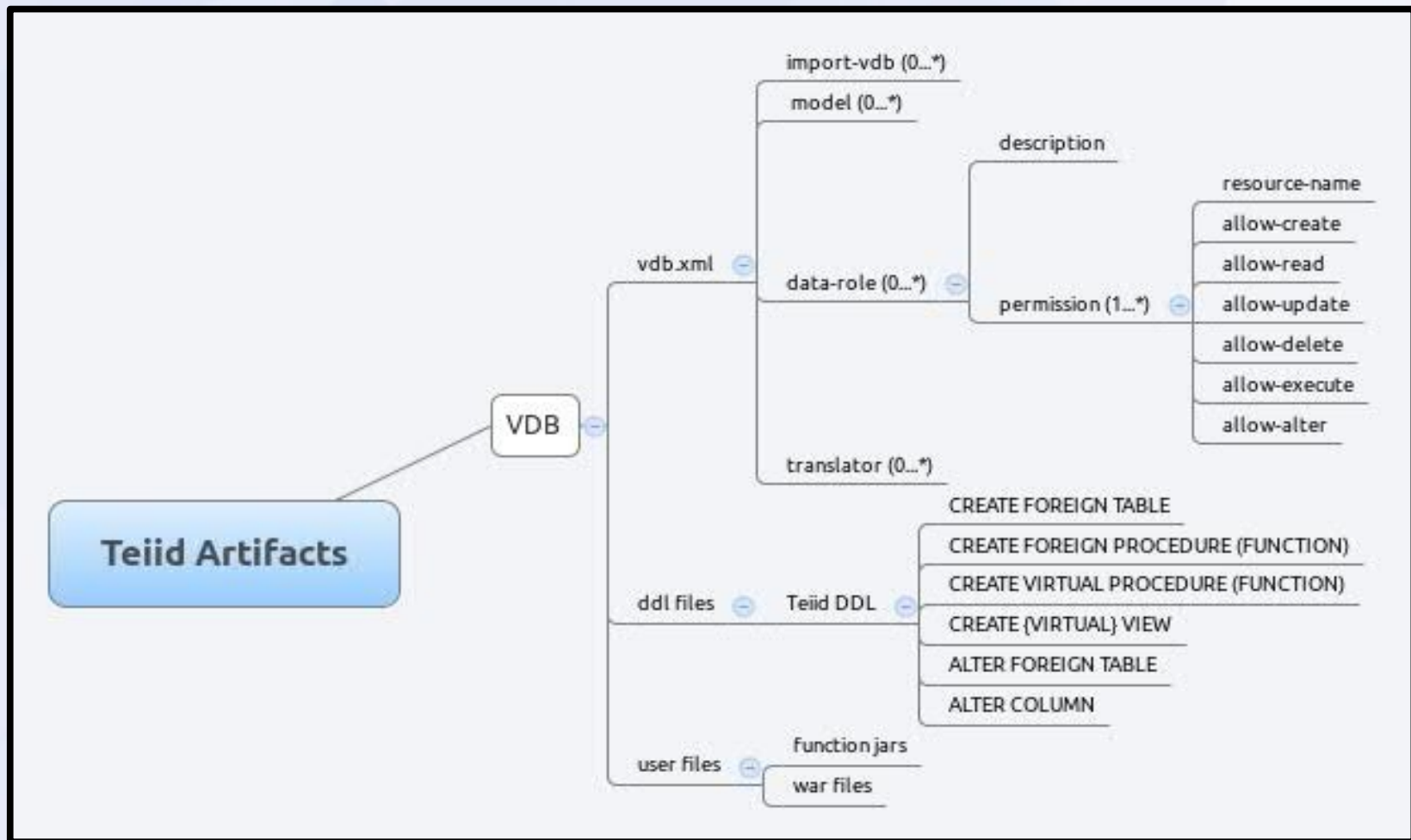
Legacy Tooling Issues

- **Large model support**
 - EMF metamodel is heavy-weight
 - 100% in-memory
- **VDB artifact is heavyweight**
 - XMI models
 - Indexed metadata files for each model
 - Teiid runtime requires index conversion to runtime meta-data
- **Testing Limitations**
 - Eclipse-only UI
 - Modeling engine/logic interwoven with UI
 - Larger test coverage requires SWTBot/Plugin tests

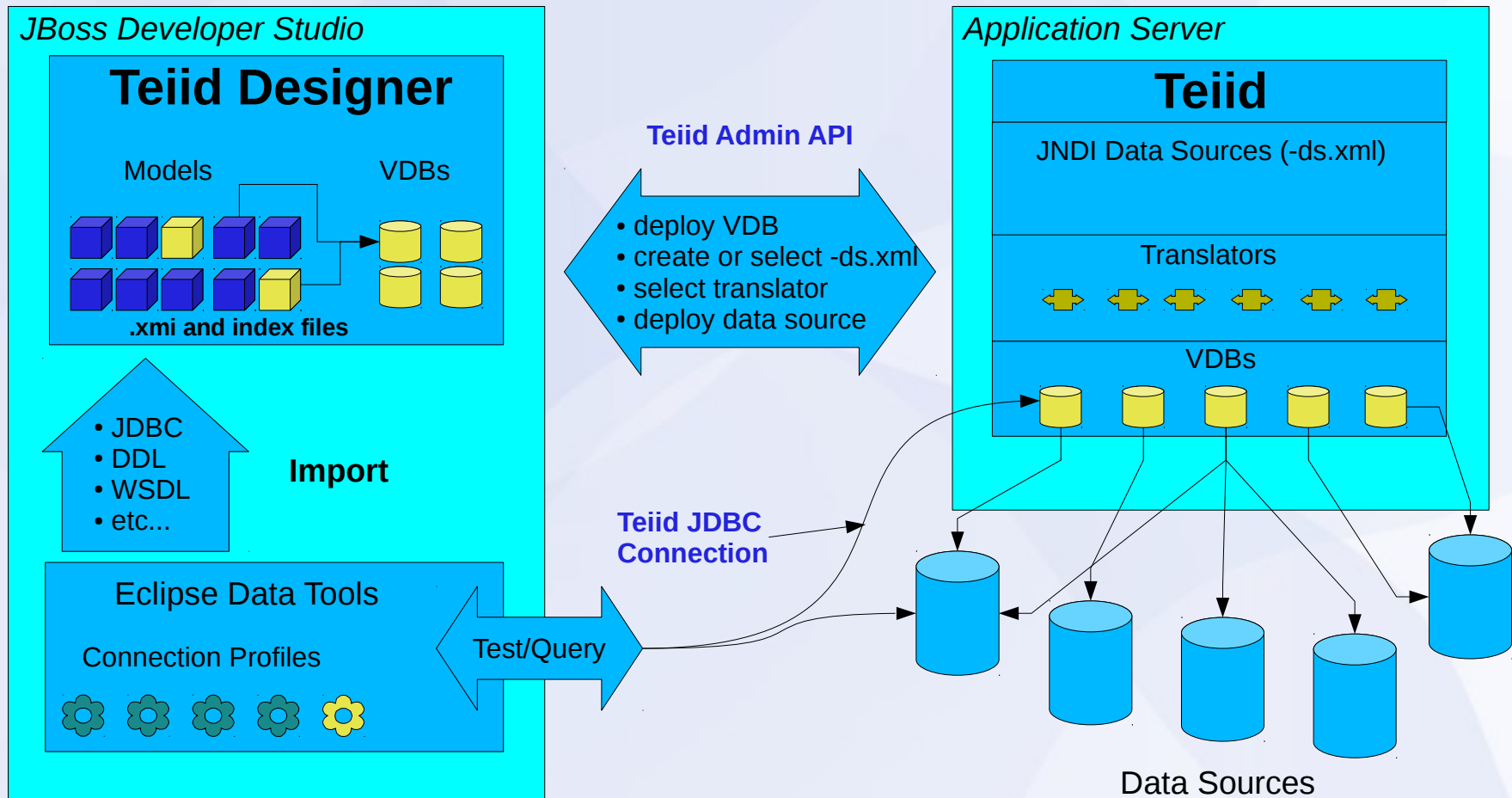
Komodo Vision

- **Large model support**
 - Replace EMF with DDL metamodel
 - Utilize Modeshape DDL parsing/sequencing
 - Leverage Polyglotter modeling engine development
- **VDB-centric modeling**
 - Lighter-weight VDB archive
 - Replace XMI/EMF models with Teiid dialect DDL files
 - DDL files ARE indexed metadata and compatible with Teiid Runtime/engine (*i.e. no index conversion by Teiid*)
- **Testing**
 - Develop headless modeling/editing framework
 - UI-independent testing

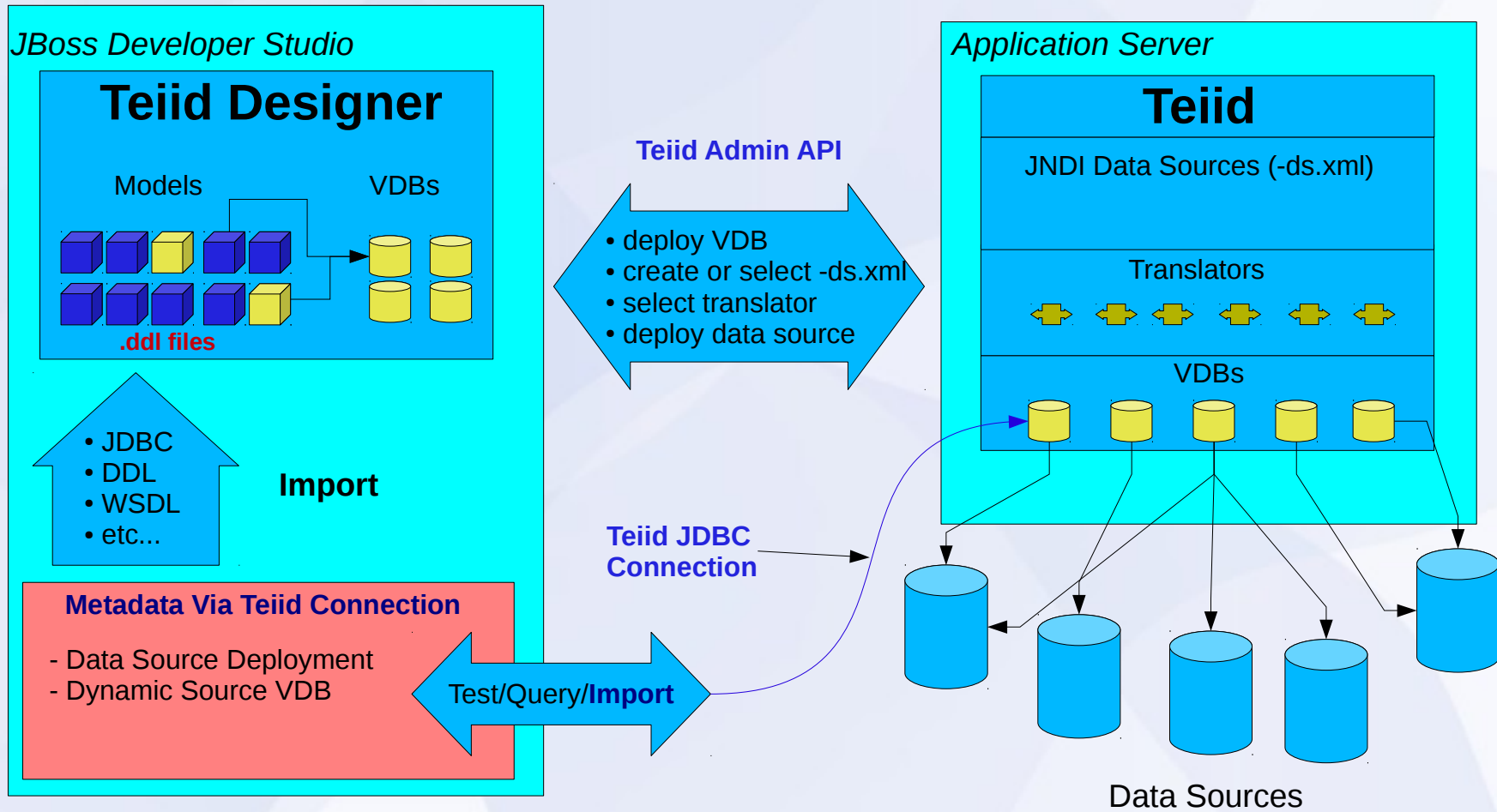
Komodo VDB Artifact



Current Architecture



Komodo Architecture



Integration Points

- **Teiid**
 - Admin API (deploy/undeploy artifacts)
 - Query parsing, resolving and validation (Client-side?)
- **Polyglotter**
 - Embedded/common Modeshape repository
 - Leverage Modeshape modeler engine
 - Teiid DDL metamodel (MS ddl-sequencer)
 - Artifact publishing/management via SRAMP

New Features

- **Data Source Configuration Management**
 - Common metamodel (MS CND definition)
 - Connection Profiles (Eclipse Data Tools ?)
 - Data Sources (Resource Adapters?)
 - Import Properties
- **Translator Overrides**
 - Common metamodel (MS CND definition)
 - Re-usable
- **Community Repository**
 - Documentation
 - Example projects/VDBs
 - Example data sources
 - Example Schema (DDL)

Komodo Development Timeline

- TBD...