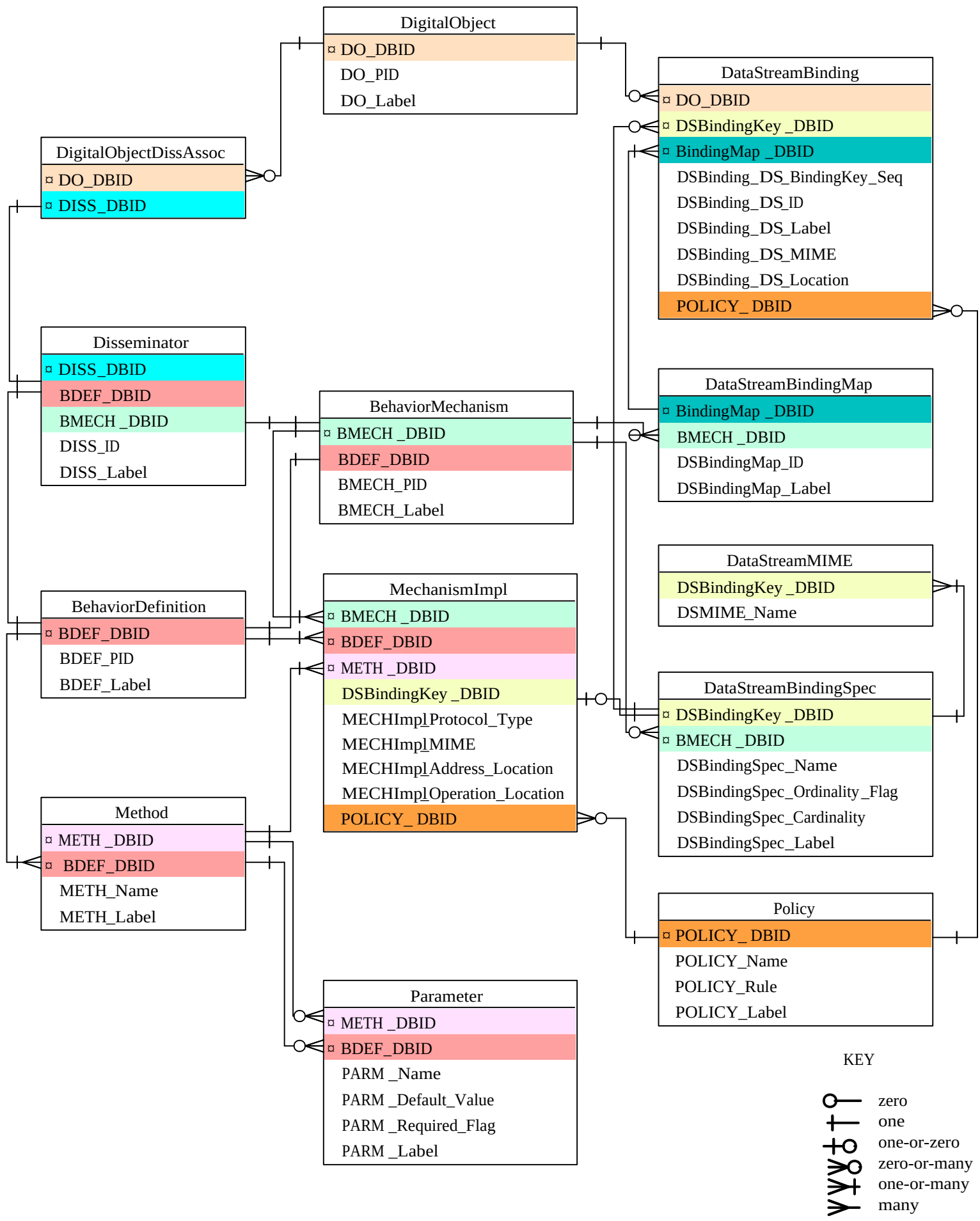
FEDORA Relational Database Schema



Notable Relationships:

1. A digital object has ZERO, ONE, or MANY Disseminators

2. A digital object has ONE or MANY StructureMaps (just like in METS)

2. A StructureMap conforms to ONE StructureMapType (e.g., the UVA_Image structure type)

3. A StructureMapType provides a namespace that defines ONE or MANY DSBindingKeys

4. A BehaviorMechanism supports ONE StructureMapType (deals with data of a particular structural form)

5. MANY different BehaviorMechanisms can be written to support a particular StructureMapType

6. A BehaviorMechanism implements ONE BehaviorDefinition

7. A MechanismImplementation can execute ONE or MANY methods defined by a BehaviorDefinition

8. A MechanismImplementation associates a method with data labeled by a distinct DSBindingKey

9. A Disseminator specifies a particular BehaviorDefinitionand and BehaviorMechanism combination.

10. A MechanismImplementation is related to a digital object via common DSBinidngKeys that exist both in the BehaviorMechanism and the digital object StructMap. The Servlet can have ONE or MANY common DSBindingKeys (scoped within a StructMapType) with a digital object.

The running of Disseminations can be achieved by:

1. Hit digital object table with DO_DBID (resolved by DO_PID from dissemination request)

2. Get Disseminators for DO_DBID

3. Get appropriate Disseminator with BDEF_DBID (BDEF_PID from dissemination request)

4. Get BehaviorMechanism with BMECH_DBID from Disseminator

5. Get BehaviorDefinition with BDEF_DBID

6. Get METHOD_DBID in Method table (via BehaviorDefinition) using Method_Name (Method_Name from dissemination request)

7. Get method implementation record in MechanismImplwith METHOD_DBID

8. Get DSBindingKey_DBID from method implementation record of MechanismImpl

9. Get one or more Datastream Locations from DigitalObjectBindingMap with DSBindingKey_DBID from method implementation record

At this point, the database will have provided all the information necessary for repository software to process a dissemination request.