This is an outline of information relevant to the architecture and maintenance of the portal, with links to further documentation where appropriate.

1. Portal architecture
   ♦ Essential support services / servers
     1. Git code repository
     2. Sourceforge repository
     3. Redmine project management / wiki for the portal
     4. NEMO wiki (this site)
     5. Master spreadsheet that lists all portal form fields and has development notes. Check out from sourceforge svn:
       $ svn co
       https://nemoontologies.svn.sourceforge.net/svnroot/nemoontologies/RDFdata/
   ♦ Three application server environments
     1. Local development on a laptop/desktop
     2. Development server: http://dev-portal.nemo.nic.uoregon.edu
     3. Production server: http://portal.nemo.nic.uoregon.edu
   ♦ Components required in all environments
     1. Database: PostgreSQL 8.x
     2. Language support: Ruby 1.9.2p180
     3. Web application framework: Rails 3
     4. Version control: Git client
     5. Deployment: Capistrano
   ♦ Additional components required in dev/prod environments
     1. nginx web server
     2. Web app implementation details
       1. Authentication with [http://www.myopenid.com OpenID
       2. Authorization with CanCan
       3. Field wrappers
     4. Nav bar
     5. CSS styles
     6. Object hierarchy

2. Administrative tasks in the portal
   ♦ Adding a portal user in conjunction with [new NEMO user steps].
   ♦ Managing existing users: add "/users to base server URL, whether on dev, prod, or local server.
     User roles.
   ♦ When ontology is updated: Refreshing ontology terms, db-onto-maps, and field annotations in the portal.
   ♦ Managing field annotations

3. Development tasks
   ♦ Check out code from git repository to a local dev environment and work on it locally. Includes checking back in and other git workflow.
   ♦ Deploy code to dev/prod servers with Capistrano.
   ♦ Perform database dumps and loads
   ♦ Change database schema with migrations