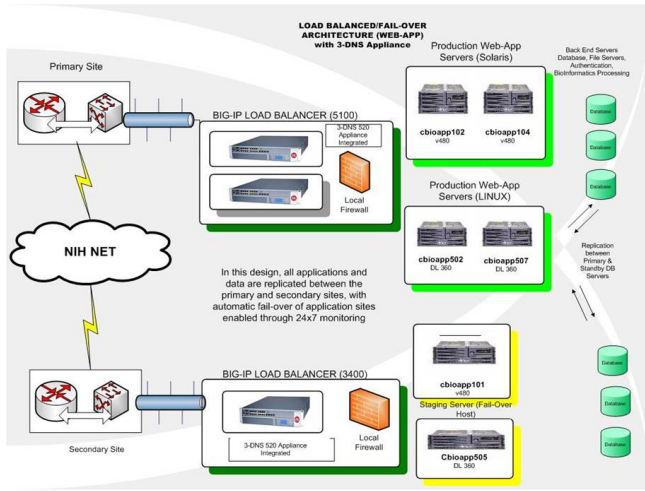


The in-depth institutional knowledge of database administration, software configuration management, and network and storage solutions allows NCICB to seamlessly scale to meet the needs of today's caBIG™! From the deployment of caGRID to the support of the caBIG™ Website, NCICB implements solutions to satisfy the needs of the caBIG™ community.

High Availability Architecture for caBIG™ Applications and Data

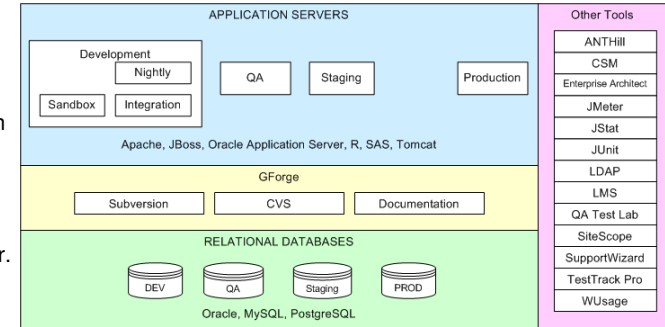


The NCICB Systems Team designed and deployed a highly available systems architecture to host caBIG applications.

- The primary data center hosts caBIG applications and data on redundant load-balanced servers.
- The secondary data center hosts replicated instances of applications and current data.
- Fail-over is based on application monitoring, transparent to users.

4 Tier Architecture

Dev Tier – Software and application developers deploy their initial code base on the Dev tier.
QA Tier – Software and application developers deploy their code on the QA tier after successful testing on the Dev tier. Deployments between Dev and QA use the continuous integration process controlled by the developers through CVS.
Stage / UAT / Demo Tier – Software and application code is deployed here after testing is successfully completed on the QA tier.
Production Tier – Web sites and end user web-based applications are deployed here.



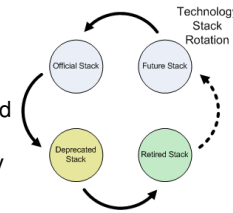
caBIG™ Web Site Support Services

- Stable enterprise content management environment utilizing Zope and Plone
- Optimal/stable technology stack: Linux, Apache, Zope, Plone, Python
- User account administration for authentication and authorization
- Dynamic content backup/recovery with server failover availability
- PostgreSQL database administration for contact management

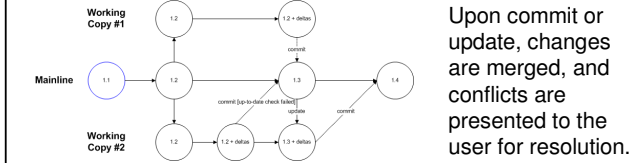


Software Configuration Management

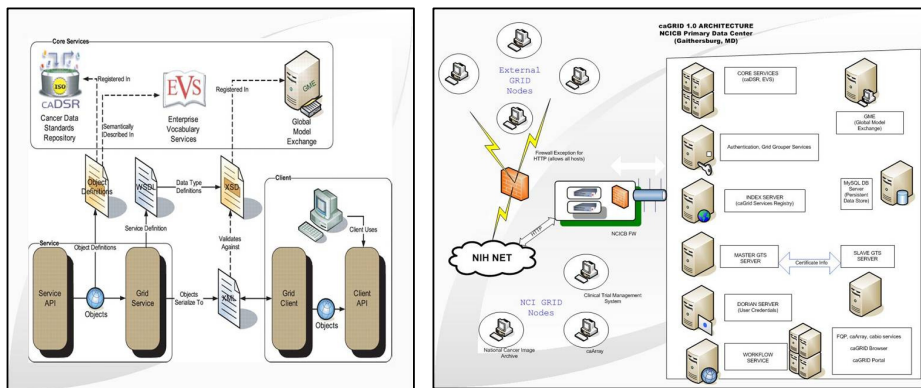
Technology Stacks rotate every six months (coordinated with product releases). As the new Future Stack is introduced, applications on the Deprecated Stack are strongly encouraged to migrate. Emergency fixes may be accomplished by immediately migrating applications upward.



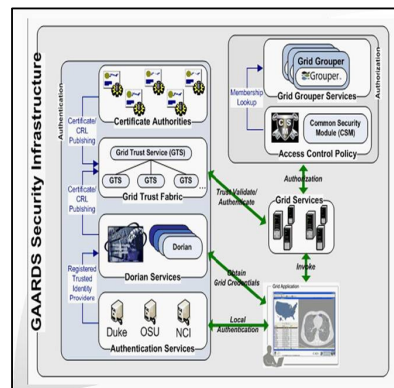
Version Control Tools rely on merging changes rather than exclusive locking and editing of controlled files. This allows concurrent editing by **more than one developer**.



caGrid 1.0 Servers Hosting and Services



- The NCICB Systems Team deployed and maintains the caGrid 1.0 Core Services and Applications.
- The systems architecture leverages secure server configurations hosted in the NCICB primary and secondary data centers.



GForge

provides caBIG™ participants with a collaborative environment for managing component initiatives through a common interface.

