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Nebraska in the Clouds

Nebraska Makes Use of the Cloud

- Gmail and Google Docs
- Joyent Cloud
- GitHub

Gmail and Google Apps

- Migrated to Gmail on Columbus Day weekend, 2011
- Multiple transfers of mail store
 - Migration of email started earlier a week
 - Final email migration went quickly
- Calendar data was a one time transfer
 - Migration was not great
 - Problems with migration of several accounts
 - Google support involved
 - Some transfers were exports from Outlook and import to Google

Gmail and Google Apps

- Uses Active Directory to sync users and groups
 - Script tool from Google
 - Users, email groups
- Able to grant access to other users
 - Controlled by user
 - Manage calendar for Senator
 - Manage email and respond
- Share documents and collaborate
 - Multiple users can edit documents simultaneously
 - Change tracking by user

Gmail and Google Apps

- Good
 - 25 GB initially, 30 GB now when email and documents combined
 - Google search for finding email
 - Labels are used so multiple categories can be applied to email
 - Number of devices available is excellent
- Bad
 - Conversion or printing of documents is not always best
 - Limited fonts and formatting
 - Tasks and functionality is limited

Joyent

- Hosting service for servers and data
- Primary OS is SmartOS, combination of OpenSolaris with KVM
- Allows Solaris-like zones
- Windows guests hosted in KVM
- ZFS
- Manta is the data storage (an Amazon S3 equivalent)

Joyent

- Guests can run from either local servers or from cloud
 - Setup of guest OS from either location
 - Choose which will be the primary host
 - Both managed via a dashboard
- Host servers on premise
 - Consists of 4 servers, one as a primary
 - Other servers take commands from primary
- Replication
 - Cloud can be Joyent Manta, and (via Enstratus) Amazon, Rackspace, etc.
 - Choice of making the cloud or local guest's host system

Joyent

- Good
 - Were able transfer Solaris apps and MySQL database easily
 - Local Windows VMs run well, TS, print server
 - Dashboard with analytics
 - Dtrace
- Bad
 - Older version of Solaris
 - Windows not fast from cloud
 - Dashboard can do a lot, but command has more options
 - Data backup slow

GitHub

- A web-based service to host revisions of data
- Based on Git, a code revision utility by Linus Torvalds
- Stores website and application code
- Stores legal document versions
 - Statutes
 - Constitution
 - UCC
- Approximately 3 years of code, documents are stored
 - Users can retrieve past documents
 - LTC staff control versioning and branching

GitHub

- Previously used ProjectLocker
 - Used up space for the account type we had
 - Tools were not as complete/functional
- GitHub
 - Allowed for more space and users
 - Better and easier to install tools direct from GitHub

GitHub

- Pros
 - Widely used
 - Distributed system
 - Use of standard TCP/IP protocols
 - Easy retrieval of past versions
 - Version reporting
- Cons
 - Commands are extensive