GENI Desktop

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- UI changes/additions
  - Hide and show Slices feature when slice list is too long
  - Show (user's) visual representation of rspec as a thumbnail
  - Show/Edit Slice membership like the portal
  - Rspec upload feature now supports re-binding of rspecs (to new AMs) on upload and/or when used.
  - Uploaded Rspecs can be uploaded as public / private for user / private within project
  - Uploaded Rspec are user tagged. Tags can later be used to search for Rspecs by any user
  - GEMINI Extensions plugin implemented (like the one in FLACK)
  - Live logger for stitching experiment creation.
  - New modules to add/control routes on nodes
  - Local archive module
  - Added Speaks for tool in GD (URL Hidden)

What's new this time ?(Cont.)

- Backend/Hidden additions and modifications
  - CreateSliver uses the stitcher tool if it detects that stitching is needed in the rspec
  - GEMINI Extension added intelligently when rspec is uploaded in GD
  - Migrated to using omni 2.5 with Common Federation API Support
    - This removes GD dependency on portal to provide user's GENI cert, SSL Private keys, SSH Keypairs and project membership details
    - Takes us one step closer to speaks-for integration (GEC21)
    - Added new operations to omni for use as library in GD
  - Provide support for editing slice Membership
    - Can be done after slivers have been created
  - Auto-Fix slivers where users added to slice after sliver creation
  - GD now uses is own ssh key pair to access slivers in a user's slice (uses AMAPIv3 POA geni_update_users).
    - User's passphrase no longer needed (Exception in case of Exogeni)

- Move towards a fully functional speaks-for login for the GD
  - Requires us to update/re-do some more backend.
  - Convert all omni related call to use the speaks-for cred
- Move to using omni 2.6 (trying to keep up)
- Enable UI for options to stitcher tool via GD
- More suprises…☺

What Developers could use from us ?

- Can write your own module to integrate your tool into the GeniDesktop. Each Tool module receives
  - Notifications on links and nodes being selected/deselected in the topology views provided by the GD
  - Can interact with the GD via the GD Messaging API
- Can use other existing GD services like software copy/installation services
- Integrate with GD initialization phase to support their module

What do we use that others could use ?

- Omni / stitcher for AM /SA /CH related operations
  - Omni has lots of potential and can be extended to perform a lot more operations than advertised.

- Speaks-for XML Signer tool
  - Thanks to Utah for this.

- Cytoscape (FLASH and HTML5) as topology viewer and GD interaction UI

- GEMINI I & M

Tools/Services we would like to use ?

- Jacks
- Geni-lib
- More features offered by the Common CH API
- And possibly more as we find them …☺

Our Experiences: The Good and the Bad

- Common Federation API and AM APIv3 POA (geni_update_keys)
- No more performance issues when performing multithreaded operations at AM and CH

- Multi-Threaded operations come with their own set of headaches
- Ssl timeouts in omni call
- Error/failure conditions when talking to AM
  - There are many error conditions/codes to look for and avoid so that the UI does not hang
- Omni POA geni_update_sshkeys operations works differently for portal and protogeni accounts.