

Developer Topic: Status Review

GEC 20

UC Davis, CA

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Milestone	Date	Location	Speaks-for Capabilities
GEC 19	March, 2014	Atlanta	<p style="text-align: center;"><u>Infrastructure</u></p> <ul style="list-style-type: none"> ✓ GPO Federation Services ✓ InstaGENI/ProtoGENI Fed. Svcs. ✓ Portal (to Federation Services) ✓ GCF & SFA code bases
GEC 20	June, 2014	UC Davis	<p style="text-align: center;"><u>Aggregates</u></p> <ul style="list-style-type: none"> ✓ ExoGENI <ul style="list-style-type: none"> • FOAM ✓ ION ✓ InstaGENI/ProtoGENI aggregates
GEC 21	October, 2014	U Indiana	<p style="text-align: center;"><u>Tools</u></p> <ul style="list-style-type: none"> • GENI Desktop • LabWiki ★ ✓ Portal • Additional Solicitation 4 Tools

✓ = Complete ★ = In Progress

- Version 2 is widely supported
 - [http://groups.geni.net/geni/wiki/GAPI AM API V2](http://groups.geni.net/geni/wiki/GAPI_AM_API_V2)
- Version 3 has been adopted
 - [http://groups.geni.net/geni/wiki/GAPI AM API V3](http://groups.geni.net/geni/wiki/GAPI_AM_API_V3)
- Some changes for Version 4 have been adopted
- Multiple change proposals exist
 - [http://groups.geni.net/geni/wiki/GAPI AM API DRAFT](http://groups.geni.net/geni/wiki/GAPI_AM_API_DRAFT)
- The Federation Aggregate API will build on this
 - As Brecht described at GEC 19

- At GEC19 we ratified a number of changes for v4 (and optionally earlier)
 - N: `geni_am_type` in `GetVersion`
 - O: Refine allowed characters in sliver names
 - P: Support `Speaks-For`
 - Q: Support changing installed users and keys
- We also decided
 - S: `GetVersion` may return a single `geni_am_urn` that may be the `component_manager_id`
 - T: Long Lived Slices will be authorized using an extension on the existing slice credential
 - AB: Slice and project names are case INsensitive
 - O3: Unicode support is not required

- Implement Version 3!
- Implement other adopted changes
 - C: Update()
 - N: Return `geni_am_type` in `GetVersion`
 - Q: Support `geni_update_users`
 - R: Support **Renew** `geni_extend_alap`
- Finalize other proposals
 - S: Add `geni_am_urn` in `GetVersion`
 - T: Long Lived Slices

- 800+ slices requested stitched links since April!
- Stitchable AMs list growing slowly
- Infrastructure is (relatively) reliable
- Monitoring is beginning to collect usage data
- Stitcher is *the* tool
 - 2.6 just released

- Integrate stitcher in other tools
 - GENI Portal
 - GENI Desktop
 - Jacks
- AL2S integration, support
- More VLANs where they are scarce
- SCS: Replication, authenticated calls?
- New features for more complex topologies
 - More Aggregates
 - OpenFlow controlled VLANs
 - Multipoint topologies
 - Stitch to whole AM on 1 VLAN

- **Faster:** Request 'any' VLAN where supported
- **Clearer:**
 - Better AM error handling
 - Clearer logs
- **Supports GRE links**
- **More embeddable in other tools:**
 - Detailed logs go to file
 - Option to put all output in specified directory
- **Supports schema v2**
 - Assumes each hop is I2sc OR openflowI2sc
 - Assumes SCS adds controller URL where needed

- Auto synchronize expiration times
 - Avoid VLAN PCE errors
- More request validation, tuning
- Test with AL2S
- Multithreading?
- Test stitching to ‘stitch points’
- APIv3, negotiation?
- Support new stitching features if available
 - Stitch-to-AM
 - OF controlled VLANs