

Tool Integration & OpenID

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- Tool Integration
 - How do tools join the GENI universe?
- OpenID
 - Using single sign on inside the GENI universe

- There are 3 broad categories of GENI tools
 - Embedded tools
 - Tools that run inside other tools
 - Often written in languages like HTML, Flash, JavaScript
 - Example: Flack
 - Hosted tools
 - Persistent, online services (e.g. web sites)
 - Examples: GENI Portal, GENI Desktop (GEMINI), LabWiki (GIMI)
 - Desktop tools
 - Tools that are run on an experimenter's local computer
 - Example: omni

- The GENI Portal can tightly integrate with embedded tools
- Experimenter context and related data can be passed in a variety of ways
 - JavaScript, HTML, AJAX
- Embedded tools can appear as part of the GENI Portal or another hosted GENI tool
- Example: Flack
 - Written in Flash, runs inside the browser
 - Configuration/HTML is downloaded from the Portal

- Hosted tools are not integrated as tightly as embedded tools
- Hosted tools can receive data about the experimenter from OpenID
- Information can include email address, username, lists of projects and/or slices
- Hosted tools can act on behalf of an experimenter
 - Using “Speaks For” authorization*

* “Speaks For” will be discussed in more detail later in the GEC

- A well-integrated tool should keep the experimenter in their context
- If they're working with a slice, tools should keep them in that context
 - Slice id can be included in the data passed from the GENI Portal
- If slice info is not passed they're not working with a particular slice
 - Context is up to the tool in this case

- Tool integration within GENI is at an early phase
- If you want to integrate with the GENI Portal or another hosted tool, start thinking about it early!
- Feedback is encouraged
 - If you have ideas for integration standards, capabilities, or tools, let us know
 - If you have requirements that are not met by existing capabilities, let us know

What is OpenID?

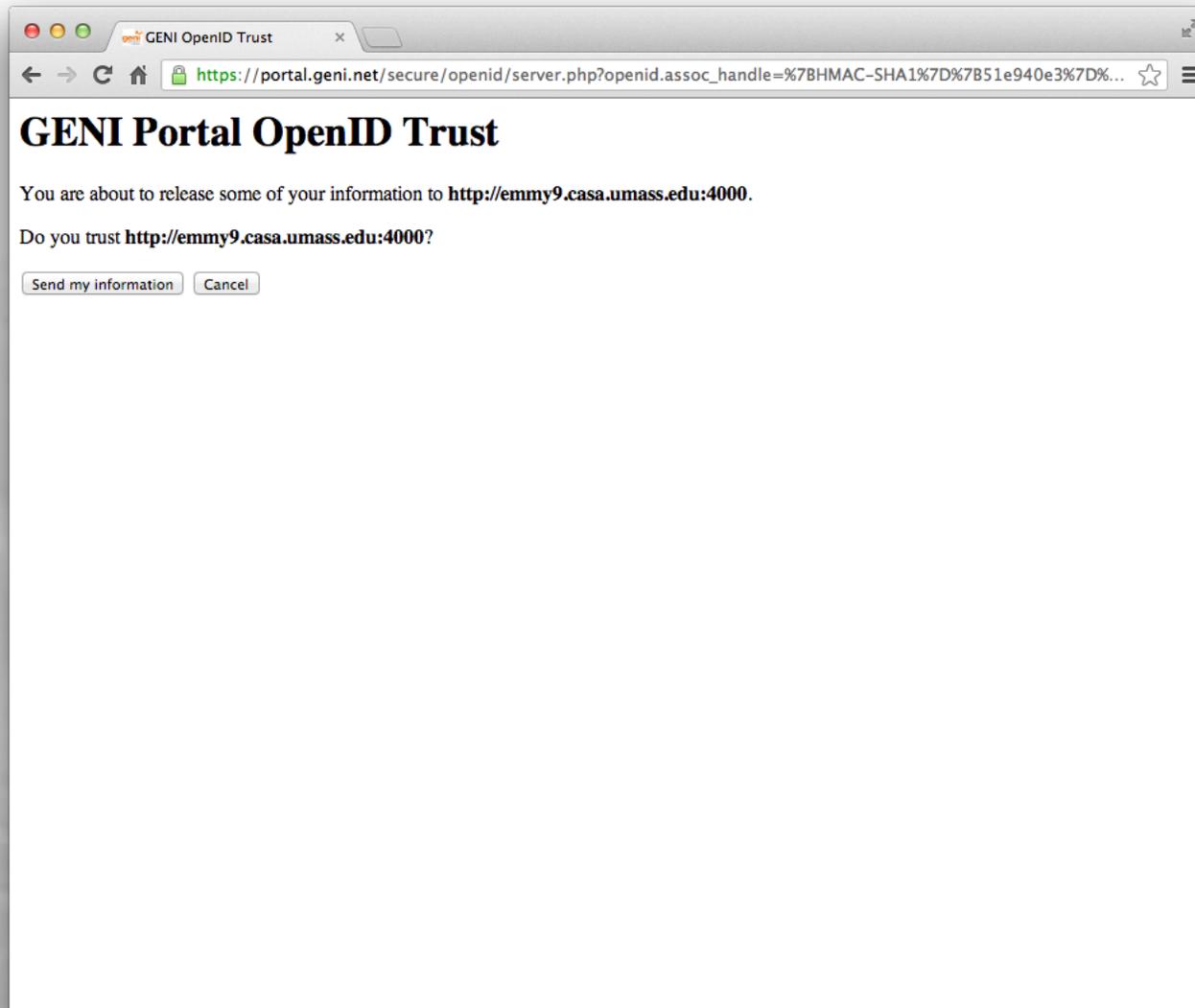


Can't remember your passwords? Tired of filling out registration forms?

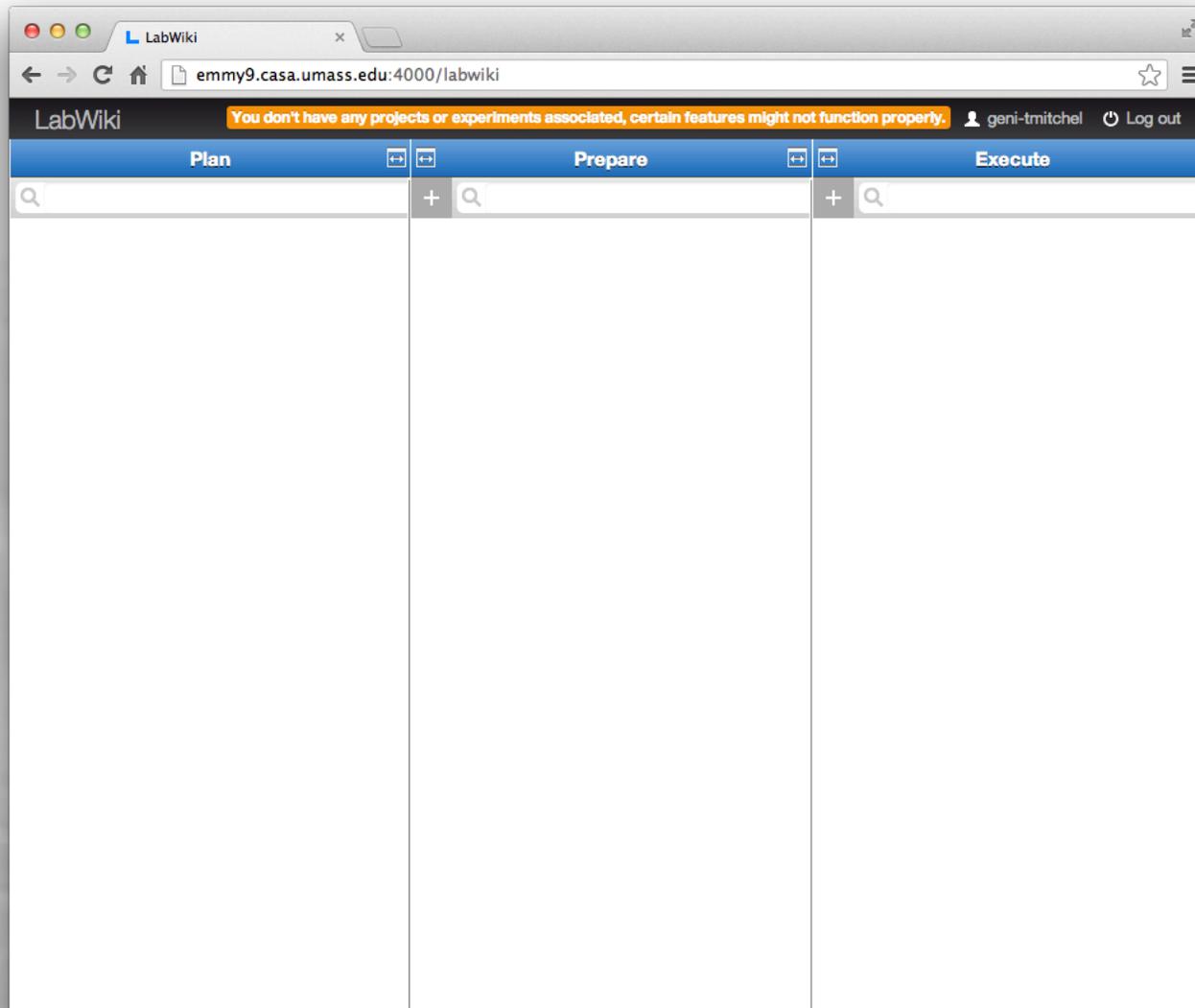
OpenID is a **safe, faster, and easier** way to log in to web sites.

* from <http://openid.net>





Example: GIMI (cont.)

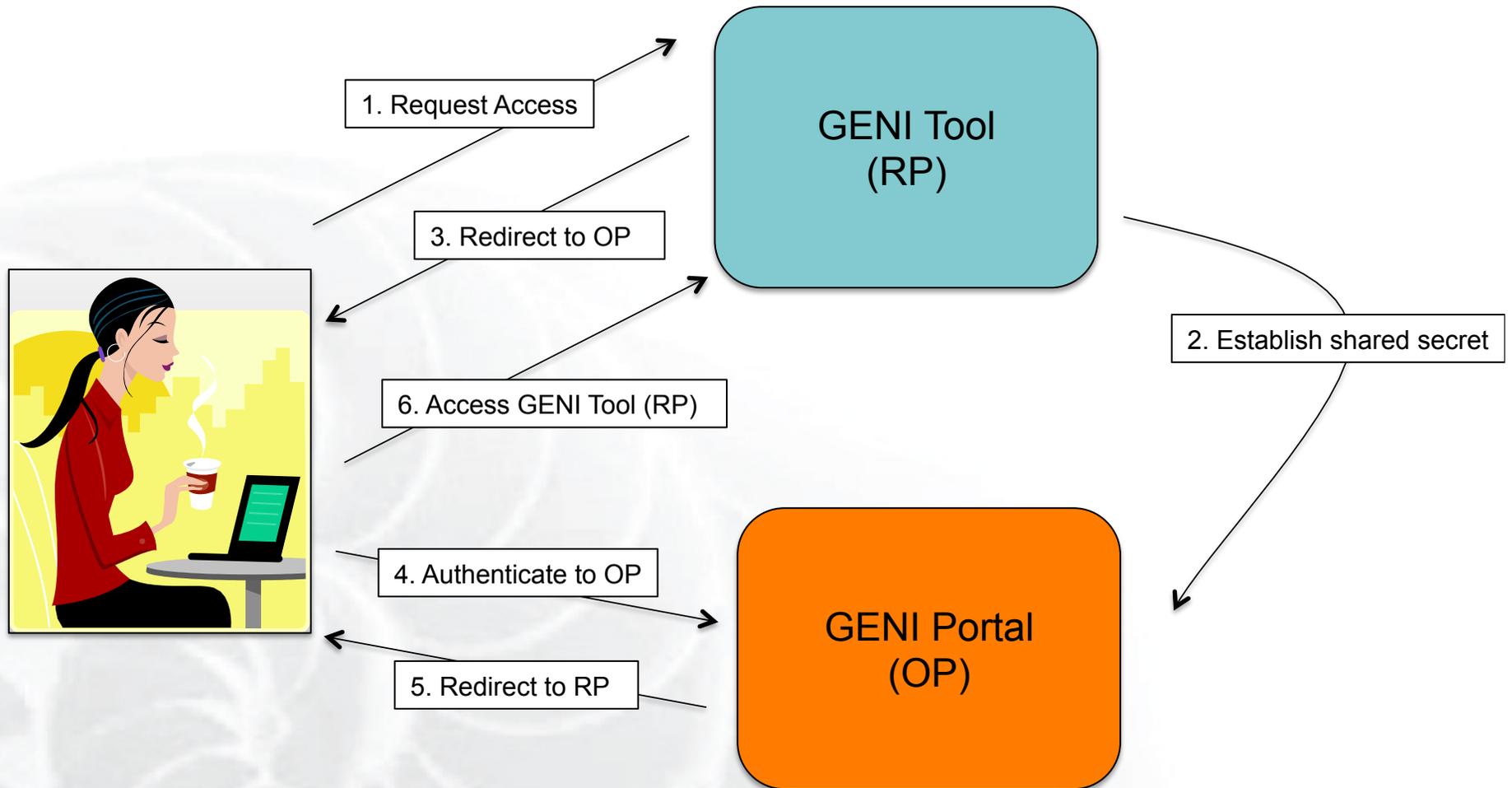


The screenshot shows a web browser window with the URL `emmy9.casa.umass.edu:4000/labwiki`. The page title is "LabWiki". A notification banner at the top reads: "You don't have any projects or experiments associated, certain features might not function properly." The user is logged in as "geni-tmitchel" and there is a "Log out" button. The main content area is divided into three vertical panels: "Plan", "Prepare", and "Execute". Each panel has a search bar with a magnifying glass icon and a plus sign. The "Plan" panel is currently empty.

- The GENI Portal leverages InCommon and Shibboleth for single sign on
 - Shibboleth can be challenging to install and configure
- OpenID can provide single sign on within GENI
 - One login provides access to multiple hosted tools
 - Thanks to InCommon this is often a non-GENI login
- OpenID can carry additional attributes
 - Username, email address, project IDs, slice IDs, etc.
- We want to avoid reinventing the wheel
 - Use standards instead of custom solutions

- There are 2 roles within OpenID
 - OpenID Provider (OP)
 - Relying Party (RP)
- An OpenID Provider is a site which provides an authentication service using the OpenID standard.
 - The GENI Portal is the OP
- A relying party is a site which uses the OpenID standard to authenticate users by making service requests to an OpenID Provider.
 - The GENI tool is the RP

OpenID in a nutshell



- Add OpenID to your hosted tool
 - Documentation and examples are available
 - See <http://openid.net/add-openid/>
- Free software is available
 - Lots of implementations available in lots of languages
 - Perl, Python, Ruby, PHP, Java, etc.
 - Choose one, or ask around to see which one others are using
 - See <http://openid.net/developers/libraries/>
- Let us know and we'll help you test

Questions?