# Table of Contents

Generic Information Provider

Overview

The Generic Information Provider, GIP, is a framework which simplifies the creation and deployment of information providers. The GIP enables smaller plugins to be used which makes it easier to support new systems by separating static and dynamic information. It can be used in conjunction with other LDAP based grid information system components to inject information into the system.

An information provider in its simplest form is a script that prints an LDIF file to standard out. The LDIF file should conform to the schema used. There are usually only a few attributes that have to be found dynamically from a specific system. To avoid the creation of many different information providers that duplicate much of their functionality, the GIP uses a plugin mechanism to obtain these dynamic values from the specific system.

The GIP reads in all the LDIF files from the *static* directory. Depending on the state of the cache, the information providers in the *providers* directory and dynamic plug-ins found in the _plugin_ directory are run and the output stored in a temporary directory before updating the cache. When the providers or plugins are executed, a lock file is placed in the lock directory to stop multiple instances being spawned. The dn is used to identify attributes and values from the same entry entry. The cached entries resulting from running information providers will overwrite entries from the static files. The cached values from the dynamic plug-ins will overwrite the values from static files and/or information providers. The resulting LDIF is then printed to standard out. Instead of putting plugins and providers directly into the directories, symbolic links or wrapper scripts can be used. This enables them to be turned on and off without having to uninstall them.
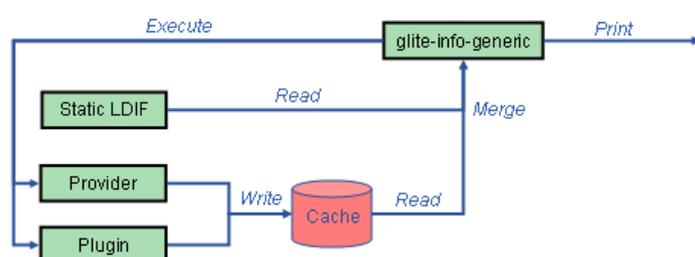
Configuration

The GIP has only one configuration file:

- /opt/glite/etc/gip/glite-info-generic.conf

glite-info-generic.conf

This configuration file is used to configure the GIP itself. The format is key/value pairs with an '=' sign as the separator. A default configuration file comes with the GIP. This may require editing in order for the GIP to function as desired. The table belows describes the key/value pairs found in the configuration file.

Key	Typical Value	Description
temp_dir	/opt/glite/var/tmp/gip	The temporary directory used by the GIP
cache_dir	/opt/glite/var/cache/gip	The directory containing the cache files
lock_dir	/opt/glite/var/lock/gip	The directory containing the lock files
static_dir	/opt/glite/etc/gip/ldif	The directory where to put the static LDIF files
provider_dir	/opt/glite/etc/gip/provider	The directory where to put information providers
plugin_dir	/opt/glite/etc/gip/plugin	The directory where to put the dynamic plugins
freshness	60	How long in seconds to use the cache before running the dynamic plugins again
cache_ttl	300	How long in seconds the cache is valid
response	5	How long in seconds the GIP will wait for dynamic plugins before continuing
timeout	30	Timeout in sceonds for the dynamic plugins

This topic: EGEE > GIP
Topic revision: r5 - 2009-03-09 - AkosFrohner