



Retrace Server

Local retrace

- Need to install debuginfo packages
 - HDD space
 - Download
 - Lots of time
 - Not needed after retrace

- Possibility to get incomplete backtrace
 - Wrong binary / libraries / debuginfos
 - Missing binary / libraries / debuginfos

Remote retrace

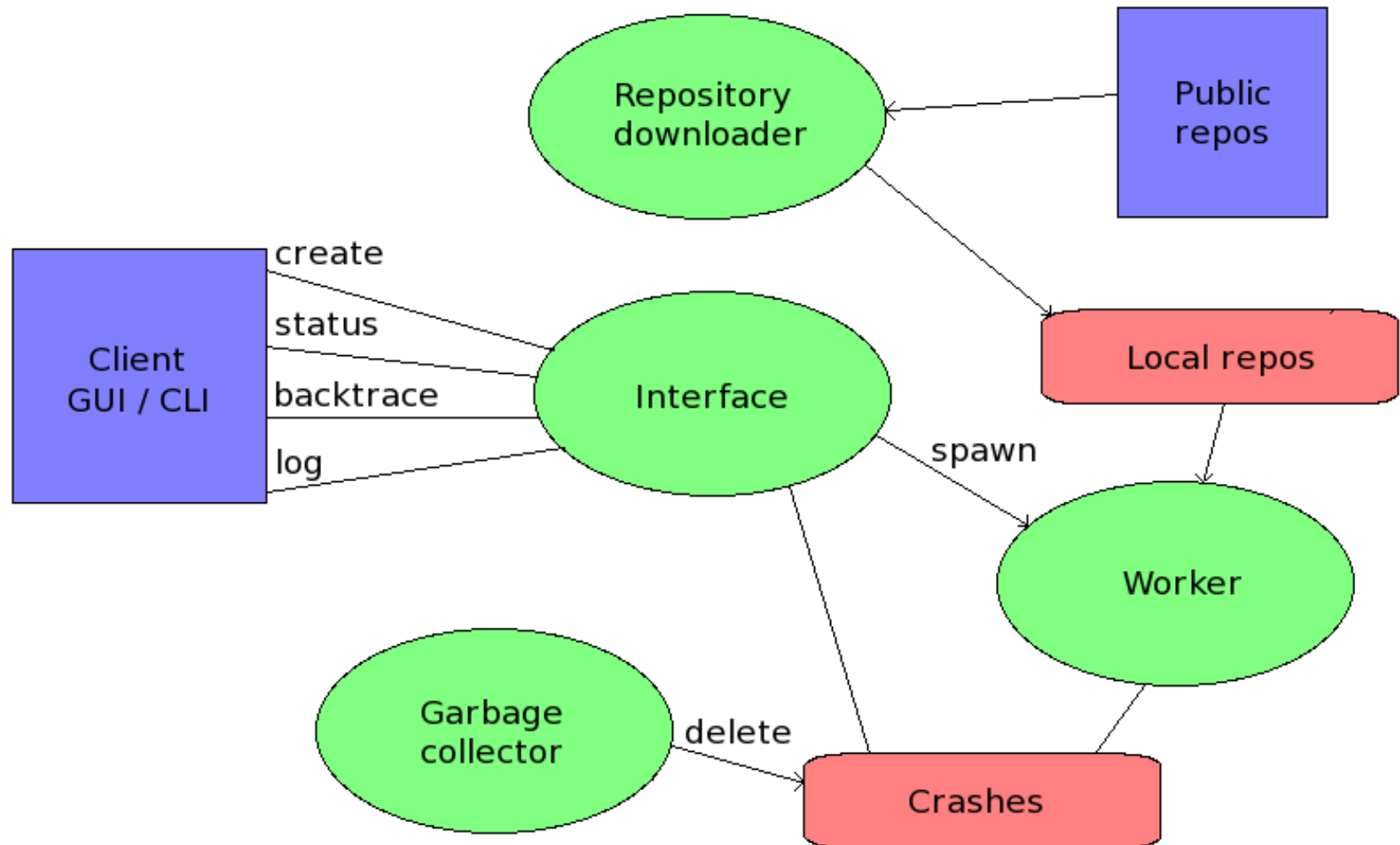
- Client uploads crash to Retrace Server
- Retrace Server generates backtrace
- Client downloads backtrace

Application design

- Server side
 - Repository downloader
 - Interface
 - Worker
 - Garbage collector

- Client side
 - CLI
 - GUI

Application design



Repository downloader

- Main advantage comparing to local retrace
- Retrace Server needs to operate with all versions of all packages
- Periodically downloads missing packages from public repos to locally maintained repos
- Uses rsync and createrepo

Interface

- Provides the communication with client

- 4 actions
 - create
 - status
 - log
 - backtrace

- WSGI scripts

- Uses Apache and HTTPS

Worker

- Analyze coredump
 - Find required packages using build-ids
 - `coredump2packages.py /path/coredump --repos="*"`
- Create chroot
 - Generate mock config file and run mock
 - mock (yum) installs packages and GDB from local repos
- Generate backtrace
 - Run GDB
- Clean up chroot and provide backtrace

Retrace client

■ CLI

- `abrt-retrace-client create -d /path/crash_directory`
Task ID: 123456789
Task Password: qwerty123456
- `abrt-retrace-client status -t task_id -p task_password`
PENDING / FINISHED_SUCCESS / FINISHED_FAILURE
- `abrt-retrace-client log -t task_id -p task_password`
Plaintext log

Retrace client

- `abrt-retrace-client backtrace -t task_id -p task_password`
Plaintext backtrace
 - `abrt-retrace-client batch -d /path/crash_directory`
create, status, status, ... , FINISHED, log / backtrace
 - `--url=IP` - custom server address
 - `--insecure` - do not verify SSL certificate
- GUI
- Integrated CLI

Problems

- Debuginfo problems
 - Completely missing
 - Pointing to wrong executable

- Chroot problems
 - Yum ignores specified versions of some packages
 - File capabilities don't work with tmpfs

- Local repos problems
 - Lots of useless information in rpms
 - Speed

Future plans

- Be able to analyze coredump given with no additional files
- Support different archive types
- Support Rawhide
- Estimate task's duration based on statistics
- Optimize speed (repos, worker)
- <https://fedorahosted.org/abrt/wiki/AbrtRetraceServer>