
Update on MIT Kerberos

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Overview

Kerberos Consortium
Ongoing Changes
Release Planning

Kerberos Consortium

Launch event September 27, 2007

Executive Advisory Board

Helps set priorities

Apple, Google, MIT, Microsoft, Sun

Ongoing Changes

New community resources

Wiki for developers – k5wiki.kerberos.org

Source browsers – OpenGrok, FishEye

White papers, tutorials, best practices

Coding style and code review guidelines

More formal procedures

Planning Process Used

For full releases (krb5-x.y)

Community input

- Goals

- Ranking

Estimates of work

Highest-ranked goals assigned to developers based on resources available

Original krb5-1.7 Goals

- Kerberos Identity Management (KIM) API
- GSS-API enhanced error strings
- Unified Credentials Cache API (CCAPI) on Mac OS X and Windows
- Support for GSS-API mechanism glue (“mechglue”) plug-in modules
- Multi-threading support in KDC
- Logging all ticket requests
- Master key rollover

Revised planning methodology

Understand needs, including time constraints

More emphasis on end users

Timelines focus on time-sensitive items

Board members and Sponsors take priority

Delay release if high-priority items not ready

Defer less time-sensitive items if not ready

Recurring Concerns

- Code quality
- Stability
- Operational issues
 - Incremental propagation
 - Principal referrals
 - Key rollover

Improving Code Quality

Adopt standard coding practices

Identify specific regions/patterns to improve

Use Coverity, etc.

Look for “hot spots”

Legacy code risk – krb4 certainly is!

Proposed New krb5-1.7 Goals

- Incremental propagation support
- Removal of krb4 code
- Kerberos Identity Management (KIM) API
- Improved master key & service key rollover
- Enhanced GSS-API error messages
- Cross-platform CCAPI on Mac and Windows
- Improved client-side & KDC-side referrals
- Collision avoidance for replay cache
- Logging of all ticket requests

Dropped or Deferred

- Multi-threaded KDC – security concerns
- GSS-API “mechglue” plug-in support

krb5-1.7 Release Status

Rough timeline

Branch around Sep. 2008

Release around Dec. 2008

Dates subject to change

Daptiv PPM for project tracking

Completed:

CCAPI for Mac OS X and Windows

GSS-API enhanced error messages