

./kamaki - Bug # 3527

Status:	Closed	Priority:	High
Author:	Ilias Tsitsimpis	Category:	kamaki
Created:	04/02/2013	Assignee:	Stavros Sachtouris
Updated:	04/30/2013	Due date:	
Subject:	Some kamaki requests return "404 Not Found"		
Description			
<p>Some kamaki requests return "404 Not Found"</p> <p>When using kamaki to download an image from Pithos+ sometimes the user may encourage a 404 response.</p> <p>How to reproduce:</p> <p>-----</p> <p>Run `kamaki store download --account=25ecced9-bf53-4145-91ee-cf47377e9fb2 images:debian_base-6.0-10-x86_64.diskdump` a few times. One out of ten requests usually fails.</p> <p>How to debug:</p> <p>Add the following line to kamakicon.py, in function prperform_request, just before the conn.request function call.</p> <pre>print "Connection: method=%s, url=%s, headers=%s, body=%s" % (method.upper(), self.path, http_headers, data)</pre> <p>When kamaki fails with a 404 response one should see:</p> <p>Connection: method=GET, url=/25ecced9-bf53-4145-91ee-cf47377e9fb2/images/debian_base-6.0-10-x86_64.diskdump, headers={'Range': 'bytes=125829120-130023423', 'X-Auth-Token': 'KzY7zdX8DeRqfOpilPWSBQ=='}, body=None whereas the url should be "/v1/25ecced9-bf53-4145-91ee-cf47377e9fb2/images/debian_base-6.0-10-x86_64.diskdump?format=json"</p> <p>Therefore it's definitely a kamaki bug.</p>			
Related issues:			
related to ./kamaki - Support # 3526: Support the new objpool HTTP connection...		Closed	04/02/2013 04/10/2013

History

#1 - 04/03/2013 01:08 pm - Stavros Sachtouris

- Status changed from New to Resolved
- % Done changed from 0 to 100

The issue is caused by threads using the same instance of kamaki.clients.connection.kamakicon.KamakiHTTPRequest. The KamakiTTHPRequest.path variable is accessed by multiple methods. This is fixed with hotfix 0.7.8, where the path is copied to a new KamakiHTTPResponse object before it becomes "exposed" to other threads, and it is not used any further after that.

In 0.8 a redesign of the connection module will prevent bugs like this to happen.

#2 - 04/04/2013 02:28 pm - Stavros Sachtouris

- Status changed from Resolved to Closed

Shared variables are to blame for this error, it is fixed with hotfix 0.7.8

#3 - 04/08/2013 02:26 pm - Ilias Tsitsimpis

- File out2.txt added

It seems that the bug still exists in version 0.7.8

Attached is the output of kamaki store download --account=25ecced9-bf53-4145-91ee-cf47377e9fb2 images:debian_base-6.0-10-x86_64.diskdump, where I have add a print debug message just before the conn.request function call.

In line 990 kamaki tries to connect to url "/25ecced9-bf53-4145-91ee-cf47377e9fb2/images/debian_base-6.0-10-x86_64.diskdump" whereas the correct is "/v1/25ecced9-bf53-4145-91ee-cf47377e9fb2/images/debian_base-6.0-10-x86_64.diskdump?format=json".

Use kamaki from debian repos, version 0.7.8-2.

#4 - 04/08/2013 02:28 pm - Stavros Sachtouris

- % Done changed from 100 to 50

#5 - 04/08/2013 02:30 pm - Vangelis Koukis

- Status changed from Closed to Assigned

Re-opening, after discussion with [iliastsj].

#6 - 04/09/2013 03:09 pm - Stavros Sachtouris

- Status changed from Assigned to Resolved

Resolved: it's a limitation of obj pool:

https://github.com/grnet/objpool/blob/e4c7df4a17e964243c1a052d5ce4d66412dc2363/objpool/_init_.py#L113

The error apears after forking a process wich contains a kamaki.clients.Client instance and performing parallel calls with the Client instance. Unfortunately, Objpool does not support forked connections (yet).

#7 - 04/09/2013 03:54 pm - Stavros Sachtouris

- Status changed from Resolved to Assigned

- % Done changed from 50 to 0

#8 - 04/11/2013 11:51 am - Stavros Sachtouris

- Status changed from Assigned to Resolved

- % Done changed from 0 to 100

The problem is caused by a race condition on the *url* member variable in a kamaki.clients.Client instance, during the http connection setup. The problem only apears in threaded operations (upload or download) and it is very rare.

In kamaki 0.8 each thread passes request parameters by value and creates new, own-thread-only instances of RequestManager and ResponseManager kamaki.clients classes, so there are no race conditions in the http connection setup.

#9 - 04/30/2013 05:23 pm - Stavros Sachtouris
- Status changed from Resolved to Closed

Files

out2.txt	47.4 kB	04/08/2013	Ilias Tsitsimpis
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