

Arvados - Story #14964

Port arvados-pam to Python 3

03/13/2019 04:10 PM - Tom Morris

Status: Rejected	Start date:
Priority: Normal	Due date:
Assigned To:	% Done: 0%
Category:	Estimated time: 0.00 hour
Target version:	
Description source: sdk/pam provides a PAM module that allows users to authenticate (e.g., to an SSH service on a shell node) using an Arvados token. It checks the same login permissions as source: services/login-sync . It makes it possible to provide a login service like shellinabox that doesn't have SSH private keys or tunnel options. Currently it requires Python 2.7.	
Related issues:	
Related to Arvados - Story #15348: [pam] PAM module in Go	Resolved 06/23/2020
Blocks Arvados Epics - Story #14532: [Epic] Port to Python 3 to for Python 2 ...	Resolved 01/01/2020 09/16/2020

Associated revisions

Revision 6cd211af - 05/30/2019 06:25 PM - Tom Clegg

Fix syntax for python3.

refs #14964

Arvados-DCO-1.1-Signed-off-by: Tom Clegg <tclegg@veritasgenetics.com>

History

#1 - 05/21/2019 07:30 PM - Tom Morris

- Parent task deleted (#14532)

#2 - 05/21/2019 07:31 PM - Tom Morris

- Tracker changed from Task to Story

- Target version changed from Arvados Future Sprints to To Be Groomed

#3 - 05/21/2019 07:31 PM - Tom Morris

- Blocks Story #14532: [Epic] Port to Python 3 to for Python 2 sunset in December 2019 added

#4 - 05/21/2019 07:37 PM - Tom Morris

- Subject changed from Port PAM to Python 3 to Port arvados-pam to Python 3

- Description updated

#5 - 05/29/2019 03:40 PM - Tom Clegg

[Pam-python is a PAM Module that runs the Python interpreter. thus allowing PAM Modules to be written in Python.](#)

arvados-pam is one such "PAM module written in Python." We can make have made the arvados_pam module python3-compatible enough to pass its unit tests, but it can't be shown to work in real life (and can't eliminate the python2.7 dependency) until pam-python itself is updated to work with python3. The author hasn't done this yet, but plans to.

Debian ships pam-python as libpam-python. Even in buster, it still requires python2.7. <https://packages.debian.org/buster/libpam-python>

- https://bugzilla.redhat.com/show_bug.cgi?id=1641386 "Unfortunately, it seems that at the moment it can't work without python2. Migration to python3 is "in progress", but it's not done right now."
- <https://sourceforge.net/p/pam-python/tickets/5/#14bb> "Debian is coming up for a release next year, so things will happen by then. The major thing is the port to Python 3." (2018-10-25)

If we can't wait for an upstream fix (or fork pam-python and do it ourselves) another approach would be to start fresh and implement a PAM module in Go, using someone else's example like <https://github.com/uber/pam-ussb>. This might be a better long term solution anyway -- it looks like we never

even found a way to test the libpam-python solution without hitting segfaults.

#6 - 05/30/2019 06:11 PM - Tom Clegg

- *Description updated*

#7 - 05/30/2019 06:14 PM - Tom Clegg

- *Description updated*

#8 - 06/11/2019 02:25 PM - Tom Clegg

(from discussion offline) having a PAM module is worthwhile (still the best way to enable shell-over-https for CLI/browser use) but the Python solution is looking like a dead end -- it's never been stable and the connector shim isn't even aimed at production use. Porting to Go seems like the least-effort long term solution.

#9 - 06/11/2019 02:48 PM - Tom Clegg

- *Related to Story #15348: [pam] PAM module in Go added*

#10 - 04/21/2020 03:49 PM - Tom Clegg

"I'm just letting everybody know now the tests work, I've started intergrating all the changes for a new release." --
<https://sourceforge.net/p/pam-python/tickets/5/#f0a9>

#11 - 08/04/2020 08:30 PM - Peter Amstutz

- *Status changed from New to Rejected*

Rewrote PAM in Go

#12 - 08/19/2020 02:19 PM - Ward Vandewege

- *Target version deleted (To Be Groomed)*