

Foreman - Feature #29144

Run Puma using systemd socket activation

02/24/2020 03:57 PM - Ewoud Kohl van Wijngaarden

Status: Closed	
Priority: Normal	
Assignee: Ewoud Kohl van Wijngaarden	
Category: Packaging	
Target version:	
Difficulty:	Fixed in Releases: 2.1.0
Triaged: Yes	Found in Releases:
Bugzilla link:	Red Hat JIRA:
Pull request: https://github.com/foreman/foreman/pull/7536 , https://github.com/foreman/foreman-packaging/pull/4894 , https://github.com/foreman/foreman-packaging/pull/4895 , https://github.com/foreman/puppet-for-foreman/pull/814 , https://github.com/foreman/foreman-packaging/pull/4901 , https://github.com/foreman/puppet-for-foreman/pull/816 , https://github.com/foreman/puppet-for-foreman/pull/817	
Description	
From https://github.com/puma/puma/blob/master/docs/systemd.md#socket-activation	
systemd and puma also support socket activation, where systemd opens the listening socket(s) in advance and provides them to the puma master process on startup. Among other advantages, this keeps listening sockets open across puma restarts and achieves graceful restarts, including when upgraded puma, and is compatible with both clustered mode and application preload.	
When using unix sockets, it should also increase security since only the webserver can connect to it.	
Related issues:	
Related to Foreman - Feature #32238: Bind systemd socket activation to IPv6	Closed

Associated revisions

Revision 3e388156 - 03/24/2020 12:27 PM - Ewoud Kohl van Wijngaarden

Fixes #29144 - Use systemd socket activation

From <https://github.com/puma/puma/blob/master/docs/systemd.md#socket-activation>

systemd and puma also support socket activation, where systemd opens the listening socket(s) in advance and provides them to the puma master process on startup. Among other advantages, this keeps listening sockets open across puma restarts and achieves graceful restarts, including when upgraded puma, and is compatible with both clustered mode and application preload.

When using unix sockets, it should also increase security since only the webserver can connect to it. This is not configured by default since the webserver is not assumed to be present. However, it can be deployed via overrides.

This also needs a packaging change for ExecStart. Currently RPM and Deb packaging change this, but the wrappers break the passing on the socket.

Revision 5a8db7a8 - 03/24/2020 03:44 PM - Ewoud Kohl van Wijngaarden

Refs #29144 - Use systemd socket activation

This gives reliable service restarts since systemd keeps the socket open.

Replacement of ExecStart is no longer needed since foreman core now calls /usr/share/foreman/bin/rails which is already modified to use /usr/bin/tfm-ruby.

It also corrects the macros to only execute on the subpackage. The incorrect systemd_postun_with_restart (systemctl try-restart) is changed to the appropriate systemd_post (systemctl preset).

The unused foreman.sysconfig is also dropped. This file was unused since fb02554d5059e4817052de13d392320a6f4eb8ac.

Revision cd0965ff - 03/24/2020 05:10 PM - Ewoud Kohl van Wijngaarden

Refs #29144 - Use systemd socket activation

This gives reliable service restarts since systemd keeps the socket open. bundle exec needs to be called with --keep-file-descriptors since systemd passes these in. The replacement is changed since the service now uses /usr/share/foreman/bin/rails which doesn't need replacing.

It also makes sure the service enable is called on the foreman-service subpackage rather than the main package.

Revision 281f1966 - 03/25/2020 05:09 PM - Ewoud Kohl van Wijngaarden

Refs #29144 - Use systemd socket activation

When using systemd socket activation, it's important that the ListenSocket matches what Puma binds on. Otherwise it may fail. This happens when is configured on [::]:3000 (dual stack) and Puma on 0.0.0.0:3000. Puma will then attempt to bind and fail because the port is already in use.

The service bind is now made explicit because systemd's ListenSocket=3000 binds on :: where Puma by default binds on 0.0.0.0:3000. This is IPv4-only, but is what was done prior to this as well. Apache is configured dual stack and the recommended deployment.

Revision e642db1c - 03/26/2020 01:38 AM - Ewoud Kohl van Wijngaarden

Refs #29144 - Correct socket override

281f1966587ffd3d283cd8ea76371aed02f568b4 introduced the systemd socket override, but used Service instead of Socket. This causes the service to bind incorrectly.

Revision 1e10f6c4 - 03/26/2020 12:57 PM - Ewoud Kohl van Wijngaarden

Refs #29144 - Use the correct ListenStream

281f1966587ffd3d283cd8ea76371aed02f568b4 introduced the override with the incorrect section. e642db1c690cdbc01bfc193b643bece1a5b0e91a corrected the section, but not the headers.

History

#1 - 02/25/2020 04:38 PM - Lukas Zapletal

Nice idea, when this is implemented in Core, let's open the very same ticket for Smart Proxy (once Puma is merged there).

#2 - 03/20/2020 11:52 AM - The Foreman Bot

- Status changed from New to Ready For Testing

- Assignee set to Ewoud Kohl van Wijngaarden

- Pull request <https://github.com/theforeman/foreman/pull/7536> added

#3 - 03/20/2020 01:34 PM - The Foreman Bot

- Pull request <https://github.com/foreman/foreman-packaging/pull/4894> added

#4 - 03/20/2020 01:49 PM - The Foreman Bot

- Pull request <https://github.com/foreman/foreman-packaging/pull/4895> added

#5 - 03/20/2020 02:55 PM - The Foreman Bot

- Pull request <https://github.com/foreman/puppet-foreman/pull/814> added

#6 - 03/24/2020 12:27 PM - The Foreman Bot

- Fixed in Releases 2.1.0 added

#7 - 03/24/2020 01:01 PM - Ewoud Kohl van Wijngaarden

- Status changed from Ready For Testing to Closed

Applied in changeset [3e38815694272ef06d11efd63ffa29e9c1834c62](https://github.com/foreman/foreman-packaging/pull/4901).

#8 - 03/24/2020 03:28 PM - The Foreman Bot

- Pull request <https://github.com/foreman/foreman-packaging/pull/4901> added

#9 - 03/26/2020 12:19 AM - The Foreman Bot

- Pull request <https://github.com/foreman/puppet-foreman/pull/816> added

#10 - 03/26/2020 11:39 AM - The Foreman Bot

- Pull request <https://github.com/foreman/puppet-foreman/pull/817> added

#11 - 03/31/2021 09:34 AM - Ewoud Kohl van Wijngaarden

- Related to Feature #32238: Bind systemd socket activation to IPv6 added

#12 - 07/23/2021 04:13 PM - The Foreman Bot

- Pull request <https://github.com/foreman/foreman-packaging/pull/6944> added

#13 - 07/25/2021 04:09 PM - Ewoud Kohl van Wijngaarden

- Triaged changed from No to Yes

- Pull request deleted (<https://github.com/foreman/foreman-packaging/pull/6944>)

#14 - 03/25/2022 04:29 PM - The Foreman Bot

- Pull request <https://github.com/foreman/foreman-packaging/pull/7748> added

#15 - 03/25/2022 04:40 PM - Ewoud Kohl van Wijngaarden

- Pull request deleted (<https://github.com/foreman/foreman-packaging/pull/7748>)