



[OSSA-2021-005] Arbitrary dnsmasq reconfiguration via extra_dhcp_opts (CVE-2021-40085)

Bug #1939733 reported by [Pavel Toporkov](#) on 2021-08-12

This bug affects 1 person

276

| Affects | Status | Importance | Assigned to | Milestone |
|---|-------------------------------|---------------------------|----------------------------------|-----------|
| OpenStack Security Advisory | Fix Released | High | Jeremy Stanley | |
| Ubuntu Cloud Archive | New | Undecided | Unassigned | |
| Queens | Fix Released | Undecided | Unassigned | |
| Rocky | Fix Released | Undecided | Unassigned | |
| Stein | Fix Released | Undecided | Unassigned | |
| Train | Fix Committed | Undecided | Unassigned | |
| Ussuri | Fix Committed | Undecided | Unassigned | |
| Victoria | Fix Committed | Undecided | Unassigned | |
| Wallaby | Fix Committed | Undecided | Unassigned | |
| Xena | New | Undecided | Unassigned | |
| neutron | Fix Released | Critical | Slawek Kaplonski | |
| neutron (Ubuntu) | Fix Released | Undecided | Unassigned | |
| Bionic | New | Undecided | Unassigned | |
| Focal | Fix Released | Undecided | Unassigned | |
| Hirsute | Won't Fix | Undecided | Unassigned | |
| Impish | Fix Released | Undecided | Unassigned | |

Bug Description

Application doesnt check the input values for extra_dhcp_opts port parameter allowing user to use a newline character. The values from extra_dhcp_opts are used in rendering of opts file which is passed to dnsmasq as a dhcp-optsfile. Considering this, an attacker can inject any options to that file.

The main direct impact in my opinion is that attacker can push arbitrary dhcp options to another instances connected to the same network. And due to we are able to modify our own port connected to external network, it is possible to push dhcp options to the instances of another tennants using the same external network.

If we go further, there is an known buffer overflow vulnerability in dnsmasq (<https://thekelleys.org.uk/gitweb/?p=dnsmasq.git;a=commitdiff;h=7d04e17444793a840f98a0283968b96502b112dc>) which was not considered as a security issue due to attacker cannot control dhcp opts in most cases and therefore this vulnerability is still exists in most distributives (e.g Ubuntu 20.04.1). In our case dhcp opts is exactly what attacker can modify, so we can trigger buffer overflow there. I even managed to write an exploit which lead to a remote code execution using this buffer overflow vulnerability.

Here the payload to crash dnsmasq as a proof of concept:

```
...PUT /v2.0/ports/9db67e0f-537c-494a-a655-c8a0c518d57e HTTP/1.1Host: openstackX-Auth-Token: TOKENContent-Type: application/jsonContent-Length: 170{"port":{  "extra_dhcp_opts":{("opt_name":"zzz",  "opt_value":"xxx\n128,aa:bbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbb\n120,aa.cc\n128,:"}  }}}}
```

Tested on ocata, train and victoria versions.

Vulnerability was found by Pavel Toporkov

See [original description](#)

Tags: [patch](#)

CVE References

| | |
|--|----|
| Jeremy Stanley (fungi) wrote on 2021-08-12: | #1 |
| Since this report concerns a possible security risk, an incomplete security advisory task has been added while the core security reviewers for the affected project or projects confirm the bug and discuss the scope of any vulnerability along with potential solutions. description: updated Changed in ossa: status: New → Incomplete | |
| Slawek Kaplonski (slaweq) wrote on 2021-08-16: | #2 |
| Thx for reporting it. It seems like it should be private for now. I will work on it. | |

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[Neutron Core Secu...](#)
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| | |
|---|-----|
| Changed in neutron: assignee: nobody → Slawek Kaplonski (slaweq) | |
| Slawek Kaplonski (slaweq) wrote on 2021-08-17: | #3 |
| Fix v1 (3.5 KiB, text/plain) | |
| Fix like that can be backported to stable branches. In the future we may propose fix on the API side (in neutron-lib) to remove such newline chars before saving them in db. | |
| Rodolfo Alonso (rodolfo-alonso-hernandez) wrote on 2021-08-17: | #4 |
| <p>@Slawek, I would split the opt_value string each time, instead of removing the "\n". That will take only the first part of the string, removing the tail.</p> <pre>>>> opt_value = "xxx\n128,aa:bbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbb bbbbbbbbbbbbbbbbbbbbbbbbbb\n120,aa.cc\n128,:" >>> opt_value.split()[0] "xxx"</pre> | |
| Slawek Kaplonski (slaweq) wrote on 2021-08-17: | #5 |
| Fix v2 (3.6 KiB, text/plain) | |
| @Rodolfo, thx for review of the patch. I prepared new version of the patch. Please check it. | |
| Jeremy Stanley (fungi) wrote on 2021-08-17: | #6 |
| Naive question, but can the same bug be exploited with other characters besides linefeed? Maybe carriage returns (\r), form feeds (\f), or vertical tabs (\v) are treated similarly by dnsmasq? | |
| Pavel Toporkov (paul-axe) wrote on 2021-08-18: Re: [Bug 1939733] Re: Remote Code Execution via extra_dhcp_opts | #7 |
| <p>Download full text (3.6 KiB)</p> <p>dnsmasq reads the config file using `fgets` functions, so it depends on its implementation. As far as i know, the default glibc supports only \n character as a line delimiter</p> <p>On Tue, Aug 17, 2021 at 6:41 PM Jeremy Stanley <email address hidden> wrote:</p> <p>[...]</p> <p>Read more...</p> | |
| Jeremy Stanley (fungi) wrote on 2021-08-18: Re: Remote Code Execution via extra_dhcp_opts | #8 |
| <p>Thanks. I suppose my remaining concern is more of a theoretical one in that case... dnsmasq does not expect untrusted users to supply configuration, and therefore is not overly concerned with risks related to that workflow. As a result, any bugs in dnsmasq's configuration handling become Neutron security risks and therefore OpenStack's responsibility to deal with. In the long term, this does not seem like a sustainable model under which to operate.</p> <p>In the near term, I agree the proposed solution should suffice, and since it seems to be backportable to all supported stable branches I'll get started on the impact description and coordinated disclosure timeline for an embargoed security advisory.</p> <p>Changed in ossa:</p> <p>status:Incomplete → Confirmed</p> <p>importance:Undecided → High</p> <p>assignee:nobody → Jeremy Stanley (fungi)</p> | |
| Jeremy Stanley (fungi) wrote on 2021-08-19: | #9 |
| <p>Here's an initial draft for an impact description. Please review and comment. If this summary reasonably captures the vulnerability, I'll use it as the basis for our CVE request to MITRE, notification to downstream stakeholders, and eventual security advisory. Also, Pavel, please let me know if you have any organization you want credited with the discovery alongside your name.</p> <p>Title: Exposure of dnsmasq buffer overflow via extra_dhcp_opts Reporter: Pavel Toporkov Products: Neutron Affects: <16.4.1, >=17.0.0 <17.2.1, >=18.0.0 <18.1.1</p> <p>Description: Pavel Toporkov reported a vulnerability in Neutron. By supplying a specially crafted extra_dhcp_opts value, an authenticated user may trigger a configuration parsing buffer overflow in some older versions of dnsmasq, resulting in denial of service or remote code execution on the hosts where dnsmasq is running. Only deployments with dnsmasq prior to 2.81 or without commit 7d04e17 applied are affected.</p> | |
| Jeremy Stanley (fungi) wrote on 2021-08-19: | #10 |
| <p>On revisiting the initial bug description, I see that I've failed to capture the aspect where the user can also append lines for other configuration outside the options list itself. I'll try to come up with a better summary incorporating that.</p> | |
| Jeremy Stanley (fungi) wrote on 2021-08-19: | #11 |
| <p>Here's a revised impact description:</p> | |

- Dan Sneddon
- Daniel Alvarez
- Dave Cahill
- David
- David Lapsley
- David M. Zendzian
- David Seelbach
- Davish Bhardwaj
- Debian PTS
- Deepak Nair
- DengBO
- Dincer Celik
- Dmitriev Artem An...
- Dmitriy Andrushko
- Dong Jun
- Dongwon Cho
- Doraann2
- Douglas Mendizábal
- Duc Nguyen
- Dustin Lundquist
- Edgar Magana
- Edward
- Elena Ezhova
- Elvira García Ruiz
- Euler Jiang
- Evgeny Fedoruk
- Flavio Fernandes
- Florin Vinti
- Fontenay Tony
- Franko Fang
- Gage Hugo
- Gandharva
- Ganesh Kadam
- Ganesh Navgire
- Gary Kotton
- Gheza
- Greg Althaus
- Guangya Liu (Jay ...
- HENG ZHANG
- HaifengLi
- Hampapur Ajay
- Hao Wang
- Harikrishna S
- Harkirat Singh
- Harsh Prasad
- HaySayCheese
- Hemant Jadhav
- Hemanth Ravi
- Hidagawa
- Hirofumi ichihara
- Hong Hui Xiao
- Hosam Al Ali
- Hugo Kou
- Hui Cheng
- Ian Y. Choi
- Igor D.C.
- Ihar Hrachyshka
- Ivan Groenewald
- Jamal Mitchell
- James Dennis
- James Denton
- Jared R Greene
- Jay Janardhan
- Jeff Ward
- Jeremy Stanley
- Jesse Jones
- Jiajun Liu
- Jie Li
- Jinlai Shan
- Joel wineland
- John
- John Buswell
- John Davidge
- John Kasperski
- John Lenihan
- John Perkins
- Jordan Rinke
- Joshua Padman
- José Alfonso
- Kausal Malladi
- Kausum Kumar
- Ken'ichi Ohmichi
- Kenji Motohashi
- Kent Liu
- Kevin Benton
- Kunal.Yadav
- LIU Yulong
- Lajos Katona
- Le Tian Ren
- Lei Zhang

Title: Exposure of dnsmasq buffer overflow via extra_dhcp_opts
Reporter: Pavel Toporkov
Products: Neutron
Affects: <16.4.1, >=17.0.0 <17.2.1, >=18.0.0 <18.1.1

Description:
Pavel Toporkov reported a vulnerability in Neutron. By supplying a specially crafted extra_dhcp_opts value, an authenticated user may add arbitrary configuration to the dnsmasq process in order to crash the service, change parameters for other tenants sharing the same interface, or otherwise alter that daemon's behavior. This vulnerability may also be used to trigger a configuration parsing buffer overflow in versions of dnsmasq prior 2.81, which could lead to remote code execution. All Neutron deployments are affected.

Jeremy Stanley (fungi) wrote on 2021-08-19: #12

I also meant to redo the title. How's this?

Title: Arbitrary dnsmasq reconfiguration via extra_dhcp_opts

Jeremy Stanley (fungi) wrote on 2021-08-19: #13

I also seem to have introduced a typo in the penultimate sentence, that should say "versions of dnsmasq prior to 2.81" (I somehow lost the "to" in the most recent revision).

Pavel Toporkov (paul-axe) wrote on 2021-08-20: #14

I reviewed the description and it seems to be OK.

Jeremy Stanley (fungi) wrote on 2021-08-20: #15

Thanks Pavel, also please let me know if you have any organization you want credited with the discovery alongside your name.

Slawek: Rodolfo: If the patch in comment #5 is deemed a sufficient fix for master (Xena), then once someone attaches viable backports for stable/wallaby, stable/victoria, and stable/ussuri branches, I'll schedule a disclosure date and prepare notification under embargo for our downstream stakeholders (distribution package maintainers, public cloud security contacts, and so on).

Pavel Toporkov (paul-axe) wrote on 2021-08-20: #16

No, please credit only my name there

Jeremy Stanley (fungi) wrote on 2021-08-22: #17

Okay, this is what I'll use to request a CVE assignment from MITRE. Once viable backports for stable/wallaby, stable/victoria, and stable/ussuri branches are attached, I'll schedule a disclosure date and prepare notification under embargo for our downstream stakeholders...

Title: Arbitrary dnsmasq reconfiguration via extra_dhcp_opts
Reporter: Pavel Toporkov
Products: Neutron
Affects: <16.4.1, >=17.0.0 <17.2.1, >=18.0.0 <18.1.1

Description:
Pavel Toporkov reported a vulnerability in Neutron. By supplying a specially crafted extra_dhcp_opts value, an authenticated user may add arbitrary configuration to the dnsmasq process in order to crash the service, change parameters for other tenants sharing the same interface, or otherwise alter that daemon's behavior. This vulnerability may also be used to trigger a configuration parsing buffer overflow in versions of dnsmasq prior to 2.81, which could lead to remote code execution. All Neutron deployments are affected.

Akihiro Motoki (amotoki) wrote on 2021-08-23: #18

The proposed fix no longer allows the reported security issue, but can we block it at the API level too?
If the neutron API does not allow multi-line string in the API level, we can block it for further API operations.

Note that we need to consider such extra_dhcp_options is already injected, so the proposed fix is required and it looks good.

Perhaps blocking it at the API level is optional so it can be done as a follow-up after the proposed fix is applied.

What in my mind is to implement a validator like below in the API level.

```
def _validate_online_string(data, max_len=None):
    msg = validators.validate_string(data, max_len)
    if msg:
        return msg
    lines = data.splitlines()
    if lines and lines[0] != data:
        msg = _("Multi-line string is not allowed: '%s'" % data)
        LOG.debug(msg)
    return msg
```

Slawek Kaplonski (slaweq) wrote on 2021-08-23: #19

Fix v2 for stable/wallaby (3.6 KiB, text/plain)

Stable/wallaby backport

Slawek Kaplonski (slaweq) wrote on 2021-08-23: #20

Fix v2 for stable/victoria (3.6 KiB, text/plain)

Stable/victoria backport

- Lewis Denny
- Li Xipeng
- Lionel Zerbib
- Louis Fourie
- Lujin Luo
- Lukas Koenen
- MARZAK Iham
- Maciej Jozefczyk
- Madhu CR
- Mamatisa Nurmatov
- Mamta Jha
- Manikanta Srinivas
- Manikantha Sriniv...
- Manish Godara
- Manjeet Singh Bhatia
- Manoj Raju
- Marcus Vinicius G...
- Mark McClain
- Marta Sdvoijspa
- Matt Joyce
- Matt Wear
- Matt j
- Matthew Thode
- Matvej Jurbin
- Michael Rowland H...
- Michael Tietz
- Michael Thompson
- Miguel Lavalle
- Mika Kohonen
- Mohammed Kasim
- Mohankumar
- Mohit Malik
- Mr. Minhaj
- Murali Raju
- Na Zhu
- Nahian Chowdhury
- Name Changed
- Nate
- Nate Johnston
- Naved Ali
- Naved Ali Shah
- Nitish
- Nobuto Murata
- Normen Scholtke
- Oleg Bondarev
- OpenStack Vulnera...
- Ozgur Kara
- PCTeacher012
- Pallavi
- Paolo Topa
- Paul Halmos
- Paul Voccio
- Pavani_addanki
- Perry Waldner
- Peter Bullert
- Piyanaï Saowaratt...
- Piyush Pathak
- Pradeep Naik
- Pradeep Roy Kandru
- Pramod
- Prateek
- Praveen Kumar SM
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- Punnsa
- Rajesh Battala
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- RaoFei
- Ravi Chunduru
- RaviM Singh
- Rayman Lwo
- Reedip
- Richa
- Richard Seguin
- Richard Williams
- Rick Melick
- Rob Linc
- Robert Love
- Robin Wang
- Rochelle Grober
- Roman Goncharov
- Ron Cannella
- Rudra Rugge
- Rudra Saraswat
- Ryan Garrett
- Ryan Harper
- Ryan Tidwell

| | |
|---|-----|
| Slawek Kaplonski (slaweq) wrote on 2021-08-23: | #21 |
| Fix v2 for stable/ussuri (3.6 KiB, text/plain) | |
| Stable/ussuri backport | |
| Slawek Kaplonski (slaweq) wrote on 2021-08-23: | #22 |
| @Akihiro - that was my idea also but I wanted to do it as next step later. First I wanted to propose solution which can be easily backported. When that will be solved, I can propose API level validation, some db migration script for existing entries, etc. as a follow-up. Is that ok for You? | |
| Akihiro Motoki (amotoki) wrote on 2021-08-23: | #23 |
| @Slawek, it totally works for me. Thanks. | |
| Jeremy Stanley (fungi) wrote on 2021-08-23: | #24 |
| Assuming I get a response from MITRE in the next 24 hours, I'd like to schedule the coordinated disclosure (when we'll switch this bug to public security and push the attached patches to Gerrit) for 15:00 UTC Tuesday 2021-08-31, a week from tomorrow. Is that date and time acceptable to everyone? | |
| Slawek Kaplonski (slaweq) wrote on 2021-08-24: | #25 |
| @Akihiro - thx. @Jeremy - that works for me, thx a lot. | |
| Akihiro Motoki (amotoki) on 2021-08-25 | |
| Changed in neutron: importance: Undecided → Critical | |
| Jeremy Stanley (fungi) on 2021-08-25 | |
| summary: - Remote Code Execution via extra_dhcp_opts + Arbitrary dnsmasq reconfiguration via extra_dhcp_opts (CVE-2021-40085) | |
| Jeremy Stanley (fungi) wrote on 2021-08-25: Re: Arbitrary dnsmasq reconfiguration via extra_dhcp_opts (CVE-2021-40085) | #26 |
| Now that MITRE has responded with a CVE assignment, the proposed patches (from comments #5, #19, #20, and #21) have been privately supplied to downstream stakeholders along with a copy of the impact description (from comment #17). We are still within our downstream notification window to be able to proceed with coordinated disclosure at 15:00 UTC on 2021-08-31. | |
| Jeremy Stanley (fungi) wrote on 2021-08-31: | #27 |
| Double-checking, is Slawek or one of the other Neutron core reviewers available to get the fix and backports from comments #5, #19, #20, and #21 pushed to Gerrit in roughly half an hour (around 14:00 UTC)? That will give me time to identify the change numbers for inclusion in the public advisory scheduled to go out at 15:00 UTC. If there's no one available, I'll push the patches to Gerrit myself, but it would be better to have a Neutron core reviewer taking care of it and also working on expedited approvals so we can get them merged as quickly as possible (I can prioritize them in the gate pipeline once they're approved, to speed things along even more). | |
| Jeremy Stanley (fungi) wrote on 2021-08-31: | #28 |
| I heard back from Slawek in IRC and he's pushing the changes to Gerrit now. information type: Private Security → Public Security description: updated summary: - Arbitrary dnsmasq reconfiguration via extra_dhcp_opts (CVE-2021-40085) + [OSSA-2021-005] Arbitrary dnsmasq reconfiguration via extra_dhcp_opts + (CVE-2021-40085) | |
| OpenStack Infra (hudson-openstack) wrote on 2021-08-31: Fix proposed to neutron (master) | #29 |
| Fix proposed to branch: master Review: https://review.opendev.org/c/openstack/neutron/+806746 Changed in neutron: status: New → In Progress | |
| OpenStack Infra (hudson-openstack) wrote on 2021-08-31: Fix proposed to neutron (stable/wallaby) | #30 |
| Fix proposed to branch: stable/wallaby Review: https://review.opendev.org/c/openstack/neutron/+806748 | |
| OpenStack Infra (hudson-openstack) wrote on 2021-08-31: Fix proposed to neutron (stable/victoria) | #31 |
| Fix proposed to branch: stable/victoria Review: https://review.opendev.org/c/openstack/neutron/+806749 | |
| OpenStack Infra (hudson-openstack) wrote on 2021-08-31: Fix proposed to neutron (stable/ussuri) | #32 |

Ryo Shi
Ryu Ishimoto
SANTOSH KUMAR PAN...
ST Wang
Sahid Orentino
Saisirikiran Mudig...
Samuel Bercovici
Sandeep Bisht
Sapna Jadhav
Satyanarayana Pat...
Sean McCully
Sebastian Luna-Va...
Shawn Hartsock
Shraddha Pandhe
Shruthi Chari
Shweta P
Sid Sun
Simon
Sindhu Devale
Slawek Kaplonski
Somik Behera
Songhee Kang
Songlian Li
Soo Choi
Sridhar Gaddam
Steve Sloka
Steven Pavlon
Stuart Hart
Sumit Naiksatam
Summer Long
Suraj Deshmukh
Sushma Korati
Swaminathan Vasud...
Swapnil Kulkarni
Swaroop Jayanthi
Takashi Kajinami
Tamas Kapolnasi
Tao Zhou
Taurus Cheung
Tayaa Med Amine
Thomas Martin
Thongth
Tiago Everton Fer...
Tom Weiss
Tony Tan
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Ubuntu Cloud Arch...
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Uma
Vasanth
Vic Parker
Vidhisha Nair
Vikas Deolalikar
Vinod Kumar
Vinu Pillai
Vishal Agarwal
Vivekanandan maha...
Wajid Baig
Warren White
Xiang Hui
Xiaolin Zhang
Xin Zhong
YAMAMOTO Takashi
Yahoo! Engineerin...
Yang Yu
Yapeng Wu
Yi Yang
Yi Yang
Yogesh Mulay
Yongqiang Yang
Yushiro FURUKAWA
Yusuf Güngör
Yuxin Zhuang
Zahid Hasan
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Zou Keke
ahepas
ali
ammarun
aprilcn
avinashsau
ayyalaraju chalam...
bailin.zhang
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| | |
|--|-----|
| Fix proposed to branch: stable/ussuri Review: https://review.opendev.org/c/openstack/neutron/+806750 | |
| OpenStack Infra (hudson-openstack) wrote on 2021-08-31: Fix proposed to ossa (master) | #33 |
| Fix proposed to branch: master Review: https://review.opendev.org/c/openstack/ossa/+806754 Changed in ossa: status: Confirmed → In Progress | |
| OpenStack Infra (hudson-openstack) wrote on 2021-08-31: Fix merged to ossa (master) | #34 |
| Reviewed: https://review.opendev.org/c/openstack/ossa/+806754 Committed: https://opendev.org/openstack/ossa/commit/55e0ee4953446267d7900bda9cdfdc9f44a6b72d Submitter: "Zuul (22348)" Branch: master commit 55e0ee4953446267d7900bda9cdfdc9f44a6b72d Author: Jeremy Stanley <email address hidden> Date: Tue Aug 31 13:56:02 2021 +0000 Add OSSA-2021-005 (CVE-2021-40085) Change-Id: I58b8c608547e24ee144cab805d17c55045e4279a Closes-Bug: #1939733 Changed in ossa: status: In Progress → Fix Released | |
| Jeremy Stanley (fungi) wrote on 2021-08-31: | #35 |
| https://security.openstack.org/ossa/OSSA-2021-005.html is published, announcements have been sent to the usual mailing lists, and MITRE has been notified to switch the assigned CVE public. | |
| OpenStack Infra (hudson-openstack) wrote on 2021-09-01: Fix proposed to neutron (stable/train) | #36 |
| Fix proposed to branch: stable/train Review: https://review.opendev.org/c/openstack/neutron/+806707 | |
| OpenStack Infra (hudson-openstack) wrote on 2021-09-01: Fix proposed to neutron (stable/stein) | #37 |
| Fix proposed to branch: stable/stein Review: https://review.opendev.org/c/openstack/neutron/+806708 | |
| OpenStack Infra (hudson-openstack) wrote on 2021-09-01: Fix proposed to neutron (stable/rocky) | #38 |
| Fix proposed to branch: stable/rocky Review: https://review.opendev.org/c/openstack/neutron/+806862 | |
| OpenStack Infra (hudson-openstack) wrote on 2021-09-01: Fix proposed to neutron (stable/queens) | #39 |
| Fix proposed to branch: stable/queens Review: https://review.opendev.org/c/openstack/neutron/+806709 | |
| Ubuntu Foundations Team Bug Bot (crichton) wrote on 2021-09-01: | #40 |
| The attachment "Fix v1" seems to be a patch. If it isn't, please remove the "patch" flag from the attachment, remove the "patch" tag, and if you are a member of the -ubuntu-reviewers, unsubscribe the team. [This is an automated message performed by a Launchpad user owned by ~brian-murray, for any issues please contact him.] tags: added: patch | |
| OpenStack Infra (hudson-openstack) wrote on 2021-09-02: Fix merged to neutron (master) | #41 |
| Reviewed: https://review.opendev.org/c/openstack/neutron/+806746 Committed: https://opendev.org/openstack/neutron/commit/df891f0593d234e01f27d7c0376d9702e178ecfb Submitter: "Zuul (22348)" Branch: master commit df891f0593d234e01f27d7c0376d9702e178ecfb Author: Slawek Kaplonski <email address hidden> Date: Tue Aug 31 15:43:11 2021 +0200 Remove dhcp_extra_opt value after first newline character Passing newline to the dnsmasq may cause security issues, especially that in case of Neutron that dhcp options' values are controlled by cloud users. This patch removes everything what is after first newline character in the dhcp_extra_opt's values before passing them to dnsmasq. Closes-Bug: #1939733 Change-Id: Ifeaf258f0b5ea86f25620ac4116d618980a7272e Changed in neutron: status: In Progress → Fix Released | |
| OpenStack Infra (hudson-openstack) wrote on 2021-09-02: Fix merged to neutron (stable/wallaby) | #42 |
| Reviewed: https://review.opendev.org/c/openstack/neutron/+806748 Committed: https://opendev.org/openstack/neutron/commit/35a32a1cadf2a6bc182b3c7d7ae46e7cea73576a Submitter: "Zuul (22348)" Branch: stable/wallaby | |

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eroc Jiang
fei Yang
galeido
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gsccc
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yangbo
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yangkai
yangzhenyu
yilong
yinpeijun
yongxiangwang
zhaobo
zhu zhu
zzfancy

commit 35a32a1cadf2a6bc182b3c7d7ae46e7cea73576a
Author: Slawek Kaplonski <email address hidden>
Date: Mon Aug 23 13:01:37 2021 +0200

Remove dhcp_extra_opt value after first newline character

Passing newline to the dnsmasq may cause security issues, especially that in case of Neutron that dhcp options' values are controlled by cloud users.

This patch removes everything what is after first newline character in the dhcp_extra_opt's values before passing them to dnsmasq.

Closes-Bug: #1939733
Change-Id: Ifeaf258f0b5ea86f25620ac4116d618980a7272e
(cherry picked from commit df891f0593d234e01f27d7c0376d9702e178ecfb)

[Fix v1](#)

[Fix v2](#)

[Fix v2 for stable/wallaby](#)

[Fix v2 for stable/victoria](#)

[Fix v2 for stable/ussuri](#)

[Add patch](#)

OpenStack Infra (hudson-openstack) wrote on 2021-09-02: [Fix merged to neutron \(stable/victoria\)](#)

#43

Reviewed: <https://review.opendev.org/c/openstack/neutron/+806749>
Committed: <https://opendev.org/openstack/neutron/commit/a08e21c15b766a1e3b2b64ae15f95565d9ea6688>
Submitter: "Zuul (22348)"
Branch: stable/victoria

commit a08e21c15b766a1e3b2b64ae15f95565d9ea6688
Author: Slawek Kaplonski <email address hidden>
Date: Mon Aug 23 13:01:37 2021 +0200

Remove dhcp_extra_opt value after first newline character

Passing newline to the dnsmasq may cause security issues, especially that in case of Neutron that dhcp options' values are controlled by cloud users.

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Closes-Bug: #1939733
Change-Id: Ifeaf258f0b5ea86f25620ac4116d618980a7272e
(cherry picked from commit df891f0593d234e01f27d7c0376d9702e178ecfb)

OpenStack Infra (hudson-openstack) wrote on 2021-09-07: [Fix merged to neutron \(stable/ussuri\)](#)

#44

Reviewed: <https://review.opendev.org/c/openstack/neutron/+806750>
Committed: <https://opendev.org/openstack/neutron/commit/6ac5bc583787b7af6273d5344fcbceef69a48e2e3>
Submitter: "Zuul (22348)"
Branch: stable/ussuri

commit 6ac5bc583787b7af6273d5344fcbceef69a48e2e3
Author: Slawek Kaplonski <email address hidden>
Date: Mon Aug 23 13:01:37 2021 +0200

Remove dhcp_extra_opt value after first newline character

Passing newline to the dnsmasq may cause security issues, especially that in case of Neutron that dhcp options' values are controlled by cloud users.

This patch removes everything what is after first newline character in the dhcp_extra_opt's values before passing them to dnsmasq.

Closes-Bug: #1939733
Change-Id: Ifeaf258f0b5ea86f25620ac4116d618980a7272e
(cherry picked from commit df891f0593d234e01f27d7c0376d9702e178ecfb)

OpenStack Infra (hudson-openstack) wrote on 2021-09-09: [Fix merged to neutron \(stable/rocky\)](#)

#45

Reviewed: <https://review.opendev.org/c/openstack/neutron/+806862>
Committed: <https://opendev.org/openstack/neutron/commit/e291dca5d97fc986fc7d85b8ea256a483d815277>
Submitter: "Zuul (22348)"
Branch: stable/rocky

commit e291dca5d97fc986fc7d85b8ea256a483d815277
Author: Slawek Kaplonski <email address hidden>
Date: Mon Aug 23 13:01:37 2021 +0200

Remove dhcp_extra_opt value after first newline character

Passing newline to the dnsmasq may cause security issues, especially that in case of Neutron that dhcp options' values are controlled by cloud users.

This patch removes everything what is after first newline character in the dhcp_extra_opt's values before passing them to dnsmasq.

Conflicts:
neutron/tests/unit/agent/linux/test_dhcp.py

Closes-Bug: #1939733
Change-Id: Ifeaf258f0b5ea86f25620ac4116d618980a7272e
(cherry picked from commit df891f0593d234e01f27d7c0376d9702e178ecfb)

OpenStack Infra (hudson-openstack) wrote on 2021-09-09: [Fix merged to neutron \(stable/queens\)](#)

#46

Reviewed: <https://review.opendev.org/c/openstack/neutron/+806709>
Committed: <https://opendev.org/openstack/neutron/commit/110fed07cb83deb3abd85073cb351066713b6384>
Submitter: "Zuul (22348)"
Branch: stable/queens

commit 110fed07cb83deb3abd85073cb351066713b6384
Author: Slawek Kaplonski <email address hidden>
Date: Mon Aug 23 13:01:37 2021 +0200

Remove dhcp_extra_opt value after first newline character

Passing newline to the dnsmasq may cause security issues, especially that in case of Neutron that dhcp options' values are controlled by cloud users.

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| | |
|---|-----|
| <div>Closes-Bug: #1939733</div> <div>Change-Id: Ifeaf258f0b5ea86f25620ac4116d618980a7272e</div> <div>(cherry picked from commit df891f0593d234e01f27d7c0376d9702e178ecfb)</div> | |
| <div>OpenStack Infra (hudson-openstack) wrote on 2021-09-09: Fix merged to neutron (stable/stein)</div> | #47 |
| <div>Reviewed: https://review.opendev.org/c/openstack/neutron/+806708</div> <div>Committed: https://opendev.org/openstack/neutron/commit/e2d6e2d5d2388cd7c135a50129466aaa7ca85cbf</div> <div>Submitter: "Zuul (22348)"</div> <div>Branch: stable/stein</div> <div>commit e2d6e2d5d2388cd7c135a50129466aaa7ca85cbf</div> <div>Author: Slawek Kaplonski <email address hidden></div> <div>Date: Mon Aug 23 13:01:37 2021 +0200</div> <div>Remove dhcp_extra_opt value after first newline character</div> <div>Passing newline to the dnsmasq may cause security issues, especially that in case of Neutron that dhcp options' values are controlled by cloud users.</div> <div>This patch removes everything what is after first newline character in the dhcp_extra_opt's values before passing them to dnsmasq.</div> <div>Closes-Bug: #1939733</div> <div>Change-Id: Ifeaf258f0b5ea86f25620ac4116d618980a7272e</div> <div>(cherry picked from commit df891f0593d234e01f27d7c0376d9702e178ecfb)</div> | |
| <div>OpenStack Infra (hudson-openstack) wrote on 2021-09-09: Fix merged to neutron (stable/train)</div> | #48 |
| <div>Reviewed: https://review.opendev.org/c/openstack/neutron/+806707</div> <div>Committed: https://opendev.org/openstack/neutron/commit/757d8c6e322eeda299aa5e055e38b1ed48977f2d</div> <div>Submitter: "Zuul (22348)"</div> <div>Branch: stable/train</div> <div>commit 757d8c6e322eeda299aa5e055e38b1ed48977f2d</div> <div>Author: Slawek Kaplonski <email address hidden></div> <div>Date: Mon Aug 23 13:01:37 2021 +0200</div> <div>Remove dhcp_extra_opt value after first newline character</div> <div>Passing newline to the dnsmasq may cause security issues, especially that in case of Neutron that dhcp options' values are controlled by cloud users.</div> <div>This patch removes everything what is after first newline character in the dhcp_extra_opt's values before passing them to dnsmasq.</div> <div>Closes-Bug: #1939733</div> <div>Change-Id: Ifeaf258f0b5ea86f25620ac4116d618980a7272e</div> <div>(cherry picked from commit df891f0593d234e01f27d7c0376d9702e178ecfb)</div> | |
| <div>OpenStack Infra (hudson-openstack) wrote on 2021-09-10: Fix included in openstack/neutron 16.4.1</div> | #49 |
| <div>This issue was fixed in the openstack/neutron 16.4.1 release.</div> | |
| <div>OpenStack Infra (hudson-openstack) wrote on 2021-09-10: Fix included in openstack/neutron 17.2.1</div> | #50 |
| <div>This issue was fixed in the openstack/neutron 17.2.1 release.</div> | |
| <div>OpenStack Infra (hudson-openstack) wrote on 2021-09-10: Fix included in openstack/neutron 18.1.1</div> | #51 |
| <div>This issue was fixed in the openstack/neutron 18.1.1 release.</div> | |
| <div>OpenStack Infra (hudson-openstack) wrote on 2021-09-15: Fix included in openstack/neutron 19.0.0.0rc1</div> | #52 |
| <div>This issue was fixed in the openstack/neutron 19.0.0.0rc1 release candidate.</div> | |
| <div>OpenStack Infra (hudson-openstack) wrote on 2021-09-29: Related fix proposed to neutron-lib (master)</div> | #53 |
| <div>Related fix proposed to branch: master</div> <div>Review: https://review.opendev.org/c/openstack/neutron-lib/+811708</div> | |
| <div>Christian Rohmann (christian-rohmann) wrote on 2021-10-11:</div> | #54 |
| <div>@Slawek are you also pushing the new packages to Ubuntu Cloud Archive?</div> <div>i.e. https://openstack-ci-reports.ubuntu.com/reports/cloud-archive/ussuri_versions.html does not show any 16.4.1 as of yet.</div> | |
| <div>Jeremy Stanley (fungi) wrote on 2021-10-11:</div> | #55 |
| <div>Slawek is one of the upstream Neutron developers. One of the Ubuntu package maintainers will need to take care of Ubuntu's package updates. It's probably mildly confusing that this bug report is marked as affecting the upstream project (where it's been fixed for months) but also the Ubuntu packages which still need the report triaged.</div> | |
| <div>Bernard Cafarelli (bcafarel) on 2021-11-17</div> | |
| <div>tags:added: neutron-proactive-backport-potential</div> | |
| <div>OpenStack Infra (hudson-openstack) wrote on 2021-11-25: Related fix merged to neutron-lib (master)</div> | #56 |
| <div>Reviewed: https://review.opendev.org/c/openstack/neutron-lib/+811708</div> <div>Committed: https://opendev.org/openstack/neutron-lib/commit/1f4c4031ee8a0dc91149dc6a83c7051db7628f23</div> <div>Submitter: "Zuul (22348)"</div> <div>Branch: master</div> <div>commit 1f4c4031ee8a0dc91149dc6a83c7051db7628f23</div> <div>Author: Slawek Kaplonski <email address hidden></div> <div>Date: Wed Sep 29 12:34:17 2021 +0200</div> | |

Add oneline_string validators

Those new validators are used to validate extra_dhcp_opt's opt_name and opt_value fields to not allow multi-line strings to be set there.

Related-Bug: #1939733

Change-Id: I4dc3a09847205a660dc966d8eabccb4946f9bbc6

Slawek Kaplonski (slaweq) on 2021-12-17

tags: removed: neutron-proactive-backport-potential

OpenStack Infra (hudson-openstack) wrote on 2022-01-13: Related fix proposed to neutron (master) #57

Related fix proposed to branch: master

Review: <https://review.opendev.org/c/openstack/neutron/+824641>

OpenStack Infra (hudson-openstack) wrote on 2022-01-19: Related fix merged to neutron (master) #58

Reviewed: <https://review.opendev.org/c/openstack/neutron/+824641>

Committed: <https://opendev.org/openstack/neutron/commit/ef97019c92e96d0bb17785daaf570b04c68be500>

Submitter: "Zuul (22348)"

Branch: master

commit ef97019c92e96d0bb17785daaf570b04c68be500

Author: Slawek Kaplonski <email address hidden>

Date: Thu Jan 13 20:35:53 2022 +0100

Add upgrade check for extra DHCP options

Some time ago with patches [1] and [2] we trimmed extra_dhcp_opt name and value to first newline character before using them in the dnsmasq and later added API validator to not allow such names and/or values with

newline character in it at all.

This patch adds upgrade check to warn users if they have old entries with newline characters in the database already.

Related-Bug: #1939733

[1] <https://review.opendev.org/c/openstack/neutron/+806746>

[2] <https://review.opendev.org/c/openstack/neutron-lib/+811708>

Change-Id: I9a45d918b5a90f8fc50a9ec43b2a67cf582eb369

Brian Murray (brian-murray) wrote on 2022-01-26: #59

The Hirsute Hippo has reached End of Life, so this bug will not be fixed for that release.

Changed in neutron (Ubuntu Hirsute):

status:New → Won't Fix

Corey Bryant (corey.bryant) wrote on 2022-01-27: #60

Ubuntu CVE tracker: <https://ubuntu.com/security/cve-2021-40085>

Changed in neutron (Ubuntu):

status:New → Fix Released

Changed in neutron (Ubuntu Impish):

status:New → Fix Released

Changed in neutron (Ubuntu Focal):

status:New → Fix Released

OpenStack Infra (hudson-openstack) wrote on 2022-11-18: Fix included in openstack/neutron queens-eol #61

This issue was fixed in the openstack/neutron queens-eol release.

OpenStack Infra (hudson-openstack) wrote on 2022-11-18: Fix included in openstack/neutron rocky-eol #62

This issue was fixed in the openstack/neutron rocky-eol release.

OpenStack Infra (hudson-openstack) wrote on 2022-11-18: Fix included in openstack/neutron stein-eol #63

This issue was fixed in the openstack/neutron stein-eol release.

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