

OpenNebula - Feature #4159 [PATCH] Security Groups do not support IPv6

11/13/2015 09:25 PM - Roy Keene

Status:	Closed	Start date:	11/13/2015
Priority:	High	Due date:	
Assignee:		% Done:	0%
Category:	Drivers - Network	Estimated time:	0.00 hour
Target version:	Release 5.4	Pull request:	
Resolution:	fixed		
Description			
<p>Security groups lack IPv6 support. Mostly this is a matter of duplicating the calls "iptables" with "ip6tables" except for the ICMP protocol which does not exist in IPv6 (ICMPv6 is a separate protocol).</p> <p>Attached is a patch that implements IPv6 support for Security Groups, but does not expose this via Sunstone.</p> <p>It has undergone basic testing and seems to function with IPv6 addresses -- I have not verified that there were no regressions for IPv4 however (I don't expect there to be) -- I am not sure if OpenNebula has those tests in its regression testing suite.</p>			

Associated revisions

Revision 20eae687 - 12/28/2016 11:57 PM - Ruben S. Montero

F #4159: Make use of IPAddr class for uniform IP Management. Some formatting. Homogenous initialization of ip-spoofing rules for ipv6 and ipv4 (use always an ipset)

Revision 1566a04b - 12/29/2016 11:25 AM - Ruben S. Montero

F #4159: Do not create unneeded ipset's in network sg rules

Revision 599e32a4 - 12/29/2016 11:58 AM - Roy Keene

F #4159 Ported securitygroup6 patch

(cherry picked from commit 43605bedbf55d5c3b121aa3c5ff14b2a5bed49e1)

Revision fe84d376 - 12/29/2016 11:58 AM - Ruben S. Montero

F #4159: Make use of IPAddr class for uniform IP Management. Some formatting. Homogenous initialization of ip-spoofing rules for ipv6 and ipv4 (use always an ipset)

Revision a31f7118 - 12/29/2016 11:59 AM - Ruben S. Montero

F #4159: Do not create unneeded ipset's in network sg rules

Revision 6b0814ef - 05/16/2017 10:58 AM - Javi Fontan

F #4159: allow ipv6 135, 136 udp ports

Patch by Roy Keene <keene@knightpoint.com> from:

<https://dev.opennebula.org/issues/4159#note-12>

History

#1 - 11/14/2015 02:40 AM - Roy Keene

- File *opennebula-4.12.1-securitygroup6.diff* added

There was an issue with "FILTER_IP_SPOOFING" and IPv6, updated patch to deal with it

#2 - 11/14/2015 03:23 AM - Roy Keene

- File *opennebula-4.12.1-securitygroup6.diff* added

Added support for multiple IPv6 addresses per interface (GLOBAL, ULA, LINK) with anti-spoofing.

#3 - 11/19/2015 11:04 PM - Ruben S. Montero

- Target version set to *Release 5.0*

Great Roy THANKS!!!!!! Planing this...

#4 - 12/21/2015 04:54 PM - Roy Keene

- File *opennebula-4.12.1-securitygroup6.diff* added

Updated patch that:

- Enables IPv6 Neighbor Discovery Protocol (ARP equivalent) implicitly on all interfaces (even if they have no IPv6 address)
- Renames protocol in OpenNebula from ICMP6 to ICMPV6 to be more consistent with type (ICMPV6_TYPE) and also call ip6tables with -p icmpv6 instead of -p icmp6 (erroneous)
- Include antispoofing fix from #4257

It has not yet been tested, but these changes are a result of testing the previous patch. I'll make a note of the success after testing, or supply an updated patch.

#5 - 01/04/2016 01:41 PM - Ruben S. Montero

- Tracker changed from *Bug* to *Feature*

#6 - 03/15/2016 10:30 AM - Ruben S. Montero

- Category changed from *Core & System* to *Drivers - Network*

#7 - 05/03/2016 10:21 AM - Jaime Melis

- Target version changed from *Release 5.0* to *Release 5.2*

Hi... we are sorry, but we haven't been able to include this in 5.0. As we already told you we were very interested in this feature, but we would need to

merge this, integrate it with our testing environment and expose these attributes in Sunstone. Give that we are running late on 5.0 we would rather postpone it one release.

Really sorry :(

#8 - 05/03/2016 10:21 AM - Jaime Melis

- *Tracker changed from Feature to Backlog*

Hi... we are sorry, but we haven't been able to include this in 5.0. As we already told you we were very interested in this feature, but we would need to merge this, integrate it with our testing environment and expose these attributes in Sunstone. Give that we are running late on 5.0 we would rather postpone it one release.

Really sorry :(

#9 - 08/17/2016 08:42 AM - Ruben S. Montero

- *Tracker changed from Backlog to Feature*

- *Priority changed from Normal to High*

- *Target version changed from Release 5.2 to Release 5.4*

#10 - 11/10/2016 01:31 AM - Roy Keene

Added pull request for this: <https://github.com/OpenNebula/one/pull/147>

#11 - 12/29/2016 12:13 PM - Ruben S. Montero

Now merged in master. Needs:

- Documentation
- Update Sunstone with ICMPv6 types
- Integration tests

#12 - 03/13/2017 03:42 PM - Roy Keene

- *File opennebula-5.2.1-securitygroup6.diff added*

There was an issue with the default network discovery rules for IPv6, each side needs to be able to send and receive ICMPv6 types 135 and 136 (neighbor solicitation request/reply) for the IPv6 equivalent of ARP (NDP) to work. This requires the following two extra rules from my first patch:

```
commands.add :ip6tables, "-A #{chain_in} -p icmpv6 --icmpv6-type 136 -j ACCEPT"
commands.add :ip6tables, "-A #{chain_out} -p icmpv6 --icmpv6-type 135 -j ACCEPT"
```

Attached is the updated patch for more context

#13 - 06/01/2017 04:49 PM - Ruben S. Montero

- *Status changed from Pending to Closed*

- *Resolution set to fixed*

Files

opennebula-4.12.1-securitygroup6.diff	35 KB	11/13/2015	Roy Keene
opennebula-4.12.1-securitygroup6.diff	35.2 KB	11/14/2015	Roy Keene
opennebula-4.12.1-securitygroup6.diff	35.8 KB	11/14/2015	Roy Keene
opennebula-4.12.1-securitygroup6.diff	37.2 KB	12/21/2015	Roy Keene
opennebula-5.2.1-securitygroup6.diff	31.7 KB	03/13/2017	Roy Keene