Ceph - Bug #43385

Monitor lookup in DNS needs to be case-insensitive

12/19/2019 02:05 PM - Harald Staub

Status:	New	% Done:	0%
Priority:	Normal	Spent time:	0.00 hour
Assignee:			
Category:			
Target version:			
Source:		Affected Versions:	
Tags:	low-hanging-fruit	ceph-qa-suite:	
Backport:		Pull request ID:	
Regression:	No	Crash signature (v1):	
Severity:	3 - minor	Crash signature (v2):	

Reviewed: Description

For a long time, we have ceph.conf without a "mon host" line, instead use DNS SRV records: https://docs.ceph.com/docs/master/rados/configuration/mon-lookup-dns/

Yesterday this broke for a cluster. At least there is a good error message (although the interesting line is missing in some cases), e.g.:

\$ ceph -s

unable to get monitor info from DNS SRV with service name: ceph-mon

no monitors specified to connect to.

2019-12-18 14:45:56.699083 7fa6c8ef7700 -1 resolved target not in search domain: s0001.s1.scloud.switch.ch /

.S1.scloud.switch.ch

[errno 2] error connecting to the cluster

Note the capital "S" in the domain name.

The error message ("resolved target not in search domain:") is in https://github.com/ceph/ceph/blob/nautilus/src/common/dns_resolve.cc

The problem is that the string comparison there needs to be case-insensitive.

Some background information: DNS is case-insensitive. DNS servers are free to answer DNS requests with a mix of lowercase and uppercase letters, this is dependent on the implementation. In our case, there was a request (from outside the cluster) containing the uppercase letter. The name server echoed this in his reply. The answer landed in the cache of a resolver. Now every system that gets served by this resolver gets the error.

The error can also be provoked by the client alone, with a resolv.conf with search S1.scloud.switch.ch switch.ch

->

\$ host s0013

s0013.S1.scloud.switch.ch has IPv6 address 2001:620:5ca1:8001::1013

\$ ceph -s

unable to get monitor info from DNS SRV with service name: ceph-mon

no monitors specified to connect to.

2019-12-19 14:52:50.761073 7f56d7ed1700 -1 resolved target not in search domain: s0013.s1.scloud.switch.ch /

.S1.scloud.switch.ch

[errno 2] error connecting to the cluster

History

#1 - 12/20/2019 12:57 AM - Brad Hubbard

- Tags set to low-hanging-fruit

1/2 04/05/2024

#2 - 09/12/2022 11:34 PM - Laura Flores

- Tags set to low-hanging-fruit

04/05/2024 2/2