FreeNAS - Feature #35413

Add API call for system "health" status

06/20/2018 10:14 AM - Ken Moore

Status:	Done	**Estimated time:**	0.00 hour
Priority:	No priority		
Assignee:	William Grzybowski		
Category:	Middleware		
Target version:	11.2-BETA2		
Severity:	Medium	**Needs Merging:**	No
Reason for Closing:		**Needs Automation:**	No
Reason for Blocked:		**Support Suite Ticket:**	n/a
Needs QA:	No	**Hardware Configuration:**	
Needs Doc:	No		

Description

The TrueView project needs an API call to middlewared which will return the current state of the FreeNAS system.

In particular, the things we are looking for are:

- Current CPU load (% total)
- Current memory used (total % used as well as the breakdown in bytes of active/inactive/laundry/wired/free memory)
- zpool status (ONLINE, DEGRADED, etc..)
- update status (updates available/running, already up-to-date)
- Dataset errors/warnings (if any)

The hard part with this request is that it needs to not cause significant load on the FreeNAS (so multiple requests can be run in a very short time frame from various clients/connections). I would recommend that some kind of background daemon should be used which actually polls/caches this information on a periodic basis and the API request(s) only return the cached information.

Associated revisions

Revision 30f0735c - 06/21/2018 12:02 PM - William Grzybowski

feat(middlewared/system): add system.health event source

Ticket: #35413

Revision 069bcb8a - 07/09/2018 11:58 AM - William Grzybowski

feat(middlewared/system): add system.health event source

Ticket: #35413

History

#1 - 06/20/2018 10:22 AM - Dru Lavigne

- Assignee changed from Release Council to William Grzybowski

#2 - 06/20/2018 12:58 PM - William Grzybowski

- Status changed from Unscreened to Not Started

- Target version changed from Backlog to 11.2-RC2

- Severity changed from New to Medium

- Needs Doc changed from Yes to No

- Needs Merging changed from Yes to No

#3 - 06/21/2018 10:15 AM - William Grzybowski

- Status changed from Not Started to In Progress

- Target version changed from 11.2-RC2 to 11.2-BETA2

#4 - 06/21/2018 12:04 PM - William Grzybowski

https://github.com/freenas/freenas/pull/1415

#5 - 06/28/2018 05:16 AM - Dru Lavigne

- Subject changed from Middlewared: Need API call for system "health" status to Add API call for system "health" status

#6 - 07/09/2018 11:59 AM - William Grzybowski

- Status changed from In Progress to Ready for Testing

#7 - 07/12/2018 08:52 AM - Timothy Moore II

William, do you have any recommendations for testing this?

#8 - 07/12/2018 08:58 AM - William Grzybowski

Timothy Moore II wrote:

> William, do you have any recommendations for testing this?

Sorry, I forgot to add:

midclt subscribe system.health
in freenas should output system stats every 10 seconds

#9 - 07/12/2018 09:07 AM - Timothy Moore II

William Grzybowski wrote:

> Timothy Moore II wrote:
>
> > William, do you have any recommendations for testing this?
>
> Sorry, I forgot to add:
>
> midclt subscribe system.health
> in freenas should output system stats every 10 seconds

Thank you! Testing now.

#10 - 07/12/2018 10:06 AM - Timothy Moore II

- Status changed from Ready for Testing to Passed Testing

- Needs QA changed from Yes to No

Testing with FreeNAS [Mini | system] updated to FreeNAS-11.2-MASTER-201807120858:

Go to Shell. Enter **midclt subscribe system.health**. Output:


```
{“msg”: “added”, “collection”: “system.health”, “fields”: {“cpu_percent”: 0.16, “memory”: {total”: 17086791680
, “available”: 9415966720, “percent”: 44.9, “used”: 7230324736, “free”: 8864178176, “active”: 282894336, “inac
tive”: 551780352, “buffers”: 0, “cached”: 0, “shared”: 128311296, “wired”: 6947430400}, “pools”: {“tank”: {“st
atus”: “ONLINE”}, “test-36163”: {“status”: “ONLINE”}}, “update”: “UNAVAILABLE”}}
```


This is repeated every 10 seconds.

#11 - 07/12/2018 02:33 PM - Dru Lavigne

- Status changed from Passed Testing to Done

#12 - 07/17/2018 07:12 AM - Ken Moore

@William
How would I go about subscribing to these events **without** using `midclt` and only using a Websocket connection?
Can you give me an API call I can send to the FreeNAS system to start receiving these events?

#13 - 07/17/2018 07:21 AM - William Grzybowski

Ken Moore wrote:

> @William
> How would I go about subscribing to these events **without** using `midclt` and only using a Websocket connection?
> Can you give me an API call I can send to the FreeNAS system to start receiving these events?

Sorry we dont have official docs for events yet and I forgot to give an API payload example, here is how you subscribe:

{"msg": "sub", "id": "someuniqueid", "name": "system.health"}

#14 - 07/17/2018 07:23 AM - Ken Moore

Thanks!