



GoNetconf Pack

NETCONF PACK FOR STACKSTORM - HACKATON JUN 2018 - DUBLIN

Targets for Hackaton



- ▶ Review existing code gonetconf implementation and refracture it
<https://github.com/ripe-stackstorm/go-netconf-refactored>
- ▶ Create a Pack for StackStorm which contains 2 actions
 - ▶ Perform Operational netconf requests from a StackStorm workflow
 - ▶ Perform Configuration netconf requests from a StackStorm workflow
- ▶ Documentation

Achievements for the weekend



- ▶ Gonetconf code was refactored and improved - David
- ▶ Interface from StackStorm to gonetconf binary was created and tested
- ▶ StackStorm Pack was created which contains
 - ▶ 2 actions:
 - ▶ get netconf data
 - ▶ set netconf data
 - ▶ 2 workflows:
 - ▶ get netconf data and publish the information
 - ▶ Set netconf data and publish the information

Open items

- ▶ Further testing and bug fixes of the StackFlox actions and workflows
- ▶ Further improvements to the gonetconf code

Demo – Trigger a StackStorm Workflow

- ▶ Webhook is triggered to Start the Workflow in StackStorm
- ▶ Webhook contains authentication details and a location for a netconf envelope

```
~/projects/stackstorm/GoNETCONF(master) » curl -k -X POST https://10.10.10.10/api/v1/webhooks/gonetconf -H "St2-API-Key: ZTkyZGQ1NThlMmFjODNmMGZmZTcyODcyNjQ2ZGM4NWNlNWFlMzYyZmRlMzNkOWFmYWRIYWZmNTYwN  
GQ5Y2MwYg" -H "Content-Type: application/json" --data '{"trigger": "core.st2.webhook", "payload": {"targethost": "vmx01.corepipe.co.uk", "username": " ", "password": " ", "envelopefile": "/op  
t/stackstorm/packs/gonetconf/examples/getinterfaceinformation.xml"}}'
```


```
{  
  "trigger": "core.st2.webhook",  
  "payload": {  
    "username": " ",  
    "password": " ",  
    "targethost": "vmx01.corepipe.co.uk",  
    "envelopefile": "/opt/stackstorm/packs/gonetconf/examples/getinterfaceinformation.xml"  
  }  
}
```



Demo – Workflow Starts


- ▶ Workflow Starts and requests the information via the gonetconf implementation.
- ▶ Implementation returns a xml string
- ▶ Convert xml string to JSON
- ▶ Push the results to Slack


StackStorm


Event-driven automation


HISTORY


ACTIONS

RULES



PACKS


DOCS


st2admin@

CONTACT US

History

Status ▼Trigger Type ▼Runner ▼Rule ▼Trigger ▼User ▼Action ▼

▼SUN, 24 JUN 2018

▼	●	17:26:02	gonetconf.getworkflow	gonetconf.Start_Netconf core.st2.webhook	
	●	17:26:03	get_netconf_information	gonetconf.get_netconf	
	●	17:26:07	convert_xml_to_json	xml.parse	
	●	17:26:08	post_to_slack_success	chatops.post_message	

gonetconf.getworkflow

Get netconf information

GENERAL

CODE

Status:

Succeeded

Execution ID:

5b2fc61a02ebd50331de3494

Trace Tag:

webhook-gonetconf-
6e4c8a731c7a4b62bc430ea4db22ed74

Started:

Sun, 24 Jun 2018 17:26:02

Finished:


Sun, 24 Jun 2018 17:26:09

Execution Time:

8s

Demo - Result

- ▶ Result is for the Demo pushed into Slack

 **hubot** APP 5:26 PM

new messages

Netconf was successfully read from: vmx01.corepipe.co.uk . Result:

```
{u'interface-information': {u'xmlns':  
u'http://xml.juniper.net/junos/18.1R1/junos-interface', u'physical-  
interface': [{u'admin-status': u'up', u'oper-status': u'up', u'name':  
u'cbp0'}, {u'admin-status': u'up', u'oper-status': u'up', u'name':  
u'demux0'}, {u'admin-status': u'up', u'oper-status': u'up', u'name':  
u'dsc'}, {u'admin-status': u'up', u'logical-interface': {u'admin-  
status': u'up', u'address-family': [{u'address-family-name': u'inete',  
u'interface-address': [{u'ifa-local': {u'#text': u'10.0.0.4/8',  
u'@junos:emit': u'emit'}}}, {u'ifa-local': {u'#text': u'128.0.0.1/2',  
u'@junos:emit': u'emit'}}}, {u'ifa-local': {u'#text': ...
```

Show more

+ Message #stackstorm @ 😊

References

- ▶ Git Repositories:
 - ▶ Refactored gonetconf implementation
 - ▶ <https://github.com/ripe-stackstorm/go-netconf-refactored>
 - ▶ Gonetconf StackStom implementation
 - ▶ <https://github.com/ripe-stackstorm/GoNETCONF>