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# **Ansible Collection - LinuxHA**

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# **USAGE**

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**Tip:** Check out [the repository on GitHub](#)

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**Tip:** Check out [the repository on GitHub](#)

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## 1 - INSTALLATION

### 1.1 Ansible

See the documentation on how to install Ansible.

### 1.2 Dependencies

#### 1.2.1 Install

You will have to install the LinuxHA packages on the target server:

- [LinuxHA](#) (packages: `corosync` and `pacemaker`)
- `crm shell` (package: `crmsh`)

```
sudo apt install corosync pacemaker crmsh
```

The `xmldict` python module is used to parse config!

It is only needed on the Ansible controller!

```
python3 -m pip install xmldict
```

#### 1.2.2 Configure

After that - configure the basic cluster using the ‘`corosync.conf`’ file.

See: [Docs](#)

### 1.3 Collection

```
# stable version:  
ansible-galaxy collection install ansibleguy.linuxha  
  
# latest version:  
ansible-galaxy collection install git+https://github.com/ansibleguy/collection_linuxha.  
˓→git
```

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```
# install to specific directory for easier development
cd $PLAYBOOK_DIR
ansible-galaxy collection install git+https://github.com/ansibleguy/collection_linuxha.
└─git -p ./collections
```

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**Tip:** Check out [the repository on GitHub](#)

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## 2 - CONFIG

Docs: corosync.conf

### 2.1 Example

```
totem {  
    version: 2  
    cluster_name: clusterName  
  
    knet_transport: udp  
    transport: knet  
  
    # generate key: corosync-keygen -k /etc/corosync/authkey_clusterName  
    # all nodes in the cluster must share the same key  
    keyfile: /etc/corosync/authkey_clusterName  
    crypto_cipher: aes256  
    crypto_hash: sha256  
    secauth: yes  
  
    link_mode: passive  
    # passive, active, rr  
    netmtu: 1500  
    ip_version: ipv4  
    # ipv4, ipv6, ipv4-6  
  
    interface {  
        ringnumber: 0  
        bindnetaddr: 192.168.1.0  
        # network-address of subnet  
        mcastport: 5405  
        # +2 for next cluster  
    }  
    interface {  
        ringnumber: 1  
        bindnetaddr: 10.0.0.0  
        # network-address of subnet  
        mcastport: 5405  
        # +2 for next cluster  
    }  
}
```

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```
}

logging {
    # debugging
    debug: off
    fileline: off
    function_name: off
    #timestamp: hires

    to_stderr: yes
    to_syslog: yes
    syslog_facility: daemon
    syslog_priority: info
    # alert, crit, debug (same as debug = on), emerg, err, info, notice, warning

    logger_subsys {
        subsys: QUORUM
        debug: off
    }
}

quorum {
    provider: corosync_votequorum
}

nodelist {
    node {
        name: node1
        nodeid: 1
        ring0_addr: 192.168.1.1
        # private ip
        ring1_addr: 10.0.0.1
        # public ip
    }
    node {
        name: node2
        nodeid: 2
        ring0_addr: 192.168.1.2
        # private ip
        ring1_addr: 10.0.0.2
        # public ip
    }
}

system {}
nozzle {}
```

## 2.2 Testing

```
root@lha01:~# corosync -f
> parse error in config: ...
```

## 2.3 Starting

```
root@lha01:~# systemctl enable corosync.service
root@lha01:~# systemctl enable pacemaker.service
root@lha01:~# systemctl start corosync.service
root@lha01:~# systemctl start pacemaker.service
```

## 2.4 Checking

```
root@lha01:~# systemctl status corosync.service
> corosync.service - Corosync Cluster Engine
>     Loaded: loaded (/lib/systemd/system/corosync.service; enabled; vendor preset:_
>             ↵enabled)
>     Active: active (running) since Sat 2023-04-01 16:30:46 CEST; 9min ago

root@lha01:~# systemctl status pacemaker.service
> pacemaker.service - Pacemaker High Availability Cluster Manager
>     Loaded: loaded (/lib/systemd/system/pacemaker.service; enabled; vendor preset:_
>             ↵enabled)
>     Active: active (running) since Sat 2023-04-01 16:31:05 CEST; 9min ago

root@lha01:~# crm status
> Cluster Summary:
>   * Stack: corosync
>   * Current DC: lha02 (version 2.0.5-ba59be7122) - partition with quorum
>   * Last updated: Sat Apr  1 16:31:39 2023
>   * Last change: Sat Apr  1 16:31:11 2023 by hacluster via crmd on lha02
>   * 2 nodes configured
>   * 0 resource instances configured
>
> Node List:
>   * Online: [ lha01 lha02 ]
>
> Full List of Resources:
>   * No resources
```

**Tip:** Check out [the repository on GitHub](#)



## 3 - BASIC

### 3.1 Run once

Cluster-specific operations **must only be executed on ONE NODE AT A TIME!**

Such operations include:

- Resource actions
- most Node actions
- Configuration changes

You can achieve this easily by either:

- use the ‘run\_once: true’ parameter (*dynamic*)

```
- hosts: linuxha
gather_facts: false
become: true
tasks:
  - name: Run once per cluster
    ansibleguy.linuxha.raw:
      cmd: 'to execute'
    run_once: true
```

- add an inventory-group of ‘leader-nodes’ that will be used as execution targets (*static but working for multi-cluster setup*)

inventory

```
---
all:
  hosts:
    # cluster 1
    node1:
    node2:
    # cluster 2
    node3:
    node4:
  children:
    linuxha:
      hosts:
```

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```
node1:  
node2:  
node3:  
node4:  
linuxha_leader:  
  hosts:  
    node1:  
    node3:
```

playbook

```
- hosts: linuxha_leader  
gather_facts: false  
become: true  
tasks:  
  - name: Run once per cluster  
    ansibleguy.linuxha.raw:  
      cmd: 'to execute'
```

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**Tip:** Check out [the repository on GitHub](#)

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## 1 - BASIC MODULE ARGUMENTS

TESTS: [Playbook](#)

### 4.1 All modules

Table 1: Definition

Parameter	Type	Re-required	Default	Comment
debug	boolean	false	false	Enable debug output for module processing and crmsh

### 4.2 Config/Action modules

Table 2: Definition

Parameter	Type	Re-required	Default	Comment
wait	boolean	false	false	Make crm wait for the cluster transition to finish ( <i>for the changes to take effect</i> ) after each processed line
force	boolean	false	false	Make crm proceed with applying changes where it would normally ask the user to confirm before proceeding. This option is mainly useful in scripts, and should be used with care. Force will also hide some output from you or even change the exit-code from 1 to 0 on a ‘soft-failure’!

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**Tip:** Check out the repository on [GitHub](#)

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**STATE:** unstable

**TESTS:** Playbook

## 5.1 Definition

Table 1: Definition

Parameter	Type	Re-required	Default	Aliases	Comment
raw	boolean	false	false	-	Return the full un-modified/-simplified config-dump
subset	list	false	[‘groups’, ‘locations’, ‘nodes’, ‘orders’, ‘primitives’, ‘properties’, ‘clones’]	parse, sub	Provide one or multiple status-subsets to parse ( <i>ignored if ‘raw: true’ is set</i> )

For basic parameters see: *Basic*

## 5.2 Info

Module to pull the current LinuxHA configuration.

## 5.3 Examples

```
- hosts: node1
  gather_facts: false
  become: true
  tasks:
    - name: Example
      ansibleguy.linuxha.config:
        # raw: false
        # subset: ['groups', 'locations', 'nodes', 'orders', 'primitives', 'properties', 'clones']

    - name: Pulling current config
      ansibleguy.linuxha.config:
        register: lha_config

    - name: Showing config
      ansible.builtin.debug:
        var: lha_config.data

      # {
      #   "clones": [
      #     "ANSIBLE_TEST_3_5": [
      #       "ANSIBLE_TEST_3_4"
      #     ]
      #   },
      #   "groups": [
      #     "ANSIBLE_TEST_3_6": [
      #       "ANSIBLE_TEST_3_1",
      #       "ANSIBLE_TEST_3_2"
      #     ]
      #   },
      #   "locations": [
      #     "ANSIBLE_TEST_3_8": [
      #       "node": "node2",
      #       "role": "Started",
      #       "rsc": "ANSIBLE_TEST_3_3",
      #       "score": "INFINITY"
      #     ]
      #   },
      #   "nodes": [
      #     "node1": 1,
      #     "node2": 2
      #   ],
      #   "orders": [
      #     "ANSIBLE_TEST_3_7": [
      #       "first": "ANSIBLE_TEST_3_3",
      #       "first-action": "start",
      #       "kind": "Mandatory",
      #       "then": "ANSIBLE_TEST_3_1",
      #       "then-action": "start"
      #     ]
      #   ],
      # }
```

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```

#       "primitives": {
#           "ANSIBLE_TEST_3_1": {
#               "class": "ocf",
#               "params": {
#                   "ip": "127.100.1.2",
#                   "nic": "lo"
#               },
#               "provider": "heartbeat",
#               "type": "IPAddr2"
#           },
#           "ANSIBLE_TEST_3_2": {
#               "class": "ocf",
#               "params": {
#                   "ip": "127.100.1.3",
#                   "nic": "lo"
#               },
#               "provider": "heartbeat",
#               "type": "IPAddr2"
#           },
#           "ANSIBLE_TEST_3_3": {
#               "class": "ocf",
#               "params": {
#                   "ip": "127.100.1.4",
#                   "nic": "lo"
#               },
#               "provider": "heartbeat",
#               "type": "IPAddr2"
#           },
#           "ANSIBLE_TEST_3_4": {
#               "class": "ocf",
#               "operations": {
#                   "monitor": {
#                       "interval": "5s",
#                       "on-fail": "restart",
#                       "timeout": "60"
#                   }
#               },
#               "params": {
#                   "host_list": "1.1.1.1 8.8.8.8"
#               },
#               "provider": "pacemaker",
#               "type": "ping"
#           }
#       },
#       "properties": {
#           "cluster-infrastructure": "corosync",
#           "cluster-name": "debian",
#           "dc-version": "2.0.5-ba59be7122",
#           "have-watchdog": false,
#           "last-lrm-refresh": 1680443090,
#           "stonith-enabled": false
#       }
#   }

```

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```

# }

- name: Pulling only a subset of the current config
  ansibleguy.linuxha.config:
    subset: ['properties', 'primitives']
    register: lha_config_subset

- name: Showing config subset
  ansible.builtin.debug:
    var: lha_config_subset.data

# {
#   "primitives": {
#     "ANSIBLE_TEST_3_1": {
#       "class": "ocf",
#       "params": {
#         "ip": "127.100.1.2",
#         "nic": "lo"
#       },
#       "provider": "heartbeat",
#       "type": "IPAddr2"
#     },
#     "ANSIBLE_TEST_3_2": {
#       "class": "ocf",
#       "params": {
#         "ip": "127.100.1.3",
#         "nic": "lo"
#       },
#       "provider": "heartbeat",
#       "type": "IPAddr2"
#     },
#     "ANSIBLE_TEST_3_3": {
#       "class": "ocf",
#       "params": {
#         "ip": "127.100.1.4",
#         "nic": "lo"
#       },
#       "provider": "heartbeat",
#       "type": "IPAddr2"
#     },
#     "ANSIBLE_TEST_3_4": {
#       "class": "ocf",
#       "operations": {
#         "monitor": {
#           "interval": "5s",
#           "on-fail": "restart",
#           "timeout": "60"
#         }
#       },
#       "params": {
#         "host_list": "1.1.1.1 8.8.8.8"
#       },
#     }
#   }
# }

```

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```

#           "provider": "pacemaker",
#           "type": "ping"
#
#       },
#   },
#   "properties": {
#       "cluster-infrastructure": "corosync",
#       "cluster-name": "debian",
#       "dc-version": "2.0.5-ba59be7122",
#       "have-watchdog": false,
#       "last-lrm-refresh": 1680443090,
#       "stonith-enabled": false
#   }
# }

- name: Pulling current config in raw-format
  ansibleguy.linuxha.config:
    raw: true
    register: lha_raw_config

- name: Showing raw-config
  ansible.builtin.debug:
    var: lha_raw_config.data

# {
#     "admin_epoch": "0",
#     "cib-last-written": "Sat Apr  8 16:33:40 2023",
#     "configuration": {
#         "constraints": {
#             "rsc_location": {
#                 "id": "ANSIBLE_TEST_3_8",
#                 "node": "node2",
#                 "role": "Started",
#                 "rsc": "ANSIBLE_TEST_3_3",
#                 "score": "INFINITY"
#             },
#             "rsc_order": {
#                 "first": "ANSIBLE_TEST_3_3",
#                 "first-action": "start",
#                 "id": "ANSIBLE_TEST_3_7",
#                 "kind": "Mandatory",
#                 "then": "ANSIBLE_TEST_3_1",
#                 "then-action": "start"
#             }
#         },
#         "crm_config": {
#             "cluster_property_set": {
#                 "id": "cib-bootstrap-options",
#                 "nvpair": [
#                     {
#                         "id": "cib-bootstrap-options-have-watchdog",
#                         "name": "have-watchdog",
#                         "value": "false"
#                     }
#                 ]
#             }
#         }
#     }
# }

```

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```

#           "id": "cib-bootstrap-options-dc-version",
#           "name": "dc-version",
#           "value": "2.0.5-ba59be7122"
#       },
#       {
#           "id": "cib-bootstrap-options-cluster-infrastructure",
#           "name": "cluster-infrastructure",
#           "value": "corosync"
#       },
#       {
#           "id": "cib-bootstrap-options-cluster-name",
#           "name": "cluster-name",
#           "value": "debian"
#       },
#       {
#           "id": "cib-bootstrap-options-stonith-enabled",
#           "name": "stonith-enabled",
#           "value": "false"
#       },
#       {
#           "id": "cib-bootstrap-options-last-lrm-refresh",
#           "name": "last-lrm-refresh",
#           "value": "1680443090"
#       }
#     ]
#   }
# },
# "nodes": {
#   "node": [
#     {
#       "id": "1",
#       "uname": "node1"
#     },
#     {
#       "id": "2",
#       "uname": "node2"
#     }
#   ]
# },
# "resources": {
#   "clone": {
#     "id": "ANSIBLE_TEST_3_5",
#     "primitive": {
#       "class": "ocf",
#       "id": "ANSIBLE_TEST_3_4",
#       "instance_attributes": {
#         "id": "ANSIBLE_TEST_3_4-instance_attributes",
#         "nvpair": {
#           "id": "ANSIBLE_TEST_3_4-instance_attributes-host_list",
#           "name": "host_list".
#         }
#       }
#     }
#   }
# }

```

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```

#
#           "value": "1.1.1.1 8.8.8.8"
#
#       }
#
#   },
#   "operations": {
#     "op": {
#       "id": "ANSIBLE_TEST_3_4-monitor-5s",
#       "interval": "5s",
#       "name": "monitor",
#       "on-fail": "restart",
#       "timeout": "60"
#     }
#   },
#   "provider": "pacemaker",
#   "type": "ping"
#
# }
#
# },
# "group": {
#   "id": "ANSIBLE_TEST_3_6",
#   "primitive": [
#     {
#       "class": "ocf",
#       "id": "ANSIBLE_TEST_3_1",
#       "instance_attributes": {
#         "id": "ANSIBLE_TEST_3_1-instance_attributes",
#         "nvpair": [
#           {
#             "id": "ANSIBLE_TEST_3_1-instance_attributes-ip",
#             "name": "ip",
#             "value": "127.100.1.2"
#           },
#           {
#             "id": "ANSIBLE_TEST_3_1-instance_attributes-nic",
#             "name": "nic",
#             "value": "lo"
#           }
#         ],
#         "provider": "heartbeat",
#         "type": "IPAddr2"
#       },
#       {
#         "class": "ocf",
#         "id": "ANSIBLE_TEST_3_2",
#         "instance_attributes": {
#           "id": "ANSIBLE_TEST_3_2-instance_attributes",
#           "nvpair": [
#             {
#               "id": "ANSIBLE_TEST_3_2-instance_attributes-ip",
#               "name": "ip",
#             }
#           ]
#         }
#       }
#     }
#   }
# }

```

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```
#                               "value": "127.100.1.3"
#
#                           },
#
#                           {
#
#                               "id": "ANSIBLE_TEST_3_2-instance_attributes-nic"
#
#                           },
#
#                           {
#
#                               "name": "nic",
#
#                               "value": "lo"
#
#                           }
#
#                       ]
#
#                   },
#
#                   "provider": "heartbeat",
#
#                   "type": "IPAddr2"
#
#               }
#
#           ]
#
#       },
#
#       "primitive": {
#
#           "class": "ocf",
#
#           "id": "ANSIBLE_TEST_3_3",
#
#           "instance_attributes": {
#
#               "id": "ANSIBLE_TEST_3_3-instance_attributes",
#
#               "nvpair": [
#
#                   {
#
#                       "id": "ANSIBLE_TEST_3_3-instance_attributes-ip",
#
#                       "name": "ip",
#
#                       "value": "127.100.1.4"
#
#                   },
#
#                   {
#
#                       "id": "ANSIBLE_TEST_3_3-instance_attributes-nic",
#
#                       "name": "nic",
#
#                       "value": "lo"
#
#                   }
#
#               ]
#
#           },
#
#           "provider": "heartbeat",
#
#           "type": "IPAddr2"
#
#       }
#
#   }
#
# },
#
# "crm_feature_set": "3.6.1",
#
# "dc-uuid": "1",
#
# "epoch": "418",
#
# "have-quorum": "1",
#
# "num_updates": "12",
#
# "update-client": "cibadmin",
#
# "update-origin": "node1",
#
# "update-user": "root",
#
# "validate-with": "pacemaker-3.5"
#
# }
```

---

**Tip:** Check out the repository on GitHub

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## RAW

**STATE:** unstable

**TESTS:** Playbook

**Docs:** [crm-shell](#)

### 6.1 Definition

Table 1: Definition

Parameter	Type	Re-required	Default	Aliases	Comment
cmd	string	true	-	com-mand, c	Raw command to pass to crm-shell
fail	boolean	false	true	f	Fail module if command fails

For basic parameters see: [Basic](#)

### 6.2 Info

Will pass any command to ‘crm-shell’.

**Warning:** THERE IS NO CLIENT-SIDE CONFIG VALIDATION!

### 6.3 Examples

```
- hosts: node1
  gather_facts: false
  become: true
  tasks:
    - name: Example
      ansibleguy.linuxha.raw:
        cmd: 'to execute'
        # fail: true # Fail module if command fails
```

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```
# force: false
# wait: false
# debug: false

- name: Pulling raw running-config
  ansibleguy.linuxha.raw:
    cmd: 'configure show'
    register: lha_cnf

- name: Showing config
  ansible.builtin.debug:
    var: lha_cnf.stdout_lines

- name: Disabling stonith
  ansibleguy.linuxha.raw:
    cmd: 'configure property stonith-enabled=false'

- name: Adding resource
  ansibleguy.linuxha.raw:
    cmd: 'configure primitive vip1 IPAddr2 params ip=10.15.12.1 nic=en01'

- name: Pulling raw status
  ansibleguy.linuxha.raw:
    cmd: 'status bynode'
    register: lha_status

- name: Showing status
  ansible.builtin.debug:
    var: lha_status.stdout_lines
```

---

**Tip:** Check out [the repository on GitHub](#)

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## STATUS

**STATE:** unstable

**TESTS:** Playbook

### 7.1 Definition

Table 1: Definition

Parameter	Type	Re-required	Default	Aliases	Comment
detailed	boolean	false	false	detail	Return a more detailed status parsed from XML output
subset	list	false	[‘cluster’, ‘nodes’, ‘re-sources’, ‘operations’]	parse, sub	Provide one or multiple status-subsets to parse ( <i>ignored if ‘detailed: true’ is set</i> )
time_format	string	false	%Y-%m-%d %H:%M:%C	t_fmt	Modify the datetime format used to parse timestamps ( <i>ignored if ‘detailed: true’ is set</i> )

For basic parameters see: *Basic*

### 7.2 Info

Get parsed cluster-status.

If ‘detailed: false’ (*default*) is set - the output from ‘crm status full’ is parsed.

Else the output from ‘crm status xml’ is used.

The ‘detailed’ output might get updated in the future! (*different modes to filter data and so on*)

## 7.3 Examples

```
- hosts: node1
  gather_facts: false
  become: true
  tasks:
    - name: Example
      ansibleguy.linuxha.status:
        # subset: ['cluster', 'nodes', 'resources', 'operations']
        # time_format: '%Y-%m-%d %H:%M:%S'

    - name: Pulling status
      ansibleguy.linuxha.status:
        register: lha_status

    - name: Showing status
      ansible.builtin.debug:
        var: lha_cnf.data

      # {
      #   "cluster": {
      #     "changed_node": "node1",
      #     "changed_time": "2023-04-02 15:49:30"
      #     "changed_user": "root",
      #     "changed_via": "cibadmin",
      #     "dc": "node1",
      #     "node_count": 2,
      #     "resource_count": 7,
      #     "updated": "2023-04-02 19:29:41"
      #     "version": "2.0.5-ba59be7122"
      #   },
      #   "nodes": {
      #     "node1": {
      #       "resources": {
      #         "a2": {
      #           "resource": {
      #             "class": null,
      #             "provider": "systemd",
      #             "type": "apache2.service"
      #           },
      #           "state": "Started"
      #         },
      #         "ng": {
      #           "resource": {
      #             "class": null,
      #             "provider": "systemd",
      #             "type": "nginx.service"
      #           },
      #           "state": "Started"
      #         },
      #         "pingGW": {
      #           "resource": {
      #             "class": null,
```

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```

#           "class": "ocf",
#           "provider": "pacemaker",
#           "type": "ping"
#
#           },
#           "state": "Started"
#
#       },
#       "test2": {
#           "resource": {
#               "class": "ocf",
#               "provider": "heartbeat",
#               "type": "IPAddr2"
#
#           },
#           "state": "Started"
#
#       }
#
#       },
#       "status": "online"
#
#   },
#   "node2": {
#       "resources": {
#           "a2": {
#               "resource": {
#                   "class": null,
#                   "provider": "systemd",
#                   "type": "apache2.service"
#
#               },
#               "state": "Started"
#
#           },
#           "pingGW": {
#               "resource": {
#                   "class": "ocf",
#                   "provider": "pacemaker",
#                   "type": "ping"
#
#               },
#               "state": "Started"
#
#           },
#           "test1": {
#               "resource": {
#                   "class": "ocf",
#                   "provider": "heartbeat",
#                   "type": "IPAddr2"
#
#               },
#               "state": "Started"
#
#           }
#
#       },
#       "status": "online"
#
#   }
#
#   },
#   "resources": {
#       "a2": {
#           "nodes": {
#               "node1": "Started",
#               "node2": "Started"
#
#           }
#
#       }
#
#   }
#
# 
```

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```

#           },
#           "resource": {
#               "class": null,
#               "provider": "systemd",
#               "type": "apache2.service"
#           }
#       },
#       "ng": {
#           "nodes": {
#               "node1": "Started"
#           },
#           "resource": {
#               "class": null,
#               "provider": "systemd",
#               "type": "nginx.service"
#           }
#       },
#       "pingGW": {
#           "nodes": {
#               "node1": "Started",
#               "node2": "Started"
#           },
#           "resource": {
#               "class": "ocf",
#               "provider": "pacemaker",
#               "type": "ping"
#           }
#       },
#       "test1": {
#           "nodes": {
#               "node2": "Started"
#           },
#           "resource": {
#               "class": "ocf",
#               "provider": "heartbeat",
#               "type": "IPAddr2"
#           }
#       },
#       "test2": {
#           "nodes": {
#               "node1": "Started"
#           },
#           "resource": {
#               "class": "ocf",
#               "provider": "heartbeat",
#               "type": "IPAddr2"
#           }
#       }
#   },
#   "operations": {
#       "node1": {
#           "a2": {
#

```

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```
# "2023-04-02 15:44:50": {
#     "change": "2023-04-02 15:44:50",
#     "migration_threshold": "1000000",
#     "operation": "probe",
#     "operation_id": "128",
#     "rc": "0",
#     "status": "ok",
#     "time_exec": "0ms",
#     "time_queue": "0ms"
# }
# },
# "pingGW": {
#     "2023-04-02 15:48:13": {
#         "change": "2023-04-02 15:48:13",
#         "migration_threshold": "1000000",
#         "operation": "start",
#         "operation_id": "143",
#         "rc": "0",
#         "status": "ok",
#         "time_exec": "10102ms",
#         "time_queue": "0ms"
#     }
# },
# "test1": {
#     "2023-04-02 15:33:44": {
#         "change": "2023-04-02 15:33:44",
#         "migration_threshold": "1000000",
#         "operation": "stop",
#         "operation_id": "112",
#         "rc": "0",
#         "status": "ok",
#         "time_exec": "17ms",
#         "time_queue": "0ms"
#     }
# },
# },
# "node2": {
#     "a2": {
#         "2023-04-02 15:44:51": {
#             "change": "2023-04-02 15:44:51",
#             "migration_threshold": "1000000",
#             "operation": "probe",
#             "operation_id": "102",
#             "rc": "0",
#             "status": "ok",
#             "time_exec": "0ms",
#             "time_queue": "0ms"
#         }
#     }
# }
```

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```

- name: Pulling detailed status
  ansibleguy.linuxha.status:
    detailed: true
  register: lha_status_detailed

- name: Showing detailed status
  ansible.builtin.debug:
    var: lha_status_detailed.data

#
#   "node_history": {
#     "node": {
#       "name": "node1",
#       "resource_history": {
#         "id": "ANSIBLE_TEST_2_1",
#         "migration-threshold": "1000000",
#         "operation_history": {
#           "call": "245",
#           "exec-time": "21ms",
#           "last-rc-change": "Sun Apr 2 20:59:51 2023",
#           "last-run": "Sun Apr 2 20:59:51 2023",
#           "queue-time": "0ms",
#           "rc": "0",
#           "rc_text": "ok",
#           "task": "start"
#         },
#         "orphan": "false"
#       }
#     }
#   },
#   "nodes": {
#     "node": [
#       {
#         "expected_up": "true",
#         "id": "1",
#         "is_dc": "true",
#         "maintenance": "false",
#         "name": "node1",
#         "online": "true",
#         "pending": "false",
#         "resources_running": "1",
#         "shutdown": "false",
#         "standby": "false",
#         "standby_onfail": "false",
#         "type": "member",
#         "unclean": "false"
#       },
#       {
#         "expected_up": "true",
#         "id": "2",
#         "is_dc": "false",
#       }
#     ]
#   }
# 
```

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```

#           "maintenance": "false",
#           "name": "node2",
#           "online": "true",
#           "pending": "false",
#           "resources_running": "0",
#           "shutdown": "false",
#           "standby": "false",
#           "standby_onfail": "false",
#           "type": "member",
#           "unclean": "false"
#
#       }
#
#   ]
#
# },
#
# "resources": {
#
#     "resource": {
#
#         "active": "true",
#         "blocked": "false",
#         "failed": "false",
#         "failure_ignored": "false",
#         "id": "ANSIBLE_TEST_2_1",
#         "managed": "true",
#         "node": {
#
#             "cached": "true",
#             "id": "1",
#             "name": "node1"
#
#         },
#         "nodes_running_on": "1",
#         "orphaned": "false",
#         "resource_agent": "ocf::heartbeat:IPAddr2",
#         "role": "Started"
#
#     }
#
# },
#
# "summary": {
#
#     "cluster_options": {
#
#         "maintenance-mode": "false",
#         "no-quorum-policy": "stop",
#         "stonith-enabled": "false",
#         "stop-all-resources": "false",
#         "symmetric-cluster": "true"
#
#     },
#
#     "current_dc": {
#
#         "id": "1",
#         "name": "node1",
#         "present": "true",
#         "version": "2.0.5-ba59be7122",
#         "with_quorum": "true"
#
#     },
#
#     "last_change": {
#
#         "client": "cibadmin",
#         "origin": "node1",
#         "time": "Sun Apr 2 20:59:51 2023",
#         "user": "root"
#
#     }
#
# }

```

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```
#      },
#      "last_update": {
#          "time": "Sun Apr  2 20:59:55 2023"
#      },
#      "nodes_configured": {
#          "number": "2"
#      },
#      "resources_configured": {
#          "blocked": "0",
#          "disabled": "0",
#          "number": "1"
#      },
#      "stack": {
#          "type": "corosync"
#      }
#  },
#  "version": "2.0.5"
# }
```