



## System Provisioning and Configuration Module Lab

### **Executing Ansible Modules**

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## Lab Exercise 04

### Executing Ansible Modules

**Objective:** To demonstrate the use of the Ansible module for server configuration and management

**Tools required:** Linux terminal

**Prerequisites:** None

Steps to be followed:

1. Use Ansible modules for server configuration

#### Step 1: Use Ansible modules for server configuration

- 1.1 Run the following command using the **setup** module to collect and display detailed system information about the servers:

**ansible -m setup spcm**

```
root@ec2-user@ip-172-31-3-184:~# ansible -m setup spcm
[WARNING]: Platform linux on host localhost is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could
change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
localhost | SUCCESS => {
  "ansible_facts": {
    "ansible_all_ipv4_addresses": [
      "172.31.3.184"
    ],
    "ansible_all_ipv6_addresses": [
      "fe80::85ff:75ff:fe26:7bcb"
    ],
    "ansible_apparmor": {
      "status": "disabled"
    },
    "ansible_architecture": "x86_64",
    "ansible_bios_date": "08/24/2006",
    "ansible_bios_version": "4.11.amazon",
    "ansible_cmdline": {
      "BOOT_IMAGE": "/boot/vmlinuz-5.10.235-227.919.amzn2.x86_64",
      "biosdevname": "0",
      "console": "ttyS0,115200n8",
      "net.ifnames": "0",
      "nvme_core.io_timeout": "4294967295",
      "rd.emergency": "poweroff",
      "udev.log_priority": "3"
    }
  }
}
```

```

    "ansible_swaptotal_mb": 0,
    "ansible_system": "Linux",
    "ansible_system_capabilities": [
        ""
    ],
    "ansible_system_capabilities_enforced": "True",
    "ansible_system_vendor": "Xen",
    "ansible_uptime_seconds": 3757,
    "ansible_user_dir": "/home/devops",
    "ansible_user_gecos": "",
    "ansible_user_gid": 1001,
    "ansible_user_id": "devops",
    "ansible_user_shell": "/bin/bash",
    "ansible_user_uid": 1001,
    "ansible_userspace_architecture": "x86_64",
    "ansible_userspace_bits": "64",
    "ansible_virtualization_role": "guest",
    "ansible_virtualization_type": "xen",
    "discovered_interpreter_python": "/usr/bin/python",
    "gather_subset": [
        "all"
    ],
    "module_setup": true
  },
  "changed": false
}
[ec2-user@ip-172-31-3-184 ~]$

```

1.2 Run the following command using the **shell** module to retrieve server hostnames:

**ansible spcm -m shell -a 'hostname'**

```

[ec2-user@ip-172-31-3-184 ~]$ ansible spcm -m shell -a "hostname"
[WARNING]: Platform linux on host localhost is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could
change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
localhost | CHANGED | rc=0 >>
ip-172-31-3-184.ap-south-1.compute.internal
[WARNING]: Platform linux on host 172.31.2.18 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter
could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
172.31.2.18 | CHANGED | rc=0 >>
ip-172-31-2-18.ap-south-1.compute.internal
[ec2-user@ip-172-31-3-184 ~]$

```

1.3 Run the following command using the **apt** module to install Git on servers:

**ansible spcm -m yum -a 'name=git state=present' - - become**

```

[ec2-user@ip-172-31-3-184 ~]$ ansible spcm -m yum -a 'name=git state=present' --become
[WARNING]: Platform linux on host localhost is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could
change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
localhost | CHANGED => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "msg": "",
  "rc": 0,
  "results": [
    "git-2.47.1-1.amzn2.0.2.x86_64 providing git is already installed"
  ]
}
[WARNING]: Platform linux on host 172.31.2.18 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could
change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
172.31.2.18 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": true,
  "changes": {
    "installed": {

```

```

1-1.amzn2.0.2 will be installed\n-- Processing Dependency: git-core 2:4.7.1-1.amzn2.0.2 for package: git-2.47.1-1.amzn2.0.2.x86_64\n-- Processing Dependency: git-re
d-core 2:4.7.1-1.amzn2.0.2 for package: git-2.47.1-1.amzn2.0.2.x86_64\n-- Processing Dependency: perl-git 2:4.7.1-1.amzn2.0.2 for package: git-2.47.1-1.amzn2.0.2.
6.64\n-- Processing Dependency: perl(Git) for package: git-2.47.1-1.amzn2.0.2.x86_64\n-- Processing Dependency: perl(Term::ReadKey) for package: git-2.47.1-1.amzn2.
2.x86_64\n-- Running transaction check\n--> Package git-core.x86_64 0:2.47.1-1.amzn2.0.2 will be installed\n--> Package git-core-doc.noarch 0:2.47.1-1.amzn2.0.2 w
ll be installed\n--> Package perl-Git.noarch 0:2.47.1-1.amzn2.0.2 will be installed\n--> Processing Dependency: perl(Error) for package: perl-Git-2.47.1-1.amzn2.0.2.
noarch\n--> Package perl-TermReadKey.x86_64 0:2.30-20.amzn2.0.2 will be installed\n--> Running transaction check\n--> Package perl-Error.noarch 1:0.17020-2.amzn2.0.
2 will be installed\n-- Finished Dependency Resolution\nDependencies Resolved\n\n===== Transaction Summary =====\nPackage               Arch      Version              Repository                Size\n-----
git                 x86_64    2.47.1-1.amzn2.0.2   amzn2-core                57 k\nInstalling for dependencies:\n git-core             x86_64    2.47.1-1.amzn2.0.2   amzn2-core                3.2 M\nperl-Error          noarch    1:0.17020-2.amzn2.0.2 amzn2-core                3.2 M\nperl-TermReadKey    x86_64    2.30-20.amzn2.0.2   amzn2-core                44 k\nperl-Git            noarch    0:2.47.1-1.amzn2.0.2 amzn2-core                31 k\n\nTotal download size: 15 M\nInstalled size: 47 M\nDownloading packages:\n\nRunning transaction check\nRunning transaction test\nTransaction test succeeded\nRunning transac
tion\nInstalling : git-core-2.47.1-1.amzn2.0.2.x86_64\nVerifying : git-core-2.47.1-1.amzn2.0.2.x86_64\n3/6 \n Installing : perl-Error-1:0.17020-2.amzn2.0.2.noarch
3/6 \n Installing : perl-TermReadKey-2.30-20.amzn2.0.2.x86_64 4/6 \n Installing : perl-Git-2.47.1-1.amzn2.0.2.noarch 5/6 \n Installing : git-2.47.1-1.amzn2.0.2.x86_64 6/6 \n V
erifying : perl-TermReadKey-2.30-20.amzn2.0.2.x86_64 1/6 \n Verifying : perl-Git-2.47.1-1.amzn2.0.2.noarch 2/6 \n Verifying : git-2.47.1-1.amzn2.0.2.x86_64 3/6 \n Verifying : 1perl-Error-1:0.17020-2.amzn2.0.2.noarch 4/6 \n Verif
y : git-core-doc-2.47.1-1.amzn2.0.2.noarch 5/6 \n Verifying : git-core-2.47.1-1.amzn2.0.2.x86_64 6/6 \n\nInstalled:
git.x86_64 0:2.47.1-1.amzn2.0.2\n\nDependency Installed:\ngit-core.x86_64 0:2.47.1-1.amzn2.0.2\nperl-Error.noarch 1:0.17020-2.amzn2.0.2\nperl-Git.noarch 0:2.47.1-1.amzn2.0.2\nperl-TermReadKey.x86_64 0:2.30-20.amzn2.0.2\n\nIncomplete!\n\n
[ec2-user@ip-172-31-3-184 ~]$
```