

LB Cluster Solution Deployment User Manual

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Overview

Implementation of LB Cluster solution deployment is based on [ansible](#) playbooks. Parameters that are important for deployment are defined in configuration files, playbook commands are set in [makefile](#). To start deployment user runs command "make deploy" (see [user rights requirements](#)), "make" is a command which executes command from makefile, "deployFE" and "deployFEJ" are the main deployment commands. "Make" utility finds "deployFE" or "deployFEJ" label in makefile and runs script for ansible playbook.

- Run "**make deployFE**" to deploy cluster with FIXEdge C++
- Run "**make deployFEJ**" to deploy cluster with FIXEdge Java

Distribution Package

Part of needed files included in distribution package

File description	Example
FIXEdge distribution archive	FIXEdge-6.6.1-lb-cluster.138-FA-2.25.0.138-Linux-3.10.0-gcc-4.8.5-x86_64.tar.gz
Configuration Service distribution archive	configuration-service*.tar
Scheduler service distribution archive	scheduler-service*.tar
Playbook files	yml configuration files, readme files, etc.

Files not included in distribution package - license files, TLS certificates, Consul distribution packages.

Playbook

Playbook and all deployment-dependent files are saved on deployment workstation - Linux-based machine that may be a separate machine or one of the hosts configured for cluster components.

Playbook requires

- ansible installed on deployment workstation with all dependent packages (ansible version 2.5.1 and higher)
- passwordless sudo configured on all hosts
- python installed on all hosts (version 2.7 and higher)
- ssh access to all hosts
- "make" utility available on deployment workstation

User runs ansible playbook using "make" utility on deployment workstation.

example of makefile:

makefile

```
APB=ansible-playbook
INVENTORY=hosts.yml
PB=deploy.yml
SSH_ARGS=-o StrictHostKeyChecking=no
ANSIBLE_FLAGS_FIXEDGE=--skip-tags

# Default target
all: deploy

# Target to deploy the services to the configured machines
deployFE: ${INVENTORY} ${PB}
    ${APB} -i ${INVENTORY} ${ANSIBLE_FLAGS_FIXEDGE} java ${PB} --ssh-common-args="${SSH_ARGS}"

deployFEJ: ${INVENTORY} ${PB}
    ${APB} -i ${INVENTORY} ${ANSIBLE_FLAGS_FIXEDGE} c++ ${PB} --ssh-common-args="${SSH_ARGS}"
```

User rights

Deployment process require superuser rights on all hosts for user that will run playbook.

Parameters Configuration

Directory structure

Name	Description
PLAYBOOK_ROOT_DIR	root directory for deployment files Contains: ansible.cfg - ansible configuration file deploy.yml - steps of deployment hosts.yml - file for hardware units configuration makefile - file for "make" command arguments Readme.MD - root readme document
PLAYBOOK_ROOT_DIR/doc	directories for documentation files
PLAYBOOK_ROOT_DIR/doc/quickstart	Contains: readme files
PLAYBOOK_ROOT_DIR/files	directory for distribution packages, license, key files
PLAYBOOK_ROOT_DIR/group_vars	directory for files containing global variables
PLAYBOOK_ROOT_DIR/roles	directory for deployment-related files for roles

Roles

For convenience all deployment jobs are divided into parts according to functionality that is deployed. These parts are called "roles". Parameters for roles are defined in PLAYBOOK_ROOT_DIR/roles/<role_name>/defaults/main.yml. These parameters can be overridden by [global parameters](#) with the same name. For example user can define "fe_destdir" parameter in all.yml file and it will be taken by ansible playbook instead of parameter defined in PLAYBOOK_ROOT_DIR/roles/fixedge/defaults/main.yml

Hosts

Hardware unit parameters are stored in hosts.yml

Parameter	Description
-----------	-------------

ansible_host	IP address for hw unit
ansible_port	IP port used for ssh access on hw units
ansible_user	user login used by ansible for changing configuration on hw unit
ansible_ssh_pass	user ssh pass used by ansible for changing configuration on hw unit
ansible_connection:	used for docker implementation of Oracle DB in test configuration
ansible_connection_args:	used for docker implementation of Oracle DB in test configuration

Example for hosts.yml

```
---
all:
  children:
    # Host names or IP addresses where FIXEdge daemon with Consul Agent
    # will be deployed.
    fixededge:
      hosts:
        fixededge_1:
          ansible_host: 10.6.223.22
          ansible_port: 22
          ansible_user: user
          ansible_ssh_pass: epm-bfix
        fixededge_2:
          ansible_host: 10.6.220.172
          ansible_port: 22
          ansible_user: user
          ansible_ssh_pass: epm-bfix
    # Host names or IP addresses where Configuration Service daemon with
    # Consul Agent will be deployed.
    confservice:
      hosts:
        cs_1:
          ansible_host: 10.6.221.249
          ansible_port: 22
          ansible_user: user
          ansible_ssh_pass: epm-bfix
    # Host names or IP addresses where HAProxy with Consul Agent and
    # Consul Template will be deployed/configured.
    proxy:
      hosts:
        haproxy:
          ansible_host: 10.6.223.32
          ansible_port: 22
          ansible_user: user
          ansible_ssh_pass: epm-bfix
    # Host name or IP address of the Oracle Database
    database:
      hosts:
        oracle:
          ansible_host: user_oracle-database_1
          ansible_connection: docker
          ansible_connection_args: '-H=tcp://10.6.221.187:2375'
    # Host name or IP address of the Oracle Database
    consul_cluster:
      hosts:
        consul_server_1:
          ansible_host: 10.6.221.187
          ansible_port: 22
          ansible_user: user
          ansible_ssh_pass: epm-bfix
    splunk:
      hosts:
        splunk_1:
          ansible_host: 10.6.221.187
          ansible_port: 22
          ansible_user: user
          ansible_ssh_pass: epm-bfix
```

Global variables

variable	component	required for FIXEdge C++	required for FIXEdge Java	description
----------	-----------	-----------------------------------	------------------------------------	-------------

dba_user	Oracle DB	+	+	DB Administrator login. Database user with administrator rights is needed for adding user, create and configure database for the solution needs.
dba_password	Oracle DB	+	+	DB Administrator password
db_user	Oracle DB	+	+	DB user login
db_password	Oracle DB	+	+	DB user password
db_address	Oracle DB	+	+	IP address for connection to DB
db_port	Oracle DB	+	+	IP port for connection to DB
db_sid	Oracle DB	+	+	DB SID
file_consul	Consul	+	+	path to Consul Agent distribution archive
file_ctemplate	Consul	+	+	path to Consul template software package (ZIP archive).
fe_cluster_id	Cluster	+	+	unique identity of FIXEdge C++ LB Cluster
file_cs	Configuration Service	+	+	path to Configuration Service distribution archive
fe_splunk_host	Splunk	+	+	IP address for connection to Splunk system
fe_splunk_port	Splunk	+	+	IP port for connection to Splunk system
consul_deploy_dir	Consul	+	+	path for Consul deployment
fe_archive_dest_scheduler	Scheduler Service	+	+	path to Scheduler Service distribution archive
fe_lic_dnl	FIXEdge C++ nodes	+		path to license file for FIXEdge C++
fe_archive_dest	FIXEdge C++ nodes	+		path to FIXEdge C++ distribution archive
fe_rapi_key	FIXEdge C++ nodes	+		path to REST-API key file
fe_rapi.crt	FIXEdge C++ nodes	+		path to REST-API certificate file
fe_rapi_port	FIXEdge C++ nodes	+		IP port for REST-API
fe_lic_dnl_java	FIXEdge Java nodes		+	path to license file for FIXEdge Java
fe_archive_dest_java	FIXEdge Java nodes		+	path to FIXEdge Java distribution archive
fe_archive_dest_fo	FIXEdge Java nodes		+	path to FO Java distribution archive

Global variables are stored in group_vars/all.yml file

example for all.yml

```
---

lbc_dedicated_network_configuration_service_address: 10.3.0.11

# Oracle
dba_user: system
dba_password: oracle
db_user: fix
db_password: fix
db_addr: '10.3.0.5'
db_port: 1521
db_sid: XE

# Clusters identifier
fe_cluster_id: 'FixEdge1'
fej_cluster_id: 'FIXEdge-Java-1'

fe_lic_dnl: '{{ playbook_dir }}/files/engine.license'
fe_archive_dest: '{{ playbook_dir }}/files/FIXEdgeLBC-6.8.1_141.tar.gz'
fe_rapi_key: '{{ playbook_dir }}/files/rapi.key'
fe_rapi.crt: '{{ playbook_dir }}/files/rapi.crt'

fe_lic_dnl_java: '{{ playbook_dir }}/files/fixaj2-license.bin'
fe_archive_dest_java: '{{ playbook_dir }}/files/fixedgej-lbc-1.3.1.zip'
fe_archive_dest_fo: '{{ playbook_dir }}/files/fo-storage-server-1.3.21-bin.tar'

fe_archive_dest_scheduler: '{{ playbook_dir }}/files/scheduler-service-1.0.0.tar'
file_cs: '{{ playbook_dir }}/files/configuration-service-1.1.0.tar'
file_consul: '{{ playbook_dir }}/files/consul_1.5.2_linux_amd64.zip'
file_ctemplate: '{{ playbook_dir }}/files/consul-template_0.20.0_linux_amd64.zip'

fe_rapi_port: '8903'
fe_splunk_host: '10.3.0.10'
fe_splunk_port: '1514'
fe_fix_port: '8901'
fe_fixssl_port: '8905'
fe_fix_java_port: '8911'
consul_deploy_dir: '/srv/consul-agent'

consul_server_addresses: |
  {%- set addresses = [] -%}
  {%- for item in groups['consul_cluster'] -%}
    {%- if addresses.append(hostvars[item]['ansible_default_ipv4']['address']) -%}
      {%- endif -%}
  {%- endfor -%}
  {{ addresses }}
```

Troubleshooting

Deployment process will display messages on the terminal output indicating results for every step. When all the steps finished successfully user will get the output similar to:

```

IMM30S , timerstacknsec : 50000 , transient : no , type : simple , u
tchdogTimestampMonotonic": "0", "WatchdogUsec": "0", "WorkingDirectory": "/sr
META: ran handlers
META: ran handlers

PLAY RECAP *****
consul_server_1      : ok=2    changed=0    unreachable=0    failed=0
cs_1                 : ok=20   changed=2    unreachable=0    failed=0
fixededge_1          : ok=27   changed=6    unreachable=0    failed=0
fixededge_2          : ok=27   changed=6    unreachable=0    failed=0
haproxy              : ok=28   changed=5    unreachable=0    failed=0
oracle               : ok=6    changed=6    unreachable=0    failed=0

```

Incorrect deployment process ending will be similar to:

```

PLAY RECAP *****
consul_server_1      : ok=2    changed=0    unreachable=0    failed=0
cs_1                 : ok=20   changed=2    unreachable=0    failed=0
fixededge_1          : ok=0    changed=0    unreachable=1    failed=0
fixededge_2          : ok=27   changed=6    unreachable=0    failed=0
haproxy              : ok=28   changed=5    unreachable=0    failed=0
oracle               : ok=6    changed=5    unreachable=0    failed=0

makefile:11: recipe for target 'deploy' failed
make: *** [deploy] Error 4

```

Host is unreachable

Problem: user gets error message similar to:

```

❗ LAY [Debug variables]
*****
TASK [Gathering Facts]
*****
task path: /home/egor/work/ansible-play-lbc/deploy.yml:3
ok: [cs_1]
ok: [haproxy]
ok: [fixededge_2]
ok: [consul_server_1]
fatal: [fixededge_1]: UNREACHABLE! => {"changed": false, "msg": "Failed to connect to the host via ssh: ssh: connect to host 10.6.223.22 port 22: Connection timed out\r\n", "unreachable": true}

```

Description: possible reason may be that host is unreachable via network

Solution:

- check network connectivity to troubled host (ip address is present in error message). Restore network connectivity if it was lost.

Wrong oracle access parameters

Problem: user gets error message similar to:



TASK [setup-oracle-db : Cleanup Oracle Database contents]

```

*****
task path: /home/user/work/ansible-play-lbc/roles/setup-oracle-db/tasks/main.yml:22
failed: [oracle] (item=database-cleanup.sql) => {"changed": true, "cmd": "sqlplus admin/oracle@10.6.221.187/XE < /tmp/database-cleanup.sql",
"delta": "0:00:02.290971", "end": "2019-02-22 11:44:03.956940", "item": "database-cleanup.sql", "msg": "non-zero return code", "rc": 1, "start":
"2019-02-22 11:44:01.665969", "stderr": "", "stderr_lines": [], "stdout": "\nSQL*Plus: Release 12.1.0.2.0 Production on Fri Feb 22 11:44:02
2019\n\nCopyright (c) 1982, 2014, Oracle. All rights reserved.\n\nERROR:\nORA-01017: invalid username/password; logon denied\n\nEnter
user-name: SP2-0306: Invalid option.\nUsage: CONN[ECT] [{/logon|/proxy} [AS
{SYSDBA|SYSOPER|SYSASM|SYSBACKUP|SYSDG|SYSKM}] [edition=value]]\n\nwhere <logon> ::= <username>[/<password>]
[ @<connect_identifier>]\n <proxy> ::= <proxyuser>[<username>] [/<password>] [ @<connect_identifier>]\n\nEnter user-name: ERROR:\nORA-
01017: invalid username/password; logon denied\n\nSP2-0157: unable to CONNECT to ORACLE after 3 attempts, exiting SQL*Plus",
"stdout_lines": [""], "SQL*Plus: Release 12.1.0.2.0 Production on Fri Feb 22 11:44:02 2019", "", "Copyright (c) 1982, 2014, Oracle. All rights
reserved.", "", "ERROR:", "ORA-01017: invalid username/password; logon denied", "", "", "Enter user-name: SP2-0306: Invalid option.", "Usage:
CONN[ECT] [{/logon|/proxy} [AS {SYSDBA|SYSOPER|SYSASM|SYSBACKUP|SYSDG|SYSKM}] [edition=value]]", "where <logon> ::=
<username>[/<password>] [ @<connect_identifier>]", " <proxy> ::= <proxyuser>[<username>] [/<password>] [ @<connect_identifier>]", "Enter
user-name: ERROR:", "ORA-01017: invalid username/password; logon denied", "", "", "SP2-0157: unable to CONNECT to ORACLE after 3
attempts, exiting SQL*Plus"}]
failed: [oracle] (item=database-data.sql) => {"changed": true, "cmd": "sqlplus admin/oracle@10.6.221.187/XE < /tmp/database-data.sql", "delta":
"0:00:03.318344", "end": "2019-02-22 11:44:14.010157", "item": "database-data.sql", "msg": "non-zero return code", "rc": 1, "start": "2019-02-22
11:44:10.691813", "stderr": "", "stderr_lines": [], "stdout": "\nSQL*Plus: Release 12.1.0.2.0 Production on Fri Feb 22 11:44:12 2019\n\nCopyright
(c) 1982, 2014, Oracle. All rights reserved.\n\nERROR:\nORA-01017: invalid username/password; logon denied\n\nEnter user-name: SP2-
0306: Invalid option.\nUsage: CONN[ECT] [{/logon|/proxy} [AS {SYSDBA|SYSOPER|SYSASM|SYSBACKUP|SYSDG|SYSKM}] [edition=value]]
\n\nwhere <logon> ::= <username>[/<password>] [ @<connect_identifier>]\n <proxy> ::= <proxyuser>[<username>] [/<password>]
[ @<connect_identifier>]\n\nEnter user-name: ERROR:\nORA-01017: invalid username/password; logon denied\n\nSP2-0157: unable to
CONNECT to ORACLE after 3 attempts, exiting SQL*Plus", "stdout_lines": [""], "SQL*Plus: Release 12.1.0.2.0 Production on Fri Feb 22 11:44:
12 2019", "", "Copyright (c) 1982, 2014, Oracle. All rights reserved.", "", "ERROR:", "ORA-01017: invalid username/password; logon denied", "",
"", "Enter user-name: SP2-0306: Invalid option.", "Usage: CONN[ECT] [{/logon|/proxy} [AS
{SYSDBA|SYSOPER|SYSASM|SYSBACKUP|SYSDG|SYSKM}] [edition=value]]", "where <logon> ::= <username>[/<password>]
[ @<connect_identifier>]", " <proxy> ::= <proxyuser>[<username>] [/<password>] [ @<connect_identifier>]", "Enter user-name: ERROR:",
"ORA-01017: invalid username/password; logon denied", "", "", "SP2-0157: unable to CONNECT to ORACLE after 3 attempts, exiting
SQL*Plus"}]
to retry, use: --limit @/home/user/work/ansible-play-lbc/deploy.retry
PLAY RECAP

*****
consul_server_1      : ok=2  changed=0  unreachable=0  failed=0
cs_1                 : ok=2  changed=0  unreachable=0  failed=0
fixedge_1            : ok=2  changed=0  unreachable=0  failed=0
fixedge_2            : ok=2  changed=0  unreachable=0  failed=0
haproxy              : ok=2  changed=0  unreachable=0  failed=0
oracle                : ok=4  changed=3  unreachable=0  failed=1
makefile:11: recipe for target 'deploy' failed
make: *** [deploy] Error 2
user@lbc:~/work/ansible-play-lbc$

```

Description: possible reason may be wrong access parameters

Solution:

- correct database access parameters in PLAYBOOK_ROOT_DIR/group_vars/all.yml
- check that access to database works using database client software

Database (oracle) unavailable

Problem: user gets error message similar to:



TASK [setup-oracle-db : Cleanup Oracle Database contents]

```

*****
task path: /home/user/work/ansible-play-lbc/roles/setup-oracle-db/tasks/main.yml:22
failed: [oracle] (item=database-cleanup.sql) => {"changed": true, "cmd": "sqlplus system/oracle@10.6.221.187/XE < /tmp/database-cleanup.sql",
"delta": "0:00:01.033081", "end": "2019-02-22 07:08:42.678543", "item": "database-cleanup.sql", "msg": "non-zero return code", "rc": 1, "start":
"2019-02-22 07:08:41.645462", "stderr": "", "stderr_lines": [], "stdout": "\nSQL*Plus: Release 12.1.0.2.0 Production on Fri Feb 22 07:08:42
2019\n\nCopyright (c) 1982, 2014, Oracle. All rights reserved.\n\nERROR:\nORA-12514: TNS:listener does not currently know of service
requested in connect\ndescriptor\n\nEnter user-name: SP2-0306: Invalid option.\nUsage: CONN[ECT] [{logon}/proxy] [AS
{SYSDBA|SYSOPER|SYSASM|SYSBACKUP|SYSDG|SYSKM}] [edition=value]\n\nwhere <logon> ::= <username>/<password>]
[@<connect_identifier>]\n <proxy> ::= <proxyuser>[<username>]/<password>]\n\nEnter user-name: ERROR:\nORA-
01017: invalid username/password; logon denied\n\nSP2-0157: unable to CONNECT to ORACLE after 3 attempts, exiting SQL*Plus",
"stdout_lines": ["", "SQL*Plus: Release 12.1.0.2.0 Production on Fri Feb 22 07:08:42 2019", "", "Copyright (c) 1982, 2014, Oracle. All rights
reserved.", "", "ERROR:", "ORA-12514: TNS:listener does not currently know of service requested in connect", "descriptor", "", "", "Enter user-
name: SP2-0306: Invalid option.", "Usage: CONN[ECT] [{logon}/proxy] [AS {SYSDBA|SYSOPER|SYSASM|SYSBACKUP|SYSDG|SYSKM}]
[edition=value]]", "where <logon> ::= <username>/<password>] [@<connect_identifier>]", " <proxy> ::= <proxyuser>[<username>]
/<password>] [@<connect_identifier>]", "Enter user-name: ERROR:", "ORA-01017: invalid username/password; logon denied", "", "", "SP2-
0157: unable to CONNECT to ORACLE after 3 attempts, exiting SQL*Plus"]}
failed: [oracle] (item=database-data.sql) => {"changed": true, "cmd": "sqlplus system/oracle@10.6.221.187/XE < /tmp/database-data.sql",
"delta": "0:00:01.000175", "end": "2019-02-22 07:08:49.490630", "item": "database-data.sql", "msg": "non-zero return code", "rc": 1, "start":
"2019-02-22 07:08:48.490455", "stderr": "", "stderr_lines": [], "stdout": "\nSQL*Plus: Release 12.1.0.2.0 Production on Fri Feb 22 07:08:49
2019\n\nCopyright (c) 1982, 2014, Oracle. All rights reserved.\n\nERROR:\nORA-12514: TNS:listener does not currently know of service
requested in connect\ndescriptor\n\nEnter user-name: SP2-0306: Invalid option.\nUsage: CONN[ECT] [{logon}/proxy] [AS
{SYSDBA|SYSOPER|SYSASM|SYSBACKUP|SYSDG|SYSKM}] [edition=value]\n\nwhere <logon> ::= <username>/<password>]
[@<connect_identifier>]\n <proxy> ::= <proxyuser>[<username>]/<password>] [@<connect_identifier>]\n\nEnter user-name: ERROR:\nORA-
01017: invalid username/password; logon denied\n\nSP2-0157: unable to CONNECT to ORACLE after 3 attempts, exiting SQL*Plus",
"stdout_lines": ["", "SQL*Plus: Release 12.1.0.2.0 Production on Fri Feb 22 07:08:49 2019", "", "Copyright (c) 1982, 2014, Oracle. All rights
reserved.", "", "ERROR:", "ORA-12514: TNS:listener does not currently know of service requested in connect", "descriptor", "", "", "Enter user-
name: SP2-0306: Invalid option.", "Usage: CONN[ECT] [{logon}/proxy] [AS {SYSDBA|SYSOPER|SYSASM|SYSBACKUP|SYSDG|SYSKM}]
[edition=value]]", "where <logon> ::= <username>/<password>] [@<connect_identifier>]", " <proxy> ::= <proxyuser>[<username>]
/<password>] [@<connect_identifier>]", "Enter user-name: ERROR:", "ORA-01017: invalid username/password; logon denied", "", "", "SP2-
0157: unable to CONNECT to ORACLE after 3 attempts, exiting SQL*Plus"]}
to retry, use: --limit @/home/user/work/ansible-play-lbc/deploy.retry
PLAY RECAP

*****
consul_server_1      :ok=2  changed=0  unreachable=0  failed=0
cs_1                 :ok=2  changed=0  unreachable=0  failed=0
fixedge_1            :ok=2  changed=0  unreachable=0  failed=0
fixedge_2            :ok=2  changed=0  unreachable=0  failed=0
haproxy              :ok=2  changed=0  unreachable=0  failed=0
oracle                :ok=4  changed=4  unreachable=0  failed=1
makefile:11: recipe for target 'deploy' failed
make: *** [deploy] Error 2
user@lbc:~/work/ansible-play-lbc$

```

Description: possible reason may be in database. It may be unreachable or may work not properly

Solution:

- check network connectivity. Restore it if needed.
- try to access database with database client using credentials configured in deploy config files.
- check database health.

Lack of user rights

Problem: user gets error message similar to:



TASK [consul-agent : Create the Consul Agent deployment directory]

```

*****
task path: /home/user/work/ansible-play-lbc/roles/consul-agent/tasks/main.yml:11
ok: [fixedge_2] => (item=bin) => {"changed": false, "gid": 0, "group": "root", "item": "bin", "mode": "0755", "owner": "root", "path": "/srv/consul-agent/bin", "size": 20, "state": "directory", "uid": 0}
failed: [fixedge_1] (item=bin) => {"changed": false, "item": "bin", "module_stderr": "Shared connection to 10.6.223.22 closed.\n", "module_stdout": "sudo: a password is required\n", "msg": "MODULE FAILURE", "rc": 1}
ok: [fixedge_2] => (item=etc) => {"changed": false, "gid": 0, "group": "root", "item": "etc", "mode": "0755", "owner": "root", "path": "/srv/consul-agent/etc", "size": 6, "state": "directory", "uid": 0}
failed: [fixedge_1] (item=etc) => {"changed": false, "item": "etc", "module_stderr": "Shared connection to 10.6.223.22 closed.\n", "module_stdout": "sudo: a password is required\n", "msg": "MODULE FAILURE", "rc": 1}
failed: [fixedge_1] (item=var) => {"changed": false, "item": "var", "module_stderr": "Shared connection to 10.6.223.22 closed.\n", "module_stdout": "sudo: a password is required\n", "msg": "MODULE FAILURE", "rc": 1}
ok: [fixedge_2] => (item=var) => {"changed": false, "gid": 0, "group": "root", "item": "var", "mode": "0755", "owner": "root", "path": "/srv/consul-agent/var", "size": 90, "state": "directory", "uid": 0}
TASK [consul-agent : Install unzip package if missing]

*****

task path: /home/user/work/ansible-play-lbc/roles/consul-agent/tasks/main.yml:21
ok: [fixedge_2] => {"changed": false, "msg": "", "rc": 0, "results": ["unzip-6.0-19.el7.x86_64 providing unzip is already installed"]}
TASK [consul-agent : set_fact]

*****

task path: /home/user/work/ansible-play-lbc/roles/consul-agent/tasks/main.yml:28
ok: [fixedge_2] => {"ansible_facts": {"consul_agent_dst": "/home/user/work/ansible-play-lbc/files/consul_1.4.0_linux_amd64.zip"}, "changed": false}

```

Description: the reason is that passwordless sudo is not configured for user on one of the hosts.

Solution:

- Configure passwordless sudo on host (ip address is present in the error message)

File is not found

Problem: user gets error message similar to:



TASK [cs : Create the Configuration Service destination directory]

```

*****

task path: /home/user/work/ansible-play-lbc/roles/cs/tasks/main.yml:17
ok: [cs_1] => {"changed": false, "gid": 0, "group": "root", "mode": "0755", "owner": "root", "path": "/srv/configuration-service", "size": 61, "state": "directory", "uid": 0}
TASK [cs : Unpack the Configuration Service]

*****

task path: /home/user/work/ansible-play-lbc/roles/cs/tasks/main.yml:23
fatal: [cs_1]: FAILED! => {"changed": false, "msg": "Could not find or access '/home/user/work/ansible-play-lbc/files/configuration-service-1.0.0-SNAPSHOT.tar'"}
to retry, use: --limit @/home/user/work/ansible-play-lbc/deploy.retry
PLAY RECAP

*****

consul_server_1      :ok=2  changed=0  unreachable=0  failed=0
cs_1                 :ok=14  changed=1  unreachable=0  failed=1
fixedge_1           :ok=2   changed=0  unreachable=0  failed=0
fixedge_2           :ok=2   changed=0  unreachable=0  failed=0
haproxy             :ok=2   changed=0  unreachable=0  failed=0
oracle              :ok=6   changed=5  unreachable=0  failed=0
makefile:11: recipe for target 'deploy' failed
make: *** [deploy] Error 2
user@lbc:~/work/ansible-play-lbc$

```

Description: deployment script can not find one of archive files for some reasons

Solution:

- check the file mentioned in error message exist in the proper directory. If not - put the file there
- check the path is defined properly in config file. If the path is wrong - change the path in configuration file