

SDC-OS-CHEF

Review - ONAP SDC-OS-CHEF

ElasticSearch

```
startup.sh
1 # sdc/sdc-os-chef/sdc-elasticsearch/startup.sh
2
3 export CHEFNAME=${ENVNAME}
4 cd /root/chef-solo
5 echo "normal['HOST_IP'] = \"${HOST_IP}\"" > /root/chef-solo/cookbooks/sdc-elas
6
7 sed -i '/^exec/iES_JAVA_OPTS=\"-Xms1024M -Xmx1024M\"' /docker-entrypoint.sh
8
9 chef-solo -c solo.rb -E ${CHEFNAME}
10
11 /docker-entrypoint.sh elasticsearch &
12
13 cd /root/c
14 chef-solo
15 chef-solo
16 chef-solo
17 chef-solo
18
19 while true
20
21
```

Lines 7:
Does it need 1 GB memory ? Michael ?
=> Adding java options to the last exec line

```
Tree: 8e87587ac5 - elasticsearch / 2.4 / alpine / docker-entrypoint.sh
[🛡️] tianon Adjust entrypoint to change logs directory owner at runtime
1 contributor

Executable File | 29 lines (23 sloc) | 747 Bytes

1 #!/bin/bash
2
3 set -e
4
5 # Add elasticsearch as command if needed
6 if [ "${1:0:1}" = '-' ]; then
7     set -- elasticsearch "$@"
8 fi
9
10 # Drop root privileges if we are running elasticsearch
11 # allow the container to be started with `--user`
12 if [ "$1" = 'elasticsearch' -a "$(id -u)" = '0' ]; then
13     # Change the ownership of user-mutable directories to elasticsearch
14     for path in \
15         /usr/share/elasticsearch/data \
16         /usr/share/elasticsearch/logs \
17     ; do
18         chown -R elasticsearch:elasticsearch "$path"
19     done
20
21     set -- su-exec elasticsearch "$@"
22     #exec su-exec elasticsearch "$BASH_SOURCE" "$@"
23 fi
24
25 # As argument is not related to elasticsearch,
26 # then assume that user wants to run his own process,
27 # for example a `bash` shell to explore this image
28 exec "$@"
```

startup.sh

```
1 # sdc/sdc-os-chef/sdc-elasticsearch/startup.sh
2
3 export CHEFNAME=${ENVNAME}
4 cd /root/chef-solo
5 echo "normal['HOST_IP'] .= \"\${HOST_IP}\"" > /root/chef-solo/cookbooks/sdc-elasticsearch/attributes/default.rb
6
7 sed -i '/^exec/iES_JAVA_OPTS=\"-Xms1024M -Xmx1024M\"' /docker-entrypoint.sh
8
9 chef-solo -c solo.rb -E ${CHEFNAME}
10
11 /docker-entrypoint.sh elasticsearch &
12
13 cd /root/chef-solo
14 chef-solo -c solo.rb -o recipe[sdc-elasticsearch::ES_3_create_audit_template]
15 chef-solo -c solo.rb -o recipe[sdc-elasticsearch::ES_4_create_resources_template]
16 chef-solo -c solo.rb -o recipe[sdc-elasticsearch::ES_5_create_monitoring_template]
17 chef-solo -c solo.rb -o recipe[sdc-elasticsearch::ES_6_create_kibana_dashboard_virtualization]
18
19 while true; do sleep 2; done
20
21
```

Lines 9 , 14-17:

The solo.json file defines the run list as: “ role:[elasticsearch] “

The “ role:[elasticsearch] “ runs the following recipes only:

“recipe[sdc-elasticsearch::ES_1_setup_elasticsearch]”,
“recipe[sdc-elasticsearch::ES_2_setup_logging]”

Either we run all as separate recipes or it can have 2 different roles ?

=> Create 2 config files and 2 roles.

Kibana

- NA

Cassandra

```
1 #!/bin/bash
2
3 cd /root/chef-solo
4 echo "normal['HOST_IP'] = \"${HOST_IP}\"" >> /root/chef-solo/cookbooks/cassandra-actions/attributes/default.rb
5
6 export CHEFNAME=${ENVNAME}
7
8 sed -i "s/HOSTIP/${HOST_IP}/g" /root/chef-solo/cookbooks/cassandra-actions/recipes/02-createCsUser.rb
9 sed -i "s/HOSTIP/${HOST_IP}/g" /root/chef-solo/cookbooks/cassandra-actions/recipes/03-createDoxKeyspace.rb
10 sed -i "s/HOSTIP/${HOST_IP}/g" /root/chef-solo/cookbooks/cassandra-actions/recipes/04-schemaCreation.rb
11
12 chef-solo --config /root/chef-solo/cookbooks/cassandra-actions/attributes/default.rb --chefname ${CHEFNAME}
13 rc=$?
14
15 if [[ $rc -ne 0 ]]; then
16 echo "###"
17 # start cassandra
18 /docker-entrypoint.sh cassandra -f &
19
20 sleep 10
21
22 chef-solo -c solo.rb -E ${CHEFNAME}
23
24 while true; do sleep 2; done
25
26
```

Lines: 8-10
If we define in line #4 the host IP we can use it as chef variables instead using sed on the files at lines 8-10
=> Line 4: Remove "SED" and "Echo" - Use Environment variable


```

1 #!/bin/bash
2
3 cd /root/chef-solo
4 echo "normal['HOST_IP'] = \"${HOST_IP}\"" >> /root/chef-solo/cookbooks/cassandra-actions/attributes/default.rb
5
6 export CHEFNAME=${ENVNAME}
7
8 sed -i "s/HOSTIP/${HOST_IP}/g" /root/chef-solo/cookbooks/cassandra-actions/recipes/02-createCsUser.rb
9 sed -i "s/HOSTIP/${HOST_IP}/g" /root/chef-solo/cookbooks/cassandra-actions/recipes/03-createDoxKeyspace.rb
10 sed -i "s/HOSTIP/${HOST_IP}/g" /root/chef-solo/cookbooks/cassandra-actions/recipes/04-schemaCreation.rb
11
12 chef-solo -c solo.rb -o recipe[cassandra-actions::01-configureCassandra] -E ${CHEFNAME}
13 rc=$?

```



Line # 12:
 The solo.rb defines : json_attribs '/solo.json'

The solo.json defines: { "run_list": ["role[cassandra-actions]"]

Role[cassandra-actions]: "run_list": ["recipe[cassandra-actions::02-createCsUser]",
 "recipe[cassandra-actions::03-createDoxKeyspace]",
 "recipe[cassandra-actions::04-schemaCreation]",
 "recipe[cassandra-actions::05-titanSchemaCreation]",
 "recipe[cassandra-actions::07-importComformance]"
],

But then provide the -o option that override the run list witj only 01-configurationCassandra:
 -o RUN_LIST_ITEM, --override-runlist RUN_LIST_ITEM

⇒ Check taking it out to external container
 ⇒ ⇒ Sleep elimination by health check

```
1 #!/bin/bash
2
3 cd /root/chef-solo
4 echo "normal['HOST_IP'] = \"${HOST_IP}\"" >> /root/chef-solo/cookbooks/cassandra-actions/attributes/default.rb
5
6 export CHEFNAME=${ENVNAME}
7
8 sed -i "s/HOSTIP/${HOST_IP}/g" /root/chef-solo/cookbooks/cassandra-actions/recipes/02-createCsUser.rb
9 sed -i "s/HOSTIP/${HOST_IP}/g" /root/chef-solo/cookbooks/cassandra-actions/recipes/03-createDoxKeyspace.rb
10 sed -i "s/HOSTIP/${HOST_IP}/g" /root/chef-solo/cookbooks/cassandra-actions/recipes/04-schemaCreation.rb
11
12 chef-solo -c solo.rb -o recipe[cassandra-actions::01-configureCassandra] -E ${CHEFNAME}
13 rc=$?
```



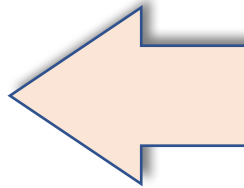
Line # 12:
Suggestion:
Take out the json_attribs definition from solo.rb
Create different configuration files (solo.json) :
1 for pre-configuration
1for post-configuration
Each will contain different run list
And use : -j PATH, --json-attributes PATH in the chef-solo command line to the relevant JSON file

```
1 #!/bin/bash
2
3 cd /root/chef-solo
4 echo "normal['HOST_IP'] = \"${HOST_IP}\"" >> /root/chef-solo/cookbooks/cassandra-actions/attributes/default.rb
5
6 export CHEFNAME=${ENVNAME}
7
8 sed -i "s/HOSTIP/${HOST_IP}/g" /root/chef-solo/cookbooks/cassandra-actions/recipes/02-createCsUser.rb
9 sed -i "s/HOSTIP/${HOST_IP}/g" /root/chef-solo/cookbooks/cassandra-actions/recipes/03-createDoxKeyspace.rb
10 sed -i "s/HOSTIP/${HOST_IP}/g" /root/chef-solo/cookbooks/cassandra-actions/recipes/04-schemaCreation.rb
11
12 chef-solo -c solo.rb -o recipe[cassandra-actions::01-configureCassandra] -E ${CHEFNAME}
13 rc=$?
14
15 if [[ $rc != 0 ]]; then exit $rc; fi
16 echo "##### starting cassandra #####"
17 # start cassandra
18 /docker-entrypoint.sh cassandra -f &
19
20 sleep 10
21
22 chef-solo -c solo.rb -E ${CHEFNAME}
23
24 while true; do sleep 2; done
25
26
```

Run the following:

- "recipe[cassandra-actions::02-createCsUser]",
- "recipe[cassandra-actions::03-createDoxKeyspace]",
- "recipe[cassandra-actions::04-schemaCreation]",
- "recipe[cassandra-actions::05-titanSchemaCreation]",
- "recipe[cassandra-actions::07-importComformance]"

#6 06-migrateZusammenFromDox.rb is not in use ?
=> 06 is needed. Just rename it to none number



```
1 {  
2 .. "name": "cassandra-actions",  
3 .. "description": "cassandra-actions",  
4 .. "json_class": "Chef::Role",  
5 .. "default_attributes": {  
6  
7 .. },  
8 .. "override_attributes": {  
9  
10 .. },  
11 .. "chef_type": "role",  
12 .. "run_list": [  
13 .... "recipe[cassandra-actions::02-createCsUser]",  
14 .... "recipe[cassandra-actions::03-createDoxKeyspace]",  
15 .... "recipe[cassandra-actions::04-schemaCreation]",  
16 .... "recipe[cassandra-actions::05-titanSchemaCreation]",  
17 .... "recipe[cassandra-actions::07-importComformance]"  
18 .. ],  
19  
20 .. "env_run_lists": {  
21  
22 .. }  
23 }  
24
```

What is the difference between 04 and 05 ?
(Next slide)

```
Text Compare
sdcsdc-os-chef/sdc-cassandra/chef-repo/cookbooks/cassandra-actions/recipes/04-schemaCreation.rb
1 cookbook_file "/tmp/sdctool.tar" do
2   .source "sdctool.tar"
3   .mode 0755
4 end
5
6 ## extract sdctool.tar
7 bash "install_tar" do
8   .cwd "/tmp"
9   .code <<-EOH
10  ... /bin/tar xf /tmp/sdctool.tar -C /tmp
11  EOH
12 end
13
14
15 template "titan.properties" do
16   .sensitive true
17   .path "/tmp/sdctool/config/titan.properties"
18   .source "titan.properties.erb"
19   .mode "0755"
20   .variables({
21     :DC_NAME => node['cassandra'][:cluster_name]+node.chef_environment
22   })
23 end
24
25
26 template "/tmp/sdctool/config/configuration.yaml" do
27   .sensitive true
28   .source "configuration.yaml.erb"
29   .mode 0755
30   .variables({
31     :host_ip => node['HOST_IP'],
32     :catalog_port => node['BE'][:http_port],
33     :ssl_port => node['BE'][:https_port],
34     :cassandra_ip => node['Nodes']['CS'],
35     :rep_factor => 1,
36     :DC_NAME => node['cassandra'][:cluster_name]+node.chef_environment,
37     :titan_Path => "/tmp/sdctool/config/"
38   })
39 end
40
```

```
sdcsdc-os-chef/sdc-cassandra/chef-repo/cookbooks/cassandra-actions/recipes/05-titanSchemaCreation.rb
1 cookbook_file "/tmp/sdctool.tar" do
2   .sensitive true
3   .source "sdctool.tar"
4   .mode 0755
5 end
6
7 ## extract sdctool.tar
8 bash "install_tar" do
9   .cwd "/tmp"
10  .code <<-EOH
11  ... /bin/tar xf /tmp/sdctool.tar -C /tmp
12  EOH
13 end
14
15
16 template "titan.properties" do
17   .sensitive true
18   .path "/tmp/sdctool/config/titan.properties"
19   .source "titan.properties.erb"
20   .mode "0755"
21   .variables({
22     :DC_NAME => node['cassandra'][:cluster_name]+node.chef_environment
23   })
24 end
25
26
27 template "/tmp/sdctool/config/configuration.yaml" do
28   .sensitive true
29   .source "configuration.yaml.erb"
30   .mode 0755
31   .variables({
32     :host_ip => node['HOST_IP'],
33     :catalog_port => node['BE'][:http_port],
34     :ssl_port => node['BE'][:https_port],
35     :cassandra_ip => node['Nodes']['CS'],
36     :rep_factor => 1,
37     :DC_NAME => node['cassandra'][:cluster_name]+node.chef_environment,
38     :titan_Path => "/tmp/sdctool/config/"
39   })
40
```

Run the same commands twice ?
=> Merge to one Recipe

Elasticsearch ?
=> Required for Backend

```
41
42 template "/tmp/sdctool/config/elasticsearch.yml" do
43   .sensitive true
44   .source "elasticsearch.yml.erb"
45   .mode 0755
46   .variables({
47     :elastic_ip => "HOSTIP"
48   })
49 end
50
51
52 bash "executing-schema-creation" do
53   .code <<-EOH
54   ... cd /tmp
55   ... chmod +x /tmp/sdctool/scripts/schemaCreation.sh
56   ... /tmp/sdctool/scripts/schemaCreation.sh /tmp/sdctool/config
57   EOH
58 end
59
```

```
+1
42 template "/tmp/sdctool/config/elasticsearch.yml" do
43   .sensitive true
44   .source "elasticsearch.yml.erb"
45   .mode 0755
46   .variables({
47     :elastic_ip => "HOSTIP"
48   })
49 end
50
51
52 bash "executing-titanSchemaCreation.sh" do
53   .code <<-EOH
54   ... echo "XXXXXXXXXXXX executing /tmp/sdctool/scripts/titanSchemaCreation.sh XXXXXXXXXXXX"
55   ... chmod +x /tmp/sdctool/scripts/titanSchemaCreation.sh
56   ... /tmp/sdctool/scripts/titanSchemaCreation.sh /tmp/sdctool/config
57   EOH
58 end
59
60
```

```
create_cassandra_user.sh.erb create_dox_keyspace.sh.erb titan.properties.erb
1 #!/bin/bash
2
3 CASSANDRA_USER=asdc_user
4 CASSANDRA_PASS=Aa1234%^!
5 CASSANDRA_IP=<%= @cassandra_ip %>
6
```

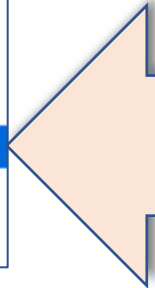
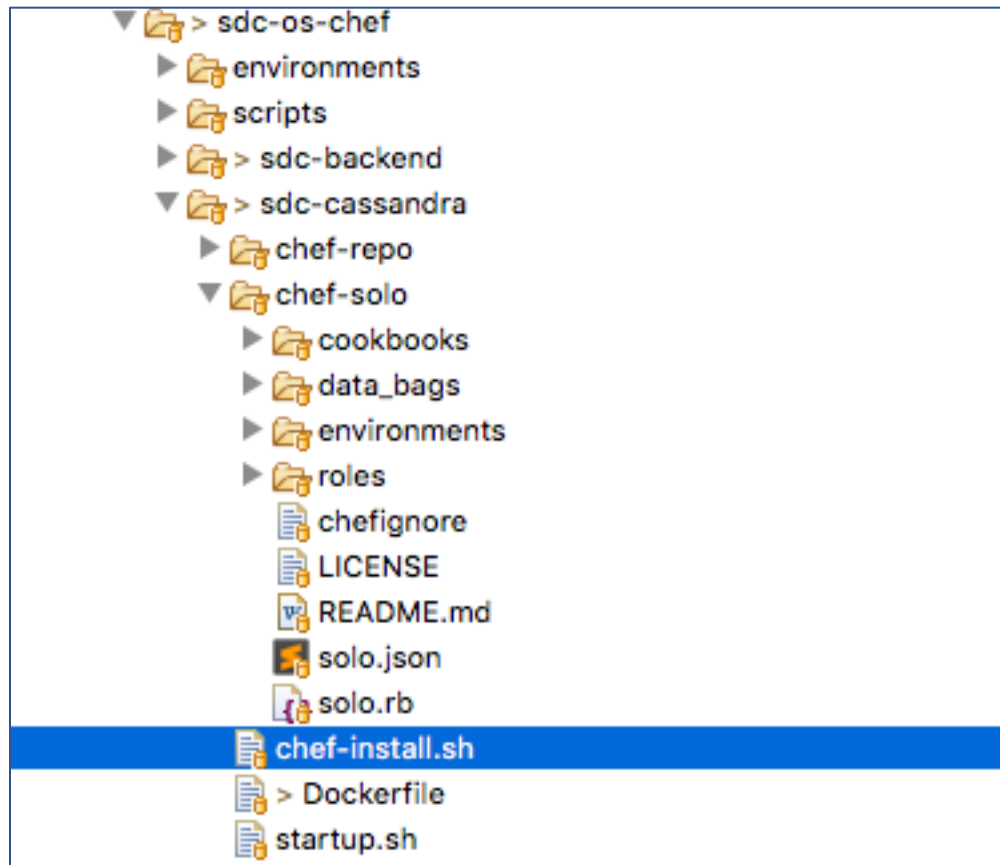
```
create_cassandra_user.sh.erb create_dox_keyspace.sh.erb titan.properties.erb
1 #!/bin/bash
2
3 CASSANDRA_USER=asdc_user
4 CASSANDRA_PASS='Aa1234%^!'
```

```
create_cassandra_user.sh.erb create_dox_keyspace.sh.erb titan.properties.erb
1 storage.backend=cassandra
2 storage.hostname=localhost
3 storage.port=9160
4 storage.username=asdc_user
5 storage.password=Aa1234%^!
6 storage.cassandra.keyspace=sdctitan
7
```

Encrypted Password?
=> Need to find solution

```
Template.json
58 ..... "cassandra": {
59 .....   "concurrent_reads": "32",
60 .....   "num_tokens": "256",
61 .....   "data_dir": "/var/lib/cassandra/data",
62 .....   "hinted_handoff_enabled": "true",
63 .....   "cassandra_user": "asdc_user",
64 .....   "cassandra_password": "Aa1234%^!",
65 .....   "concurrent_writes": "32",
66 .....   "cluster_name": "SDC-CS-",
67 .....   "multithreaded_compaction": "false",
68 .....   "cache_dir": "/var/lib/cassandra/saved_caches",
69 .....   "log_file": "/var/lib/cassandra/log/system.log",
70 .....   "nhi_convict_threshold": "8"
```

Under environments/Template.json



Should be removed ?
It exists in all components
=> Remove it !

BackEnd


```
solo.json  catalog-be.json
1 {
2   ... "run_list": [ "role[catalog-be]" ]
3 }
4
5
solo.json  catalog-be.json
1 {
2   .. "name": "catalog-be",
3   .. "description": "Installation application - catalogBE",
4   .. "json_class": "Chef::Role",
5   .. "default_attributes": {
6
7   },
8   .. "override_attributes": {
9
10  },
11  .. "chef_type": "role",
12  .. "run_list": [
13    ... "recipe[sdc-catalog-be::BE_1_cleanup_jettydir]",
14    ... "recipe[sdc-catalog-be::BE_2_setup_configuration]",
15    ... "recipe[sdc-catalog-be::BE_3_locate_keystore]",
16    ... "recipe[sdc-catalog-be::BE_4_jetty_Modules]",
17    ... "recipe[sdc-catalog-be::BE_5_setup_elasticsearch]",
18    ... "recipe[sdc-catalog-be::BE_6_setup_portal_properties]",
19    ... "recipe[sdc-catalog-be::BE_7_logback]",
20    ... "recipe[sdc-catalog-be::BE_8_errors_config]"
21  ],
22  .. "env_run_lists": {
23  }
24 }
25
```

```
> sdc-backend
└─> chef-repo
    └─> cookbooks
        └─> sdc-catalog-be
            ├── attributes
            ├── files
            └─> recipes
                ├── BE_1_cleanup_jettydir.rb
                ├── BE_2_setup_configuration.rb
                ├── BE_3_locate_keystore.rb
                ├── BE_4_jetty_Modules.rb
                ├── BE_5_setup_elasticsearch.rb
                ├── BE_6_setup_portal_properties.rb
                ├── BE_7_logback.rb
                ├── BE_8_errors_config.rb
                ├── BE_Number_create_DMaaP_keys.rb-NotUsed
                ├── BE_Number_import_Normatives.rb
                ├── templates
                └─> sdc-normatives
```

Do we need the last 2 recipes ?
=> Michael ???

Tree: 6938dbcf3c ◅ docker-jetty / 9.3-jre8 / alpine / docker-entrypoint.sh

gregw expand env variables in warning

3 contributors

Executable File | 110 lines (96 sloc) | 3.03 KB

Raw | Blame

```
1 #!/bin/sh
2
3 set -e
4
5 if [ "$1" = jetty.sh ]; then
6     if ! command -v java >>/dev/null 2>&1; then
7         cat >&2 <<- 'EOWARN
8
9         EOWARN
10        exit 1
11
12    fi
13
14    cat >&2 <<- 'EOWARN'
15
16    *****
17    WARNING: Use of jetty.sh from this image is deprecated and may
18    be removed at some point in the future.
19
20    See the documentation for guidance on extending this image:
21    https://github.com/docker-library/docs/tree/master/jetty
22    *****
23
24    EOWARN
25
26    fi
27
28    if ! command -v -- "$1" >/dev/null 2>&1; then
29        set -- java -jar "${JETTY_HOME}/start.jar" "$@"
30    fi
31
32    ${TMPDIR:=/tmp/jetty}
33    [ -d "$TMPDIR" ] || mkdir -p $TMPDIR 2>/dev/null
34
35    : ${JETTY_START:=JETTY_BASE/jetty.start}
36
37    case "$JAVA_OPTIONS" in
38        *-Djava.io.tmpdir=*) ;;
39        *) JAVA_OPTIONS="-Djava.io.tmpdir=$TMPDIR $JAVA_OPTIONS" ;;
40    esac
41
42    esac
```

```
startup.sh ✕
1 #!/bin/sh
2
3 export CHEFNAME=${ENVNAME}
4 # executing chef-solo for configuration
5 cd /root/chef-solo
6 echo "normal['HOST_IP'] = \"${HOST_IP}\"" > /root/chef-solo/cookbooks/sdc-catalog-be/attributes/default.rb
7 chef-solo -c solo.rb -E ${CHEFNAME}
8
9 sed -i '/^set -e/aJAVA_OPTIONS=\"-Xdebug -agentlib:jdwp=transport=dt_socket,address=4000,server=y,suspend=n-XX:MaxPermSize=256m -Xmx1500m -Dconfig.home=${JETTY_BASE}/config -Dlog.config=${JETTY_BASE}/log.config' /docker-entrypoint.sh
10 sed -i '/^set -e/aTMPDIR=${JETTY_BASE}/tmp' /docker-entrypoint.sh
11
```

Lines 9-10:
Consider using Environment Variables instead SED.
=> Get it as External Parameters

```
31 echo "normal['HOST_IP'] = \"${HOST_IP}\"" > /root/chef-solo/cookbooks/sdc-normatives/attributes/default.rb
32 resources_len=`cat ${check_normative}.jq | jq -r '["resources"] | length'`
33 if [ $resources_len -eq 0 ] ; then
34   chef-solo -c normatives.rb
35 else
36   sed -i "s/import/upgrade/g" normatives.json
37   chef-solo -c normatives.rb
38 fi
39
```

Consider holding different chef config files instead replacing code (not place holders) by SED and inject the relevant config paramter '-json_attributes' in the command line
=> Seder

```
normatives.json ✕
1 {
2   ... "run_list": [ "recipe[sdc-normatives::import_Normatives]" ]
3 }
4
5
```

FrontEnd

```
startup.sh ✖
1 #!/bin/sh
2
3 export CHEFNAME=${ENVNAME}
4 cd /root/chef-solo
5 echo "normal['HOST_IP'] = \"${HOST_IP}\"" > /root/chef-solo/cookbooks/sdc-catalog-fe/attributes/default.rb
6 chef-solo -c solo.rb -E ${CHEFNAME}
7
8 sed -i '/^set -e/aJAVA_OPTIONS=\"-XX:MaxPermSize=256m -Xmx1500m -Dconfig.home=${JETTY_BASE}\\\\config -Dlog.home=${JETTY_BASE}\\\\logs -Dlogback.con
9 sed -i '/^set -e/aTMPDIR=${JETTY_BASE}\\\\temp' /docker-entrypoint.sh
10
11 cd /var/lib/jetty
12 /docker-entrypoint.sh
13
```

- 
- Lines 8-9:
 - Consider using Environment Variables instead SED.
 - ⇒ Replace with external parameters
 - ⇒ Also the HOST IP

Sanity

```
sanityTests.json
1 {
2 .. "name": "sanityTests",
3 .. "description": "Execute sanity tests",
4 .. "json_class": "Chef::Role",
5 .. "default_attributes": {
6
7 .. },
8 .. "override_attributes": {
9
10 .. },
11 .. "chef_type": "role",
12 .. "run_list": [
13 .... "recipe[sdc-sanity::sanityTests_1_cleanup_jettydir]",
14 .... "recipe[sdc-sanity::sanityTests_2_setup_configuration]",
15 .... "recipe[sdc-sanity::sanityTests_3_sanity_execution]"
16 // .... "recipe[sdc-simulator::SDC_Simulator_3_logback]",
17 // .... "recipe[sdc-simulator::SDC_Simulator_4_locate_keystore]",
18 // .... "recipe[sdc-simulator::SDC_Simulator_5_create_jetty_modules]"
19 .. ],
20 .. "env_run_lists": {
21 .. }
22 }
23
24
```

Lines 16-18:
Should it be kept as comment
lines
=> Michael ???

Decisions

Decisions 1

- Generic:
 - Disable root login
 - Remove chef-install (chef comes in the base image)
- Elastic Search:
 - Review memory usage. Change 1 GB.
 - Create setup role (exec 3-6) and solo settings.rb [Maybe move to dedicated job docker]
 - Memory settings as external argument

Decisions 2

- Cassandra
 - Remove 'SED' & 'Echo' from start.sh
 - Use env.json for Ips
 - Consider having VIP for each site (Geo-R)
 - Keyspace creation in new docker
 - Remove sleep - include startup readiness check
 - Merge schema creation with titan schema (Merge recipes)
 - Cassandra password encryption (Look for solution)
- Kibana
 - If needed.

Decisions 3

- BackEnd
 - Remove 2 recipes (Ask Michael / Tal)
 - TMPDIR & JAVA_OPTIONS – get external parameters (Remove SED)
- FrontEnd
 - TMPDIR & JAVA_OPTIONS – get external parameters (Remove SED)
 - Readiness script
 - HOSTIP as parameter
- Sanity
 - Remove Recipes
- Docker Run script:
 - Remove sleep. Base on health checks