Configure Elasticsearch/Kibana for TLS and Authentication

- Shutdown elk-cluster
- 2. Add certificate path to elasticsearch config in docker-compose.yml

```
volumes:
- ./certs:/certs
```

1. Start elasticsearch

\$ docker-compose up -d elasticsearch

- Create certificates

```
$ docker exec -it elk-test-elasticsearch bash
[root@elk-test-elasticsearch elasticsearch]# bin/elasticsearch-certutil ca -
pem -ca-dn "cn=Elastic Stack CA"
This tool assists you in the generation of X.509 certificates and
certificate
signing requests for use with SSL/TLS in the Elastic stack.
[ ... ]
If you elect to generate PEM format certificates (the -pem option), then the
output will
be a zip file containing individual files for the CA certificate and private
key
Please enter the desired output file [elastic-stack-ca.zip]:
[root@elk-test-elasticsearch elasticsearch]# unzip -d /certs/ elastic-stack-
ca.zip
[root@elk-test-elasticsearch elasticsearch]# bin/elasticsearch-certutil http
## Elasticsearch HTTP Certificate Utility
[ ... ]
## Do you wish to generate a Certificate Signing Request (CSR)?
[ ... ]
Generate a CSR? [y/N]n
## Do you have an existing Certificate Authority (CA) key-pair that you wish
to use to sign your certificate?
[ ... ]
```

```
Use an existing CA? [y/N]y
## What is the path to your CA?
CA Path: /certs/ca/ca.crt
## What is the path to your CA key?
/certs/ca/ca.crt appears to be a PEM formatted certificate file.
In order to use it for signing we also need access to the private key
that corresponds to that certificate.
CA Key: /certs/ca/ca.key
## How long should your certificates be valid?
[ ...]
For how long should your certificate be valid? [5y]
[ ... ]
Generate a certificate per node? [y/N]y
## What is the name of node #1?
This name will be used as part of the certificate file name, and as a
descriptive name within the certificate.
You can use any descriptive name that you like, but we recommend using the
of the Elasticsearch node.
node #1 name: elk-test-elasticsearch
## Which hostnames will be used to connect to elk-test-elasticsearch?
[ ... ]
Enter all the hostnames that you need, one per line.
When you are done, press <ENTER> once more to move on to the next step.
elk-test-elasticsearch
You entered the following hostnames.
 - elk-test-elasticsearch
Is this correct [Y/n]y
## Which IP addresses will be used to connect to elk-test-elasticsearch?
```

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Enter all the IP addresses that you need, one per line.
When you are done, press <ENTER> once more to move on to the next step.

[...]

You did not enter any IP addresses.

Is this correct [Y/n]y

Other certificate options

The generated certificate will have the following additional configuration values. These values have been selected based on a combination of the information you have provided above and secure defaults. You should not need to

change these values unless you have specific requirements.

Key Name: elk-test-elasticsearch

Subject DN: CN=elk-test-elasticsearch

Key Size: 2048

Do you wish to change any of these options? [y/N]n Generate additional certificates? [Y/n]n

What password do you want for your private key(s)?

Your private key(s) will be stored in a PKCS#12 keystore file named "http.p12".

This type of keystore is always password protected, but it is possible to use a blank password.

If you wish to use a blank password, simply press <enter> at the prompt below.

Provide a password for the "http.p12" file: [<ENTER> for none]

Where should we save the generated files?

A number of files will be generated including your private key(s), public certificate(s), and sample configuration options for Elastic Stack products.

These files will be included in a single zip archive.

What filename should be used for the output zip file? [/usr/share/elasticsearch/elasticsearch-ssl-http.zip]

Zip file written to /usr/share/elasticsearch/elasticsearch-ssl-http.zip

[root@elk-test-elasticsearch elasticsearch]# unzip -d /certs/ elasticsearchssl-http.zip Archive: elasticsearch-ssl-http.zip
 creating: /certs/elasticsearch/

inflating: /certs/elasticsearch/README.txt
inflating: /certs/elasticsearch/http.p12

inflating: /certs/elasticsearch/sample-elasticsearch.yml

creating: /certs/kibana/

inflating: /certs/kibana/README.txt

inflating: /certs/kibana/elasticsearch-ca.pem
inflating: /certs/kibana/sample-kibana.yml

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