Kubernetes Certificate Health Checker

Use this spreadsheet to gather information to perform health check of Certificates used in a Kubernetes cluster. A sample set of data is given in the **Data** sheet. Follow the same procedure.

Use the command **openssl x509 -in <certificate path> -text** to view data about a certificate

Version	v0.1
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Link	Kubernetes Certification Course

Component	Type
Certificate Authority	Server
kube-apiserver	Server
	Client (Kubelet)
	Client (Etcd)
	Client (Etcd)
kubelet	Server
	Client
Certificate Authority (ETCD)	Server
etcd-server	Server

Checks to perform:

Certificate Path	CN Name
/etc/kubernetes/pki/ca.crt	kubernetes
/etc/kubernetes/pki/ca.key	
/etc/kubernetes/pki/apiserver.crt	kube-apiserver
/etc/kubernetes/pki/apiserver.key	
/etc/kubernetes/pki/ca.crt	kubernetes
/etc/kubernetes/pki/apiserver-kubelet-client.crt	kube-apiserver-kubelet-client
/etc/kubernetes/pki/apiserver-kubelet-client.key	
/etc/kubernetes/pki/apiserver-etcd-client.crt	kube-apiserver-etcd-client
/etc/kubernetes/pki/apiserver-etcd-client.key	
/etc/kubernetes/pki/etcd/ca.crt	kubernetes
/var/lib/kubelet/pki/kubelet.crt	node01@1557660157
/var/lib/kubelet/pki/kubelet.key	
/var/lib/kubelet/pki/kubelet-client-2019-05-12-11-22-38.pem	system:node:node01
/etc/kubernetes/pki/etcd/ca.crt	kubernetes
/etc/kubernetes/pki/etcd/ca.key	
/etc/kubernetes/pki/etcd/server.crt	controlplane
/etc/kubernetes/pki/etcd/server.key	

ALT Names	Organization	Issuer	Expiration
		kubernetes	May 9 11:21:40 2029 GMT
DNS:master DNS:kubernetes DNS:kubernetes.default DNS:kubernetes.default.svc DNS:kubernetes.default.svc.cluster.local IP Address:10.96.0.1 IP Address:172.17.0.27		kubernetes	Feb 11 05:39:20 2020 GMT
	system:masters	kubernetes	Feb 8 05:39:19 2029 GMT
			Feb 11 05:39:20 2020 GMT
	system:masters	kubernetes	Feb 11 05:39:22 2020 GMT
		kubernetes	Feb 8 05:39:21 2029 GMT
	system:nodes	kubernetes	May 11 11:18:00 2020 GMT
		kubernetes	May 9 11:21:42 2029 GMT
			Nov 15 18:50:56 2021 GMT
			Nov 15 18:50:56 2021 GMT

File Type	Purpose
Certificate	
Key	
Certificate	Server Certificate
Key	Server Key
Certificate	Server CA Certificate
	Client Cert: Kube API Server to Kubelet
Key	Client Key: Kube API Server to Kubelet
Certificate	Client Cert: Kube API Server to ETCD
Key	Client Key: Kube API Server to ETCD
Certificate	Client CA File: Kube API Server to ETCD
Certificate	
Key	
Certificate	
Key	
Certificate	Etcd Server CA Certificate
Key	Etcd Server CA Key
Certificate	Etcd Server Certificate
Key	Etcd Server Key

Description
CA server root certificates for Kubernetes API Server
CA server root certificate key for Kubernetes API Server
Certificate to serve Kube-api server
Key to serve Kube-api server
CA Certificate to validate clients connecting to Kube-API Server
Client Certificate for Kube-API Server to connect to Kubelet
Client Key for Kube-API Server to connect to Kubelet
Client Certificate for Kube-API Server to connect to ETCD Server
Client Key for Kube-API Server to connect to ETCD Server
CA File to validate Kube-API server to ETCD Server Connectivity. The ETCD setup can have a separate CA
CA Server root certificates for ETCD Server. (This could be the same as kube-api server or a separate one of its own.)
CA Server root certificate key for ETCD Server. (This could be the same as kube-api server or a separate one of its own.)
Certificates for ETCD Server
ETCD Server Certificate Key