

## Installing cert-manager

Cert-manager is an open source Kubernetes native certificate management service that can take care of issuing the certificates needed by your microservices. Cert-manager will automatically create and renew certificates and store them as Kubernetes secrets for easy use in a cluster.

So let's go ahead and install Cert Manager into our Kubernetes cluster.

### In Play.Infra

#### 1. Update README:

```
## Installing cert-manager
```

```
```powershell
```

```
helm repo add jetstack https://charts.jetstack.io
```

```
helm repo update
```

```
helm install cert-manager jetstack/cert-manager --version v1.6.1 --set installCRDs=true --namespace $namespace
```

```
```
```

“Having cert-manager in a different namespace than the one used to generate your first certificate will likely cause issues with the initial validation that cert-manager must perform to ensure that we own the domain that we'll use in our certificates.

For this reason, and to keep things simple, we will just place cert-manager in the same namespace we are using for emissary. After the first certificate is generated, no more validation is needed, and you will be able to generate certificates in any other namespace.”

#### 2. Run the commands

#### 3. Verify cert-manager installation:

```
kubectl get pods --namespace $namespace
```

#### 4. Commit and push

“Added cert-manager install steps”

In the next lesson you will use cert-manager to generate your first TLS certificate.