

Setting a Custom Domain and Enabling TLS



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INDEPENDENT

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Overview

The problem HTTP via nip.io

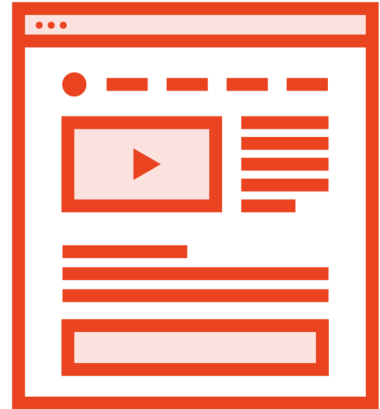
Overview of External DNS and Cert Manager

How Jenkins X generates DNS records and certificates

Creating a cluster with a custom domains and TLS



Our Current Means of Communicating with Services



Browser



Our Current Means of Communicating with Services



Browser

<http://application.35.224.16.222.nip.io>



Application



Our Current Means of Communicating with Services



Browser

`http://application.35.224.16.222.nip.io`



Server



Our Current Means of Communicating with Services



Browser

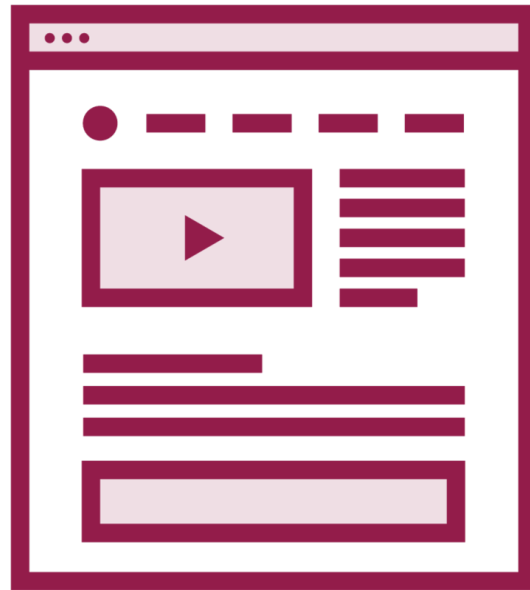
http://application.35.224.16.222.nip.io



Server



Issues with Our Current Means of Communication



nip.io

Not a human
readable domain,
and prevents TLS



Issues with Our Current Means of Communication



nip.io

Not a human
readable domain,
and prevents TLS



HTTP

**Insecure
communication**



Our Current Means of Communicating with Services



Browser

`https://service.foo.com`



Server



Our Current Means of Communicating with Services



Browser

<https://service.foo.com>



Server



Custom Domains and HTTPS with Jenkins X



External DNS

- Makes Kubernetes resources discoverable on public DNS servers
- Automates creation of DNS records

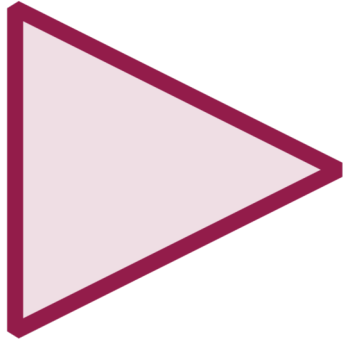
Certificate Manager

- Issues SSL certificates for our applications
- Leverages Lets Encrypt behind the scenes



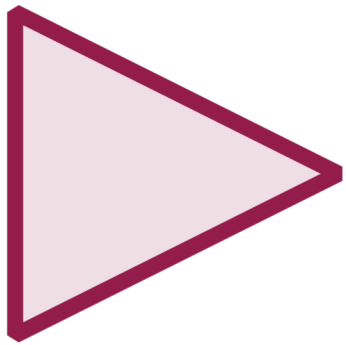
High-level DNS and Certificate Steps

**Create new
service**



High-level DNS and Certificate Steps

Create new
service

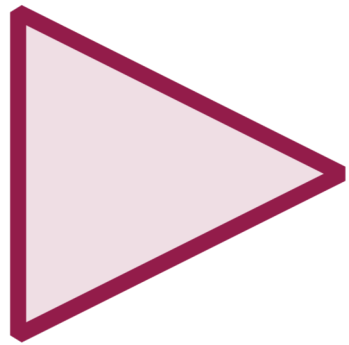


External
DNS



High-level DNS and Certificate Steps

Create new
service



External
DNS

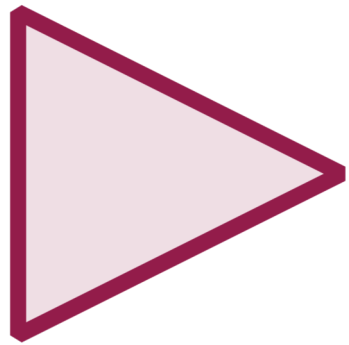


DNS Zone



High-level DNS and Certificate Steps

Create new
service



External
DNS



Cert
Manager

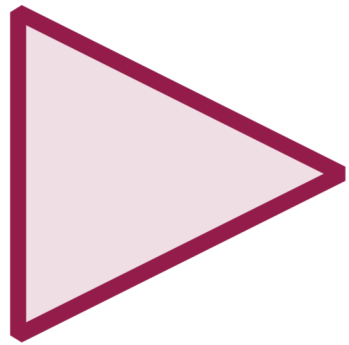


DNS Zone



High-level DNS and Certificate Steps

Create new
service



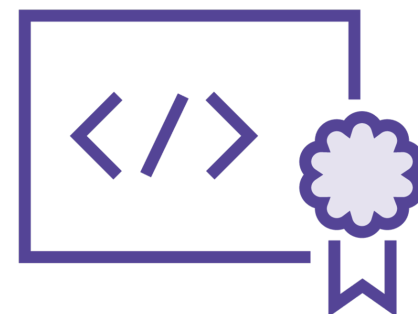
External
DNS



Cert
Manager



DNS Zone

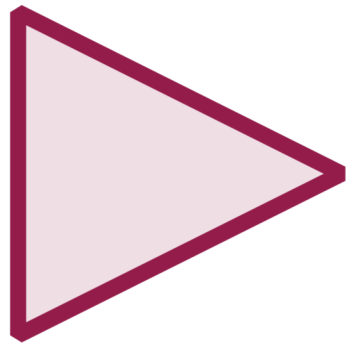


Lets Encrypt



High-level DNS and Certificate Steps

Create new
service



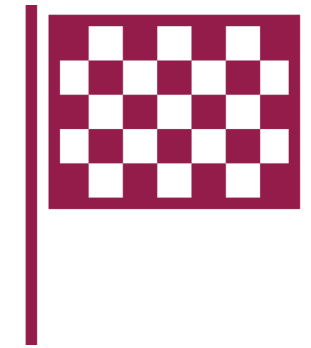
External
DNS



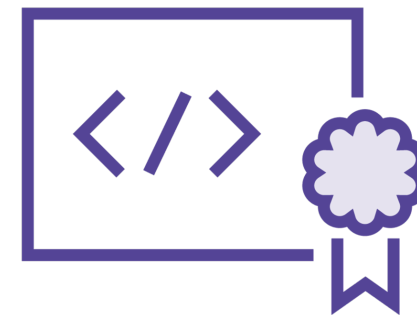
Cert
Manager



Service
available



DNS Zone



Lets Encrypt



Demo

Register a custom domain

Run Terraform and jx boot with new domain and HTTPS configured

Enable a custom domain with HTTPS for our staging environment



Summary

Jenkins X allows custom domains and HTTPS

It automated the process by using Cert Manager and External DNS

