

Kubernetes CoreDNS custom domains



CoreDNS

Houssem Dellai




Custom domain name with CoreDNS

myapp.default.svc.cluster.local



master 4 branches 64 tags Go to file Add file Code

	koho plugin/forward: fix broken tap plugins when dnstap plugins specified (#...	b7279d1 3 days ago	3,546 commits
circleci	Workaround for incorrect architecture (#5691)		3 months ago
github	build(deps): bump github/codeql-action from 2.1.39 to 2.2.1 (#5884)		3 days ago
core	Move flags to coremain (#5865)		2 weeks ago
coremain	Move flags to coremain (#5865)		2 weeks ago
man	auto make -f Makefile.doc		5 months ago
notes	update notes with recent merges (#5880)		last week
pb	Update to use the latest protobuf package to build pb (#5193)		last year
plugin	plugin/forward: fix broken tap plugins when dnstap plugins specified (#...		3 days ago
request	add golangci-lint linter (#5499)		7 months ago
test	Fork TLSConfig for each encrypted connection (#5710)		3 months ago
.codecov.yml	Increase codecov target requirement to 50% (from 40%) (#1344)		5 years ago
.dockerignore	Use whitelist in .dockerignore (#3347)		3 years ago
.dreck.yaml	add docker in Makefile.docker (#4864)		last year
.gitignore	plugin/timeouts - Allow ability to configure listening server timeouts (last month
.golangci.yml	GO linting bump and removal of deprecated linters (#5624)		4 months ago

About

CoreDNS is a DNS server that chains plugins

coredns.io

Releases 64

v1.10.0 Latest on Sep 19, 2022

+ 63 releases

Contributors 316

Contributor avatars

+ 305 contributors

Languages

Go 99.9% Other 0.1%

Plugins

All [in-tree](#) plugins for CoreDNS.
v1.9.3

[Writing Plugins](#)[Documenting Plugins](#)[Enabling Plugins](#)

acl

acl enforces access control policies on source ip and prevents unauthorized access to DNS servers.

[Source](#)

any

any gives a minimal response to ANY queries.

[Source](#)

auto

auto enables serving zone data from an RFC 1035-style master file, which is automatically picked up from disk.

[Source](#)

Service discovery with CoreDNS

CoreDNS integrates with [Kubernetes](#) via the [Kubernetes plugin](#), or with [etcd](#) with the [etcd plugin](#).

All major cloud providers have plugins too:

- [Microsoft Azure DNS](#)
- [GCP Cloud DNS](#)
- [AWS Route53](#)

CoreDNS is already installed in kubernetes

```
$ kubectl get pods,service,configmap -n kube-system -l=k8s-app=kube-dns
```

NAME	READY	STATUS	RESTARTS	AGE
pod/coredns-77f75ff65d-clfgl	1/1	Running	0	12m
pod/coredns-77f75ff65d-twzz9	1/1	Running	0	11m

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/kube-dns	ClusterIP	10.0.0.10	<none>	53/UDP,53/TCP	12m

NAME	DATA	AGE
configmap/coredns	1	12m
configmap/coredns-custom	1	12m

```
$
```

Custom domain using CoreDNS with Kubernetes

```
apiVersion: v1
kind: ConfigMap
metadata:
  name: coredns-custom
  namespace: kube-system
data:
  internal-custom.override: |
    rewrite stop {
      name regex (.*)\.aks-internal\.com\. $ {1}.svc.cluster.local.
      answer name (.*)\.svc\.cluster\.local\. $ {1}.aks-internal.com.
    }
```


CoreDNS custom domain name

```
· · apiVersion: v1
· · kind: ConfigMap
· · metadata:
· ·   · name: coredns-custom
· ·   · namespace: kube-system
· · data:
· ·   · internal-custom.override: | # any name with .server extension
· ·     · rewrite stop {
· ·       · name regex (.*)\.aks\.com\.$ {1}.svc.cluster.local.
· ·       · answer name (.*)\.svc\.cluster\.local\.$ {1}.aks.com.
· ·     · }
```

```
$
$ kubectl exec -it nginx -- nslookup nginx.default.svc.cluster.local
Server:      10.0.0.10
Address:     10.0.0.10#53
```

```
Name:   nginx.default.svc.cluster.local
Address: 10.0.197.10
```

```
$ kubectl exec -it nginx -- nslookup nginx.default.aks.com
Server:      10.0.0.10
Address:     10.0.0.10#53
```

```
Name:   nginx.default.aks.com
Address: 10.0.197.10
```


azure

🔗 [Source](#)

azure enables serving zone data from Microsoft Azure DNS service.

CoreDNS plugin for Azure DNS

Description

The azure plugin is useful for serving zones from Microsoft Azure DNS. The *azure* plugin supports all the DNS records supported by Azure, viz. A, AAAA, CNAME, MX, NS, PTR, SOA, SRV, and TXT record types. NS record type is not supported by azure private DNS.

Syntax

```
azure RESOURCE_GROUP:ZONE... {  
    tenant TENANT_ID  
    client CLIENT_ID  
    secret CLIENT_SECRET  
    subscription SUBSCRIPTION_ID  
    environment ENVIRONMENT  
    fallthrough [ZONES...]  
    access private  
}
```

<https://coredns.io/plugins/azure/>

More resources about CoreDNS

- Implementation:
- <https://github.com/coredns/coredns/tree/master/plugin/kubernetes>