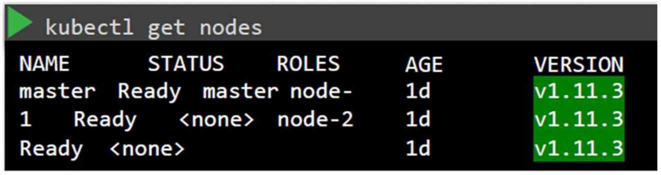
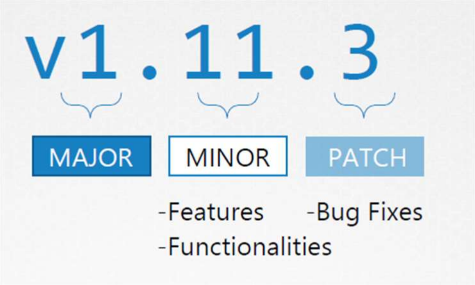
Kubernetes software versions

In this, we will discuss about the various Kubernetes releases and versions. So, what do we know about API versions in Kubernetes so far? We know that when we install a Kubernetes cluster, we install a specific version of Kubernetes. We can see that when we run the kubectl get nodes command. In this case, it's version 1.11.3.

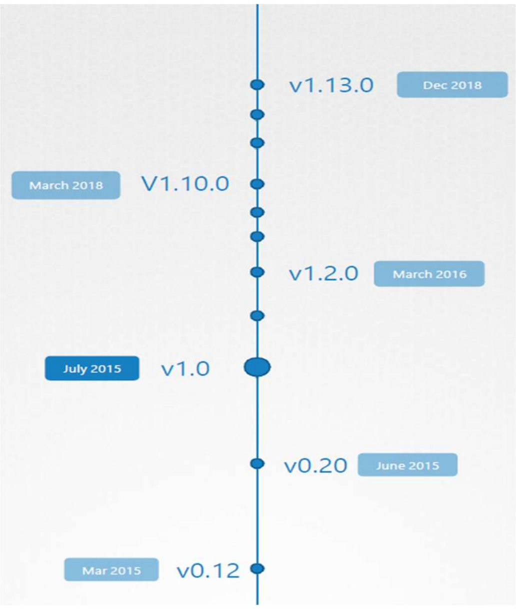


```
kubectl get nodes
NAME       STATUS     ROLES      AGE        VERSION
master  Ready  master node-     1d         v1.11.3
1    Ready    <none>  node-2    1d         v1.11.3
Ready  <none>                   1d         v1.11.3
```

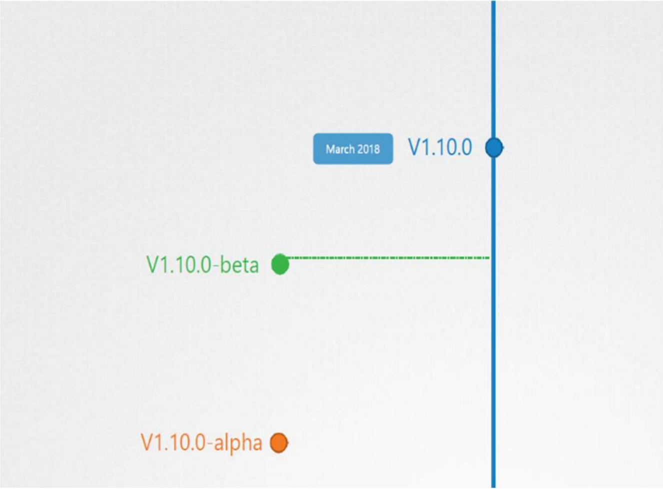
In this lecture, we will see how Kubernetes project manages the software releases. Let's take a closer look at that version number. The Kubernetes release versions consists of three parts. The first is the major version, followed by the minor version, and then the patch version. While minor versions are released every few months with new features and functionalities, patches are release more often with critical bug fixes. Just like many other popular applications out there, Kubernetes follows a standard software release versioning procedure.



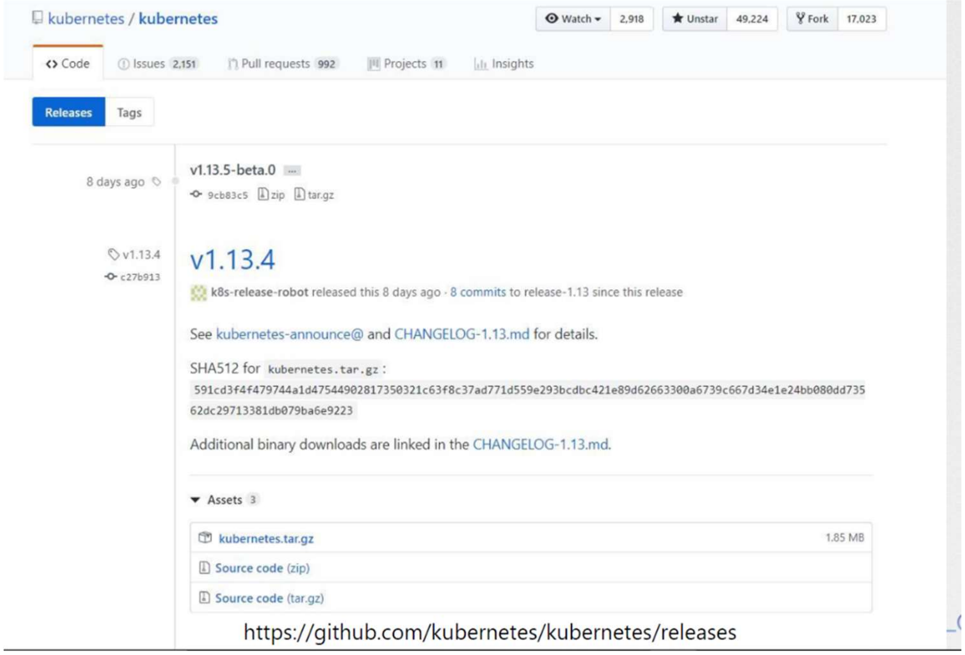
Every few months, it comes out with new features and functionalities through a minor release. The first major version, 1.0, was released in July of 2015. As of this recording, the latest stable version is 1.13.0. Whatever we have seen here are stable releases of Kubernetes.



Apart from these, you will also see alpha and beta releases. All the bug fixes and improvements first go into an alpha release, tagged alpha. In this release, the features are disabled by default, and may be buggy. Then from there, they make their way to beta release, where the code is well tested, the new features are enabled by default. And finally, they make their way to the main stable release.



You can find all the releases in the releases page of the Kubernetes GitHub repository.



8 days ago

v1.13.5-beta.0

9cb83c5 zip tar.gz

v1.13.4
c27b913

v1.13.4

k8s-release-robot released this 8 days ago · 8 commits to release-1.13 since this release

See kubernetes-announce@ and CHANGELOG-1.13.md for details.

SHA512 for `kubernetes.tar.gz`:

```
591cd3f4f479744a1d47544902817350321c63f8c37ad771d559e293bcdbc421e89d62663300a6739c667d34e1e24bb080dd735
62dc29713381db079ba6e9223
```

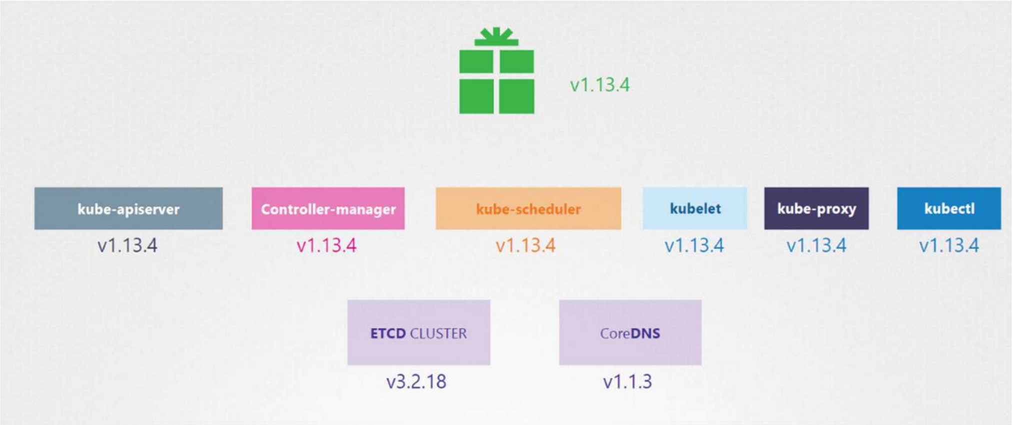
Additional binary downloads are linked in the CHANGELOG-1.13.md.

Assets 3

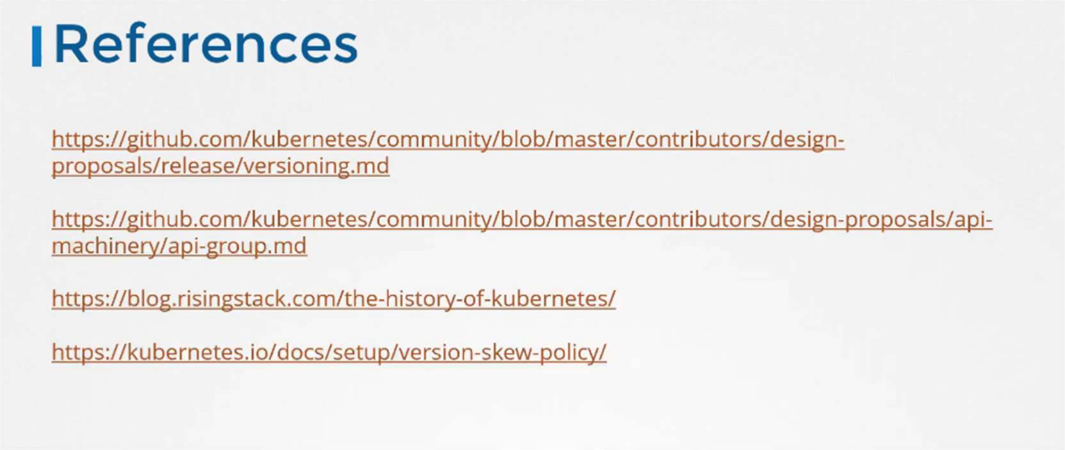
kubernetes.tar.gz	1.85 MB
Source code (zip)	
Source code (tar.gz)	

https://github.com/kubernetes/kubernetes/releases

Download the Kubernetes.tar.gz file and extract it to find executables for all the Kubernetes components. The downloaded package, when extracted, has all the control plane components in it, all of them of the same version. Remember that there are other components within the control plane that do not have the same version numbers. The etcd cluster and CoreDNS servers have their own versions, as they are separate projects.



The release nodes of each release provides information about the supported versions of externally dependent applications, like etcd and CoreDNS. Check out the links for some references. That was a quick overview of the release versions.



References

https://github.com/kubernetes/community/blob/master/contributors/design-proposals/release/versioning.md

https://github.com/kubernetes/community/blob/master/contributors/design-proposals/api-machinery/api-group.md

https://blog.risingstack.com/the-history-of-kubernetes/

https://kubernetes.io/docs/setup/version-skew-policy/