

- [v1.8.15](#)
 - [Downloads for v1.8.15](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.14](#)
 - [Action Required](#)
 - [Other notable changes](#)
- [v1.8.14](#)
 - [Downloads for v1.8.14](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.13](#)
 - [Other notable changes](#)
- [v1.8.13](#)
 - [Downloads for v1.8.13](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.12](#)
 - [Other notable changes](#)
- [v1.8.12](#)
 - [Downloads for v1.8.12](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.11](#)
 - [Other notable changes](#)
- [v1.8.11](#)
 - [Downloads for v1.8.11](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.10](#)
 - [Action Required](#)
 - [Other notable changes](#)
- [v1.8.10](#)
 - [Downloads for v1.8.10](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.9](#)
 - [Other notable changes](#)
- [v1.8.9](#)

- [Downloads for v1.8.9](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
- [Changelog since v1.8.8](#)
 - [Other notable changes](#)
- [v1.8.8](#)
 - [Downloads for v1.8.8](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.7](#)
 - [Other notable changes](#)
- [v1.8.7](#)
 - [Downloads for v1.8.7](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.6](#)
 - [Other notable changes](#)
- [v1.8.6](#)
 - [Downloads for v1.8.6](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.5](#)
 - [Other notable changes](#)
- [v1.8.5](#)
 - [Downloads for v1.8.5](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.4](#)
 - [Other notable changes](#)
- [v1.8.4](#)
 - [Downloads for v1.8.4](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.3](#)
 - [Other notable changes](#)
- [v1.8.3](#)
 - [Downloads for v1.8.3](#)
 - [Client Binaries](#)
 - [Server Binaries](#)

- [Node Binaries](#)
 - [Changelog since v1.8.2](#)
 - [Other notable changes](#)
- [v1.8.2](#)
 - [Downloads for v1.8.2](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.1](#)
 - [Other notable changes](#)
- [v1.8.1](#)
 - [Downloads for v1.8.1](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.0](#)
 - [Action Required](#)
 - [Other notable changes](#)
- [v1.8.0](#)
 - [Downloads for v1.8.0](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Introduction to v1.8.0](#)
 - [Major Themes](#)
 - [SIG API Machinery](#)
 - [SIG Apps](#)
 - [SIG Auth](#)
 - [SIG Autoscaling](#)
 - [SIG Cluster Lifecycle](#)
 - [SIG Instrumentation](#)
 - [SIG Multi-cluster \(formerly known as SIG Federation\)](#)
 - [SIG Node](#)
 - [SIG Network](#)
 - [SIG Scalability](#)
 - [SIG Scheduling](#)
 - [SIG Storage](#)
 - [Before Upgrading](#)
 - [Known Issues](#)
 - [Deprecations](#)
 - [Apps](#)
 - [Auth](#)
 - [Autoscaling](#)
 - [Cluster Lifecycle](#)
 - [OpenStack](#)
 - [Scheduling](#)
 - [Notable Features](#)

- [Workloads API \(apps/v1beta2\)](#)
 - [API Object Additions and Migrations](#)
 - [Behavioral Changes](#)
 - [Defaults](#)
 - [Workloads API \(batch\)](#)
 - [CLI Changes](#)
 - [Scheduling](#)
 - [Storage](#)
 - [Cluster Federation](#)
 - [\[alpha\] Federated Jobs](#)
 - [\[alpha\] Federated Horizontal Pod Autoscaling \(HPA\)](#)
 - [Node Components](#)
 - [Autoscaling and Metrics](#)
 - [Cluster Autoscaler](#)
 - [Container Runtime Interface \(CRI\)](#)
 - [kubelet](#)
 - [Auth](#)
 - [Cluster Lifecycle](#)
 - [kubeadm](#)
 - [kops](#)
 - [Cluster Discovery/Bootstrap](#)
 - [Multi-platform](#)
 - [Cloud Providers](#)
 - [Network](#)
 - [network-policy](#)
 - [kube-proxy ipvs mode](#)
 - [API Machinery](#)
 - [kube-apiserver](#)
 - [Dynamic Admission Control](#)
 - [Custom Resource Definitions \(CRDs\)](#)
 - [Garbage Collector](#)
 - [Monitoring/Prometheus](#)
 - [Go Client](#)
- [External Dependencies](#)
- [v1.8.0-rc.1](#)
 - [Downloads for v1.8.0-rc.1](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.0-beta.1](#)
 - [Action Required](#)
 - [Other notable changes](#)
- [v1.8.0-beta.1](#)
 - [Downloads for v1.8.0-beta.1](#)
 - [Client Binaries](#)
 - [Server Binaries](#)

- [Node Binaries](#)
- [Changelog since v1.8.0-alpha.3](#)
 - [Action Required](#)
 - [Other notable changes](#)
- [v1.8.0-alpha.3](#)
 - [Downloads for v1.8.0-alpha.3](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.8.0-alpha.2](#)
 - [Action Required](#)
 - [Other notable changes](#)
- [v1.8.0-alpha.2](#)
 - [Downloads for v1.8.0-alpha.2](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.7.0](#)
 - [Action Required](#)
 - [Other notable changes](#)
- [v1.8.0-alpha.1](#)
 - [Downloads for v1.8.0-alpha.1](#)
 - [Client Binaries](#)
 - [Server Binaries](#)
 - [Node Binaries](#)
 - [Changelog since v1.7.0-alpha.4](#)
 - [Action Required](#)
 - [Other notable changes](#)

v1.8.15

[Documentation](#) & [Examples](#)

Downloads for v1.8.15

filename	sha256 hash
kubernetes.tar.gz	d3478129e17e98e70d1108d841495cc6f54b218671c18ad0a5eb96ccfee79021
kubernetes-src.tar.gz	befa7e693f8b56ccf562f205ba6821349ad74ac8da616d0701eb7aa18c5c2739

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	346c8456ac850c5f6d6eb0431d8991a9104e66d42ec2e09236bf8afa7820d949

kubernetes-client-darwin-amd64.tar.gz	01b1c22d8d894645ee80dd4e0639f2c1f401583150185cdf43d61cafc1ce3b78
kubernetes-client-linux-386.tar.gz	31000c9ff4619139f59d8e1221d95b0d4f9a58a8dae4fadf2b64bab8712708cf
kubernetes-client-linux-amd64.tar.gz	8cbb0ab062dde282f77f56f551519f6e80ed6090e112927eadb77d87a4b94477
kubernetes-client-linux-arm.tar.gz	d6f4614e9f9cfa8bb378c3d02d0bc35a3a88639f66638dfc50ea566bb8ff64fb
kubernetes-client-linux-arm64.tar.gz	4538a987bba8ab7330a3cd802a8f4b4f441e30b95c42f6659dde12ca6fe9389e
kubernetes-client-linux-ppc64le.tar.gz	4e4d7c416165d020974d8867ba44d35b1ea7959fd741f07c0e0bff11e90d2e0d
kubernetes-client-linux-s390x.tar.gz	3584b0520a65e09571ee15475d5e391df40e7e7803dba3dee243a426057f6390
kubernetes-client-windows-386.tar.gz	5218364545d40400dec805869c47b7798abe0cdf875889ace46ffba786bcb4fa
kubernetes-client-windows-amd64.tar.gz	40292e6ae5d37cc0a84639d0754cc9f1ce8bd333ed1714739b6e64d88e866140

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	701395e2f6ba0f5b53bde43ccb32ae63e17617af1ece843326d0b1927358ad87
kubernetes-server-linux-arm.tar.gz	7330bb1d60bc64c81fb9ed33c6ad865decbb430d78669206d9bf53c7f35e8500
kubernetes-server-linux-arm64.tar.gz	7c6fc40ea302411742ad81b513e5a6083f93c996bba2a25ac8eecbab37e29efc
kubernetes-server-linux-ppc64le.tar.gz	1f6a657e90fc2fd2fe4936ffe7ed8e6aa0f0b9eac8d051c437d99ef7a62ecfed
kubernetes-server-linux-s390x.tar.gz	e65d30e781ff3cd681689f200653ebd5d026a48f0e76f9eb1eb08e4d52ad60b6

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	aa3208c4a9df95d51ddb7bb335ba30b093ce8ca55967fe1d2b08fc7a7cb6611f
kubernetes-node-linux-arm.tar.gz	86bc70973c4e64051073eb33374fa8be42373a17b86ee5681b59aab46a1c10bc
kubernetes-node-linux-arm64.tar.gz	3eb94233791c50c57a56979af256f4d947963bf81039b1919e06895755aee57a
kubernetes-node-linux-ppc64le.tar.gz	9d7ebb3dd33183f6c63e6dee24ec43cefdddf702f41159d34b3fa9de73191cd23
kubernetes-node-linux-s390x.tar.gz	f5ddb37299c02a331943c1d289718f148b7ef0d8262e0a2b726dee5d10d7e7df
kubernetes-node-windows-amd64.tar.gz	1642bde6aaab0c1a46ac58b71e4004ed7369ce7803eed40aecd96987012bec81

Changelog since v1.8.14

Action Required

- ACTION REQUIRED: Kubernetes JSON deserializer is now case-sensitive to restore compatibility with pre-1.8 servers. If your config files contains fields with wrong case, the config files will be now invalid. ([#65410](#), [@nikhita](#))

Other notable changes

- fix formatAndMount func issue on Windows ([#63248](#), [@andyzhangx](#))
- Cluster Autoscaler version updated to 1.0.6. Release notes: <https://github.com/kubernetes/autoscaler/releases/tag/cluster-autoscaler-1.0.6> ([#65808](#), [@aleksandra-malinowska](#))
- Add --no-negcache flag to kube-dns to prevent caching of NXDOMAIN responses. ([#66036](#), [@prameshj](#))
- fix data loss issue if using existing azure disk with partitions in disk mount ([#63270](#), [@andyzhangx](#))
- Fixed API server panic during concurrent GET or LIST requests with non-empty `resourceVersion`. ([#65092](#), [@sttts](#))
- Fix issue that vSphere cloud provider cannot delete volume which is provisioned in datastore specified in storageclass ([#65550](#), [@w-leads](#))
- Fix a scalability issue where high rates of event writes degraded etcd performance. ([#64539](#), [@ccding](#))
- fixes a memory leak in the kube-controller-manager observed when large numbers of pods with tolerations are created/deleted ([#65339](#), [@liggitt](#))
- add external resource group support for azure disk ([#64427](#), [@andyzhangx](#))

v1.8.14

[Documentation](#) & [Examples](#)

Downloads for v1.8.14

filename	sha256 hash
kubernetes.tar.gz	d2013bbcb635031c1f388b53a32164447f196bf34f91f3f72f52e400eea548fd8
kubernetes-src.tar.gz	ed46ded775aea6f9a588cb2ff9ae589d36cca16900a6296a9d99f208fe4a34dc

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	5137f01bb56b7a46ec6aacfd90bbb65784c97feb32efb69334c0d7d5a7ffe85
kubernetes-client-darwin-amd64.tar.gz	1752603560668b060b8ed277a8edb2879e844414e19708ee35ab03e87fff50e
kubernetes-client-linux-386.tar.gz	0ed204cbb6735407ec0eb8cd3fe99f1443550bc4c00bb6313a00851cc387a616
kubernetes-client-linux-amd64.tar.gz	66da3e182d7289e3147dbc25bc61a2ec92bb5fa5c13fa0972446639523a9a02f
kubernetes-client-linux-arm.tar.gz	93541062a6e04b06f177793d1e875eb8f4ccd9f1c0e69025abf75efe3d6da0a2
kubernetes-client-linux-arm64.tar.gz	ea38a7ad0152858aa9326cf2248fe33cb1f38c42e1c28428b7d91eb8cdf1a03

kubernetes-client-linux-ppc64le.tar.gz	da651a6d058c3b4a65d145eb4ed57afb227774784ff262bb220132c5e1a9caf2
kubernetes-client-linux-s390x.tar.gz	98b3bb4297c81fe268144d461cc97e6c18c5ad8cc7b93197050be92e7b92e906
kubernetes-client-windows-386.tar.gz	5f96970061ad3b8086d27c52ec32d48e0086f780a341d9ed66ec8712ded80df5
kubernetes-client-windows-amd64.tar.gz	49cab034eb39c827c6fa4e299d1687edb3f3956b035850887be6e040fde21c50

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	0ef5b508f57d575eee0fb47c6c0aca68a7da43dd50086c23082da778e2893c41
kubernetes-server-linux-arm.tar.gz	8d6c1831181ba1f53e62eeb61ba136b28e240ddc3d51c4f15539a624247053f2
kubernetes-server-linux-arm64.tar.gz	00ae57855ffafcd069514d284f9c9076fb79ed63fe9be7104fa134b51ed15c36
kubernetes-server-linux-ppc64le.tar.gz	774a9eb65abd8f483a8417ca79d1339783c1cb1d0e8fe2b2821ddd24ab670ec9
kubernetes-server-linux-s390x.tar.gz	3e0805494c234544a086465dac6d868551876e2a3175c17e46e85e6d141165d5

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	495bc4ec731ca959951b7e9a9cfff92eabc2cc83055f4efe8d25f2159aefdf867
kubernetes-node-linux-arm.tar.gz	b08d12bc9d66c3d4fab0cbe24fb7478910293c09b731f0a6d48631065633347e
kubernetes-node-linux-arm64.tar.gz	50a2c150c8a0622aadfffb40f4330f844d633d440187814181858b937fb0a18c7
kubernetes-node-linux-ppc64le.tar.gz	2936000403e4eb07d6188aa1a1b65f60b99771c8b463174e5e3db907a923f625
kubernetes-node-linux-s390x.tar.gz	3bd2d3b518304b0f68150ef05ecae6da8c1819f58ab15f42ce6eab1d3f6b781b
kubernetes-node-windows-amd64.tar.gz	046341bc2f68f5d47dde21d7eb195bcdca9a973593a157677e8d46cd4c3ca530

Changelog since v1.8.13

Other notable changes

- Bump version of prometheus-to-sd to 0.2.6 to decrease log noise and include latest security patches. ([#64963](#), [@loburm](#))
- Fixes issue for readOnly subpath mounts for SELinux systems and when the volume mountPath already existed in the container image. ([#64351](#), [@msau42](#))

- Fix issue of colliding nodePorts when the cluster has services with externalTrafficPolicy=Local ([#64468](#), [@nicksardo](#))
- GCE: Fix to make the built-in `kubernetes` service properly point to the master's load balancer address in clusters that use multiple master VMs. ([#63696](#), [@grosskur](#))
- Add a way to pass extra arguments to etcd. ([#63961](#), [@mborsz](#))
- kubelet: fix hangs in updating Node status after network interruptions/changes between the kubelet and API server ([#63492](#), [@liggitt](#))

v1.8.13

[Documentation](#) & [Examples](#)

Downloads for v1.8.13

filename	sha256 hash
kubernetes.tar.gz	1515abd5e5aef927355c26e4a0e9e9f257880a2b8f357d59c9a54043f1806344
kubernetes-src.tar.gz	09d6e8f7fef8f50cd990c9679df40f9d24af4c8c5f4db6d834368228ed5edc26

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	24fdeffeffcb00e54356f44c2167a6657f5078be1079587aa459a179cd0cc8f3
kubernetes-client-darwin-amd64.tar.gz	9e8bf8742129c19064f97527f47210f71a0be6a62eb29abea1c104e9df4744dd
kubernetes-client-linux-386.tar.gz	19374af724b2d49343f22bc0c9d7978ff98adbb6338d331eb10913511e2a3faa
kubernetes-client-linux-amd64.tar.gz	2defbc71e6aea0f60a66876bbab34e4ff921bb8586e6afe32d67555ab8bf985a
kubernetes-client-linux-arm.tar.gz	211d70bf2a19e1009249ed15fc557636fc4e25e44bdd7b3919f3013f74e838f5
kubernetes-client-linux-arm64.tar.gz	9db9915e15669a2110596f338424e4ffd9618479fd800c1fc6dfc42af316955f
kubernetes-client-linux-ppc64le.tar.gz	3218404f21e18ff3dc3ac774917b421e50299834d00571e03565bab61e1e2912
kubernetes-client-linux-s390x.tar.gz	c768ea49e3be746a55e2180f0b373e950e180b4a677ad19d601d8082d238a539
kubernetes-client-windows-386.tar.gz	31ec41e9562ab9c5bd55d2b0e74db14fa38f0f8d1901b40e7226947b82302961
kubernetes-client-windows-amd64.tar.gz	0d01df87b93e65fa19d8e6ba88655a60ad37fbd47caa50b53577c7502fe8f7fe

Server Binaries

filename	sha256 hash
kubernetes-server-linux-	7db8b2ba30eaaa8dfd0424ea10700e2ee4cbd41778bd45e19d3ad401f32fbe66

amd64.tar.gz	
kubernetes-server-linux-arm.tar.gz	64c1d562375a96a62960b60781bc4cd5326fe4768767ffbab7e6be7bd827119e
kubernetes-server-linux-arm64.tar.gz	eb3fca691baf3d2dc305b073bd603b411f9495244d9fa604a591fc79c388f368
kubernetes-server-linux-ppc64le.tar.gz	ecb6ea04b03c6dd71e97259545b4ce18204cbbace51a4f54790946b7296abe85
kubernetes-server-linux-s390x.tar.gz	788bd79f06afa8cee226588b041c314caa502da9a5c42c94d7a4ab056fc47223

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	4b99d29fc82ea98e7a34e83fef623f4f135e7e7c4e0b03750a1b3f4c03290ebb
kubernetes-node-linux-arm.tar.gz	41ef1b4479ac3636dbd997d093c247791a6bffaef667ae2d90a3c76467149c84
kubernetes-node-linux-arm64.tar.gz	4086d556a987b5fe83c44a369efb06f9d0c1c9235602ea87029f87d50629d947
kubernetes-node-linux-ppc64le.tar.gz	407b01d37f69df34328902e802bfe61bc87b613420c3179a460f7b2b83cef0a7
kubernetes-node-linux-s390x.tar.gz	770dfc5bc4ffd1c7684b87c43c97d6cabe6bf8ccdde1faf72823ad33700b05f7
kubernetes-node-windows-amd64.tar.gz	3d32eda14421ce4b97f991599c248ea7ea6b3c28dd1f185e239819d646fdc2f3

Changelog since v1.8.12

Other notable changes

- Add MAX_PODS_PER_NODE env so that user can use it to specify the default max pods per node for the cluster. IP_ALIAS_SIZE will be changed accordingly. Must have ip alias enabled. ([#63466](#), [@grayluck](#))
- Fixes bugs that make apiserver panic when aggregating valid but not well formed OpenAPI spec ([#63635](#), [@roycaiwh](#))
- Fixes issue where subpath readOnly mounts failed ([#63045](#), [@msau42](#))
- Bugfix allowing use of IP-aliases with custom-mode network in GCE setup scripts. ([#62172](#), [@shyamjvs](#))
- removed unsafe double RLock in cpumanager ([#62464](#), [@choury](#))

v1.8.12

[Documentation](#) & [Examples](#)

Downloads for v1.8.12

filename	sha256 hash
kubernetes.tar.gz	41ff4727612bca701fa3d78d20aebd4414e02627b502286094fb3129d71ee580
kubernetes-src.tar.gz	341fd3cd97849aa7e4cfdcef02f4bf1654d663b285dda2158f1c391eb6f18aa2

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	7783739c270e751813cf743f2b1cc4a728e3a7cdfac1a72b99118e7bcb187304
kubernetes-client-darwin-amd64.tar.gz	a9c963e8691ebe940eebb882eb73d983772fffcc0e2d94a2c3d09526ba95bc7b
kubernetes-client-linux-386.tar.gz	55fd2bf9a97575e8ca66c2526b6a98d0b2576203605c2bf23b1b4be897b2fad9
kubernetes-client-linux-amd64.tar.gz	3aecd1c34d8effd545e28a2d2f45c426d79836ce0e8a77f3b51dd62e4b38bdb0
kubernetes-client-linux-arm.tar.gz	7a444c58450b43b2412c09aba747db8cb51e27723b314cd910a1e751d2956fda
kubernetes-client-linux-arm64.tar.gz	5e0bcf59d9c47d6adb821f4d828b4dc1fb1141d0827291bee66a2ce3c4c7a58f
kubernetes-client-linux-ppc64le.tar.gz	a8d3726840aedde1bb61bd9ee7c1f81727d36b99ebb7396f1c55f5797768371e
kubernetes-client-linux-s390x.tar.gz	a5d31fd50d04a3e2b966a6b94690f5f9667e00ccdc183827a52914234ef90d42
kubernetes-client-windows-386.tar.gz	0ffc05c85b56636839158a669ba7515509ddde411e336e5ab46d933dd1e1fe7c
kubernetes-client-windows-amd64.tar.gz	64e8d25e5921135e0c14ed72fb429b5afa8d592a72220fff0929ff21778e305e7

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	c2afbabbf2e172ce7cd6a58b314d2e82e0cd6d42955a3a807567c785bbab9fea6
kubernetes-server-linux-arm.tar.gz	091cac55e06f585b944eea210f61183572b72f011871e21c0af16b7fc4b8d1a0
kubernetes-server-linux-arm64.tar.gz	b5268091973a8a5ccac584b47e8ab0de3d33cbfbedd70f6d1b3a539fdb113655
kubernetes-server-linux-ppc64le.tar.gz	fd21e3d11c303132ddf6511a698d1912179ed63157d05d2db6425b59336c8674
kubernetes-server-linux-s390x.tar.gz	7a71e38782959a03deb87b20a2e63042e9f4d1a202393f49a5629ab7a3bb4871

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	3ca350f6d98b897f87ff9b5a6fcd4ce629a4d1e2aade40646cf9499f7d25a35b
kubernetes-node-linux-arm.tar.gz	2e4dbf2f60cf09dc91fd3ebebdl0e861b456bd474f8b1b209e02c06736da32f3
kubernetes-node-linux-arm64.tar.gz	fe8bc9c173584a78199fd68db5f87c9209e6bf47712713f7d459d765305f80d2
kubernetes-node-linux-	a5262f7f615abaf6d2762336b6a69d9822c19ec23802a1958b96e00da48bc51d

ppc64le.tar.gz	
kubernetes-node-linux-s390x.tar.gz	6f4f2244065a41ecd7447fa3175dbd8b654eb0b3e200e98845b5b5c1074803e0
kubernetes-node-windows-amd64.tar.gz	6ef9db947227b9d0fef949f9036043ea416ba44224aca4618b3e0d21386ca438

Changelog since v1.8.11

Other notable changes

- GCE: Fix for internal load balancer management resulting in backend services with outdated instance group links. ([#62887](#), [@nicksardo](#))
- Fix user visible files creation for windows ([#62375](#), [@feiskyer](#))
- Resolves forbidden error when the `daemon-set-controller` cluster role access `controllerrevisions` resources. ([#62146](#), [@frodenas](#))
- Update kube-dns to Version 1.14.10. Major changes: ([#62676](#), [@MrHohn](#))
 - - Fix a bug in DNS resolution for externalName services and PTR records that need to query from upstream nameserver.

v1.8.11

[Documentation](#) & [Examples](#)

Downloads for v1.8.11

filename	sha256 hash
kubernetes.tar.gz	85069e47def15eb1f4ae3ec58e0ac25ca0edc9f238c3e6b21dd2dbfa083f740b
kubernetes-src.tar.gz	6cbb55e690d5647cd9e1f93b7cb240d75ada634f75273544171de30d1fa50d0

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	e4c7a18904a4f2dbc799afd3b79a81fb920d8e17c5a8932b1e0d5b71fb21739f
kubernetes-client-darwin-amd64.tar.gz	bba23554bb132877e70981961776ee2cb1661143b6ce451f3daa4596324f2d27
kubernetes-client-linux-386.tar.gz	84e6d6753efe1e0045f85a686cf8064a37b2e74b90a4fab6d938c551fa6e8230
kubernetes-client-linux-amd64.tar.gz	9100114d069a71b61be00d8ba771a7a56a4935d67a6213f34d0f00a276abfbf8
kubernetes-client-linux-arm.tar.gz	de0eb00c90361ed499dff85d3c204fbd04851c1e4a2a7ff7b6ed40282ce7263
kubernetes-client-linux-arm64.tar.gz	37a4e6eaa7137259c44db4ceb8ce9ac109385bfb83dc34fd6188583ca619e453
kubernetes-client-linux-ppc64le.tar.gz	4ef8a00a3584f1971c47ae35a5c02841f0eb3c26d5d44b0805bed687a8f01407

kubernetes-client-linux-s390x.tar.gz	c9aaebd54aa38da1fe8029dff811fba8c2e7890414f7e91559dca74bf51a6bb4
kubernetes-client-windows-386.tar.gz	04fc5ced2902d6211d34f2207bb3ae238a4e3634c27c6dde9ba0b6c900c13858
kubernetes-client-windows-amd64.tar.gz	fe64e3a2e935869d9c8f9137faaa300d65a1a5d1b27367f8152dbb9b287d886d

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	16c6f4346c9da0179cc309a15d16f4c0b6daa171611bddcb92ad0ee6d59f4b1f
kubernetes-server-linux-arm.tar.gz	ed567545ff99062af93ccf02a18070809bbcb8efcf35e8e74b9e97a9228019f
kubernetes-server-linux-arm64.tar.gz	bc3978e0b0824de004ac0247075c03f14d5d574a9fd6b361d2e38cbee08e2725
kubernetes-server-linux-ppc64le.tar.gz	4f8391078983fa6c485e51617eb1ee6ce41a7d567d3183288ce4221c2a0ef8ee
kubernetes-server-linux-s390x.tar.gz	61376f93a2725c30260f0b4d1bc920cff071a940a53728ba6279bb671fcaea9a

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	41093d26c11a29d7749230e56a850706876a16288eb1340b05dbb73d53caf168
kubernetes-node-linux-arm.tar.gz	f767457cafbe1e668a548c5fe60e7c9f18bcb656fcbd10783641d505b5ad06ee
kubernetes-node-linux-arm64.tar.gz	e92148d19a2983803cfd54d423b07494a0d5063f28840b2e9ba899200de7f52d
kubernetes-node-linux-ppc64le.tar.gz	66586be2bef00e525babaf3a7525c3b9f99e426e257b3bd24752750f281e9656
kubernetes-node-linux-s390x.tar.gz	05c7f55fa2f89d9d62cf59d4ef23e45ab3e543d538aa409986d557ea7d6196b7
kubernetes-node-windows-amd64.tar.gz	4d7d167968505135272bdf9567b0fb4e742d37ca0010844e205157a2578218b3

Changelog since v1.8.10

Action Required

- ACTION REQUIRED: In-place node upgrades to this release from versions 1.7.14, 1.8.9, and 1.9.4 are not supported if using subpath volumes with PVCs. Such pods should be drained from the node first. ([#61373](#), [@msau42](#))

Other notable changes

- Backport of the IPAM allocator enhancements to 1.8 branch. ([#62041](#), [@satyasm](#))
- fix the create azure file pvc failure if there is no storage account in current resource group ([#56557](#), [@andyzhangx](#))

- Update kube-dns to Version 1.14.9. Major changes: ([#61908](#), [@MrHohn](#))
 - ■ Fix for kube-dns returns NXDOMAIN when not yet synced with apiserver.
 - ■ Don't generate empty record for externalName service.
 - ■ Add validation for upstreamNameserver port.
 - ■ Update go version to 1.9.3.
- Fix mounting of UNIX sockets(and other special files) in subpaths ([#61480](#), [@gnufied](#))
- Fix GCE etcd scripts to pass in all required parameters for the etcd migration utility to correctly perform HA upgrades and downgrades ([#61957](#), [@jpbetz](#))
- On AWS kubelet returns an error when started under conditions that do not allow it to work (AWS has not yet tagged the instance). ([#60125](#), [@vainu-arto](#))
- fixed foreground deletion of podtemplates ([#60683](#), [@nilebox](#))
- Timeout docker queries to prevent node going NotReady indefinitely. ([#56967](#), [@jsravn](#))
- Fix bug allowing garbage collector to enter a broken state that could only be fixed by restarting the controller-manager. ([#61201](#), [@jennybuckley](#))
- Update Cluster Autoscaler version to 1.0.5 to fix security vulnerabilities ([#61566](#), [@aleksandra-malinowska](#))
- Support new NODE_OS_DISTRIBUTION 'custom' on GCE ([#61235](#), [@yguo0905](#))
- Fixed missing error checking that could cause kubelet to crash in a race condition. ([#60962](#), [@technicianted](#))
- Introduced `--http2-max-streams-per-connection` command line flag on api-servers and set default to 1000 for aggregated API servers. ([#60054](#), [@MikeSpreitzer](#))
- Fixes storage e2e test failures in GKE regional clusters. ([#61303](#), [@verult](#))
- [fluentd-gcp addon] Update fluentd and event-exporter images to have the latest base image. ([#61726](#), [@crassirostris](#))
- fix device name change issue for azure disk ([#60346](#), [@andyzhangx](#))
- Use GCE metadata proxy 0.1.4-r1 to pick up security fixes. ([#60244](#), [@ihmccreery](#))

v1.8.10

[Documentation](#) & [Examples](#)

Downloads for v1.8.10

filename	sha256 hash
kubernetes.tar.gz	021c0f968c7b3facd48e2cf250eec9acc250dae33627025a0762fe9db700d063
kubernetes-src.tar.gz	b2848ab41200fc5a8a780e860543e682dacd687d919e000038416de8641620d9

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	55dcca2eba20f864e2ba9945b8b5babf2eb5cc7e80852159c6c32de9cc76374d
kubernetes-client-darwin-amd64.tar.gz	334b9816260b8802030f4d50a7f86c1084235c628fe51e6ef09c8837b77bb0c0
kubernetes-client-linux-386.tar.gz	e267d233fe7015b20bad48758ed7ba0c7cc5d896d6c721931443df78132ab4cc
kubernetes-client-linux-amd64.tar.gz	8ebcc183c59482b259fcc26bdcf6869ada44555708ae55a80d311e66c730721a

kubernetes-client-linux-arm.tar.gz	17b39001b967475382374174b7d2a5f4b1a37225be04c5edb5e722ef8eb64ca0
kubernetes-client-linux-arm64.tar.gz	1ff6a2c706d103c8207bf1c3844d9d19dc17a50f8a1c70efeb8e6eb2d9c05e35
kubernetes-client-linux-ppc64le.tar.gz	3bdcdf580dda212e54d4532e054ab640dc683495039fee22bd3b6d925d888383
kubernetes-client-linux-s390x.tar.gz	c4fdf17c3ac91a1652aec431073d12ceaf9d11656d3ded700106bfdb722e7846
kubernetes-client-windows-386.tar.gz	b75b22bebd90ca27d68263143f50695b173745fcea3077fb81a0c52ca0637d5
kubernetes-client-windows-amd64.tar.gz	2e2e2dabef8bc6d096dd00143bcce9f6f76232dffef8cb9c62f809a337c883d6

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	35037ce8764ae1620daf2dc870f23b53bc9091c2ff51a74cc82b1a1bfd05cff6
kubernetes-server-linux-arm.tar.gz	42e9c10f726773028b060db1363e5e92ab718af8e0ab79a0c298c3d3a15002e0
kubernetes-server-linux-arm64.tar.gz	d7443bef32a43f23627c52d65a4b5643efce97127fceed1d662562541eb74a61
kubernetes-server-linux-ppc64le.tar.gz	c149282b4b1e0fc33444b2166489a66bfff7817feed08f030e493694901c759d8
kubernetes-server-linux-s390x.tar.gz	86a5090d7745b7c1f949023bd44d36cbb7fc679bf27adac6406a19483f00832

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	c2b4a3107ad42199800864bc3eeba44b9c48ab0d5e9a2d7e6056beb8120b8335
kubernetes-node-linux-arm.tar.gz	77b4735367f4029a47601d352e6c1bc88838c95c5ddc67cd4a16932e3bf4cfcf
kubernetes-node-linux-arm64.tar.gz	791f100738aaa80014b01d5f16581142e3dc13cc92f80b4c62563cac782faa28
kubernetes-node-linux-ppc64le.tar.gz	c00ce5f56f5ac8d283a00807fd5374be19f819e5bae47045bc31ee668a96b071
kubernetes-node-linux-s390x.tar.gz	fd602c74605aa370ee37c52467da34eb8e73c621f82d71f3ce09a54591f93f5e
kubernetes-node-windows-amd64.tar.gz	bdaaf628a38f9cf2134af302b941beb51d0f0f94431131e1c92c532e98a03098

Changelog since v1.8.9

Other notable changes

- gce: fixes race condition in ServiceController, where nodes weren't updated in the node sync loop, by updating TargetPools in the ensureExternalLoadBalancer call. ([#58368](#), [@MrHohn](#))

- fix azure file plugin failure issue on Windows after node restart ([#60625](#), [@andyzhangx](#))
- Get parent dir via canonical absolute path when trying to judge mount-point ([#58433](#), [@yue9944882](#))
- Fix a regression that prevented using `subPath` volume mounts with secret, configMap, projected, and downwardAPI volumes ([#61080](#), [@liggitt](#))
- Set node external IP for azure node when disabling UseInstanceMetadata ([#60959](#), [@feiskyer](#))
- [fluentd-gcp addon] Fixed bug with reporting metrics in event-exporter ([#60126](#), [@serathius](#))
- Bug fix: Clusters with GCE feature 'DiskAlphaAPI' enabled were unable to dynamically provision GCE PD volumes. ([#59447](#), [@verult](#))

v1.8.9

[Documentation](#) & [Examples](#)

Downloads for v1.8.9

filename	sha256 hash
kubernetes.tar.gz	5d85066065a411c120d54c7f5e3f426b4b1557c36c98af12273f72c6a2f43428
kubernetes-src.tar.gz	8d4bb9187125862cd54bd0c8ba4d01001fcfd1f53bc38ec6045c3aa29882d775

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	0a029d72489839f35f207f7aeca0d2d1e1a337c9ed55351c5142794c36f95c26
kubernetes-client-darwin-amd64.tar.gz	1a72a7a3ceb4c639d3bf6915e2a69d9934d7a8f060bb8c465c22226ed9cdef90
kubernetes-client-linux-386.tar.gz	cc1d712d044fa5f079fcb758fe88c76156a373a073a619757a10cc7028690b7b
kubernetes-client-linux-amd64.tar.gz	e299bebe3f4a4186cbcff5e8f012404f43513ae8b6d3f8524bbfa2ef05de49d9
kubernetes-client-linux-arm.tar.gz	4c6f8cf209f46ad0f721fb6aad60f8793864a10c9df8c30cc2a1d492f2972029
kubernetes-client-linux-arm64.tar.gz	272b4dc4f516b4aa828513fe710eebab36c349669cbfa260fbb2920f3a781189
kubernetes-client-linux-ppc64le.tar.gz	01a6e8e7ad1e9906873123216ef0f57477b6ba07e08017cbf3ac4d0000072620
kubernetes-client-linux-s390x.tar.gz	8de019c2a979278ef6433026eeb9eb4e7067a08d577df38a21ceaaa293ace3f8
kubernetes-client-windows-386.tar.gz	cb25b69a410d7295506679da1a8d2fd2032344bee020bcad86dd1f5136f12350
kubernetes-client-windows-amd64.tar.gz	a37b37d4ea81d67c63f22d09b19b02727f5e7c6539c47faeb1b557ed5e944e6d

Server Binaries

filename	sha256 hash

kubernetes-server-linux-amd64.tar.gz	72ae9d0fcd2485cbac8b81587d967d71e76c5d3f6c37b336b2f052c5b1b5a20d
kubernetes-server-linux-arm.tar.gz	2134516699574aaafaa45a0c70239055d4b2d67c1234da2534e5eb07ef0f99232
kubernetes-server-linux-arm64.tar.gz	ecf644fb2882ed507d56b01ee4991b768e8233314ef942ec2a8aba0d9d247104
kubernetes-server-linux-ppc64le.tar.gz	d455e7485e88dbf73af09b63f1a1c0bc44c9ab1909bbb4e23179e435ccd57b2b
kubernetes-server-linux-s390x.tar.gz	00f2633644e31baa1bef45bae3c97d972c509e165b6577a4a785dca906dbead8

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	76604bc98d2e221b70bb73d12789cc5553aa601c2a7b4056c7ed2e06112c8e97
kubernetes-node-linux-arm.tar.gz	d07069b31f0edc833b19f32d1b516f77728613efaf913e3586d1ff79dbe1e82b
kubernetes-node-linux-arm64.tar.gz	6b38b9c9db245a9777a1eb7bebd2bc860476f971f117dbf7ad5bea4d112a4c293
kubernetes-node-linux-ppc64le.tar.gz	0e63b12bbc46b928954cbbd25183e6abfe0c92109f3eddad1f6962ddbde5d252
kubernetes-node-linux-s390x.tar.gz	ce52ce8137ec5aa3ba9db58b1f0a67d86ad38aab9ca44989b77a0364347ad6cf
kubernetes-node-windows-amd64.tar.gz	0ce7cbe4257232f04c528a2766f639afaeb71af729836dea726d9d06ddb2c45c

Changelog since v1.8.8

Other notable changes

- Fixes CVE-2017-1002101 - See <https://issue.k8s.io/60813> for details ([#61046](#), [@liggitt](#))
- Changes secret, configMap, downwardAPI and projected volumes to mount read-only, instead of allowing applications to write data and then reverting it automatically. Until version 1.11, setting the feature gate ReadOnlyAPIDataVolumes=false will preserve the old behavior. ([#58720](#), [@joelsmith](#))
- Update dashboard version to v1.8.3 ([#57326](#), [@floreks](#))
- Fixes a case when Deployment with recreate strategy could get stuck on old failed Pod. ([#60496](#), [@tnozicka](#))
- fix race condition issue when detaching azure disk ([#60183](#), [@andyzhangx](#))
- Fix kubelet PVC stale metrics ([#59170](#), [@cofyc](#))
- Restores the ability of older clients to delete and scale jobs with initContainers ([#59880](#), [@liggitt](#))
- Fix race causing apiserver crashes during etcd healthchecking ([#60069](#), [@wojtek-t](#))
- Increase allowed lag for ssh key sync loop in tunneler to allow for one failure ([#60068](#), [@wojtek-t](#))
- Fixed a race condition in k8s.io/client-go/tools/cache.SharedInformer that could violate the sequential delivery guarantee and cause panics on shutdown. ([#59828](#), [@krousey](#))
- Fixed an issue where Portworx volume driver wasn't passing namespace and annotations to the Portworx Create API. ([#59607](#), [@harsh-px](#))
- Node's providerID is following Azure resource ID format now when useInstanceMetadata is enabled ([#59539](#), [@feiskyer](#))

v1.8.8

[Documentation](#) & [Examples](#)

Downloads for v1.8.8

filename	sha256 hash
kubernetes.tar.gz	2a89a7498e982847bd07ba15abebae3205c793c5d9e2d3d392423023213f3e85
kubernetes-src.tar.gz	e520e6729b34ccfe8ae178e59d5effbbae48a46fbc853a47d64fab7e061816a8

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	c4a413fd240d10af970589897a320f194ef4d683227dc9dcec35592e6222617c
kubernetes-client-darwin-amd64.tar.gz	fcdbdf1961d8d084debf124c044c0d07696542699113323288ac90528cff03286
kubernetes-client-linux-386.tar.gz	664d7b9a6a9d6f3245018f4dad34c16f551ab3f6fe242bd01761c11d7d782b19
kubernetes-client-linux-amd64.tar.gz	3d1b9c175b2d978f266f0af857153e83e428136bcb981c639f2af06f7d500dff
kubernetes-client-linux-arm.tar.gz	b35d6bac9d3822805cfde0837384d9f22836f8b222c3c554e2dc19aea5782387
kubernetes-client-linux-arm64.tar.gz	a06f6d5c62954474587916710944332eb9b1f22eab6e0740fa643519c05e268f
kubernetes-client-linux-ppc64le.tar.gz	afd73eb646777d1437c1fd3463414f954e4f1f67c8000a5ca7322dbce760c39d
kubernetes-client-linux-s390x.tar.gz	05b2eb492c4235488cf121892e9e89a8d5ebceb3f821658705e747aa3cc40046
kubernetes-client-windows-386.tar.gz	4076df765481c3ea4a90accb217e32253830ae51aa6d82082c99e763f336fd85
kubernetes-client-windows-amd64.tar.gz	d173d230f57e37dcd181027aa2940926bb14fbd0992df84077d09f0ecdeb4252

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	212aec6cef23112964adc4deb307d07b1ca44c41478c6ed5f6af0c72e0c78d62
kubernetes-server-linux-arm.tar.gz	73841a7c2052a41fd2ce3caefad7a20a4086acaf7885265a07048e70c1306c7
kubernetes-server-linux-arm64.tar.gz	04061257023dfd595c31a5ae7f1b0dade9f613ee2ee1e488008adf5025e6eddf
kubernetes-server-linux-ppc64le.tar.gz	3fe493caa9b36b9b6b72f501977a63231f35120c3c9ae6c0dc7ccfeba27c1e8e

[kubernetes-server-linux-s390x.tar.gz](#)

9ee6b7bf446d3b57aa97d061c4880cb16345cf4790f3b228ad96674ded944ce4

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	e399b89be7cbbb8f71d87fd39609d97a77998173ec82c9e6c786124ddf7a5bba
kubernetes-node-linux-arm.tar.gz	3704f7caca483b8a9590b52ba9f1910d3151f616126ecaaff99823e9081a634f
kubernetes-node-linux-arm64.tar.gz	17f0d9a7019bd13a86fd272459efb91630701bbf195cd57ed531428ec87e26ef
kubernetes-node-linux-ppc64le.tar.gz	e53d4c510a75696d5b28ca54be9ecf5e4ef1b4980e38760cd13965fe10038add
kubernetes-node-linux-s390x.tar.gz	4a20fa00c24396e6fef884c94be9bc0d45e70fec01c10d860f868c4213c1efa0
kubernetes-node-windows-amd64.tar.gz	52091e45d6aa93be2fe575284331f0eb7e7d3782826ec11aaca5feb6cb76d502

Changelog since v1.8.7

Other notable changes

- Configurable etcd quota backend bytes in GCE ([#59259](#), [@wojtek-t](#))
- Cluster Autoscaler 1.0.4 ([#59271](#), [@mwielgus](#))
- Prevent kubelet from getting wedged if initialization of modules returns an error. ([#59020](#), [@brendandburns](#))
- Updates Calico version to v2.6.7 (Fixed a bug where Felix would crash when parsing a NetworkPolicy with a named port. See <https://github.com/projectcalico/calico/releases/tag/v2.6.7>) ([#59130](#), [@caseydavenport](#))
- Configurable etcd compaction frequency in GCE ([#59106](#), [@wojtek-t](#))
- [GCE] Apiserver uses `InternalIP` as the most preferred kubelet address type by default. ([#59019](#), [@MrHohn](#))
- Updated priority of mirror pod according to PriorityClassName. ([#58485](#), [@k82cn](#))
- Fix kubelet to correctly umounts mount points for glusterfs when transport endpoint is not connected and nfs when there is a stale file handle ([#58660](#), [@humblec](#))
- Detach and clear bad disk URI ([#58345](#), [@rootfs](#))
- Expose Metrics Server metrics via /metric endpoint. ([#57456](#), [@kawych](#))
- Access to externally managed IP addresses via the kube-apiserver service proxy subresource is no longer allowed by default. This can be re-enabled via the `ServiceProxyAllowExternalIPs` feature gate, but will be disallowed completely in 1.11 ([#57265](#), [@brendandburns](#))
- Add apiserver metric for number of requests dropped because of inflight limit. ([#58340](#), [@gmarek](#))
- Add apiserver metric for current inflight-request usage. ([#58342](#), [@gmarek](#))
- Update Calico version to v2.6.6 ([#58482](#), [@tmjd](#))
- Correctly handle transient connection reset errors on GET requests from client library. ([#58520](#), [@porridge](#))
- Fixes an issue where the resourceVersion of an object in a DELETE watch event was not the resourceVersion of the delete itself, but of the last update to the object. This could disrupt the ability of clients to re-establish watches properly. ([#58547](#), [@liggitt](#))
- Fix a bug affecting nested data volumes such as secret, configmap, etc. ([#57422](#), [@joelsmith](#))
- Fix garbage collection and resource quota when the controller-manager uses `--leader-elect=false` ([#57340](#), [@jmcmeek](#))
- Fixed encryption key and encryption provider rotation ([#58375](#), [@liggitt](#))

v1.8.7

[Documentation](#) & [Examples](#)

Downloads for v1.8.7

filename	sha256 hash
kubernetes.tar.gz	39389e6bc459e96af44dbca38697a14fa292a66e5d5b82cced2ed5cd321b3793
kubernetes-src.tar.gz	9b9ecc3a6f4b5681038742744e70d1a89ce6fb829106118710df93ff9a69558b

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	4f5517d5c1a13921f818e76e7d9639744d166d9289196465f6811bfd6bebb7ee
kubernetes-client-darwin-amd64.tar.gz	608a5a88fed518a378f4f30b2bb1743def2366eb99b11825123f9c6ec8117f5e
kubernetes-client-linux-386.tar.gz	e4e13b177f313050a68f17793eaf314c53501f7b5225aaa6a5da516ac46b6726
kubernetes-client-linux-amd64.tar.gz	b5bd43f15fb091959fd6b4cff739b24da3194d26ed598d512adbd4b59d6a0eaa
kubernetes-client-linux-arm.tar.gz	0856ad62860ecedc327cb5162617c4cd3af3f40cd8308fccf0491259da5e5199
kubernetes-client-linux-arm64.tar.gz	8c5afcb917fff4c9e927609580cb211d7daa6b7c40b2e4d67766df65b47c9883
kubernetes-client-linux-ppc64le.tar.gz	3380e8a50330efa8e626c65ccc5dadcd79c6acacfadb00bb0845271eaf6091b1
kubernetes-client-linux-s390x.tar.gz	1ba97be9f269579c2b004a898036a4d4acb7f12455c1bf43d6ab4cd7cb6e1718
kubernetes-client-windows-386.tar.gz	1c7718117647e0940e007e1383b20ca438068fc74e42eb017529c6e7ec0c5bfa
kubernetes-client-windows-amd64.tar.gz	a962223bd349b58f85e86b91d559a3a55ffa48c17322ccc3cf35cf215b5f8633

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	ea3df45a3cd573ba7d1a6d7fcddaf9a2812243560d591f7ba6a497f0467b18b8
kubernetes-server-linux-arm.tar.gz	8e4a67569e4182ffe623419b9a16d078f3a3f48f592993e83f25cc08fefcd4b3d
kubernetes-server-linux-arm64.tar.gz	1fca5b099a180a733cad9a382604d69b9b1a63a4b2bbd40e32d54871f3f06489
kubernetes-server-linux-ppc64le.tar.gz	9233ed62830b505abebf6d0c120a9aa1a3eb1fe70cd7750d60552ca9ec0e4f7d

kubernetes-server-linux-s390x.tar.gz	2ec3385847af78e66b18b1fcf9de7c75c4af26f44c07dfbb37d5d793578a7595
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Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	79ee543a9c2636f1491715739c3c54cb70ae5b215fe5ce3345e6ff92759ace72
kubernetes-node-linux-arm.tar.gz	60c40066bd1b9a6996371a47d1113a7ef30295e9ea37f738cd7ce86cda380516
kubernetes-node-linux-arm64.tar.gz	92ee26c0bbb0d016122c38831903ee82d83c33b289463b9f4dc3481e5c096f9c
kubernetes-node-linux-ppc64le.tar.gz	965ddb5e7c54975aa5ce35507317f9738db34f799c67e4fc625e150aac7f5c38
kubernetes-node-linux-s390x.tar.gz	5e71d983830ab11aff065fe872bea9e9cfc663d62cd9480b4085a2d1bbf8ca95
kubernetes-node-windows-amd64.tar.gz	6f364309fd9dc34f7c7bc13d279499fd7c434ce5cfab379f0e9848e5fab497e0

Changelog since v1.8.6

Other notable changes

- fix device name change issue for azure disk: add remount logic ([#57953](#), [@andyzhangx](#))
- GCE: Allows existing internal load balancers to continue using an outdated subnetwork ([#57861](#), [@nicksardo](#))
- fix azure disk not available issue when device name changed ([#57549](#), [@andyzhangx](#))
- Allow kubernetes components to react to SIGTERM signal and shutdown gracefully. ([#57756](#), [@mborsz](#))
- fix incorrect error info when creating an azure file PVC failed ([#56550](#), [@andyzhangx](#))
- GCE: Fixes ILB creation on automatic networks with manually created subnetworks. ([#57351](#), [@nicksardo](#))
- Configurable liveness probe initial delays for etcd and kube-apiserver in GCE ([#57749](#), [@wojtek-t](#))
- Fixes a bug where if an error was returned that was not an `autorestore.DetailedError` we would return `"not found", nil` which caused nodes to go to `NotReady` state. ([#57484](#), [@brendandburns](#))

v1.8.6

[Documentation](#) & [Examples](#)

Downloads for v1.8.6

filename	sha256 hash
kubernetes.tar.gz	8289c42b5d6da1dbf910585fca3a9d909195e540cc81bace61ec1d06b2366c1b
kubernetes-src.tar.gz	8a9d5d890c44137527fe3976d71d4f7cb18db21ba34262ce587cd979a88bb2fe

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	0e282477bfed6b534f2fbbd125e6e3e065bf72d15ac3532acef405e6717d8fb7

kubernetes-client-darwin-amd64.tar.gz	767c7bfbcb6c1d01120e11726b9e33e184d32294e07c69a299b229329c5b98eba
kubernetes-client-linux-386.tar.gz	088b40c343fecb83b514bf9af0ad1c359c98ae7aa3b62d2a078c1363f50901c9
kubernetes-client-linux-amd64.tar.gz	47541706e4d27da55d32372344d7a4038ed389ba0be1e6fe15c651c574aac97a
kubernetes-client-linux-arm64.tar.gz	4be0b7a01c28c1f85d4f01f86def03dd3d49ef88cb43bf7be641d9d16b6aabc2
kubernetes-client-linux-arm.tar.gz	2d70384262cbdfb0958542bc5a71d926c49557fc8cc3000a2592571a945ad119
kubernetes-client-linux-ppc64le.tar.gz	c3be3a125ac77aa809da3495ad38456059a89cccfdfad0babaf95896fb958adc
kubernetes-client-linux-s390x.tar.gz	2b9831c2dd65c9669b335e3623e6a7001173b9ddf203f52f37b350659d9f1102
kubernetes-client-windows-386.tar.gz	9d14a96372cdcecbbb28717aff305fcd68beb540066a27f1b5e84e208a25405f
kubernetes-client-windows-amd64.tar.gz	0fbe358ff305188fe00793284e22c9c5b2ec0e0213882f0bfe0e4bf9685075f0

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	9c8ff48343e5314638965407358d1e91d510c72a1c7dd7cde0c3be12790fdb98
kubernetes-server-linux-arm64.tar.gz	dd35c1b7572ab383eb2ff60f3b039053afa124836db6d044ab14afdafbe5ca74
kubernetes-server-linux-arm.tar.gz	5f4637d309eb47f4f97db8d2978b0b37b271339feb5952b216a9d09ad7e67c32
kubernetes-server-linux-ppc64le.tar.gz	6d3ea43edd53253e9e3b9ceb49e61b6d2c093e55be35f7b1a8f798cde842a562
kubernetes-server-linux-s390x.tar.gz	dfe89b91399977cee291d57b446625f01cf76ebecce696e2e889863bd3c8d3b1

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	f8f3e7bb07db540f4b88fa5818c46efb918e795e5e89e389b9048f2f7f37674d
kubernetes-node-linux-arm64.tar.gz	1754b8a20d9176317fea3b77b5c48ad5565b922820adcbca4017bf210168dc6e
kubernetes-node-linux-arm.tar.gz	0a8255effff1d5b3ad7c84c3d6f6b8cfb5beb71606bfedae0bb45f170b806d6
kubernetes-node-linux-ppc64le.tar.gz	fef465c9f66eda35479e152619b6c91e2432e92736646a898c5917098a10a1b4
kubernetes-node-linux-s390x.tar.gz	ff024e59d52afdee003f11c65f7de428915f7e28f9b8be4b3ebf117422ae5d67
kubernetes-node-windows-amd64.tar.gz	19a673b714c02322c544ec3a972e011410b69a7aed016ecf7ba09eccb175a1de

Changelog since v1.8.5

Other notable changes

- change default azure file/dir mode to 0755 ([#56551](#), [@andyzhangx](#))
- Retry 'connection refused' errors when setting up clusters on GCE. ([#57394](#), [@mborsz](#))
- enable flexvolume on Windows node ([#56921](#), [@andyzhangx](#))
- Add prometheus metrics for the PodSecurityPolicy admission controller ([#57346](#), [@tallclair](#))
- fix CreateVolume func: use search mode instead ([#54687](#), [@andyzhangx](#))
- remove time waiting after create storage account (save 25s) ([#56679](#), [@andyzhangx](#))
- Add pvc as part of equivalence hash ([#56577](#), [@resouer](#))
- fix azure disk storage account init issue ([#55927](#), [@andyzhangx](#))
- falls back to parse Docker runtime version as generic if not semver ([#54040](#), [@dixudx](#))
- BUG FIX: Check both name and ports for azure health probes ([#56918](#), [@feiskyer](#))

v1.8.5

[Documentation](#) & [Examples](#)

Downloads for v1.8.5

filename	sha256 hash
kubernetes.tar.gz	7a7993e5dee72ede890e180112959a1fe179b592178ef24d04c48212c09345b8
kubernetes-src.tar.gz	358de791b2bfd85a9b76ee42629dd8d07ae46710ad2bd5a37a20136ec3c7cea8

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	89b57f6eccc02c95c4de4db189092756a9bf85033200a11db56ff30a38e2dda0
kubernetes-client-darwin-amd64.tar.gz	a02bbbfe403db81f7a6317e752d9fe7853b583e34077eebfa05c7f0ec4a89712
kubernetes-client-linux-386.tar.gz	a1c047cdfbcb753a8beabcf6358863c125d46e71c4d3cbe56f06237ce6f2fed6
kubernetes-client-linux-amd64.tar.gz	c32b6f90f1e8a15451f0d412d6d1f3db28948d2f7d76d4e28d83c11e1eb25f20
kubernetes-client-linux-arm64.tar.gz	a89a5f2889e0aae0caa673a2664c7af40e488a55ae26ab7a55599b0fbd87e281
kubernetes-client-linux-arm.tar.gz	5b485bbac15b8621be7ff936a5f02565511b9b00e56a5b67dfa1b273586d5af1
kubernetes-client-linux-ppc64le.tar.gz	ae4e8fcd230198bc3ad1294d61e04602a6bdd3c836997d48fd3262ab24e2885c
kubernetes-client-linux-s390x.tar.gz	c7803f0e3480dfdeedd8afd2d460ab6badf0e8879febafa30a4a3fbc87554507
kubernetes-client-windows-386.tar.gz	b78e04b0bc400f3f7a012cef630fd3757c12d54f16b180470d722c4d678867e1
kubernetes-client-windows-	a0b32d3fcd5e692a452d2a38a6dd34a7f3e40e22e88e4cfba77ae224e07d8565

amd64.tar.gz	
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Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	523f747f68842000ca88c84e8db07243248f6064295701b2168c64d2b77adfcbb
kubernetes-server-linux-arm64.tar.gz	3e43fccbe224ae7b20fd462f9c5932e5c5d58f0a3d6f67365a9e0d4e00fa796a
kubernetes-server-linux-arm.tar.gz	678c92b8b7b0616d102f9b74c9a11dd2763ba67bfa30075aca964aead2fe5370
kubernetes-server-linux-ppc64le.tar.gz	55993ca6301988412876b79216442968834847a571b6423235a0c7bffe65a56a
kubernetes-server-linux-s390x.tar.gz	32cb7484cdeb4153fc672373055a4e8a05a61f83c722bef623f3c6922c01faa

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	a3ae45d389001788401c07c5b3d14a9f0af842466080a3c31b6a03200b27231b
kubernetes-node-linux-arm64.tar.gz	642bd5c1c2728463667b1e0e6a110e2bf732972c16e8900701320a7fe85ead89
kubernetes-node-linux-arm.tar.gz	5b654c6fad642739f949be245eae94455fd9f2a25a388ca8effb01c49bd3451e
kubernetes-node-linux-ppc64le.tar.gz	3eeec484d7ea6caf1a3f8157d2fe504c411f27ee9930d744a017adefae191786
kubernetes-node-linux-s390x.tar.gz	5874957a48d103e9dd9c1bdecced59d13bc3ac59d2dec44de989521f711c842
kubernetes-node-windows-amd64.tar.gz	46a57f13bc5a4b78cd58b9914257aff15163cee24f3e43bf6c3a0a87ae3ed030

Changelog since v1.8.4

Other notable changes

- Fix scheduler cache panic when updating pod conditions. ([#56731](#), [@bsalamat](#))
- Add new Prometheus metric that monitors the remaining lifetime of certificates used to authenticate requests to the API server. ([#50387](#), [@jcbsmpsn](#))
- scheduler: Fix issue where a new pod with affinity gets stuck at `creating` because the node had been deleted but the pod still exists. ([#56835](#), [@wenlxie](#))
- Updated Dashboard add-on to version 1.8.0: The Dashboard add-on now deploys with https enabled. The Dashboard can be accessed via kubectl proxy at <http://localhost:8001/api/v1/namespaces/kube-system/services/https:kubernetes-dashboard:/proxy/>. The /ui redirect is deprecated and will be removed in 1.10. ([#53046](#), [@maciaszczykm](#))
- Fix issue where masquerade rules are flushed in GCE k8s clusters. ([#56729](#), [@dnardo](#))
- kubelet: Fix bug where `runAsUser: MustRunAsNonRoot` strategy didn't reject a pod with a non-numeric `USER`. ([#56708](#), [@php-coder](#))
- Add iptables rules to allow Pod traffic even when default iptables policy is to reject. ([#52569](#), [@tmjd](#))

- Fix a bug in GCE multizonal clusters where PersistentVolumes were sometimes created in zones without nodes. ([#52322](#), [@davidz627](#))
- If a non-absolute mountPath is passed to the kubelet, prefix it with the appropriate root path. ([#55665](#), [@brendandburns](#))
- add GRS, RAGRS storage account type support for azure disk ([#55931](#), [@andyzhangx](#))
- Fix a typo in prometheus-to-sd configuration, that drops some stackdriver metrics. ([#56473](#), [@loburm](#))
- Fixes server name verification of aggregated API servers and webhook admission endpoints ([#56415](#), [@liggitt](#))
- Update jquery and bootstrap dependencies ([#56445](#), [@dashpole](#))
- Fix CRI localhost seccomp path in format localhost//profileRoot/profileName. ([#55450](#), [@feiskyer](#))
- support mount options in azure file ([#54674](#), [@andyzhangx](#))
- kube-apiserver: fixed --oidc-username-prefix and --oidc-group-prefix flags which previously weren't correctly enabled ([#56175](#), [@ericchiang](#))
- fluentd-gcp addon: Fix fluentd deployment on GCP when custom resources are set. ([#55950](#), [@crassirostris](#))
- API discovery failures no longer crash the kube controller manager via the garbage collector. ([#55259](#), [@ironcladlou](#))
- Fix bug where master startup script on GCP failed randomly due to concurrent iptables invocations. ([#55945](#), [@x13n](#))

v1.8.4

[Documentation](#) & [Examples](#)

Downloads for v1.8.4

filename	sha256 hash
kubernetes.tar.gz	7f87cdafaf5959dfd60e4a89203a7e85cc139262b87c491e3ef46a1313fb9379
kubernetes-src.tar.gz	084a6d95c17c0c06123c146f04501eb8cbf23bfcbcfa23d511a0a2d2018c4a93

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	86b1ac96cd3bbaaa25806f8de34c26a9d6c9ba1daf70baa9df9d488db0da7054
kubernetes-client-darwin-amd64.tar.gz	f541a9b48ef115e2e4923f906daa9bc112f0b308d8d5559135e507d04fdc0424
kubernetes-client-linux-386.tar.gz	9d3ea12e58e2e6eef35641856a5fa116bd7301570868252c5525ff8a0719b5bc
kubernetes-client-linux-amd64.tar.gz	4d3c2a9e0d837e3607580d95bbc473ffb496fc47ba0ce7721e9180a9020f1f39
kubernetes-client-linux-arm64.tar.gz	02c95d433cc5ce4f2d1e162b13f74f82888cd6dbd91c031198fbb7ab55131093
kubernetes-client-linux-arm.tar.gz	8f3d6bf3a3e05a65c93e071ce6b5653be534aa358c01cc2de704db9bc45b040e
kubernetes-client-linux-ppc64le.tar.gz	775bcc7d66364f43794be96ab6b36992904f7ed0d56bb8e309216be23ff22862
kubernetes-client-linux-s390x.tar.gz	162584246b70c2a3c40571080c1cf0c73efbe6101d7c7f27059115336b901cb8

kubernetes-client-windows-386.tar.gz	fd88cc783cd73972b9175bebdb719dff697b5ff200ea6ef61152f3ce38b07f6f
kubernetes-client-windows-amd64.tar.gz	42ec653406de971f7a7e5b16c5ef0d6ebf3d17782d40b2a88a13ef128fe57d62

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	08d64a59a5fe620488f05214844a910144d7fe16a783d351704c71f3843124dc
kubernetes-server-linux-arm64.tar.gz	75ef62ecd203088a0f5bb5f48d782fd91af4a7dc3348b265ddd13c5bd15d0d01
kubernetes-server-linux-arm.tar.gz	276120cdc40e7925c4c09e26a546d954a43d0599b573e26b76f62f816b5b256d
kubernetes-server-linux-ppc64le.tar.gz	2c9a213de651be74452116778dc47800f036d03cbbdf65a424a3fd566906933d
kubernetes-server-linux-s390x.tar.gz	7c073fe63198b793b7a63ebd5f8adb69b780cae128df70b2c964f2493487021f

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	108e9cb2353aa64bbf5e11b938ee65a79abd879136b1f4ab123c897463d388fb
kubernetes-node-linux-arm64.tar.gz	b59029a6abbfb628bb14d1d2b633307ad1f22c6b758ffd11d7ba5b1a82e63f94
kubernetes-node-linux-arm.tar.gz	f31b08171d6a07ae4fca6b0153ce8da68df766f2334dc75c8b3206840c22424e
kubernetes-node-linux-ppc64le.tar.gz	0065e1b5cf385097b8da29cc2c91c5555e5f3cd8beed1874f1753b9b5c10e363
kubernetes-node-linux-s390x.tar.gz	dd08355d5350ef7f881f109bbe627071b494f3d86633a29ac2e4a834cd8d70b3
kubernetes-node-windows-amd64.tar.gz	1b11e3fbc0af816510660a624f38a68c8c1008c1d9045a4bad373be8af022f7a

Changelog since v1.8.3

Other notable changes

- Cluster Autoscaler 1.0.3 ([#55947](#), [@aleksandra-malinowska](#))
 - Add PodSecurityPolicies for cluster addons ([#55509](#), [@talclair](#))
 - Remove SSL cert HostPath volumes from heapster addons
- Fix session affinity issue with external load balancer traffic when ExternalTrafficPolicy=Local. ([#55519](#), [@MrHohn](#))
- Addon manager supports HA masters. ([#55782](#), [@x13n](#))
- ScaleIO persistent volumes now support referencing a secret in a namespace other than the bound persistent volume claim's namespace; this is controlled during provisioning with the `secretNamespace`

storage class parameter; StoragePool and ProtectionDomain attributes no longer defaults to the value

`default` ([#54013](#), [@vladimirvivien](#))

- Allow HPA to read custom metrics. ([#54854](#), [@kawych](#))
- Add masquerading rules by default to GCE/GKE ([#55178](#), [@dnardo](#))
- kubeadm now produces error during preflight checks if swap is enabled. Users, who can setup kubelet to run in unsupported environment with enabled swap, will be able to skip that preflight check. ([#55399](#), [@kad](#))
- GCE: provide an option to disable docker's live-restore on COS/ubuntu ([#55260](#), [@yujuhong](#))
- Fix hyperkube kubelet --experimental-dockershim ([#55250](#), [@ivan4th](#))
- ScaleIO driver completely removes dependency on drv_cfg binary so a Kubernetes cluster can easily run a containerized kubelet. ([#54956](#), [@vladimirvivien](#))

v1.8.3

[Documentation](#) & [Examples](#)

Downloads for v1.8.3

filename	sha256 hash
kubernetes.tar.gz	86a565d47afb2b4440a3d706e24b9590225e576f1aee1d0117f6a82c13a7ca1a
kubernetes-src.tar.gz	3fa0d5f87f92004297f17ed9791a9c309c6ed6958bbd4df6e3de5da640d35c25

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	e85d9804e14c0acc3f9e71a03e0ea10fc4848c94bb0fed56776d8137b71f70d7
kubernetes-client-darwin-amd64.tar.gz	2095e610c6b838a51ef054175794a9fe2436b02c1c4f36dfe4ac7b6ea77a59e5
kubernetes-client-linux-386.tar.gz	970764b73734809daf11337ced1f71708a8be15573fa6c68dcf2a12b70820640
kubernetes-client-linux-amd64.tar.gz	8796ce36f2f59e34e9bd7e788bc23076ccc8371a79535443b6105a9aae544c2a
kubernetes-client-linux-arm64.tar.gz	94a5ce6fea8ce9d3e3b726f79820d3c85d87322687ff9b97f5bbc0d28f41816b
kubernetes-client-linux-arm.tar.gz	6ff7bdabf7a5ff01d9f0d03d991c9dcd11503cf5c7b1ead5a9103ebf6f6dc2a1
kubernetes-client-linux-ppc64le.tar.gz	000b8c1138e3074d6880bf3eb0b2ed5c6db8c6fba4792dba720c489cf2f82b58
kubernetes-client-linux-s390x.tar.gz	c77de362e41606c2fa7757cdf47c95e0dce6dc448017a8b9550f7bab9eb52cca
kubernetes-client-windows-386.tar.gz	3a7561fb0e90add10b286e738ec369987a1bc4750ccf05d00dc0e4fd735b86e1
kubernetes-client-windows-amd64.tar.gz	0e1bc781f607cf580696b929a9e40805701ebf25f8b166ec7687de46eb417011

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	557c231a63f5975d08565dd690381bd63d9db14528da07c7e86305a82fbd9c8b
kubernetes-server-linux-arm64.tar.gz	b1c2cbe6a308df51815c98f93a1ec5e8e5be390ae1e4c31ab7c03c581e8442f2
kubernetes-server-linux-arm.tar.gz	db5cb69166b482bc705f56a4b50fbe1c553dcbbcf83c569bef2828ec70c94fa36
kubernetes-server-linux-ppc64le.tar.gz	aca313f74aa682e9ced1b3f238fd6b03795d6a2f12a6604481fafa9756f88c82
kubernetes-server-linux-s390x.tar.gz	42e7cc141555ffa7a7653de5065715164817c7b096d13b58b7770a6b66283b39

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	6035027a39fd8cac6de9f33efcb929300798a5601b0c2ca0569baaf18ce12559
kubernetes-node-linux-arm64.tar.gz	495ebf4885af7896cf28fbd6988bd954d576bee99ba815e6e741a0c407bae92a
kubernetes-node-linux-arm.tar.gz	d1c0595f086a1a2c9c73ee556750db3e7485c3e75f9496214313f935ad6d0350
kubernetes-node-linux-ppc64le.tar.gz	2b036ca22970d9dcb6b80da45f3ecaeb6b1e78b4474718a8581d2f987779c3fa
kubernetes-node-linux-s390x.tar.gz	f936cbfe0f2888a25620c8fe21b297459dd235044f1587f02456921be458d5ff
kubernetes-node-windows-amd64.tar.gz	b913fb8267c545db77c0c43234c773043031c7564cc745e61842f58277041c58

Changelog since v1.8.2

Other notable changes

- Fixed 'Schedulercache is corrupted' error in kube-scheduler ([#55262](#), [@liggitt](#))
- Add support for PodSecurityPolicy on GCE: `ENABLE_POD_SECURITY_POLICY=true` enables the admission controller, and installs policies for default addons. ([#52367](#), [@tallclair](#))
- Azure cloudprovider: Fix controller manager crash issue on a manually created k8s cluster. ([#53694](#), [@andyzhangx](#))
- Cluster Autoscaler 1.0.2 ([#55161](#), [@mwielgus](#))
 - fluentd-gcp runs with a dedicated fluentd-gcp service account ([#54175](#), [@tallclair](#))
 - Stop mounting the host certificates into fluentd's prometheus-to-sd container
- Fix a bug where pod address is not removed from endpoints object while pod is in graceful termination. ([#54828](#), [@freehan](#))
- fix warning messages due to GetMountRefs func not implemented in windows ([#52401](#), [@andyzhangx](#))
- allow windows mount path ([#51240](#), [@andyzhangx](#))
- Reduce log noise produced by prometheus-to-sd, by bumping it to version 0.2.2. ([#54635](#), [@loburm](#))
- Fix clustered datastore name to be absolute. ([#54438](#), [@pshahzeb](#))
- Fix `kubeadm upgrade plan` for offline operation: ignore errors when trying to fetch latest versions from dl.k8s.io ([#54016](#), [@praseodym](#))

- Add openssh-client back into the hyperkube image. This allows the gitRepo volume plugin to work properly. ([#54250](#), [@ixdy](#))
- Fix an issue where pods were briefly transitioned to a "Pending" state during the deletion process. ([#54593](#), [@dashpole](#))
- Add a label which prevents a node from being added to a cloud load balancer ([#53146](#), [@brendandburns](#))
- Add a new feature gate for enabling an alpha annotation which, if present, excludes the annotated node from being added to a service load balancers. ([#54644](#), [@brendandburns](#))
- Support German cloud for azure disk mount feature ([#50673](#), [@clement-buchart](#))
- Fix overlay2 container disk metrics for Docker and CRI-O ([#54827](#), [@dashpole](#))
- API machinery's httpstream/spdy calls now support CIDR notation for NO_PROXY ([#54413](#), [@kad](#))
- fix a bug where disk pressure could trigger prematurely when using overlay2 ([#53684](#), [@dashpole](#))
- PodSecurityPolicy: when multiple policies allow a submitted pod, priority is given to ones which do not require any fields in the pod spec to be defaulted. If the pod must be defaulted, the first policy (ordered by name) that allows the pod is used. ([#52849](#), [@liggitt](#))
- Fixes discovery information for scale subresources in the apps API group ([#54683](#), [@liggitt](#))
- BugFix: Exited containers are not Garbage Collected by the kubelet while the pod is running ([#53167](#), [@dashpole](#))
- fix azure pv crash due to volumeSource.ReadOnly value nil ([#54607](#), [@andyzhangx](#))
- kubeadm init: fix a bug that prevented the --token-ttl flag and tokenTTL configuration value from working as expected for infinite (0) values. ([#54640](#), [@mattmoyer](#))
- [fluentd-gcp addon] Fluentd now runs in its own network, not in the host one. ([#54395](#), [@crassirostris](#))
- fix azure disk mount failure on coreos and some other distros ([#54334](#), [@andyzhangx](#))
- Fix for service controller so that it won't retry on doNotRetry service update failure. ([#54184](#), [@MrHohn](#))
- BulkVerifyVolumes() implementation for vSphere ([#52131](#), [@BaluDontu](#))
- Added option lb-provider to OpenStack cloud provider config ([#54176](#), [@gonzolino](#))

v1.8.2

[Documentation](#) & [Examples](#)

Downloads for v1.8.2

filename	sha256 hash
kubernetes.tar.gz	06a800c414e776640a7861baa4f0b6edbd898c13ad3ebcd33860fe5d949bbdee
kubernetes-src.tar.gz	fbfb65a4eb1ddff32e302a0821204fa780ebb5b27298e31699c43c19da48191e

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	3eb81f1178ff73ca683738606acea1d9537a33c6e3d15571795a24af6c53dbd7
kubernetes-client-darwin-amd64.tar.gz	15da279f018a73f93b857639931c4ba8a714c86e5c5738c33840c47df44ac2a4
kubernetes-client-linux-386.tar.gz	bd9f144e6ddfc715fa77d9cb0310763e49f8121e894ed33714658fb2d6eb2675
kubernetes-client-linux-amd64.tar.gz	7c20d4a3859c07aadf9a1676876bafdf56187478a69d3bfca5277fb275febb96

kubernetes-client-linux-arm64.tar.gz	395c3fb5992509191cacbaf6e7ed4fd0fbee5c0b9c890f496879784454f88aa3
kubernetes-client-linux-arm.tar.gz	a1cff2f8ab5f77f000e20f87b00a3723a8323fec82926afcc984722ab3f8d714
kubernetes-client-linux-ppc64le.tar.gz	832a1e399802bfd8871cd911f17dbb6b2264680e9477c2944d442a3f9e5fa6f2
kubernetes-client-linux-s390x.tar.gz	6afc2c4a331ee70e095a6d1e1f11bf69923afb1830840d110459e32b849b1b6c
kubernetes-client-windows-386.tar.gz	ecaadb5a4c08357685dbae288d1220bd60ff0f86281ec88a5467da6eebf213b
kubernetes-client-windows-amd64.tar.gz	b8ff337615f740b1501cf7284d7f0a51a82880dcf23fff2464f8d37045c27f3f

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	8ccd4912473e0d334694434936a5ca9547caddaa39d771a1fb94620c5d6002d4
kubernetes-server-linux-arm64.tar.gz	39b3c61927c905f142d74fe69391156e6bf61cc5e7a798cdf2c295a76e72161d
kubernetes-server-linux-arm.tar.gz	fc6b01b233f8d0c61dd485d8d571c9a2e1a5b085f0d0db734a84c42b71416537
kubernetes-server-linux-ppc64le.tar.gz	6f6d8dcef0334736021d9f6cc2bbfdb78500483f8961e7ff14b09f1c67d37056
kubernetes-server-linux-s390x.tar.gz	6f1b6b5fb818fdb787cdf65ff3da81235b5b4db5b4a9b5579920d11dc8a3fa73

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	93c6b5d2a5e4aaf8776f56e5b8f40038c76d3d03709124fb8900f83acb49c782
kubernetes-node-linux-arm64.tar.gz	ab4535e19825e0e9b76987dbb11d9fd746281e45a90f90b453dbc7d6fecb2c69
kubernetes-node-linux-arm.tar.gz	96acd6ec41d4a3ec7ea6f95acecf116755340915e3d261de760d9ed84708e3f0
kubernetes-node-linux-ppc64le.tar.gz	4256a8c315de083435fcdcf8ee2ae370bd603fa976218edadbf7bfe11adcf223
kubernetes-node-linux-s390x.tar.gz	30f2254bf442fc36fc23bd962930eb48fd000c9ffce81c26c0d64d4a0fd0c193
kubernetes-node-windows-amd64.tar.gz	b92c2670ce8dd75f744537abb6e98df84ce5a18da7df6b70741e92d9e57098bf

Changelog since v1.8.1

Other notable changes

- Allow for configuring etcd hostname in the manifest ([#54403](#), [@wojtek-t](#))
- Allow standard flags in client-gen. ([#53999](#), [@sttts](#))

- Cluster Autoscaler 1.0.1 ([#54298](#), [@mwielgus](#))
- Resolves forbidden error when accessing replicaset and daemonsets via the apps API group ([#54309](#), [@liggitt](#))
- kubelet: prevent removal of default labels from Node API objects on startup ([#54073](#), [@liggitt](#))
- Fix a bug that prevents client-go metrics from being registered in prometheus in multiple components. ([#53434](#), [@crassirostris](#))
- Webhook always retries connection reset error. ([#53947](#), [@crassirostris](#))
- Adjust batching audit webhook default parameters: increase queue size, batch size, and initial backoff. Add throttling to the batching audit webhook. Default rate limit is 10 QPS. ([#53417](#), [@crassirostris](#))
- Address a bug which allowed the horizontal pod autoscaler to allocate `desiredReplicas` > `maxReplicas` in certain instances. ([#53690](#), [@mattjmcnaughton](#))
- Fix metrics API group name in audit configuration ([#53493](#), [@piosz](#))
- Use separate client for leader election in scheduler to avoid starving leader election by regular scheduler operations. ([#53793](#), [@wojtek-t](#))
- kubeadm: Strip bootstrap tokens from the `kubeadm-config` ConfigMap ([#53559](#), [@fabriziopandini](#))

v1.8.1

[Documentation](#) & [Examples](#)

Downloads for v1.8.1

filename	sha256 hash
kubernetes.tar.gz	15bf424a40544d2ff02eeba00d92a67409a31d2139c78b152b7c57a8555a1549
kubernetes-src.tar.gz	b2084cefd774b4b0ac032d80e97db056fcafc2d7549f5a396dc3a3739f2d7a0b

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	78dfcdc6f2c1e144bcce700b2aa179db29150b74f54335b4f5e36f929e56ee4b
kubernetes-client-darwin-amd64.tar.gz	bce8609e99ed8f0c4ccd8e9b275b8140030fee531fab6f01a755d563442240b4
kubernetes-client-linux-386.tar.gz	13beeea6846b19648fc09ffe345bca32ea52e041e321b787e243e9b35b2c1b83
kubernetes-client-linux-amd64.tar.gz	d7341402fe06f08e757f901674d2fb43d75161ac53bf2f41a875668e5ac2dad0
kubernetes-client-linux-arm64.tar.gz	aab4505e13f12a5cadbdb3980e5f8a5144b410c3d04bb74b8f25d2680908fb5c
kubernetes-client-linux-arm.tar.gz	aec3a3eeb64f22055acf6b16e82449435786f2bd578feb11847d53414c40c305
kubernetes-client-linux-ppc64le.tar.gz	72660598408b03ec428b3ba389c96ad6e2f3a036c7059d3760d34722ed0654fb
kubernetes-client-linux-s390x.tar.gz	5a02d0eb9987b0a32f22a82aa12a13e8f9fd8504d2339017f17881c48817ddfbb
kubernetes-client-windows-386.tar.gz	2fda2cfe470254a1c109d7311f33fb6566f41bd34ec25f49b6c28802eecfb831

kubernetes-client-windows-amd64.tar.gz	2a7403be3bdcffd8907f59b144dca0378c0ffc014fd60282924e83ea743d0017
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Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	8c7fc5b99be7dc6736bea5cabe06ef2c60765df1394cd1707e49a3eb8b8a3c8d
kubernetes-server-linux-arm64.tar.gz	812fbc06ca1df8c926b29891346c5737677a75b644591697a536c8d1aa834b2e
kubernetes-server-linux-arm.tar.gz	cc612f34b9d95ae49b02e1e772ff26b518a1e157c10e6147a13bafa4710b3768
kubernetes-server-linux-ppc64le.tar.gz	3ba0a6c6241fc70055acffbd16835c335f702ebf27d596e8b1d6e9cf7cd8d8f8
kubernetes-server-linux-s390x.tar.gz	cd0a731663b0f95cdaefcd54166ecf917cc2ddb470a3ed96f16f0cae9604f969

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	4fccb39e01fb6f2e9120a03b3600d85079138086d8b39bdfb410b2738e6c17c4
kubernetes-node-linux-arm64.tar.gz	8b7578c1b39d2f525e28afbc56701b69d0c0d0b3b361d6c28740b40ffbeeb7ffa
kubernetes-node-linux-arm.tar.gz	71eac41487d6226beb654c3a2fb49bb8f08ba38d6c844bb6588528325ba2ede9
kubernetes-node-linux-ppc64le.tar.gz	5ebece4e189257ba95d1b39c7d1b00fb4d0989a806aa2b76eb42f9a6300c4695
kubernetes-node-linux-s390x.tar.gz	a0a6658ee44d0e92c0f734c465e11262de6a6920d283e999e5b7ed5bab865403
kubernetes-node-windows-amd64.tar.gz	3381d308aef709ccaf2c9357ac2a0166d918ba06dc1128b20736df9667284599

Changelog since v1.8.0

Action Required

- PodSecurityPolicy: Fixes a compatibility issue that caused policies that previously allowed privileged pods to start forbidding them, due to an incorrect default value for `allowPrivilegeEscalation`. PodSecurityPolicy objects defined using a 1.8.0 client or server that intended to set `allowPrivilegeEscalation` to `false` must be reapplied after upgrading to 1.8.1. ([#53443](#), [@liggitt](#))

Other notable changes

- Fix to prevent downward api change break on older versions ([#53673](#), [@timothysc](#))
- Ignore extended resources that are not registered with kubelet during container resource allocation. ([#53547](#), [@jiayingz](#))
- GCE: Bump GLBC version to [0.9.7](#). ([#53625](#), [@nikhiljindal](#))
- kubeadm 1.8 now properly handles upgrades from 1.7.x to newer release in 1.7 branch ([#53338](#), [@kad](#))

- Add generate-groups.sh and generate-internal-groups.sh to k8s.io/code-generator to easily run generators against CRD or User API Server types. ([#52186](#), [@sttts](#))
- Don't remove extended resource capacities that are not registered with kubelet from node status. ([#53353](#), [@jiayingz](#))
- kubeadm allows the kubelets in the cluster to automatically renew their client certificates ([#53252](#), [@kad](#))
- Bumped Heapster version to 1.4.3 - more details <https://github.com/kubernetes/heapster/releases/tag/v1.4.3>. ([#53377](#), [@loburm](#))
- Change `kubeadm create token` to default to the group that almost everyone will want to use. The group is `system:bootstrappers:kubeadm:default-node-token` and is the group that kubeadm sets up, via an RBAC binding, for auto-approval (`system:certificates.k8s.io:certificatesigningrequests:nodeclient`). ([#53512](#), [@jbeda](#))
- GCE: Fix issue deleting internal load balancers when the firewall resource may not exist. ([#53450](#), [@nicksardo](#))
- GCE: Fixes ILB sync on legacy networks and auto networks with unique subnet names ([#53410](#), [@nicksardo](#))
- Fix the bug that query Kubelet's stats summary with CRI stats enabled results in error. ([#53107](#), [@Random-Liu](#))
- kubelet `--cert-dir` now defaults to `/var/lib/kubelet/pki`, in order to ensure bootstrapped and rotated certificates persist beyond a reboot. resolves an issue in kubeadm with false-positive `/var/lib/kubelet is not empty` message during pre-flight checks ([#53317](#), [@liggitt](#))
- Fix permissions for Metrics Server. ([#53330](#), [@kawych](#))
- Fixes a performance issue ([#51899](#)) identified in large-scale clusters when deleting thousands of pods simultaneously across hundreds of nodes, by actively removing containers of deleted pods, rather than waiting for periodic garbage collection and batching resulting pod API deletion requests. ([#53233](#), [@dashpole](#))
- Fixes an issue with RBAC reconciliation that could cause duplicated subjects in some bootstrapped rolebindings on each restart of the API server. ([#53239](#), [@enj](#))
- Change ImageGCMange to consume ImageFS stats from StatsProvider ([#53094](#), [@yguo0905](#))
- Fixes an issue with `kubect1 set` commands encountering conversion errors for ReplicaSet and DaemonSet objects ([#53158](#), [@liggitt](#))

v1.8.0

[Documentation](#) & [Examples](#)

Downloads for v1.8.0

filename	sha256 hash
kubernetes.tar.gz	802a2bc9e9da6d146c71cc446a5faf9304de47996e86134270c725e6440cbb7d
kubernetes-src.tar.gz	0ea97d20a2d47d9c5f8e791f63bee7e27f836e1a19cf0f15f39e726ae69906a0

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	22d82ec72e336700562f537b2e0250eb2700391f9b85b12dfc9a4c61428f1db1
kubernetes-client-darwin-amd64.tar.gz	de86af6d5b6da9680e93c3d65d889a8ccb59a3a701f3e4ca7a810ffd85ed5eda

kubernetes-client-linux-386.tar.gz	4fef05d4b392c2df9f8ffb33e66ee5415671258100c0180f2e1c0befc37a2ac3
kubernetes-client-linux-amd64.tar.gz	bef36b2cdc66a14aa7fc2354c692fb649dc0521d2a76cd3ebde6ca4cb6bad09
kubernetes-client-linux-arm64.tar.gz	4cfd3057db15d1e9e5cabcccec3771e1efa37f9d7acb47e90d42fece86daff608
kubernetes-client-linux-arm.tar.gz	29d9a5faf6a8a1a911fe675e10b8df665f6b82e8f3ee75ca901062f7a3af43ec
kubernetes-client-linux-ppc64le.tar.gz	f467c37c75ba5b7125bc2f831efe3776e2a85eeb7245c11aa8acc26cf14585b
kubernetes-client-linux-s390x.tar.gz	e0de490b6ce67abf1b158a57c103098ed974a594c677019032fce3d1c9825138
kubernetes-client-windows-386.tar.gz	02ea1cd79b591dbc313fab3d22a985219d46f939d79ecc3106fb21d0cb1422cb
kubernetes-client-windows-amd64.tar.gz	8ca1f609d1cf5ec6afb330cfb87d33d20af152324bed60fe4d91995328a257ff

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	23422a7f11c3eab59d686a52abae1bce2f9e2a0916f98ed05c10591ba9c3cbad
kubernetes-server-linux-arm64.tar.gz	17a1e99010ae3a38f1aec7b3a09661521aba6c93a2e6dd54a3e0534e7d2fafef4
kubernetes-server-linux-arm.tar.gz	3aba33a9d06068dbf40418205fb8cb62e2987106093d0c65d99cbdf130e163ee
kubernetes-server-linux-ppc64le.tar.gz	84192c0d520559dfc257f3823f7bf196928b993619a92a27d36f19d2ef209706
kubernetes-server-linux-s390x.tar.gz	246da14c49c21f50c5bc0d6fc78c023f71ccb07a83e224fd3e40d62c4d1a09d0

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	59589cdd56f14b8e879c1854f98072e5ae7ab36835520179fca4887fa9b705e5
kubernetes-node-linux-arm64.tar.gz	99d17807a819dd3d2764c2105f8bc90166126451dc38869b652e9c59be85dc39
kubernetes-node-linux-arm.tar.gz	53b1fa21ba4172bfdad677e60360be3e3f28b26656e83d4b63b038d8a31f3cf0
kubernetes-node-linux-ppc64le.tar.gz	9d10e2d1417fa6c18c152a5ac0202191bf27aab49e473926707c7de479112f46
kubernetes-node-linux-s390x.tar.gz	cb4e8e9b00484e3f96307e56c61107329fbfcf6eba8362a971053439f64b0304
kubernetes-node-windows-amd64.tar.gz	6ca4af62b53947d854562f5a51f4a02daa4738b68015608a599ae416887ffce8

Introduction to v1.8.0

Kubernetes version 1.8 includes new features and enhancements, as well as fixes to identified issues. The release notes contain a brief overview of the important changes introduced in this release. The content is organized by Special Interest Groups ([SIGs](#)).

For initial installations, see the [Setup topics](#) in the Kubernetes documentation.

To upgrade to this release from a previous version, take any actions required [Before Upgrading](#).

For more information about the release and for the latest documentation, see the [Kubernetes documentation](#).

Major Themes

Kubernetes is developed by community members whose work is organized into [Special Interest Groups](#). For the 1.8 release, each SIG provides the themes that guided their work.

SIG API Machinery

[SIG API Machinery](#) is responsible for all aspects of the API server: API registration and discovery, generic API CRUD semantics, admission control, encoding/decoding, conversion, defaulting, persistence layer (etcd), OpenAPI, third-party resources, garbage collection, and client libraries.

For the 1.8 release, SIG API Machinery focused on stability and on ecosystem enablement. Features include the ability to break large LIST calls into smaller chunks, improved support for API server customization with either custom API servers or Custom Resource Definitions, and client side event spam filtering.

SIG Apps

[SIG Apps](#) focuses on the Kubernetes APIs and the external tools that are required to deploy and operate Kubernetes workloads.

For the 1.8 release, SIG Apps moved the Kubernetes workloads API to the new apps/v1beta2 group and version. The DaemonSet, Deployment, ReplicaSet, and StatefulSet objects are affected by this change. The new apps/v1beta2 group and version provide a stable and consistent API surface for building applications in Kubernetes. For details about deprecations and behavioral changes, see [Notable Features](#). SIG Apps intends to promote this version to GA in a future release.

SIG Auth

[SIG Auth](#) is responsible for Kubernetes authentication and authorization, and for cluster security policies.

For the 1.8 release, SIG Auth focused on stabilizing existing features that were introduced in previous releases. RBAC was moved from beta to v1, and advanced auditing was moved from alpha to beta. Encryption of resources stored on disk (resources at rest) remained in alpha, and the SIG began exploring integrations with external key management systems.

SIG Autoscaling

[SIG Autoscaling](#) is responsible for autoscaling-related components, such as the Horizontal Pod Autoscaler and Cluster Autoscaler.

For the 1.8 release, SIG Autoscaling continued to focus on stabilizing features introduced in previous releases: the new version of the Horizontal Pod Autoscaler API, which supports custom metrics, and the Cluster Autoscaler, which provides improved performance and error reporting.

SIG Cluster Lifecycle

[SIG Cluster Lifecycle](#) is responsible for the user experience of deploying, upgrading, and deleting clusters.

For the 1.8 release, SIG Cluster Lifecycle continued to focus on expanding the capabilities of kubeadm, which is both a user-facing tool to manage clusters and a building block for higher-level provisioning systems. Starting with the 1.8 release, kubeadm supports a new upgrade command and includes alpha support for self hosting the cluster control plane.

SIG Instrumentation

[SIG Instrumentation](#) is responsible for metrics production and collection.

For the 1.8 release, SIG Instrumentation focused on stabilizing the APIs and components that are required to support the new version of the Horizontal Pod Autoscaler API: the resource metrics API, custom metrics API, and metrics-server, which is the new replacement for Heapster in the default monitoring pipeline.

SIG Multi-cluster (formerly known as SIG Federation)

[SIG Multi-cluster](#) is responsible for infrastructure that supports the efficient and reliable management of multiple Kubernetes clusters, and applications that run in and across multiple clusters.

For the 1.8 release, SIG Multicluster focussed on expanding the set of Kubernetes primitives that our Cluster Federation control plane supports, expanding the number of approaches taken to multi-cluster management (beyond our initial Federation approach), and preparing to release Federation for general availability ('GA').

SIG Node

[SIG Node](#) is responsible for the components that support the controlled interactions between pods and host resources, and manage the lifecycle of pods scheduled on a node.

For the 1.8 release, SIG Node continued to focus on a broad set of workload types, including hardware and performance sensitive workloads such as data analytics and deep learning. The SIG also delivered incremental improvements to node reliability.

SIG Network

[SIG Network](#) is responsible for networking components, APIs, and plugins in Kubernetes.

For the 1.8 release, SIG Network enhanced the NetworkPolicy API to support pod egress traffic policies. The SIG also provided match criteria that allow policy rules to match a source or destination CIDR. Both features are in beta. SIG Network also improved the kube-proxy to include an alpha IPVS mode in addition to the current iptables and userspace modes.

SIG Scalability

[SIG Scalability](#) is responsible for scalability testing, measuring and improving system performance, and answering questions related to scalability.

For the 1.8 release, SIG Scalability focused on automating large cluster scalability testing in a continuous integration (CI) environment. The SIG defined a concrete process for scalability testing, created documentation for the current scalability thresholds, and defined a new set of Service Level Indicators (SLIs) and Service Level Objectives (SLOs) for the system. Here's the release [scalability validation report](#).

SIG Scheduling

[SIG Scheduling](#) is responsible for generic scheduler and scheduling components.

For the 1.8 release, SIG Scheduling extended the concept of cluster sharing by introducing pod priority and pod preemption. These features allow mixing various types of workloads in a single cluster, and help reach higher levels of resource utilization and availability. These features are in alpha. SIG Scheduling also improved the internal APIs for scheduling and made them easier for other components and external schedulers to use.

SIG Storage

[SIG Storage](#) is responsible for storage and volume plugin components.

For the 1.8 release, SIG Storage extended the Kubernetes storage API. In addition to providing simple volume availability, the API now enables volume resizing and snapshotting. These features are in alpha. The SIG also focused on providing more control over storage: the ability to set requests and limits on ephemeral storage, the ability to specify mount options, more metrics, and improvements to Flex driver deployments.

Before Upgrading

Consider the following changes, limitations, and guidelines before you upgrade:

- The kubelet now fails if swap is enabled on a node. To override the default and run with `/proc/swaps` on, set `--fail-swap-on=false`. The experimental flag `--experimental-fail-swap-on` is deprecated in this release, and will be removed in a future release.
- The `autoscaling/v2alpha1` API is now at `autoscaling/v2beta1`. However, the form of the API remains unchanged. Migrate the `HorizontalPodAutoscaler` resources to `autoscaling/v2beta1` to persist the `HorizontalPodAutoscaler` changes introduced in `autoscaling/v2alpha1`. The Horizontal Pod Autoscaler changes include support for status conditions, and autoscaling on memory and custom metrics.
- The metrics APIs, `custom-metrics.metrics.k8s.io` and `metrics`, were moved from `v1alpha1` to `v1beta1`, and renamed to `custom.metrics.k8s.io` and `metrics.k8s.io`, respectively. If you have deployed a custom metrics adapter, ensure that it supports the new API version. If you have deployed Heapster in aggregated API server mode, upgrade Heapster to support the latest API version.
- Advanced auditing is the default auditing mechanism at `v1beta1`. The new version introduces the following changes:
 - The `--audit-policy-file` option is required if the `AdvancedAuditing` feature is not explicitly turned off (`--feature-gates=AdvancedAuditing=false`) on the API server.
 - The audit log file defaults to JSON encoding when using the advanced auditing feature gate.
 - An audit policy file without either an `apiVersion` or a `kind` field may be treated as invalid.
 - The webhook and log file now output the `v1beta1` event format.

For more details, see [Advanced audit](#).

- The deprecated `ThirdPartyResource` (TPR) API was removed. To avoid losing your TPR data, [migrate to CustomResourceDefinition](#).
- The following deprecated flags were removed from `kube-controller-manager`:
 - `replication-controller-lookup-cache-size`
 - `replicaset-lookup-cache-size`

- `daemonset-lookup-cache-size`

Don't use these flags. Using deprecated flags causes the server to print a warning. Using a removed flag causes the server to abort the startup.

- The following deprecated flags were removed from `kubelet` :
 - `api-servers` - add apiserver addresses to the kubeconfig file instead.

Don't use these flags. Using deprecated flags causes the kubelet to print a warning. Using a removed flag causes the kubelet to abort the startup.

- **StatefulSet:** The deprecated `pod.alpha.kubernetes.io/initialized` annotation for interrupting the StatefulSet Pod management is now ignored. StatefulSets with this annotation set to `true` or with no value will behave just as they did in previous versions. Dormant StatefulSets with the annotation set to `false` will become active after upgrading.
- The CronJob object is now enabled by default at `v1beta1`. CronJob `v2alpha1` is still available, but it must be explicitly enabled. We recommend that you move any current CronJob objects to `batch/v1beta1.CronJob`. Be aware that if you specify the deprecated version, you may encounter Resource Not Found errors. These errors occur because the new controllers look for the new version during a rolling update.
- The `batch/v2alpha1.ScheduledJob` was removed. Migrate to `batch/v1beta1.CronJob` to continue managing time based jobs.
- The `rbac/v1alpha1`, `settings/v1alpha1`, and `scheduling/v1alpha1` APIs are disabled by default.
- The `system:node` role is no longer automatically granted to the `system:nodes` group in new clusters. The role gives broad read access to resources, including secrets and configmaps. Use the `Node` authorization mode to authorize the nodes in new clusters. To continue providing the `system:node` role to the members of the `system:nodes` group, create an installation-specific `ClusterRoleBinding` in the installation. ([#49638](#))

Known Issues

This section contains a list of known issues reported in Kubernetes 1.8 release. The content is populated via [v1.8.x known issues and FAQ accumulator](#).

- Kubelets using TLS bootstrapping (`--bootstrap-kubeconfig`) or certificate rotation (`--rotate-certificates`) store certificates in the directory specified by `--cert-dir`. The default location (`/var/run/kubernetes`) is automatically erased on reboot on some platforms, which can prevent the kubelet from authenticating to the API server after a reboot. Specifying a non-transient location, such as `--cert-dir=/var/lib/kubelet/pki`, is recommended.

For more information, see [#53288](#).

- `kubeadm init` and `kubeadm join` invocations on newly installed systems can encounter a `/var/lib/kubelet is not empty` message during pre-flight checks that prevents setup. If this is the only pre-flight failure, it can be safely ignored with `--skip-preflight-checks`.

For more information, see [#53356](#).

- A performance issue was identified in large-scale clusters when deleting thousands of pods simultaneously across hundreds of nodes. Kubelets in this scenario can encounter temporarily increased latency of `delete pod` API calls -- above the target service level objective of 1 second. If you run clusters with this usage pattern and if pod deletion latency could be an issue for you, you might want to wait until the issue is resolved before you upgrade.

For more information and for updates on resolution of this issue, see [#51899](#).

- Audit logs might impact the API server performance and the latency of large request and response calls. The issue is observed under the following conditions: if `AdvancedAuditing` feature gate is enabled, which is the default case, if audit logging uses the log backend in JSON format, or if the audit policy records large API calls for requests or responses.

For more information, see [#51899](#).

- Minikube version 0.22.2 or lower does not work with kubectl version 1.8 or higher. This issue is caused by the presence of an unregistered type in the minikube API server. New versions of kubectl force validate the OpenAPI schema, which is not registered with all known types in the minikube API server.

For more information, see [#1996](#).

- The `ENABLE_APISERVER_BASIC_AUDIT` configuration parameter for GCE deployments is broken, but deprecated.

For more information, see [#53154](#).

- `kubectl set` commands placed on ReplicaSet and DaemonSet occasionally return version errors. All set commands, including set image, set env, set resources, and set serviceaccounts, are affected.

For more information, see [#53040](#).

- Object quotas are not consistently charged or updated. Specifically, the object count quota does not reliably account for uninitialized objects. Some quotas are charged only when an object is initialized. Others are charged when an object is created, whether it is initialized or not. We plan to fix this issue in a future release.

For more information, see [#53109](#).

Deprecations

This section provides an overview of deprecated API versions, options, flags, and arguments. Deprecated means that we intend to remove the capability from a future release. After removal, the capability will no longer work. The sections are organized by SIGs.

Apps

- The `.spec.rollbackTo` field of the Deployment kind is deprecated in `extensions/v1beta1`.
- The `kubernetes.io/created-by` annotation is deprecated and will be removed in version 1.9. Use [ControllerRef](#) instead to determine which controller, if any, owns an object.
- The `batch/v2alpha1.CronJob` is deprecated in favor of `batch/v1beta1`.
- The `batch/v2alpha1.ScheduledJob` was removed. Use `batch/v1beta1.CronJob` instead.

Auth

- The RBAC v1alpha1 API group is deprecated in favor of RBAC v1.
- The API server flag `--experimental-bootstrap-token-auth` is deprecated in favor of `--enable-bootstrap-token-auth`. The `--experimental-bootstrap-token-auth` flag will be removed in version 1.9.

Autoscaling

- Consuming metrics directly from Heapster is deprecated in favor of consuming metrics via an aggregated version of the resource metrics API.
 - In version 1.8, enable this behavior by setting the `--horizontal-pod-autoscaler-use-rest-clients` flag to `true`.
 - In version 1.9, this behavior will be enabled by default, and must be explicitly disabled by setting the `--horizontal-pod-autoscaler-use-rest-clients` flag to `false`.

Cluster Lifecycle

- The `auto-detect` behavior of the kubelet's `--cloud-provider` flag is deprecated.
 - In version 1.8, the default value for the kubelet's `--cloud-provider` flag is `auto-detect`. Be aware that it works only on GCE, AWS and Azure.
 - In version 1.9, the default will be `""`, which means no built-in cloud provider extension will be enabled by default.
 - Enable an out-of-tree cloud provider with `--cloud-provider=external` in either version.

For more information on deprecating auto-detecting cloud providers in kubelet, see PR [#51312](#) and [announcement](#).

- The `PersistentVolumeLabel` admission controller in the API server is deprecated.
 - The replacement is running a cloud-specific controller-manager (often referred to as `cloud-controller-manager`) with the `PersistentVolumeLabel` controller enabled. This new controller loop operates as the `PersistentVolumeLabel` admission controller did in previous versions.
 - Do not use the `PersistentVolumeLabel` admission controller in the configuration files and scripts unless you are dependent on the in-tree GCE and AWS cloud providers.
 - The `PersistentVolumeLabel` admission controller will be removed in a future release, when the out-of-tree versions of the GCE and AWS cloud providers move to GA. The cloud providers are marked alpha in version 1.9.

OpenStack

- The `openstack-heat` provider for `kube-up` is deprecated and will be removed in a future release. Refer to Issue [#49213](#) for background information.

Scheduling

- Opaque Integer Resources (OIRs) are deprecated and will be removed in version 1.9. Extended Resources (ERs) are a drop-in replacement for OIRs. You can use any domain name prefix outside of the `kubernetes.io/` domain instead of the `pod.alpha.kubernetes.io/opaque-int-resource-` prefix.

Notable Features

Workloads API (apps/v1beta2)

Kubernetes 1.8 adds the apps/v1beta2 group and version, which now consists of the DaemonSet, Deployment, ReplicaSet and StatefulSet kinds. This group and version are part of the Kubernetes Workloads API. We plan to move them to v1 in an upcoming release, so you might want to plan your migration accordingly.

For more information, see [the issue that describes this work in detail](#)

API Object Additions and Migrations

- The DaemonSet, Deployment, ReplicaSet, and StatefulSet kinds are now in the apps/v1beta2 group and version.
- The apps/v1beta2 group version adds a Scale subresource for the StatefulSet kind.
- All kinds in the apps/v1beta2 group version add a corresponding conditions kind.

Behavioral Changes

- For all kinds in the API group version, a spec.selector default value is no longer available, because it's incompatible with `kubectl apply` and strategic merge patch. You must explicitly set the spec.selector value in your manifest. An object with a spec.selector value that does not match the labels in its spec.template is invalid.
- Selector mutation is disabled for all kinds in the app/v1beta2 group version, because the controllers in the workloads API do not handle selector mutation in a consistent way. This restriction may be lifted in the future, but it is likely that that selectors will remain immutable after the move to v1. You can continue to use code that depends on mutable selectors by calling the apps/v1beta1 API in this release, but you should start planning for code that does not depend on mutable selectors.
- Extended Resources are fully-qualified resource names outside the `kubernetes.io` domain. Extended Resource quantities must be integers. You can specify any resource name of the form `[aaa.]my-domain.bbb/ccc` in place of [Opaque Integer Resources](#). Extended resources cannot be overcommitted, so make sure that request and limit are equal if both are present in a container spec.
- The default Bootstrap Token created with `kubeadm init v1.8` expires and is deleted after 24 hours by default to limit the exposure of the valuable credential. You can create a new Bootstrap Token with `kubeadm token create` or make the default token permanently valid by specifying `--token-ttl 0` to `kubeadm init`. The default token can later be deleted with `kubeadm token delete`.
- `kubeadm join` now delegates TLS Bootstrapping to the kubelet itself, instead of reimplementing the process. `kubeadm join` writes the bootstrap kubeconfig file to `/etc/kubernetes/bootstrap-kubelet.conf`.

Defaults

- The default `spec.updateStrategy` for the `StatefulSet` and `DaemonSet` kinds is `RollingUpdate` for the `apps/v1beta2` group version. You can explicitly set the `OnDelete` strategy, and no strategy auto-conversion is applied to replace default values.
- As mentioned in [Behavioral Changes](#), selector defaults are disabled.
- The default `spec.revisionHistoryLimit` for all applicable kinds in the `apps/v1beta2` group version is 10.
- In a `CronJob` object, the default `spec.successfulJobsHistoryLimit` is 3, and the default `spec.failedJobsHistoryLimit` is 1.

Workloads API (batch)

- `CronJob` is now at `batch/v1beta1` ([#41039](#), [@soltys](#)).
- `batch/v2alpha.CronJob` is deprecated in favor of `batch/v1beta` and will be removed in a future release.
- Job can now set a failure policy using `.spec.backoffLimit`. The default value for this new field is 6. ([#30243](#), [@clamoriniere1A](#)).
- `batch/v2alpha1.ScheduledJob` is removed.
- The Job controller now creates pods in batches instead of all at once. ([#49142](#), [@joelsmith](#)).
- Short `.spec.ActiveDeadlineSeconds` is properly applied to a Job. ([#48545](#), [@weiwei4](#)).

CLI Changes

- [alpha] `kubectl plugins`: `kubectl` now allows binary extensibility. You can extend the default set of `kubectl` commands by writing plugins that provide new subcommands. Refer to the documentation for more information.
- `kubectl rollout` and `rollback` now support `StatefulSet`.
- `kubectl scale` now uses the `Scale` subresource for kinds in the `apps/v1beta2` group.
- `kubectl create configmap` and `kubectl create secret` subcommands now support the `--append-hash` flag, which enables unique but deterministic naming for objects generated from files, for example with `--from-file`.
- `kubectl run` can set a service account name in the generated pod spec with the `--serviceaccount` flag.
- `kubectl proxy` now correctly handles the `exec`, `attach`, and `portforward` commands. You must pass `--disable-filter` to the command to allow these commands.
- Added `cronjobs.batch` to "all", so that `kubectl get all` returns them.
- Added flag `--include-uninitialized` to `kubectl annotate`, `apply`, `edit-last-applied`, `delete`, `describe`, `edit`, `get`, `label`, and `set`. `--include-uninitialized=true` makes `kubectl` commands apply to uninitialized objects, which by default are ignored if the names of the objects are not provided. `--all` also makes `kubectl` commands apply to uninitialized objects. See the [initializer documentation](#) for more details.

- Added RBAC reconcile commands with `kubectl auth reconcile -f FILE` . When passed a file which contains RBAC roles, rolebindings, clusterroles, or clusterrolebindings, this command computes covers and adds the missing rules. The logic required to properly apply RBAC permissions is more complicated than a JSON merge because you have to compute logical covers operations between rule sets. This means that we cannot use `kubectl apply` to update RBAC roles without risking breaking old clients, such as controllers.
- `kubectl delete` no longer scales down workload API objects before deletion. Users who depend on ordered termination for the Pods of their StatefulSets must use `kubectl scale` to scale down the StatefulSet before deletion.
- `kubectl run --env` no longer supports CSV parsing. To provide multiple environment variables, use the `--env` flag multiple times instead. Example: `--env ONE=1 --env TWO=2` instead of `--env ONE=1,TWO=2` .
- Removed deprecated command `kubectl stop` .
- Kubectl can now use http caching for the OpenAPI schema. The cache directory can be configured by passing the `--cache-dir` command line flag to kubectl. If set to an empty string, caching is disabled.
- Kubectl now performs validation against OpenAPI schema instead of Swagger 1.2. If OpenAPI is not available on the server, it falls back to the old Swagger 1.2.
- Added Italian translation for kubectl.
- Added German translation for kubectl.

Scheduling

- [alpha] This version now supports pod priority and creation of PriorityClasses ([user doc](#))([design doc](#))
- [alpha] This version now supports priority-based preemption of pods ([user doc](#))([design doc](#))
- [alpha] Users can now add taints to nodes by condition ([design doc](#))

Storage

- [stable] Mount options
 - The ability to specify mount options for volumes is moved from beta to stable.
 - A new `MountOptions` field in the `PersistentVolume` spec is available to specify mount options. This field replaces an annotation.
 - A new `MountOptions` field in the `StorageClass` spec allows configuration of mount options for dynamically provisioned volumes.
- [stable] Support Attach and Detach operations for ReadWriteOnce (RWO) volumes that use iSCSI and Fibre Channel plugins.
- [stable] Expose storage usage metrics
 - The available capacity of a given Persistent Volume (PV) is available by calling the Kubernetes metrics API.
- [stable] Volume plugin metrics

- Success and latency metrics for all Kubernetes calls are available by calling the Kubernetes metrics API. You can request volume operations, including mount, unmount, attach, detach, provision, and delete.
- [stable] The PV spec for Azure File, CephFS, iSCSI, and Glusterfs is modified to reference namespaced resources.
- [stable] You can now customize the iSCSI initiator name per volume in the iSCSI volume plugin.
- [stable] You can now specify the World Wide Identifier (WWID) for the volume identifier in the Fibre Channel volume plugin.
- [beta] Reclaim policy in StorageClass
 - You can now configure the reclaim policy in StorageClass, instead of defaulting to `delete` for dynamically provisioned volumes.
- [alpha] Volume resizing
 - You can now increase the size of a volume by calling the Kubernetes API.
 - For alpha, this feature increases only the size of the underlying volume. It does not support resizing the file system.
 - For alpha, volume resizing supports only Gluster volumes.
- [alpha] Provide capacity isolation and resource management for local ephemeral storage
 - You can now set container requests, container limits, and node allocatable reservations for the new `ephemeral-storage` resource.
 - The `ephemeral-storage` resource includes all the disk space a container might consume with container overlay or scratch.
- [alpha] Mount namespace propagation
 - The `VolumeMount.Propagation` field for `VolumeMount` in pod containers is now available.
 - You can now set `VolumeMount.Propagation` to `Bidirectional` to enable a particular mount for a container to propagate itself to the host or other containers.
- [alpha] Improve Flex volume deployment
 - Flex volume driver deployment is simplified in the following ways:
 - New driver files can now be automatically discovered and initialized without requiring a kubelet or controller-manager restart.
 - A sample DaemonSet to deploy Flexvolume drivers is now available.
- [prototype] Volume snapshots
 - You can now create a volume snapshot by calling the Kubernetes API.
 - Note that the prototype does not support quiescing before snapshot, so snapshots might be inconsistent.

- In the prototype phase, this feature is external to the core Kubernetes. It's available at <https://github.com/kubernetes-incubator/external-storage/tree/master/snapshot>.

Cluster Federation

[alpha] Federated Jobs

Federated Jobs that are automatically deployed to multiple clusters are now supported. Cluster selection and weighting determine how Job parallelism and completions are spread across clusters. Federated Job status reflects the aggregate status across all underlying cluster jobs.

[alpha] Federated Horizontal Pod Autoscaling (HPA)

Federated HPAs are similar to the traditional Kubernetes HPAs, except that they span multiple clusters. Creating a Federated HPA targeting multiple clusters ensures that cluster-level autoscalers are consistently deployed across those clusters, and dynamically managed to ensure that autoscaling can occur optimally in all clusters, within a set of global constraints on the total number of replicas permitted across all clusters. If replicas are not required in some clusters due to low system load or insufficient quota or capacity in those clusters, additional replicas are made available to the autoscalers in other clusters if required.

Node Components

Autoscaling and Metrics

- Support for custom metrics in the Horizontal Pod Autoscaler is now at v1beta1. The associated metrics APIs (custom metrics and resource/master metrics) were also moved to v1beta1. For more information, see [Before Upgrading](#).
- `metrics-server` is now the recommended way to provide the resource metrics API. Deploy `metrics-server` as an add-on in the same way that you deploy Heapster.

Cluster Autoscaler

- Cluster autoscaler is now GA
- Cluster support size is increased to 1000 nodes
- Respect graceful pod termination of up to 10 minutes
- Handle zone stock-outs and failures
- Improve monitoring and error reporting

Container Runtime Interface (CRI)

- [alpha] Add a CRI validation test suite and CRI command-line tools. ([#292](#), [@feiskyer](#))
- [stable] [cri-o](#): CRI implementation for OCI-based runtimes [[@mrunalp](#)]
 - Passed all the Kubernetes 1.7 end-to-end conformance test suites.
 - Verification against Kubernetes 1.8 is planned soon after the release.
- [stable] [frakti](#): CRI implementation for hypervisor-based runtimes is now v1.1. [[@feiskyer](#)]
 - Enhance CNI plugin compatibility, supports flannel, calico, weave and so on.
 - Pass all CRI validation conformance tests and node end-to-end conformance tests.
 - Add experimental Unikernel support.
- [alpha] [cri-containerd](#): CRI implementation for containerd is now v1.0.0-alpha.0, [[@Random-Liu](#)]
 - Feature complete. Support the full CRI API defined in v1.8.
 - Pass all the CRI validation tests and regular node end-to-end tests.

- An ansible playbook is provided to configure a Kubernetes cri-containerd cluster with kubeadm.
- Add support in Kubelet to consume container metrics via CRI. [[@yguo0905](#)]
 - There are known bugs that result in errors when querying Kubelet's stats summary API. We expect to fix them in v1.8.1.

kubelet

- [alpha] Kubelet now supports alternative container-level CPU affinity policies by using the new CPU manager. ([#375](#), [@sjenning](#), [@ConnorDoyle](#))
- [alpha] Applications may now request pre-allocated hugepages by using the new `hugepages` resource in the container resource requests. ([#275](#), [@derekwaynecarr](#))
- [alpha] Add support for dynamic Kubelet configuration. ([#281](#), [@mtaufen](#))
- [alpha] Add the Hardware Device Plugins API. ([#368](#), [[@jiayingz](#)], [[@RenaudWasTaken](#)])
- [stable] Upgrade cAdvisor to v0.27.1 with the enhancement for node monitoring. [[@dashpole](#)]
 - Fix journalctl leak
 - Fix container memory rss
 - Fix incorrect CPU usage with 4.7 kernel
 - OOM parser uses kmsg
 - Add hugepages support
 - Add CRI-O support
- Sharing a PID namespace between containers in a pod is disabled by default in version 1.8. To enable for a node, use the `--docker-disable-shared-pid=false` kubelet flag. Be aware that PID namespace sharing requires Docker version greater than or equal to 1.13.1.
- Fix issues related to the eviction manager.
- Fix inconsistent Prometheus cAdvisor metrics.
- Fix issues related to the local storage allocatable feature.

Auth

- [GA] The RBAC API group has been promoted from v1beta1 to v1. No API changes were introduced.
- [beta] Advanced auditing has been promoted from alpha to beta. The webhook and logging policy formats have changed since alpha, and may require modification.
- [beta] Kubelet certificate rotation through the certificates API has been promoted from alpha to beta. RBAC cluster roles for the certificates controller have been added for common uses of the certificates API, such as the kubelet's.
- [beta] SelfSubjectRulesReview, an API that lets a user see what actions they can perform with a namespace, has been added to the authorization.k8s.io API group. This bulk query is intended to enable UIs to show/hide actions based on the end user, and for users to quickly reason about their own permissions.
- [alpha] Building on the 1.7 work to allow encryption of resources such as secrets, a mechanism to store resource encryption keys in external Key Management Systems (KMS) was introduced. This complements the original file-based storage and allows integration with multiple KMS. A Google Cloud KMS plugin was added and will be usable once the Google side of the integration is complete.

- Websocket requests may now authenticate to the API server by passing a bearer token in a websocket subprotocol of the form `base64url.bearer.authorization.k8s.io.<base64url-encoded-bearer-token>`. ([#47740](#), [@liggitt](#))
- Advanced audit now correctly reports impersonated user info. ([#48184](#), [@CaoShuFeng](#))
- Advanced audit policy now supports matching subresources and resource names, but the top level resource no longer matches the subresource. For example "pods" no longer matches requests to the logs subresource of pods. Use "pods/logs" to match subresources. ([#48836](#), [@ericchiang](#))
- Previously a deleted service account or bootstrapping token secret would be considered valid until it was reaped. It is now invalid as soon as the `deletionTimestamp` is set. ([#48343](#), [@deads2k](#); [#49057](#), [@ericchiang](#))
- The `--insecure-allow-any-token` flag has been removed from the API server. Users of the flag should use impersonation headers instead for debugging. ([#49045](#), [@ericchiang](#))
- The NodeRestriction admission plugin now allows a node to evict pods bound to itself. ([#48707](#), [@danielfm](#))
- The OwnerReferencesPermissionEnforcement admission plugin now requires `update` permission on the `finalizers` subresource of the referenced owner in order to set `blockOwnerDeletion` on an owner reference. ([#49133](#), [@deads2k](#))
- The SubjectAccessReview API in the `authorization.k8s.io` API group now allows providing the user uid. ([#49677](#), [@dims](#))
- After a kubelet rotates its client cert, it now closes its connections to the API server to force a handshake using the new cert. Previously, the kubelet could keep its existing connection open, even if the cert used for that connection was expired and rejected by the API server. ([#49899](#), [@ericchiang](#))
- PodSecurityPolicies can now specify a whitelist of allowed paths for host volumes. ([#50212](#), [@jhorwit2](#))
- API server authentication now caches successful bearer token authentication results for a few seconds. ([#50258](#), [@liggitt](#))
- The OpenID Connect authenticator can now use a custom prefix, or omit the default prefix, for username and groups claims through the `--oidc-username-prefix` and `--oidc-groups-prefix` flags. For example, the authenticator can map a user with the username "jane" to "google:jane" by supplying the "google:" username prefix. ([#50875](#), [@ericchiang](#))
- The bootstrap token authenticator can now configure tokens with a set of extra groups in addition to `system:bootstrappers`. ([#50933](#), [@mattmoyer](#))
- Advanced audit allows logging failed login attempts. ([#51119](#), [@soltys](#))
- A `kubectl auth reconcile` subcommand has been added for applying RBAC resources. When passed a file which contains RBAC roles, rolebindings, clusterroles, or clusterrolebindings, it will compute covers and add the missing rules. ([#51636](#), [@deads2k](#))

Cluster Lifecycle

kubeadm

- [beta] A new `upgrade` subcommand allows you to automatically upgrade a self-hosted cluster created with kubeadm. ([#296](#), [@luxas](#))

- [alpha] An experimental self-hosted cluster can now easily be created with `kubeadm init`. Enable the feature by setting the SelfHosting feature gate to true: `--feature-gates=SelfHosting=true` ([#296](#), [@luxas](#))
 - **NOTE:** Self-hosting will be the default way to host the control plane in the next release, v1.9
- [alpha] A new `phase` subcommand supports performing only subtasks of the full `kubeadm init` flow. Combined with fine-grained configuration, kubeadm is now more easily consumable by higher-level provisioning tools like kops or GKE. ([#356](#), [@luxas](#))
 - **NOTE:** This command is currently staged under `kubeadm alpha phase` and will be graduated to top level in a future release.

kops

- [alpha] Added support for targeting bare metal (or non-cloudprovider) machines. ([#360](#), [@justinsb](#)).
- [alpha] kops now supports [running as a server](#). ([#359](#), [@justinsb](#))
- [beta] GCE support is promoted from alpha to beta. ([#358](#), [@justinsb](#)).

Cluster Discovery/Bootstrap

- [beta] The authentication and verification mechanism called Bootstrap Tokens is improved. Use Bootstrap Tokens to easily add new node identities to a cluster. ([#130](#), [@luxas](#), [@jbeda](#)).

Multi-platform

- [alpha] The Conformance e2e test suite now passes on the arm, arm64, and ppc64le platforms. ([#288](#), [@luxas](#), [@mkumatag](#), [@ixdy](#))

Cloud Providers

- [alpha] Support is improved for the pluggable, out-of-tree and out-of-core cloud providers. ([#88](#), [@wlan0](#))

Network

network-policy

- [beta] Apply NetworkPolicy based on CIDR ([#50033](#), [@cmluciano](#))
- [beta] Support EgressRules in NetworkPolicy ([#51351](#), [@cmluciano](#))

kube-proxy ipvs mode

[alpha] Support ipvs mode for kube-proxy([#46580](#), [@haibinxie](#))

API Machinery

kube-apiserver

- Fixed an issue with `APIService` auto-registration. This issue affected rolling restarts of HA API servers that added or removed API groups being served.([#51921](#))
- [Alpha] The Kubernetes API server now supports the ability to break large LIST calls into multiple smaller chunks. A client can specify a limit to the number of results to return. If more results exist, a token is returned that allows the client to continue the previous list call repeatedly until all results are retrieved. The resulting list is identical to a list call that does not perform chunking, thanks to capabilities provided by etcd3. This allows the server to use less memory and CPU when very large lists are returned. This feature is

gated as `APIListChunking` and is not enabled by default. The 1.9 release will begin using this by default. ([#48921](#))

- Pods that are marked for deletion and have exceeded their grace period, but are not yet deleted, no longer count toward the resource quota. ([#46542](#))

Dynamic Admission Control

- Pod spec is mutable when the pod is uninitialized. The API server requires the pod spec to be valid even if it's uninitialized. Updating the status field of uninitialized pods is invalid. ([#51733](#))
- Use of the alpha initializers feature now requires enabling the `Initializers` feature gate. This feature gate is automatically enabled if the `Initializers` admission plugin is enabled. ([#51436](#))
- [Action required] The validation rule for `metadata.initializers.pending[x].name` is tightened. The initializer name must contain at least three segments, separated by dots. You can create objects with pending initializers and not rely on the API server to add pending initializers according to `initializerConfiguration`. If you do so, update the initializer name in the existing objects and the configuration files to comply with the new validation rule. ([#51283](#))
- The webhook admission plugin now works even if the API server and the nodes are in two separate networks, for example, in GKE. The webhook admission plugin now lets the webhook author use the DNS name of the service as the `CommonName` when generating the server cert for the webhook. Action required: Regenerate the server cert for the admission webhooks. Previously, the CN value could be ignored while generating the server cert for the admission webhook. Now you must set it to the DNS name of the webhook service: `<service.Name>.<service.Namespace>.svc`. ([#50476](#))

Custom Resource Definitions (CRDs)

- [alpha] The CustomResourceDefinition API can now optionally [validate custom objects](#) based on a JSON schema provided in the CRD spec. Enable this alpha feature with the `CustomResourceValidation` feature gate in `kube-apiserver`.

Garbage Collector

- The garbage collector now supports custom APIs added via Custom Resource Definitions or aggregated API servers. The garbage collector controller refreshes periodically. Therefore, expect a latency of about 30 seconds between when an API is added and when the garbage collector starts to manage it.

Monitoring/Prometheus

- [action required] The WATCHLIST calls are now reported as WATCH verbs in prometheus for the `apiserver_request_*` series. A new "scope" label is added to all `apiserver_request_*` values that is either 'cluster', 'resource', or 'namespace' depending on which level the query is performed at. ([#52237](#))

Go Client

- Add support for client-side spam filtering of events ([#47367](#))

External Dependencies

Continuous integration builds use Docker versions 1.11.2, 1.12.6, 1.13.1, and 17.03.2. These versions were validated on Kubernetes 1.8. However, consult an appropriate installation or upgrade guide before deciding what versions of Docker to use.

- Docker 1.13.1 and 17.03.2

- Shared PID namespace, live-restore, and overlay2 were validated.
- **Known issues**
 - The default iptables FORWARD policy was changed from ACCEPT to DROP, which causes outbound container traffic to stop working by default. See [#40182](#) for the workaround.
 - The support for the v1 registries was removed.
- Docker 1.12.6
 - Overlay2 and live-restore are not validated.
 - **Known issues**
 - Shared PID namespace does not work properly. ([#207](#))
 - Docker reports incorrect exit codes for containers. ([#41516](#))
- Docker 1.11.2
 - **Known issues**
 - Kernel crash with Aufs storage driver on Debian Jessie ([#27885](#)). The issue can be identified by using the node problem detector.
 - File descriptor leak on init/control. ([#275](#))
 - Additional memory overhead per container. ([#21737](#))
 - Processes may be leaked when Docker is repeatedly terminated in a short time frame. ([#41450](#))
- [v1.8.0-rc.1](#)
- [v1.8.0-beta.1](#)
- [v1.8.0-alpha.3](#)
- [v1.8.0-alpha.2](#)
- [v1.8.0-alpha.1](#)

v1.8.0-rc.1

[Documentation](#) & [Examples](#)

Downloads for v1.8.0-rc.1

filename	sha256 hash
kubernetes.tar.gz	122d3ca2addb168c68e65a515bc42c21ad6c4bc71cb71591c699ba035765994b
kubernetes-src.tar.gz	8903266d4379f03059fcd9398d3bcd526b979b3c4b49e75aa13cce38de6f4e91

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	c4cae289498888db775abd833de1544adc632913e46879c6f770c931f29e5d3f
kubernetes-client-darwin-amd64.tar.gz	dd7081fc40e71be45cbae1bcd0f0932e5578d662a8054faea96c65efd1c1a134
kubernetes-client-linux-386.tar.gz	728265635b18db308a69ed249dc4a59658aa6db7d23bb3953923f1e54c2d620f
kubernetes-client-linux-amd64.tar.gz	2053862e5461f213c03381a9a05d70c0a28fdaf959600244257f6636ba92d058
kubernetes-client-linux-arm64.tar.gz	956cc6b5afb816734ff439e09323e56210293089858cb6deea92b8d3318463ac
kubernetes-client-linux-arm.tar.gz	eca7ff447699849db3ae2d76ac9dad07be86c2ebe652ef774639bf006499ddbc
kubernetes-client-linux-ppc64le.tar.gz	0d593c8034e54a683a629c034677b1c402e3e9516afcf174602e953818c8f0d1
kubernetes-client-linux-s390x.tar.gz	9a7c1771d710d78f4bf45ff41f1a312393a8ee8b0506ee09aeca449c3552a147
kubernetes-client-windows-386.tar.gz	345f50766c627e45f35705b72fb2f56e78cc824af123cf14f5a84954ac1d6c93
kubernetes-client-windows-amd64.tar.gz	ea98c0872fa6df3eb5af6f1a005c014a76a0b4b0af9a09fdf90d3bc6a7ee5725

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	58799a02896f7d3c160088832186c8e9499c433e65f0f1eeb37763475e176473
kubernetes-server-linux-arm64.tar.gz	cd28ad39762cdf144e5191d4745e2629f37851265dfe44930295a0b13823a998
kubernetes-server-linux-arm.tar.gz	62c75adbe94d17163cbc3e8cbc4091fdb6f5e9dc90a8471aac3f9ee38e609d82
kubernetes-server-linux-ppc64le.tar.gz	cee4a1a33dec4facebfa6a1f7780aba6fee91f645fbc0a388e64e93c0d660b17
kubernetes-server-linux-s390x.tar.gz	b263139b615372dd95ce404b8e94a51594e7d22b25297934cb189d3c9078b4fb

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	8d6688a224ebc5814e142d296072b7d2352fe86bd338539bd89ac9883b338c3d
kubernetes-node-linux-arm64.tar.gz	1db47ce33af16d8974028017738a6d211a3c7c0b6f0046f70ccc52875ef6cbdf
kubernetes-node-linux-arm.tar.gz	ec5eaddbb2a338ab16d801685f98746c465aad45b3d1dcf4dcfc361bd18eb124
kubernetes-node-linux-	0ebf091215a2fcf1232a7f0eedf21f3786bbddae26619cf77098ab88670e1935

ppc64le.tar.gz	
kubernetes-node-linux-s390x.tar.gz	7443c6753cc6e4d9591064ad87c619b27713f6bb45aef5dcabb1046c2d19f0f3
kubernetes-node-windows-amd64.tar.gz	b4bbb5521930fdc71dac52608c145e1e22cc2ab5e823492cbf1b7a46c317654a

Changelog since v1.8.0-beta.1

Action Required

- New GCE or GKE clusters created with `cluster/kube-up.sh` will not enable the legacy ABAC authorizer by default. If you would like to enable the legacy ABAC authorizer, export `ENABLE_LEGACY_ABAC=true` before running `cluster/kube-up.sh`. ([#51367](#), [@cjculen](#))

Other notable changes

- kubeadm: Use the release-1.8 branch by default ([#52085](#), [@luxas](#))
- PersistentVolumeLabel admission controller is now deprecated. ([#52618](#), [@dims](#))
- Mark the LBaaS v1 of OpenStack cloud provider deprecated. ([#52821](#), [@FengyunPan](#))
- Mark image as deliberately optional in v1 Container struct. Many objects in the Kubernetes API inherit the container struct and only Pods require the field to be set. ([#48406](#), [@gylu513](#))
- [fluentd-gcp addon] Update Stackdriver plugin to version 0.6.7 ([#52565](#), [@crassirostris](#))
- Remove duplicate proto errors in kubelet. ([#52132](#), [@adityadani](#))
- [fluentd-gcp addon] Remove audit logs from the fluentd configuration ([#52777](#), [@crassirostris](#))
- Set defaults for successfulJobsHistoryLimit (3) and failedJobsHistoryLimit (1) in batch/v1beta1.CronJobs ([#52533](#), [@soltys](#))
- Fix: update system spec to support Docker 17.03 ([#52666](#), [@yguo0905](#))
- Fix panic in ControllerManager on GCE when it has a problem with creating external loadbalancer healthcheck ([#52646](#), [@gmarek](#))
- PSP: add support for using `*` as a value in `allowedCapabilities` to allow to request any capabilities ([#51337](#), [@php-coder](#))
- [fluentd-gcp addon] By default ingest apiserver audit logs written to file in JSON format. ([#52541](#), [@crassirostris](#))
- The autoscaling/v2beta1 API group is now enabled by default. ([#52549](#), [@DirectXMan12](#))
- Add CLUSTER_SIGNING_DURATION environment variable to cluster ([#52497](#), [@jcbsmpsn](#))
 - configuration scripts to allow configuration of signing duration of
 - certificates issued via the Certificate Signing Request API.
- Introduce policy to allow the HPA to consume the metrics.k8s.io and custom.metrics.k8s.io API groups. ([#52572](#), [@DirectXMan12](#))
- kubelet to master communication when doing node status updates now has a timeout to prevent indefinite hangs ([#52176](#), [@liggitt](#))
- Introduced Metrics Server in version v0.2.0. For more details see <https://github.com/kubernetes-incubator/metrics-server/releases/tag/v0.2.0>. ([#52548](#), [@piosz](#))
- Adds ROTATE_CERTIFICATES environment variable to kube-up.sh script for GCE ([#52115](#), [@jcbsmpsn](#))
 - clusters. When that var is set to true, the command line flag enabling kubelet
 - client certificate rotation will be added to the kubelet command line.
- Make sure that resources being updated are handled correctly by Quota system ([#52452](#), [@gnufied](#))
- WATCHLIST calls are now reported as WATCH verbs in prometheus for the apiserver_request_* series. A new "scope" label is added to all apiserver_request_* values that is either 'cluster', 'resource', or 'namespace' depending on which level the query is performed at. ([#52237](#), [@smarterclayton](#))

- Fixed the webhook admission plugin so that it works even if the apiserver and the nodes are in two networks (e.g., in GKE). ([#50476](#), [@caesarxuchao](#))
 - Fixed the webhook admission plugin so that webhook author could use the DNS name of the service as the CommonName when generating the server cert for the webhook.
 - Action required:
 - Anyone who generated server cert for admission webhooks need to regenerate the cert. Previously, when generating server cert for the admission webhook, the CN value doesn't matter. Now you must set it to the DNS name of the webhook service, i.e., `<service.Name>.<service.Namespace>.svc`.
- Ignore pods marked for deletion that exceed their grace period in ResourceQuota ([#46542](#), [@derekwaynecarr](#))
- custom resources that use unconventional pluralization now work properly with kubectl and garbage collection ([#50012](#), [@deads2k](#))
- [fluentd-gcp addon] Fluentd will trim lines exceeding 100KB instead of dropping them. ([#52289](#), [@crassirostris](#))
- dockershim: check the error when syncing the checkpoint. ([#52125](#), [@yujuhong](#))
- By default, clusters on GCE no longer sends RequestReceived audit event, if advanced audit is configured. ([#52343](#), [@crassirostris](#))
- [BugFix] Soft Eviction timer works correctly ([#52046](#), [@dashpole](#))
- AzureDisk mount on windows node ([#51252](#), [@andyzhangx](#))
- [fluentd-gcp addon] Bug with event-exporter leaking memory on metrics in clusters with CA is fixed. ([#52263](#), [@crassirostris](#))
- kubeadm: Enable kubelet client certificate rotation ([#52196](#), [@luxas](#))
- Scheduler predicate developer should respect equivalence class cache ([#52146](#), [@resouer](#))
- The `kube-cloud-controller-manager` flag `--service-account-private-key-file` was non-functional and is now deprecated. ([#50289](#), [@liggitt](#))
 - The `kube-cloud-controller-manager` flag `--use-service-account-credentials` is now honored consistently, regardless of whether `--service-account-private-key-file` was specified.
- Fix credentials providers for docker sandbox image. ([#51870](#), [@feiskyer](#))
- Fixed an issue looking up cronjobs when they existed in more than one API version ([#52227](#), [@liggitt](#))
- Add priority-based preemption to the scheduler. ([#50949](#), [@bsalamat](#))
- Add CLUSTER_SIGNING_DURATION environment variable to cluster configuration scripts ([#51844](#), [@jcbsmpsn](#))
 - to allow configuration of signing duration of certificates issued via the Certificate
 - Signing Request API.
- Adding German translation for kubectl ([#51867](#), [@Steffen911](#))
- The ScaleIO volume plugin can now read the SDC GUID value as node label scaleio.sdcGuid; if binary `drv_cfg` is not installed, the plugin will still work properly; if node label not found, it defaults to `drv_cfg` if installed. ([#50780](#), [@vladimirvivien](#))
- A policy with 0 rules should return an error ([#51782](#), [@charrywanganthony](#))
- Log a warning when `--audit-policy-file` not passed to apiserver ([#52071](#), [@CaoShuFeng](#))

v1.8.0-beta.1

[Documentation](#) & [Examples](#)

Downloads for v1.8.0-beta.1

filename	sha256 hash
kubernetes.tar.gz	261e5ad47a718bcbb65c163f8e1130097e2d077541d6a68f3270de4e7256d796
kubernetes-src.tar.gz	e414e75cd1c72ca1fd202f6f0042ba1884b87bc6809bc2493ea2654c3d965656

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	b7745121e8d7074170f1ce8ded0fbc78b84abe8f8371933e97b76ba5551f26d8
kubernetes-client-darwin-amd64.tar.gz	4cc45a3a5dbd2ca666ea6dc2a973a17929c1427f5c3296224eade50d8df10b9e
kubernetes-client-linux-386.tar.gz	a1dce30675b33e2c18a1343ee15556c9c65e85ee3c2b88f3cac414d95514a902
kubernetes-client-linux-amd64.tar.gz	7fa5bbdc4af80a7ce00c5939896e8e93e962a66d195a95878f1e1fe4a06a5272
kubernetes-client-linux-arm64.tar.gz	7d54528f892d3247e22093861c48407e7dc001304bb168cf8c882227d96fd6b2
kubernetes-client-linux-arm.tar.gz	17c074ae407b012b4bb2c88975c182df0317fefe98700fdadee12c70d114498
kubernetes-client-linux-ppc64le.tar.gz	074801a87eedd2e93bdeb894822a70aa371983aafce86f66ed473a1a3bf4628b
kubernetes-client-linux-s390x.tar.gz	2eb743f160b970a183b3ec81fc50108df2352b8a0c31951babb26e2c28fc8360
kubernetes-client-windows-386.tar.gz	21e5686253052773d7e4baa08fd4ce56c861ad01d49d87df0eb80f56801e7cc4
kubernetes-client-windows-amd64.tar.gz	07d2446c917cf749b38fa2bcaa2bd64af743df2ba19ad4b480c07be166f9ab16

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	811eb1645f8691e5cf7f75ae8ab26e90cf0b36a69254f73c0ed4ba91f4c0db99
kubernetes-server-linux-arm64.tar.gz	e05c53ce80354d2776aa6832e074730aa35521f64ebf03a6c5a7753e7f2df8a3
kubernetes-server-linux-arm.tar.gz	57bc90e040faefa6af23b8637e8221a06282041ec9a16c2a630cc655d3c170df
kubernetes-server-linux-ppc64le.tar.gz	4feb30aef4f79954907fdec34d4b7d2985917abd8e35b34a9440a468889cb240
kubernetes-server-linux-s390x.tar.gz	85c0aaff6e832f711fb572582f10d9fe172c4d0680ac7589d1ec6e54742c436c

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	5809dce1c13d05c7c85bddc4d31804b30c55fe70209c9d89b137598c25db863e

kubernetes-node-linux-arm64.tar.gz	d70c9d99f4b155b755728029036f68d79cff1648cfd3de257e3f2ce29bc07a31
kubernetes-node-linux-arm.tar.gz	efa29832aea28817466e25b55375574f314848c806d76fa0e4874f835399e9f0
kubernetes-node-linux-ppc64le.tar.gz	991507d4cd2014e776d63ae7a14b3bbbf49597211d4fa1751701f21fbf44417
kubernetes-node-linux-s390x.tar.gz	4e1bd8e4465b2761632093a1235b788cc649af74d42dec297a97de8a0f764e46
kubernetes-node-windows-amd64.tar.gz	4f80d4c269c6f05fb30c8c682f1cdbe46f3f0e86ac7ca4b84a1ab0a835bfb24a

Changelog since v1.8.0-alpha.3

Action Required

- The OwnerReferencesPermissionEnforcement admission plugin now requires `update` permission on the `finalizers` subresource of the referenced owner in order to set `blockOwnerDeletion` on an owner reference. ([#49133](#), [@deads2k](#))
- The deprecated alpha and beta `initContainer` annotations are no longer supported. Init containers must be specified using the `initContainers` field in the pod spec. ([#51816](#), [@liggitt](#))
- Action required: validation rule on `metadata.initializers.pending[x].name` is tightened. The initializer name needs to contain at least three segments separated by dots. If you create objects with pending initializers, (i.e., not relying on apiserver adding pending initializers according to `initializerconfiguration`), you need to update the initializer name in existing objects and in configuration files to comply to the new validation rule. ([#51283](#), [@caesarxuchao](#))
- Audit policy supports matching subresources and resource names, but the top level resource no longer matches the subresource. For example "pods" no longer matches requests to the logs subresource of pods. Use "pods/logs" to match subresources. ([#48836](#), [@ericchiang](#))
- Protobuf serialization does not distinguish between `[]` and `null`. ([#45294](#), [@liggitt](#))
 - API fields previously capable of storing and returning either `[]` and `null` via JSON API requests (for example, the Endpoints `subsets` field) can now store only `null` when created using the protobuf content-type or stored in etcd using protobuf serialization (the default in 1.6+). JSON API clients should tolerate `null` values for such fields, and treat `null` and `[]` as equivalent in meaning unless specifically documented otherwise for a particular field.

Other notable changes

- Fixes an issue with upgrade requests made via pod/service/node proxy subresources sending a non-absolute HTTP request-uri to backends ([#52065](#), [@liggitt](#))
- kubeadm: add `kubeadm phase addons` command ([#51171](#), [@andrewrynhard](#))
- v2 of the autoscaling API group, including improvements to the HorizontalPodAutoscaler, has moved from alpha1 to beta1. ([#50708](#), [@DirectXMan12](#))
- Fixed a bug where some alpha features were enabled by default. ([#51839](#), [@jennybuckley](#))
- Implement StatsProvider interface using CRI stats ([#51557](#), [@yguo0905](#))
- set AdvancedAuditing feature gate to true by default ([#51943](#), [@CaoShuFeng](#))
- Migrate the metrics/v1alpha1 API to metrics/v1beta1. The HorizontalPodAutoscaler ([#51653](#), [@DirectXMan12](#))
 - controller REST client now uses that version. For v1beta1, the API is now known as
 - resource-metrics.metrics.k8s.io.

- In GCE with COS, increase TasksMax for Docker service to raise cap on number of threads/processes used by containers. ([#51986](#), [@yujuhong](#))
- Fixes an issue with APIService auto-registration affecting rolling HA apiserver restarts that add or remove API groups being served. ([#51921](#), [@liggitt](#))
- Sharing a PID namespace between containers in a pod is disabled by default in 1.8. To enable for a node, use the `--docker-disable-shared-pid=false` kubelet flag. Note that PID namespace sharing requires docker `>= 1.13.1`. ([#51634](#), [@verb](#))
- Build test targets for all server platforms ([#51873](#), [@luxas](#))
- Add EgressRule to NetworkPolicy ([#51351](#), [@cmluciano](#))
- Allow DNS resolution of service name for COS using containerized mounter. It fixed the issue with DNS resolution of NFS and Gluster services. ([#51645](#), [@jingxu97](#))
- Fix journalctl leak on kubelet restart ([#51751](#), [@dashpole](#))
 - Fix container memory rss
 - Add hugepages monitoring support
 - Fix incorrect CPU usage metrics with 4.7 kernel
 - Add tmpfs monitoring support
- Support for Huge pages in empty_dir volume plugin ([#50072](#), [@squalloqd](#))
 - [Huge pages](#) can now be used with empty dir volume plugin.
- Alpha support for pre-allocated hugepages ([#50859](#), [@derekwaynecarr](#))
- add support for client-side spam filtering of events ([#47367](#), [@derekwaynecarr](#))
- Provide a way to omit Event stages in audit policy ([#49280](#), [@CaoShuFeng](#))
- Introduced Metrics Server ([#51792](#), [@piosz](#))
- Implement Controller for growing persistent volumes ([#49727](#), [@gnufied](#))
- Kubernetes 1.8 supports docker version 1.11.x, 1.12.x and 1.13.x. And also supports overlay2. ([#51845](#), [@Random-Liu](#))
- The Deployment, DaemonSet, and ReplicaSet kinds in the extensions/v1beta1 group version are now deprecated, as are the Deployment, StatefulSet, and ControllerRevision kinds in apps/v1beta1. As they will not be removed until after a GA version becomes available, you may continue to use these kinds in existing code. However, all new code should be developed against the apps/v1beta2 group version. ([#51828](#), [@kow3ns](#))
- kubeadm: Detect kubelet readiness and error out if the kubelet is unhealthy ([#51369](#), [@luxas](#))
- Fix providerID update validation ([#51761](#), [@karataliu](#))
- Calico has been updated to v2.5, RBAC added, and is now automatically scaled when GCE clusters are resized. ([#51237](#), [@gunjan5](#))
- Add backoff policy and failed pod limit for a job ([#51153](#), [@clamoriniere1A](#))
- Adds a new alpha EventRateLimit admission control that is used to limit the number of event queries that are accepted by the API Server. ([#50925](#), [@staebler](#))
- The OpenID Connect authenticator can now use a custom prefix, or omit the default prefix, for username and groups claims through the `--oidc-username-prefix` and `--oidc-groups-prefix` flags. For example, the authenticator can map a user with the username "jane" to "google:jane" by supplying the "google:" username prefix. ([#50875](#), [@ericchiang](#))
- Implemented `kubeadm upgrade plan` for checking whether you can upgrade your cluster to a newer version ([#48899](#), [@luxas](#))
 - Implemented `kubeadm upgrade apply` for upgrading your cluster from one version to another
- Switch to audit.k8s.io/v1beta1 in audit. ([#51719](#), [@soltys](#))
- update QEMU version to v2.9.1 ([#50597](#), [@dixudx](#))
- controllers backoff better in face of quota denial ([#49142](#), [@joelsmith](#))

- The event table output under `kubectl describe` has been simplified to show only the most essential info. ([#51748](#), [@smarterclayton](#))
- Use arm32v7/arm64v8 images instead of the deprecated armhf/aarch64 image organizations ([#50602](#), [@dixudx](#))
- audit newest impersonated user info in the ResponseStarted, ResponseComplete audit stage ([#48184](#), [@CaoShuFeng](#))
- Fixed bug in AWS provider to handle multiple IPs when using more than 1 network interface per ec2 instance. ([#50112](#), [@jlz27](#))
- Add flag "--include-uninitialized" to kubectl annotate, apply, edit-last-applied, delete, describe, edit, get, label, set. "--include-uninitialized=true" makes kubectl commands apply to uninitialized objects, which by default are ignored if the names of the objects are not provided. "--all" also makes kubectl commands apply to uninitialized objects. Please see the [initializer](#) doc for more details. ([#50497](#), [@dixudx](#))
- GCE: Service object now supports "Network Tiers" as an Alpha feature via annotations. ([#51301](#), [@yujuhong](#))
- When using kube-up.sh on GCE, user could set env `ENABLE_POD_PRIORITY=true` to enable pod priority feature gate. ([#51069](#), [@MrHohn](#))
- The names generated for ControllerRevision and ReplicaSet are consistent with the GenerateName functionality of the API Server and will not contain "bad words". ([#51538](#), [@kow3ns](#))
- PersistentVolumeClaim metrics like "volume_stats_inodes" and "volume_stats_capacity_bytes" are now reported via kubelet prometheus ([#51553](#), [@wongma7](#))
- When using IP aliases, use a secondary range rather than subnetwork to reserve cluster IPs. ([#51690](#), [@bowei](#))
- IPAM controller unifies handling of node pod CIDR range allocation. ([#51374](#), [@bowei](#))
 - It is intended to supersede the logic that is currently in range_allocator
 - and cloud_cidr_allocator. (ALPHA FEATURE)
 - Note: for this change, the other allocators still exist and are the default.
 - It supports two modes:
 - CIDR range allocations done within the cluster that are then propagated out to the cloud provider.
 - Cloud provider managed IPAM that is then reflected into the cluster.
- Alpha list paging implementation ([#48921](#), [@smarterclayton](#))
- add reconcile command to kubectl auth ([#51636](#), [@deads2k](#))
- Advanced audit allows logging failed login attempts ([#51119](#), [@soltys](#))
- kubeadm: Add support for using an external CA whose key is never stored in the cluster ([#50832](#), [@nckturner](#))
- the custom metrics API (custom.metrics.k8s.io) has moved from v1alpha1 to v1beta1 ([#50920](#), [@DirectXMan12](#))
- Add backoff policy and failed pod limit for a job ([#48075](#), [@clamoriniere1A](#))
- Performs validation (when applying for example) against OpenAPI schema rather than Swagger 1.0. ([#51364](#), [@apelisse](#))
- Make all e2e tests lookup image to use from a centralized place. In that centralized place, add support for multiple platforms. ([#49457](#), [@mkumatag](#))
- kubelet has alpha support for mount propagation. It is disabled by default and it is there for testing only. This feature may be redesigned or even removed in a future release. ([#46444](#), [@jsafrane](#))
- Add selfsubjectrulesreview API for allowing users to query which permissions they have in a given namespace. ([#48051](#), [@xilabao](#))
- Kubelet re-binds /var/lib/kubelet directory with rshared mount propagation during startup if it is not shared yet. ([#45724](#), [@jsafrane](#))
- Deviceplugin jiayingz ([#51209](#), [@jiayingz](#))
- Make logdump support kubemark and support gke with 'use_custom_instance_list' ([#51834](#), [@shyamjvs](#))

- add apps/v1beta2 conversion test ([#49645](#), [@dixudx](#))
- Fixed an issue ([#47800](#)) where `kubectl logs -f` failed with `unexpected stream type ""`. ([#50381](#), [@sczizzo](#))
- GCE: Internal load balancer IPs are now reserved during service sync to prevent losing the address to another service. ([#51055](#), [@nicksardo](#))
- Switch JSON marshal/unmarshal to json-iterator library. Performance should be close to previous with no generated code. ([#48287](#), [@thockin](#))
- Adds optional group and version information to the discovery interface, so that if an endpoint uses non-default values, the proper value of "kind" can be determined. Scale is a common example. ([#49971](#), [@deads2k](#))
- [#43077](#) introduced a condition where DaemonSet controller did not respect the `TerminationGracePeriodSeconds` of the Pods it created. This is now corrected. ([#51279](#), [@kow3ns](#))
- Add a persistent volume label controller to the cloud-controller-manager ([#44680](#), [@rrati](#))
- Tainted nodes by conditions as following: ([#49257](#), [@k82cn](#)) * 'node.kubernetes.io/network-unavailable=:NoSchedule' if NetworkUnavailable is true * 'node.kubernetes.io/disk-pressure=:NoSchedule' if DiskPressure is true * 'node.kubernetes.io/memory-pressure=:NoSchedule' if MemoryPressure is true * 'node.kubernetes.io/out-of-disk=:NoSchedule' if OutOfDisk is true
- rbd: default image format to v2 instead of deprecated v1 ([#51574](#), [@dillaman](#))
- Surface reasonable error when client detects connection closed. ([#51381](#), [@mengqiy](#))
- Allow PSP's to specify a whitelist of allowed paths for host volume ([#50212](#), [@jhorwit2](#))
- For Deployment, ReplicaSet, and DaemonSet, selectors are now immutable when updating via the new `apps/v1beta2` API. For backward compatibility, selectors can still be changed when updating via `apps/v1beta1` or `extensions/v1beta1`. ([#50719](#), [@crimsonfaith91](#))
- Allows kubectl to use http caching mechanism for the OpenAPI schema. The cache directory can be configured through `--cache-dir` command line flag to kubectl. If set to empty string, caching will be disabled. ([#50404](#), [@apelisse](#))
- Pod log attempts are now reported in apiserver prometheus metrics with verb `CONNECT` since they can run for very long periods of time. ([#50123](#), [@WIZARD-CXY](#))
- The `emptyDir.sizeLimit` field is now correctly omitted from API requests and responses when unset. ([#50163](#), [@jingxu97](#))
- Promote CronJobs to batch/v1beta1. ([#51465](#), [@soltys](#))
- Add local ephemeral storage support to LimitRange ([#50757](#), [@NickrenREN](#))
- Add mount options field to StorageClass. The options listed there are automatically added to PVs provisioned using the class. ([#51228](#), [@wongma7](#))
- Implement IPVS-based in-cluster service load balancing ([#46580](#), [@dujun1990](#))
- Release the kubelet client certificate rotation as beta. ([#51045](#), [@jcbmpsnp](#))
- Adds `--append-hash` flag to kubectl create configmap/secret, which will append a short hash of the configmap/secret contents to the name during creation. ([#49961](#), [@mtaufen](#))
- Add validation for CustomResources via JSON Schema. ([#47263](#), [@nikhita](#))
- enqueue a sync task to wake up jobcontroller to check job `ActiveDeadlineSeconds` in time ([#48454](#), [@weiwei04](#))
- Remove previous local ephemeral storage resource names: "ResourceStorageOverlay" and "ResourceStorageScratch" ([#51425](#), [@NickrenREN](#))
- Add `retainKeys` to patchStrategy for v1 Volumes and extensions/v1beta1 DeploymentStrategy. ([#50296](#), [@mengqiy](#))
- Add mount options field to PersistentVolume spec ([#50919](#), [@wongma7](#))
- Use of the alpha initializers feature now requires enabling the `Initializers` feature gate. This feature gate is auto-enabled if the `Initializers` admission plugin is enabled. ([#51436](#), [@liggitt](#))
- Fix inconsistent Prometheus cAdvisor metrics ([#51473](#), [@bboreham](#))
- Add local ephemeral storage to downward API ([#50435](#), [@NickrenREN](#))

- kubectl zsh autocompletion will work with compinit ([#50561](#), [@cblecker](#))
- When using kube-up.sh on GCE, user could set env `KUBE_PROXY_DAEMONSET=true` to run kube-proxy as a DaemonSet. kube-proxy is run as static pods by default. ([#50705](#), [@MrHohn](#))
- Add `--request-timeout` to kube-apiserver to make global request timeout configurable. ([#51415](#), [@jpbetz](#))
- Deprecate auto detecting cloud providers in kubelet. Auto detecting cloud providers go against the initiative for out-of-tree cloud providers as we'll now depend on cAdvisor integrations with cloud providers instead of the core repo. In the near future, `--cloud-provider` for kubelet will either be an empty string or `external`. ([#51312](#), [@andrewsykim](#))
- Add local ephemeral storage support to Quota ([#49610](#), [@NickrenREN](#))
- Kubelet updates default labels if those are deprecated ([#47044](#), [@mrlIncompetent](#))
- Add error count and time-taken metrics for storage operations such as mount and attach, per-volume-plugin. ([#50036](#), [@wongma7](#))
- A new predicates, named 'CheckNodeCondition', was added to replace node condition filter. 'NetworkUnavailable', 'OutOfDisk' and 'NotReady' maybe reported as a reason when failed to schedule pods. ([#51117](#), [@k82cn](#))
- Add support for configurable groups for bootstrap token authentication. ([#50933](#), [@mattmoyer](#))
- Fix forbidden message format ([#49006](#), [@CaoShuFeng](#))
- make volumesInUse sorted in node status updates ([#49849](#), [@dixudx](#))
- Adds `InstanceExists` and `InstanceExistsByProviderID` to cloud provider interface for the cloud controller manager ([#51087](#), [@prydie](#))
- Dynamic Flexvolume plugin discovery. Flexvolume plugins can now be discovered on the fly rather than only at system initialization time. ([#50031](#), [@verult](#))
- add fieldSelector spec.schedulerName ([#50582](#), [@dixudx](#))
- Change eviction manager to manage one single local ephemeral storage resource ([#50889](#), [@NickrenREN](#))
- Cloud Controller Manager now sets Node.Spec.ProviderID ([#50730](#), [@andrewsykim](#))
- Parameterize session affinity timeout seconds in service API for Client IP based session affinity. ([#49850](#), [@m1093782566](#))
- Changing scheduling part of the alpha feature 'LocalStorageCapacityIsolation' to manage one single local ephemeral storage resource ([#50819](#), [@NickrenREN](#))
- set `--audit-log-format` default to json ([#50971](#), [@CaoShuFeng](#))
- kubeadm: Implement a `--dry-run` mode and flag for kubeadm ([#51122](#), [@luxas](#))
- kubectl rollout `history`, `status`, and `undo` subcommands now support StatefulSets. ([#49674](#), [@crimsonfaith91](#))
- Add IPBlock to Network Policy ([#50033](#), [@cmluciano](#))
- Adding Italian translation for kubectl ([#50155](#), [@lucab85](#))
- Simplify capabilities handling in FlexVolume. ([#51169](#), [@MikaelCluseau](#))
- cloudprovider.Zones should support external cloud providers ([#50858](#), [@andrewsykim](#))
- Finalizers are now honored on custom resources, and on other resources even when garbage collection is disabled via the apiserver flag `--enable-garbage-collector=false` ([#51148](#), [@ironcladlou](#))
- Renamed the API server flag `--experimental-bootstrap-token-auth` to `--enable-bootstrap-token-auth`. The old value is accepted with a warning in 1.8 and will be removed in 1.9. ([#51198](#), [@mattmoyer](#))
- Azure file persistent volumes can use a new `secretNamespace` field to reference a secret in a different namespace than the one containing their bound persistent volume claim. The azure file persistent volume provisioner honors a corresponding `secretNamespace` storage class parameter to determine where to place secrets containing the storage account key. ([#47660](#), [@rootfs](#))
- Bumped gRPC version to 1.3.0 ([#51154](#), [@RenaudWasTaken](#))
- Delete load balancers if the UIDs for services don't match. ([#50539](#), [@brendandburns](#))
- Show events when describing service accounts ([#51035](#), [@mrogers950](#))

- implement proposal 34058: hostPath volume type ([#46597](#), [@dixudx](#))
- HostAlias is now supported for both non-HostNetwork Pods and HostNetwork Pods. ([#50646](#), [@rickypai](#))
- CRDs support metadata.generation and implement spec/status split ([#50764](#), [@nikhita](#))
- Allow attach of volumes to multiple nodes for vSphere ([#51066](#), [@BaluDontu](#))

v1.8.0-alpha.3

[Documentation](#) & [Examples](#)

Downloads for v1.8.0-alpha.3

filename	sha256 hash
kubernetes.tar.gz	c99042c4826352b724dc02c8d92c01c49e1ad1663d2c55e0bce931fe4d76c1e3
kubernetes-src.tar.gz	3ee0cd3594bd5b326f042044d87e120fe335bd8e722635220dd5741485ab3493

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	c716e167383d118373d7b10425bb8db6033675e4520591017c688575f28a596d
kubernetes-client-darwin-amd64.tar.gz	dfe87cad00600049c841c8fd96c49088d4f7cdd34e5a903ef8048f75718f2d21
kubernetes-client-linux-386.tar.gz	97242dfefee822cbf4e3e373acf05e9dc2f40176b18f4532a60264ecf92738356
kubernetes-client-linux-amd64.tar.gz	42e25e810333b00434217bae0aece145f82d0c7043faea83ff62bed079bae651
kubernetes-client-linux-arm64.tar.gz	7f9683c90dc894ee8cd7ad30ec58d0d49068d35478a71b315d2b7805ec28e14a
kubernetes-client-linux-arm.tar.gz	76347a154128e97cdd81674045b28035d89d509b35dda051f2cbc58c9b67fed4
kubernetes-client-linux-ppc64le.tar.gz	c991cbbf0afa6eccd005b6e5ea28b0b20ecbc79ab7d64e32c24e03fcf05b48ff
kubernetes-client-linux-s390x.tar.gz	94c2c29e8fd20d2a5c4f96098bd5c7d879a78e872f59c3c58ca1c775a57ddefb
kubernetes-client-windows-386.tar.gz	bc98fd5dc01c6e6117c2c78d65884190bf99fd1fec0904e2af05e6dbf503ccc8
kubernetes-client-windows-amd64.tar.gz	e32b56dbc69045b5b2821a2e3eb3c3b4a18cf4c11afd44e0c7c9c0e67bb38d02

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	5446addff583b0dc977b91375f3c399242f7996e1f66f52b9e14c015add3bf13
kubernetes-server-linux-arm64.tar.gz	91e3cffed119b5105f6a6f74f583113384a26c746b459029c12babf45f680119

kubernetes-server-linux-arm.tar.gz	d4cb93787651193ef4fdd1d10a4822101586b2994d6b0e04d064687df8729910
kubernetes-server-linux-ppc64le.tar.gz	916e7f63a4e0c67d9f106fdda6eb24efcc94356b05cd9eb288e45fac9ff79fe8
kubernetes-server-linux-s390x.tar.gz	15b999b08f5fe0d8252f8a1c7e936b9e06f2b01132010b3cece547ab00b45282

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	9120f6a06053ed91566d378a26ae455f521ab46911f257d64f629d93d143b369
kubernetes-node-linux-arm64.tar.gz	30af817f5de0ecb8a95ec898fba5b97e6b4f224927e1cf7efaf2d5479b23c116
kubernetes-node-linux-arm.tar.gz	8b0913e461d8ac821c2104a1f0b4efe3151f0d8e8598e0945e60b4ba7ac2d1a0
kubernetes-node-linux-ppc64le.tar.gz	a78a3a837c0fbf6e092b312472c89ef0f3872c268b0a5e1e344e725a88c0717d
kubernetes-node-linux-s390x.tar.gz	a0a38c5830fc1b7996c5befc24502991fc8a095f82cf81ddd0a301163143a2c5
kubernetes-node-windows-amd64.tar.gz	8af4253fe2c582843de329d12d84dbdc5f9f823f68ee08a42809864efc7c368d

Changelog since v1.8.0-alpha.2

Action Required

- Remove deprecated kubectl command aliases `apiversions`, `clusterinfo`, `resize`, `rollingupdate`, `run-container`, `update` ([#49935](#), [@xiangpengzhao](#))
- The following deprecated flags have been removed from `kube-controller-manager`: `replication-controller-lookup-cache-size`, `replicaset-lookup-cache-size`, and `daemonset-lookup-cache-size`. Make sure you no longer attempt to set them. ([#50678](#), [@xiangpengzhao](#))
- Beta annotations `service.beta.kubernetes.io/external-traffic` and `service.beta.kubernetes.io/healthcheck-nodeport` have been removed. Please use fields `service.spec.externalTrafficPolicy` and `service.spec.healthCheckNodePort` instead. ([#50224](#), [@xiangpengzhao](#))
- A cluster using the AWS cloud provider will need to label existing nodes and resources with a `ClusterID` or the kube-controller-manager will not start. To run without a `ClusterID` pass `--allow-untagged-cloud=true` to the kube-controller-manager on startup. ([#49215](#), [@rrati](#))
- RBAC: the `system:node` role is no longer automatically granted to the `system:nodes` group in new clusters. It is recommended that nodes be authorized using the `Node` authorization mode instead. Installations that wish to continue giving all members of the `system:nodes` group the `system:node` role (which grants broad read access, including all secrets and configmaps) must create an installation-specific `ClusterRoleBinding`. ([#49638](#), [@liggitt](#))
- StatefulSet: The deprecated `pod.alpha.kubernetes.io/initialized` annotation for interrupting StatefulSet Pod management is now ignored. If you were setting it to `true` or leaving it unset, no action is required. However, if you were setting it to `false`, be aware that previously-dormant StatefulSets may become active after upgrading. ([#49251](#), [@enisoc](#))
- add some more deprecation warnings to cluster ([#49148](#), [@mikedanese](#))

- The `--insecure-allow-any-token` flag has been removed from kube-apiserver. Users of the flag should use impersonation headers instead for debugging. ([#49045](#), [@ericchiang](#))
- Restored cAdvisor prometheus metrics to the main port -- a regression that existed in v1.7.0-v1.7.2 ([#49079](#), [@smarterclayton](#))
 - cAdvisor metrics can now be scraped from `/metrics/cadvisor` on the kubelet ports.
 - Note that you have to update your scraping jobs to get kubelet-only metrics from `/metrics` and `container_*` metrics from `/metrics/cadvisor`
- Change the default kubeadm bootstrap token TTL from infinite to 24 hours. This is a breaking change. If you require the old behavior, use `kubeadm init --token-ttl 0` / `kubeadm token create --ttl 0`. ([#48783](#), [@mattmoyer](#))

Other notable changes

- Remove duplicate command example from `kubectrl port-forward --help` ([#50229](#), [@tcharding](#))
- Adds a new `kubeadm config` command that lets users tell `kubeadm upgrade` what kubeadm configuration to use and lets users view the current state. ([#50980](#), [@luxas](#))
- Kubectl uses openapi for validation. If OpenAPI is not available on the server, it defaults back to the old Swagger. ([#50546](#), [@apelisse](#))
- `kubectrl show node` role if defined ([#50438](#), [@dixudx](#))
- iSCSI volume plugin: iSCSI initiatorname support ([#48789](#), [@mtanino](#))
- On AttachDetachController node status update, do not retry when node doesn't exist but keep the node entry in cache. ([#50806](#), [@verult](#))
- Prevent unneeded endpoint updates ([#50934](#), [@joelsmith](#))
- Affinity in annotations alpha feature is no longer supported in 1.8. Anyone upgrading from 1.7 with `AffinityInAnnotation` feature enabled must ensure pods (specifically with pod anti-affinity `PreferredDuringSchedulingIgnoredDuringExecution`) with empty `TopologyKey` fields must be removed before upgrading to 1.8. ([#49976](#), [@aveshagarwal](#))
 - kubeadm now supports "ci/latest-1.8" or "ci-cross/latest-1.8" and similar labels. ([#49119](#), [@kad](#))
- kubeadm: Adds dry-run support for kubeadm using the `--dry-run` option ([#50631](#), [@luxas](#))
- Change GCE installs (kube-up.sh) to use GCI/COS for node OS, by default. ([#46512](#), [@thockin](#))
- Use CollisionCount for collision avoidance when creating ControllerRevisions in StatefulSet controller ([#50490](#), [@liyinan926](#))
- AWS: Arbitrarily choose first (lexicographically) subnet in AZ ([#50255](#), [@mattlandis](#))
- Change CollisionCount from int64 to int32 across controllers ([#50575](#), [@dixudx](#))
- fix GPU resource validation that incorrectly allows zero limits ([#50218](#), [@dixudx](#))
- The `kubernetes.io/created-by` annotation is now deprecated and will be removed in v1.9. Use `ControllerRef` instead to determine which controller, if any, owns an object. ([#50536](#), [@crimsonfaith91](#))
- Disable Docker's health check until we officially support it ([#50796](#), [@yguo0905](#))
- Add ControllerRevision to apps/v1beta2 ([#50698](#), [@liyinan926](#))
- StorageClass has a new field to configure reclaim policy of dynamically provisioned PVs. ([#47987](#), [@wongma7](#))
- Rerun init containers when the pod needs to be restarted ([#47599](#), [@yujuhong](#))
- Resources outside the `*kubernetes.io` namespace are integers and cannot be over-committed. ([#48922](#), [@ConnorDoyle](#))
- apps/v1beta2 is enabled by default. DaemonSet, Deployment, ReplicaSet, and StatefulSet have been moved to this group version. ([#50643](#), [@kow3ns](#))
- TLS cert storage for self-hosted clusters is now configurable. You can store them as secrets (alpha) or as usual host mounts. ([#50762](#), [@jamiehannaford](#))
- Remove deprecated command 'kubectl stop' ([#46927](#), [@shiywang](#))

- Add new Prometheus metric that monitors the remaining lifetime of certificates used to authenticate requests to the API server. ([#50387](#), [@jcbsmpsn](#))
- Upgrade advanced audit to version v1beta1 ([#49115](#), [@CaoShuFeng](#))
- Cluster Autoscaler - fixes issues with taints and updates kube-proxy cpu request. ([#50514](#), [@mwielgus](#))
- fluentd-elasticsearch addon: change the fluentd base image to fix crashes on systems with non-standard systemd installation ([#50679](#), [@aknuds1](#))
- advanced audit: shutdown batching audit webhook gracefully ([#50577](#), [@crassirostris](#))
- Add Priority admission controller for monitoring and resolving PriorityClasses. ([#49322](#), [@bsalamat](#))
- apiservers: add synchronous shutdown mechanism on SIGTERM+INT ([#50439](#), [@sttts](#))
- Fix kubernetes-worker charm hook failure when applying labels ([#50633](#), [@Cynerva](#))
- kubeadm: Implementing the controlplane phase ([#50302](#), [@fabriziopandini](#))
- Refactor addons into multiple packages ([#50214](#), [@andrewrynhard](#))
- Kubelet now manages `/etc/hosts` file for both hostNetwork Pods and non-hostNetwork Pods. ([#49140](#), [@rickypai](#))
- After 1.8, admission controller will add 'MemoryPressure' toleration to Guaranteed and Burstable pods. ([#50180](#), [@k82cn](#))
- A new predicates, named 'CheckNodeCondition', was added to replace node condition filter. 'NetworkUnavailable', 'OutOfDisk' and 'NotReady' maybe reported as a reason when failed to schedule pods. ([#50362](#), [@k82cn](#))
- fix apps DeploymentSpec conversion issue ([#49719](#), [@dixudx](#))
- fluentd-gcp addon: Fix a bug in the event-exporter, when repeated events were not sent to Stackdriver. ([#50511](#), [@crassirostris](#))
- not allowing "kubectl edit " when you got an empty list ([#50205](#), [@dixudx](#))
- fixes kubefed's ability to create RBAC roles in version-skewed clusters ([#50537](#), [@liggitt](#))
- API server authentication now caches successful bearer token authentication results for a few seconds. ([#50258](#), [@liggitt](#))
- Added field CollisionCount to StatefulSetStatus in both apps/v1beta1 and apps/v1beta2 ([#49983](#), [@liyinan926](#))
- FC volume plugin: Support WWID for volume identifier ([#48741](#), [@mtanino](#))
- kubeadm: added enhanced TLS validation for token-based discovery in `kubeadm join` using a new `--discovery-token-ca-cert-hash` flag. ([#49520](#), [@mattmoyer](#))
- federation: Support for leader-election among federation controller-manager instances introduced. ([#46090](#), [@shashidharatd](#))
- New get-kube.sh option: KUBERNETES_SKIP_RELEASE_VALIDATION ([#50391](#), [@pipejakob](#))
- Azure: Allow VNet to be in a separate Resource Group. ([#49725](#), [@sylr](#))
- fix bug when azure cloud provider configuration file is not specified ([#49283](#), [@dixudx](#))
- The `rbac.authorization.k8s.io/v1beta1` API has been promoted to `rbac.authorization.k8s.io/v1` with no changes. ([#49642](#), [@liggitt](#))
 - The `rbac.authorization.k8s.io/v1alpha1` version is deprecated and will be removed in a future release.
- Fix an issue where if a CSR is not approved initially by the SAR approver is not retried. ([#49788](#), [@mikedanese](#))
- The `v1.Service.PublishNotReadyAddresses` field is added to notify DNS addons to publish the `notReadyAddresses` of Endpoints. The "service.alpha.kubernetes.io/tolerate-unready-endpoints" annotation has been deprecated and will be removed when clients have sufficient time to consume the field. ([#49061](#), [@kow3ns](#))
- vSphere cloud provider: vSphere cloud provider code refactoring ([#49164](#), [@BaluDontu](#))
- `cluster/gke` has been removed. GKE end-to-end testing should be done using `kubetest --deployment=gke` ([#50338](#), [@zmerlynn](#))

- kubeadm: Upload configuration used at 'kubeadm init' time to ConfigMap for easier upgrades ([#50320](#), [@luxas](#))
- Adds (alpha feature) the ability to dynamically configure Kubelets by enabling the DynamicKubeletConfig feature gate, posting a ConfigMap to the API server, and setting the spec.configSource field on Node objects. See the proposal at <https://github.com/kubernetes/community/blob/master/contributors/design-proposals/node/dynamic-kubelet-configuration.md> for details. ([#46254](#), [@mtaufen](#))
- Remove deprecated ScheduledJobs endpoints, use CronJobs instead. ([#49930](#), [@soltys](#))
- [Federation] Make the hpa scale time window configurable ([#49583](#), [@irfanurrehman](#))
- fuse daemons for GlusterFS and CephFS are now run in their own systemd scope when Kubernetes runs on a system with systemd. ([#49640](#), [@jsafrane](#))
- `kubectl proxy` will now correctly handle the `exec`, `attach`, and `portforward` commands. You must pass `--disable-filter` to the command in order to allow these endpoints. ([#49534](#), [@smarterclayton](#))
- Copy annotations from a StatefulSet's metadata to the ControllerRevisions it owns ([#50263](#), [@liyinan926](#))
- Make rolling update the default update strategy for v1beta2.DaemonSet and v1beta2.StatefulSet ([#50175](#), [@foxish](#))
- Deprecate Deployment .spec.rollbackTo field ([#49340](#), [@janetkuo](#))
- Collect metrics from Heapster in Stackdriver mode. ([#50290](#), [@piosz](#))
- [Federation] HPA controller ([#45993](#), [@irfanurrehman](#))
- Relax restrictions on environment variable names. ([#48986](#), [@timoreimann](#))
- The node condition 'NodeNodePressure' was removed, as kubelet did not report it. ([#50124](#), [@k82cn](#))
- Fix premature return ([#49834](#), [@guoshimin](#))
- StatefulSet uses scale subresource when scaling in accord with ReplicationController, ReplicaSet, and Deployment implementations. ([#49168](#), [@crimsonfaith91](#))
- Feature gates now determine whether a cluster is self-hosted. For more information, see the FeatureGates configuration flag. ([#50241](#), [@jamiehannaford](#))
- Updates Cinder AttachDisk operation to be more reliable by delegating Detaches to volume manager. ([#50042](#), [@jingxu97](#))
- add fieldSelector podIP ([#50091](#), [@dixudx](#))
- Return Audit-Id http response header for trouble shooting ([#49377](#), [@CaoShuFeng](#))
- Status objects for 404 API errors will have the correct APIVersion ([#49868](#), [@shiywang](#))
- Fix incorrect retry logic in scheduler ([#50106](#), [@julia-stripe](#))
- Enforce explicit references to API group client interfaces in clientsets to avoid ambiguity. ([#49370](#), [@sttts](#))
- update dashboard image version ([#49855](#), [@zouyee](#))
- kubeadm: Implementing the kubeconfig phase fully ([#49419](#), [@fabriziopandini](#))
- fixes a bug around using the Global config ElbSecurityGroup where Kuberentes would modify the passed in Security Group. ([#49805](#), [@nbutton23](#))
- Fluentd DaemonSet in the fluentd-elasticsearch addon is configured via ConfigMap and includes journald plugin ([#50082](#), [@crassirostris](#))
 - Elasticsearch StatefulSet in the fluentd-elasticsearch addon uses local storage instead of PVC by default
- Add possibility to use multiple floatingip pools in openstack loadbalancer ([#49697](#), [@zetaab](#))
- The 504 timeout error was returning a JSON error body that indicated it was a 500. The body contents now correctly report a 500 error. ([#49678](#), [@smarterclayton](#))
- add examples for kubectl run --labels ([#49862](#), [@dixudx](#))
- Kubelet will by default fail with swap enabled from now on. The experimental flag "--experimental-fail-swap-on" has been deprecated, please set the new "--fail-swap-on" flag to false if you wish to run with /proc/swaps on. ([#47181](#), [@dims](#))
- Fix bug in scheduler that caused initially unschedulable pods to stuck in Pending state forever. ([#50028](#), [@julia-stripe](#))

- GCE: Bump GLBC version to 0.9.6 ([#50096](#), [@nicksardo](#))
- Remove 0,1,3 from rand.String, to avoid 'bad words' ([#50070](#), [@dixudx](#))
- Fix data race during addition of new CRD ([#50098](#), [@nikhita](#))
- Do not try to run preStopHook when the gracePeriod is 0 ([#49449](#), [@dhilipkumars](#))
- The SubjectAccessReview API in the authorization.k8s.io API group now allows providing the user uid. ([#49677](#), [@dims](#))
- Increase default value of apps/v1beta2 DeploymentSpec.RevisionHistoryLimit to 10 ([#49924](#), [@dixudx](#))
- Upgrade Elasticsearch/Kibana to 5.5.1 in fluentd-elasticsearch addon ([#48722](#), [@aknuds1](#)) * Switch to basing our image of Elasticsearch in fluentd-elasticsearch addon off the official one * Switch to the official image of Kibana in fluentd-elasticsearch addon * Use StatefulSet for Elasticsearch instead of ReplicationController, with persistent volume claims * Require authenticating towards Elasticsearch, as Elasticsearch 5.5 by default requires basic authentication
- Rebase hyperkube image on debian-hyperkube-base, based on debian-base. ([#48365](#), [@ixdy](#))
- change apps/v1beta2 StatefulSet observedGeneration (optional field) from a pointer to an int for consistency ([#49607](#), [@dixudx](#))
- After a kubelet rotates its client cert, it now closes its connections to the API server to force a handshake using the new cert. Previously, the kubelet could keep its existing connection open, even if the cert used for that connection was expired and rejected by the API server. ([#49899](#), [@ericchiang](#))
- Improve our Instance Metadata coverage in Azure. ([#49237](#), [@brendandburns](#))
- Add etcd connectivity endpoint to healthz ([#49412](#), [@bjhaid](#))
- kube-proxy will emit "FailedToStartNodeHealthcheck" event when fails to start healthz server. ([#49267](#), [@MrHohn](#))
- Fixed a bug in the API server watch cache, which could cause a missing watch event immediately after cache initialization. ([#49992](#), [@liggitt](#))
- Enforcement of fsGroup; enable ScaleIO multiple-instance volume mapping; default PVC capacity; alignment of PVC, PV, and volume names for dynamic provisioning ([#48999](#), [@vladimirvivien](#))
- In GCE, add measures to prevent corruption of known_tokens.csv. ([#49897](#), [@mikedanese](#))
- kubeadm: Fix join preflight check false negative ([#49825](#), [@erhudy](#))
- route_controller will emit "FailedToCreateRoute" event when fails to create route. ([#49821](#), [@MrHohn](#))
- Fix incorrect parsing of io_priority in Portworx volume StorageClass and add support for new parameters. ([#49526](#), [@harsh-px](#))
- The API Server now automatically creates RBAC ClusterRoles for CSR approving. ([#49284](#), [@luxas](#))
 - Each deployment method should bind users/groups to the ClusterRoles if they are using this feature.
- Adds AllowPrivilegeEscalation to control whether a process can gain more privileges than its parent process ([#47019](#), [@jessfraz](#))
- `hack/local-up-cluster.sh` now enables the Node authorizer by default. Authorization modes can be overridden with the `AUTHORIZATION_MODE` environment variable, and the `ENABLE_RBAC` environment variable is no longer used. ([#49812](#), [@liggitt](#))
- rename stop.go file to delete.go to avoid confusion ([#49533](#), [@dixudx](#))
- Adding option to set the federation api server port if nodeport is set ([#46283](#), [@ktsakalozos](#))
- The garbage collector now supports custom APIs added via CustomResourceDefinition or aggregated apiservers. Note that the garbage collector controller refreshes periodically, so there is a latency between when the API is added and when the garbage collector starts to manage it. ([#47665](#), [@ironcladlou](#))
- set the juju master charm state to blocked if the services appear to be failing ([#49717](#), [@wwwtyro](#))
- keep-terminated-pod-volumes flag on kubelet is deprecated. ([#47539](#), [@gnufied](#))
- kubect describe podsecuritypolicy describes all fields. ([#45813](#), [@xilabao](#))
- Added flag support to kubectl plugins ([#47267](#), [@fabianofranz](#))
- Adding metrics support to local volume ([#49598](#), [@sbezverk](#))

- Bug fix: Parsing of `--requestheader-group-headers` in requests should be case-insensitive. ([#49219](#), [@jmillikin-stripe](#))
- Fix instance metadata service URL. ([#49081](#), [@brendandburns](#))
- Add a new API object `apps/v1beta2.ReplicaSet` ([#49238](#), [@janetkuo](#))
- fix pdb validation bug on `PodDisruptionBudgetSpec` ([#48706](#), [@dixudx](#))
- Revert deprecation of vCenter port in vSphere Cloud Provider. ([#49689](#), [@divyenpatel](#))
- Rev version of Calico's Typha daemon used in add-on to v0.2.3 to pull in bug-fixes. ([#48469](#), [@fasaxc](#))
- set default adminid for rbd deleter if unset ([#49271](#), [@dixudx](#))
- Adding type `apps/v1beta2.DaemonSet` ([#49071](#), [@foxish](#))
- Fix nil value issue when creating json patch for merge ([#49259](#), [@dixudx](#))
- Adds metrics for checking reflector health. ([#48224](#), [@deads2k](#))
- remove `deads2k` from volume reviewer ([#49566](#), [@deads2k](#))
- Unify genclient tags and add more fine control on verbs generated ([#49192](#), [@mfojtik](#))
- kubeadm: Fixes a small bug where `--config` and `--skip-*` flags couldn't be passed at the same time in validation. ([#49498](#), [@luxas](#))
- Remove deprecated flags: `--low-diskspace-threshold-mb` and `--outofdisk-transition-frequency`, which are replaced by `--eviction-hard` ([#48846](#), [@dashpole](#))
- Fixed OpenAPI Description and Nickname of API objects with subresources ([#49357](#), [@mbohlool](#))
- set RBD default values as constant vars ([#49274](#), [@dixudx](#))
- Fix a bug with binding mount directories and files using flexVolumes ([#49118](#), [@adelton](#))
- PodPreset is not injected if conflict occurs while applying PodPresets to a Pod. ([#47864](#), [@drooto](#))
- `kubectl drain` no longer spins trying to delete pods that do not exist ([#49444](#), [@eParis](#))
- Support specifying of FSType in StorageClass ([#45345](#), [@codablock](#))
- The NodeRestriction admission plugin now allows a node to evict pods bound to itself ([#48707](#), [@danielmfm](#))
- more robust stat handling from ceph df output in the kubernetes-master charm create-rbd-pv action ([#49394](#), [@wwwtyro](#))
- added `cronjobs.batch` to all, so `kubectl` get all returns them. ([#49326](#), [@deads2k](#))
- Update status to show failing services. ([#49296](#), [@ktsakalozos](#))
- Fixes [#49418](#) where kube-controller-manager can panic on volume.CanSupport methods and enter a crash loop. ([#49420](#), [@gnufied](#))
- Add a new API version `apps/v1beta2` ([#48746](#), [@janetkuo](#))
- Websocket requests to aggregated APIs now perform TLS verification using the service DNS name instead of the backend server's IP address, consistent with non-websocket requests. ([#49353](#), [@liggitt](#))
- kubeadm: Don't set a specific `spc_t` SELinux label on the etcd Static Pod as that is more privs than etcd needs and due to that `spc_t` isn't compatible with some OSes. ([#49328](#), [@euank](#))
- GCE Cloud Provider: New created LoadBalancer type Service will have health checks for nodes by default if all nodes have version `>= v1.7.2`. ([#49330](#), [@MrHohn](#))
- `hack/local-up-cluster.sh` now enables RBAC authorization by default ([#49323](#), [@mtanino](#))
- Use port 20256 for node-problem-detector in standalone mode. ([#49316](#), [@ajitak](#))
- Fixed unmounting of vSphere volumes when kubelet runs in a container. ([#49111](#), [@jsafrane](#))
- use informers for quota evaluation of core resources where possible ([#49230](#), [@deads2k](#))
- additional backoff in azure cloudprovider ([#48967](#), [@jackfrancis](#))
- allow impersonate serviceaccount in cli ([#48253](#), [@CaoShuFeng](#))
- Add PriorityClass API object under new "scheduling" API group ([#48377](#), [@bsalamat](#))
- Added golint check for pkg/kubelet. ([#47316](#), [@k82cn](#))
- azure: acr: support MSI with preview ACR with AAD auth ([#48981](#), [@colemickens](#))
- Set default CIDR to /16 for Juju deployments ([#49182](#), [@ktsakalozos](#))
- Fix pod preset to ignore input pod namespace in favor of request namespace ([#49120](#), [@jpeeler](#))
- Previously a deleted bootstrapping token secret would be considered valid until it was reaped. Now it is invalid as soon as the deletionTimestamp is set. ([#49057](#), [@ericchiang](#))

- Set default snap channel on charms to 1.7 stable ([#48874](#), [@ktsakalozos](#))
- prevent unsetting of nonexistent previous port in kubeapi-load-balancer charm ([#49033](#), [@wwwtyro](#))
- kubeadm: Make kube-proxy tolerate the external cloud provider taint so that an external cloud provider can be easily used on top of kubeadm ([#49017](#), [@luxas](#))
- Fix Pods using Portworx volumes getting stuck in ContainerCreating phase. ([#48898](#), [@harsh-px](#))
- hpa: Prevent scaling below MinReplicas if desiredReplicas is zero ([#48997](#), [@johanneswuerbach](#))
- Kubelet CRI: move seccomp from annotations to security context. ([#46332](#), [@feiskyer](#))
- Never prevent deletion of resources as part of namespace lifecycle ([#48733](#), [@liggitt](#))
- The generic RESTClient type (`k8s.io/client-go/rest`) no longer exposes `LabelSelectorParam` or `FieldSelectorParam` methods - use `VersionedParams` with `metav1.ListOptions` instead. The `UintParam` method has been removed. The `timeout` parameter will no longer cause an error when using `Param()` . ([#48991](#), [@smarterclayton](#))
- Support completion for kubectl config delete-cluster ([#48381](#), [@superbrothers](#))
- Could get the patch from kubectl edit command ([#46091](#), [@xilabao](#))
- Added scheduler integration test owners. ([#46930](#), [@k82cn](#))
- `kubectl run` learned how to set a service account name in the generated pod spec with the `--serviceaccount` flag. ([#46318](#), [@liggitt](#))
- Fix share name generation in azure file provisioner. ([#48326](#), [@karataliu](#))
- Fixed a bug where a jsonpath filter would return an error if one of the items being evaluated did not contain all of the nested elements in the filter query. ([#47846](#), [@ncdc](#))
- Uses the port config option in the kubeapi-load-balancer charm. ([#48958](#), [@wwwtyro](#))
- azure: support retrieving access tokens via managed identity extension ([#48854](#), [@colemickens](#))
- Add a runtime warning about the kubeadm default token TTL changes. ([#48838](#), [@mattmoyer](#))
- Azure PD (Managed/Blob) ([#46360](#), [@khenidak](#))
- Redirect all examples README to the kubernetes/examples repo ([#46362](#), [@sebgoa](#))
- Fix a regression that broke the `--config` flag for `kubeadm init` . ([#48915](#), [@mattmoyer](#))
- Fluentd-gcp DaemonSet exposes different set of metrics. ([#48812](#), [@crassirostris](#))
- MountPath should be absolute ([#48815](#), [@dixudx](#))
- Updated comments of func in testapi. ([#48407](#), [@k82cn](#))
- Fix service controller crash loop when Service with GCP LoadBalancer uses static IP ([#48848](#), [@nicksardo](#)) ([#48849](#), [@nicksardo](#))
- Fix pods failing to start when subPath is a dangling symlink from kubelet point of view, which can happen if it is running inside a container ([#48555](#), [@redbaron](#))
- Add initial support for the Azure instance metadata service. ([#48243](#), [@brendandburns](#))
- Added new flag to `kubeadm init` : `--node-name`, that lets you specify the name of the Node object that will be created ([#48594](#), [@GheRivero](#))
- Added pod evictors for new zone. ([#47952](#), [@k82cn](#))
- kube-up and kubemark will default to using cos (GCI) images for nodes. ([#48279](#), [@abgworral](#))
 - The previous default was container-vm (CVM, "debian"), which is deprecated.
 - If you need to explicitly use container-vm for some reason, you should set
 - `KUBE_NODE_OS_DISTRIBUTION=debian`
- kubectl: Fix bug that showed terminated/evicted pods even without `--show-all` . ([#48786](#), [@janetkuo](#))
- Fixed GlusterFS volumes taking too long to time out ([#48709](#), [@jsafrane](#))

v1.8.0-alpha.2

[Documentation](#) & [Examples](#)

Downloads for v1.8.0-alpha.2

filename	sha256 hash
kubernetes.tar.gz	26d8079fa6b2d82682db809827d260bbab8e6d0f45e457260b8c5ce640432426
kubernetes-src.tar.gz	141e5c1bf66b69f3c22870b2ab6159abc3b38c12cc20f41c8193044e16df3205

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	6ca63da27ca0c1efa04d079d90eba7e6f01a6e9581317892538be6a97ee64d95
kubernetes-client-darwin-amd64.tar.gz	0bfbd97f7fb7ce5e1228134d8ca40168553d179bfa44cbd5e925a6543fb3bbf5
kubernetes-client-linux-386.tar.gz	29d395cc61c91c602e32412e51d4eae333942e6b9da235270768d11c040733c3
kubernetes-client-linux-amd64.tar.gz	b1172bbb1d80ba29612d4de08dc4942b40b0f7d580dbb8ed4423c221f78920fe
kubernetes-client-linux-arm64.tar.gz	994621c4a9d0644e3e8a4f12f563588036412bb72f0104b888f7a2605d3a8015
kubernetes-client-linux-arm.tar.gz	1e0dd9e4e9730a8cd54d8eb7036d5d7307bd930a91d0fcb105601b2d03fda15d
kubernetes-client-linux-ppc64le.tar.gz	bdcf58f419b42d83ce8adb350388c962b8934782294f9715b617cdbdf201cc36
kubernetes-client-linux-s390x.tar.gz	5c58217cfff34043fae951222bfd429165c68439f590c8fb8e33e54fe1cab0de
kubernetes-client-windows-386.tar.gz	f78ec125f734433c9fc75a9d35dc7bdfa6d145f1cc071ff2e3a5435beef3368f
kubernetes-client-windows-amd64.tar.gz	78dca9aad140e2868b0a3d1a77b5058e22f24710f9c7956d755b473b575bb9d

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	802bb71cf19147857a50e842a00d50641f78fec5c5791a524639f7af70f9e1d4
kubernetes-server-linux-arm64.tar.gz	b8f15c32320188981d5e75c474d4e826e45f59083eb66304151da112fb3052b1
kubernetes-server-linux-arm.tar.gz	8f800befc32d8402a581c47254db921d54caa31c50513c257b251435756918f1
kubernetes-server-linux-ppc64le.tar.gz	a406bd0aaa92633dbb43216312971164b0230ea01c77679d12b9ffc873956d0d
kubernetes-server-linux-s390x.tar.gz	8e038b4ccdfc89a08204927c8097a51bd9e786a97c2f9d73fca763ebee6c2373

Node Binaries

--	--

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	1a9725cfb55991680fc75cb862d8a74d76f453be9e9f8ad043d62d5911ab50b9
kubernetes-node-linux-arm64.tar.gz	44fbdd86048bea2cb3d2d6ec1b6cb2c4ae19cb32f6df28e15392cd7f028a4350
kubernetes-node-linux-arm.tar.gz	76d9d36aa182fb93aab7a01f22f7a008ad2906a6224b4c009074100676403337
kubernetes-node-linux-ppc64le.tar.gz	07327ce6fe78bbae3d34b185b54ea0204bf875df488f0293ee1271599189160d
kubernetes-node-linux-s390x.tar.gz	e84a8c638834c435f82560b86f1a14ec861a8fc967a7cd7055ab86526ce744d0
kubernetes-node-windows-amd64.tar.gz	f0f69dc70751e3be2d564aa272f7fe67e86e91c7de3034776b98faddef51a73d

Changelog since v1.7.0

Action Required

- The deprecated ThirdPartyResource (TPR) API has been removed. To avoid losing your TPR data, you must [migrate to CustomResourceDefinition](#) before upgrading. ([#48353](#), [@deads2k](#))

Other notable changes

- Removed scheduler dependencies to testapi. ([#48405](#), [@k82cn](#))
- kubeadm: Fix a bug where `kubeadm join` would wait 5 seconds without doing anything. Now `kubeadm join` executes the tasks immediately. ([#48737](#), [@mattmoyer](#))
- Reduce amount of noise in Stackdriver Logging, generated by the event-exporter component in the fluentd-gcp addon. ([#48712](#), [@crassirostris](#))
- To allow the userspace proxy to work correctly on multi-interface hosts when using the non-default-route interface, you may now set the `bindAddress` configuration option to an IP address assigned to a network interface. The proxy will use that IP address for any required NAT operations instead of the IP address of the interface which has the default route. ([#48613](#), [@dcbw](#))
- Move Mesos Cloud Provider out of Kubernetes Repo ([#47232](#), [@gylu513](#))
 - kubeadm now can accept versions like "1.6.4" where previously it strictly required "v1.6.4" ([#48507](#), [@kad](#))
- kubeadm: Implementing the certificates phase fully ([#48196](#), [@fabriziopandini](#))
- Added case on 'terminated-but-not-yet-deleted' for Admit. ([#48322](#), [@k82cn](#))
- `kubect1 run --env` no longer supports CSV parsing. To provide multiple env vars, use the `--env` flag multiple times instead of having env vars separated by commas. E.g. `--env ONE=1 --env TWO=2` instead of `--env ONE=1,TWO=2`. ([#47460](#), [@mengqiy](#))
- Local storage teardown fix ([#48402](#), [@ianchakeres](#))
- support json output for log backend of advanced audit ([#48605](#), [@CaoShuFeng](#))
- Requests with the query parameter `?watch=` are treated by the API server as a request to watch, but authorization and metrics were not correctly identifying those as watch requests, instead grouping them as list calls. ([#48583](#), [@smarterclayton](#))
- As part of the NetworkPolicy "v1" changes, it is also now ([#47123](#), [@danwinship](#))
 - possible to update the spec field of an existing
 - NetworkPolicy. (Previously you had to delete and recreate a
 - NetworkPolicy if you wanted to change it.)
- Fix udp service blackhole problem when number of backends changes from 0 to non-0 ([#48524](#), [@freehan](#))

- kubeadm: Make self-hosting work by using DaemonSets and split it out to a phase that can be invoked via the CLI ([#47435](#), [@luxas](#))
- Added new flag to `kubeadm join :--node-name`, that lets you specify the name of the Node object that's gonna be created ([#48538](#), [@GheRivero](#))
- Fix Audit-ID header key ([#48492](#), [@CaoShuFeng](#))
- Checked container spec when killing container. ([#48194](#), [@k82cn](#))
- Fix kubectl describe for pods with controllerRef ([#45467](#), [@ddysher](#))
- Skip errors when unregistering juju kubernetes-workers ([#48144](#), [@ktsakalozos](#))
- Configures the Juju Charm code to run kube-proxy with conntrack-max-per-core set to 0 when in an lxc as a workaround for issues when mounting `/sys/module/nf_conntrack/parameters/hashsize` ([#48450](#), [@wwwrtyro](#))
- Group and order imported packages. ([#48399](#), [@k82cn](#))
- RBAC role and role-binding reconciliation now ensures namespaces exist when reconciling on startup. ([#48480](#), [@liggitt](#))
- Fix charms leaving services running after remove-unit ([#48446](#), [@Cynerva](#))
- Added helper funcs to scheduler/cache.Resource. ([#46926](#), [@k82cn](#))
- When performing a GET then PUT, the kube-apiserver must write the canonical representation of the object to etcd if the current value does not match. That allows external agents to migrate content in etcd from one API version to another, across different storage types, or across varying encryption levels. This fixes a bug introduced in 1.5 where we unintentionally stopped writing the newest data. ([#48394](#), [@smarterclayton](#))
- Fixed kubernetes charms not restarting services after snap upgrades ([#48440](#), [@Cynerva](#))
- Fix: namespace-create have kubectl in path ([#48439](#), [@ktsakalozos](#))
- add validate for advanced audit policy ([#47784](#), [@CaoShuFeng](#))
- Support NoSchedule taints correctly in DaemonSet controller. ([#48189](#), [@mikedanese](#))
- Adds configuration option for Swift object store container name to OpenStack Heat provider. ([#48281](#), [@hogeledge](#))
- Allow the system:heapster ClusterRole read access to deployments ([#48357](#), [@faraazkhan](#))
- Ensure get_password is accessing a file that exists. ([#48351](#), [@ktsakalozos](#))
- GZip openapi schema if accepted by client ([#48151](#), [@apelisse](#))
- Fixes issue where you could not mount NFS or glusterFS volumes using hostnames on GCI/GKE with COS images. ([#42376](#), [@jingxu97](#))
- Previously a deleted service account token secret would be considered valid until it was reaped. Now it is invalid as soon as the deletionTimestamp is set. ([#48343](#), [@deads2k](#))
- Securing the cluster created by Juju ([#47835](#), [@ktsakalozos](#))
- addon-resizer flapping behavior was removed. ([#46850](#), [@x13n](#))
- Change default `HttpGet` `probe` `User-Agent` to `kube-probe/<version major.minor>` if none specified, overriding the default Go `User-Agent`. ([#47729](#), [@paultyng](#))
- Registries backed by the generic Store's `Update` implementation support delete-on-update, which allows resources to be automatically deleted during an update provided: ([#48065](#), [@ironcladlou](#))
 - * Garbage collection is enabled for the Store
 - * The resource being updated has no finalizers
 - * The resource being updated has a non-nil `DeletionGracePeriodSeconds` equal to 0
 - With this fix, Custom Resource instances now also support delete-on-update behavior under the same circumstances.
- Fixes an edge case where "kubectl apply view-last-applied" would emit garbage if the data contained Go format codes. ([#45611](#), [@atombender](#))
- Bumped Heapster to v1.4.0. ([#48205](#), [@piosz](#))
 - More details about the release <https://github.com/kubernetes/heapster/releases/tag/v1.4.0>
- In GCE and in a "private master" setup, do not set the network-plugin provider to CNI by default if a network policy provider is given. ([#48004](#), [@dnardo](#))

- Add generic NoSchedule toleration to fluentd in gcp config. ([#48182](#), [@gmarek](#))
- kubeadm: Expose only the cluster-info ConfigMap in the kube-public ns ([#48050](#), [@luxas](#))
- Fixes kubelet race condition in container manager. ([#48123](#), [@msau42](#))
- Bump GCE ContainerVM to container-vm-v20170627 ([#48159](#), [@zmerlynn](#))
- Add PriorityClassName and Priority fields to PodSpec. ([#45610](#), [@bsalamat](#))
- Add a failsafe for etcd not returning a connection string ([#48054](#), [@ktsakalozos](#))
- Fix fluentd-gcp configuration to facilitate JSON parsing ([#48139](#), [@crassirostris](#))
- Setting env var ENABLE_BIG_CLUSTER_SUBNETS=true will allow kube-up.sh to start clusters bigger than 4095 Nodes on GCE. ([#47513](#), [@gmarek](#))
- When determining the default external host of the kube apiserver, any configured cloud provider is now consulted ([#47038](#), [@yastij](#))
- Updated comments for functions. ([#47242](#), [@k82cn](#))
- Fix setting juju worker labels during deployment ([#47178](#), [@ktsakalozos](#))
- `kubefed init` correctly checks for RBAC API enablement. ([#48077](#), [@liggitt](#))
- The garbage collector now cascades deletion properly when deleting an object with `propagationPolicy="background"`. This resolves issue [#44046](#), so that when a deployment is deleted with `propagationPolicy="background"`, the garbage collector ensures dependent pods are deleted as well. ([#44058](#), [@caesarxuchao](#))
- Fix restart action on juju kubernetes-master ([#47170](#), [@ktsakalozos](#))
- e2e: bump kubelet's resource usage limit ([#47971](#), [@yujuhong](#))
- Cluster Autoscaler 0.6 ([#48074](#), [@mwielgus](#))
- Checked whether balanced Pods were created. ([#47488](#), [@k82cn](#))
- Update protobuf time serialization for a one second granularity ([#47975](#), [@deads2k](#))
- Bumped Heapster to v1.4.0-beta.0 ([#47961](#), [@piosz](#))
- `kubectrl api-versions` now always fetches information about enabled API groups and versions instead of using the local cache. ([#48016](#), [@liggitt](#))
- Removes alpha feature gate for affinity annotations. ([#47869](#), [@timothysc](#))
- Websocket requests may now authenticate to the API server by passing a bearer token in a websocket subprotocol of the form `base64url.bearer.authorization.k8s.io.<base64url-encoded-bearer-token>` ([#47740](#), [@liggitt](#))
- Update cadvisor to v0.26.1 ([#47940](#), [@Random-Liu](#))
- Bump up npd version to v0.4.1 ([#47892](#), [@ajitak](#))
- Allow StorageClass Ceph RBD to specify image format and image features. ([#45805](#), [@weiwei04](#))
- Removed mesos related labels. ([#46824](#), [@k82cn](#))
- Add RBAC support to fluentd-elasticsearch cluster addon ([#46203](#), [@simt2](#))
- Avoid redundant copying of tars during kube-up for gce if the same file already exists ([#46792](#), [@ianchakeres](#))
- container runtime version has been added to the output of `kubectrl get nodes -o=wide` as `CONTAINER-RUNTIME` ([#46646](#), [@rickypai](#))
- cAdvisor binds only to the interface that kubelet is running on instead of all interfaces. ([#47195](#), [@dims](#))
- The schema of the API that are served by the kube-apiserver, together with a small amount of generated code, are moved to k8s.io/api (<https://github.com/kubernetes/api>). ([#44784](#), [@caesarxuchao](#))

v1.8.0-alpha.1

[Documentation](#) & [Examples](#)

Downloads for v1.8.0-alpha.1

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filename	sha256 hash
kubernetes.tar.gz	47088d4a0b79ce75a90e73b1dd7f864fc17fe5ff5cea553a072c7a277a70a104
kubernetes-src.tar.gz	ec2cb19b55e24c7b9728437fb9e39a442c07b68eaea636b2f6bb340e4b9696dc

Client Binaries

filename	sha256 hash
kubernetes-client-darwin-386.tar.gz	c2fb538ce73f0ed74bd343485cd8873efcfff580e4d948ea4bf2732f1b059e463
kubernetes-client-darwin-amd64.tar.gz	01a1cb673fbb764e47edaea07c1d3fddddd9bbd7b025f9b2498f38c99d5be4b2
kubernetes-client-linux-386.tar.gz	5bebefb12fb39db8be10f9758a92ce385013d07e629741421b09da88bd9fc0f1
kubernetes-client-linux-amd64.tar.gz	b02ae110b3694562b195189c3cb8eca21095153d0cb5552360053304dee425f1
kubernetes-client-linux-arm64.tar.gz	e6220b9e62856ad8345cb845c1365b3f177ee22d6f9718f11a1f373d7a70fd21
kubernetes-client-linux-arm.tar.gz	e35c62a3781841898c91724af136fbb35fd99cf15ca5ec947c1a4bc2f6e4a73d
kubernetes-client-linux-ppc64le.tar.gz	7b02c25a764bd367e9931006def88d3fc03cf9e846cce2e77cfbc95f0e206433
kubernetes-client-linux-s390x.tar.gz	ab6ba1bf43dd28c776a8cc5cae44413c45a7405f2996c277aba5ee3f6f73e305
kubernetes-client-windows-386.tar.gz	eb1516db15807111ef03547b0104dcb89a310481ef8f867a65f3c57f20f56e30
kubernetes-client-windows-amd64.tar.gz	525e599a2846fe166a5f1eb14483edee9d6b866aa096e16896f6544afad31768

Server Binaries

filename	sha256 hash
kubernetes-server-linux-amd64.tar.gz	bb0a37bb1fefa735ec1eb651fec60c22b180c9bca1bd5e0317e1bcdbf4aa0819
kubernetes-server-linux-arm64.tar.gz	68fd804bd1f4d944a25112a67ef8b1cbae55051b110134850715b6f51f93f40c
kubernetes-server-linux-arm.tar.gz	822161bee3e8b3b64bb7cea297264729b3cc6d6a008c86f16b4aef16cde5b0de
kubernetes-server-linux-ppc64le.tar.gz	9354336df2694427e3d6bc9b0b1fe286f3f9a7f6ef8f239bd6319b4af1c02162
kubernetes-server-linux-s390x.tar.gz	d4a87e3713f190a4cc7db1f43a6105c3c95e1eb8de45ae269b9bd1ecd52296ce

Node Binaries

filename	sha256 hash
kubernetes-node-linux-amd64.tar.gz	dc7c5865041008fcfdad050380fb33c23a361f7a1f4fbce78b164e2906a1b7f9

kubernetes-node-linux-arm64.tar.gz	d572cec5ec679e5543e9ee5e2529a51bb8d5ca5f3773e4218c5491a0bd77b7a4
kubernetes-node-linux-arm.tar.gz	4b0fae35ed01ca66fb0f82ea2ea7f804378f592d0c15425dc3934f4b7b6f19a8
kubernetes-node-linux-ppc64le.tar.gz	d5684a2d1a640e7b0fdf82a3faa0edef2b20e50a83ff6baea461699b0d74b583
kubernetes-node-linux-s390x.tar.gz	bb444cc79035044cfb58cbe3d7bccd7998522dcf6d993441cf29fd03c249897c
kubernetes-node-windows-amd64.tar.gz	9b54e823c504601193b5ae2d37cb1d297ae9b5acfa1497b6f530a835071a7b6d

Changelog since v1.7.0-alpha.4

Action Required

- The following alpha API groups were unintentionally enabled by default in previous releases, and will no longer be enabled by default in v1.8: ([#47690](#), [@caesarxuchao](#))
 - `rbac.authorization.k8s.io/v1alpha1`
 - `settings.k8s.io/v1alpha1`
 - If you wish to continue using them in v1.8, please enable them explicitly using the `--runtime-config` flag of the apiserver (for example, `--runtime-config="rbac.authorization.k8s.io/v1alpha1,settings.k8s.io/v1alpha1"`)
- Paths containing backsteps (for example, `"../bar"`) are no longer allowed in `hostPath` volume paths, or in `volumeMount` subpaths ([#47290](#), [@jhorwitz2](#))
- Azure: Change container permissions to private for provisioned volumes. If you have existing Azure volumes that were created by Kubernetes v1.6.0-v1.6.5, you should change the permissions on them manually. ([#47605](#), [@brendandburns](#))
- New and upgraded 1.7 GCE/GKE clusters no longer have an RBAC `ClusterRoleBinding` that grants the `cluster-admin` `ClusterRole` to the `default` service account in the `kube-system` namespace. ([#46750](#), [@cjullen](#))
 - If this permission is still desired, run the following command to explicitly grant it, either before or after upgrading to 1.7:


```
kubectl create clusterrolebinding kube-system-default --serviceaccount=kube-system:default --clusterrole=cluster-admin
```
- kube-apiserver: a new authorization mode (`--authorization-mode=Node`) authorizes nodes to access secrets, configmaps, persistent volume claims and persistent volumes related to their pods. ([#46076](#), [@liggitt](#)) * Nodes must use client credentials that place them in the `system:nodes` group with a username of `system:node:<nodeName>` in order to be authorized by the node authorizer (the credentials obtained by the kubelet via TLS bootstrapping satisfy these requirements) * When used in combination with the `RBAC` authorization mode (`--authorization-mode=Node,RBAC`), the `system:node` role is no longer automatically granted to the `system:nodes` group.
- kube-controller-manager has dropped support for the `--insecure-experimental-approve-all-kubelet-csrs-for-group` flag. Instead, the `csrapproving` controller uses authorization checks to determine whether to approve certificate signing requests: ([#45619](#), [@mikedanese](#)) * requests for a TLS client certificate for any node are approved if the CSR creator has `create` permission on the `certificatesigningrequests` resource and `nodeclient` subresource in the `certificates.k8s.io` API group * requests from a node for a TLS client certificate for itself are

approved if the CSR creator has `create` permission on the `certificatesigningrequests` resource and the `selfnodeclient` subresource in the `certificates.k8s.io` API group * requests from a node for a TLS serving certificate for itself are approved if the CSR creator has `create` permission on the `certificatesigningrequests` resource and the `selfnodeserver` subresource in the `certificates.k8s.io` API group

- Support updating storageclasses in etcd to storage.k8s.io/v1. You must do this prior to upgrading to 1.8. ([#46116](#), [@ncdc](#))
- The namespace API object no longer supports the deletecollection operation. ([#46407](#), [@liggitt](#))
- NetworkPolicy has been moved from `extensions/v1beta1` to the new ([#39164](#), [@danwinship](#)) `networking.k8s.io/v1` API group. The structure remains unchanged from the beta1 API. The `net.beta.kubernetes.io/network-policy` annotation on Namespaces to opt in to isolation has been removed. Instead, isolation is now determined at a per-pod level, with pods being isolated if there is any NetworkPolicy whose spec.podSelector targets them. Pods that are targeted by NetworkPolicies accept traffic that is accepted by any of the NetworkPolicies (and nothing else), and pods that are not targeted by any NetworkPolicy accept all traffic by default. Action Required: When upgrading to Kubernetes 1.7 (and a network plugin that supports the new NetworkPolicy v1 semantics), to ensure full behavioral compatibility with v1beta1:

1. In Namespaces that previously had the "DefaultDeny" annotation, you can create equivalent v1 semantics by creating a NetworkPolicy that matches all pods but does not allow any traffic:

```
kind: NetworkPolicy
apiVersion: networking.k8s.io/v1
metadata:
  name: default-deny
spec:
  podSelector:
```

This will ensure that pods that aren't matched by any other NetworkPolicy will continue to be fully-isolated, as they were before.

2. In Namespaces that previously did not have the "DefaultDeny" annotation, you should delete any existing NetworkPolicy objects. These would have had no effect before, but with v1 semantics they might cause some traffic to be blocked that you didn't intend to be blocked.

Other notable changes

- kubectl logs with label selector supports specifying a container name ([#44282](#), [@derekwaynecarr](#))
- Adds an approval work flow to the certificate approver that will approve certificate signing requests from kubelets that meet all the criteria of kubelet server certificates. ([#46884](#), [@jcbsmpsn](#))
- AWS: Maintain a cache of all instances, to fix problem with > 200 nodes with ELBs ([#47410](#), [@justinsb](#))
- Bump GLBC version to 0.9.5 - fixes [loss of manually modified GCLB health check settings](#) upon upgrade from pre-1.6.4 to either 1.6.4 or 1.6.5. ([#47567](#), [@nicksardo](#))
- Update cluster-proportional-autoscaler, metadata-proxy, and fluentd-gcp addons with fixes for CVE-2016-4448, CVE-2016-8859, CVE-2016-9841, CVE-2016-9843, and CVE-2017-9526. ([#47545](#), [@ixdy](#))
- AWS: Batch DescribeInstance calls with nodeNames to 150 limit, to stay within AWS filter limits. ([#47516](#), [@gnufied](#))
- AWS: Process disk attachments even with duplicate NodeNames ([#47406](#), [@justinsb](#))
- kubefed will now configure NodeInternalIP as the federation API server endpoint when NodeExternalIP is unavailable for federation API servers exposed as NodePort services ([#46960](#), [@lukaszo](#))

- PodSecurityPolicy now recognizes pods that specify `runAsNonRoot: false` in their security context and does not overwrite the specified value ([#47073](#), [@Q-Lee](#))
- Bump GLBC version to 0.9.4 ([#47468](#), [@nicksardo](#))
- Stackdriver Logging deployment exposes metrics on node port 31337 when enabled. ([#47402](#), [@crassirostris](#))
- Update to kube-addon-manager:v6.4-beta.2: kubectl v1.6.4 and refreshed base images ([#47389](#), [@ixdy](#))
- Enable iptables -w in kubeadm selfhosted ([#46372](#), [@cmluciano](#))
- Azure plugin for client auth ([#43987](#), [@cosmincojocar](#))
- Fix dynamic provisioning of PVs with inaccurate AccessModes by refusing to provision when PVCs ask for AccessModes that can't be satisfied by the PVs' underlying volume plugin ([#47274](#), [@wongma7](#))
- AWS: Avoid spurious ELB listener recreation - ignore case when matching protocol ([#47391](#), [@justinsb](#))
- gce kube-up: The `Node` authorization mode and `NodeRestriction` admission controller are now enabled ([#46796](#), [@mikedanese](#))
- update gophercloud/gophercloud dependency for reauthentication fixes ([#45545](#), [@stuart-warren](#))
- fix sync loop health check with separating runtime errors ([#47124](#), [@andyxning](#))
- servicecontroller: Fix node selection logic on initial LB creation ([#45773](#), [@justinsb](#))
- Fix iSCSI iSER mounting. ([#47281](#), [@mtanino](#))
- StorageOS Volume Driver ([#42156](#), [@croomes](#))
 - [StorageOS](#) can be used as a storage provider for Kubernetes. With StorageOS, capacity from local or attached storage is pooled across the cluster, providing converged infrastructure for cloud-native applications.
- CRI has been moved to package `pkg/kubelet/apis/cri/v1alpha1/runtime`. ([#47113](#), [@feiskyer](#))
- Make gcp auth provider not to override the Auth header if it's already exists ([#45575](#), [@wanghaoran1988](#))
- Allow pods to opt out of PodPreset mutation via an annotation on the pod. ([#44965](#), [@jpeeler](#))
- Add Traditional Chinese translation for kubectl ([#46559](#), [@warmchang](#))
- Remove Initializers from admission-control in kubernetes-master charm for pre-1.7 ([#46987](#), [@Cynerva](#))
- Added state guards to the `idle_status` messaging in the kubernetes-master charm to make deployment faster on initial deployment. ([#47183](#), [@chuckbutler](#))
- Bump up Node Problem Detector version to v0.4.0, which added support of parsing log from `/dev/kmsg` and `ABRT`. ([#46743](#), [@Random-Liu](#))
- kubeadm: Enable the Node Authorizer/Admission plugin in v1.7 ([#46879](#), [@luxas](#))
- Deprecated Binding objects in 1.7. ([#47041](#), [@k82cn](#))
- Add secretbox and AES-CBC encryption modes to at rest encryption. AES-CBC is considered superior to AES-GCM because it is resistant to nonce-reuse attacks, and secretbox uses Poly1305 and XSalsa20. ([#46916](#), [@smarterclayton](#))
- The HorizontalPodAutoscaler controller will now only send updates when it has new status information, reducing the number of writes caused by the controller. ([#47078](#), [@DirectXMan12](#))
- gpusInUse info error when kubelet restarts ([#46087](#), [@tianshapiq](#))
- kubeadm: Modifications to cluster-internal resources installed by kubeadm will be overwritten when upgrading from v1.6 to v1.7. ([#47081](#), [@luxas](#))
- Added exponential backoff to Azure cloudprovider ([#46660](#), [@jackfrancis](#))
- fixed HostAlias in PodSpec to allow `foo.bar` hostnames instead of just `foo` DNS labels. ([#46809](#), [@rickypai](#))
- Implements rolling update for StatefulSets. Updates can be performed using the RollingUpdate, Partitioned, or OnDelete strategies. OnDelete implements the manual behavior from 1.6. status now tracks ([#46669](#), [@kow3ns](#))
 - `replicas`, `readyReplicas`, `currentReplicas`, and `updatedReplicas`. The semantics of replicas is now consistent with `DaemonSet` and `ReplicaSet`, and `readyReplicas` has the semantics that replicas did prior to this release.

- Add Japanese translation for kubectl ([#46756](#), [@girikuncoro](#))
- federation: Add admission controller for policy-based placement ([#44786](#), [@tsandall](#))
- Get command uses OpenAPI schema to enhance display for a resource if run with flag 'use-openapi-print-columns'. ([#46235](#), [@droot](#))
 - An example command:
 - `kubectl get pods --use-openapi-print-columns`
- add gzip compression to GET and LIST requests ([#45666](#), [@ilackarms](#))
- Fix the bug where container cannot run as root when SecurityContext.RunAsNonRoot is false. ([#47009](#), [@yujuhong](#))
- Fixes a bug with cAdvisorPort in the KubeletConfiguration that prevented setting it to 0, which is in fact a valid option, as noted in issue [#11710](#). ([#46876](#), [@mtaufen](#))
- Stackdriver cluster logging now deploys a new component to export Kubernetes events. ([#46700](#), [@crassirostris](#))
- Alpha feature: allows users to set storage limit to isolate EmptyDir volumes. It enforces the limit by evicting pods that exceed their storage limits ([#45686](#), [@jingxu97](#))
- Adds the `Categories []string` field to API resources, which represents the list of group aliases (e.g. "all") that every resource belongs to. ([#43338](#), [@fabianofranz](#))
- Promote kubelet tls bootstrap to beta. Add a non-experimental flag to use it and deprecate the old flag. ([#46799](#), [@mikedanese](#))
- Fix disk partition discovery for brtfs ([#46816](#), [@dashpole](#))
 - Add ZFS support
 - Add overlay2 storage driver support
- Support creation of GCP Internal Load Balancers from Service objects ([#46663](#), [@nicksardo](#))
- Introduces status conditions to the HorizontalPodAutoscaler in autoscaling/v2alpha1, indicating the current status of a given HorizontalPodAutoscaler, and why it is or is not scaling. ([#46550](#), [@DirectXMan12](#))
- Support OpenAPI spec aggregation for kube-aggregator ([#46734](#), [@mbohlool](#))
- Implement kubectl rollout undo and history for DaemonSet ([#46144](#), [@janetkuo](#))
- Respect PDBs during node upgrades and add test coverage to the ServiceTest upgrade test. ([#45748](#), [@mml](#))
- Disk Pressure triggers the deletion of terminated containers on the node. ([#45896](#), [@dashpole](#))
- Add the `alpha.image-policy.k8s.io/failed-open=true` annotation when the image policy webhook encounters an error and fails open. ([#46264](#), [@Q-Lee](#))
- Enable kubelet csr bootstrap in GCE/GKE ([#40760](#), [@mikedanese](#))
- Implement Daemonset history ([#45924](#), [@janetkuo](#))
- When switching from the `service.beta.kubernetes.io/external-traffic` annotation to the new ([#46716](#), [@thockin](#))
 - `externalTrafficPolicy` field, the values change as follows: * "OnlyLocal" becomes "Local" * "Global" becomes "Cluster".
- Fix kubelet reset liveness probe failure count across pod restart boundaries ([#46371](#), [@sjenning](#))
- The gce metadata server can be hidden behind a proxy, hiding the kubelet's token. ([#45565](#), [@Q-Lee](#))
- AWS: Allow configuration of a single security group for ELBs ([#45500](#), [@nbutton23](#))
- Allow remote admission controllers to be dynamically added and removed by administrators. External admission controllers make an HTTP POST containing details of the requested action which the service can approve or reject. ([#46388](#), [@lavalamp](#))
- iscsi storage plugin: Fix dangling session when using multiple target portal addresses. ([#46239](#), [@mtanino](#))
- Duplicate recurring Events now include the latest event's Message string ([#46034](#), [@kensimon](#))
- With `--feature-gates=RotateKubeletClientCertificate=true` set, the kubelet will ([#41912](#), [@jcbsmpsn](#))
 - request a client certificate from the API server during the boot cycle and pause
 - waiting for the request to be satisfied. It will continually refresh the certificate

- as the certificates expiration approaches.
- The Kubernetes API supports retrieving tabular output for API resources via a new mime-type `application/json;as=Table;v=v1alpha1;g=meta.k8s.io`. The returned object (if the server supports it) will be of type `meta.k8s.io/v1alpha1` with `Table`, and contain column and row information related to the resource. Each row will contain information about the resource - by default it will be the object metadata, but callers can add the `?includeObject=Object` query parameter and receive the full object. In the future `kubectl` will use this to retrieve the results of `kubectl get`. ([#40848](#), [@smarterclayton](#))
- This change add `nonResourceURL` to `kubectl auth can` ([#46432](#), [@CaoShuFeng](#))
- Webhook added to the API server which omits structured audit log events. ([#45919](#), [@ericchiang](#))
- By default, `--low-diskspace-threshold-mb` is not set, and `--eviction-hard` includes `"nodefs.available<10%,nodefs.inodesFree<5%"` ([#46448](#), [@dashpole](#))
- `kubectl edit` and `kubectl apply` will keep the ordering of elements in merged lists ([#45980](#), [@mengqiy](#))
- [Federation][kubefed]: Use `StorageClassName` for etcd pvc ([#46323](#), [@marun](#))
- Restrict active deadline seconds max allowed value to be maximum `uint32` ([#46640](#), [@derekwayneccarr](#))
- Implement `kubectl get controllerrevisions` ([#46655](#), [@janetkuo](#))
- Local storage plugin ([#44897](#), [@msau42](#))
- With `--feature-gates=RotateKubeletServerCertificate=true` set, the kubelet will ([#45059](#), [@jcbsmpsn](#))
 - request a server certificate from the API server during the boot cycle and pause
 - waiting for the request to be satisfied. It will continually refresh the certificate as
 - the certificates expiration approaches.
- Allow PSP's to specify a whitelist of allowed paths for host volume based on path prefixes ([#43946](#), [@jhorwit2](#))
- Add `kubectl config rename-context` ([#46114](#), [@arthur0](#))
- Fix AWS EBS volumes not getting detached from node if routine to verify volumes are attached runs while the node is down ([#46463](#), [@wongma7](#))
- Move `hardPodAffinitySymmetricWeight` to scheduler policy config ([#44159](#), [@wanghaoran1988](#))
- AWS: support node port health check ([#43585](#), [@foolusion](#))
- Add generic Toleration for NoExecute Taints to NodeProblemDetector ([#45883](#), [@gmarek](#))
- support `replaceKeys` patch strategy and directive for strategic merge patch ([#44597](#), [@mengqiy](#))
- Augment CRI to support retrieving container stats from the runtime. ([#45614](#), [@yujuhong](#))
- Prevent kubelet from setting `allocatable < 0` for a resource upon initial creation. ([#46516](#), [@derekwayneccarr](#))
- add `--non-resource-url` to `kubectl create clusterrole` ([#45809](#), [@CaoShuFeng](#))
- Add `kubectl apply edit-last-applied` subcommand ([#42256](#), [@shiywang](#))
- Adding admissionregistration API group which enables dynamic registration of initializers and external admission webhooks. It is an alpha feature. ([#46294](#), [@caesarxuchao](#))
- Fix log spam due to unnecessary status update when node is deleted. ([#45923](#), [@verult](#))
- GCE installs will now avoid IP masquerade for all RFC-1918 IP blocks, rather than just 10.0.0.0/8. This means that clusters can ([#46473](#), [@thockin](#))
 - be created in 192.168.0.0/16 and 172.16.0.0/12 while preserving the container IPs (which would be lost before).
- `set selector` and `set subject` no longer print "running in local/dry-run mode..." at the top, so their output can be piped as valid yaml or json ([#46507](#), [@bboreham](#))
- `ControllerRevision` type added for `StatefulSet` and `DaemonSet` history. ([#45867](#), [@kow3ns](#))
- Bump Go version to 1.8.3 ([#46429](#), [@wojtek-t](#))
- Upgrade Elasticsearch Addon to v5.4.0 ([#45589](#), [@it-svit](#))
- `PodDisruptionBudget` now uses `ControllerRef` to decide which controller owns a given Pod, so it doesn't get confused by controllers with overlapping selectors. ([#45003](#), [@krmayankk](#))

- aws: Support for ELB tagging by users ([#45932](#), [@lpabon](#))
- Portworx volume driver no longer has to run on the master. ([#45518](#), [@harsh-px](#))
- kube-proxy: ratelimit runs of iptables by sync-period flags ([#46266](#), [@thockin](#))
- Deployments are updated to use (1) a more stable hashing algorithm (fnv) than the previous one (adler) and (2) a hashing collision avoidance mechanism that will ensure new rollouts will not block on hashing collisions anymore. ([#44774](#), [@kargakis](#))
- The Prometheus metrics for the kube-apiserver for tracking incoming API requests and latencies now return the `subresource` label for correctly attributing the type of API call. ([#46354](#), [@smarterclayton](#))
- Add Simplified Chinese translation for kubectl ([#45573](#), [@shiywang](#))
- The `--namespace` flag is now honored for in-cluster clients that have an empty configuration. ([#46299](#), [@ncdc](#))
- Fix init container status reporting when active deadline is exceeded. ([#46305](#), [@sjenning](#))
- Improves performance of Cinder volume attach/detach operations ([#41785](#), [@jamiehannaford](#))
- GCE and AWS dynamic provisioners extension: admins can configure zone(s) in which a persistent volume shall be created. ([#38505](#), [@pospispa](#))
- Break the 'certificatesigningrequests' controller into a 'csrapprover' controller and 'csrsigner' controller. ([#45514](#), [@mikedanese](#))
- Modifies kubefed to create and the federation controller manager to use credentials associated with a service account rather than the user's credentials. ([#42042](#), [@perotinus](#))
- Adds a MaxUnavailable field to PodDisruptionBudget ([#45587](#), [@foxish](#))
- The behavior of some watch calls to the server when filtering on fields was incorrect. If watching objects with a filter, when an update was made that no longer matched the filter a DELETE event was correctly sent. However, the object that was returned by that delete was not the (correct) version before the update, but instead, the newer version. That meant the new object was not matched by the filter. This was a regression from behavior between cached watches on the server side and uncached watches, and thus broke downstream API clients. ([#46223](#), [@smarterclayton](#))
- vSphere cloud provider: vSphere Storage policy Support for dynamic volume provisioning ([#46176](#), [@BaluDontu](#))
- Add support for emitting metrics from openstack cloudprovider about storage operations. ([#46008](#), [@NickrenREN](#))
- 'kubefed init' now supports overriding the default etcd image name with the `--etcd-image` parameter. ([#46247](#), [@marun](#))
- remove the elasticsearch template ([#45952](#), [@harryge00](#))
- Adds the `CustomResourceDefinition` (crd) types to the `kube-apiserver`. These are the successors to `ThirdPartyResource`. See <https://github.com/kubernetes/community/blob/master/contributors/design-proposals/api-machinery/thirdpartyresources.md> for more details. ([#46055](#), [@deads2k](#))
- StatefulSets now include an alpha scaling feature accessible by setting the `spec.podManagementPolicy` field to `Parallel`. The controller will not wait for pods to be ready before adding the other pods, and will replace deleted pods as needed. Since parallel scaling creates pods out of order, you cannot depend on predictable membership changes within your set. ([#44899](#), [@smarterclayton](#))
- fix kubelet event recording for selected events. ([#46246](#), [@derekwaynecarr](#))
- Moved qos to api.helpers. ([#44906](#), [@k82cn](#))
- Kubelet PLEG updates the relist timestamp only after successfully relisting. ([#45496](#), [@andyxning](#))
- OpenAPI spec is now available in protobuf binary and gzip format (with ETag support) ([#45836](#), [@mbohlool](#))
- Added support to a hierarchy of kubectl plugins (a tree of plugins as children of other plugins). ([#45981](#), [@fabianofranz](#))
 - Added exported env vars to kubectl plugins so that plugin developers have access to global flags, namespace, the plugin descriptor and the full path to the caller binary.

- Ignored mirror pods in PodPreset admission plugin. ([#45958](#), [@k82cn](#))
- Don't try to attach volume to new node if it is already attached to another node and the volume does not support multi-attach. ([#45346](#), [@codablock](#))
- The Calico version included in kube-up for GCE has been updated to v2.2. ([#38169](#), [@caseydavenport](#))
- Kubelet: Fix image garbage collector attempting to remove in-use images. ([#46121](#), [@Random-Liu](#))
- Add ip-masq-agent addon to the addons folder which is used in GCE if --non-masquerade-cidr is set to 0/0 ([#46038](#), [@dnardo](#))
- Fix serialization of EnforceNodeAllocatable ([#44606](#), [@ivan4th](#))
- Add --write-config-to flag to kube-proxy to allow users to write the default configuration settings to a file. ([#45908](#), [@ncdc](#))
- The `NodeRestriction` admission plugin limits the `Node` and `Pod` objects a kubelet can modify. In order to be limited by this admission plugin, kubelets must use credentials in the `system:nodes` group, with a username in the form `system:node:<nodeName>`. Such kubelets will only be allowed to modify their own `Node` API object, and only modify `Pod` API objects that are bound to their node. ([#45929](#), [@liggitt](#))
- vSphere cloud provider: Report same Node IP as both internal and external. ([#45201](#), [@abrarshivani](#))
- The options passed to a flexvolume plugin's mount command now contains the pod name (`kubernetes.io/pod.name`), namespace (`kubernetes.io/pod.namespace`), uid (`kubernetes.io/pod.uid`), and service account name (`kubernetes.io/serviceAccount.name`). ([#39488](#), [@liggitt](#))

Please see the [Releases Page](#) for older releases.

Release notes of older releases can be found in:

- [CHANGELOG-1.2.md](#)
- [CHANGELOG-1.3.md](#)
- [CHANGELOG-1.4.md](#)
- [CHANGELOG-1.5.md](#)
- [CHANGELOG-1.6.md](#)
- [CHANGELOG-1.7.md](#)