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# v1.17.17

## Downloads for v1.17.17

### Source Code

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	b150df23f93cd08bb7e77bc08723af1344793efebf61926d24fdfe06df1d4d7a658990fba204578
<a href="#">kubernetes-src.tar.gz</a>	cd3edc84cb7a70879719992913d9c7ceb08f55a961ef4fbbc78bd9d66dc9c99650dfffb9f333969c

### Client binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	b4837885c3bdceb8acb47eae8b941d238577d2f861e86db571c52ead879924744db18942ba8d1d3
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	3d2589761b7172896ba60fedd413b7e59e2b16262eac21e743c23acd9d2b73e42186cdb8f7b6435
<a href="#">kubernetes-client-linux-386.tar.gz</a>	601d7eb0f8372fbbe621830fd79c7b021d0937d6404225c0a76c340a1f1c170a19e6f4a606a1bfc79f
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	b86ec78a4a43cf68e1ccea29c029849c97eee2534a5e42cb7a67709e1496725774fb58936da8d50a5
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	2f5011bb5efcc9304ba50cfe871d48c62a82aec1ccdf78c28ccf1e27a329f4f5bf3e785ca0ae03c3ef0b
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	f766f9ffd8b802b7ac8bb1e6895a72684627b70d004da38bca6537ae3f42932092e0578df61ea4808
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	f84ff94219a07e8c23476289c0e9013aa1f00d1e06b18ed49df36f53beca1ef924fb079dddeebb0699
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	b1b4b381dfddbe97492c7e1d33e805a244715d0f6a1f15b1351a2940bbad26e44135f534e851446e
<a href="#">kubernetes-client-windows-386.tar.gz</a>	9f19d9dbd2a724605616d41ec1826474bc9f3ce09fcaa52f6c7c08219d0d7b8daf027156f2ed0f64dc



<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	c43e07f283344be3f85062812b54a23ce90cab7282918b47793aeda8ca916bc5dbb74542eabb6d6
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## Server binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	5ff3ab1b1028b9578bc30b839b7ea7a3c59d96b6e45c848439c68e689f3f6e85060bda2b40e1a80cc
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	c59577f5431e9cab208868a5b7d74fe502caeb9a521262b4b03533056fc19710f2972e921329e106e
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	045affc2009845803861404450e6ed5938b62e12cdcab22a56a32d67a753bc0cd5f9b1f520e3bf995
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	5bf56b99d603fe0792398fc8afd0f8242eff9737b64d4cfef734b46ec34d81fd88b7c1979fdc7da96ca
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	01256c9f4ebb33047f338554705b3ec374164c7d78a6d45204e125cd57f8d8cb6688182132590904

## Node binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	40518e641695635e05845fca17faef6b21adfc21484c29b8c30f3478adf6fd6d1f7014ac82526109e0f
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	616da7994270a1cefc5b2f96b41324fcf1b91b0fade3b1bcb16d0b7432366c1b5ff5edf82707885ddf
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	3b653098d7707f3ab72b837f2347f19efc3e0178ef6e2b4ea80250a6c70a569556f8e08972284a4ce5
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	f3b25463e589c39b22d72a292177a661929e81ec24d436392428667c1c02705d0d71423c74eb37fc
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	170b52295d28f14299f62ecba0796ce9bc5d3719311a1b737067560b4a626b0ad5e6813c41024ad!
<a href="#">kubernetes-</a>	879d212e567bf8319905518e162e40b82c40d1f30aa7d94b162a3c41371f277d1c66d37f505a8921f

[node-  
windows-  
amd64.tar.gz](#)

## Changelog since v1.17.16

### Changes by Kind

#### Bug or Regression

- Fix counting error in service/nodeport/loadbalancer quota check ([#97830](#), [@pacoxu](#)) [SIG API Machinery and Network]
- GCE Internal LoadBalancer sync loop will now release the ILB IP address upon sync failure. An error in ILB forwarding rule creation will no longer leak IP addresses. ([#97740](#), [@prameshj](#)) [SIG Cloud Provider and Network]

### Dependencies

#### Added

*Nothing has changed.*

#### Changed

*Nothing has changed.*

#### Removed

*Nothing has changed.*

## v1.17.16

### Downloads for v1.17.16

#### Source Code

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	743568fe43b6ab40448f77b35fb538dae8d48e2b4cedbe5b68d07f32a0f0769416688e3b8de06
<a href="#">kubernetes- src.tar.gz</a>	776935fe4cec3f9889826c3b1d22a38640acae2f06bbf6ff4601456a7e40314fd6744abf5b2fb602

#### Client binaries

filename	sha512 hash
<a href="#">kubernetes- client-darwin- 386.tar.gz</a>	a33c64d3f3db1f0e14ffe860039fb66d61c2b5d56b24dbae3fc61cc755b44b2640de4cc1b040cafa33
<a href="#">kubernetes- client-darwin-</a>	395825cc972d020a24f50ad6165dc38e242813fa619225923a060b422c7feaf772e1f89ffb70fdb281

<a href="#">amd64.tar.gz</a>	
<a href="#">kubernetes-client-linux-386.tar.gz</a>	1601d28e598fd0bf9d195ae8c4aff9966fb74de0a9d28cc5fa1b9a53444740cd19ac77ad6ad6be97e
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	5b4fee0702ea7952f5eadf0af46ec0b2bc14fbb3d8777fb745e8c9a3296438d36d994c5753bfc33f88
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	9b007a53fb85997d89b4b75d3d792ec87104f68263939e98adfdbf6dab5827d61b653f50e514263t
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	b7e80c04870f56f7b2f68c80c35c4d9ab4e1ab7f8a2eb17259e13c46e7b5c4d0e024bf4decdec1957e
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	94a8b796aac2c8eea9ddb15dbbb40d326a42b2ba5f0d6ef5d78fed6152820f98cca2c8438359c559!
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	a01f3452d64d104da30c8d684d958baafc4270fafd781501b150e38cfc6d728f43815bf450b7b939d
<a href="#">kubernetes-client-windows-386.tar.gz</a>	a69a3513302725eb76667093226812c12c509dd83e6625973023999ef31d3f2f8887b2ec17895dca
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	bdb204baa82d010a97861a235310863b236fff41fe232b9b873067aeb46ca644e2f40a9da80ba65`

## Server binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	de68a725982c3c30a146e6cb73338573ac73a1d92ad6b33f63ffb7d59e8410c452f3105875b841f19
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	0d37019164c1f9234796f99eefa3cf6172904d01a835f6cf47599f4e20798b5ac570991d38ae19f0bf7
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	fe7aebc8a8a964433ce9afa2a9dcfb0e72f67c2def01c7a520896ea231743963e8f924348a76b3022c
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	2f0fdec28757a39345513749351f2afb07790065441ece017277bb62d0ddf5fa7e48fb5b162752de0

<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	a25880fb74af9f5c7599c1ab762193161460a5c68343d421b691e83b4d7d057e4e37b83a88d7819a
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## Node binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	398f5d2c17701bc2d27f914682cb0d870b9c2fbab44096c210999d105bc9cca401abe73d2c7ce796;
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	2a85976e58af70c979468518189e3a3d2c46618131f4d6b88c025fb0e15cfb8ba35e430fdc80eff8e3
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	0b17707ccc87cf2f67d0e60eb30813ca787beafc1017bda948a00a9a0a01046bf7ed8cfa3b0e3dc48f
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	a9b1191239fb9966818226756f4d3bb4ced60d1ddeacc90671600eb34c265c5391fc0f612de11c2c8
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	f1c36089dc75cd439f479d6ca917e387b1268a77b46ce640876fee738e41cc4c67b444154c699b7d1
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	ddea86980ce0bdf2cfc1732008983ab786ce6f1a03f8891f16be6b4794d2c330159ad0d0ec9b601f9f

## Changelog since v1.17.15

### Changes by Kind

#### Feature

- Add a new flag to set priority for the kubelet on Windows nodes so that workloads cannot overwhelm the node there by disrupting kubelet process. ([#96159](#), [@ravisantoshgudimetla](#)) [SIG Node]

#### Bug or Regression

- Cordoned nodes are now deregistered from AWS target groups. ([#85920](#), [@hoelzro](#)) [SIG Cloud Provider]

#### Other (Cleanup or Flake)

- Client-go header logging (at verbosity levels  $\geq 9$ ) now masks `Authorization` header contents ([#95316](#), [@sfowl](#)) [SIG API Machinery]

### Dependencies

#### Added

Nothing has changed.

Changed

Nothing has changed.

Removed

Nothing has changed.

v1.17.15

Downloads for v1.17.15

Source Code

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	37dc896be35ba6a8ae3f4f19e4836469183b64ab8e3a9199af82d8b5e48a50277b5efeff335db3
<a href="#">kubernetes-src.tar.gz</a>	b15ebc58b6ff7b1ab6b116c5beb50e7312746691c9b26f0adbadd3456508688e957d89fded8c8

Client binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	dd41ce65424a135fe0baca76b501e8e52cf254951f1a70f14825d58cb7a9189106f1cac560a32ac0dc
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	c444f4de7b8769811b3d40d5179c946b351bd2288b775304ca7477bee5a4feb8cb820c878960de4
<a href="#">kubernetes-client-linux-386.tar.gz</a>	3ba25a51f2d17fb3a6d6789ba7568adc51287460de11eb6d56b0c70cd030e6db143ed7d01d442f5
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	cff736f0e3fd6fbc7dfb44b85280549d4d80ad65f9697456e7beb2211a33b94c6ea55ba586275f9382
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	e3e50c5365269e97ac75a3b804d210c72dbea9f8bf60d3237c5e800888885d26f3d11d267c853ffe5
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	fd8419e6a1e21ad5f80d6371d21c758358e8693e219cd097dc88a568dc3a437daaa60443b956377f
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	50dc279471aeaa2e03b4009212b15c7b3f2823154c22897ea4e3d355786796ad3764a73a34cf214d

<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	94effe8575792a61cb3d1a5d1ec1700757855ac20e571e84bb751656ce6e3b65b62076041ab6036c
<a href="#">kubernetes-client-windows-386.tar.gz</a>	fb24e897a3f3be3c8aab02855355f1ef014a23497185666e44382613b6901c37660b368d21500fad4
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	17797c61de63f8ce810b681520e8d736e253a0f6c9c2945eb3f949e0fe673af82c3fc3728e2babcd15

### Server binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	a42e03c48d1423b7e5276526b51e1d130561cddd261fc1f919840f12d26fad0526da5a11ad7c9663
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	369adef81e8cc7cfabaf55ed55d0b1d99f5237e7b36d7d731774d7b28a2431433078b24c473569c2
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	014064a18fd354b8441f201ec087f95db53d7f5244e239c3adc9fe2b4a7b3759711baa9360291f3c5
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	73fd5925c5b74112fcc465bba034d8ef135ad7dd4cbab123e46362a0a7441f0f5971588cd4db250ca
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	39255a6a06e5ab58225a408a5d6885953054c966a19a4df77b1e70638932feb927c7421db3f1b1e1

### Node binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	772b8983acb9bab1fd094e4d0841b0043d3fe378db9833f03ff0e43d1e007676878d202b048d13bt
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	de740ab4486dbe5e650a962bb7ded4183f0a084b8369dc452838388cca6b92d82357fe0c20a4a9t
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	890c6b68031e1cd316557b22702f2e02389afd26905731b523a11d9fb7d5c63000b27d2743ba0f07

<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	d8d5f34bc722ade023191d1f2dae5c9aacba1fdf277e7d902ca6a1183fa0acf11d4935af13202aaa96
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	d178a716efab66f179304858d5851f1afd455a8b9ead546a21fd0f73a4a61dbf047fa77ae60f0dd371
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	94c28828bb7c7b498ea5e13d637aff48b9536b9a19ef26368322d675dc1389dea9d49df2167f72e76

## Changelog since v1.17.14

### Changes by Kind

#### Feature

- Add a new flag to set priority for the kubelet on Windows nodes so that workloads cannot overwhelm the node there by disrupting kubelet process. ([#96159](#), [@ravisantoshgudimetla](#)) [SIG Node]

#### Bug or Regression

- Avoid GCE API calls when initializing GCE CloudProvider for Kubelets. Avoid unnecessary GCE API calls when adding IP aliases or reflecting them in Node object in GCE cloud provider. ([#96864](#), [@tosi3k](#)) [SIG Apps, Cloud Provider and Network]
- Azure: check the nil error before invoke err.Error() ([#96623](#), [@nilo19](#)) [SIG Cloud Provider]
- Bump node-problem-detector version to v0.8.5 to fix OOM detection in with Linux kernels 5.1+ ([#96716](#), [@tosi3k](#)) [SIG Cloud Provider, Scalability and Testing]
- Exposes and sets a default timeout for the SubjectAccessReview client for DelegatingAuthorizationOptions ([#96153](#), [@p0lyn0mial](#)) [SIG API Machinery and Cloud Provider]
- Fix memory leak in kube-apiserver when underlying time goes forth and back. ([#96266](#), [@chenyw1990](#)) [SIG API Machinery]
- Fix pull image error from multiple ACRs using azure managed identity ([#96355](#), [@andyzhangx](#)) [SIG Cloud Provider]
- Fix: resize Azure disk issue when it's in attached state ([#96705](#), [@andyzhangx](#)) [SIG Cloud Provider]
- Fixed kubelet creating extra sandbox for pods with RestartPolicyOnFailure after all containers succeeded ([#92614](#), [@tnqn](#)) [SIG Node and Testing]
- New Azure instance types do now have correct max data disk count information. ([#94340](#), [@ialidzhikov](#)) [SIG Cloud Provider and Storage]

#### Other (Cleanup or Flake)

- In GKE alpha clusters it will be possible to use the service annotation `cloud.google.com/network-tier: Standard` ([#88487](#), [@zioproto](#)) [SIG Cloud Provider]

### Dependencies

#### Added

*Nothing has changed.*

Changed

Nothing has changed.

Removed

Nothing has changed.

v1.17.14

Downloads for v1.17.14

Source Code

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	7cc1ab5518f3a7b62b8a2d05aa05b19ecd5855611e5c6b20a16747ac35c36e445a8f221514ebd!
<a href="#">kubernetes-src.tar.gz</a>	73f86a50cc32f11a0d25c06726aad380bf48779f206b464eca95bc91928cc2939703f111f402b2a

Client binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	d2dddbaa1795913d9cc98cd3d392b7fb10ac0a6c6bdeedfbc36571f5f12bb825f08d326f3d9a5fbfcfe
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	76a98f4cd4fecf38c4e0454270b195a7aa4f177fbe489061198dc0188593d3e8d7d9475d64ba3ff8fa
<a href="#">kubernetes-client-linux-386.tar.gz</a>	6c622a48ebd9bbe7cf2b2fd3a6af504c81aa8493458f55a88b054408fc6c0ae168caa7ec831370455e
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	027945e245693c4c0dfd818eb7b4213d21d90b2d0191d9d62c218e150ee1e604ba8b9f329704ef40
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	ec147440201f079b51514dab79c2a57b7da5f7991df950a2d4054a95591e937315e2b35627fd0938
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	31dc0aacf0d682103ba69dfe356ba330e1c9c29412a2c230b389859f00871d173b356c18d550b2bc
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	dbe6ba70c84397aeda624cc7e8a6bb2ce049f4e5a9fd8c14d95aa91a0320b349a1debc19036078c1
<a href="#">kubernetes-</a>	3eb0f0c03c68a20257f288ed04ba53966b772d93fa5ed2042f74694319d4a5fd2bc13d680fed3cde2



<a href="#">client-linux-s390x.tar.gz</a>	
<a href="#">kubernetes-client-windows-386.tar.gz</a>	53186bec70113e7862ed8a4852924bf5b9c41a3826e2671aa77301d331b207563ec28b80073fc1e2
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	e73bb1fd9ebf3f1e4e87cc40a99620ee50f97382c22d369f2910e2f0d6388deb1d79fd80bebeef06fd

## Server binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	c61b98f7a2308662cd00cdd21bb0167641dec4138d93d803bfbd4154cb81fab142e5d2690c6d875
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	581cb209a57466638654f3397e5d978e3406fb68f0f2d4f362b4dcae5b51949684c207d1dab4656a
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	c1c3447f72fb5bb7255116698b6c595902f281fd9998bdc3549f0a5bd73f25c3cd4ea8c5dc2fff78405
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	68bea93ff0b017dea4bcf4535fda6c670e75a16739952efacfaa0139a7beeb94703fe9b424ac2569ff1
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	25dc9d9aea4688a206c4b433050142d11165e4e6cdcd1a92a232c1c8758a5f1e9e4781445a62f894

## Node binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	566ca46ae8679849d359e404c9dd321553182597b76c79cea2b43f7fa48d6d3172bedb0a7b1c6bf9
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	cbcbf2b71336c9317d35df754c3e644a97add7ca764fb436b74ebaf0f6915114c4cb2a595dc776d0a
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	f1d6e7461ff2d0f2a71543496f792833fc701860ff7f6f286c7e964cb2ab126fefc7f8ac81c539911fbb1
<a href="#">kubernetes-</a>	2e9c761f5e2e2ce6d32d48b45e340826488f4d9e704564b5a2aa2eb3bc41718b3b214fd29758a64e

<a href="#">node-linux-ppc64le.tar.gz</a>	
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	f2957dd25ba765d0b31dabdb9c1d76e3dfbf81188384df4613ca653c5db044d71046095dfe5fe3a8;
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	46b7b7d0b19de8db74aeae6367ff730b15896d082898d0b68a11ba8b7ed7dd6cb2ba4c70e0294d

## Changelog since v1.17.13

### Changes by Kind

#### Bug or Regression

- An issues preventing volume expand controller to annotate the PVC with `volume.kubernetes.io/storage-resizer` when the PVC StorageClass is already updated to the out-of-tree provisioner is now fixed. ([#94489](#), [@ialidzhikov](#)) [SIG API Machinery, Apps and Storage]
- Disable watchcache for events.k8.io/Event resource for compatibility with core/Event. ([#96117](#), [@wojtek-t](#)) [SIG Scalability]
- Fix azure disk attach failure for disk size bigger than 4TB ([#95463](#), [@andyzhangx](#)) [SIG Cloud Provider]
- Fix azure disk data loss issue on Windows when unmount disk ([#95456](#), [@andyzhangx](#)) [SIG Cloud Provider and Storage]
- Fix azure file migration panic ([#94853](#), [@andyzhangx](#)) [SIG Cloud Provider]
- Fixed a bug in client-go where new clients with customized `Dial`, `Proxy`, `GetCert` config may get stale HTTP transports. ([#95427](#), [@roycai](#)) [SIG API Machinery]
- Fixes high CPU usage in kubectl drain ([#95260](#), [@amandahla](#)) [SIG CLI]
- Kube-apiserver: multiple comma-separated protocols in a single X-Stream-Protocol-Version header are now recognized, in addition to multiple headers, complying with RFC2616 ([#89857](#), [@tedyu](#)) [SIG API Machinery]
- Kube-proxy now trims extra spaces found in loadBalancerSourceRanges to match Service validation. ([#94107](#), [@robscott](#)) [SIG Network]

### Dependencies

#### Added

*Nothing has changed.*

#### Changed

*Nothing has changed.*

#### Removed

*Nothing has changed.*

## v1.17.13

## Downloads for v1.17.13

### Source Code

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	15d61808196abe3836c101fd758933619bbd81e876e477977bbf8916f0f34930085aed2c9ed87
<a href="#">kubernetes-src.tar.gz</a>	0f51539cbb66fd120a9df948367543179e9244b54da24ba83556e9cb2e35df63b21544a5f72176

### Client binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	5ebbd0c132d8f04afa8e9a50f0702f369063c4edc7e74e8aecc03af75f48bd6a5e33a00a8920b1f71ff
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	dd9c1fa387afef35f61f2e4f631d2e187a715b6f7a40719b099037778bcfc599303f12df5ecd95f722a
<a href="#">kubernetes-client-linux-386.tar.gz</a>	749fb9ffcc7530a0a77036c06070dfe610d9f569fbfb8677ff64cb6ea50cfe9683158a025da926368acc
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	bc67e49b2ea5e703fe5c06ca443d4d99dd10b320941b63e184f478b019ef31a655c4db44d3bf034d
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	3f71a300a8e3c25c90e0723b30f2ec2fb550e92d8e7b177f6e80181f615b8a5ed1262a1913fd96147
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	b8e9df333a3df22e44bab002f0a687fc1ea7929437bb63bec5d579bcab6b8cd7f27c93470cbb7086
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	faf1c0bd1c77fb40856d39cdafb877b83fa8e7c9bf14a095f5008c3eab1c905dc59289f4ff65bddc45b
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	09baebc33fa1a9ab932bbdc8df572103a92b7819f80169f6a8f8b3aee184091d5ca42939d8324c079
<a href="#">kubernetes-client-windows-386.tar.gz</a>	18a3385e967a88ea2ab04ca74d94a51bb5664dd87b26754e94620dd31a82e55a2914660f3bc2972
<a href="#">kubernetes-client-</a>	7014c5829ec6492af9e991e73e92eb203eaef3d52bf4c87f2362d32c46605c05adb69589d92568886

<a href="#">windows-amd64.tar.gz</a>	
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## Server binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	e071c7b5671c0391e5c87a5322402bbfee3c369bd2fd79cd6dfcba683f16b56a878f58597fae76fb63
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	bb4aa695264976ed47ca2c82192522911991ba40b174159805c989a65be4f6bb3edb82b02e1c0d1
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	63caf7bc0b517ee196ae7742f45726542afd312df568d4ba0a28e827cf72753748c74574cd1976323
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	fb1c047dc6984f740eefe9ee1530ac998b49fe09bb52000155de81e013fd7a8dc891d64978ba9572c
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	1d5067ff2319255ac4d65934c320361f1c82d05d89a0b9866c867240e1f97a63ffbd5e46f0ba2430ec

## Node binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	cddad2f5a4d50e71a9af5e305c9c5ee85e9ebf1355f5d4da7641c171f4809c89d4241a57348279ee6
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	0931a4bfd545bd99ea7fb7948cd7455d27fd5c82f75d0553998de40ffadea34271506464aa97d0965
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	13a75da6ea9f8bc37bbabed7b2f1a6f643fdcef9a045d5a23820103b69a41f4515da62bbb022d217f
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	64528984a36a8c2fc1bb99f3b374b507f9ca460b34e65997c52dbf05ed28fc741c774d05ae0f17bae
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	17cae7323eaad30609361a31bf4a08199851729562eb70e610b82948c27c9ab72f6f654933f66484
<a href="#">kubernetes-node-</a>	11f60cd0ad3111aac1e2d9fdccaef1a195143ee5ca94b3011f85b850d89e664b8e6085feed0cb6ce1

[windows-  
amd64.tar.gz](#)

## Changelog since v1.17.12

### Changes by Kind

#### Design

- Prevent logging of docker config contents if file is malformed ([#95348](#), [@sfowl](#)) [SIG Auth and Node]

#### Bug or Regression

- Do not fail sorting empty elements. ([#94666](#), [@solysh](#)) [SIG CLI]
- Fix detach azure disk issue when vm not exist ([#95177](#), [@andyzhangx](#)) [SIG Cloud Provider]
- Fix etcd\_object\_counts metric reported by kube-apiserver ([#94817](#), [@tkashem](#)) [SIG API Machinery]
- Fix kubectl printer to correctly handle timestamps of events emitted using events.k8s.io API ([#90227](#), [@gosoon](#)) [SIG CLI]
- Fix the `cloudprovider_azure_api_request_duration_seconds` metric buckets to correctly capture the latency metrics. Previously, the majority of the calls would fall in the "+Inf" bucket. ([#95376](#), [@marwanad](#)) [SIG Cloud Provider and Instrumentation]
- Fix: detach azure disk broken on Azure Stack ([#94885](#), [@andyzhangx](#)) [SIG Cloud Provider]
- Fixed a bug where improper storage and comparison of endpoints led to excessive API traffic from the endpoints controller ([#94935](#), [@damemi](#)) [SIG Apps, Network and Testing]
- Kubeadm: warn but do not error out on missing "ca.key" files for root CA, front-proxy CA and etcd CA, during "kubeadm join --control-plane" if the user has provided all certificates, keys and kubeconfig files which require signing with the given CA keys. ([#94988](#), [@neolit123](#)) [SIG Cluster Lifecycle]

#### Other (Cleanup or Flake)

- Masks ceph RBD adminSecrets in logs when logLevel >= 4 ([#95245](#), [@sfowl](#)) [SIG Storage]

### Dependencies

#### Added

*Nothing has changed.*

#### Changed

*Nothing has changed.*

#### Removed

*Nothing has changed.*

## v1.17.12

### Downloads for v1.17.12

#### Source Code

filename	sha512 hash
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<a href="#">kubernetes.tar.gz</a>	7f7115d5012393103c318af07375deb1883d63b160d60a590230b989e8dd5a6e9474319aa6a6f
<a href="#">kubernetes-src.tar.gz</a>	d43249e0295663804b941c49a7b3f75c5d81bccbbeaffd746d4a2b40a6905b087adbda88b3b6c

## Client binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	5198ae2ce18d98a2819f0a2ea808a17a76325d7f85ae87663cdcae6819711df431616679722b65b5f
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	5df0546268926906fe0e23228b2d7bad0a13564f491beb3f043981169d1ea6515829938e573c81ce
<a href="#">kubernetes-client-linux-386.tar.gz</a>	77ffaa84102fcbfbfc9017b3e318cdea901dec72f568556ae8c40bf5443c07b13c030af50de0405353d
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	760ce7837e7b70c62850f103847d8ffb33dbe6f1dc73798c28fad0cc47076fa4b718b175744bae957f
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	acdca292e5e8cd8d3e2793c66a7b734f050543bed7bf3e2ab8e1ee9e7809af9c5174e64e28bfa63ca
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	98a57087148e7d790fa9e564d1d69f015b4af789dfbfdaf63b856c5e1d8e036611802a609140ccb6a
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	9a52e61404099d49fd85858fffb3deaedb09b2a565e645060d33cbb3a4159815907ea0136a969190
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	ce38464c003f46ebca7f6d17cb311f8e45d9cd0e96d7f82c894d744a9f4340091e56d7aa14544b00
<a href="#">kubernetes-client-windows-386.tar.gz</a>	2270cf27d7d8910c7bc8275c239800510f2a1cb06990674854406824d862be29f48ec99a3a6ea6cbf
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	8d958e82e23ee359b6e79151544adc2ad4d278815f1179e2d283b2a22f52cd9ddb9166bc4782332

## Server binaries

filename	sha512 hash

<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	6f18545af85ac021c7ab4aeeb5364e70ab32baa2e50fb039c5773832c29c5c386bea3cd9e9fc9e268
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	fdc6f800f1e928b84994ab255e22f80c6fde4bf952891b3d5105579bd745213b85c03da6ee80be994
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	a805b06b3c8a8b976aa495a6882ab0efac02e189fa2d758af1d5170d45d90da3a3750ae06ca4e30b
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	0b4784dc1321f5c87b411bdc5544feb8059974a9405350cecab07eb32a11583e8a639283cca5c79a
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	8e7d170050698de03dd725daae7fe69dd131d776de625dd097674b15d858c39ef04a2b123110f03

## Node binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	e22aa78efd7f4656d267bc13ce33fdcf6b255fade761cee546e2a8fa4c72b93f0fc690d3be8c64a12b
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	74eb348a7a4aefc925878df16620a764afca8ca5995b0db954935e05d4ce35047eb04689ef8f975eb
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	08a8ae978426c252d75d655f6b299915ae3d749341554e1a2056157a03d7eb859d29e0f8c45191d
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	03096106b34d3a3aae41fd3723929da8355af08e4373d6250fd4e341b52a3029b9d81b6bfec3efd9
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	0c9caf9542f0377d0c8f7dfe0b8e970962a21693d8fbef0b1ba2649a6238ba481491128252d350081
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	04e21d6a4daafe1d0dc7ded20a3460597e9207c680e9a2f899cff2f205219b6f7999add8320aa000d

## Changelog since v1.17.11

## Changes by Kind

## Bug or Regression

- Azure: fix a bug that kube-controller-manager would panic if wrong Azure VMSS name is configured ([#94306](#), [@knight42](#)) [SIG Cloud Provider]
- Correctly handle resetting cpuacct in a live container ([#94041](#), [@andyzhangx](#)) [SIG Node and Windows]
- Fix a concurrent map writes error in kubelet ([#93773](#), [@knight42](#)) [SIG Node]
- Fix calling AttachDisk on a previously attached EBS volume ([#93567](#), [@gnufied](#)) [SIG Cloud Provider, Storage and Testing]
- Fix: incorrect max azure disk max count ([#92331](#), [@andyzhangx](#)) [SIG Cloud Provider and Storage]
- Fixes a bug evicting pods after a taint with a limited tolerationSeconds toleration is removed from a node ([#93722](#), [@liggitt](#)) [SIG Apps and Node]
- Fixes an issue that can result in namespaced custom resources being orphaned when their namespace is deleted, if the CRD defining the custom resource is removed concurrently with namespaces being deleted, then recreated. ([#93790](#), [@liggitt](#)) [SIG API Machinery and Apps]
- Kube-apiserver: fixed a bug returning inconsistent results from list requests which set a field or label selector and set a paging limit ([#94002](#), [@wojtekt](#)) [SIG API Machinery]
- The EndpointSlice controller now waits for EndpointSlice and Node caches to be synced before starting. ([#94086](#), [@roboscott](#)) [SIG Apps and Network]
- The audit event sourceIPs list will now always end with the IP that sent the request directly to the API server. ([#87167](#), [@tallclair](#)) [SIG API Machinery and Auth]
- Upon successful authorization check, an impersonated user is added to the system:authenticated group. system:anonymous when impersonated is added to the system:unauthenticated group. ([#94410](#), [@tkashem](#)) [SIG API Machinery and Testing]
- Use NLB Subnet CIDRs instead of VPC CIDRs in Health Check SG Rules ([#93515](#), [@t0rr3sp3dr0](#)) [SIG Cloud Provider]

## Other (Cleanup or Flake)

- Fixes the flooding warning messages about setting volume ownership for configmap/secret volumes ([#92878](#), [@jvanz](#)) [SIG Instrumentation, Node and Storage]
- Update CNI plugins to v0.8.7 ([#94367](#), [@justaugustus](#)) [SIG Cloud Provider, Network, Node, Release and Testing]

## Dependencies

### Added

*Nothing has changed.*

### Changed

- github.com/evanphx/json-patch: [162e562](#) → [v4.9.0+incompatible](#)

### Removed

- github.com/jessevdk/go-flags: [v1.4.0](#)

## v1.17.11

## Downloads for v1.17.11

### Source Code

--	--



filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	c257902ffc2c1f9f72a7693f84ab77c3f044f154e94bf3d48ebfa807fa8089c8caa9e874f842c8050c
<a href="#">kubernetes-src.tar.gz</a>	98fc4ae961ad30a57ded51cb387a393d0c981eb2bb0e9ff6f8ad9b0461372ab50cf2268cad5045

## Client binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	9dd0f75d90659826f648a1fdf8664f1c96760b7a53022e803df403c3da69b7db6039918638f2d02ba
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	c12c1eda25b6d4a2744489e391277eb7a5b8d0ef8b14b220118ef3890fd0ade4f97d99bbfc9cc4362
<a href="#">kubernetes-client-linux-386.tar.gz</a>	17753de2bb354cf211918d6daaa8592aeac04dc431b9b682fd023098ae90da9d63676a704fc7aed3
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	2f98d43173a8b5f670f6d579d954da97b17ba36f2966fcc52e661cca63338f41a9beac69924af58d0f
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	0a15261c5a8264e42d5f1710adac4ce016de895aac1b4221288dcbcbec0bb32aff493f3e762fd2ab7
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	2c127091b645a6f18cf1404aa3e94f0b0c71bb2f8414331768bb1cd5fbe753553cab7c8ccf16fe5dae
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	3a45c717a1452c2a165ff43ae6a75e66066ba8184657afd4c8abe4519ef2fb04e58d93b3b4864b8b3
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	8adcca31fa72212d1b3c49debfd07e0214cd6629b9e0af25458ea710d554035b0de0e52ba8ee98e
<a href="#">kubernetes-client-windows-386.tar.gz</a>	0a03a18ab8f2d0b166f0935e45c295a539118b369406fa1732f8afde6fd5a2c8cd96a85f7b81e3557e
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	5c90075eba8ae031edc0c017c015a1c47f178aead4cf5be53fa347e052fb34be8fcd4cb5f9286f1165e

## Server binaries

--	--

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	38f931bcd9e16b0888fd1891d26eecb04f7ff53eba99f4436effcf2bf32db29ed2cc63c4673d27501d8
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	7ba11b771667298c330b3147cf1c25060d24cd8a195a6400957d038d1437f8d1605f14a22aeb8df
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	63fe2bfc55035bec95526bf18ce124c750cc08808732ca9ea15de53db4f378af37f9afdbc858374758
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	370d2ef12f247321427f48793ebd1c9a889cfd43510e1b8aea7b8b9bb4e56cab9eac075466ddb28d
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	2e62fc0d42433b7abaadcb481769f52894a754179dc9c51270b8723f0e43633624d724c696cbdd01

## Node binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	749f9dbb569cd7120c26bf05903b8a9d9758324b0d013f60bde6575c5c8330d0f6634ff56c59b365f
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	ac9617906896762010ee0f8a13e135f5da87b612f907800936beb498f78d80f71e02947820e30c364
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	299fc1379bcc22a7e59092a7ba9fee1c42ef1dd27586fc85ce303171dac15bba7eea8be02c5d9db99
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	e6942158ebfefb0a3176ae38e9a0806769ddb661e7db53f68a2d43f1aa39a9e70af24e76ff3993ea9t
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	c0138687e0d8c12a11b986f36257d9202c451040d33d55aedc9b3f6ebaea65fa6583a86cafebe0103
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	16783c6f337c7e92a5a32b2b9495f65c3a6b869a36b053d3c86047355f4c83a16d508f1f79e128735

## Changelog since v1.17.10

## Changes by Kind

### Other (Cleanup or Flake)

- Kubernetes is now built with go1.13.15 ([#93955](#), [@justaugustus](#)) [SIG Release and Testing]

## Dependencies

### Added

*Nothing has changed.*

### Changed

*Nothing has changed.*

### Removed

*Nothing has changed.*

## v1.17.10

### Downloads for v1.17.10

Release artifacts for 1.18.7 and 1.17.10 are incomplete. **Do not use these releases.**

## Changelog since v1.17.9

### Changes by Kind

#### Bug or Regression

- Do not add nodes labeled with `kubernetes.azure.com/managed=false` to backend pool of load balancer. ([#93034](#), [@matthias50](#)) [SIG Cloud Provider]
- Fix instance not found issues when an Azure Node is recreated in a short time ([#93316](#), [@feiskyer](#)) [SIG Cloud Provider]
- Fix: don't use docker config cache if it's empty ([#92330](#), [@andyzhangx](#)) [SIG Cloud Provider]
- Fix: initial delay in mounting azure disk & file ([#93052](#), [@andyzhangx](#)) [SIG Cloud Provider and Storage]
- Fixed a performance issue applying json patches to deeply nested objects ([#93812](#), [@liggitt](#)) [SIG API Machinery, CLI, Cloud Provider, Cluster Lifecycle and Instrumentation]
- Fixes a regression in kube-apiserver causing 500 errors from the `/readyz` endpoint ([#93643](#), [@ialidzhikov](#)) [SIG API Machinery]
- Terminating a `restartPolicy=Never` pod no longer has a chance to report the pod succeeded when it actually failed. ([#88440](#), [@smarterclayton](#)) [SIG Node and Testing]

#### Other (Cleanup or Flake)

- Build: Update Debian base images
  - debian-base:v2.1.3
  - debian-iptables:v12.1.2
  - debian-hyperkube-base:v1.1.3 ([#93924](#), [@justaugustus](#)) [SIG API Machinery, Cluster Lifecycle and Release]

- Update Golang to v1.13.14
  - Update bazel to 2.2.0
  - Update repo-infra to 0.0.8 (to support go1.14.6 and go1.13.14)
    - Includes:
      - bazelbuild/[bazel-toolchains@3.4.0](#)
      - bazelbuild/[rules\\_go@v0.22.8](#) ([#93233](#), [@justaugustus](#)) [SIG API Machinery, Release and Testing]

## Dependencies

### Added

- [github.com/jessevdk/go-flags: v1.4.0](#)

### Changed

- [github.com/evanphx/json-patch: v4.2.0+incompatible → 162e562](#)

### Removed

*Nothing has changed.*

## v1.17.9

### Downloads for v1.17.9

#### Source Code

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	c6d71667ec516c150e27f0d81868b90b04f620656c081c85e570f5fa8bb6e1fd70bc305f7e7826a
<a href="#">kubernetes-src.tar.gz</a>	24dc550d00e8ad57b100f19ae33080079c8d274abea1709cf7f45f807e2f9d59bafec6ad0fc3aa

#### Client binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	ba2ac4b1444edb6b40e1537fa77c11796708b2a068791ee39fc54d64d31f9c2503df4316ef00b4645
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	bb15d61ef2623d007bbda18571a864b13735a20a303a6250a1cd57e25d53cd81179c66944071788
<a href="#">kubernetes-client-linux-386.tar.gz</a>	6a121fcacff561b2c3040bd0803d00368743e3c7529597d1b66ea2bcba2f7caeff0ef7fb4bb5f10c83a
<a href="#">kubernetes-client-linux-</a>	57fe9caf9d40e8b3e9e1b58552af1b74bf3cdccb3bd50fb5e51ba95d3e08263dad831724d79f2b99c

<a href="#">amd64.tar.gz</a>	
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	2cbfca1133446dff4d8bbf82976ba14345dfea4c2940d841949bb323c2bd338409280da9789d7f87z
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	68ab42f2844ed6f9fb9e71945f0ef30468542997a0c4bb6f39776d266fd18f26e14182c642c4a82c39
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	baeba57a163248d404f70b83bd2ee2458afec619f5c7ab0da656a96634db4dc841fd86e34a3d849e
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	d4d9c7b152d31b83a49fd4140f88e3014b4571a31b4694fd62ce1e436872cc0227a2192581e7b007
<a href="#">kubernetes-client-windows-386.tar.gz</a>	b3ebeaf6b83da17f7facd6029af64f4e98512e49a63188eaa59d2d8dc54ec4eb9c78e48eb9635f73fc
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	1ea45f8d99cf1bb69e330b81f476d6cc6d1ac4ccfe7aa56dc7a02b269e2bbb52351c0ee6e06115d2t

## Server binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	5b3123e442e64637d086ff154c1338ad7a63ddfe2e738dce11b590bf50f663de2d067ea902aac81ec
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	d8b26e70921113fe94da89ab448aea41b8c7e280abf65be569dc198d2904fc07266ee372d4ca5fe9t
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	23dab56cdd5eb320bb28d4b1fbd452cbd9c18c38fad77796f76e0039d3c390024c543e2a3d2da7a
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	e109727a2bd63edcefa1d25fbe24280db8fd62711edd2ff1d30b748c500d8bb0a7e9f5c10c889a975
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	7a1757ef6f5f2c5b3c3a3fffea0ee5abc42578331da32decce0581b37cc4a331bdaf15cea4561093a1c

## Node binaries

--	--

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	a8baebd0725d69cde59e5ead5fbc9b35911b67539df0d28407f96b8baafc854e7e043af7139c9fc
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	21c5e452391f39203cab2225204b95a7ffd223da31d95998116ed04bd0b60b9c039ef2db57e74734
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	329df0d659ab2b0daecbb5a337ecbca496db5dedb81493850eda3b8abeb24b408ff40e2f1b74d23c
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	913a93cee4b34613ecb0ecc5560e51bef8a8377f7ff6d07561fb2cc37d794c6b80c516bf3961d17ab2
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	0c388b817c9209ff73d13cf50fea545baf0b6bfd4764d045a08451c725671ef27992cac084636da516
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	77b6fb8c19c38d5faad7477e4430586fc99e589a668c61043c1e59da551bbe796dc30f2d391dece8f

## Changelog since v1.17.8

### Urgent Upgrade Notes

(No, really, you **MUST** read this before you upgrade)

- CVE-2020-8559 (Medium): Privilege escalation from compromised node to cluster. See <https://github.com/kubernetes/kubernetes/issues/92914> for more details. The API Server will no longer proxy non-101 responses for upgrade requests. This could break proxied backends (such as an extension API server) that respond to upgrade requests with a non-101 response code. ([#92941](#), [@tallclair](#)) [SIG API Machinery]

### Changes by Kind

#### Bug or Regression

- CVE-2020-8557 (Medium): Node-local denial of service via container /etc/hosts file. See <https://github.com/kubernetes/kubernetes/issues/93032> for more details. ([#92916](#), [@joelsmith](#)) [SIG Node]
- Extend kube-apiserver /readyz with new "informer-sync" check ensuring that internal informers are synced. ([#92644](#), [@wojtekt](#)) [SIG API Machinery and Testing]
- Fix: GetLabelsForVolume panic issue for azure disk PV ([#92166](#), [@andyzhangx](#)) [SIG Cloud Provider]
- Fix: use force detach for azure disk ([#91948](#), [@andyzhangx](#)) [SIG Cloud Provider]
- Fixes a problem with 63-second or 1-second connection delays with some VXLAN-based network plugins which was first widely noticed in 1.16 (though some users saw it earlier than that, possibly only with specific

network plugins). If you were previously using ethtool to disable checksum offload on your primary network interface, you should now be able to stop doing that. ([#92035](#), [@danwinship](#)) [SIG Network and Node]

- Kubeadm: add the deprecated flag `--port=0` to kube-controller-manager and kube-scheduler manifests to disable insecure serving. Without this flag the components by default serve (e.g. `/metrics`) insecurely on the default node interface (controlled by `--address`). Users that wish to override this behavior and enable insecure serving can pass a custom `--port=X` via kubeadm's "extraArgs" mechanic for these components. ([#92720](#), [@neolit123](#)) [SIG Cluster Lifecycle]
- Kubeadm: during "join", don't re-add an etcd member if it already exists in the cluster. ([#92118](#), [@neolit123](#)) [SIG Cluster Lifecycle]
- hyperkube: Use [debian-hyperkube-base@v1.1.1](#) image

Includes iproute2 to fix a regression in hyperkube images when using hyperkube as a kubelet ([#92625](#), [@justaugustus](#)) [SIG Cluster Lifecycle, Network and Release]

## Dependencies

### Added

*Nothing has changed.*

### Changed

*Nothing has changed.*

### Removed

*Nothing has changed.*

## v1.17.8

### Downloads for v1.17.8

#### Source Code

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	8212fb4e823fbae81cd7817a3a7abe5a49503b01163fb6805e40791d0639a1b22ababa14fd1e2c
<a href="#">kubernetes-src.tar.gz</a>	f4838e9950ccc64f9670ce1349f24667825305d7d8d8fc3a9f5f6cc8c51c4edbb00331d528ebcb2

#### Client binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	6fb3bb627a18d44bf3738d8c9d2ef8a4a624835c345447b92cfb4032f9f475d86c004f2dc61289539c
<a href="#">kubernetes-client-darwin-</a>	500e9a056a2e9b8a7744e390bedaf233c3809c789d902969e085826a0b38662e08f98df681b87d9t

<a href="#">amd64.tar.gz</a>	
<a href="#">kubernetes-client-linux-386.tar.gz</a>	64515e5358fd8b462ecde19dbeca108843ac164026ed76002032f07366d121eb5489a4608b62eb1:
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	87da207547a5fa06836afa7f8fc15af4b8950e4a263367a8eb59eccb2a13bb7f98db2bb5731444fcc5
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	7d4151b63589b5271922b1fb350c403c0e4d44465daa6e1931336ce6080f443bc087d4bfaad7f94b
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	39c1651217f51c168329d490d2c4fa9f1a572bcf016c4c13228f8ae805c63a527e69a09228846a302a
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	c4de90aa7bc7125ad8bad6b940cc8af911cd1e9a7533aec28cf32438c04188da16f6d05673ad5a5a7
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	08ec9b6abfb0c0e4874a9ff0d6b43d71ce8bd77f764293c8df755827c811e243d2ba2b589bcd1234
<a href="#">kubernetes-client-windows-386.tar.gz</a>	c2edcce0a450b02432af56775eddbf49e0b031e8a9cb94a0c4320a400d2a1353a4c6d986b57c0115
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	e3c31ebb172d3077cca2d796af020ba5cb90df552a607ef54e80cdd7aa6f50d2b7cd108d80a6f4fda

## Server binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	8872e69c391e36d8ce2d307858108d69cf5d45202f012f8a1a019d3705c3d91a7dd3c08ee0c8f5f02
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	a0d7086fd78dd5d1e8ad91859b25346b531cde97a9f8916c4dd9ea66aba91d334b1600180795aea
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	2cd42e859fd6519370b496da7c0b2b0d9ce47f0f8323f3384c7eca5327cd5a0be75978fcccd3012cel
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	97edd2f2e88f77e98bc4e30e8bcd044a16aaa96a486178806e7b9d3fe231310b183c0dc6b9e66ca8



<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	a33c746865216dfee05e0718e4b91708c455e18b6b611cfcecca1f4efc4f7101cfeeda1e31f84ad116ca
--	--

## Node binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	16ae1e32bb0f7b6f8809ab5c20ca7c16cfcc9780476e08f18b4af36f3cb3d6004aecb2833b026cb8bC
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	0e4dbb87bb19422faaefd213baac1e962feec7a3d22396436709795479bd2bcbef1e7708e561e44
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	4a431e0565c5e2c5029c6f414cb694d6e3e7ee2e056868b6e99542eb163c740d9c73556de3f1e039
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	c8868091220993cd4002e125508fc01e327f8025f6012ddc6bba31d785079d7dea20ceb97d70dd1a
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	22463fb6907c28fff6ffe950a03fc9cc9877b3384d3f8a166979fb6334178b1e6d0d86bc5a07b8e04b
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	08b34e5a9a6c529afc23ce57acf62eaf17174812c801f3918599c407832b5b0c7b177f01c5aa66a7d7

## Changelog since v1.17.7

### Changes by Kind

#### API Change

- Fixed: log timestamps now include trailing zeros to maintain a fixed width ([#91207](#), [@iamchuckss](#)) [SIG Apps and Node]

#### Bug or Regression

- Fixes CSI volume attachment scaling issue by using informers. ([#91307](#), [@yuga711](#)) [SIG API Machinery, Apps, Node, Storage and Testing]
- If firstTimestamp is not set use firstTimestamp or eventTime when printing event ([#91055](#), [@soltys](#)) [SIG CLI]
- Kubeadm increased to 5 minutes its timeout for the TLS bootstrapping process to complete upon join ([#89735](#), [@rosteri](#)) [SIG Cluster Lifecycle]
- hyperkube: Use [debian-hyperkube-base@v1.1.0](#) image

A previous release built hyperkube using the [debian-hyperkube-base@v1.0.0](#) which was updated to address a CVE in the CNI plugins.

A side-effect of using this new image was that the networking packages (namely `iptables` ) drifted from the versions used in the kube-proxy images.

The following issues were filed on kube-proxy failures when using hyperkube:

- <https://github.com/kubernetes/kubernetes/issues/92275>
- <https://github.com/kubernetes/kubernetes/issues/92272>
- <https://github.com/kubernetes/kubernetes/issues/92250>

To address this, the new debian-hyperkube-base image (v1.1.0) uses the debian-iptables base image (v12.1.0), which includes iptables-wrapper, a script used to determine the correct iptables mode to run in. ([#92494](#), [@justaugustus](#)) [SIG Cluster Lifecycle and Release]

## Dependencies

### Added

*Nothing has changed.*

### Changed

*Nothing has changed.*

### Removed

*Nothing has changed.*

## v1.17.8-rc.1

### Downloads for v1.17.8-rc.1

#### Source Code

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	da3cb0b669e7f3c698911d819a743439e4633da49812d072105acff5122bd308863fd3216c5fce
<a href="#">kubernetes-src.tar.gz</a>	6f429fd968450dc0cc3ed02a81ebf521ed8d87880def7498004eee9b9990effd7e3908a1d8bc8e

#### Client binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	fa8eda07a4b96e530d8add858ee673df0dbd57d52f642d41d948bd09bdd309b7454af86b1169182
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	635eacbe628705bbd33c31321b069a1853fe2cb2a7fbb44a28e86c62ca2a46d2ebce7d08131594b8

<a href="#">kubernetes-client-linux-386.tar.gz</a>	b2920840fa9fe79d76a869f4021dfecbdf8821e94270ca469be6c7ae6025991da1a8dffe4b7c5c828i
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	6beb451d551764eab4e24a463c5c1b2c5430a6a62f5e77153189a5e23268c314f5fd97096d5bd4c9
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	334db1268b23c4d9ff56ccbdf90a5d0cd0ca4bf2874426a45d56e11f501212f2d00e7efdd41ecfdb82
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	e81fc23422ce62e15e02f4abc1b70dbf1ed566d400df40e5accbe89d25bfcad466076d48ebd79389
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	df6320c33daae7a86a77904bd194fec51692f6de0778a95f62ad8a7b156043c04cca394159afea06a
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	d2286ba60a862184694dec22be601bb45abe33ae37936de497bbd290889e4b383e0cea0ba577d5
<a href="#">kubernetes-client-windows-386.tar.gz</a>	148214721c7165169b382161e093d7828a15ad0149e67624f0c8c16d0e974ad941471fdbacabf0a3
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	9bd0fb1f2cd30ab2c5f05a294bb4f72a004627a72ed5fe8b66e76b72d97f8378e68f5d84649e4919d

## Server binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	09e4c5eb9eea18702e267a7f3e64e74e16287cb88573940f89010eed4d6c7a3a35de5fe928ec1736
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	8a42e10d04f4093ddfce217081e2020165344e41df8f78ec48938adc40ae6f2c66e832d0f9d1c5f575
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	61d4ba59824f272530f6ef957a66aad6b7394442062b3b9dfdca7b2f08fe2117f238a6f8465d1648c7
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	5693d18a66104fe1d49900297d9bb6c75fe22ee890ae0d40a6e6afb3e63a63cfbf39b4ee697ecd765

<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	4780f1df8236e0e3fc69c4e1fda45dcc280358215b7f834a63790226e2ae8f28295bc922b257f10bc4
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## Node binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	981058f903a8fc69730d3255778ca0ad095dd8c2cd92cbf2c510ec6921bc753da736ef918d28f7de3
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	50134de1a08dee324ea147e46e5ca805a7cea0846d832c734c6db193c2642311a6c9d8e36c81c274
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	b570c281cc639a22d63a1caaf8478b80a88d27521a844799cc3153d7cdd9b8a13de14d4a6f986b55
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	357ac7d9f4b26efdd425088eb2fd966af6602c72ffb1f2a661390ec8c930b0f5a6df3879ad74edc1153
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	d6369c4e72cd27c2b2232ca3e5e70dfcdad878122bde90b4f7328a27fafaee47cfdacac51202b3f9e7
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	8b2f568cfdad0ab47376aaefca8ad4a69b821891e8311c96f014a92f31ac3ae114f38a5e2bcb3a0e6

## Changelog since v1.17.7

### Changes by Kind

#### API Change

- Fixed: log timestamps now include trailing zeros to maintain a fixed width ([#91207](#), [@iamchuckss](#)) [SIG Apps and Node]

#### Bug or Regression

- Fixes CSI volume attachment scaling issue by using informers. ([#91307](#), [@yuga711](#)) [SIG API Machinery, Apps, Node, Storage and Testing]
- If firstTimestamp is not set use firstTimestamp or eventTime when printing event ([#91055](#), [@soltys](#)) [SIG CLI]
- Kubeadm increased to 5 minutes its timeout for the TLS bootstrapping process to complete upon join ([#89735](#), [@rosteri](#)) [SIG Cluster Lifecycle]
- hyperkube: Use [debian-hyperkube-base@v1.1.0](#) image

A previous release built hyperkube using the [debian-hyperkube-base@v1.0.0](#), which was updated to address a CVE in the CNI plugins.

A side-effect of using this new image was that the networking packages (namely `iptables`) drifted from the versions used in the kube-proxy images.

The following issues were filed on kube-proxy failures when using hyperkube:

- <https://github.com/kubernetes/kubernetes/issues/92275>
- <https://github.com/kubernetes/kubernetes/issues/92272>
- <https://github.com/kubernetes/kubernetes/issues/92250>

To address this, the new `debian-hyperkube-base` image (v1.1.0) uses the `debian-iptables` base image (v12.1.0), which includes `iptables-wrapper`, a script used to determine the correct `iptables` mode to run in. ([#92494](#), [@justaugustus](#)) [SIG Cluster Lifecycle and Release]

## Dependencies

### Added

*Nothing has changed.*

### Changed

*Nothing has changed.*

### Removed

*Nothing has changed.*

# v1.17.7

## Downloads for v1.17.7

### Source Code

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	b98b4e1fae60a50fe23ead412c700f8d0250d9dd327d0012efa3e4b74ff21a33bb6cf3df67f9fd04
<a href="#">kubernetes-src.tar.gz</a>	8be11a7f7696aa19319c0676c1c31db37439e95ac32578d53a21dd1cf7a92ff5f5f795dff6fc7251

### Client binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	9c40a33687e212b712e904c8710b3fe4ed4d27542ffde63e40a5e19000cb9b1a3328a292d4e96911
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	8d294e6c28f15ee6518d0a60b809b51bfc3954e139735380305756622debf5a40437b53f57d39afa:

<a href="#">kubernetes-client-linux-386.tar.gz</a>	68e4839c4867172315fd1b163d2df51c588f349dd43f978dcaeb471ea44e06333e54f79f38b6bc8ce
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	a0196a68e70422cc220e5f77d7d0104b4248c0ab03f5d1858655bb522071f22f3e9cb76bced170acc
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	2cf7efedbfde502c28b7a0c70d8a29b46a9bd12423d3d4a88429f8b19545eea1fb37e1ebe870a7d6e
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	931d5463ec4f93c0522767f8ff35d2e59115191d93f352d68de860d6c59b8238ae6311942b6f7acf65
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	0f27cc434068ffd14c5b301f9c9e3f6fcf7e003817b7b831b33fcf38292de51b645be1f30f063b90a64e
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	5030d86f1516e6d48f3d29ec20f5c9d3a7b578935cef28c1512b2b67548ce8c0a6b128ac8a402fdbb
<a href="#">kubernetes-client-windows-386.tar.gz</a>	3d5b4689a0ed8bd935cf116cc6c8c43663d0d7a208811075ebe6af26434d4d9280f758df3793d3e6
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	e54073dae3b756b899caf4298db20e2da2986fe7539a3b4aaa960bb8341021cb3f3ed4a2a69a62d0c

## Server binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	2fa986227f26663708dc2062e72160eef46931b561f97e9e81b9156b7cf1338da3d9c0940feae8323f
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	8335b464da28d66c773dd3fb96846b20104fcae656d41edec1bc5212a0a5bf843a02001e13d95640
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	7c19c83dda8d501249fdac24d07fe5ab7a99d5c540967107c2c4ec8561b5362d8ae3bddfdbed75c
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	ac954e3c467a144b59168b67b7153050260531b3560edf101f4be77cca8bd81b3dd89c4af6ad13d3

<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	ca673ec937d28e90eb2c0e8d7ce2b83e823ea4221435b15b244bce30909839f5721e637d28d343e1
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## Node binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	8da87e04eea4fedd7462992042894aab97052e09fd68c4a7e47bf70d6ad411b214ec37ab6dcfb4be
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	458d8f4e52995581a163ac51c7f6b6e06a11a900494d92d1a290d78dc03cb2ebe0cb55376c813f601
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	7ed90a0028a5205e1b2fd41058260b7497dc9718773f9bef828d3b6e7457a136072c5c583ba61735
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	59500c1fc178afe92ad8799c2c622586f80209112b966ea20adbcee9a6dc68c3b5c39033d8590a45c
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	e10f2ca363a02ba786d92ae8e2ab502afd434560dc83e2f5b1c9bd8ca9b076b9c53c5a277fe025fac
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	67a7b24e93597eb5a7de462d379ee7e1a7c878dd04eda4fd5eb01b4ed0ac161cc67d22293265e72

## Changelog since v1.17.6

### Changes by Kind

#### API Change

- Resolve regression in metadata.managedFields handling in update/patch requests submitted by older API clients ([#92008](#), [@apelisse](#)) [SIG API Machinery and Testing]

#### Feature

- Extend AWS azToRegion method to support Local Zones ([#90874](#), [@Jeffwan](#)) [SIG Cloud Provider]

#### Bug or Regression

- Azure: set dest prefix and port for IPv6 inbound security rule ([#91831](#), [@aramase](#)) [SIG Cloud Provider]
- Fix internal loadbalancer configuration failure when subnet name too long ([#86276](#), [@yangl900](#)) [SIG Cloud Provider]
- Fix public IP not shown issues after assigning public IP to Azure VMs ([#90886](#), [@feiskyer](#)) [SIG Cloud Provider]

- Fixed a regression preventing garbage collection of RBAC role and binding objects ([#90534](#), [@apelisse](#)) [SIG Auth]
- Kubeadm: increase robustness for "kubeadm join" when adding etcd members on slower setups ([#90645](#), [@neolit123](#)) [SIG Cluster Lifecycle]
- Kubelet podresources API now provides the information about active pods only. ([#79409](#), [@takmatsu](#)) [SIG Node]
- Pod Finalizers and Conditions updates are skipped for re-scheduling attempts ([#91950](#), [@alculquicondor](#)) [SIG Scheduling]
- Resolve regression in metadata.managedFields handling in create/update/patch requests not using server-side apply ([#91794](#), [@apelisse](#)) [SIG API Machinery and Testing]
- Resolves an issue using `kubectrl certificate approve/deny` against a server serving the v1 CSR API ([#91691](#), [@liggitt](#)) [SIG Auth and CLI]

### Other (Cleanup or Flake)

- Update CNI to v0.8.6
  - build: Use [debian-hyperkube-base@v1.0.0](#) image ([#91386](#), [@justaugustus](#)) [SIG Cluster Lifecycle, Network, Release and Testing]

## Dependencies

### Added

Nothing has changed.

### Changed

Nothing has changed.

### Removed

Nothing has changed.

# v1.17.6

## Downloads for v1.17.6

### Source Code

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	90b10c16aea412c39ea57f6ebb0f5cb74f939089ebad91cdc1a3c2d83890a88305b2e10e9cee45
<a href="#">kubernetes-src.tar.gz</a>	ea8bff7a3c607d1d10787d5160527ac26e05c11fd7247e9db2066e55f1514d8d8e0ee034c209e3

### Client binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	a828219247db473d0e83e72d6b16811da5f6568ed6df9c62b81e42be97e74bebe2006f7890f4b2fb



<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	99acc972bd3c3412916867e8fa29ba7895f3f74b1d63999d8a7ba686a34be616962e4320dd078ea
<a href="#">kubernetes-client-linux-386.tar.gz</a>	591211c27a91c3890530a90a0afc16a53a965e518b0db0e17024efeb34ee7c2279532357b0197431
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	43ed75d64419d965c5f42dfe06ab8c511001883d91c93ca68d90f36c7f5f2014fd29ecd7bbb2b91e
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	faf2a45cfd178cc1bacaca3d1df6e109ce423214cbc3ef7ea45fae19bc8e4be058ecd0ae04dcc7a477c
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	a3d58a6d4accebecb15d7d53f89b1a198db3563f4986a96f38537dec939836f03958e5bfdd0a83afd
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	b65305e339f6e4daeea098baeae16688d99a5e1d869d3f1d875b98ab309f26b7ee352dd0a6c86a67
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	31448fc881a4e03cf494615cfc11605c432e8db30eff5355a3e331b65836a23cecf0a74c0baa30e8a5
<a href="#">kubernetes-client-windows-386.tar.gz</a>	e3943a7030298ffa3ecd49636df99e1786d079db9765ca1b6ac090300224e6fa29e7c2fc5f0928f264
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	4d48a854a66700aa84774219ea647803cbfb93ffd4d392d1b73c85f1aae2457c634bc44ae303ab1fd

## Server binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	aea400c0debb56417d113fa733d6434dff0db8a38f425b307fc204b7035a2b15f4529cb2384a5345f
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	4d5370b5b4aed73bbda6adf4bfbcb2dee2c7dea61af6041c9e7f2713e727d653b218b1080b10b23ba
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	1e6972d013ef6a365175dc621fb72f5b3fad5bb239947bd2ffcc348c0179b565cb4d217ec64717cd5

<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	f3ac669007db1ff156349f80511e8768eef4e0fb6032074549bc779b78f0810abd7592ebf9a9dc7f00
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	2cb7e373aeda7e76edaa5576280d8944ae8c9b09905ae82e884f2a769a92ec06c0f5d2cc934d9a58

## Node binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	f6eb62e4939c166f2b0b5ed4b7acf723220f6b30d896b281387af8790a0598fb126221321382d53e8
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	b945c9c7645b65e7c34bab8f9b3038d4f07b14ccb0cf1ce3bc92bcede90b971a2efe726ae94bb346t
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	b642196aca36c3079b1cf9ff942369976f1291d91393b3c6e8fdcd1df7415636de29bbf03c2af46707
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	4fb68986045b2725eeb7a9089faf99f4faa37e366e494282e07f6c2b957170b0ae962014a36fab1e8
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	f237a2992907c59b71593fedcc3aea993d2c1eca2c8cd0025e9b79d4b193aee4c9aabe8e6b623d2ct
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	5c591a1907e01047b8ead6f23a1a0cd08b82b7fd88d93d72ba8d79dfd24ae28550d22d03e131c7et

## Changelog since v1.17.5

### Changes by Kind

#### API Change

- Fix bug where sending a status update completely wipes managedFields for some types. ([#90032](#), [@apelisse](#)) [SIG API Machinery and Testing]

#### Bug or Regression

- Base-images: Update to kube-cross:v1.13.9-5 ([#90965](#), [@justaugustus](#)) [SIG Release]
- CSINode initialization does not crash kubelet on startup when APIServer is not reachable or kubelet has not the right credentials yet. ([#89589](#), [@jsafrane](#)) [SIG Storage]
- Fix HPA when using init containers and CRI-O ([#90901](#), [@joelsmith](#)) [SIG Node]
- Fix flaws in Azure CSI translation ([#90325](#), [@andyzhangx](#)) [SIG Cloud Provider]

- Fix: Init containers are now considered for the calculation of resource requests when scheduling ([#90414](#), [@alculquicondor](#)) [SIG Scheduling]
- Fix: azure disk dangling attach issue which would cause API throttling ([#90749](#), [@andyzhangx](#)) [SIG Cloud Provider]
- Fix: get attach disk error due to missing item in max count table ([#89768](#), [@andyzhangx](#)) [SIG Cloud Provider and Storage]
- Fix: support removal of nodes backed by deleted non VMSS instances on Azure ([#91184](#), [@bpineau](#)) [SIG Cloud Provider]
- Fixed "requested device X but found Y" attach error on AWS. ([#85675](#), [@jsafrane](#)) [SIG Cloud Provider and Storage]
- Fixes a bug defining a default value for a replicas field in a custom resource definition that has the scale subresource enabled ([#90020](#), [@liggitt](#)) [SIG API Machinery, CLI, Cloud Provider, Cluster Lifecycle and Instrumentation]
- Fixes a regression in 1.17 that dropped cache-control headers on API requests ([#90468](#), [@liggitt](#)) [SIG API Machinery and Testing]
- Provides a fix to allow a cluster in a private Azure cloud to authenticate to ACR in the same cloud. ([#90425](#), [@DavidParks8](#)) [SIG Cloud Provider]
- Scheduling failures due to no nodes available are now reported as unschedulable under `schedule_attempts_total` metric. ([#90989](#), [@ahg-g](#)) [SIG Scheduling]

### Other (Cleanup or Flake)

- base-images: Use debian-base:v2.1.0 (includes CVE fixes)
- base-images: Use debian-iptables:v12.1.0 (includes CVE fixes) ([#90938](#), [@justaugustus](#)) [SIG API Machinery, Cluster Lifecycle and Release]

## Dependencies

### Added

*Nothing has changed.*

### Changed

- k8s.io/kube-openapi: 82d701f → bcb3869

### Removed

*Nothing has changed.*

## v1.17.5

[Documentation](#)

### Downloads for v1.17.5

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	d0d1b451d5cafd3e909ba15d09c7277a85eba682696cd60684dca8c5ce8db06c1dbab046ec933931e312
<a href="#">kubernetes-src.tar.gz</a>	b7a78f9ea3e8088ac3f7dfd671d011fdb0a6cd28342fc19cf35d183f7cf8ffc9e5d4679af3c42d4e5ae4

### Client Binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	8fc24f1f69052372078d76208f9137cf38a3ba689580cf197ab8fff503663e01bce8b0d0c37051b07216be4
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	fb7ff087cc82b930399c5512656de68a8b9c61f54e3bd3e627fff097e67a18411e0268b6cec0e40a96d5966
<a href="#">kubernetes-client-linux-386.tar.gz</a>	544a71885ac66ba4911db7d086880badbf395518b1e6d7bcc03ffc2139c1dc0adf83c4a3e0b4be069217dec
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	4cf67f972aad3425bccc48af83f8cb59ddcc96de49d3bb21cdbbcbbeee31718ef681e551d13343538a6e70c
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	c90a93b3ffc5d2fc41bb913b6b698b5e9a54c737ea13738dc94ef8baed88d0b02ad03b291a54c21c16ecc6c
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	c2e2f02a75e92a0505db81941e03cc42effc7f49b89a0c151f5389d57cbc44c8e05d8b7def2d9e17a7928c3
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	f1b023d6ae59c5f0f7bbb44f23c7f6185673ff834dd6929e23d14e190a5d0154519a39df072e7801484333e
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	b7f4e92ee30a57f2f20244e092614ea7dc5bb0791b041b39f9593b35bd10afeeda03892b6da7c89ae791e8c
<a href="#">kubernetes-client-windows-386.tar.gz</a>	d21824110b75cfbe3d144eb303560e0a193c9d998be00d4f1f77c672c6fbea487cfda758202487d649c29e5
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	5dc5d50b85aaa40998b3ade4fd51fffe3c4be4bad4382495cf9f6a3e910de23a35c3747e7f63b79af7989a2

### Server Binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	90f571a24527a119499a1546c44dfdb29df74f302a2907ce14f378d79c5e9fd3db075709ce19f75e853dceb
<a href="#">kubernetes-</a>	0555e1969f5fa44ecbe331c4ed75df6d56e929e123d9abe6f4ba75c0fffb1ae1a10cc6c8d0b1336f3915398e

<a href="#">server-linux-arm.tar.gz</a>	
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	2e8e446d7a132227c0e926504e65bf9ff6180b7171ac16d51dd92c1729161c591c2f2ce828fba0b790147a6
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	08733b06f4174cd14d27d33966fe821b20abd67da94f3aa90b146a3d9ce6f28ff25153667d4175cd67af805
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	a170a62da4e3d5d27c0af7d03aa9db5a947a5d296ccba40fc283fb0da671a395dc5ee1dc7cb7ec662ec562a

## Node Binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	99d92cbc9227b49d52fdec303aca4c529bcb45ed66ecbd559803b6d68314b390d7f368c4a803679fe19ed5b
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	931dd0c7b56c7914495cbcb7df998d1db335d635d457c0cf062a3db0c2ec0a1a2a7ae9c51d9711ad744c20
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	23bbfe1f60b95705846f214bbe243beaeecc6c53de33b15231b99094914584da5589cf55340636f7daf46d3b
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	808abe9a96f461ac303b020c716e3a7fc94b1901cbd56bba836f2caf8292e7f14a112ae2189916a2a5654fe
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	a645d8e8ade9af849764755165cdf0fc9eb04671afe2610562082f27f2aba7492f4c735e1ad3bfff3cf26318
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	501a5d52229012e8bfcf1e8f7e4cf72f226d5aac451cc70ca23ead5ed3f9d5fe01952d6ea100330ef9daa56

## Changelog since v1.17.4

## Changes by Kind

### Feature

- deps: Update to Golang 1.13.9
  - build: Remove kube-cross image building ([#89399](#), [@justaugustus](#)) [SIG Release, Storage and Testing]

## Bug or Regression

- Client-go: resolves an issue with informers falling back to full list requests when timeouts are encountered, rather than re-establishing a watch. ([#89976](#), [@liggitt](#)) [SIG API Machinery and Testing]
- EndpointSlice controller now handles terminating pods correctly and is better at preventing race conditions. ([#89118](#), [@roboscott](#)) [SIG Apps and Network]
- Ensure Azure availability zone is always in lower cases. ([#89722](#), [@feiskyer](#)) [SIG Cloud Provider]
- Fix failing conformance when using docker container runtime w/ the docker/journald logging driver. [#87933](#) ([#88586](#), [@jdef](#)) [SIG Node]
- Fix invalid VMSS updates due to incorrect cache ([#89002](#), [@ArchangelSDY](#)) [SIG Cloud Provider]
- Fix the VMSS name and resource group name when updating Azure VMSS for LoadBalancer backendPools ([#89337](#), [@feiskyer](#)) [SIG Cloud Provider]
- Fix: check disk status before delete azure disk ([#88360](#), [@andyzhangx](#)) [SIG Cloud Provider]
- Fixed a data race in kubelet image manager that can cause static pod workers to silently stop working. ([#88915](#), [@roycaiwh](#)) [SIG Node]
- Fixed an issue that could cause the kubelet to incorrectly run concurrent pod reconciliation loops and crash. ([#89055](#), [@tedyu](#)) [SIG Node]
- Fixed the EndpointSlice controller to run without error on a cluster with the OwnerReferencesPermissionEnforcement validating admission plugin enabled. ([#89805](#), [@marun](#)) [SIG Auth and Network]
- Fixes conversion error for HorizontalPodAutoscaler objects with invalid annotations ([#89967](#), [@liggitt](#)) [SIG Autoscaling]
- Fixes conversion error in multi-version custom resources that could cause metadata.generation to increment on no-op patches or updates of a custom resource. ([#88995](#), [@liggitt](#)) [SIG API Machinery]
- Fixes kubectl apply/prune in namespace other than default. ([#90024](#), [@seans3](#)) [SIG CLI and Testing]
- For GCE cluster provider, fix bug of not being able to create internal type load balancer for clusters with more than 1000 nodes in a single zone. ([#89902](#), [@wojtek-t](#)) [SIG Cloud Provider, Network and Scalability]
- For volumes that allow attaches across multiple nodes, attach and detach operations across different nodes are now executed in parallel. ([#89239](#), [@verult](#)) [SIG Apps, Node and Storage]
- Kube-proxy no longer modifies shared EndpointSlices and will not break with EndpointSlice feature gate enabled on Windows. ([#89117](#), [@roboscott](#)) [SIG Network]
- Kubeadm: apply further improvements to the tentative support for concurrent etcd member join. Fixes a bug where multiple members can receive the same hostname. Increase the etcd client dial timeout and retry timeout for add/remove/... operations. ([#87505](#), [@neolit123](#)) [SIG Cluster Lifecycle]
- Kubelet metrics gathered through metrics-server or prometheus should no longer timeout for Windows nodes running more than 3 pods. ([#87730](#), [@marosset](#)) [SIG Node, Testing and Windows]
- Restores priority of static control plane pods in the cluster/gce/manifests control-plane manifests ([#89970](#), [@liggitt](#)) [SIG Cluster Lifecycle and Node]

## Other (Cleanup or Flake)

- Reduce event spam during a volume operation error. ([#89794](#), [@msau42](#)) [SIG Storage]

## v1.17.4

[Documentation](#)

## Downloads for v1.17.4

filename	sha512 hash

<a href="#">kubernetes.tar.gz</a>	cf69ebcaddc3902008399b96a18548d9a2a551d9fa6a1e34533f0f83ef10ab501030c3310cbaa593d550
<a href="#">kubernetes-src.tar.gz</a>	c638e47bc54754842a018e2cd2e724357f5e3906c0971dad76656e8a8e0ced65e5919b9b83a89a251b34

## Client Binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	64eee9f00ce02b6a139bd20512130f5d193d3862853460fa94b43c946cbcc90e40254786288263cb589ae73
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	02646ce4087a59c2b6a3e398554173f969639d47ef6b14f384812f44f5dbbb76d13ec69bc086fb74390eedb
<a href="#">kubernetes-client-linux-386.tar.gz</a>	bef8fe245366b9e8a4b5f130b95b1dfaf1294d30cbc08eea53caa715db0ba63bb5f532abe825c55a51d66
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	42907ace0672b839f656e3afa09827725cdb94980435b186221c36f7a9e2d6eb39b97ee4ef9848ed817066e
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	f50785865d8830fa05bc27f7812e213c4ab4b1d020b5eb919bbf20910cfd98c2f55211211b927111a88d054
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	13b0ec947cb186e17fbb571ad1bceef84cf236a8ab3bf52679006f30bbafa8fa6d40a6926adbabcea8b93e5
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	e4727134da0b01a31977f225794cff9d9860b0f62b670fb525cba1b686d7d733b3ded8150185085b8fb7cd4
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	368b03ac429d2c8368312214be0ce656e7d9ac7ae334a3659b8fbb8c75713d57c09944c72a77bd199f03b29
<a href="#">kubernetes-client-windows-386.tar.gz</a>	962779586897ec218afad31178b547b2eec1e79c434ead49d51459174cca3578b40ff80b3db2b52d0b02703
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	c905c5ed45bd430aa9c8f2147edb0a0ac7d5bbd934a77ac6b9527dd5f0abc04ee6f9f69de75a26db279e785

## Server Binaries

filename	sha512 hash

<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	a26953a277a383629139651913b85092ef722cf00722193df31ff977cac70a7441bb10d124159527ed8d5ee
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	0c8def28b67d7a8e2644662f8a42aeda5536249d8c7f63e0bbe225e1dab45a1773b5fae49590acb307f9e4f
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	95285714bf8542bbc482b0544eb6cdfcb0cf217e6863c27810dfe10371674d539cb372ee35a8513fc5710c4
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	5cb63c371dc9b2ad7a1d665debd1e9890cc49235b61767aa5244141989e90bf1d0e678c2c89bdcec31b2cb2
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	fd26e9f6d8dc473c75f83ffd5c0fed0e28d307d88915db7c3152804e7728504a9958e6fee0ee21418f14687

## Node Binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	31cfbc4610504a02c7b3fcd0b97b48b27afd9232fa0d02527c7873a78bb72f9f3c8fac77a2187695da5cfd
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	5f458a3b8d91cd9b5fb47a9f6d1091bc960115140d4ed6f6dab7d275599b80f7bc62b3869e1cf7121a3ca34
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	1d92b3de82c9db491a2281a684d9a2dd86e998b66455ab2b48a4449e50aedd2605a2be04d930696c119b08f
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	ee17d8964217e6a53b2e9a93edecb882a8e8ad9c6d40c2875bc61f35a5e1dfdd08a9a80f4567578858e3b48
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	7e38f136462d6edfe117d8c98da5e5011d4a21bd5e9121649a73ca29d0ed36e877582107a20c52f8d43097d
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	1f36238ced406817dd25971616b6bbb3ff595b334442ce614c611e4ef3bde626771390446b90e1f38ebc7c8

## Changelog since v1.17.3

## Changes by Kind



## API Change

- Fixes a regression with clients prior to 1.15 not being able to update podIP in pod status, or podCIDR in node spec, against  $\geq 1.16$  API servers ([#88505](#), [@liggitt](#)) [SIG Apps and Network]

## Other (Bug, Cleanup or Flake)

- Add delays between goroutines for vm instance update ([#88094](#), [@aramase](#)) [SIG Cloud Provider]
- Adds "volume.beta.kubernetes.io/migrated-to" annotation to PV's and PVC's when they are migrated to signal external provisioners to pick up those objects for Provisioning and Deleting. ([#87098](#), [@davidz627](#)) [SIG Apps and Storage]
- Build: Enable kube-cross image-building on K8s Infra ([#88595](#), [@justaugustus](#)) [SIG Release and Testing]
- Fix /readyz to return error immediately after a shutdown is initiated, before the --shutdown-delay-duration has elapsed. ([#88953](#), [@tkashem](#)) [SIG API Machinery]
- Fix a bug in kube-proxy that caused it to crash when using load balancers with a different IP family ([#87117](#), [@aojea](#)) [SIG Network]
- Fix handling of aws-load-balancer-security-groups annotation. Security-Groups assigned with this annotation are no longer modified by kubernetes which is the expected behaviour of most users. Also no unnecessary Security-Groups are created anymore if this annotation is used. ([#88689](#), [@Elias481](#)) [SIG Cloud Provider]
- Fix route conflicted operations when updating multiple routes together ([#88209](#), [@feiskyer](#)) [SIG Cloud Provider]
- Fix: add azure disk migration support for CSINode ([#88014](#), [@andyzhangx](#)) [SIG Cloud Provider and Storage]
- Fix: add remediation in azure disk attach/detach ([#88444](#), [@andyzhangx](#)) [SIG Cloud Provider]
- Fix: azure file mount timeout issue ([#88610](#), [@andyzhangx](#)) [SIG Cloud Provider and Storage]
- Fix: corrupted mount point in csi driver ([#88569](#), [@andyzhangx](#)) [SIG Storage]
- Fix: get azure disk lun timeout issue ([#88158](#), [@andyzhangx](#)) [SIG Cloud Provider and Storage]
- Fixes issue where you can't attach more than 15 GCE Persistent Disks to c2, n2, m1, m2 machine types. ([#88602](#), [@yuga711](#)) [SIG Storage]
- Fixes kubelet crash in client certificate rotation cases ([#88079](#), [@liggitt](#)) [SIG API Machinery, Auth and Node]
- Get-kube.sh uses the gcloud's current local GCP service account for auth when the provider is GCE or GKE instead of the metadata server default ([#88383](#), [@BenTheElder](#)) [SIG Cluster Lifecycle]
- Golang/x/net has been updated to bring in fixes for CVE-2020-9283 ([#88381](#), [@BenTheElder](#)) [SIG API Machinery, CLI, Cloud Provider, Cluster Lifecycle and Instrumentation]
- Limit number of instances in a single update to GCE target pool to 1000. ([#87881](#), [@wojtekt](#)) [SIG Cloud Provider, Network and Scalability]
- Update to use golang 1.13.8 ([#87648](#), [@ialidzhikov](#)) [SIG Release and Testing]

## v1.17.3

[Documentation](#)

## Downloads for v1.17.3

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	63e54488630e41488f7153583b3c536df766a623c9eb41634e09a113e2ffdaf973c85ddb5d13adc2727f
<a href="#">kubernetes-src.tar.gz</a>	e09b1010d1673faeba6684d28405ee0963c1b42a28da4b00c38169b0422ab86eadf01efdc190066b1556

### Client Binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	00233c38903b92cd328b5bf4f48df47df9d858690887e46647e29f2453778ab53b16fe898476451c943e1d6
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	587b2f0e4a8b4e736dfc480a939ad866f5cea8b28fe7cfd34bc383f9150096f6f9cfe43f8d902e06fca7eb5
<a href="#">kubernetes-client-linux-386.tar.gz</a>	4ab88ef8526ee5a3fdffe3f6fcd85d0314c80cc079cc50945c073849dcc1dc0deb1595ce24b1f74494e18a
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	351d6b0d8077cadd8d4b95c145b165be5bc5cd07b59d44b7e81e6dc46f5b85f7419642f8273520ea1b63c9a
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	0b2c490398001aa363b4e4dd3ac93abbc6330e76a54534b6c66dbcd356f5fe7dad51c8c4eda1ad2e842ff
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	be0cab0399bea7aa78f286031328b049177107168a9ed28f0c7f0e38a04813b9a7f0570f3fd4f28080d12e4
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	8ce6ba5ee2f4867786dd279c016f1a2ac3355898cbe647455e108348131cb6df52fdbab3da1f60f0fcdad94
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	88f20dd15d89b8134240c6c1c036529f1deca1e8f32860c2043147cfd533097d6fe8359f6673f3e2215a910
<a href="#">kubernetes-client-windows-386.tar.gz</a>	71cdda152a25556743f7c83164b45988c9844fe3eae9033d76177a2615f84413f12867b9621762f4c0269ca
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	19f2a02540c9348b235e43854b3093989c41de0dcfc57df9ad9d63a339d9df13e87649c1675e475f45349fc

### Server Binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	12f86462f6ab4c1fd1d057d4f8c874bd8782174966fffb3cb2477f0f68c3ede8e8119259f1cad18988ab3887
<a href="#">kubernetes-</a>	ada379873db29c3f6eefcb5efa2b027ae835beb20b39c03fbbbf1c8490f447d888ee56944ca37c9c7054caf

<a href="#">server-linux-arm.tar.gz</a>	
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	e3fc5cf9b111e232d28879116434481a45e2c38ad56a349a7353e020ab88baf492130172cd5a3f99234c5f3
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	8b8f8af3864fe71c4fb8f767a42dc47882816216da41c0b5d114a75b37c50c97dda58eb3681e829a5cd6339
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	5483e4835ea03686b0f79413c3cde16305d752fd15665b3f78848c90f0ee7bcd41c0869f203ddceb4a31ee

## Node Binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	74f34a4c00b6b9350d978bcdd06f6adce55b211876186e98bcef4eef35008ab9d1a39c5fec9f7fb3e6eafa3
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	6cd247524ca8373e0f23eba5a2021844a12d068dee64aaf195b8c430c7fc0ac66d3f30abde4cb425de87a0f
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	238e02534c2b905987fe54df477a793561d1e79c40a6c669cabdbec025e17cb186f1f543fb92459e1b1b621
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	a8d0ff718320cfa2771e4010d970f4e27c80daa2eb7e082be03d4310cf512926e099de9a47abcae5acc3db1
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	c323ad2690a7924a0b264de678a01b4948cdfbac0d0cc357fcdc17c31ebc9deb7f7c0de5c18da23b533c480c
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	7323b7adf83fccc65eea9f23370794aa9901e9a9b3b1ac90403197448408eee5be84f541aa2448ceaa12fe6

## Changelog since v1.17.2

## Changes by Kind

### Other (Bug, Cleanup or Flake)

- Bind metrics-server containers to linux nodes to avoid Windows scheduling on kubernetes cluster includes linux nodes and windows nodes ([#87020](#), [@wawa0210](#)) [SIG Cluster Lifecycle and Instrumentation]
- Bug fixes for EndpointSlice controller that prevent race condition and modifying shared objects. ([#87731](#), [@roboscott](#)) [SIG Apps and Network]

- Fix a regression in kubernetes that prevent pods to obtain ip addresses ([#87286](#), [@aojjea](#)) [SIG Network and Node]
- Fix regression in statefulset conversion which prevented applying a statefulset multiple times. ([#87721](#), [@liggitt](#)) [SIG Apps and Testing]
- Fix the bug PIP's DNS is deleted if no DNS label service annotation isn't set. ([#87312](#), [@nilo19](#)) [SIG Cloud Provider]
- Fix: set nil cache entry based on old cache ([#87591](#), [@aramase](#)) [SIG Cloud Provider]
- Fixed a bug which could prevent a provider ID from ever being set for node if an error occurred determining the provider ID when the node was added. ([#87043](#), [@zjs](#)) [SIG Apps and Cloud Provider]
- Fixed the following
  - AWS Cloud Provider attempts to delete LoadBalancer security group it didn't provision
  - AWS Cloud Provider creates default LoadBalancer security group even if annotation [service.beta.kubernetes.io/aws-load-balancer-security-groups] is present ([#87206](#), [@bhagwat070919](#)) [SIG Cloud Provider]
- Fixed two scheduler metrics (pending\_pods and schedule\_attempts\_total) not being recorded ([#87692](#), [@everpeace](#)) [SIG Scheduling]
- Kubelet metrics have been changed to buckets. For example the exec/{podNamespace}/{podID}/{containerName} is now just exec. ([#87913](#), [@cheftako](#)) [SIG Node]
- Pods that are considered for preemption and haven't started don't produce an error log. ([#87900](#), [@alculquicondor](#)) [SIG Scheduling]
- Reverted a kubectrl azure auth module change where oidc claim spn: prefix was omitted resulting a breaking behavior with existing Azure AD OIDC enabled api-server ([#87507](#), [@weinong](#)) [SIG API Machinery, Auth and Cloud Provider]
- The client label for apiserver\_request\_count and apiserver\_request\_total now no-opts and merely records an empty string. ([#87673](#), [@logicalhan](#)) [SIG API Machinery, Instrumentation and Scalability]

## v1.17.2

[Documentation](#)

### Downloads for v1.17.2

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	82771f9ea6e1da774473500e03bbb8ad8328c27c05ee79514528df5283556f8803763b47a4d815db8f1c
<a href="#">kubernetes-src.tar.gz</a>	117222d9590e17e5f932644e54299cf35c870b7969b12aff51392ba958a298793fee54d7346c64d973a9

### Client Binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	fb0163fd0f8e8372c6f6424097badf1ee0b9af1aff5aa6331bdfefbf529e71c30a3f5eb062e0b9312afb51e7
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	b8cc6dde28dbf06ecfdad6917e1707c3e776aca05d6d3bf782cc26210d87fd2c6abac4cfa73de8d4df7bbd4

<a href="#">kubernetes-client-linux-386.tar.gz</a>	bb2ba270c7953a5ff020cd28116c6067c4299af31c2b2521fd54296b66047c6c4e46731b6293350470ad35a
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	c5cd8954953ea348318f207c99c9dcb679d73dbaf562ac72660f7dab85616fd45b0f349d49eae9ea1f6aac7
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	e53a85f0ff2f522603005fec16a9019794f6c7b2704b66e2a963909193cafff92737d48a305a10ce40a829ce
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	9cdd0e75bc67f8197c50d7b07ef3aa5b59882cb50ac06abf56d4897b12dc7579759963eee2cba2ed8d638ff
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	f0ae9f154146047c8153df0de7d085977ff308227503e8cb673d8c97af933a4093ec26f7676acba7e44b7a
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	203d030803959df4dab13e17e57cfd9ece1e68b09c769172475b73268c3d25bbe7b197c29f7925fe9d79078
<a href="#">kubernetes-client-windows-386.tar.gz</a>	de36a20e3484c2039344123853cf3b60bd9ce49e248a2d0c821aeb7a9d9051558c3a60b5f8b528dc3173f6e
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	e43beb437f077dd995b28bf8a306c413117315612eb5cf2ecbb686b2420d6d2bb4eca387fe9aa5adcc26599

## Server Binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	472e911bf28a6fc583c20cf56eee4a8ec2ede557454b4f5dabc668cd211aeada3cc3486ea104d786105babd
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	14b95f7e8ecf75026f19e4f28c53ed6d1bc82b5577c045168c787cd95cff9975b610a1f3b9125dc1145eed5
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	cec1cc9a4f99295a9c98467ac76cec50f7da23ed45f21ad9bf860fb950f4ffeb0786ca8929b0d749e778664
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	4727e58ba35303280a4203b2a09b4344cfed372e943a29176e43b3877c1b854b72519b62dbfdcb536f88506
<a href="#">kubernetes-</a>	e178c46402b9c308ff915a5f7675fead8a43de45fe1c55b0b36b26aa6fe2c97ac853fa937817fb3345df45b

<a href="#">server-linux-s390x.tar.gz</a>	
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## Node Binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	e7546138dd1768716e7bbfe6136625ff2023293ec1f62741b63c167aaebe9b200314f140608445fa5393512
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	0360d2676726a6884d6a2a66ecfe77e1b50882ab1301bd9bfb935b958de4da710a9f748a45641c7131863b7
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	4ca031a44f2dbbca883406258904e11e11360ab80300f5c422e88103545214a180a6718eb423404f6421f20
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	79a20f5c2acc454e9803bd9ece890ebc0564a45471e4afa03c92b6b489354466081639b779433f6a511a22e
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	553b5fccf539da0f149b97ba47d4d1e163c86a6a057132fa308f9eb2e3df728ba692c98000fab977b290098
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	0d17642c68aeaffa276ee92c87181a3ef6d9e4dd2b41d6b064f7a20bb3ad9cd7d29a8494006c520771e4846

## Changelog since v1.17.1

No notable changes for this release

## v1.17.1

[Documentation](#)

## Downloads for v1.17.1

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	b75a513ac1edc366a0ab829866687c4937485a00a0621a729860ae95fa278ecdadf37d63e608b2259e1c
<a href="#">kubernetes-src.tar.gz</a>	18402d56c7b4b01b59bd8fb6251bf53dcdb1b68b79ca5d7cf0ca6789d8ad9cc5849fe470d018319f1f26

## Client Binaries

filename	sha512 hash
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<a href="#">kubernetes-client-darwin-386.tar.gz</a>	160471e49fd1117154bd22b4aabe2c61051db5c0160c4ea32f9341a3f9b2e1a2a04d43588b618a8c3673db8
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	29291fc2c8b36d13590c7cfd423ac64d102962c39470398ee7b9e6191c44da29ca2e8c1c82cdae4a97b32f
<a href="#">kubernetes-client-linux-386.tar.gz</a>	41dafee8a1e73a56a25d87b93c2d8287145cfcd3a844a085c34cd6cafdbb229548d11c8e0ddfc776b873d5f
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	0f8b21ce610b738d0a993b40134edf4ce5ef3d2b020f2bf2ca5a5f142bbe5d0070004796ae7e617441c524b
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	c7d4d89c06161ffedec679bc5697b7975bfd4ad40df3d083ef056db0a8c3851f7ffe7d727d360881c7cfb24
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	60d5edd8cd48b2facb3e1c5b347ed0f204e7c808933453abd6ed11586cf01272455bf675c77e6bd87aaf8b6
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	0b7c8275bde773fbf5be33522e8f5397646d812b82fd76c94a5267d75695ba1a3f13b2e165c2b5bed9594b7
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	b6e71cb554e521a15c132910c603aee5a6af1e1c5626dbddeb34f1185a6ee77fbf6fa6ede50c7e082abbe42
<a href="#">kubernetes-client-windows-386.tar.gz</a>	ecb66c26b38e5ef7e4e8a56387abb04c91db4986b3cd7ef885c1f483064f166be0a30267fafd9fe0725313e
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	84892304a154f52815211c4b34f6d2d733edca81bb7cb9b9f82b57dd80d276b842c81fbaf76becf5a02827b

## Server Binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	6167314423333f34a4850bd3860617217650f6d2cabf1c287de868040c594601c7d84d2ab17adfa2caf937d
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	87e04427e7001cb065d1de505f250e054ed3b11d6d3e35b19d830c4040dcf96d3eb3df2247791d5b4e2e593
<a href="#">kubernetes-</a>	6c6e58a97a6235b37be076439b76f3b102a131b87371793833b420d5b22ae7cfb9b2c201f710a6fd34bef14

<a href="#">server-linux-arm64.tar.gz</a>	
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	31aa35a2fff29f54183f1ca82ca7cf3ae1796e1f49592f2f789597edb300364631f46b795f13fbb152ea822
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	287eaa186dde6858c84234f7219bb4959476033805294e7d9cddb8b097644b218c5119e2e5c8fffb1244f9

## Node Binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	c91c314caa7a5a7ad6d7bf1663b5fd7a7d4a125c250dc1442bae6d742f964e1e5d936740571e89f29b68806
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	c3cefebf12aa0848201cf68d32227386498180c31c78a38e81988953bd0dc387697e164e593482b5c39001c
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	a278b708b1d68405315128619fca63a7cd35cd980575309a8893c8d128e4cc5c76a0feaac9669ce56524f3c
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	8a74e82b6e07203d273c598c6c63af16f278d4d42224157a82b52a490f9549cfe0f3bb72fe05ffc5b1c1fe2
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	fd35476eff035bcf35423a5fec3579861c5b2bd7b970c47075cc3f314be6988323505f526dd4cd46e9a90a4
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	feddf53e05819f081d08d8d4086b395848d638c728a8aaa30e7d83cdfdbbbfc2a786a389f9b27c33b00fd42

## Changelog since v1.17.0

### Other notable changes

- Fixed a regression where the kubelet would fail to update the ready status of pods. ([#84951](#), [@tedyu](#))
- Fix nil pointer dereference in azure cloud provider ([#85975](#), [@ldx](#))
- fix: azure disk could not mounted on Standard\_DC4s/DC2s instances ([#86612](#), [@andyzhangx](#))
- Fix v1.17.0 regression in reflector relist causing master rolling upgrade to fail for large clusters due to excessive list calls to etcd ([#86824](#), [@jpbetz](#))
- Fixes issue where AAD token obtained by kubectl is incompatible with on-behalf-of flow and oidc. ([#86412](#), [@weinong](#))
  - The audience claim before this fix has "spn:" prefix. After this fix, "spn:" prefix is omitted.
- fix: azure data disk should use same key as os disk by default ([#86351](#), [@andyzhangx](#))



- Fixes an issue with kubelet-reported pod status on deleted/recreated pods. ([#86320](#), [@liggitt](#))
- Fixes v1.17.0 regression in --service-cluster-ip-range handling with IPv4 ranges larger than 65536 IP addresses ([#86534](#), [@liggitt](#))
- Fixed a panic in the kubelet cleaning up pod volumes ([#86277](#), [@tedyu](#))
- Resolves performance regression in `kubectl get all` and in client-go discovery clients constructed using `NewDiscoveryClientForConfig` or `NewDiscoveryClientForConfigOrDie`. ([#86168](#), [@liggitt](#))
- Fix LoadBalancer rule checking so that no unexpected LoadBalancer updates are made ([#85990](#), [@feiskyer](#))

## v1.17.0

[Documentation](#)

### Downloads for v1.17.0

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	68d5af15901281954de01164426cfb5ca31c14341387fad34d0cb9aa5f40c932ad44f0de4f987caf2be6
<a href="#">kubernetes-src.tar.gz</a>	5424576d7f7936df15243fee0036e7936d2d6224e98ac805ce96cdf7b83a7c5b66dfffc8823d7bc0c17c

### Client Binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	4c9a06409561b8ecc8901d0b88bc955ab8b8c99256b3f6066811539211cff5ba7fb9e3802ac2d8b00a14ce6
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	78ce6875c5f5a03bc057e7194fd1966beb621f825ba786d35a9921ab1ae33ed781d0f93a473a6b985da1ba4
<a href="#">kubernetes-client-linux-386.tar.gz</a>	7a4bcd7d06d0f4ba929451f652c92a3c4d428f9b38ed83093f076bb25699b9c4e82f8f851ab981e68becbf1
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	7f9fc9ac07e9acbf12b58ae9077a8ce1f7fb4b5ceccd3856b55d2beb5e435d4fd27884c10ffdf3e2e18cafd
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	8f74fff80a000cfaefa2409bdce6fd0d546008c7942a7178a4fa88a9b3ca05d10f34352e2ea2aec5297aa5c
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	18d92b320f138f5080f98f1ffee20e405187549ab3aad55b7f60f02e3b7f5a44eb9826098576b42937fd0aa
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	fd9b15a88b3d5a506a84ebfb56de291b85978b14f61a2c05f4bdb6a7e45a36f92af5a024a6178dbebd82a92

<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	ae3b284a78975cbfccaac04ea802085c31fd75cccf4ece3a983f44faf755dd94c43833e60f52c5ea57bc462
<a href="#">kubernetes-client-windows-386.tar.gz</a>	4ba83b068e7f4a203bcc5cc8bb2c456a6a9c468e695f86f69d8f2ac81be9a1ce156f9a2f28286cb7eb0480f
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	fc79b0e926a823c7d8b9010dee0c559587b7f97c9290b2126d517c4272891ce36e310a64c85f3861a1c951d

## Server Binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	28b2703c95894ab0565e372517c4a4b2c33d1be3d778fae384a6ab52c06cea7dd7ec80060dbdba17c8ab23b
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	b36a9f602131dba23f267145399aad0b19e97ab7b5194b2e3c01c57f678d7b0ea30c1ea6b4c15fd87b1fd3b
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	42adae077603f25b194e893f15e7f415011f25e173507a190bafbee0d0e86cdd6ee8f11f1bcf0a5366e845b
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	7e72d4255e661e946203c1c0c684cd0923034eb112c35e3ba08fbf9d1ef5e8bb291840c6ff99aea61800838
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	00bc634654ec7d1ec2eca7a3e943ac287395503a06c8da22b7efb3a35435ceb323618c6d9931d6693bfb19f

## Node Binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	49ef6a41c65b3f26a4f3ffe63b92c8096c26aa27a89d227d935bc06a497c97505ad8bc215b4c5d5ad3af648
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	21a213fd572200998bdd71f5ebbb96576fc7a7e7c7b1469f028cc1a310bc2b5c0ce32660629beb166b88f54
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	3642ee5e7476080a44005db8e7282fdb4e4f220622761b95951c2c15b3e10d7b70566bfb7a9a58574f3fc3

<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	99687088be50a794894911d43827b7e1125fbc86bfba799f77c096ddaa5b2341b31d009b8063a177e503ce2
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	73b9bc356de43fbed7d3294be747b83e0aac47051d09f1df7be52c33be670b63c2ea35856a483ebc2f57e30
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	2fbc80f928231f60a5a7e4f427953ef17244b3a8f6fdeebcbfceb05b0587b84933fa723898c64488d94b9ce

## Changes

A complete changelog for the release notes is now hosted in a customizable format at [releases.k8s.io](https://releases.k8s.io). Check it out and please give us your feedback!

## What's New (Major Themes)

### Cloud Provider Labels reach General Availability

Added as a beta feature way back in v1.2, v1.17 sees the general availability of cloud provider labels.

### Volume Snapshot Moves to Beta

The Kubernetes Volume Snapshot feature is now beta in Kubernetes v1.17. It was introduced as alpha in Kubernetes v1.12, with a second alpha with breaking changes in Kubernetes v1.13.

### CSI Migration Beta

The Kubernetes in-tree storage plugin to Container Storage Interface (CSI) migration infrastructure is now beta in Kubernetes v1.17. CSI migration was introduced as alpha in Kubernetes v1.14.

## Known Issues

- volumeDevices mapping ignored when container is privileged
- The `Should recreate evicted statefulset` conformance [test](#) fails because `Pod ss-0` expected to be re-created at least once. This was caused by the `Predicate PodFitsHostPorts` failed scheduling error. The root cause was a host port conflict for port `21017`. This port was in-use as an ephemeral port by another application running on the node. This will be looked at for the 1.18 release.
- client-go discovery clients constructed using `NewDiscoveryClientForConfig` or `NewDiscoveryClientForConfigOrDie` default to rate limits that cause normal discovery request patterns to take several seconds. This is fixed in <https://issue.k8s.io/86168> and will be resolved in v1.17.1. As a workaround, the `Burst` value can be adjusted higher in the `rest.Config` passed into `NewDiscoveryClientForConfig` or `NewDiscoveryClientForConfigOrDie`.
- the IP allocator in v1.17.0 can return errors such as `the cluster IP <ip> for service <service-name> is not within the service CIDR <cidr>; please recreate` in the logs of the kube-apiserver. The cause is incorrect CIDR calculations if the service CIDR (`--service-cluster-ip-range`) is set to bits lower than `/16`. This is fixed in <https://issue.k8s.io/86534> and will be resolved in v1.17.1.

# Urgent Upgrade Notes

(No, really, you **MUST** read this before you upgrade)

## Cluster Lifecycle

- Kubeadm: add a new `kubelet-finalize` phase as part of the `init` workflow and an experimental sub-phase to enable automatic kubelet client certificate rotation on primary control-plane nodes. Prior to 1.17 and for existing nodes created by `kubeadm init` where kubelet client certificate rotation is desired, you must modify `/etc/kubernetes/kubelet.conf` to point to the PEM symlink for rotation:  
`client-certificate: /var/lib/kubelet/pki/kubelet-client-current.pem` and `client-key: /var/lib/kubelet/pki/kubelet-client-current.pem`, replacing the embedded client certificate and key. ([#84118](#), [@neolit123](#))

## Network

- EndpointSlices: If upgrading a cluster with EndpointSlices already enabled, any EndpointSlices that should be managed by the EndpointSlice controller should have a `endpointslice.kubernetes.io/managed-by` label set to `endpointslice-controller.k8s.io`.

## Scheduling

- Kubeadm: when adding extra apiserver authorization-modes, the defaults `Node,RBAC` are no longer prepended in the resulting static Pod manifests and a full override is allowed. ([#82616](#), [@ghouscht](#))

## Storage

- A node that uses a CSI raw block volume needs to be drained before kubelet can be upgraded to 1.17. ([#74026](#), [@mkimuram](#))

## Windows

- The Windows containers RunAsUsername feature is now beta.
- Windows worker nodes in a Kubernetes cluster now support Windows Server version 1903 in addition to the existing support for Windows Server 2019
- The RuntimeClass scheduler can now simplify steering Linux or Windows pods to appropriate nodes
- All Windows nodes now get the new label `node.kubernetes.io/windows-build` that reflects the Windows major, minor, and build number that are needed to match compatibility between Windows containers and Windows worker nodes.

# Deprecations and Removals

- `kubeadm.k8s.io/v1beta1` has been deprecated, you should update your config to use newer non-deprecated API versions. ([#83276](#), [@Klaven](#))
- The deprecated feature gates `GCERegionalPersistentDisk`, `EnableAggregatedDiscoveryTimeout` and `PersistentLocalVolumes` are now unconditionally enabled and can no longer be specified in component invocations. ([#82472](#), [@draveness](#))
- Deprecate the default service IP CIDR. The previous default was `10.0.0.0/24` which will be removed in 6 months/2 releases. Cluster admins must specify their own desired value, by using `--service-cluster-ip-range` on kube-apiserver. ([#81668](#), [@darshanime](#))
- Remove deprecated "include-uninitialized" flag. ([#80337](#), [@draveness](#))
- All resources within the `rbac.authorization.k8s.io/v1alpha1` and `rbac.authorization.k8s.io/v1beta1` API groups are deprecated in favor of `rbac.authorization.k8s.io/v1`, and will no longer be served in v1.20. ([#84758](#), [@liggitt](#))

- The certificate signer no longer accepts `ca.key` passwords via the `CFSSL_CA_PK_PASSWORD` environment variable. This capability was not prompted by user request, never advertised, and recommended against in the security audit. ([#84677](#), [@mikedanese](#))
- Deprecate the instance type beta label ( `beta.kubernetes.io/instance-type` ) in favor of its GA equivalent: `node.kubernetes.io/instance-type` ([#82049](#), [@andrewsykim](#))
- The built-in `system:csi-external-provisioner` and `system:csi-external-attacher` cluster roles are removed as of 1.17 release ([#84282](#), [@tedyu](#))
- The in-tree GCE PD plugin `kubernetes.io/gce-pd` is now deprecated and will be removed in 1.21. Users that self-deploy Kubernetes on GCP should enable CSIMigration + CSIMigrationGCE features and install the GCE PD CSI Driver (<https://github.com/kubernetes-sigs/gcp-compute-persistent-disk-csi-driver>) to avoid disruption to existing Pod and PVC objects at that time. Users should start using the GCE PD CSI Driver directly for any new volumes. ([#85231](#), [@davidz627](#))
- The in-tree AWS EBS plugin `kubernetes.io/aws-ebs` is now deprecated and will be removed in 1.21. Users that self-deploy Kubernetes on AWS should enable CSIMigration + CSIMigrationAWS features and install the AWS EBS CSI Driver (<https://github.com/kubernetes-sigs/aws-ebs-csi-driver>) to avoid disruption to existing Pod and PVC objects at that time. Users should start using the AWS EBS CSI Driver directly for any new volumes. ([#85237](#), [@leakingtapan](#))
- The CSINodeInfo feature gate is deprecated and will be removed in a future release. The `storage.k8s.io/v1beta1 CSINode` object is deprecated and will be removed in a future release. ([#83474](#), [@msau42](#))
- Removed Alpha feature `MountContainers` ([#84365](#), [@codenrhoden](#))
- Removed plugin watching of the deprecated directory `{kubelet_root_dir}/plugins` and CSI V0 support in accordance with deprecation announcement in <https://v1-13.docs.kubernetes.io/docs/setup/release/notes> ([#84533](#), [@davidz627](#))
- kubeadm deprecates the use of the hyperkube image ([#85094](#), [@rosti](#))

## Metrics Changes

### Added metrics

- Add `scheduler_goroutines` metric to track number of kube-scheduler binding and prioritizing goroutines ([#83535](#), [@wgliang](#))
- Adding initial EndpointSlice metrics. ([#83257](#), [@roboscott](#))
- Adds a metric `apiserver_request_error_total` to kube-apiserver. This metric tallies the number of `request_errors` encountered by verb, group, version, resource, subresource, scope, component, and code. ([#83427](#), [@logicalhan](#))
- A new `kubelet_preemptions` metric is reported from Kubelets to track the number of preemptions occurring over time, and which resource is triggering those preemptions. ([#84120](#), [@smarterclayton](#))
- Kube-apiserver: Added metrics `authentication_latency_seconds` that can be used to understand the latency of authentication. ([#82409](#), [@RainbowMango](#))
- Add `plugin_execution_duration_seconds` metric for scheduler framework plugins. ([#84522](#), [@liu-cong](#))
- Add `permit_wait_duration_seconds` metric to the scheduler. ([#84011](#), [@liu-cong](#))

### Deprecated/changed metrics

- etcd version monitor metrics are now marked as with the ALPHA stability level. ([#83283](#), [@RainbowMango](#))
- Change `pod_preemption_victims` metric from Gauge to Histogram. ([#83603](#), [@Tabrizian](#))
- Following metrics from kubelet are now marked as with the ALPHA stability level:
  - `kubelet_container_log_filesystem_used_bytes`
  - `kubelet_volume_stats_capacity_bytes` `kubelet_volume_stats_available_bytes`

- kubelet\_volume\_stats\_used\_bytes kubelet\_volume\_stats\_inodes
  - kubelet\_volume\_stats\_inodes\_free kubelet\_volume\_stats\_inodes\_used
  - plugin\_manager\_total\_plugins volume\_manager\_total\_volumes ([#84907](#), [@RainbowMango](#))
- Deprecated metric `rest_client_request_latency_seconds` has been turned off. ([#83836](#), [@RainbowMango](#))
- Following metrics from kubelet are now marked as with the ALPHA stability level:
  - node\_cpu\_usage\_seconds\_total node\_memory\_working\_set\_bytes
  - container\_cpu\_usage\_seconds\_total container\_memory\_working\_set\_bytes
  - scrape\_error ([#84987](#), [@RainbowMango](#))
- Deprecated prometheus request meta-metrics have been removed
  - http\_request\_duration\_microseconds http\_request\_duration\_microseconds\_sum
  - http\_request\_duration\_microseconds\_count http\_request\_size\_bytes
  - http\_request\_size\_bytes\_sum http\_request\_size\_bytes\_count http\_requests\_total,
  - http\_response\_size\_bytes http\_response\_size\_bytes\_sum
  - http\_response\_size\_bytes\_count due to removal from the prometheus client library. Prometheus http request meta-metrics are now generated from [promhttp.InstrumentMetricHandler](#) instead.
- Following metrics from kube-controller-manager are now marked as with the ALPHA stability level:
  - storage\_count\_attachable\_volumes\_in\_use attachdetach\_controller\_total\_volumes
  - pvc\_collector\_bound\_pv\_count pv\_collector\_unbound\_pv\_count
  - pvc\_collector\_bound\_pvc\_count pv\_collector\_unbound\_pvc\_count ([#84896](#), [@RainbowMango](#))
- Following metrics have been turned off:
  - apiserver\_request\_count
  - apiserver\_request\_latencies apiserver\_request\_latencies\_summary
  - apiserver\_dropped\_requests etcd\_request\_latencies\_summary
  - apiserver\_storage\_transformation\_latencies\_microseconds
  - apiserver\_storage\_data\_key\_generation\_latencies\_microseconds
  - apiserver\_storage\_transformation\_failures\_total ([#83837](#), [@RainbowMango](#))
- Following metrics have been turned off:
  - scheduler\_scheduling\_latency\_seconds
  - scheduler\_e2e\_scheduling\_latency\_microseconds
  - scheduler\_scheduling\_algorithm\_latency\_microseconds
  - scheduler\_scheduling\_algorithm\_predicate\_evaluation
  - scheduler\_scheduling\_algorithm\_priority\_evaluation
  - scheduler\_scheduling\_algorithm\_preemption\_evaluation
  - scheduler\_scheduling\_binding\_latency\_microseconds ([[#83838](#)](https://github.com/kubernetes/kubernetes/pull/83838) ), [@RainbowMango](#))
- Deprecated metric `kubeproxy_sync_proxy_rules_latency_microseconds` has been turned off. ([#83839](#), [@RainbowMango](#))

## Notable Features

### Stable

- Graduate ScheduleDaemonSetPods to GA. (feature gate will be removed in 1.18) ([#82795](#), [@draveness](#))
- Graduate TaintNodesByCondition to GA in 1.17. (feature gate will be removed in 1.18) ([#82703](#), [@draveness](#))
- The WatchBookmark feature is promoted to GA. With WatchBookmark feature, clients are able to request watch events with BOOKMARK type. See <https://kubernetes.io/docs/reference/using-api/api-concepts/#watch-bookmarks> for more details. ([#83195](#), [@wojtekt](#))

- Promote NodeLease feature to GA. The feature make Lease object changes an additional healthiness signal from Node. Together with that, we reduce frequency of NodeStatus updates to 5m by default in case of no changes to status itself ([#84351](#), [@wojtek-t](#))
- CSI Topology feature is GA. ([#83474](#), [@msau42](#))
- The VolumeSubpathEnvExpansion feature is graduating to GA. The `VolumeSubpathEnvExpansion` feature gate is unconditionally enabled, and will be removed in v1.19. ([#82578](#), [@kevtaylor](#))
- Node-specific volume limits has graduated to GA. ([#83568](#), [@bertinatto](#))
- The ResourceQuotaScopeSelectors feature has graduated to GA. The `ResourceQuotaScopeSelectors` feature gate is now unconditionally enabled and will be removed in 1.18. ([#82690](#), [@draveness](#))

## Beta

- The Kubernetes Volume Snapshot feature has been moved to beta. The VolumeSnapshotDataSource feature gate is on by default in this release. This feature enables you to take a snapshot of a volume (if supported by the CSI driver), and use the snapshot to provision a new volume, pre-populated with data from the snapshot.
- Feature gates CSIMigration to Beta (on by default) and CSIMigrationGCE to Beta (off by default since it requires installation of the GCE PD CSI Driver) ([#85231](#), [@davidz627](#))
- EndpointSlices are now beta but not yet enabled by default. Use the EndpointSlice feature gate to enable this feature. ([#85365](#), [@roboscott](#))
- Promote CSIMigrationAWS to Beta (off by default since it requires installation of the AWS EBS CSI Driver) ([#85237](#), [@leakingtapan](#))
- Moving Windows RunAsUserName feature to beta ([#84882](#), [@marosset](#))

## CLI Improvements

- The kubectl's api-resource command now has a `--sort-by` flag to sort resources by name or kind. ([#81971](#), [@laddng](#))
- A new `--prefix` flag added into kubectl logs which prepends each log line with information about it's source (pod name and container name) ([#76471](#), [@m1kola](#))

## API Changes

- CustomResourceDefinitions now validate documented API semantics of `x-kubernetes-list-type` and `x-kubernetes-map-type` atomic to reject non-atomic sub-types. ([#84722](#), [@sttts](#))
- Kube-apiserver: The `AdmissionConfiguration` type accepted by `--admission-control-config-file` has been promoted to `apiserver.config.k8s.io/v1` with no schema changes. ([#85098](#), [@liggitt](#))
- Fixed EndpointSlice port name validation to match Endpoint port name validation (allowing port names longer than 15 characters) ([#84481](#), [@roboscott](#))
- CustomResourceDefinitions introduce `x-kubernetes-map-type` annotation as a CRD API extension. Enables this particular validation for server-side apply. ([#84113](#), [@enxebre](#))

## Other notable changes

### API Machinery

- kube-apiserver: the `--runtime-config` flag now supports an `api/beta=false` value which disables all built-in REST API versions matching `v[0-9]+beta[0-9]+`. ([#84304](#), [@liggitt](#)) The `--feature-gates` flag now supports an `AllBeta=false` value which disables all beta feature gates. ([#84304](#), [@liggitt](#))

- New flag `--show-hidden-metrics-for-version` in kube-apiserver can be used to show all hidden metrics that deprecated in the previous minor release. ([#84292](#), [@RainbowMango](#))
- kube-apiserver: Authentication configuration for mutating and validating admission webhooks referenced from an `--admission-control-config-file` can now be specified with `apiVersion: apiserver.config.k8s.io/v1, kind: WebhookAdmissionConfiguration`. ([#85138](#), [@liggitt](#))
- kube-apiserver: The `ResourceQuota` admission plugin configuration referenced from `--admission-control-config-file` admission config has been promoted to `apiVersion: apiserver.config.k8s.io/v1, kind: ResourceQuotaConfiguration` with no schema changes. ([#85099](#), [@liggitt](#))
- kube-apiserver: fixed a bug that could cause a goroutine leak if the apiserver encountered an encoding error serving a watch to a websocket watcher ([#84693](#), [@tedyu](#))
- Fix the bug that EndpointSlice for masters wasn't created after enabling EndpointSlice feature on a pre-existing cluster. ([#84421](#), [@tnqn](#))
- Switched `intstr.Type` to sized integer to follow API guidelines and improve compatibility with proto libraries ([#83956](#), [@liggitt](#))
- Client-go: improved allocation behavior of the delaying workqueue when handling objects with far-future ready times. ([#83945](#), [@barkbay](#))
- Fixed an issue with informers missing an `Added` event if a recently deleted object was immediately recreated at the same time the informer dropped a watch and relisted. ([#83911](#), [@matte21](#))
- Fixed panic when accessing CustomResources of a CRD with `x-kubernetes-int-or-string`. ([#83787](#), [@sttts](#))
- The resource version option, when passed to a list call, is now consistently interpreted as the minimum allowed resource version. Previously when listing resources that had the watch cache disabled clients could retrieve a snapshot at that exact resource version. If the client requests a resource version newer than the current state, a `TimeoutError` is returned suggesting the client retry in a few seconds. This behavior is now consistent for both single item retrieval and list calls, and for when the watch cache is enabled or disabled. ([#72170](#), [@jpbetz](#))
- Fixes a goroutine leak in kube-apiserver when a request times out. ([#83333](#), [@lavalamp](#))
- Fixes the bug in informer-gen that it produces incorrect code if a type has nonNamespaced tag set. ([#80458](#), [@tatsuhiro-t](#))
- Resolves bottleneck in internal API server communication that can cause increased goroutines and degrade API Server performance ([#80465](#), [@answer1991](#))
- Resolves regression generating informers for packages whose names contain `.` characters ([#82410](#), [@nikhita](#))
- Resolves issue with `/readyz` and `/livez` not including etcd and kms health checks ([#82713](#), [@logicalhan](#))
- Fixes regression in logging spurious stack traces when proxied connections are closed by the backend ([#82588](#), [@liggitt](#))
- Kube-apiserver now reloads serving certificates from disk every minute to allow rotation without restarting the server process ([#84200](#), [@jackkleeman](#))
- Client-ca bundles for the all generic-apiserver based servers will dynamically reload from disk on content changes ([#83579](#), [@deads2k](#))
- Client-go: Clients can request protobuf and json and correctly negotiate with the server for JSON for CRD objects, allowing all client libraries to request protobuf if it is available. If an error occurs negotiating a watch with the server, the error is immediately return by the client `Watch()` method instead of being sent as an `Error` event on the watch stream. ([#84692](#), [@smarterclayton](#)) Renamed FeatureGate RequestManagement to APIPriorityAndFairness. This feature gate is an alpha and has not yet been associated with any actual functionality. ([#85260](#), [@MikeSpreitzer](#))



- Filter published OpenAPI schema by making nullable, required fields non-required in order to avoid kubectl to wrongly reject null values. ([#85722](#), [@sttts](#))
- kube-apiserver: fixed a conflict error encountered attempting to delete a pod with `gracePeriodSeconds=0` and a resourceVersion precondition ([#85516](#), [@michaelgugino](#))
- Use context to check client closed instead of `http.CloseNotifier` in processing watch request which will reduce 1 goroutine for each request if proto is HTTP/2.x. ([#85408](#), [@answer1991](#))
- Reload apiserver SNI certificates from disk every minute ([#84303](#), [@jackkleeman](#))
- The mutating and validating admission webhook plugins now read configuration from the `admissionregistration.k8s.io/v1` API. ([#80883](#), [@liggitt](#))
- kube-proxy: a configuration file specified via `--config` is now loaded with strict deserialization, which fails if the config file contains duplicate or unknown fields. This protects against accidentally running with config files that are malformed, mis-indented, or have typos in field names, and getting unexpected behavior. ([#82927](#), [@obitech](#))
- When registering with a 1.17+ API server, `MutatingWebhookConfiguration` and `ValidatingWebhookConfiguration` objects can now request that only `v1` `AdmissionReview` requests be sent to them. Previously, webhooks were required to support receiving `v1beta1` `AdmissionReview` requests as well for compatibility with API servers `<= 1.15`.
  - When registering with a 1.17+ API server, a `CustomResourceDefinition` conversion webhook can now request that only `v1` `ConversionReview` requests be sent to them. Previously, conversion webhooks were required to support receiving `v1beta1` `ConversionReview` requests as well for compatibility with API servers `<= 1.15`. ([#82707](#), [@liggitt](#))
- OpenAPI v3 format in `CustomResourceDefinition` schemas are now documented. ([#85381](#), [@sttts](#))
- kube-apiserver: Fixed a regression accepting patch requests `> 1MB` ([#84963](#), [@liggitt](#))
- The example API server has renamed its `wardle.k8s.io` API group to `wardle.example.com` ([#81670](#), [@liggitt](#))
- CRDs defaulting is promoted to GA. Note: the feature gate `CustomResourceDefaulting` will be removed in 1.18. ([#84713](#), [@sttts](#))
- Restores compatibility with `<=1.15.x` custom resources by not publishing OpenAPI for non-structural custom resource definitions ([#82653](#), [@liggitt](#))
- If given an IPv6 bind-address, kube-apiserver will now advertise an IPv6 endpoint for the `kubernetes.default` service. ([#84727](#), [@danwinship](#))
- Add table convertor to component status. ([#85174](#), [@zhouya0](#))
- Scale custom resource unconditionally if resourceVersion is not provided ([#80572](#), [@knight42](#))
- When the go-client reflector relists, the `ResourceVersion` list option is set to the reflector's latest synced resource version to ensure the reflector does not "go back in time" and reprocess events older than it has already processed. If the server responds with an HTTP 410 (Gone) status code response, the relist falls back to using `resourceVersion=""`. ([#83520](#), [@jpbetz](#))
- Fix unsafe JSON construction in a number of locations in the codebase ([#81158](#), [@zouyee](#))
- Fixes a flaw (CVE-2019-11253) in json/yaml decoding where large or malformed documents could consume excessive server resources. Request bodies for normal API requests (create/delete/update/patch operations of regular resources) are now limited to 3MB. ([#83261](#), [@liggitt](#))
- CRDs can have fields named `type` with value `array` and nested array with `items` fields without validation to fall over this. ([#85223](#), [@sttts](#))

## Apps

- Support Service Topology ([#72046](#), [@m1093782566](#))
- Finalizer Protection for Service LoadBalancers is now in GA (enabled by default). This feature ensures the Service resource is not fully deleted until the correlating load balancer resources are deleted. ([#85023](#), [@MrHohn](#))

- Pod process namespace sharing is now Generally Available. The `PodShareProcessNamespace` feature gate is now deprecated and will be removed in Kubernetes 1.19. ([#84356](#), [@verb](#))
- Fix handling tombstones in pod-disruption-budget controller. ([#83951](#), [@zouyee](#))
- Fixed the bug that deleted services were processed by EndpointSliceController repeatedly even their cleanup were successful. ([#82996](#), [@tnqn](#))
- Add `RequiresExactMatch` for `label.Selector` ([#85048](#), [@shaloulcy](#))
- Adds a new label to indicate what is managing an EndpointSlice. ([#83965](#), [@robscott](#))
- Fix handling tombstones in pod-disruption-budget controller. ([#83951](#), [@zouyee](#))
- Fixed the bug that deleted services were processed by EndpointSliceController repeatedly even their cleanup were successful. ([#82996](#), [@tnqn](#))
- An end-user may choose to request logs without confirming the identity of the backing kubelet. This feature can be disabled by setting the `AllowInsecureBackendProxy` feature-gate to false. ([#83419](#), [@deads2k](#))
- When scaling down a ReplicaSet, delete doubled up replicas first, where a "doubled up replica" is defined as one that is on the same node as an active replica belonging to a related ReplicaSet. ReplicaSets are considered "related" if they have a common controller (typically a Deployment). ([#80004](#), [@Miciah](#))
- Kube-controller-manager: Fixes bug setting headless service labels on endpoints ([#85361](#), [@liggitt](#))
- People can see the right log and note. ([#84637](#), [@zhipengzuo](#))
- Clean duplicate GetPodServiceMemberships function ([#83902](#), [@gongguan](#))

## Auth

- K8s docker config json secrets are now compatible with docker config desktop authentication credentials files ([#82148](#), [@bbourbie](#))
- Kubelet and aggregated API servers now use v1 TokenReview and SubjectAccessReview endpoints to check authentication/authorization. ([#84768](#), [@liggitt](#))
- Kube-apiserver can now specify `--authentication-token-webhook-version=v1` or `--authorization-webhook-version=v1` to use v1 TokenReview and SubjectAccessReview API objects when communicating with authentication and authorization webhooks. ([#84768](#), [@liggitt](#))
- Authentication token cache size is increased (from 4k to 32k) to support clusters with many nodes or many namespaces with active service accounts. ([#83643](#), [@lavalamp](#))
- Apiservers based on k8s.io/apiserver with delegated authn based on cluster authentication will automatically update to new authentication information when the authoritative configmap is updated. ([#85004](#), [@deads2k](#))
- Configmaps/extension-apiserver-authentication in kube-system is continuously updated by kube-apiservers, instead of just at apiserver start ([#82705](#), [@deads2k](#))

## CLI

- Fixed kubectl endpointslice output for get requests ([#82603](#), [@robscott](#))
- Gives the right error message when using `kubectl delete` a wrong resource. ([#83825](#), [@zhouya0](#))
- If a bad flag is supplied to a kubectl command, only a tip to run `--help` is printed, instead of the usage menu. Usage menu is printed upon running `kubectl command --help`. ([#82423](#), [@sallyom](#))
- Commands like `kubectl apply` now return errors if schema-invalid annotations are specified, rather than silently dropping the entire annotations section. ([#83552](#), [@liggitt](#))
- Fixes spurious 0 revisions listed when running `kubectl rollout history` for a StatefulSet ([#82643](#), [@ZP-AlwaysWin](#))
- Correct a reference to a not/no longer used kustomize subcommand in the documentation ([#82535](#), [@demobox](#))
- Kubectl set resources will no longer return an error if passed an empty change for a resource. kubectl set subject will no longer return an error if passed an empty change for a resource. ([#85490](#), [@sallyom](#))

- Kubectl: `--resource-version` now works properly in label/annotate/set selector commands when racing with other clients to update the target object ([#85285](#), [@liggitt](#))
- The `--certificate-authority` flag now correctly overrides existing skip-TLS or CA data settings in the kubeconfig file ([#83547](#), [@liggitt](#))

## Cloud Provider

- Azure: update disk lock logic per vm during attach/detach to allow concurrent updates for different nodes. ([#85115](#), [@aramase](#))
- Fix vmss dirty cache issue in disk attach/detach on vmss node ([#85158](#), [@andyzhangx](#))
- Fix race condition when attach/delete azure disk in same time ([#84917](#), [@andyzhangx](#))
- Change GCP ILB firewall names to contain the `k8s-fw-` prefix like the rest of the firewall rules. This is needed for consistency and also for other components to identify the firewall rule as k8s/service-controller managed. ([#84622](#), [@prameshj](#))
- Ensure health probes are created for local traffic policy UDP services on Azure ([#84802](#), [@feiskyer](#))
- Openstack: Do not delete managed LB in case of security group reconciliation errors ([#82264](#), [@multi-io](#))
- Fix aggressive VM calls for Azure VMSS ([#83102](#), [@feiskyer](#))
- Fix: azure disk detach failure if node not exists ([#82640](#), [@andyzhangx](#))
- Add azure disk encryption(SSE+CMK) support ([#84605](#), [@andyzhangx](#))
- Update Azure SDK versions to v35.0.0 ([#84543](#), [@andyzhangx](#))
- Azure: Add allow unsafe read from cache ([#83685](#), [@aramase](#))
- Reduces the number of calls made to the Azure API when requesting the instance view of a virtual machine scale set node. ([#82496](#), [@hasheddand](#))
- Added cloud operation count metrics to azure cloud controller manager. ([#82574](#), [@kkmsft](#))
- On AWS nodes with multiple network interfaces, kubelet should now more reliably report the same primary node IP. ([#80747](#), [@danwinship](#))
- Update Azure load balancer to prevent orphaned public IP addresses ([#82890](#), [@chewong](#))

## Cluster Lifecycle

- Kubeadm alpha certs command now skip missing files ([#85092](#), [@fabriziopandini](#))
- Kubeadm: the command "kubeadm token create" now has a `--certificate-key` flag that can be used for the formation of join commands for control-planes with automatic copy of certificates ([#84591](#), [@TheLastProject](#))
- Kubeadm: Fix a bug where kubeadm cannot parse kubelet's version if the latter dumps logs on the standard error. ([#85351](#), [@rostri](#))
- Kubeadm: added retry to all the calls to the etcd API so kubeadm will be more resilient to network glitches ([#85201](#), [@fabriziopandini](#))
- Fixes a bug in kubeadm that caused init and join to hang indefinitely in specific conditions. ([#85156](#), [@chuckha](#))
- Kubeadm now includes CoreDNS version 1.6.5
  - `kubernetes` plugin adds metrics to measure kubernetes control plane latency.
  - the `health` plugin now includes the `lameduck` option by default, which waits for a duration before shutting down. ([#85109](#), [@rajansandeep](#))
- Fixed bug when using kubeadm alpha certs commands with clusters using external etcd ([#85091](#), [@fabriziopandini](#))

- Kubeadm no longer defaults or validates the component configs of the kubelet or kube-proxy ([#79223](#), [@rosti](#))
- Kubeadm: remove the deprecated `--cri-socket` flag for `kubeadm upgrade apply`. The flag has been deprecated since v1.14. ([#85044](#), [@neolit123](#))
- Kubeadm: prevent potential hanging of commands such as "kubeadm reset" if the apiserver endpoint is not reachable. ([#84648](#), [@neolit123](#))
- Kubeadm: fix skipped etcd upgrade on secondary control-plane nodes when the command `kubeadm upgrade node` is used. ([#85024](#), [@neolit123](#))
- Kubeadm: fix an issue with the kube-proxy container env. variables ([#84888](#), [@neolit123](#))
- Utilize diagnostics tool to dump GKE windows test logs ([#83517](#), [@YangLu1031](#))
- Kubeadm: always mount the kube-controller-manager hostPath volume that is given by the `--flex-volume-plugin-dir` flag. ([#84468](#), [@neolit123](#))
- Update Cluster Autoscaler version to 1.16.2 (CA release docs: <https://github.com/kubernetes/autoscaler/releases/tag/cluster-autoscaler-1.16.2>) ([#84038](#), [@losipiuk](#))
- Kubeadm no longer removes /etc/cni/net.d as it does not install it. Users should remove files from it manually or rely on the component that created them ([#83950](#), [@yastij](#))
- Kubeadm: fix wrong default value for the `upgrade node --certificate-renewal` flag. ([#83528](#), [@neolit123](#))
- Bump metrics-server to v0.3.5 ([#83015](#), [@olagacek](#))
- Dashboard: disable the dashboard Deployment on non-Linux nodes. This step is required to support Windows worker nodes. ([#82975](#), [@wawa0210](#))
- Fixes a panic in kube-controller-manager cleaning up bootstrap tokens ([#82887](#), [@tedyu](#))
- Kubeadm: add a new `kubelet-finalize` phase as part of the `init` workflow and an experimental sub-phase to enable automatic kubelet client certificate rotation on primary control-plane nodes.

Prior to 1.17 and for existing nodes created by `kubeadm init` where kubelet client certificate rotation is desired, you must modify "/etc/kubernetes/kubelet.conf" to point to the PEM symlink for rotation:

```
client-certificate: /var/lib/kubelet/pki/kubelet-client-current.pem and client-key:
/var/lib/kubelet/pki/kubelet-client-current.pem , replacing the embedded client certificate and key.
(#84118, @neolit123)
```

- Kubeadm: add a upgrade health check that deploys a Job ([#81319](#), [@neolit123](#))
- Kubeadm now supports automatic calculations of dual-stack node cidr masks to kube-controller-manager. ([#85609](#), [@Arvinderpal](#))
- Kubeadm: reset raises warnings if it cannot delete folders ([#85265](#), [@SataQiu](#))
- Kubeadm: enable the usage of the secure kube-scheduler and kube-controller-manager ports for health checks. For kube-scheduler was 10251, becomes 10259. For kube-controller-manager was 10252, becomes 10257. ([#85043](#), [@neolit123](#))

- A new kubelet command line option, `--reserved-cpus`, is introduced to explicitly define the CPU list that will be reserved for system. For example, if `--reserved-cpus=0,1,2,3` is specified, then cpu 0,1,2,3 will be reserved for the system. On a system with 24 CPUs, the user may specify `isolcpus=4-23` for the kernel option and use CPU 4-23 for the user containers. ([#83592](#), [@jianzzha](#))
- Kubelet: a configuration file specified via `--config` is now loaded with strict deserialization, which fails if the config file contains duplicate or unknown fields. This protects against accidentally running with config files that are malformed, mis-indented, or have typos in field names, and getting unexpected behavior. ([#83204](#), [@obitech](#))
- Kubeadm now propagates proxy environment variables to kube-proxy ([#84559](#), [@yastij](#))
- Update the latest validated version of Docker to 19.03 ([#84476](#), [@neolit123](#))
- Update to Ingress-GCE v1.6.1 ([#84018](#), [@rramkumar1](#))
- Kubeadm: enhance certs check-expiration to show the expiration info of related CAs ([#83932](#), [@SataQiu](#))
- Kubeadm: implemented structured output of 'kubeadm token list' in JSON, YAML, Go template and JsonPath formats ([#78764](#), [@bart0sh](#))
- Kubeadm: add support for `127.0.0.1` as advertise address. kubeadm will automatically replace this value with matching global unicast IP address on the loopback interface. ([#83475](#), [@fabriziopandini](#))
- Kube-scheduler: a configuration file specified via `--config` is now loaded with strict deserialization, which fails if the config file contains duplicate or unknown fields. This protects against accidentally running with config files that are malformed, mis-indented, or have typos in field names, and getting unexpected behavior. ([#83030](#), [@obitech](#))
- Kubeadm: use the `--service-cluster-ip-range` flag to init or use the ServiceSubnet field in the kubeadm config to pass a comma separated list of Service CIDRs. ([#82473](#), [@Arvinderpal](#))
- Update crictl to v1.16.1. ([#82856](#), [@Random-Liu](#))
- Bump addon-resizer to 1.8.7 to fix issues with using deprecated extensions APIs ([#85864](#), [@liggitt](#))
- Simple script based hyperkube image that bundles all the necessary binaries. This is an equivalent replacement for the image based on the go based hyperkube command + image. ([#84662](#), [@dims](#))
- Hyperkube will now be available in a new Github repository and will not be included in the kubernetes release from 1.17 onwards ([#83454](#), [@dims](#))
- Remove prometheus cluster monitoring addon from kube-up ([#83442](#), [@serathius](#))
- SourcesReady provides the readiness of kubelet configuration sources such as apiserver update readiness. ([#81344](#), [@zouyee](#))
- This PR sets the `--cluster-dns` flag value to kube-dns service IP whether or not NodeLocal DNSCache is enabled. NodeLocal DNSCache will listen on both the link-local as well as the service IP. ([#84383](#), [@prameshj](#))
- kube-dns add-on:
  - All containers are now being executed under more restrictive privileges.
  - Most of the containers now run as non-root user and has the root filesystem set as read-only.
  - The remaining container running as root only has the minimum Linux capabilities it requires to run.
  - Privilege escalation has been disabled for all containers. ([#82347](#), [@pjbfgf](#))

- Kubernetes no longer monitors firewalld. On systems using firewalld for firewall maintenance, kube-proxy will take slightly longer to recover from disruptive firewalld operations that delete kube-proxy's iptables rules.

As a side effect of these changes, kube-proxy's `sync_proxy_rules_last_timestamp_seconds` metric no longer behaves the way it used to; now it will only change when services or endpoints actually change, rather than reliably updating every 60 seconds (or whatever). If you are trying to monitor for whether iptables updates are failing, the `sync_proxy_rules_iptables_restore_failures_total` metric may be more useful. ([#81517](#), [@danwinship](#))

## Instrumentation

- Bump version of event-exporter to 0.3.1, to switch it to protobuf. ([#83396](#), [@loburm](#))
- Bumps metrics-server version to v0.3.6 with following bugfix:
  - Don't break metric storage when duplicate pod metrics encountered causing hpa to fail ([#83907](#), [@olagacek](#))
- addons: elasticsearch discovery supports IPv6 ([#85543](#), [@SataQiu](#))
- Update Cluster Autoscaler to 1.17.0; changelog: <https://github.com/kubernetes/autoscaler/releases/tag/cluster-autoscaler-1.17.0> ([#85610](#), [@losipiuk](#))

## Network

- The official kube-proxy image (used by kubeadm, among other things) is now compatible with systems running iptables 1.8 in "nft" mode, and will autodetect which mode it should use. ([#82966](#), [@danwinship](#))
- Kubenet: added HostPort IPv6 support. HostPortManager: operates only with one IP family, failing if receives port mapping entries with different IP families. HostPortSyncer: operates only with one IP family, skipping portmap entries with different IP families ([#80854](#), [@aojea](#))
- Kube-proxy now supports DualStack feature with EndpointSlices and IPVS. ([#85246](#), [@roboscott](#))
- Remove redundant API validation when using Service Topology with externalTrafficPolicy=Local ([#85346](#), [@andrewsykim](#))
- Update github.com/vishvananda/netlink to v1.0.0 ([#83576](#), [@andrewsykim](#))
- `-- kube-controller-manager --node-cidr-mask-size-ipv4 int32` Default: 24. Mask size for IPv4 node-cidr in dual-stack cluster. `--node-cidr-mask-size-ipv6 int32` Default: 64. Mask size for IPv6 node-cidr in dual-stack cluster.

These 2 flags can be used only for dual-stack clusters. For non dual-stack clusters, continue to use `--node-cidr-mask-size` flag to configure the mask size.

The default node cidr mask size for IPv6 was 24 which is now changed to 64. ([#79993](#), [@aramase](#))

- deprecate cleanup-ipvs flag ([#83832](#), [@gongguan](#))
- Kube-proxy: emits a warning when a malformed component config file is used with v1alpha1. ([#84143](#), [@phenixblue](#))
- Set config.BindAddress to IPv4 address `127.0.0.1` if not specified ([#83822](#), [@zouyee](#))
- Updated kube-proxy ipvs README with correct grep argument to list loaded ipvs modules ([#83677](#), [@pete911](#))

- The userspace mode of kube-proxy no longer confusingly logs messages about deleting endpoints that it is actually adding. ([#83644](#), [@danwinship](#))
- Kube-proxy iptables probabilities are now more granular and will result in better distribution beyond 319 endpoints. ([#83599](#), [@roboscott](#))
- Significant kube-proxy performance improvements for non UDP ports. ([#83208](#), [@roboscott](#))
- Improved performance of kube-proxy with EndpointSlice enabled with more efficient sorting. ([#83035](#), [@roboscott](#))
- EndpointSlices are now beta for better Network Endpoint performance at scale. ([#84390](#), [@roboscott](#))
- Updated EndpointSlices to use PublishNotReadyAddresses from Services. ([#84573](#), [@roboscott](#))
- When upgrading to 1.17 with a cluster with EndpointSlices enabled, the `endpointslice.kubernetes.io/managed-by` label needs to be set on each EndpointSlice. ([#85359](#), [@roboscott](#))
- Adds FQDN addressType support for EndpointSlice. ([#84091](#), [@roboscott](#))
- Fix incorrect network policy description suggesting that pods are isolated when a network policy has no rules of a given type ([#84194](#), [@jackkleeman](#))
- Fix bug where EndpointSlice controller would attempt to modify shared objects. ([#85368](#), [@roboscott](#))
- Splitting IP address type into IPv4 and IPv6 for EndpointSlices ([#84971](#), [@roboscott](#))
- Added appProtocol field to EndpointSlice Port ([#83815](#), [@howardjohn](#))
- The docker container runtime now enforces a 220 second timeout on container network operations. ([#71653](#), [@liucimin](#))
- Fix panic in kubelet when running IPv4/IPv6 dual-stack mode with a CNI plugin ([#82508](#), [@aanm](#))
- EndpointSlice hostname is now set in the same conditions Endpoints hostname is. ([#84207](#), [@roboscott](#))
- Improving the performance of Endpoint and EndpointSlice controllers by caching Service Selectors ([#84280](#), [@gongguan](#))
- Significant kube-proxy performance improvements when using Endpoint Slices at scale. ([#83206](#), [@roboscott](#))

## Node

- Mirror pods now include an ownerReference for the node that created them. ([#84485](#), [@tallclair](#))
- Fixed a bug in the single-numa-policy of the TopologyManager. Previously, best-effort pods would result in a terminated state with a TopologyAffinity error. Now they will run as expected. ([#83777](#), [@lmdaly](#))
- Fixed a bug in the single-numa-node policy of the TopologyManager. Previously, pods that only requested CPU resources and did not request any third-party devices would fail to launch with a TopologyAffinity error. Now they will launch successfully. ([#83697](#), [@klueska](#))
- Fix error where metrics related to dynamic kubelet config isn't registered ([#83184](#), [@odinuge](#))
- If container fails because ContainerCannotRun, do not utilize the FallbackToLogsOnError TerminationMessagePolicy, as it masks more useful logs. ([#81280](#), [@yqwang-ms](#))

- Use online nodes instead of possible nodes when discovering available NUMA nodes ([#83196](#), [@zouyee](#))
- Use IPv4 in wincat port forward. ([#83036](#), [@liyanhui1228](#))
- Single static pod files and pod files from http endpoints cannot be larger than 10 MB. HTTP probe payloads are now truncated to 10KB. ([#82669](#), [@rphillips](#))
- Limit the body length of exec readiness/liveness probes. remote CRIs and Docker shim read a max of 16MB output of which the exec probe itself inspects 10kb. ([#82514](#), [@dims](#))
- Kubelet: Added kubelet serving certificate metric `server_rotation_seconds` which is a histogram reporting the age of a just rotated serving certificate in seconds. ([#84534](#), [@sambdavidson](#))
- Reduce default NodeStatusReportFrequency to 5 minutes. With this change, periodic node status updates will be send every 5m if node status doesn't change (otherwise they are still send with 10s).  
  
Bump NodeProblemDetector version to v0.8.0 to reduce forced NodeStatus updates frequency to 5 minutes. ([#84007](#), [@wojtek-t](#))
- The topology manager aligns resources for pods of all QoS classes with respect to NUMA locality, not just Guaranteed QoS pods. ([#83492](#), [@ConnorDoyle](#))
- Fix a bug that a node Lease object may have been created without OwnerReference. ([#84998](#), [@wojtek-t](#))
- External facing APIs in plugin registration and device plugin packages are now available under `k8s.io/kubelet/pkg/apis/` ([#83551](#), [@dims](#))

## Release

- Added the `crictl` Windows binaries as well as the Linux 32bit binary to the release archives ([#83944](#), [@saschagrunert](#))
- Bumps the minimum version of Go required for building Kubernetes to 1.12.4. ([#83596](#), [@jktomer](#))
- The deprecated mondo `kubernetes-test` tarball is no longer built. Users running Kubernetes e2e tests should use the `kubernetes-test-portable` and `kubernetes-test-{OS}-{ARCH}` tarballs instead. ([#83093](#), [@ixdy](#))

## Scheduling

- Only validate duplication of the RequestedToCapacityRatio custom priority and allow other custom predicates/priorities ([#84646](#), [@liu-cong](#))
- Scheduler policy configs can no longer be declared multiple times ([#83963](#), [@damemi](#))
- TaintNodesByCondition was graduated to GA, CheckNodeMemoryPressure, CheckNodePIDPressure, CheckNodeDiskPressure, CheckNodeCondition were accidentally removed since 1.12, the replacement is to use CheckNodeUnschedulablePred ([#84152](#), [@draveness](#))
- [migration phase 1] PodFitsHostPorts as filter plugin ([#83659](#), [@wgliang](#))
- [migration phase 1] PodFitsResources as framework plugin ([#83650](#), [@wgliang](#))
- [migration phase 1] PodMatchNodeSelector/NodAffinity as filter plugin ([#83660](#), [@wgliang](#))
- Add more tracing steps in generic\_scheduler ([#83539](#), [@wgliang](#))
- [migration phase 1] PodFitsHost as filter plugin ([#83662](#), [@wgliang](#))
- Fixed a scheduler panic when using PodAffinity. ([#82841](#), [@Huang-Wei](#))
- Take the context as the first argument of Schedule. ([#82119](#), [@wgliang](#))
- Fixed an issue that the correct PluginConfig.Args is not passed to the corresponding PluginFactory in kube-scheduler when multiple PluginConfig items are defined. ([#82483](#), [@everpeace](#))
- Profiling is enabled by default in the scheduler ([#84835](#), [@denkens](#))
- Scheduler now reports metrics on cache size including nodes, pods, and assumed pods ([#83508](#), [@damemi](#))



- User can now use component config to configure NodeLabel plugin for the scheduler framework. ([#84297](#), [@liu-cong](#))
- Optimize inter-pod affinity preferredDuringSchedulingIgnoredDuringExecution type, up to 4x in some cases. ([#84264](#), [@ahg-g](#))
- Filter plugin for cloud provider storage predicate ([#84148](#), [@gongguan](#))
- Refactor scheduler's framework permit API. ([#83756](#), [@hex108](#))
- Add incoming pods metrics to scheduler queue. ([#83577](#), [@liu-cong](#))
- Allow dynamically set glog logging level of kube-scheduler ([#83910](#), [@mrkm4ntr](#))
- Add latency and request count metrics for scheduler framework. ([#83569](#), [@liu-cong](#))
- Expose SharedInformerFactory in the framework handle ([#83663](#), [@draveness](#))
- Add per-pod scheduling metrics across 1 or more schedule attempts. ([#83674](#), [@liu-cong](#))
- Add `podInitialBackoffDurationSeconds` and `podMaxBackoffDurationSeconds` to the scheduler config API ([#81263](#), [@draveness](#))
- Expose kubernetes client in the scheduling framework handle. ([#82432](#), [@draveness](#))
- Remove MaxPriority in the scheduler API, please use MaxNodeScore or MaxExtenderPriority instead. ([#83386](#), [@draveness](#))
- Consolidate ScoreWithNormalizePlugin into the ScorePlugin interface ([#83042](#), [@draveness](#))
- New APIs to allow adding/removing pods from pre-calculated prefilter state in the scheduling framework ([#82912](#), [@ahg-g](#))
- Added Clone method to the scheduling framework's PluginContext and ContextData. ([#82951](#), [@ahg-g](#))
- Modified the scheduling framework's Filter API. ([#82842](#), [@ahg-g](#))
- Critical pods can now be created in namespaces other than kube-system. To limit critical pods to the kube-system namespace, cluster admins should create an admission configuration file limiting critical pods by default, and a matching quota object in the `kube-system` namespace permitting critical pods in that namespace. See <https://kubernetes.io/docs/concepts/policy/resource-quotas/#limit-priority-class-consumption-by-default> for details. ([#76310](#), [@ravisantoshgudimetla](#))
- Scheduler ComponentConfig fields are now pointers ([#83619](#), [@damemi](#))
- Scheduler Policy API has a new recommended apiVersion `apiVersion: kubescheduler.config.k8s.io/v1` which is consistent with the scheduler API group `kubescheduler.config.k8s.io`. It holds the same API as the old apiVersion `apiVersion: v1`. ([#83578](#), [@Huang-Wei](#))
- Rename PluginContext to CycleState in the scheduling framework ([#83430](#), [@draveness](#))
- Some scheduler extender API fields are moved from `pkg/scheduler/api` to `pkg/scheduler/apis/extender/v1`. ([#83262](#), [@Huang-Wei](#))
- Kube-scheduler: emits a warning when a malformed component config file is used with v1alpha1. ([#84129](#), [@obitech](#))
- Kube-scheduler now falls back to emitting events using core/v1 Events when events.k8s.io/v1beta1 is disabled. ([#83692](#), [@yastij](#))
- Expand scheduler priority functions and scheduling framework plugins' node score range to [0, 100]. Note: this change is internal and does not affect extender and RequestedToCapacityRatio custom priority, which are still expected to provide a [0, 10] range. ([#83522](#), [@draveness](#))

## Storage

- Bump CSI version to 1.2.0 ([#84832](#), [@gnufied](#))
- CSI Migration: Fixes issue where all volumes with the same inline volume inner spec name were staged in the same path. Migrated inline volumes are now staged at a unique path per unique volume. ([#84754](#), [@davidz627](#))

- CSI Migration: GCE PD access mode now reflects read only status of inline volumes - this allows multi-attach for read only many PDs ([#84809](#), [@davidz627](#))
- CSI detach timeout increased from 10 seconds to 2 minutes ([#84321](#), [@cduchesne](#))
- Ceph RBD volume plugin now does not use any keyring  
( `/etc/ceph/ceph.client.lvs01cinder.keyring` , `/etc/ceph/ceph.keyring` ,  
`/etc/ceph/keyring` , `/etc/ceph/keyring.bin` ) for authentication. Ceph user credentials must be provided in PersistentVolume objects and referred Secrets. ([#75588](#), [@smileusd](#))
- Validate Gluster IP ([#83104](#), [@zouyee](#))
- PersistentVolumeLabel admission plugin, responsible for labeling `PersistentVolumes` with topology labels, now does not overwrite existing labels on PVs that were dynamically provisioned. It trusts the dynamic provisioning that it provided the correct labels to the `PersistentVolume` , saving one potentially expensive cloud API call. `PersistentVolumes` created manually by users are labelled by the admission plugin in the same way as before. ([#82830](#), [@jsafrane](#))
- Existing PVs are converted to use volume topology if migration is enabled. ([#83394](#), [@bertinatto](#))
- local: support local filesystem volume with block resource reconstruction ([#84218](#), [@cofyc](#))
- Fixed binding of block PersistentVolumes / PersistentVolumeClaims when BlockVolume feature is off. ([#84049](#), [@jsafrane](#))
- Report non-confusing error for negative storage size in PVC spec. ([#82759](#), [@sttts](#))
- Fixed "requested device X but found Y" attach error on AWS. ([#85675](#), [@jsafrane](#))
- Reduced frequency of DescribeVolumes calls of AWS API when attaching/detaching a volume. ([#84181](#), [@jsafrane](#))
- Fixed attachment of AWS volumes that have just been detached. ([#83567](#), [@jsafrane](#))
- Fix possible fd leak and closing of dirs when using openstack ([#82873](#), [@odinuge](#))
- local: support local volume block mode reconstruction ([#84173](#), [@cofyc](#))
- Fixed cleanup of raw block devices after kubelet restart. ([#83451](#), [@jsafrane](#))
- Add data cache flushing during unmount device for GCE-PD driver in Windows Server. ([#83591](#), [@jingxu97](#))

## Windows

- Adds Windows Server build information as a label on the node. ([#84472](#), [@gab-satchi](#))
- Fixes kube-proxy bug accessing self nodeip:port on windows ([#83027](#), [@liggitt](#))
- When using Containerd on Windows, the `TerminationMessagePath` file will now be mounted in the Windows Pod. ([#83057](#), [@bclau](#))
- Fix kubelet metrics gathering on non-English Windows hosts ([#84156](#), [@wawa0210](#))

## Dependencies

- Update etcd client side to v3.4.3 ([#83987](#), [@wenjiaswe](#))
- Kubernetes now requires go1.13.4+ to build ([#82809](#), [@liggitt](#))
- Update to use go1.12.12 ([#84064](#), [@cblecker](#))
- Update to go 1.12.10 ([#83139](#), [@cblecker](#))
- Update default etcd server version to 3.4.3 ([#84329](#), [@jingyih](#))

## Detailed go Dependency Changes

### Added

- [github.com/OpenPeeDeeP/depguard](https://github.com/OpenPeeDeeP/depguard): v1.0.1
- [github.com/StackExchange/wmi](https://github.com/StackExchange/wmi): 5d04971
- [github.com/agnivade/levenshtein](https://github.com/agnivade/levenshtein): v1.0.1
- [github.com/alecthomias/template](https://github.com/alecthomias/template): a0175ee
- [github.com/alecthomias/units](https://github.com/alecthomias/units): 2efee85
- [github.com/andreyvit/diff](https://github.com/andreyvit/diff): c7f18ee
- [github.com/anmitsu/go-shlex](https://github.com/anmitsu/go-shlex): 648efa6
- [github.com/bazelbuild/rules\\_go](https://github.com/bazelbuild/rules_go): 6dae44d
- [github.com/bgentry/speakeasy](https://github.com/bgentry/speakeasy): v0.1.0
- [github.com/bradfitz/go-smtpd](https://github.com/bradfitz/go-smtpd): deb6d62
- [github.com/cockroachdb/datadriven](https://github.com/cockroachdb/datadriven): 80d97fb
- [github.com/creack/pty](https://github.com/creack/pty): v1.1.7
- [github.com/gliderlabs/ssh](https://github.com/gliderlabs/ssh): v0.1.1
- [github.com/go-critic/go-critic](https://github.com/go-critic/go-critic): 1df3008
- [github.com/go-kit/kit](https://github.com/go-kit/kit): v0.8.0
- [github.com/go-lintpack/lintpack](https://github.com/go-lintpack/lintpack): v0.5.2
- [github.com/go-logfmt/logfmt](https://github.com/go-logfmt/logfmt): v0.3.0
- [github.com/go-ole/go-ole](https://github.com/go-ole/go-ole): v1.2.1
- [github.com/go-stack/stack](https://github.com/go-stack/stack): v1.8.0
- [github.com/go-toolsmith/astcast](https://github.com/go-toolsmith/astcast): v1.0.0
- [github.com/go-toolsmith/astcopy](https://github.com/go-toolsmith/astcopy): v1.0.0
- [github.com/go-toolsmith/astequal](https://github.com/go-toolsmith/astequal): v1.0.0
- [github.com/go-toolsmith/astfmt](https://github.com/go-toolsmith/astfmt): v1.0.0
- [github.com/go-toolsmith/astinfo](https://github.com/go-toolsmith/astinfo): 9809ff7
- [github.com/go-toolsmith/astp](https://github.com/go-toolsmith/astp): v1.0.0
- [github.com/go-toolsmith/pkgload](https://github.com/go-toolsmith/pkgload): v1.0.0
- [github.com/go-toolsmith/strparse](https://github.com/go-toolsmith/strparse): v1.0.0
- [github.com/go-toolsmith/typep](https://github.com/go-toolsmith/typep): v1.0.0
- [github.com/gobwas/glob](https://github.com/gobwas/glob): v0.2.3
- [github.com/golangci/check](https://github.com/golangci/check): cfe4005
- [github.com/golangci/dupl](https://github.com/golangci/dupl): 3e9179a
- [github.com/golangci/errcheck](https://github.com/golangci/errcheck): ef45e06
- [github.com/golangci/go-misc](https://github.com/golangci/go-misc): 927a3d8
- [github.com/golangci/go-tools](https://github.com/golangci/go-tools): e32c541
- [github.com/golangci/goconst](https://github.com/golangci/goconst): 041c5f2
- [github.com/golangci/gocyclo](https://github.com/golangci/gocyclo): 2becd97
- [github.com/golangci/gofmt](https://github.com/golangci/gofmt): 0b8337e
- [github.com/golangci/golangci-lint](https://github.com/golangci/golangci-lint): v1.18.0
- [github.com/golangci/gosec](https://github.com/golangci/gosec): 66fb7fc
- [github.com/golangci/ineffassign](https://github.com/golangci/ineffassign): 42439a7
- [github.com/golangci/lint-1](https://github.com/golangci/lint-1): ee948d0
- [github.com/golangci/maligned](https://github.com/golangci/maligned): b1d8939
- [github.com/golangci/misspell](https://github.com/golangci/misspell): 950f5d1
- [github.com/golangci/prealloc](https://github.com/golangci/prealloc): 215b22d
- [github.com/golangci/revgrep](https://github.com/golangci/revgrep): d9c87f5
- [github.com/golangci/unconvert](https://github.com/golangci/unconvert): 28b1c44
- [github.com/google/go-github](https://github.com/google/go-github): v17.0.0+incompatible

- [github.com/google/go-querystring](https://github.com/google/go-querystring): v1.0.0
- [github.com/gostaticanalysis/analysisutil](https://github.com/gostaticanalysis/analysisutil): v0.0.3
- [github.com/jellevandenhooff/dkim](https://github.com/jellevandenhooff/dkim): f50fe3d
- [github.com/julienschmidt/httprouter](https://github.com/julienschmidt/httprouter): v1.2.0
- [github.com/klauspost/compress](https://github.com/klauspost/compress): v1.4.1
- [github.com/kr/logfmt](https://github.com/kr/logfmt): b84e30a
- [github.com/logrusorg/aurora](https://github.com/logrusorg/aurora): a7b3b31
- [github.com/mattn/go-runewidth](https://github.com/mattn/go-runewidth): v0.0.2
- [github.com/mattn/goveralls](https://github.com/mattn/goveralls): v0.0.2
- [github.com/mitchellh/go-ps](https://github.com/mitchellh/go-ps): 4fdf99a
- [github.com/mozilla/tls-observatory](https://github.com/mozilla/tls-observatory): 8791a20
- [github.com/mwitkow/go-conntrack](https://github.com/mwitkow/go-conntrack): cc309e4
- [github.com/nbutton23/zxcvbn-go](https://github.com/nbutton23/zxcvbn-go): eafdab6
- [github.com/olekukonko/tablewriter](https://github.com/olekukonko/tablewriter): a0225b3
- [github.com/quasilyte/go-consistent](https://github.com/quasilyte/go-consistent): c6f3937
- [github.com/rogpeppe/fastuuid](https://github.com/rogpeppe/fastuuid): 6724a57
- [github.com/ryanuber/go-glob](https://github.com/ryanuber/go-glob): 256dc44
- [github.com/sergi/go-diff](https://github.com/sergi/go-diff): v1.0.0
- [github.com/shirou/gopsutil](https://github.com/shirou/gopsutil): c95755e
- [github.com/shirou/w32](https://github.com/shirou/w32): bb4de01
- [github.com/shurcooL/go-goon](https://github.com/shurcooL/go-goon): 37c2f52
- [github.com/shurcooL/go](https://github.com/shurcooL/go): 9e1955d
- [github.com/sourcegraph/go-diff](https://github.com/sourcegraph/go-diff): v0.5.1
- [github.com/tarm/serial](https://github.com/tarm/serial): 98f6abe
- [github.com/tidwall/pretty](https://github.com/tidwall/pretty): v1.0.0
- [github.com/timakin/bodyclose](https://github.com/timakin/bodyclose): 87058b9
- [github.com/ultraware/funlen](https://github.com/ultraware/funlen): v0.0.2
- [github.com/urfave/cli](https://github.com/urfave/cli): v1.20.0
- [github.com/valyala/bytebufferpool](https://github.com/valyala/bytebufferpool): v1.0.0
- [github.com/valyala/fasthttp](https://github.com/valyala/fasthttp): v1.2.0
- [github.com/valyala/quicktemplate](https://github.com/valyala/quicktemplate): v1.1.1
- [github.com/valyala/tcplisten](https://github.com/valyala/tcplisten): ceec8f9
- [github.com/vektah/gqlparser](https://github.com/vektah/gqlparser): v1.1.2
- [go.etcd.io/etcd](https://go.etcd.io/etcd): 3cf2f69
- [go.mongodb.org/mongo-driver](https://go.mongodb.org/mongo-driver): v1.1.2
- [go4.org](https://go4.org): 417644f
- [golang.org/x/build](https://golang.org/x/build): 2835ba2
- [golang.org/x/perf](https://golang.org/x/perf): 6e6d33e
- [golang.org/x/xerrors](https://golang.org/x/xerrors): a985d34
- [gopkg.in/alecthomas/kingpin.v2](https://gopkg.in/alecthomas/kingpin.v2): v2.2.6
- [gopkg.in/cheggaaa/pb.v1](https://gopkg.in/cheggaaa/pb.v1): v1.0.25
- [gopkg.in/resty.v1](https://gopkg.in/resty.v1): v1.12.0
- [grpc.go4.org](https://grpc.go4.org): 11d0a25
- [k8s.io/system-validators](https://k8s.io/system-validators): v1.0.4
- [mvdan.cc/interfacer](https://mvdan.cc/interfacer): c200402
- [mvdan.cc/lint](https://mvdan.cc/lint): adc824a
- [mvdan.cc/unparam](https://mvdan.cc/unparam): fbb5962
- [sourcegraph.com/sqs/pbtypes](https://sourcegraph.com/sqs/pbtypes): d3ebe8f

## Changed

- [github.com/Azure/azure-sdk-for-go](https://github.com/Azure/azure-sdk-for-go): v32.5.0+incompatible → v35.0.0+incompatible

- [github.com/Microsoft/go-winio](https://github.com/Microsoft/go-winio): v0.4.11 → v0.4.14
- [github.com/bazelbuild/bazel-gazelle](https://github.com/bazelbuild/bazel-gazelle): c728ce9 → 70208cb
- [github.com/bazelbuild/buildtools](https://github.com/bazelbuild/buildtools): 80c7f0d → 69366ca
- [github.com/beorn7/perks](https://github.com/beorn7/perks): 3a771d9 → v1.0.0
- [github.com/container-storage-interface/spec](https://github.com/container-storage-interface/spec): v1.1.0 → v1.2.0
- [github.com/coredns/corefile-migration](https://github.com/coredns/corefile-migration): v1.0.2 → v1.0.4
- [github.com/coreos/etcd](https://github.com/coreos/etcd): v3.3.17+incompatible → v3.3.10+incompatible
- [github.com/coreos/go-systemd](https://github.com/coreos/go-systemd): 39ca1b0 → 95778df
- [github.com/docker/go-units](https://github.com/docker/go-units): v0.3.3 → v0.4.0
- [github.com/docker/libnetwork](https://github.com/docker/libnetwork): a9cd636 → f0e46a7
- [github.com/fatih/color](https://github.com/fatih/color): v1.6.0 → v1.7.0
- [github.com/ghodss/yaml](https://github.com/ghodss/yaml): c7ce166 → v1.0.0
- [github.com/go-openapi/analysis](https://github.com/go-openapi/analysis): v0.19.2 → v0.19.5
- [github.com/go-openapi/jsonpointer](https://github.com/go-openapi/jsonpointer): v0.19.2 → v0.19.3
- [github.com/go-openapi/jsonreference](https://github.com/go-openapi/jsonreference): v0.19.2 → v0.19.3
- [github.com/go-openapi/loads](https://github.com/go-openapi/loads): v0.19.2 → v0.19.4
- [github.com/go-openapi/runtime](https://github.com/go-openapi/runtime): v0.19.0 → v0.19.4
- [github.com/go-openapi/spec](https://github.com/go-openapi/spec): v0.19.2 → v0.19.3
- [github.com/go-openapi/strfmt](https://github.com/go-openapi/strfmt): v0.19.0 → v0.19.3
- [github.com/go-openapi/swag](https://github.com/go-openapi/swag): v0.19.2 → v0.19.5
- [github.com/go-openapi/validate](https://github.com/go-openapi/validate): v0.19.2 → v0.19.5
- [github.com/godbus/dbus](https://github.com/godbus/dbus): v4.1.0+incompatible → 2ff6f7f
- [github.com/golang/protobuf](https://github.com/golang/protobuf): v1.3.1 → v1.3.2
- [github.com/google/btree](https://github.com/google/btree): 4030bb1 → v1.0.0
- [github.com/google/cadvisor](https://github.com/google/cadvisor): v0.34.0 → v0.35.0
- [github.com/gregjones/httpcache](https://github.com/gregjones/httpcache): 787624d → 9cad4c3
- [github.com/grpc-ecosystem/go-grpc-middleware](https://github.com/grpc-ecosystem/go-grpc-middleware): cfaf568 → f849b54
- [github.com/grpc-ecosystem/grpc-gateway](https://github.com/grpc-ecosystem/grpc-gateway): v1.3.0 → v1.9.5
- [github.com/heketi/heketi](https://github.com/heketi/heketi): v9.0.0+incompatible → c2e2a4a
- [github.com/json-iterator/go](https://github.com/json-iterator/go): v1.1.7 → v1.1.8
- [github.com/mailru/easyjson](https://github.com/mailru/easyjson): 94de47d → v0.7.0
- [github.com/matttn/go-isatty](https://github.com/matttn/go-isatty): v0.0.3 → v0.0.9
- [github.com/mindprince/gonvml](https://github.com/mindprince/gonvml): fee913c → 9ebdce4
- [github.com/mrunalp/fileutils](https://github.com/mrunalp/fileutils): 4ee1cc9 → 7d4729f
- [github.com/munnerz/goautoneg](https://github.com/munnerz/goautoneg): a547fc6 → a7dc8b6
- [github.com/onsi/ginkgo](https://github.com/onsi/ginkgo): v1.8.0 → v1.10.1
- [github.com/onsi/gomega](https://github.com/onsi/gomega): v1.5.0 → v1.7.0
- [github.com/opencontainers/runc](https://github.com/opencontainers/runc): 6cc5158 → v1.0.0-rc9
- [github.com/opencontainers/selinux](https://github.com/opencontainers/selinux): v1.2.2 → 5215b18
- [github.com/pkg/errors](https://github.com/pkg/errors): v0.8.0 → v0.8.1
- [github.com/prometheus/client\\_golang](https://github.com/prometheus/client_golang): v0.9.2 → v1.0.0
- [github.com/prometheus/client\\_model](https://github.com/prometheus/client_model): 5c3871d → fd36f42
- [github.com/prometheus/common](https://github.com/prometheus/common): 4724e92 → v0.4.1
- [github.com/prometheus/procfs](https://github.com/prometheus/procfs): 1dc9a6c → v0.0.2
- [github.com/soheilhy/cmux](https://github.com/soheilhy/cmux): v0.1.3 → v0.1.4
- [github.com/spf13/pflag](https://github.com/spf13/pflag): v1.0.3 → v1.0.5
- [github.com/stretchr/testify](https://github.com/stretchr/testify): v1.3.0 → v1.4.0
- [github.com/syndtr/gocapability](https://github.com/syndtr/gocapability): e7cb7fa → d983527
- [github.com/vishvananda/netlink](https://github.com/vishvananda/netlink): b2de5d1 → v1.0.0
- [github.com/vmware/govmomi](https://github.com/vmware/govmomi): v0.20.1 → v0.20.3

- [github.com/xiang90/probing](#): 07dd2e8 → 43a291a
- [go.uber.org/atomic](#): 8dc6146 → v1.3.2
- [go.uber.org/multierr](#): ddea229 → v1.1.0
- [go.uber.org/zap](#): 67bc79d → v1.10.0
- [golang.org/x/crypto](#): e84da03 → 60c769a
- [golang.org/x/lint](#): 8f45f77 → 959b441
- [golang.org/x/net](#): cdfb69a → 13f9640
- [golang.org/x/oauth2](#): 9f33145 → 0f29369
- [golang.org/x/sync](#): 42b3178 → cd5d95a
- [golang.org/x/sys](#): 3b52091 → fde4db3
- [golang.org/x/text](#): e6919f6 → v0.3.2
- [golang.org/x/time](#): f51c127 → 9d24e82
- [golang.org/x/tools](#): 6e04913 → 65e3620
- [google.golang.org/grpc](#): v1.23.0 → v1.23.1
- [gopkg.in/inf.v0](#): v0.9.0 → v0.9.1
- [k8s.io/klog](#): v0.4.0 → v1.0.0
- [k8s.io/kube-openapi](#): 743ec37 → 30be4d1
- [k8s.io/repo-infra](#): 00fe14e → v0.0.1-alpha.1
- [k8s.io/utils](#): 581e001 → e782cd3
- [sigs.k8s.io/structured-merge-diff](#): 6149e45 → b1b620d

Removed

- [github.com/cloudflare/cfssl](#): 56268a6
- [github.com/coreos/bbolt](#): v1.3.3
- [github.com/coreos/rkt](#): v1.30.0
- [github.com/globesign/mgo](#): eeefdec
- [github.com/google/certificate-transparency-go](#): v1.0.21
- [github.com/heketi/rest](#): aa6a652
- [github.com/heketi/utils](#): 435bc5b
- [github.com/pborman/uuid](#): v1.2.0

# v1.17.0-rc.2

[Documentation](#)

## Downloads for v1.17.0-rc.2

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	c71521ab0ab1905776b4e05d99672b7ae6555693b95bc4b84c61134197afe4bf9c49297abdfcf87b34d5
<a href="#">kubernetes-src.tar.gz</a>	68248a0610e6971db509fa3475032704ed2d37bb5937ee462ff0a7f0b84ee9753ae49fbc66f00eebc6c

### Client Binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	1bd00995cc4a58050d42bd4b430cd353f808eade67556946d70e3e8a365d9e05a49c44d611ff6fe97f89f01

<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	704727bc0d1ca207ff75f901ffb7b8afd29cdc532455e76bfcf8c0223c605c104f3a588173eef3a3e8b8f97
<a href="#">kubernetes-client-linux-386.tar.gz</a>	706a08ecd314afbc63a7fdedcc47f17d4ab8bc36a2a7239d1f86e4321a6bc274b740893508558e6ca6492dc
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	36e7041453f735ea19141eebcce48fdc18cd3cae76fa7ac97bc7b46077e9208cad9974479d93450932d338e
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	e6f1bfa5170238fc676e3717ee212e96076e8ec3ceca6b9a4bd4233822185ed8d2aee826d4061bbb1638b09
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	29bf7b4df9786c9be9995b15f05ebb18bd1dfad9ceb6f61207c1cac050000cabb41b816c4cd6022710c01fc7
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	d1774fbeafd01447d11e05734055ad133dc90108f5c1bc9adaf84b8334f997e24324f59ee664c7e723b1dfb
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	ca93b0539bda64f3e168b1ca1178eaf13f81de297475fc750893678a0cc6c626c7dea69253079c16b3875ec
<a href="#">kubernetes-client-windows-386.tar.gz</a>	cda5e2526779991d3169d0089e69a2b9e7aa2a127aeb7eec339f4ed1b2b74afc74ef8154964bffb4219eed4
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	c95b17ecd976cf33f182c2d26d49102dad2d7d78fe36d389b18730d59a8866cd28d1b3b28a20126c28b86cd

## Server Binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	aac109354621dc061e01aa6c72aabe43bb1c784a986be86f2e53c8f8243a2470d31955b06111648ddf0a9be
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	d9755aa8c2b0c2d2fdd0756422176c7b34a85553edde03f075363f79bada3f349facb19123cab7ac4ed0ff3
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	e0bf1247872b0361237e7c5f0837b496b2c4ed05e38d5878c11a81d86282ac83ba382e3cf606a14a3a6af73
<a href="#">kubernetes-</a>	44d54154e37b87841123d9f12bce979e5faec88fa9654c0f46904f1bf477aff28790b59af241706b2f729cf

<a href="#">server-linux-ppc64le.tar.gz</a>	
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	9f42dd736b9575eabb4ef37dae8f18e2f433d00d94e7a994734a9b362127de060ee67e02fc6578dd599b012

## Node Binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	6f94d2f4a9e2b37797c482a9d42ee9c93d6100fb8b21a983944cb611d57e4e0e6c69a8aa6e8200927f81d68
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	7078f7372d733b2933d24ddca38401b6d044f90a9c82e12d61c968f545a24a03d738e7402501771cfbe403a
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	9d9365699ecfecac6e7413bdf6d77b917a0e4ed5747810db8c04a3a6d5d2ae416067ae0164fb909e6849179
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	6103b55f433a864360231cc509bd692b3ebdc6be34e3fe43fdc2fbd1a2bfff750cc2800a68792fe53b878031
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	d83008a4cc86c837afd89b3ef7eece8deac67ba29a9a29076333481e630b59acc044917ad54fd1658932569
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	50b03637ecaacf3e6acd56d1a1eac7a95bb05697a179cd83494726ae05480839161d62be2572040607ad9f1

## Changelog since v1.17.0-rc.1

### Other notable changes

- Resolved regression in admission, authentication, and authorization webhook performance in v1.17.0-rc.1 ([#85810](#), [@liggitt](#))
- Filter published OpenAPI schema by making nullable, required fields non-required in order to avoid kubectl to wrongly reject null values. ([#85732](#), [@sttts](#))
- Update Cluster Autoscaler to 1.17.0; changelog: <https://github.com/kubernetes/autoscaler/releases/tag/cluster-autoscaler-1.17.0> ([#85610](#), [@losipiuk](#))
- kube-apiserver: Fixes a bug that hidden metrics can not be enabled by the command-line option `--show-hidden-metrics-for-version`. ([#85444](#), [@RainbowMango](#))
- Fix bug where EndpointSlice controller would attempt to modify shared objects. ([#85368](#), [@roboscott](#))
- Revert ensure the KUBE-MARK-DROP chain in kube-proxy mode=iptables. Fix a bug in which kube-proxy deletes the rules associated with the chain in iptables mode. ([#85527](#), [@aojea](#))



# v1.17.0-rc.1

[Documentation](#)

## Downloads for v1.17.0-rc.1

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	f349b451362bf489066a5a0ad29e0eeb4c3c9bedd05c46309dbdac85abab6ae0fcf7b21f36cf25094bae
<a href="#">kubernetes-src.tar.gz</a>	7bda9be86cf317827b66d553eb876ec24a649e60d558f9e6e66db842fdf21eefd8354e7d816d4a08b42d

## Client Binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	2ada2da6da63ae97dad4a6b5b64326501eed3a19d6f52fdf36b8224a1341142d72b25968cd978414ce5ae43
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	ac06923e4c056d5ab97688e1f42ff408eeab0c0e8f3b010630d45f3530696cfcb1352c49b9cc64c723f0e24
<a href="#">kubernetes-client-linux-386.tar.gz</a>	bb1f4384b6e3aa4cdaf6f629adeb0f81df138f17fc1c5a39c1584c31e228340761d78bf762fa83e69de687c
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	f66119eb66f87f19c993e380813c0a8051e562fb62c1e8a2f49237774fe5d9e132cbaaaf265be812d5fd1bb
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	5a077f979ea775ba45d741b1137ab8a579164601bd8033704e03646ba1c99322c08ced72fdb12f073b6e92d
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	1b595b0aa568b8de3a4a56d9226e618c3648fb167c5ad62c833578ced95293cf77f1a066012a8f82e38c60c
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	955b1ecf8b04944cc04a06c3023574b7ccfad655df658320402bca15647b8fca65c9c5f4f9482989da4f574
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	273d5ca8b5fa042b68c7f01f8f6b293c308ee2ce5675419350f01f7763824b61a6ebc7a9470b1196c4c87e1
<a href="#">kubernetes-client-windows-386.tar.gz</a>	94e20c417c626166cff39a74b05d7eb443a00be9ef7d7f7bb014d170a41ff9b52999bc21bba19b97d27ad5c

<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	59deabc78139ad4d6dced570f5292eaa67da4d6fca88f90d7e1484b77a71ef64826632613ebedb79215dbab
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## Server Binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	b73983175bb95accb505ab953635e49d5ce3ef0a58e4de6575e431a6c0c81819bb8fc75949c5e3d35a395a9
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	7f2b75c7fe9f97dcab6ef00fa72bda3493225c58aa963e6843184f24c32631d33a05288ec525ef378296702
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	113e978c8400acc8048b0a1979cf5cf95cfec76de7a9b2a5e1c204de8969ff7e4662fecf232d03f5889f47e
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	5dfb184689e9d534788f86dc29bf69e779c5a9927adc50338fee0f7a71603aecd7822f6ca6ba017e73e595
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	ae7a6399672a7333ba85567bf9b6b1f9af7ad9616acbd0bd52237cb5d5c968f3f39617ffad9606c8486cfa2

## Node Binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	17279e9220a2423aba35056bc631d0b2af1df45297dd40e36949a0ff809d3b7c8cc410808638c266cdd0263
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	4611354f214b2d7d5138adaffdf64574dfc6a68d27b7f53563c486a8ba25cefceeb5cf04d75cc1f47f525d4
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	361e44be2d5a98fb94fd8a39ab9a57198bc7613b2004b239920438853db0a33e360bd76c7e2c19e64e74e90
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	69f9da64ae19bb4cfc616a2abd587c9711e9667da4743d776510e92aa23da72da85bd9aecdd2d334066697d5
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	0fb52cfc24b58887be71d98dd1c826be520eef69448f2f207e849b85533c277084fa4b6e04445c0c1cf499e
<a href="#">kubernetes-</a>	7d3ce000317a05737101ff1fd0fd0423be2649e5ae387b9d89e57242a3cf8b202a3152dd6b864601eba07ac

[node-  
windows-  
amd64.tar.gz](#)

## Changelog since v1.17.0-beta.2

### Other notable changes

- kubeadm: fix a panic in case the KubeProxyConfiguration feature gates were not initialized. ([#85524](#), [@Arvinderpal](#))
- kubeadm: fix stray "node-cidr-mask-size" flag in the kube-controller-manager manifest when IPv6DualStack is enabled ([#85494](#), [@tedyu](#))
- CRDs can have fields named `type` with value `array` and nested array with `items` fields without validation to fall over this. ([#85223](#), [@sttts](#))
- Resolves error from v1.17.0-beta.2 with `--authorizer-mode` webhook complaining about an invalid version ([#85441](#), [@liggitt](#))
- Promote CSIMigrationAWS to Beta (off by default since it requires installation of the AWS EBS CSI Driver) ([#85237](#), [@leakingtapan](#))
  - The in-tree AWS EBS plugin "kubernetes.io/aws-ebs" is now deprecated and will be removed in 1.21. Users should enable CSIMigration + CSIMigrationAWS features and install the AWS EBS CSI Driver (<https://github.com/kubernetes-sigs/aws-ebs-csi-driver>) to avoid disruption to existing Pod and PVC objects at that time.
  - Users should start using the AWS EBS CSI CSI Driver directly for any new volumes.

## v1.17.0-beta.2

[Documentation](#)

### Downloads for v1.17.0-beta.2

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	c4e937e784b26b5b18cac0bc8d4c91e1ae576107f14bb475e2d38687fbb5790f2c57898590a2f24d3c4a
<a href="#">kubernetes- src.tar.gz</a>	79351b61539c7dc608f4c2a184e788f74503cd801304204de1d52e9ea7b50450503d46d48605b7124039

### Client Binaries

filename	sha512 hash
<a href="#">kubernetes- client-darwin- 386.tar.gz</a>	3940ed06c0848b6ddf9e37e66535085d58a5cf7b66a015eab718eb7b4927e9ebce9e0634040bd7a748610b1
<a href="#">kubernetes- client-darwin- amd64.tar.gz</a>	2d6497ad8f5ca592717fcc704f581020922e317e60c2f7def6b6899398666c6c1c81b0b006ed02c923f54b8
<a href="#">kubernetes- client-linux-</a>	220713aea7709facd2317015467ce1922abf39cdf486d44f4a3fae497aa119f5af00bbfaa46fb022e1b53de

<a href="#">386.tar.gz</a>	
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	a7e7fbecb04bba24f6c2d794a7c9b83cdc48032137776e660537541e3b2da6a04a1f0b8dc2ac0826a7d3c3c
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	97addcebe381cfd6ccca94ca4f039ec6e300bda701fc005b1d292a055a2ed8515a80991d0013c3d388e742b
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	ca3880ce4c6ca1aa8500d67d0c0eeb85f0323306308d2abe26caa9f97b20432f25e00d25c52b460dbf0f62a
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	84c40110c8ae3bfc02edd3f6e937032b41dd67b9c48e738ff8590d9b26d249d4febc6a5665261a3c835ce0
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	31521ef3a8426676e73011dbe5b00a7cb9479aa9d1147e824c1c4287634f1c0742c7990166e804ed7897c06
<a href="#">kubernetes-client-windows-386.tar.gz</a>	8601fb516a4557b7579dc3fb3e83e1be2f8e8a6a19aaca5232a5be25d9d23056a37fb5b30742454d8db6598
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	00b4e163629f415c9c9caca4e5a9b0753ecddc29fde7d63b379d9d13af8992f78c2b1d4810a94264edc766b

## Server Binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	a5d21dfe1c05ca6fb1357975b75ff9549642f37e8754a884567c0a00048208ba9060d169b378f0be349197b
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	d33a18da3aa4305183f7e3cd3f43f100ed1484c59811c0e8172c5838b94cd0ea11dbc3733d49624e4787e6d
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	2bba562b5e5f28d1b840490cbcc837f421e30a715daca08234b1302f5b7a528b605594bffac7fa104ca2a02
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	a80a80233832aca887b90e688a5ab537468071d8d3237a28cf3e9d7cf4ef1f340ef243f173e67b74fc08f7a
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	ba23bc2a9c94dd19a8a0a739e15e72dcb30ec103978686e1b4a845175ae8cad66e34b266afcb5ba0adb5969

## Node Binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	76298a3e8a6184c7ca7026a83c016172e22f5be18e68d3ec01a3d6fc1b3ca2525232ef6f15b423c651c3669
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	d21b60164cb3ee15a493567e1852fb8844f8a5fa5d6d4e71f8078a039d9fea4af00f992026bbc135fadc05
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	9707c6e9c3835f8a5a80be9600f651c992ae717a8a6efc20cc8e67d562ddc62ec81b70deb74ba75a67eb174
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	4c8dea040321fbf8e444ba0252567cb3aed3173db4c82b7572b9f8053b1275b9bc45627510a9abe19c8be3d
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	7a720070b28ab5b83ec054a3137d434c39f7b8f1a0c751f5d06b1f2bbe00777ff444f2855c135ac113f0c51
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	85b3a0bcb5a319f443cc0f3a9aff0b6fb038d42f515698d51cba27a4a1a6b3d701085c6cfb525cf0f826af3

## Changelog since v1.17.0-beta.1

### Action Required

- Renamed FeatureGate RequestManagement to APIPriorityAndFairness. This feature gate is an alpha and has not yet been associated with any actual functionality. ([#85260](#), [@MikeSpreitzer](#))
  - Action required: change references to feature gate RequestManagement into references to APIPriorityAndFairness
- ACTION REQUIRED: kubeadm: add a new "kubelet-finalize" phase as part of the "init" workflow and an experimental sub-phase to enable automatic kubelet client certificate rotation on primary control-plane nodes. ([#84118](#), [@neolit123](#))
  - Prior to 1.17 and for existing nodes created by "kubeadm init" where kubelet client certificate rotation is desired, you must modify "/etc/kubernetes/kubelet.conf" to point to the PEM symlink for rotation:
  - "client-certificate: /var/lib/kubelet/pki/kubelet-client-current.pem" and "client-key: /var/lib/kubelet/pki/kubelet-client-current.pem", replacing the embedded client certificate and key.
- action required: kubeadm deprecates the use of the hyperkube image ([#85094](#), [@rostiti](#))

### Other notable changes

- Following metrics have been turned off: ([#83837](#), [@RainbowMango](#))
  - apiserver\_request\_count
  - apiserver\_request\_latencies

- ■ apiserver\_request\_latencies\_summary
  - ■ apiserver\_dropped\_requests
  - ■ etcd\_request\_latencies\_summary
  - ■ apiserver\_storage\_transformation\_latencies\_microseconds
  - ■ apiserver\_storage\_data\_key\_generation\_latencies\_microseconds
  - ■ apiserver\_storage\_transformation\_failures\_total
- OpenAPI v3 format in CustomResourceDefinition schemas are now documented. ([#85381](#), [@sttts](#))
- The official kube-proxy image (used by kubeadm, among other things) is now ([#82966](#), [@danwinship](#))
  - compatible with systems running iptables 1.8 in "nft" mode, and will autodetect
  - which mode it should use.
- Kubenet: added HostPort IPv6 support ([#80854](#), [@aojea](#))
  - HostPortManager: operates only with one IP family, failing if receives portmapping entries with different IP families
  - HostPortSyncer: operates only with one IP family, skipping portmap entries with different IP families
- Implement the documented API semantics of list-type and map-type atomic to reject non-atomic subtypes. ([#84722](#), [@sttts](#))
- kubeadm: Fix a bug where kubeadm cannot parse kubelet's version if the latter dumps logs on the standard error. ([#85351](#), [@rostri](#))
- EndpointSlices are not enabled by default. Use the EndpointSlice feature gate to enable this feature. ([#85365](#), [@roboscott](#))
- Feature gates CSIMigration to Beta (on by default) and CSIMigrationGCE to Beta (off by default since it requires installation of the GCE PD CSI Driver) ([#85231](#), [@davidz627](#))
  - The in-tree GCE PD plugin "kubernetes.io/gce-pd" is now deprecated and will be removed in 1.21. Users should enable CSIMigration + CSIMigrationGCE features and install the GCE PD CSI Driver (<https://github.com/kubernetes-sigs/gcp-compute-persistent-disk-csi-driver>) to avoid disruption to existing Pod and PVC objects at that time.
  - Users should start using the GCE PD CSI Driver directly for any new volumes.
- kube-controller-manager: Fixes bug setting headless service labels on endpoints ([#85361](#), [@liggitt](#))
- When upgrading to 1.17 with a cluster with EndpointSlices enabled, the `endpointslice.kubernetes.io/managed-by` label needs to be set on each EndpointSlice. ([#85359](#), [@roboscott](#))
- Remove redundant API validation when using Service Topology with externalTrafficPolicy=Local ([#85346](#), [@andrewsykim](#))
- Following metrics have been turned off: ([#83838](#), [@RainbowMango](#))
  - ■ scheduler\_scheduling\_latency\_seconds
  - ■ scheduler\_e2e\_scheduling\_latency\_microseconds
  - ■ scheduler\_scheduling\_algorithm\_latency\_microseconds
  - ■ scheduler\_scheduling\_algorithm\_predicate\_evaluation
  - ■ scheduler\_scheduling\_algorithm\_priority\_evaluation
  - ■ scheduler\_scheduling\_algorithm\_preemption\_evaluation
  - ■ scheduler\_scheduling\_binding\_latency\_microseconds
- CSI Migration: Fixes issue where all volumes with the same inline volume inner spec name were staged in the same path. Migrated inline volumes are now staged at a unique path per unique volume. ([#84754](#), [@davidz627](#))

- kube-controller-manager ([#79993](#), [@aramase](#))
  - `--node-cidr-mask-size-ipv4` int32 Default: 24. Mask size for IPv4 node-cidr in dual-stack cluster.
  - `--node-cidr-mask-size-ipv6` int32 Default: 64. Mask size for IPv6 node-cidr in dual-stack cluster.
  - These 2 flags can be used only for dual-stack clusters. For non dual-stack clusters, continue to use
  - `--node-cidr-mask-size` flag to configure the mask size.
  - The default node cidr mask size for IPv6 was 24 which is now changed to 64.
- The following information is available through environment variables: ([#83123](#), [@aramase](#))
  - `status.podIPs` - the pod's IP addresses
- update github.com/vishvananda/netlink to v1.0.0 ([#83576](#), [@andrewsykim](#))
- kubectl: `--resource-version` now works properly in label/annotate/set selector commands when racing with other clients to update the target object ([#85285](#), [@liggitt](#))
- `--runtime-config` now supports an `api/beta=false` value which disables all built-in REST API versions matching `v[0-9]+beta[0-9]+`. ([#84304](#), [@liggitt](#))
  - `--feature-gates` now supports an `AllBeta=false` value which disables all beta feature gates.
- kube-proxy now supports DualStack feature with EndpointSlices and IPVS. ([#85246](#), [@robscott](#))
- Add table convertor to componentstatus. ([#85174](#), [@zhouya0](#))
- kubeadm: added retry to all the calls to the etcd API so kubeadm will be more resilient to network glitches ([#85201](#), [@fabriziopandini](#))
- azure: update disk lock logic per vm during attach/detach to allow concurrent updates for different nodes. ([#85115](#), [@aramase](#))
- Scale custom resource unconditionally if resourceVersion is not provided ([#80572](#), [@knight42](#))
- Bump CSI version to 1.2.0 ([#84832](#), [@gnufied](#))
- Adds Windows Server build information as a label on the node. ([#84472](#), [@gab-satchi](#))
- Deprecated metric `kubeproxy_sync_proxy_rules_latency_microseconds` has been turned off. ([#83839](#), [@RainbowMango](#))
- Existing PVs are converted to use volume topology if migration is enabled. ([#83394](#), [@bertinatto](#))
- Finalizer Protection for Service LoadBalancers is now in GA (enabled by default). This feature ensures the Service resource is not fully deleted until the correlating load balancer resources are deleted. ([#85023](#), [@MrHohn](#))
- EndpointSlices are now beta and enabled by default for better Network Endpoint performance at scale. ([#84390](#), [@robscott](#))
- When using Containerd on Windows, the `TerminationMessagePath` file will now be mounted in the Windows Pod. ([#83057](#), [@bclau](#))
- apiservers based on k8s.io/apiserver with delegated authn based on cluster authentication will automatically update to new authentication information when the authoritative configmap is updated. ([#85004](#), [@deads2k](#))
- fix vmss dirty cache issue in disk attach/detach on vmss node ([#85158](#), [@andyzhangx](#))
- Fixes a bug in kubeadm that caused init and join to hang indefinitely in specific conditions. ([#85156](#), [@chuckha](#))
- kube-apiserver: Authentication configuration for mutating and validating admission webhooks referenced from an `--admission-control-config-file` can now be specified with `apiVersion: apiserver.config.k8s.io/v1, kind: WebhookAdmissionConfiguration`. ([#85138](#), [@liggitt](#))
- Kubeadm now includes CoreDNS version 1.6.5 ([#85109](#), [@rajansandeep](#))
  - `kubernetes` plugin adds metrics to measure kubernetes control plane latency.
  - the `health` plugin now includes the `lameduck` option by default, which waits for a duration before shutting down.
- Kubeadm now includes CoreDNS version 1.6.5 ([#85108](#), [@rajansandeep](#))

- `kubernetes` plugin adds metrics to measure kubernetes control plane latency.
  - the `health` plugin now includes the `lameduck` option by default, which waits for a duration before shutting down.
- kube-apiserver: The `ResourceQuota` admission plugin configuration referenced from `--admission-control-config-file` admission config has been promoted to `apiVersion: apiserver.config.k8s.io/v1`, `kind: ResourceQuotaConfiguration` with no schema changes. ([#85099](#), [@liggitt](#))
- kube-apiserver: The `AdmissionConfiguration` type accepted by `--admission-control-config-file` has been promoted to `apiserver.config.k8s.io/v1` with no schema changes. ([#85098](#), [@liggitt](#))
- New flag `--show-hidden-metrics-for-version` in kube-apiserver can be used to show all hidden metrics that deprecated in the previous minor release. ([#84292](#), [@RainbowMango](#))
- The `ResourceQuotaScopeSelectors` feature has graduated to GA. The `ResourceQuotaScopeSelectors` feature gate is now unconditionally enabled and will be removed in 1.18. ([#82690](#), [@draveness](#))
- Fixed bug when using kubeadm alpha certs commands with clusters using external etcd ([#85091](#), [@fabriziopandini](#))
- Fix a bug that a node Lease object may have been created without OwnerReference. ([#84998](#), [@wojtekt-t](#))
- Splitting IP address type into IPv4 and IPv6 for EndpointSlices ([#84971](#), [@roboscott](#))
- Pod process namespace sharing is now Generally Available. The `PodShareProcessNamespace` feature gate is now deprecated and will be removed in Kubernetes 1.19. ([#84356](#), [@verb](#))
- Fix incorrect network policy description suggesting that pods are isolated when a network policy has no rules of a given type ([#84194](#), [@jackkleeman](#))
- add `RequiresExactMatch` for label.Selector ([#85048](#), [@shaloulcy](#))
- Deprecated metric `rest_client_request_latency_seconds` has been turned off. ([#83836](#), [@RainbowMango](#))
- Removed dependency on kubectrl from several storage E2E tests ([#84042](#), [@okartau](#))
- kubeadm no longer defaults or validates the component configs of the kubelet or kube-proxy ([#79223](#), [@rosteri](#))
- Add `plugin_execution_duration_seconds` metric for scheduler framework plugins. ([#84522](#), [@liu-cong](#))
- Moving `WindowsRunAsUserName` feature to beta ([#84882](#), [@marosset](#))
- Node-specific volume limits has graduated to GA. ([#83568](#), [@bertinatto](#))
- kubelet and aggregated API servers now use v1 `TokenReview` and `SubjectAccessReview` endpoints to check authentication/authorization. ([#84768](#), [@liggitt](#)) \* kube-apiserver can now specify `--authentication-token-webhook-version=v1` or `--authorization-webhook-version=v1` to use v1 `TokenReview` and `SubjectAccessReview` API objects when communicating with authentication and authorization webhooks.
- BREAKING CHANGE: Remove plugin watching of deprecated directory `{kubelet_root_dir}/plugins` and CSI V0 support in accordance with deprecation announcement in <https://v1-13.docs.kubernetes.io/docs/setup/release/notes/> ([#84533](#), [@davidz627](#))
- Adds a new label to indicate what is managing an EndpointSlice. ([#83965](#), [@roboscott](#))
- Fix a racing issue in client-go `UpdateTransportConfig`. ([#80284](#), [@danielqsj](#))
- Enables `VolumeSnapshotDataSource` feature gate and promotes volume snapshot APIs to beta. ([#80058](#), [@xing-yang](#))
- Added `appProtocol` field to `EndpointSlice` Port ([#83815](#), [@howardjohn](#))
- kubeadm alpha certs command now skip missing files ([#85092](#), [@fabriziopandini](#))
- A new flag "progress-report-url" has been added to the test context which allows progress information about the test run to be sent to a webhook. In addition, this information is printed to stdout to aid in users watching the logs. ([#84524](#), [@johnSchnake](#))



- kubeadm: remove the deprecated "--cri-socket" flag for "kubeadm upgrade apply". The flag has been deprecated since v1.14. ([#85044](#), [@neolit123](#))
- Clients can request protobuf and json and correctly negotiate with the server for JSON for CRD objects, allowing all client libraries to request protobuf if it is available. If an error occurs negotiating a watch with the server, the error is immediately return by the client `Watch()` method instead of being sent as an `Error` event on the watch stream. ([#84692](#), [@smarterclayton](#))
- Following metrics from kubelet are now marked as with the ALPHA stability level: ([#84987](#), [@RainbowMango](#))
  - node\_cpu\_usage\_seconds\_total
  - node\_memory\_working\_set\_bytes
  - container\_cpu\_usage\_seconds\_total
  - container\_memory\_working\_set\_bytes
  - scrape\_error
- Following metrics from kubelet are now marked as with the ALPHA stability level: ([#84907](#), [@RainbowMango](#))
  - kubelet\_container\_log\_filesystem\_used\_bytes
  - kubelet\_volume\_stats\_capacity\_bytes
  - kubelet\_volume\_stats\_available\_bytes
  - kubelet\_volume\_stats\_used\_bytes
  - kubelet\_volume\_stats\_inodes
  - kubelet\_volume\_stats\_inodes\_free
  - kubelet\_volume\_stats\_inodes\_used
  - plugin\_manager\_total\_plugins
  - volume\_manager\_total\_volumes
- kubeadm: enable the usage of the secure kube-scheduler and kube-controller-manager ports for health checks. For kube-scheduler was 10251, becomes 10259. For kube-controller-manager was 10252, becomes 10257. ([#85043](#), [@neolit123](#))
- kubeadm: prevent potential hanging of commands such as "kubeadm reset" if the apiserver endpoint is not reachable. ([#84648](#), [@neolit123](#))
- Mirror pods now include an ownerReference for the node that created them. ([#84485](#), [@tallclair](#))
- kubeadm: fix skipped etcd upgrade on secondary control-plane nodes when the command "kubeadm upgrade node" is used. ([#85024](#), [@neolit123](#))
- fix race condition when attach/delete azure disk in same time ([#84917](#), [@andyzhangx](#))
- If given an IPv6 bind-address, kube-apiserver will now advertise an IPv6 endpoint for the kubernetes.default service. ([#84727](#), [@danwinship](#))
- kubeadm: the command "kubeadm token create" now has a "--certificate-key" flag that can be used for the formation of join commands for control-planes with automatic copy of certificates ([#84591](#), [@TheLastProject](#))
- Deprecate the instance type beta label ("beta.kubernetes.io/instance-type") in favor of it's GA equivalent: "node.kubernetes.io/instance-type" ([#82049](#), [@andrewsykim](#))
- kube-apiserver: Fixed a regression accepting patch requests > 1MB ([#84963](#), [@liggitt](#))
- Promote NodeLease feature to GA. ([#84351](#), [@wojtek-t](#))
  - The feature make Lease object changes an additional healthiness signal from Node. Together with that, we reduce frequency of NodeStatus updates to 5m by default in case of no changes to status itself
- Following metrics from kube-controller-manager are now marked as with the ALPHA stability level: ([#84896](#), [@RainbowMango](#))
  - storage\_count\_attachable\_volumes\_in\_use
  - attachdetach\_controller\_total\_volumes

- pv\_collector\_bound\_pv\_count
- pv\_collector\_unbound\_pv\_count
- pv\_collector\_bound\_pvc\_count
- pv\_collector\_unbound\_pvc\_count
- Deprecate the beta labels for zones ("failure-domain.beta.kubernetes.io/zone") and ([#81431](#), [@andrewsykim](#))
  - regions ("failure-domain.beta.kubernetes.io/region") in favor of their GA equivalents:
  - "topology.kubernetes.io/zone" and "topology.kubernetes.io/region".
  - The beta labels "failure-domain.beta.kubernetes.io/zone" and "failure-domain.beta.kubernetes.io/region" will be removed in v1.21
- kube-apiserver: fixed a bug that could cause a goroutine leak if the apiserver encountered an encoding error serving a watch to a websocket watcher ([#84693](#), [@tedyu](#))
- EndpointSlice hostname is now set in the same conditions Endpoints hostname is. ([#84207](#), [@roboscott](#))
- Simple script based hyperkube image that bundles all the necessary binaries. This is a equivalent replacement for the image based on the go based hyperkube command + image. ([#84662](#), [@dms](#))
- configmaps/extension-apiserver-authentication in kube-system is continuously updated by kube-apiservers, instead of just at apiserver start ([#82705](#), [@deads2k](#))
- kubeadm: fix an issue with the kube-proxy container env. variables ([#84888](#), [@neolit123](#))
- Updated EndpointSlices to use PublishNotReadyAddresses from Services. ([#84573](#), [@roboscott](#))
- The example API server has renamed its `wardle.k8s.io` API group to `wardle.example.com` ([#81670](#), [@liggitt](#))
- A new kubelet command line option, `--reserved-cpus`, is introduced to explicitly define the CPU list that will be reserved for system. For example, if `--reserved-cpus=0,1,2,3` is specified, then cpu 0,1,2,3 will be reserved for the system. On a system with 24 CPUs, the user may specify `isolcpus=4-23` for the kernel option and use CPU 4-23 for the user containers. ([#83592](#), [@jianzha](#))
- Utilize diagnostics tool to dump GKE windows test logs ([#83517](#), [@YangLu1031](#))
- Improving the performance of Endpoint and EndpointSlice controllers by caching Service Selectors ([#84280](#), [@gongguan](#))
- When the go-client reflector relists, the ResourceVersion list option is set to the reflector's latest synced resource version to ensure the reflector does not "go back in time" and reprocess events older than it has already processed. If the server responds with an HTTP 410 (Gone) status code response, the relist falls back to using `resourceVersion=""`. ([#83520](#), [@jpbetz](#))
- Kubernetes now requires go1.13.4+ to build ([#82809](#), [@liggitt](#))
- Ensure health probes are created for local traffic policy UDP services on Azure ([#84802](#), [@feiskyer](#))
- CRDs defaulting is promoted to GA. Note: the feature gate CustomResourceDefaulting will be removed in 1.18. ([#84713](#), [@stttts](#))
- Profiling is enabled by default in the scheduler ([#84835](#), [@denkens](#))
- CSI Migration: GCE PD access mode now reflects read only status of inline volumes - this allows multi-attach for read only many PDs ([#84809](#), [@davidz627](#))
- All resources within the `rbac.authorization.k8s.io/v1alpha1` and `rbac.authorization.k8s.io/v1beta1` API groups are deprecated in favor of `rbac.authorization.k8s.io/v1`, and will no longer be served in v1.20. ([#84758](#), [@liggitt](#))
- Scheduler ComponentConfig fields are now pointers ([#83619](#), [@damemi](#))
- Adding initial EndpointSlice metrics. ([#83257](#), [@roboscott](#))

## v1.17.0-beta.1

[Documentation](#)

## Downloads for v1.17.0-beta.1

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	6d6c61bb4d3372d56b7a429b5b8b5adbfb0aadd65283d169bb719b8aca7c270db34f4699c4efee36456
<a href="#">kubernetes-src.tar.gz</a>	9878c454c5b482621a7ddeab2ab3290fdafd0cfb3d580b261081ba3943b19b13e54aaa3a80ba68d7cbfa

### Client Binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	67c9d4d97db40ee94a5e021642eeea006dfd66f0c50ccd0d833c52d2bc4156fb044bb481b77e235db330e34
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	9a1494c082af52186620d1cd1b02f8a8f4af7e676e2ec217f41cf2915bd6fb1717e2c65e42c84ca842a5425
<a href="#">kubernetes-client-linux-386.tar.gz</a>	9de6254a6a267ea283b6118d9da079f072e73ba377e81a361943f6d42baa5dd1b668b20f6909b697cbb5163
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	a93d028c3adda047864b36f314752fbe4745bb6ad8f37574cc124eb1453bad07e3790dac4cc230e3ee2d3f6
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	5ca7feeal1c4a33cf92f0ee79a92daee4876b43c626346dcc701bb7d6b956c0050f2ed6be1f2ba31756bf3b6
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	d6a63efa140a1c2cde43252e9f917a02752e90628b51ca28ec7118245cd00da03b83f1bd920d0f1da789b8a
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	cdb805bc7bae052a0585b88c5e7980bd8bf9f32a840728455c18f4f01e03cda823bede2145772c4338e95c1
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	a9ff545cad6a42dbcdf9f91214c15e2eb2df20579b7f62ec07397eca792f20ee550841759d9d38c0affdb
<a href="#">kubernetes-client-windows-386.tar.gz</a>	eb3e4dbbb1dc6829bfa320853b695e61f4daafdf4aaa1f4ffb2e4be4b3f2e0c78f385a8a370811cb379f85
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	ad0087ef7a0da961d3f22eab2ddab302be2190df5a2150046f7162dfc5072aa1866449a1aafc1c3db65246c

### Server Binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	8f4878dfbe7e6abc30516bd801bb5c07873b4a80d8bc560e5b5593e0c1d64be2fa662a5f10dd93c947cfeb1c
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	3e5745bfffbb3551b4d4962b7ab6524c9b71f55860a91992dd0495266c56b740061f6b0711882e931ead456
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	ed00c196e6e229229b6523e7c3a201e00805304ad72c54bf7d0fc456d1791404bacf5120317f9a833b0bfdd
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	57b5cc144fc4f3bfa6217e0d5494e4a4367f0c0d3504721d4343ff009f00fef1212150d0f1925fe0710eb33
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	6fd2b61a11e30199997582487f7e4f967771e0367d7f471043e0b9b373d463c5d7370ac3a8e5bbf4761e98

### Node Binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	0c1b9dbb630a3bc47a835f9bfd9259d464abae8a30b0824a73b20892b013ed60d7e4989f48172b122bcc87e
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	191087e26632dcc80991530b79bcd49bd4d0a131689ef48164a0bdb30e0a52ca69aa9a1ad4216570766928
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	f0f58aa8f9ad0ac0a1ee29d318ebb4d14f0bef4cbafef9081ee2bfb6b41245108bd849470529668a93dcf8
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	bf574c4a46731ebc273910176ab67b2455b021972de3aeeb2a2b04af2a1079243728f151b9f06298b848324
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	5a5d2ece704178a630dc228b51229b8598eb45bf3eaae75b1475f249922c6a10b93220fd0f3f29d279ee0c
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	22fc9a7eb0e8244d51fd11f6d90f44e973983cb21692724c919493a235d2f9b1f22788fbfe8abaec9c52a98

## Changelog since v1.17.0-alpha.3

### Action Required

- Graduate ScheduleDaemonSetPods to GA. (feature gate will be removed in 1.18) action required. ([#82795](#), [@draveness](#))

### Other notable changes

- kube-scheduler: emits a warning when a malformed component config file is used with v1alpha1. ([#84129](#), [@obitech](#))
- add azure disk encryption(SSE+CMK) support ([#84605](#), [@andyzhangx](#))
- The certificate signer no longer accepts ca.key passwords via the CFSSL\_CA\_PK\_PASSWORD environment variable. This capability was not prompted by user request, never advertised, and recommended against in the security audit. ([#84677](#), [@mikedanese](#))
- Reduce default NodeStatusReportFrequency to 5 minutes. With this change, periodic node status updates will be send every 5m if node status doesn't change (otherwise they are still send with 10s). ([#84007](#), [@wojtek-t](#))
  - Bump NodeProblemDetector version to v0.8.0 to reduce forced NodeStatus updates frequency to 5 minutes.
- CSI Topology feature is GA. The CSINodeInfo feature gate is deprecated and will be removed in a future release. The storage.k8s.io/v1beta1 CSINode object is deprecated and will be removed in a future release. ([#83474](#), [@msau42](#))
- Only validate duplication of the RequestedToCapacityRatio custom priority and allow other custom predicates/priorities ([#84646](#), [@liu-cong](#))
- Added kubelet serving certificate metric `server_rotation_seconds` which is a histogram reporting the age of a just rotated serving certificate in seconds. ([#84534](#), [@sambdavidson](#))
- During namespace deletion some controllers create event and log spam because they do not recognize namespace deletion as a terminal state. ([#84123](#), [@smarterclayton](#))
- Removed Alpha feature `MountContainers` ([#84365](#), [@codenrhoden](#))
- People can see the right log and note. ([#84637](#), [@zhipengzuo](#))
- Ensure the KUBE-MARK-DROP chain in kube-proxy mode=iptables. The chain is ensured for both ipv4 and ipv6 in dual-stack operation. ([#84422](#), [@aojea](#))
- deprecate cleanup-ipvs flag ([#83832](#), [@gongguan](#))
- Scheduler Policy API has a new recommended apiVersion "apiVersion: kubescheduler.config.k8s.io/v1" which is consistent with the scheduler API group "kubescheduler.config.k8s.io". It holds the same API as the old apiVersion "apiVersion: v1". ([#83578](#), [@Huang-Wei](#))
- Fixed a bug in the single-numa-policy of the TopologyManager. Previously, best-effort pods would result in a terminated state with a TopologyAffinity error. Now they will run as expected. ([#83777](#), [@lmdaly](#))
- local: support local filesystem volume with block resource reconstruction ([#84218](#), [@cofyc](#))
- Fix the bug that EndpointSlice for masters wasn't created after enabling EndpointSlice feature on a pre-existing cluster. ([#84421](#), [@tnqn](#))
- kubelet: a configuration file specified via `--config` is now loaded with strict deserialization, which fails if the config file contains duplicate or unknown fields. This protects against accidentally running with config files that are malformed, mis-indented, or have typos in field names, and getting unexpected behavior. ([#83204](#), [@obitech](#))
- kubeadm now propagates proxy environment variables to kube-proxy ([#84559](#), [@yastij](#))
- Reload apiserver SNI certificates from disk every minute ([#84303](#), [@jackkleeman](#))
- sourcesReady provides the readiness of kubelet configuration sources such as apiserver update readiness. ([#81344](#), [@zouyee](#))
- Update Azure SDK versions to v35.0.0 ([#84543](#), [@andyzhangx](#))

- Fixed EndpointSlice port name validation to match Endpoint port name validation (allowing port names longer than 15 characters) ([#84481](#), [@roboscott](#))
- Scheduler now reports metrics on cache size including nodes, pods, and assumed pods ([#83508](#), [@damemi](#))
- kube-proxy: emits a warning when a malformed component config file is used with v1alpha1. ([#84143](#), [@phenixblue](#))
- Update default etcd server version to 3.4.3 ([#84329](#), [@jingyih](#))
- Scheduler policy configs can no longer be declared multiple times ([#83963](#), [@damemi](#))
- This PR sets the --cluster-dns flag value to kube-dns service IP whether or not NodeLocal DNSCache is enabled. NodeLocal DNSCache will listen on both the link-local as well as the service IP. ([#84383](#), [@prameshj](#))
- Remove prometheus cluster monitoring addon from kube-up ([#83442](#), [@serathius](#))
- update the latest validated version of Docker to 19.03 ([#84476](#), [@neolit123](#))
- kubeadm: always mount the kube-controller-manager hostPath volume that is given by the --flex-volume-plugin-dir flag. ([#84468](#), [@neolit123](#))
- Introduce x-kubernetes-map-type annotation as a CRD API extension. Enables this particular validation for server-side apply. ([#84113](#), [@enxebre](#))
- kube-scheduler now fallbacks to emitting events using core/v1 Events when events.k8s.io/v1beta1 is disabled. ([#83692](#), [@yastij](#))
- Migrate controller-manager and scheduler to EndpointsLeases leader election. ([#84084](#), [@wojtek-t](#))
- User can now use component config to configure NodeLabel plugin for the scheduler framework. ([#84297](#), [@liu-cong](#))
- local: support local volume block mode reconstruction ([#84173](#), [@cofyc](#))
- Fixed kubectrl endpointslice output for get requests ([#82603](#), [@roboscott](#))
- set config.BindAddress to IPv4 address "127.0.0.1" if not specified ([#83822](#), [@zouyee](#))
- CSI detach timeout increased from 10 seconds to 2 minutes ([#84321](#), [@cduchesne](#))
- Update etcd client side to v3.4.3 ([#83987](#), [@wenjiaswe](#))
  - Deprecated prometheus request meta-metrics have been removed (http\_request\_duration\_microseconds, http\_request\_duration\_microseconds\_sum, http\_request\_duration\_microseconds\_count, http\_request\_size\_bytes, http\_request\_size\_bytes\_sum, http\_request\_size\_bytes\_count, http\_requests\_total, http\_response\_size\_bytes, http\_response\_size\_bytes\_sum, http\_response\_size\_bytes\_count) due to removal from the prometheus client library. Prometheus http request meta-metrics are now generated from [promhttp.InstrumentMetricHandler](#) instead.
- The built-in system:csi-external-provisioner and system:csi-external-attacher cluster roles are removed as of 1.17 release ([#84282](#), [@tedyu](#))
- Pod labels can no longer be updated through the pod/status updates by nodes. ([#84260](#), [@talclair](#))
- Reload apiserver serving certificate from disk every minute ([#84200](#), [@jackkleeman](#))
- Adds FQDN addressType support for EndpointSlice. ([#84091](#), [@roboscott](#))
- Add permit\_wait\_duration\_seconds metric for scheduler. ([#84011](#), [@liu-cong](#))
- Optimize inter-pod affinity preferredDuringSchedulingIgnoredDuringExecution type, up to 4x in some cases. ([#84264](#), [@ahg-g](#))
- When a namespace is being deleted and spec.finalizers are still being processed, stop returning a 409 conflict error and instead return the object as we would during metadata.finalizer processing. ([#84122](#), [@smarterclayton](#))
- client-ca bundles for the all generic-apiserver based servers will dynamically reload from disk on content changes ([#83579](#), [@deads2k](#))
- Reduced frequency of DescribeVolumes calls of AWS API when attaching/detaching a volume. ([#84181](#), [@jsafrane](#))
- Add a metric to track number of scheduler binding and prioritizing goroutines ([#83535](#), [@wgliang](#))
- Fix kubelet metrics gathering on non-English Windows hosts ([#84156](#), [@wawa0210](#))

- A new `kubelet_preemptions` metric is reported from Kubelets to track the number of preemptions occurring over time, and which resource is triggering those preemptions. ([#84120](#), [@smarterclayton](#))

## v1.17.0-alpha.3

[Documentation](#)

### Downloads for v1.17.0-alpha.3

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	dfdb758b21a3dbd820063cb2ba4b4a19e5e1e03fdb95856bf9c99c2c436bbc2c259cd9ac233f0388b5c3
<a href="#">kubernetes-src.tar.gz</a>	1718547ef5baf7ab6514bafff05451fc9d2f0db0b74f094b4d9004e949ef86ed246abf538fabe221e1ad

### Client Binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	207b281b7da796faa34beaf0c8f7e70f9685b132c2838a12e0c8f2084627e2c98890379cc84efff851349d74
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	b0c19de40aa4210c0f06e1864779d60a69b75a443042f448746a0cd8cae680a7f4fab2dc7f3c61a31bde39e
<a href="#">kubernetes-client-linux-386.tar.gz</a>	e8149e6373b48ab97b844b5450be12ec4bb86c869cdf71f98b78b88a9a9ef535df443241bf385fa4588dbe4
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	d4176dfd049ffa1e59b7c4efd4d4189463153fa6cf53d5fc43c953983b74cbd75af9b8a0f7c13f86c5c3a3b
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	d6de12989c091e78ad95d7e01274936a28ca74219196c27775d00665c9fb98fa1e485652c395114d3ed0953
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	2f62aeaa39d7b7ab0840bd6c845d73e6135357edbbf93046c1fbd52d02a8c19377787ec016af2db74f236c8
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	895fd028e409cca1667a08ba6d1b32517b23b796530eecef7c1a4783287b45ff826e692d7a4ca103979f5b3
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	50fe03594da3c90932e83d0befad9053ef1fb72f4af1a5c139455c8acc6c10adec522efe80195013f88a3b4
<a href="#">kubernetes-client-</a>	3e32d47078da5d3d31c4b854c01e081a437fab2c01c7e7be291262b029046acaf96efa6529383b3410b53bc

<a href="#">windows-386.tar.gz</a>	
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	42ec1f3273ea070cedcf65bbb76ebf05a24aca5ed55af4b17889fb1be3df99b4e4c023099994cbec572968c

## Server Binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	0b1fe1eca603579f70c13509dff32dcb8383ee340b8fc6b8edf23cdaf1f86cf9c8d710380a9350de8b516c5
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	ac1a804dd8980281afe12a116ffaf4ed9fc1066c3a531f3a6ced14f021c69d60ff7120bfbfe159cd93898b9
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	e34daf4c37ab5c2f52a116ed4ca0f7b52c0d0b5863d027550241b03f9019dcb6dd7d16df7c6ec7a43a86737
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	9c285800beecc53cf5293604270cbcc5ba6245ddf4dfe0c0ec9a1359ed3771d7e1939c2496b2c24bf4cc541
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	ea883497e80fdb2182342a2bae0382c7d38b0273cae6f8a5ee05d149669134d9b50613184e1fc289d7ce999

## Node Binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	450197a746a52c3129f97e50b4b69bf2d1e94290be72f1ae143e36bb0fd76b2175cc917ae47389feb0163ae
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	c10c6ea591a15dc873afb01a7aa1916188e411ba57201f436d6d96cd2bad8cbb4e3bcc743759e3ce6d93e0
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	47764435a9367571f7de12d54f0aff7d615fc50383230c6fba08475dc33be60d2912dd2ee5c3f083a450866
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	48d2694450f4b94e8ff76e95ef102670d4a4c933010afadf7a019db73d966462a07ff222f9b48510f5dd3ac
<a href="#">kubernetes-node-linux-</a>	20e712415af7304ecb55e9c2c2f29dda3af4a78f5833499c1f51a492c929a4590717d60fce537fb81c70784



<a href="#">s390x.tar.gz</a>	
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	2e88bf26e1293dd733cf1bfe1f0f2dcfb5c482687cf52690488e943a0922a5c9565dd9ce000af76597e0bf1

## Changelog since v1.17.0-alpha.2

### Action Required

- Graduate TaintNodesByCondition to GA in 1.17. (feature gate will be removed in 1.18) action required ([#82703](#), [@draveness](#))

### Other notable changes

- TaintNodesByCondition was graduated to GA, CheckNodeMemoryPressure, CheckNodePIDPressure, CheckNodeDiskPressure, CheckNodeCondition were accidentally removed since 1.12, the replacement is to use CheckNodeUnschedulablePred ([#84152](#), [@draveness](#))
- filter plugin for cloud provider storage predicate ([#84148](#), [@gongguan](#))
- Fixed binding of block PersistentVolumes / PersistentVolumeClaims when BlockVolume feature is off. ([#84049](#), [@jsafrane](#))
- Updated kube-proxy ipvs README with correct grep argument to list loaded ipvs modules ([#83677](#), [@pete911](#))
- Add data cache flushing during unmount device for GCE-PD driver in Windows Server. ([#83591](#), [@jingxu97](#))
- Adds a metric apiserver\_request\_error\_total to kube-apiserver. This metric tallies the number of request\_errors encountered by verb, group, version, resource, subresource, scope, component, and code. ([#83427](#), [@logicalhan](#))
- Refactor scheduler's framework permit API. ([#83756](#), [@hex108](#))
- The kubectl's api-resource command now has a `--sort-by` flag to sort resources by name or kind. ([#81971](#), [@laddng](#))
- Update to use go1.12.12 ([#84064](#), [@cblecker](#))
- Update to Ingress-GCE v1.6.1 ([#84018](#), [@rramkumar1](#))
- Update Cluster Autoscaler version to 1.16.2 (CA release docs: <https://github.com/kubernetes/autoscaler/releases/tag/cluster-autoscaler-1.16.2>) ([#84038](#), [@losipiuk](#))
- When scaling down a ReplicaSet, delete doubled up replicas first, where a "doubled up replica" is defined as one that is on the same node as an active replica belonging to a related ReplicaSet. ReplicaSets are considered "related" if they have a common controller (typically a Deployment). ([#80004](#), [@Miciah](#))
- Promote WatchBookmark feature to GA. ([#83195](#), [@wojtekt](#))
  - With WatchBookmark feature, clients are able to request watch events with BOOKMARK type. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session.
- kubeadm no longer removes /etc/cni/net.d as it does not install it. Users should remove files from it manually or rely on the component that created them ([#83950](#), [@yastij](#))
- kubeadm: enhance certs check-expiration to show the expiration info of related CAs ([#83932](#), [@SataQiu](#))
- Add incoming pods metrics to scheduler queue. ([#83577](#), [@liu-cong](#))
- An end-user may choose to request logs without confirming the identity of the backing kubelet. This feature can be disabled by setting the `AllowInsecureBackendProxy` feature-gate to false. ([#83419](#), [@deads2k](#))
- Switched intstr.Type to sized integer to follow API guidelines and improve compatibility with proto libraries ([#83956](#), [@liggitt](#))

- Fix handling tombstones in pod-disruption-budget controller. ([#83951](#), [@zouyee](#))
- client-go: improved allocation behavior of the delaying workqueue when handling objects with far-future ready times. ([#83945](#), [@barkbay](#))
- Added the `crictl` Windows binaries as well as the Linux 32bit binary to the release archives ([#83944](#), [@saschagrunert](#))
- Fixed an issue with informers missing an `Added` event if a recently deleted object was immediately recreated at the same time the informer dropped a watch and relisted. ([#83911](#), [@matte21](#))
- Allow dynamically set glog logging level of kube-scheduler ([#83910](#), [@mrkm4ntr](#))
- clean duplicate GetPodServiceMemberships function ([#83902](#), [@gongguan](#))
- Add information from Lease object corresponding to a given Node to kubect! describe node output ([#83899](#), [@wojtek-t](#))
- Gives the right error message when using `kubect! delete` a wrong resource. ([#83825](#), [@zhouya0](#))
- The userspace mode of kube-proxy no longer confusingly logs messages about deleting endpoints that it is actually adding. ([#83644](#), [@danwinship](#))
- Add latency and request count metrics for scheduler framework. ([#83569](#), [@liu-cong](#))
- ETCD version monitor metrics are now marked as with the ALPHA stability level. ([#83283](#), [@RainbowMango](#))
- Significant kube-proxy performance improvements when using Endpoint Slices at scale. ([#83206](#), [@roboscott](#))
- Upgrade default etcd server version to 3.3.17 ([#83804](#), [@jpbetz](#))

## v1.17.0-alpha.2

[Documentation](#)

### Downloads for v1.17.0-alpha.2

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	37583337b992d9a5ebe5a4677e08c13617b8b9db9ee8f049773b624351c00acacf02daca2f87a357aaa7
<a href="#">kubernetes-src.tar.gz</a>	a44fee5be20c7fb64c58d0a69377074db05ec6889892c93ce970406cb393a1fde60a75612e74802cb2e0

### Client Binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	4aa92894eeadb022e5409e08784ce1bd34ba268032ef93ad4c438b6ed9f1a210222f5f4a4fc68198d71e16
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	1815a3bdd1c13782026fced8720201dea2e518dc56a43e2b53f89341108f03ec0b5ea6efadd8460ab1715b6
<a href="#">kubernetes-client-linux-386.tar.gz</a>	9a470907d6203e69c996f8db3cc257af23f9b35236ee2d5a87d22cd6056eef4f07671cd5711ec4999c1edd9
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	011d44cf35c841d331a5a0d88b8a5deb7781fa678702ac6402050d096e72396dc76ccaa67a371273bc42861

<a href="#">kubernetes-client-linux-arm.tar.gz</a>	1f45d9a9852d2b0a0420b0a26b3add9031d7d691c55660d60580614e6ab6e2d732017832ed3f737f8a43db0
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	e355f69caed044e5e27efe7ae42027e799a87ec647810fbadf644d147de2f6bd478e338ebb211044a9e6483
<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	355e0d8c5f241bc2303c38447c241ff8f5151af51aeacf15fa2b96e2721ecc011b5aec84c3f93a26aad86aa
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	7cdfc6cde7922290b46f291a168519f4c923fee97968399940164a8a7d8592701b262b30fa299c13f025c70
<a href="#">kubernetes-client-windows-386.tar.gz</a>	7170da100b2d1d8700990c4175c7d048347b8dcc71e0ceb6c01728f5e6266dd0d5766e5206820d9e54d243f
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	74484b5c841e1c57c9baf88b84a9cbf3b9865527a8723815cbe8e7384805c80d971126c0b54d52e446d55b0

## Server Binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	3fb3c5da6e45b32e8d89d4914f0b04cf95242cb0e4ea70b06a665c2975d8b6bbff6206e1f8769f49836b9dc
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	ff71c9a3f81f2e43d541b9b043e5f43fd30972c2b0ae5d9f3992f76effdcab2d027835844109ee3b501e365
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	26b9fce5ed930ad3eea5eeab3bec3b009f65837139f7da3644aacdcccda654fe542b03e1c4280950ca561f6
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	ad980f5efe83da1f2a202035eb1cff44ea72692fc3fc5f7d23fd8fc3b80a6797dbb263cc240d8fd2cde80a7
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	8e1ab7abd4c13c3d4211e5dd1be63ecd482691fd2cb7b2d3492bb2a02003ec33abe0a7b26e4e93f9586c5fc

## Node Binaries

filename	sha512 hash

<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	c0928e414e439ba63321ce770a04ea332a4cc93ec87dd9d222fe3f5a593995111a6c0a60a413018d59367df
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	990a253ba49203348a587ca4d4acf7c25ff47a97b39519dfc7d5bdc2f3ea4713930e17dc6b9ff02a2a6ae2e
<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	79381ad17eefc679fb549126eba23ffa65e625d0e1fec459dd54823897947b17a0e7ef6f446dc9e54f16b3e
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	7cfea9b9fa27dcc2024260e19d5e74db2175b491093c8906721d99c94b46af1c2b3ad91fe0fb799de639191
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	590bc2afd835a4a236a4a2ab2cde416aae9efdec14c34355a54b671d89308f3729f5af076139cc9c78e3236
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	4c15c7c30de0f9d921b534433332b14eb685ad8a3a416315def1cc1064b802227ea4b556bc53a68d75be898

## Changelog since v1.17.0-alpha.1

### Action Required

- Expand scheduler priority functions and scheduling framework plugins' node score range to [0, 100]. action required. Note: this change is internal and does not affect extender and RequestedToCapacityRatio custom priority, which are still expected to provide a [0, 10] range. ([#83522](#), [@draveness](#))
- action required: kubeadm: when adding extra apiserver authorization-modes, the defaults "Node,RBAC" are no longer prepended in the resulting static Pod manifests and a full override is allowed. ([#82616](#), [@ghouscht](#))
- ACTION REQUIRED: kubeadm: properly enable kubelet client certificate rotation on primary control-plane nodes, created using "kubeadm init". A side effect of this change is that for external CA users, kubeadm now requires "bootstrap-kubelet.conf" instead of "kubelet.conf" during "kubeadm init" and its phases. ([#83339](#), [@neolit123](#))
- Action Required: `kubeadm.k8s.io/v1beta1` has been deprecated, you should update your config to use newer non-deprecated API versions. ([#83276](#), [@Klaven](#))

### Other notable changes

- [migration phase 1] PodFitsHostPorts as filter plugin ([#83659](#), [@wgliang](#))
- [migration phase 1] PodFitsResources as framework plugin ([#83650](#), [@wgliang](#))
- Fixed attachment of AWS volumes that have just been detached. ([#83567](#), [@jsafrane](#))
- [migration phase 1] PodMatchNodeSelector/NodAffinity as filter plugin ([#83660](#), [@wgliang](#))
- Upgrade to etcd client 3.3.17 to fix bug where etcd client does not parse IPv6 addresses correctly when members are joining, and to fix bug where failover on multi-member etcd cluster fails certificate check on DNS mismatch ([#83801](#), [@jpbetz](#))
- Fixed panic when accessing CustomResources of a CRD with x-kubernetes-int-or-string. ([#83787](#), [@sttts](#))
- Change `pod_preemption_victims` metric from Gauge to Histogram. ([#83603](#), [@Tabrizian](#))

- Expose SharedInformerFactory in the framework handle ([#83663](#), [@draveness](#))
- Add more tracing steps in generic\_scheduler ([#83539](#), [@wgliang](#))
- [migration phase 1] PodFitsHost as filter plugin ([#83662](#), [@wgliang](#))
- The topology manager aligns resources for pods of all QoS classes with respect to NUMA locality, not just Guaranteed QoS pods. ([#83492](#), [@ConnorDoyle](#))
- Fix unsafe JSON construction in a number of locations in the codebase ([#81158](#), [@zouyee](#))
- Fixed a bug in the single-numa-node policy of the TopologyManager. Previously, pods that only requested CPU resources and did not request any third-party devices would fail to launch with a TopologyAffinity error. Now they will launch successfully. ([#83697](#), [@klueska](#))
- Add per-pod scheduling metrics across 1 or more schedule attempts. ([#83674](#), [@liu-cong](#))
- Fix validation message to mention bytes, not characters. ([#80880](#), [@DirectXMan12](#))
- external facing APIs in pluginregistration and deviceplugin packages are now available under k8s.io/kubelet/pkg/apis/ ([#83551](#), [@dims](#))
- Fix error where metrics related to dynamic kubelet config isn't registered ([#83184](#), [@odinuge](#))
- The VolumeSubpathEnvExpansion feature is graduating to GA. The `VolumeSubpathEnvExpansion` feature gate is unconditionally enabled, and will be removed in v1.19. ([#82578](#), [@kevtaylor](#))
- Openstack: Do not delete managed LB in case of security group reconciliation errors ([#82264](#), [@multi-io](#))
- The mutating and validating admission webhook plugins now read configuration from the admissionregistration.k8s.io/v1 API. ([#80883](#), [@liggitt](#))
- kubeadm: implemented structured output of 'kubeadm token list' in JSON, YAML, Go template and JsonPath formats ([#78764](#), [@bart0sh](#))
- kube-proxy: a configuration file specified via `--config` is now loaded with strict deserialization, which fails if the config file contains duplicate or unknown fields. This protects against accidentally running with config files that are malformed, mis-indented, or have typos in field names, and getting unexpected behavior. ([#82927](#), [@obitech](#))
- Add "podInitialBackoffDurationSeconds" and "podMaxBackoffDurationSeconds" to the scheduler config API ([#81263](#), [@draveness](#))
- Authentication token cache size is increased (from 4k to 32k) to support clusters with many nodes or many namespaces with active service accounts. ([#83643](#), [@lavalamp](#))
- Bumps the minimum version of Go required for building Kubernetes to 1.12.4. ([#83596](#), [@jktomer](#))
- kube-proxy iptables probabilities are now more granular and will result in better distribution beyond 319 endpoints. ([#83599](#), [@roboscott](#))
- Fixed the bug that deleted services were processed by EndpointSliceController repeatedly even their cleanup were successful. ([#82996](#), [@tnqn](#))
- If a bad flag is supplied to a kubectl command, only a tip to run --help is printed, instead of the usage menu. Usage menu is printed upon running `kubectl command --help`. ([#82423](#), [@sallyom](#))
- If container fails because ContainerCannotRun, do not utilize the FallbackToLogsOnError TerminationMessagePolicy, as it masks more useful logs. ([#81280](#), [@yqwang-ms](#))
- Fixed cleanup of raw block devices after kubelet restart. ([#83451](#), [@jsafrane](#))
- Commands like `kubectl apply` now return errors if schema-invalid annotations are specified, rather than silently dropping the entire annotations section. ([#83552](#), [@liggitt](#))
- Expose kubernetes client in the scheduling framework handle. ([#82432](#), [@draveness](#))
- kubeadm: fix wrong default value for the "upgrade node --certificate-renewal" flag. ([#83528](#), [@neolit123](#))
- IP validates if a string is a valid IP address ([#83104](#), [@zouyee](#))
- The `--certificate-authority` flag now correctly overrides existing skip TLS or CA data settings in the kubeconfig file ([#83547](#), [@liggitt](#))
- hyperkube will now be available in a new github repository and will not be included in the kubernetes release from 1.17 onwards ([#83454](#), [@dims](#))
- more complete and accurate logging of stack backtraces in E2E failures ([#82176](#), [@pohly](#))

- Kubeadm: add support for 127.0.0.1 as advertise address. kubeadm will automatically replace this value with matching global unicast IP address on the loopback interface. ([#83475](#), [@fabriziopandini](#))
- Rename PluginContext to CycleState in the scheduling framework ([#83430](#), [@draveness](#))
- kube-scheduler: a configuration file specified via `--config` is now loaded with strict deserialization, which fails if the config file contains duplicate or unknown fields. This protects against accidentally running with config files that are malformed, mis-indented, or have typos in field names, and getting unexpected behavior. ([#83030](#), [@obitech](#))
- Significant kube-proxy performance improvements for non UDP ports. ([#83208](#), [@roboscott](#))
- Fixes a flaw (CVE-2019-11253) in json/yaml decoding where large or malformed documents could consume excessive server resources. Request bodies for normal API requests (create/delete/update/patch operations of regular resources) are now limited to 3MB. ([#83261](#), [@liggitt](#))

## v1.17.0-alpha.1

[Documentation](#)

### Downloads for v1.17.0-alpha.1

filename	sha512 hash
<a href="#">kubernetes.tar.gz</a>	40985964b5f4b1e1eb448a8ca61ae5fe05b76cf4e97a4a6b0df0f7933071239ed8c3a6753d8ed8ba0c96
<a href="#">kubernetes-src.tar.gz</a>	475dfeb8544804dcc206f2284205fb1ee0bcb73169419be5e548ff91ffe6a35cea7e94039af562baee15

### Client Binaries

filename	sha512 hash
<a href="#">kubernetes-client-darwin-386.tar.gz</a>	3f894661ed9b6ed3e75b6882e6c3e4858325f3b7c5c83cb8f7f632a8c8f30dd96a7dd277e4676a8a2ab598f
<a href="#">kubernetes-client-darwin-amd64.tar.gz</a>	f3070d79b0835fdc0791bbc31a334d8b46bf1bbb02f389c871b31063417598d17dd464532df420f2fa0dbbb
<a href="#">kubernetes-client-linux-386.tar.gz</a>	64e8961fa32a18a780e40b753772c6794c90a6dd5834388fd67564bb36f5301ea82377893f51e7c7c7247f9
<a href="#">kubernetes-client-linux-amd64.tar.gz</a>	d7ba0f5f4c879d8dcd4404a7c18768190f82985425ab394ddc832ee71c407d0ac517181a24fd5ca2ebfd948
<a href="#">kubernetes-client-linux-arm.tar.gz</a>	36fc47ee9530ee8a89d64d4be6b78b09831d0838a01b63d2a824a9e7dd0c2127ef1b49f539d16ba1248fbf4
<a href="#">kubernetes-client-linux-arm64.tar.gz</a>	a0a8fba0f4424f0a1cb7bad21244f47f98ba717165eaa49558c2612e1949a1b34027e23ccbd44959b391b6d

<a href="#">kubernetes-client-linux-ppc64le.tar.gz</a>	eaae9ed0cc8c17f27cff31d92c95c11343b9f383de27e335c83bdf236e6da6ab55a9d89b3e0b087be159d6
<a href="#">kubernetes-client-linux-s390x.tar.gz</a>	994cf2dc42d20d36956a51b98dde31a00eae3bd853f7be4fbc32f48fec7b323a47ea5d841f31d2ca41036d2
<a href="#">kubernetes-client-windows-386.tar.gz</a>	68ebe4abea5a174eb189caea567e24e87cca57e7fbc9f8ec344aafba48c892d52d179fef67f9825be0eb93
<a href="#">kubernetes-client-windows-amd64.tar.gz</a>	f29cd3caf5b40622366eae87e8abb47bea507f275257279587b507a00a858de87bcfa56894ae8cd6ba75468

## Server Binaries

filename	sha512 hash
<a href="#">kubernetes-server-linux-amd64.tar.gz</a>	93e560e8572c6a593583d20a35185b93d04c950e6b1980a7b40ca5798958d184724ddebd1fa9377cfe87be4
<a href="#">kubernetes-server-linux-arm.tar.gz</a>	fe2af93336280e1251f97afecbdfb7416fd9dd7d08b3e5539abeea8ccaf7114cac399e832fa52359d2bc63e
<a href="#">kubernetes-server-linux-arm64.tar.gz</a>	efc32c8477efda554d8e82d6e52728f58e706d3d53d1072099b3297c310632e8adece6030427154287d5525
<a href="#">kubernetes-server-linux-ppc64le.tar.gz</a>	bda4fce6f5be7d0102ff265e0ba10e4dab776caeba1cebd57db9891a34b4974fa57ac014aa6eca2dcfc1b6
<a href="#">kubernetes-server-linux-s390x.tar.gz</a>	655c7157176f4f972c80877d73b0e390aaff455a5dcd046b469eb0f07d18ea1aaef447f90127be699e74518

## Node Binaries

filename	sha512 hash
<a href="#">kubernetes-node-linux-amd64.tar.gz</a>	1ec25c0350973ed06f657f2b613eb07308a9a4f0af7e72ebc5730c3c8d39ce3139a567acc7a224bebbe4e34
<a href="#">kubernetes-node-linux-arm.tar.gz</a>	c65ac3db834596bcb9e81ffa5b94493244385073a232e9f7853759bce2b96a8199f79081d2f00a1b5502d53

<a href="#">kubernetes-node-linux-arm64.tar.gz</a>	0de8af66269db1ef7513f92811ec52a780abb3c9c49c0a4de9337eb987119bb583d03327c55353b4375d233
<a href="#">kubernetes-node-linux-ppc64le.tar.gz</a>	adb43c68cd5d1d52f254a14d80bb66667bfc8b367176ff2ed242184cf0b5accd3206bcbd42dec3f132bf1a2
<a href="#">kubernetes-node-linux-s390x.tar.gz</a>	1c834cfc06b9ba4a6da3bca2d504b734c935436546bc9304c7933e256dba849d665d34e82f48180f3975a90
<a href="#">kubernetes-node-windows-amd64.tar.gz</a>	6fc54fd17ebb65a6bd3d4efe93a713cc2aeea54599ddd3d73d01e93d6484087271b3ca65ed7a58610903562

## Changelog since v1.16.0

### Action Required

- The deprecated feature gates `GCERegionalPersistentDisk` , `EnableAggregatedDiscoveryTimeout` and `PersistentLocalVolumes` are now unconditionally enabled and can no longer be specified in component invocations. ([#82472](#), [@draveness](#))
- ACTION REQUIRED: ([#81668](#), [@darshanime](#))
  - Deprecate the default service IP CIDR. The previous default was `10.0.0.0/24` which will be removed in 6 months/2 releases. Cluster admins must specify their own desired value, by using `--service-cluster-ip-range` on kube-apiserver.
- Remove deprecated "include-uninitialized" flag. action required ([#80337](#), [@draveness](#))

### Other notable changes

- Bump version of event-exporter to 0.3.1, to switch it to protobuf. ([#83396](#), [@loburm](#))
- kubeadm: use the `--service-cluster-ip-range` flag to init or use the `ServiceSubnet` field in the kubeadm config to pass a comma separated list of Service CIDRs. ([#82473](#), [@Arvinderpal](#))
- Remove `MaxPriority` in the scheduler API, please use `MaxNodeScore` or `MaxExtenderPriority` instead. ([#83386](#), [@draveness](#))
- Fixes a goroutine leak in kube-apiserver when a request times out. ([#83333](#), [@lavalamp](#))
- Some scheduler extender API fields are moved from `pkg/scheduler/api` to `pkg/scheduler/apis/extender/v1`. ([#83262](#), [@Huang-Wei](#))
- Fix aggressive VM calls for Azure VMSS ([#83102](#), [@feiskyer](#))
- Update Azure load balancer to prevent orphaned public IP addresses ([#82890](#), [@chewong](#))
- Use online nodes instead of possible nodes when discovering available NUMA nodes ([#83196](#), [@zouyee](#))
- Fix typos in `certificates.k8s.io/v1beta1` `KeyUsage` constant names: `UsageContentCommittment` becomes `UsageContentCommitment` and `UsageNetscapSGC` becomes `UsageNetscapeSGC`. ([#82511](#), [@abursavich](#))
- Fixes the bug in informer-gen that it produces incorrect code if a type has `nonNamespaced` tag set. ([#80458](#), [@tatsuhiro-t](#))
- Update to go 1.12.10 ([#83139](#), [@cblecker](#))
- Update critcl to v1.16.1. ([#82856](#), [@Random-Liu](#))



- Reduces the number of calls made to the Azure API when requesting the instance view of a virtual machine scale set node. ([#82496](#), [@hasheddan](#))
- Consolidate ScoreWithNormalizePlugin into the ScorePlugin interface ([#83042](#), [@draveness](#))
- On AWS nodes with multiple network interfaces, kubelet should now more reliably report the same primary node IP. ([#80747](#), [@danwinship](#))
- Fixes kube-proxy bug accessing self nodeip:port on windows ([#83027](#), [@liggitt](#))
- Resolves bottleneck in internal API server communication that can cause increased goroutines and degrade API Server performance ([#80465](#), [@answer1991](#))
- The deprecated mondo `kubernetes-test` tarball is no longer built. Users running Kubernetes e2e tests should use the `kubernetes-test-portable` and `kubernetes-test-{OS}-{ARCH}` tarballs instead. ([#83093](#), [@ixdy](#))
- Improved performance of kube-proxy with EndpointSlice enabled with more efficient sorting. ([#83035](#), [@roboscott](#))
- New APIs to allow adding/removing pods from pre-calculated prefilter state in the scheduling framework ([#82912](#), [@ahg-g](#))
- Conformance tests may now include disruptive tests. If you are running tests against a live cluster, consider skipping those tests tagged as `Disruptive` to avoid non-test workloads being impacted. Be aware, skipping any conformance tests (even disruptive ones) will make the results ineligible for consideration for the CNCF Certified Kubernetes program. ([#82664](#), [@johnSchnake](#))
- Resolves regression generating informers for packages whose names contain `.` characters ([#82410](#), [@nikhita](#))
- Added metrics 'authentication\_latency\_seconds' that can be used to understand the latency of authentication. ([#82409](#), [@RainbowMango](#))
- kube-dns add-on: ([#82347](#), [@pjbgf](#))
  - ■ All containers are now being executed under more restrictive privileges.
  - ■ Most of the containers now run as non-root user and has the root filesystem set as read-only.
  - ■ The remaining container running as root only has the minimum Linux capabilities it requires to run.
  - ■ Privilege escalation has been disabled for all containers.
- k8s dockerconfigjson secrets are now compatible with docker config desktop authentication credentials files ([#82148](#), [@bbourbie](#))
- Use ipv4 in wincat port forward. ([#83036](#), [@liyanhui1228](#))
- Added Clone method to the scheduling framework's PluginContext and ContextData. ([#82951](#), [@ahg-g](#))
- Bump metrics-server to v0.3.5 ([#83015](#), [@olagacek](#))
- dashboard: disable the dashboard Deployment on non-Linux nodes. This step is required to support Windows worker nodes. ([#82975](#), [@wawa0210](#))
- Fix possible fd leak and closing of dirs when using openstack ([#82873](#), [@odinuge](#))
- PersistentVolumeLabel admission plugin, responsible for labeling `PersistentVolumes` with topology labels, now does not overwrite existing labels on PVs that were dynamically provisioned. It trusts the dynamic provisioning that it provided the correct labels to the `PersistentVolume`, saving one potentially expensive cloud API call. `PersistentVolumes` created manually by users are labelled by the admission plugin in the same way as before. ([#82830](#), [@jsafrane](#))
- Fixes a panic in kube-controller-manager cleaning up bootstrap tokens ([#82887](#), [@tedyu](#))
- Fixed a scheduler panic when using PodAffinity. ([#82841](#), [@Huang-Wei](#))
- Modified the scheduling framework's Filter API. ([#82842](#), [@ahg-g](#))
- Fix panic in kubelet when running IPv4/IPv6 dual-stack mode with a CNI plugin ([#82508](#), [@aanm](#))
- Kubernetes no longer monitors firewalld. On systems using firewalld for firewall ([#81517](#), [@danwinship](#))

- maintenance, kube-proxy will take slightly longer to recover from disruptive
- firewalld operations that delete kube-proxy's iptables rules.
- Added cloud operation count metrics to azure cloud controller manager. ([#82574](#), [@kkmsft](#))
- Report non-confusing error for negative storage size in PVC spec. ([#82759](#), [@sttts](#))
- When registering with a 1.17+ API server, MutatingWebhookConfiguration and ValidatingWebhookConfiguration objects can now request that only `v1` AdmissionReview requests be sent to them. Previously, webhooks were required to support receiving `v1beta1` AdmissionReview requests as well for compatibility with API servers `<= 1.15`. ([#82707](#), [@liggitt](#)) \* When registering with a 1.17+ API server, a CustomResourceDefinition conversion webhook can now request that only `v1` ConversionReview requests be sent to them. Previously, conversion webhooks were required to support receiving `v1beta1` ConversionReview requests as well for compatibility with API servers `<= 1.15`.
- Resolves issue with /readyz and /livez not including etcd and kms health checks ([#82713](#), [@logicalhan](#))
- fix: azure disk detach failure if node not exists ([#82640](#), [@andyzhangx](#))
- Single static pod files and pod files from http endpoints cannot be larger than 10 MB. HTTP probe payloads are now truncated to 10KB. ([#82669](#), [@rphillips](#))
- Restores compatibility with `<= 1.15.x` custom resources by not publishing OpenAPI for non-structural custom resource definitions ([#82653](#), [@liggitt](#))
- Take the context as the first argument of Schedule. ([#82119](#), [@wgliang](#))
- Fixes regression in logging spurious stack traces when proxied connections are closed by the backend ([#82588](#), [@liggitt](#))
- Correct a reference to a not/no longer used kustomize subcommand in the documentation ([#82535](#), [@demobox](#))
- Limit the body length of exec readiness/liveness probes. remote CRIs and Docker shim read a max of 16MB output of which the exec probe itself inspects 10kb. ([#82514](#), [@dims](#))
- fixed an issue that the correct PluginConfig.Args is not passed to the corresponding PluginFactory in kube-scheduler when multiple PluginConfig items are defined. ([#82483](#), [@everpeace](#))
- Adding TerminationGracePeriodSeconds to the test framework API ([#82170](#), [@vivekbagade](#))
- /test/e2e/framework: Adds a flag "non-blocking-taints" which allows tests to run in environments with tainted nodes. String value should be a comma-separated list. ([#81043](#), [@johnSchnake](#))