- v1.18.20
  - Downloads for v1.18.20
    - Source Code
    - Client Binaries
    - Server Binaries
    - Node Binaries
  - Changelog since v1.18.19
  - Changes by Kind
    - Bug or Regression
  - Dependencies
    - Added
    - Changed
    - Removed
- v1.18.19
  - Downloads for v1.18.19
    - Source Code
    - Client Binaries
    - Server Binaries
    - Node Binaries
  - Changelog since v1.18.18
  - Changes by Kind
    - API Change
    - Bug or Regression
  - Dependencies
    - Added
    - Changed
    - Removed
- v1.18.18
  - Downloads for v1.18.18
    - Source Code
    - Client binaries
    - Server binaries
    - Node binaries
  - Changelog since v1.18.17
  - Important Security Information
    - CVE-2021-25735: Validating Admission Webhook does not observe some previous fields
  - Changes by Kind
    - API Change
    - Feature
    - Bug or Regression
  - Dependencies
    - Added
    - Changed
    - Removed
- v1.18.17

    - Downloads for v1.18.17
        * Source Code
        * Client binaries
        * Server binaries
        * Node binaries
    - Changelog since v1.18.16
    - Changes by Kind
        * Failing Test
        * Bug or Regression
    - Dependencies
        * Added
        * Changed
        * Removed
- v1.18.16
    - Downloads for v1.18.16
        * Source Code
        * Client binaries
        * Server binaries
        * Node binaries
    - Changelog since v1.18.15
    - Changes by Kind
        * Bug or Regression
        * Other (Cleanup or Flake)
    - Dependencies
        * Added
        * Changed
        * Removed
- v1.18.15
    - Downloads for v1.18.15
        * Source Code
        * Client binaries
        * Server binaries
        * Node binaries
    - Changelog since v1.18.14
    - Changes by Kind
        * Bug or Regression
    - Dependencies
        * Added
        * Changed
        * Removed
- v1.18.14
    - Downloads for v1.18.14
        * Source Code
        * Client binaries
        * Server binaries
        * Node binaries

    - Changelog since v1.18.13
    - Changes by Kind
        * Feature
        * Bug or Regression
        * Other (Cleanup or Flake)
    - Dependencies
        * Added
        * Changed
        * Removed
- v1.18.13
    - Downloads for v1.18.13
        * Source Code
        * Client binaries
        * Server binaries
        * Node binaries
    - Changelog since v1.18.12
    - Changes by Kind
        * Feature
        * Bug or Regression
    - Dependencies
        * Added
        * Changed
        * Removed
- v1.18.12
    - Downloads for v1.18.12
        * Source Code
        * Client binaries
        * Server binaries
        * Node binaries
    - Changelog since v1.18.11
    - Dependencies
        * Added
        * Changed
        * Removed
- v1.18.11
    - Downloads for v1.18.11
    - Changelog since v1.18.10
    - Changes by Kind
        * Bug or Regression
    - Dependencies
        * Added
        * Changed
        * Removed
- v1.18.10
    - Downloads for v1.18.10
        * Source Code

        - Client binaries
        - Server binaries
        - Node binaries
    - Changelog since v1.18.9
    - Changes by Kind
        - Design
        - Bug or Regression
        - Other (Cleanup or Flake)
    - Dependencies
        - Added
        - Changed
        - Removed
- v1.18.9
    - Downloads for v1.18.9
        - Source Code
        - Client binaries
        - Server binaries
        - Node binaries
    - Changelog since v1.18.8
    - Changes by Kind
        - Bug or Regression
        - Other (Cleanup or Flake)
    - Dependencies
        - Added
        - Changed
        - Removed
- v1.18.8
    - Downloads for v1.18.8
        - Source Code
        - Client binaries
        - Server binaries
        - Node binaries
    - Changelog since v1.18.7
    - Changes by Kind
        - Other (Cleanup or Flake)
    - Dependencies
        - Added
        - Changed
        - Removed
- v1.18.7
    - Downloads for v1.18.7
- Changelog since v1.18.6
    - Changes by Kind
        - Bug or Regression
        - Other (Cleanup or Flake)
    - Dependencies

        * Added
        * Changed
        * Removed
- v1.18.6
  - Downloads for v1.18.6
    * Source Code
    * Client binaries
    * Server binaries
    * Node binaries
  - Changelog since v1.18.5
  - Urgent Upgrade Notes
    * (No, really, you MUST read this before you upgrade)
  - Changes by Kind
    * API Change
    * Bug or Regression
  - Dependencies
    * Added
    * Changed
    * Removed
- v1.18.5
  - Downloads for v1.18.5
    * Source Code
    * Client binaries
    * Server binaries
    * Node binaries
  - Changelog since v1.18.4
  - Changes by Kind
    * API Change
    * Bug or Regression
  - Dependencies
    * Added
    * Changed
    * Removed
- v1.18.5-rc.1
  - Downloads for v1.18.5-rc.1
    * Source Code
    * Client binaries
    * Server binaries
    * Node binaries
  - Changelog since v1.18.4
  - Changes by Kind
    * API Change
    * Bug or Regression
  - Dependencies
    * Added
    * Changed

        * Removed
- v1.18.4
  - Downloads for v1.18.4
    * Source Code
    * Client binaries
    * Server binaries
    * Node binaries
  - Changelog since v1.18.3
  - Changes by Kind
    * API Change
    * Feature
    * Bug or Regression
    * Other (Cleanup or Flake)
  - Dependencies
    * Added
    * Changed
    * Removed
- v1.18.3
  - Downloads for v1.18.3
    * Source Code
    * Client binaries
    * Server binaries
    * Node binaries
  - Changelog since v1.18.2
  - Changes by Kind
    * Bug or Regression
    * Other (Cleanup or Flake)
  - Dependencies
    * Added
    * Changed
    * Removed
- v1.18.2
  - Downloads for v1.18.2
    * Client Binaries
    * Server Binaries
    * Node Binaries
  - Changelog since v1.18.1
  - Changes by Kind
    * Bug or Regression
- v1.18.1
  - Downloads for v1.18.1
    * Client Binaries
    * Server Binaries
    * Node Binaries
  - Changelog since v1.18.0
  - Changes by Kind

        * Feature
        * Other (Bug, Cleanup or Flake)
- v1.18.0
  - Downloads for v1.18.0
    * Client Binaries
    * Server Binaries
    * Node Binaries
  - Changelog since v1.17.0
  - What's New (Major Themes)
    * Kubernetes Topology Manager Moves to Beta - Align Up!
    * Serverside Apply - Beta 2
    * Extending Ingress with and replacing a deprecated annotation with IngressClass
    * SIG CLI introduces kubectl debug
    * Introducing Windows CSI support alpha for Kubernetes
    * Other notable announcements
  - Known Issues
  - Urgent Upgrade Notes
    * (No, really, you MUST read this before you upgrade)
      · kube-apiserver:
      · kubelet:
      · kubectl:
      · client-go:
  - Changes by Kind
    * Deprecation
      · kube-apiserver:
      · kube-controller-manager:
      · kubelet:
      · kube-proxy:
      · kubeadm:
      · kubectl:
      · add-ons:
      · kube-scheduler:
      · Other deprecations:
    * API Change
      · New API types/versions:
      · New API fields:
      · Other API changes:
      · Configuration file changes:
      · kube-apiserver:
      · kube-scheduler:
      · kube-proxy:
      · Features graduated to beta:
      · Features graduated to GA:
    * Feature
      · Metrics:

        * Other (Bug, Cleanup or Flake)
    - Dependencies
- v1.18.0-rc.1
    - Downloads for v1.18.0-rc.1
        * Client Binaries
        * Server Binaries
        * Node Binaries
    - Changelog since v1.18.0-beta.2
    - Changes by Kind
        * API Change
        * Other (Bug, Cleanup or Flake)
- v1.18.0-beta.2
    - Downloads for v1.18.0-beta.2
        * Client Binaries
        * Server Binaries
        * Node Binaries
    - Changelog since v1.18.0-beta.1
    - Urgent Upgrade Notes
        * (No, really, you MUST read this before you upgrade)
    - Changes by Kind
        * Deprecation
        * API Change
        * Feature
        * Documentation
        * Other (Bug, Cleanup or Flake)
- v1.18.0-beta.1
    - Downloads for v1.18.0-beta.1
        * Client Binaries
        * Server Binaries
        * Node Binaries
    - Changelog since v1.18.0-beta.0
    - Urgent Upgrade Notes
        * (No, really, you MUST read this before you upgrade)
    - Changes by Kind
        * Deprecation
        * API Change
        * Feature
        * Other (Bug, Cleanup or Flake)
- v1.18.0-alpha.5
    - Downloads for v1.18.0-alpha.5
        * Client Binaries
        * Server Binaries
        * Node Binaries
    - Changelog since v1.18.0-alpha.3
        * Deprecation
        * API Change

v1.18.20

Downloads for v1.18.20

Source Code

filename	sha512 hash
kubernetes.tar.gz	27832e96511cddd06195e60efaf67f6482c7ee676d27ac5140f6ba9811c65a660a783
kubernetes-src.tar.gz	e25b90c2c089bfa4b501cc53499a9cd176f2ea3acb8ff06f206de6072aaec24c56f51e

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	447a105276feadc6002825439d5857057ab4525fae1e91368ae40710e674f3dbc8ac
kubernetes-client-darwin-amd64.tar.gz	5272d77274080782d9bebf947e2fabe99c681b4fd097e6e40ac7d7616b5ffce80a76b
kubernetes-client-linux-386.tar.gz	0aed488d3f702f60371769932cd67276ac47b9cf6e4d47252eb5fb810b493a2fd4248
kubernetes-client-linux-amd64.tar.gz	59874f72e4793beffb3ae648af979975696aecc6aa25977d45ab65a34e8c57bf9efb72
kubernetes-client-linux-arm.tar.gz	4d4387634050a67791e4683f505041f0b2c792a7e8679b53eae414c7175d97e624bf
kubernetes-client-linux-arm64.tar.gz	6c0746dfa4439d2f2a74bfe5f1f291ad664ee79de804bee29032723f2e9c3e0ceccb0e
kubernetes-client-linux-ppc64le.tar.gz	afc2827d2f9f1cc0c79d5f12f371bc0d7c2d600c8ff1b1417f13b816ef861a24ba31b2c
kubernetes-client-linux-s390x.tar.gz	ace98c7050da1113ec57c55c9ce60a3e5cd7e7c7515ae621398f9f0596907c36e77fd1
kubernetes-client-windows-386.tar.gz	dd03d983caaa64fa7ab962f58943be66912a002e37f571990afae0a2dc0595074e814
kubernetes-client-windows-amd64.tar.gz	7290ad6384b85cf82e0821b04e6d0f577cce0acb85715e1e1a3b61c39deba1d7882c

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	60ee0761646af9f6d9a74c228509c43b18577be7b3b03e72d58ef2ae4078f7bdd1b3
kubernetes-server-linux-arm.tar.gz	67b46a6d3b5e9d50831fd50ad389ba5e307dee47550bac004dbd7a903340251283e
kubernetes-server-linux-arm64.tar.gz	baaebd56e913ea02760e1274023e00cc86c9a96b5cf729c100848c914167cc6d2df7
kubernetes-server-linux-ppc64le.tar.gz	57c9394f537f65f441b0806fbf6ae412e4a56216d883800b26fa127933576cce6a782
kubernetes-server-linux-s390x.tar.gz	ade2ff30b3f1ae9ad2f248c3b92c2fbd357d6c0494e4b3697b6e1bfa3ecd2872841fba

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	9f4d52317e8ceed178c60a75210a5a00f6548d3c6bb41e6adf2a1b0eee2944de4570b

filename	sha512 hash
kubernetes-node-linux-arm.tar.gz	6c607ef537eab72a3e74c7f42a0b478ecc76a3735c52fa05bb420a004bc9e6f9acafb6
kubernetes-node-linux-arm64.tar.gz	43445cefc378acc9fbbabf1347612288e0d7454003245c3bc08ea4c039f30fd6b6bba
kubernetes-node-linux-ppc64le.tar.gz	fbdf4114733b09f6068cd6e435d83bdf16b500a99c59bf4a00025f8178ac758dbc3b6
kubernetes-node-linux-s390x.tar.gz	7c34a2e1f4cd992c35e2dd3265116a7640136b1f50b6aa30cc001c7c2cbe5194d902
kubernetes-node-windows-amd64.tar.gz	a3a5c7b2f76aa0168b898a1635da5df1b8016968daec30b3f416f0e9da8475ccc1158

Changelog since v1.18.19

Changes by Kind

Bug or Regression

- Reverted the previous fix for portforward cleanup because it introduced a kubelet regression which can lead into segmentation faults. (#102838, @saschagrunert) [SIG API Machinery and Node]

Dependencies

Added

Nothing has changed.

Changed

Nothing has changed.

Removed

Nothing has changed.

v1.18.19

Downloads for v1.18.19

Source Code

filename	sha512 hash
kubernetes.tar.gz	017e3f9def09f48756ffdd6655c94eba79941ee0e8ff3a7795ff8333d54a79a7d156a1e
kubernetes-src.tar.gz	5387ef0f8d3e95906484d8ec388e993a013864b74a484871786b8ed21aa5e43ecbc5

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	73357e069e633cc190aeeaf75457196f9c860ba08b778bc79011ccc2f0547bbcd12aa
kubernetes-client-darwin-amd64.tar.gz	73becd4ad77677712d4f1244eefe4d31d098bced2d110c138de8fff15e250a32f2e2e7
kubernetes-client-linux-386.tar.gz	1ac451b90a30b9fc05e6d88d69e28fd61a0447bf7b586f20559b49f3e9fe844655ba5
kubernetes-client-linux-amd64.tar.gz	c930d399f96da2b8e7f5425366d5015f668d9754b889ba13beb55516a65ec05241c5
kubernetes-client-linux-arm.tar.gz	021c046e2c36194b9d9b7484e07cdd966fd4c54388c28cc86f089ddbf3dd9a1998a5
kubernetes-client-linux-arm64.tar.gz	79c58be1cd5d1723495d642e10e497fcd2112abd9ef6ec435eac46adbe651dbad7b2
kubernetes-client-linux-ppc64le.tar.gz	c0011327736df2a5deeac06b9ca3c6bbbbc96f7430bde3f7617eb3b8cc3362c906e6
kubernetes-client-linux-s390x.tar.gz	9e62e19f99564619c94f707c79594a81bf10d652671800b36337bc424e78fd7a1c1bb
kubernetes-client-windows-386.tar.gz	e91f490679c0d6a2a437d69f89b3e634b618f077abca26d9d60ae0e53aecf204f9079
kubernetes-client-windows-amd64.tar.gz	0d498ac15eb54d54fefc62b24b3bd5ae6185a6e67508f1745ebdb23f378e226e343ce

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	fdec300fc91ab8f723ed5bc4ef368ecfeff12e9148513837afbcde195c951808a3dce5b
kubernetes-server-linux-arm.tar.gz	fea5f3bf9ed8f9c215e2abc005f1138b66d1b66aa06b9a48a5f1b7dbbe2390becac17
kubernetes-server-linux-arm64.tar.gz	329703893834d55d2d9e91e769f2d3212d0551b8be95d97a843f774d49393795b0a
kubernetes-server-linux-ppc64le.tar.gz	22138d1ff9bcfda8912a5b451d66ffe1941492bca95c54cd07441fdc497855c7931cfc
kubernetes-server-linux-s390x.tar.gz	e8d1c5530c36262a72a96cf0243311e1bc5e8e4175388ec77be5d6eaebba7643aefcc

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	0e5bc9a463b51747c8c3aee220ae7f9bcf97c45fb14c192d46aeb64d7f3b24d5841b2
kubernetes-node-linux-arm.tar.gz	51ab0435d8f2ef28483db32567194a1503207030d7b8162c04f9984c85e08ba07342
kubernetes-node-linux-arm64.tar.gz	c405b61e79ae391bbb7c11fbfdfc4ecd66b713ea6fed182ce96453b8663bcf2a768ce
kubernetes-node-linux-ppc64le.tar.gz	ab530723991f84541db918b18a4d327f2b288f2e013e418bd9b4040c554512629b2
kubernetes-node-linux-s390x.tar.gz	a3b42d1048b38e9b46288d1085e09878d0f54e0cee8f183dc0e86493dcec061f9462
kubernetes-node-windows-amd64.tar.gz	665cf1bad93ebb749a47aee162f3c76b5168ca09b30b9c610274795d756bf6e36c06

Changelog since v1.18.18

Changes by Kind

API Change

- We have added a new Priority & Fairness rule that exempts all probes (/readyz, /healthz, /livez) to prevent restarting of "healthy" kube-apiserver instance(s) by kubelet. (#101114, @tkashem) [SIG API Machinery]

Bug or Regression

- EndpointSlice IP validation now matches Endpoints IP validation. (#101084, @robscott) [SIG Apps and Network]
- Fixed a bug where startupProbe stopped working after a container's first restart (#101093, @wzshiming) [SIG Node]
- Fixed port-forward memory leak for long-running and heavily used connections. (#99839, @saschagrunert) [SIG API Machinery and Node]
- Kubelet: improve the performance when waiting for a synchronization of the node list with the kube-apiserver (#99336, @neolit123) [SIG Node]

Dependencies

Added

Nothing has changed.

Changed

- sigs.k8s.io/structured-merge-diff/v3: v3.0.0 → v3.0.1

Removed

Nothing has changed.

v1.18.18

Downloads for v1.18.18

Source Code

filename	sha512 hash
kubernetes.tar.gz	36e254401fae0ddcf05aa57a76a8ea9772f6a61492a898af48c3689132edf77bd2f55
kubernetes-src.tar.gz	67529f55775315fa3833af881327f719322e4922cb04707a28fc799b23bd70b2e5438

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	5c28609f86a6715bd2561b2015188ae829a7a9423a5ecf22d4336d17ff333269438fc
kubernetes-client-darwin-amd64.tar.gz	18ad76c92e7d9b8180622615965bbafe84ef04d56eef1d5e41a5e00ef92bdc309486e
kubernetes-client-linux-386.tar.gz	bc04952b308f604018c655557e9d69ce03a36e15c6677b56079eb032d6ddfbe74514
kubernetes-client-linux-amd64.tar.gz	5be25836a0d4ce7a1d4e01a1b08235bf1854e543860997c120cce8200c9a63a4f41a
kubernetes-client-linux-arm.tar.gz	ab86ac1769abfdf8200a5503ea27c0b84c3f76734171a4829a90e36b1a3075634edd
kubernetes-client-linux-arm64.tar.gz	d2f902af195d29cc9cc7c10ebc5cfd02c1ff74ca6437da737e831e0fe8560aa4a466b2
kubernetes-client-linux-ppc64le.tar.gz	3db21a0cb0dbe742184b580adf8ed91e5375b49a054e13656272e47290f284ba0ad
kubernetes-client-linux-s390x.tar.gz	c363266d6ffeea25839ffdba6d550bc16262c3c4f6b218d8ba21feb5b9f0cebf9644d5
kubernetes-client-windows-386.tar.gz	47928786033666d5476fa39d914c2dd8a8ec73e6046a84675ac04ec5969913d714cb
kubernetes-client-windows-amd64.tar.gz	5d859ccac89951d2b25b32f211a59524f71340a17ef2895892238e568690634b661c

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	3ea7c124dace05fcebe12f0998183199cf5288163407fd764606888a0851bcdc5afd7
kubernetes-server-linux-arm.tar.gz	e63d9298f3ff34b7c7dbd29153398eb4658108a6993637f06497a256e695a61a659f2
kubernetes-server-linux-arm64.tar.gz	a5a3d967e4fd85163514ab291ce6b4143a09aa0a673bcd1aa6d9132cc937c753473
kubernetes-server-linux-ppc64le.tar.gz	0ecb2aaa0aeee9f2babf077b91163083362c9a4d1e2a29d1c3b6da2dc160e33231ba
kubernetes-server-linux-s390x.tar.gz	16fdf6c9c2797ce2a9e15907a9aeed46070498c1f5f2c56dd6593f860f758980b00228

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	7ba4bf9da2274ee9cc8745a309d09652e7e721500e32d92e9e21047c264d39c1cb69
kubernetes-node-linux-arm.tar.gz	a3b28d39bd282d47e7b7f91576bda2d4dc26df1b3a92e975890be0513dfdb151215
kubernetes-node-linux-arm64.tar.gz	7944af04e1a7907953ce81ea8406bbc13ec2c41f497986f2bb2f883473c2dc3064d00
kubernetes-node-linux-ppc64le.tar.gz	327e2e42011e6c32aec8ffad416c1166a4975141c715babe1d97c4b1103d269c69c60
kubernetes-node-linux-s390x.tar.gz	6a421f85770b47fdbb1fe084617ff46b539e90290d8d567e5ebd0021a97049e0c0450
kubernetes-node-windows-amd64.tar.gz	e4866005bc8663e66dd3e16468ce82c2d551bfe11d401f3d71abd68e739c992381e5

Changelog since v1.18.17

Important Security Information

This release contains changes that address the following vulnerabilities:

CVE-2021-25735: Validating Admission Webhook does not observe some previous fields

A security issue was discovered in kube-apiserver that could allow node updates to bypass a Validating Admission Webhook. You are only affected by this vulnerability if you run a Validating Admission Webhook for Nodes that denies admission based at least partially on the old state of the Node object.

Note: This only impacts validating admission plugins that rely on old values in certain fields, and does not impact calls from kubelets that go through the built-in NodeRestriction admission plugin.

Affected Versions: - kube-apiserver v1.20.0 - v1.20.5 - kube-apiserver v1.19.0 - v1.19.9 - kube-apiserver <= v1.18.17

Fixed Versions: - kube-apiserver v1.21.0 - kube-apiserver v1.20.6 - kube-apiserver v1.19.10 - kube-apiserver v1.18.18

This vulnerability was reported by Rogerio Bastos & Ari Lima from RedHat

CVSS Rating: Medium (6.5) CVSS:3.0/AV:N/AC:L/PR:H/UI:N/S:U/C:N/I:H/A:H

Changes by Kind

API Change

- Fixes using server-side apply with APIService resources (#100715, @kevindelgado) [SIG API Machinery, Apps, CLI and Testing]
- Regenerate protobuf code to fix CVE-2021-3121 (#100514, @joelsmith) [SIG API Machinery, Auth, CLI, Cloud Provider, Cluster Lifecycle, Instrumentation and Node]

Feature

- AWS cloudprovider will ignore provisioning load balancers if the annotation service.beta.kubernetes.io/aws-load-balancer-type is external or nlb-ip (#97973, @kishorj) [SIG Cloud Provider]

Bug or Regression

- Fixed a bug where a high churn of events was causing master instability by reducing the maximum number of objects (events) attached to a single etcd lease. (#100452, @mborsz) [SIG API Machinery and Instrumentation]
- Fixed a race condition on API server startup ensuring previously created webhook configurations are effective before the first write request is admitted. (#95783, @roycaihw) [SIG API Machinery]
- Fixes a data race issue in the priority and fairness API server filter (#100670, @tkashem) [SIG API Machinery]
- HTTP/2 connection health check is enabled by default in all Kubernetes clients to fix persistently broken connections (https://github.com/kubernetes/client-go/issues/374). If needed, users can tune the feature via the HTTP2_READ_IDLE_TIMEOUT_SECONDS and HTTP2_PING_TIMEOUT_SECONDS environment variables. The feature is disabled if HTTP2_READ_IDLE_TIMEOUT_SECONDS is set to 0. (#100376, @liggitt) [SIG API Machinery, CLI, Cloud Provider, Cluster Lifecycle, Instrumentation and Node]
- Reverts breaking change to inline AzureFile volumes in v1.18.15-v1.18.17; referenced secrets are now correctly searched for in the same namespace as the pod as in previous releases. (#100397, @andyzhangx) [SIG Cloud Provider and Storage]

- The maximum number of ports allowed in EndpointSlices has been increased from 100 to 20,000 (#99795, @robscott) [SIG Network]

Dependencies

Added

Nothing has changed.

Changed

- github.com/gogo/protobuf: v1.3.1 → v1.3.2
- github.com/kisielk/errcheck: v1.2.0 → v1.5.0
- golang.org/x/net: 13f9640 → 69a7880
- golang.org/x/sys: fde4db3 → 5cba982

Removed

Nothing has changed.

v1.18.17

Downloads for v1.18.17

Source Code

filename	sha512 hash
kubernetes.tar.gz	bb0fba64db46587c549c471b80f8734b899126784a9f34669dbb585ed593155a031
kubernetes-src.tar.gz	35fc1388535d9d5e4778eeaff375e1a60d9ae344a91f06106c5e342a04a814751f9f73

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	59a76ab77cc0f068b5e52b8e091e5a3b09718d57d4c9cc7c4b2823ead618844ec49b
kubernetes-client-darwin-amd64.tar.gz	cff748a737c04b75d112386acb67a47d4589785f0b95643b8e77771a163bb52f5d6c
kubernetes-client-linux-386.tar.gz	f013f9f307a163984f6d3806089782c6a359dfb6386d089eb5d8adb18bad81a7b782
kubernetes-client-linux-amd64.tar.gz	a9a6873bcd77c305956e17730e29ae5454b81be8238c911a5d0a3d3d4ab1a65194d
kubernetes-client-linux-arm.tar.gz	f80d5773a0d7a8c2548d00e2e1afc359b8eaa13235d2d3b706f4a900ad9f85f63665b
kubernetes-client-linux-arm64.tar.gz	84418d8931c64a05bc1e14f87b15aef284127d7f5888fd0e258a1e93fdb0d149dc961

filename	sha512 hash
kubernetes-client-linux-ppc64le.tar.gz	e6b1f850b7aa04026bec2fb12699200efb65b9dc8935a9ceb975e99e5b802775dd11
kubernetes-client-linux-s390x.tar.gz	c59ebfe82ce5e9174c0698aadcb5fa5ccd07eddc9bca6fbe9b42863730817fe14b44e
kubernetes-client-windows-386.tar.gz	00023660a2fdf71770986e903ab7eeb92b6ee9a76f74e46ffe2012bcaac53f985abce1
kubernetes-client-windows-amd64.tar.gz	61eb57ab6b3f5c73a2d4b0f5239657c3bbf11b9375b8214417cfacb012b94b139296

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	2eadde763fb318a4e3786ce7e30a36a423ad2e19fdd221472e0788b562cfd9745f41c
kubernetes-server-linux-arm.tar.gz	c4d8a67ae2e15242bb19e58cf08e7287e80ba4d5566340ed84e19f0e6526d22e29aa
kubernetes-server-linux-arm64.tar.gz	93161854604f71d46f8742bc4f99b3791827329987d251a3d2df5d84fd6d51f63554
kubernetes-server-linux-ppc64le.tar.gz	24050177e19d4fc568a0f664aea31270dcc297ff7d6069642566fa2ef7b5013109d617
kubernetes-server-linux-s390x.tar.gz	e5e10913757c0a47f7ec2d49a3ac9149174e9a9d3b4c0bd4133da102f094d11df0cfc

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	425d64644aedfcd08058fc7704fc74ae90e59038798be7cf51fb5ff09d91eecf798942f
kubernetes-node-linux-arm.tar.gz	37aeacdfec512bdb9b228867b0b3e2005a74a5953f9c5e01eedeaa5367e98e4a47e4
kubernetes-node-linux-arm64.tar.gz	7bad714287c3fa834d190672e57add0633d36df3099040045e4c98d6b1a7382a03d
kubernetes-node-linux-ppc64le.tar.gz	81e85d9b062623bb743c49dc552e5627b344ab3a22aba140712068760228a247b18
kubernetes-node-linux-s390x.tar.gz	44021b37c10de94b4ed40cf742877063e6bce55fd79d428e6ca73793b001a37fdebe
kubernetes-node-windows-amd64.tar.gz	fd6400a5a8cddc305b13b0fbc6e8316347d1297c24cb2b28eb5e62aab9e45ca99027

Changelog since v1.18.16

Changes by Kind

Failing Test

- Fix handing special characters in the volume path on Windows (#99138, @yujuhong) [SIG Storage]

Bug or Regression

- Count pod overhead against an entity's ResourceQuota (#99600, @gjkim42) [SIG API Machinery and Node]
- EndpointSlice controller is now less likely to emit FailedToUpdateEndpointSlices events. (#100146, @robscott) [SIG Apps and Network]
- Fixing a bug where a failed node may not have the NoExecute taint set correctly (#98943, @CKchen0726) [SIG Apps and Node]
- Kubelet now cleans up orphaned volume directories automatically (#95301, @lorenz) [SIG Node and Storage]
- Resolves spurious `Failed to list *v1.Secret` or `Failed to list *v1.ConfigMap` messages in kubelet logs. (#99538, @liggitt) [SIG Auth and Node]
- We will no longer automatically delete all data when a failure is detected during creation of the volume data file on a CSI volume. Now we will only remove the data file and volume path. (#96021, @huffmanca) [SIG Storage]

Dependencies

Added

Nothing has changed.

Changed

Nothing has changed.

Removed

Nothing has changed.

v1.18.16

Downloads for v1.18.16

Source Code

filename	sha512 hash
kubernetes.tar.gz	e332bf943044108bea2b08498cf5a20f07d71ad8cdfe59df03f0b4fb4a883422bd5d3
kubernetes-src.tar.gz	3f47f180ad5f27827b1d821ff65b80d4920235ad02f3091fc7f8378434ef50f9b3f0def

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	e7475d17c3cfcdc11178060f6941aedf3f6f88a56c3e9c412adcd9422fcfbde40f54cb6
kubernetes-client-darwin-amd64.tar.gz	9070e8a26c975c41634e564597e7739fde5d550489e7432c4f90a2ebb8d31f36a4ef4
kubernetes-client-linux-386.tar.gz	6813bb8614cbf99867c8b411bbcf608dd0b91e3baf3a419d3bed95d0bc26e676658
kubernetes-client-linux-amd64.tar.gz	29d0a6c27b2c41c104c209e93bd4b903e45d09c8c930528b1f9dcb27f78c7fd6a665
kubernetes-client-linux-arm.tar.gz	b7f07bc9b933abbe1cd0680c45ea06f9ad4f530855a14bb6271fc23a193cc3644293
kubernetes-client-linux-arm64.tar.gz	9ad241c3ca277567e1a403a65721169e0095bd35ca866a82eaccd5ddc89fb0fd9d5c
kubernetes-client-linux-ppc64le.tar.gz	932020c4cbb6160cac2de1c1799e1f0a362663eb93ac179d6a4f25a5a91ee382f364d
kubernetes-client-linux-s390x.tar.gz	88b5343418e3689586a7c1802f88a51bad1bbb32068d349fee4b1862db9f180b7df7
kubernetes-client-windows-386.tar.gz	b5a7e5e63bfb82831107b73e73896fa88da4161dbb101c7712859acc6997b27bc979
kubernetes-client-windows-amd64.tar.gz	a2eea07ef8ccdf20de6c69ce9babe652ba842d0984f07cb399242d45fe46d936a8fa3

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	d1ad19da387ff05fde67eb5e227a6b0e3c0a059abc212d018d6ae9e3596d08a9602f5
kubernetes-server-linux-arm.tar.gz	85710005290a32712b08542753a81e8179137ce424e26a8e4e7c46532417c43731ca
kubernetes-server-linux-arm64.tar.gz	e610502c45db800d4daef5279aa8571fa2f2dac2437ea059c075b0645827c01b8aefe
kubernetes-server-linux-ppc64le.tar.gz	9a9bda1998633c5879196e2389168c91021ec46f4ee462a2c64a4a319ea315f7b545c
kubernetes-server-linux-s390x.tar.gz	2fda00e910ae2fcb40967e8ebd8c6aaa8eeaad506bc755445bc3f30b4acdb9039c0b

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	f816429591b3eb996dba9b6bf63934815f94b61b6c2289e142fdcbd9d26a6960658
kubernetes-node-linux-arm.tar.gz	99b7f0f78e6b9156303448468fd4ba86da89cbfa12e4b19edd087d70ade5c56a73b5
kubernetes-node-linux-arm64.tar.gz	90c91ea55655bc0fecbd6c04fc10a3ed49172e507f0f9d7b6a27d0657d57cdd3aea26
kubernetes-node-linux-ppc64le.tar.gz	e675b40c87a1c8f507d59bdd002f8db4a1b939828d552bbed796c2e6031b29b171e
kubernetes-node-linux-s390x.tar.gz	c7e14cc886131f207b7ab8c167e7571ad45cbbbe3310a3dbeb1b907d1e41a00f6b19
kubernetes-node-windows-amd64.tar.gz	9722b61d98bee7680e1ca17be37e68a37a3bc3bfd9f1f55088efa2001e39040b704c1

Changelog since v1.18.15

Changes by Kind

Bug or Regression

- Avoid marking node as Ready until node has synced with API servers at least once (#99034, @ehashman) [SIG Node]
- Cleanup subnet in frontend IP configs to prevent huge subnet request bodies in some scenarios. (#98290, @nilo19) [SIG Cloud Provider]
- Fix CSI-migrated inline EBS volumes failing to mount if their volumeID is prefixed by aws:// (#96821, @wongma7) [SIG Storage]
- Fix azure file migration issue (#97877, @andyzhangx) [SIG Auth, Cloud Provider and Storage]
- Fix to recover CSI volumes from certain dangling attachments (#96617, @yuga711) [SIG Apps and Storage]
- Fixed a bug where aggregator_unavailable_apiservice metrics were reported for deleted apiservices. (#96421, @dgrisonnet) [SIG API Machinery and Instrumentation]
- Fixed provisioning of Cinder volumes migrated to CSI when StorageClass with AllowedTopologies was used. (#98311, @jsafrane) [SIG Storage]
- Fixes a panic in the disruption budget controller for PDB objects with invalid selectors (#98777, @ialidzhikov) [SIG Apps]
- Kubeadm: get k8s CI version markers from k8s infra bucket (#98836, @hasheddan) [SIG Cluster Lifecycle and Release]
- Kubelet should ignore cgroup driver check on Windows node. (#98384, @pacoxu) [SIG Node]
- TerminationGracePeriodSeconds from pod spec is respected for the mirror pod Static pods will be deleted gracefully (#99035, @ehashman) [SIG Node and Testing]

- Truncates a message if it hits the NoteLengthLimit when the scheduler records an event for the pod that indicates the pod has failed to schedule. (#98715, @carlory) [SIG Scheduling]
- Warning about using a deprecated volume plugin is logged only once. (#96751, @jsafrane) [SIG Storage]

Other (Cleanup or Flake)

- Kubeadm: change the default image repository for CI images from 'gcr.io/kubernetes-ci-images' to 'gcr.io/k8s-staging-ci-images' (#97087, @SataQiu) [SIG Cluster Lifecycle]

Dependencies

Added

Nothing has changed.

Changed

Nothing has changed.

Removed

Nothing has changed.

v1.18.15

Downloads for v1.18.15

Source Code

filename	sha512 hash
kubernetes.tar.gz	b4cc40d35873704332a2076f8f52bf3724146d71faa0a699e0154d9e41ece441160d0
kubernetes-src.tar.gz	22d1e30771afec60f6b96790e685407d854dd7ed46399057e4cc4dc2c20c897aff35c

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	3b50f0bcc4673c98a2b8b636665633191825b477dd254f2eb6274aeb44eaefa66454
kubernetes-client-darwin-amd64.tar.gz	95d68f85cb202627421810196fe62f59ce2530077e1ba4acae975cf089b283d9df905
kubernetes-client-linux-386.tar.gz	507009680f1d6fc0f87ffe88020a4e00e90e3b98b01ca771f336ee81af26b35ced3c997

filename	sha512 hash
kubernetes-client-linux-amd64.tar.gz	76fef1f61703f19f95bc14508b86b039a695226e637224588fb99398b52c15de20d89
kubernetes-client-linux-arm.tar.gz	49d2a44fd02a202159618fb199495f24e5d6a999b4d1812c0b524db827cc41d739c3
kubernetes-client-linux-arm64.tar.gz	2791b3ff81727178a1d8ae14430f81d48aa1fe9c2fed52d6a4067cfae919df6d46a463
kubernetes-client-linux-ppc64le.tar.gz	ebeca3ad6e87cbb2be8a8f3a40a46eeb5a15977e815553ae11be58166378aa00c662
kubernetes-client-linux-s390x.tar.gz	729cccf3981cab87a66dacfd97b2ae52b712bbe9ebd85cf2ce93b2f0975603bfa9699
kubernetes-client-windows-386.tar.gz	3b3c65e04feed754c556e5d29518ef4fe51bd2eb678255ef720090332fbcb0f9516b7c
kubernetes-client-windows-amd64.tar.gz	6f17654031abfdb8ab57c532290fe2264912cbc4880aa1ee9c501815acb1154712e2b

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	43ecb31c1e8a7faca370f1a37c63ec57532274c9ffa01f2c85a0147e411ac5967aef833
kubernetes-server-linux-arm.tar.gz	4070b0cee6c49c580dc26f2cfd2ea639fd442293bc94b7eb7856cda122a95b7022863
kubernetes-server-linux-arm64.tar.gz	8773d5f764b8ec840166709f96a1cfe06f6f24ff6fe63dcd6ac0954ca43476b88515893
kubernetes-server-linux-ppc64le.tar.gz	1665a60f6b559661cd96aa8938285ccf685ead86853716ee0112c4f5eca0cb9400512
kubernetes-server-linux-s390x.tar.gz	9f6c4d759cdd0ee6c6da7c721e888b73e8a3ac44556362d3e33aefda78445631c8b4

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	2b2a97ec3dc49eb6a8612126919de7137dfa790a2d59587a108114ec5944dfdd6b40
kubernetes-node-linux-arm.tar.gz	c7a44673e0d4385362f4c9c6877c18fff5d0f71d0ee8170fcdbc084b613c3fad8a84c1
kubernetes-node-linux-arm64.tar.gz	e5f09372d232df4fea344550381a582d6cbb50d477c2561469f474485576e382cb43c
kubernetes-node-linux-ppc64le.tar.gz	91231ec9072b7a45971f37cfe393767007b06cdc2b246c5328fed831bc41d078fdaba

filename	sha512 hash
kubernetes-node-linux-s390x.tar.gz	3e9fae4d5fef90e0f5881c86302f922dd5999629fda0894f70060c2225d013cbe36e43
kubernetes-node-windows-amd64.tar.gz	2f0951f557884d6a37923b628b1971d299dd3276449adfbf6732931e1a1a51dd39af

Changelog since v1.18.14

Changes by Kind

Bug or Regression

- Fix Azure file share not deleted issue when the namespace is deleted (#97417, @andyzhangx) [SIG Cloud Provider and Storage]
- Fix counting error in service/nodeport/loadbalancer quota check (#97829, @pacoxu) [SIG API Machinery and Network]
- Fix: azure file latency issue for metadata-heavy workloads (#97082, @andyzhangx) [SIG Cloud Provider and Storage]
- Fixed bug in CPUManager with race on container map access (#97427, @klueska) [SIG Node]
- 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]
- Kubeadm: avoid detection of the container runtime for commands that do not need it (#97849, @pacoxu) [SIG Cluster Lifecycle]

Dependencies

Added

Nothing has changed.

Changed

Nothing has changed.

Removed

Nothing has changed.

v1.18.14

Downloads for v1.18.14

Source Code

filename	sha512 hash
kubernetes.tar.gz	2be5783e92b2e7d361d90bf28c6753bab7939e73cb06712559a9c1e5702acd57d2a
kubernetes-src.tar.gz	f498f9a7dfd40f41707880c070024082acf2417c333d989cfd4694e4b46891cb4bb05

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	eba82b1fab3f15b451efdc3ba2d2b0bdf8c30a86610a79c255a56f9b8fe00baa2d0ac
kubernetes-client-darwin-amd64.tar.gz	cf2ff104e67b4261c223ce9b3ad983aa51577470a103a626249b3b5aa3001add0899
kubernetes-client-linux-386.tar.gz	fb737061bc4e9792962ea0cf0ea2b58ee14cf42a8f1e7d60a49f81935964599090d745
kubernetes-client-linux-amd64.tar.gz	fd6b2ef4dda119ff1341f297b0628edb49c834f49c3c636af89ed7b25863e3b86b58d0
kubernetes-client-linux-arm.tar.gz	c34a29db961c3f66c92e558c8b1c0d953e7e6b3854464aca3d2ba4817b76bac92660
kubernetes-client-linux-arm64.tar.gz	407d2549c60ef9ccb1ffaa66a9ea0d117933d7fc65da37df25d1336a727dccc6d8470
kubernetes-client-linux-ppc64le.tar.gz	711e6754b8b7e349c0766fc044283e2067556e0c6e33cc10891cf03105ce6f9d759e30
kubernetes-client-linux-s390x.tar.gz	f69ad7b037d954f3d1fd7e3577ef61748b8e2b5897cdf929f6bf1c498b2ec73e263b8b
kubernetes-client-windows-386.tar.gz	32baf31eb58fe649e2eea6bdaf69b340f0e95f0ecc233d7ea08d64424dfb4a600a8042
kubernetes-client-windows-amd64.tar.gz	bd834c1b97b71359ae33e5627a77aca00e260e0eadf061a37ebf2f8b0f66a736c2670

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	dd161166ead3464ad29fa25ec56a9fc4d1c6b311fb86578132e786ff876e0d86d1ec8
kubernetes-server-linux-arm.tar.gz	641b0a12d0ab3ff3824a1296b7f15a1078bf69e19715369effa456955d62a34a6ec60
kubernetes-server-linux-arm64.tar.gz	473a431b5c692a71321bc80d4590225fd5f7b6722513b5527966f0e72b2a3323a6a1
kubernetes-server-linux-ppc64le.tar.gz	4abc55a66fbd90e8f02106dcdd6b2ffba9fe995a9f6b20bd1ab8694b8f641ac0cf394
kubernetes-server-linux-s390x.tar.gz	9cc8aeef0fcfac521e1ab0e2c58b90e6e60b4b578af5b1b8c2d072948ca0be01f56545

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	09248f9daf9217db6a3b4e06fd7e8603f87da15af94bb748715a003f6f7df9bb19caf7
kubernetes-node-linux-arm.tar.gz	26c52c2c45b6f4c25a89a5f9995ae8790bdf5ff98d985d88071b6e21f01d5cb3033c9
kubernetes-node-linux-arm64.tar.gz	7e639cbbe8bbdd502c66513a003a38d4bb76392ac6f28984b49590e91cf3195f560a
kubernetes-node-linux-ppc64le.tar.gz	2b791c67d5c34ed1e2644b72ad38693944873767e5c1db21ec794240994923c13a7
kubernetes-node-linux-s390x.tar.gz	16106a1beb0dbb7d03b3fb896677c526339a34f68fee923614d6410ffe9bfe48ba06e
kubernetes-node-windows-amd64.tar.gz	22dc0245759a22aceb5958d2315278b5f16b86a97bf95cedc062b5a94f33d15ee5ee

Changelog since v1.18.13

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. (#96158, @ravisantoshgudimetla) [SIG Node]

Bug or Regression

- Cordoned nodes are now deregistered from AWS target groups. (#85920, @hoelzro) [SIG Cloud Provider]
- Fixed FibreChannel volume plugin corrupting filesystems on detach of multipath volumes. (#97013, @jsafrane) [SIG Storage]
- Remove ready file and its directory (which is created during volume SetUp) during emptyDir volume TearDown. (#95770, @jingxu97) [SIG Storage]

Other (Cleanup or Flake)

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

Dependencies

Added

Nothing has changed.

Changed

Nothing has changed.

Removed

Nothing has changed.

v1.18.13

Downloads for v1.18.13

Source Code

filename	sha512 hash
kubernetes.tar.gz	4691c25c211500977d91d2ef4e57ff7990c3329066b86bb63f6433fe642b541733a66
kubernetes-src.tar.gz	307968bcbcc86803b414b3124d8e5088e175429622f42a5147d151a8e92279163fec

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	9ad360da95eecf7c7982a981501d9ad42cd60fdc28934b68b4e6d12d18f0d9955c9e
kubernetes-client-darwin-amd64.tar.gz	4b0e5f7aebbe23877a8dd92c4c1ea2b51ef7ebe2579bcedc1ff9a30bd5cb783e7fec4
kubernetes-client-linux-386.tar.gz	ba1418ac5b066835e0ca767fa564cd878a0111fa547140c18e9807f1e895171e87709
kubernetes-client-linux-amd64.tar.gz	6fb96d361943fd7b8a8afe89e99cfdc694959665ba9d48bf0c71915876c47c0200cac
kubernetes-client-linux-arm.tar.gz	ebe4aab71aba73fcba497ea9e468556e64afc3ef98f3b0f5258e90db8f31f4c2091542
kubernetes-client-linux-arm64.tar.gz	d63b44bcea907cefd8a0dd8f2880bac3becf0babbcd847555be1459e0edbe6d47c06
kubernetes-client-linux-ppc64le.tar.gz	58001c628d4927d77dafaad6f32ddf95e653eb7afd03efe49a23bf90bf27bf7ea04c04
kubernetes-client-linux-s390x.tar.gz	8e1165c77b3fe5d12fbe1aeaf8b77a2243909bed48fded83b0e9e59052355c3a61865
kubernetes-client-windows-386.tar.gz	611a88d020765a9f859981172f924e5a718b1ca5fc4a06415a5ab20e333dc591fa463
kubernetes-client-windows-amd64.tar.gz	74105b1badf2fd3e781c02fd7b02c05d9e300a7aa275b4effae618637ba1aa6056a62

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	6d5903b3e80ea95b2f99205f0c21598cf64e39025481e7773a7fe01688c9204a47c7a
kubernetes-server-linux-arm.tar.gz	b59bf2f37d54d8e3869f7e4f15712b11a333785ec6807f8f958b96dd377548cb18cdf
kubernetes-server-linux-arm64.tar.gz	b67c3d04db7e4f24e64977110e81db8c1a8961539b8c2c9cb3df648efe9e1d575e5fb
kubernetes-server-linux-ppc64le.tar.gz	d42936956019070f271dc80e96bdbd49f1fb2109247025c86473aff94303e7269d4ce
kubernetes-server-linux-s390x.tar.gz	2b67f35dd18b0814c6442470d41cafe3b68668db01964d309b09de17a9bef2d012c

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	ae21747aab7086155cc76ae6a5f0f6d4f822d2bb290937376cd8d77dfea5766ab0a0
kubernetes-node-linux-arm.tar.gz	1ee2ed32606a1f607a58e38d71aca0a0a58812272ac037df5b5be80821db2587295
kubernetes-node-linux-arm64.tar.gz	19605b3942e6a38c0bc5149319e84af78f511cdfe716921ae995976704bd34a8a090
kubernetes-node-linux-ppc64le.tar.gz	ff9504714af14fbdb8435462cd012f03721fd0b24064d06e569bd6361954b11ab767
kubernetes-node-linux-s390x.tar.gz	f7e886e48dcd1d6b921fd6d7cb7f0d832cfcef7505265de79bd173e4d05891433e5e1
kubernetes-node-windows-amd64.tar.gz	fda8828e170a0465f5e368ddcfccd67b7c8e5078eec31bce309cd6e1e252d4d3e8bd0

Changelog since v1.18.12

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. (#96158, @ravisantoshgudimetla) [SIG Node]

Bug or Regression

- Avoid GCE API calls when initializing GCE CloudProvider for Kubelets. Avoid unnecessary GCE API calls when adding IP alises or reflecting them in Node object in GCE cloud provider. (#96863, @tosi3k) [SIG Apps, Cloud Provider and Network]

- 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 (#96152, @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 a bug that prevents kubectl to validate CRDs with schema using x-kubernetes-preserve-unknown-fields on object fields. Fix kubectl SchemaError on CRDs with schema using x-kubernetes-preserve-unknown-fields on array types. (#96563, @gautierdelorme) [SIG API Machinery and Testing]
- Fixed kubelet creating extra sandbox for pods with RestartPolicyOnFailure after all containers succeeded (#92614, @tnqn) [SIG Node and Testing]
- Metric names for CSI and flexvolume drivers will include the driver name as well as the CSI plugin name. (#96474, @mattcary) [SIG Instrumentation and Storage]
- New Azure instance types do now have correct max data disk count information. (#94340, @ialidzhikov) [SIG Cloud Provider and Storage]

Dependencies

Added

Nothing has changed.

Changed

Nothing has changed.

Removed

Nothing has changed.

v1.18.12

Downloads for v1.18.12

Source Code

filename	sha512 hash
kubernetes.tar.gz	29a844663c1afec7f555b781a152e7892878b13f6f9438d8064b6cbe771451da7b31
kubernetes-src.tar.gz	296226cf9b7ded361d43d91a422a836e53465778f6d63b613037b8cbb73329dfbb7

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	447896d03e9fbde2b8d8f55553eccaf2859eb97ae96dc270391811dae46531af2929
kubernetes-client-darwin-amd64.tar.gz	8252110e2f991f21d4f15c33b8ed40366be7bb45e61c5c10dbea85bb13342d4468e7
kubernetes-client-linux-386.tar.gz	d0abf4561ed7b80f63e962718908fd2dcca7442e3d20cbf026d3dc69897393994847
kubernetes-client-linux-amd64.tar.gz	1735cb106c4cd06ddfc6cdbb1cef42f0ad9b5fba4c893a6bba7a4264e9ea8779dc65
kubernetes-client-linux-arm.tar.gz	fc09e3af998b471352c058635cfea202a1704b31a3560e302a9c34904be65d06b40d
kubernetes-client-linux-arm64.tar.gz	91ba6052aa7e6d4e69017a65c829dfc820e846b29fdf8a575cc371ba87484853cb49
kubernetes-client-linux-ppc64le.tar.gz	4f3d7a8ecdca73afe9844ab55296c56fe807dd92c1f901e35cd0bc82f9da5396d7aec
kubernetes-client-linux-s390x.tar.gz	f3ff6b7fdf07d3aaefcaef06868b1a7642b8893c065496740c70dffb5ae6805ffbb2798
kubernetes-client-windows-386.tar.gz	2b1b93b3a120d884a5c77225495feefca419cd03b6a5e1d251431c190da5376441b6
kubernetes-client-windows-amd64.tar.gz	f84907f8719acd5fb185f58dfc4deb6befaa650db7bf02de1d7f9a0668cb61f0e1feb0

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	cf0134d189ab17483fbd4a4013621c13184eacf980f7111f50a88ab7685325d1d95fe
kubernetes-server-linux-arm.tar.gz	1f1adc26f4d8dcab7031a762f78508570c3be3be4c6368402a5374d4402529107519
kubernetes-server-linux-arm64.tar.gz	7a5e4cfc5752fc054654cc53fbf98f70de48c09f278ae8a9b0f7f0730ffa561ee4b30a38
kubernetes-server-linux-ppc64le.tar.gz	5f0460e5bb273ce4839dee6f1b24de3051d2f7d5789d7823a8e15998bb31501d7c7a
kubernetes-server-linux-s390x.tar.gz	89104db6650f5d545cf30118a6e07f52a3a9d4b9b5b6dce0c4c41addc98b06f2f824

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	3874d18d1013fb38a8e2ea029dee717c5c65394513b74de87f340338f8cec4162739
kubernetes-node-linux-arm.tar.gz	b66beba8d4a1ed57ae80e8bf182ba14b9dc62815d43826ebc175a79cb7dea247b5
kubernetes-node-linux-arm64.tar.gz	77decabac76b6e474311516f6502483adb8b7d0a36ec045a64e3a9138d936195d95
kubernetes-node-linux-ppc64le.tar.gz	dd73c3504af924751260154f6b2952fb4a00006f92f313b54a60d59348850f553ba8f
kubernetes-node-linux-s390x.tar.gz	188526e8ba71bb1ee102007b50839888a723341af37a556c24780c3ffa767617e720
kubernetes-node-windows-amd64.tar.gz	eba4977e6b5cd70f33b6656e0d5689c0eee3f24a2de199b811a97deb0c5acb0e6849

Changelog since v1.18.11

Dependencies

Added

Nothing has changed.

Changed

Nothing has changed.

Removed

Nothing has changed.

v1.18.11

Downloads for v1.18.11

No artifacts for v1.18.11 were released.

Changelog since v1.18.10

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]
- Disabled `LocalStorageCapacityIsolation` feature gate is honored during scheduling. (#96181, @Huang-Wei) [SIG Scheduling]
- Fix a bug that Pods with topologySpreadConstraints get scheduled to nodes without required labels. (#95883, @Huang-Wei) [SIG Scheduling]
- 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, @roycaihw) [SIG API Machinery]
- Fixes high CPU usage in kubectl drain (#95260, @amandahla) [SIG CLI]
- If we set SelectPolicy MinPolicySelect on scaleUp behavior or scaleDown behavior,Horizontal Pod Autoscaler doesn't automatically scale the number of pods correctly (#95647, @JoshuaAndrew) [SIG Apps and Autoscaling]
- 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.

v1.18.10

Downloads for v1.18.10

Source Code

filename	sha512 hash
kubernetes.tar.gz	3072f903a1e37f3d56fd3de2b81c9fcd0e53d438ff7497065c3a9cca2d9aeed6a36bca
kubernetes-src.tar.gz	d15aa86a091c30259f9a833117690c58c3c975b7da0fc441e8783c3d195e851153fb9

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	3105648ffaf0f207fde5418e5ecfa5f2b00166044e511bc30f4b47a10f3a2d33a831aa1
kubernetes-client-darwin-amd64.tar.gz	dde2e6b34edf7e5e1c8ad57c617eef8a5b5efd19b36afe6da1a769874acd71df141f93
kubernetes-client-linux-386.tar.gz	91fa0c54248e1edf7f29baef0ca98e57078b44483ec2b1f3b95fd93b6db3a244f350e4
kubernetes-client-linux-amd64.tar.gz	02e33b1e97f481bd7ee213493bbda8701caf3d46e51837a9fc1e874df33c9685fd601
kubernetes-client-linux-arm.tar.gz	c6368d80aa0f38e5562427b93c761cef7d167b4c79b11e243c02259271e85fab75fcf8
kubernetes-client-linux-arm64.tar.gz	0423134985d2169267d47ad41c159520be8af3906a9c485caccf577f25aaeb6f22759
kubernetes-client-linux-ppc64le.tar.gz	613f94fc450bedec23a5a825e33672a0429fb8d88a91fced0945d071e1b67d093bc80
kubernetes-client-linux-s390x.tar.gz	3a9775f2893f16f2355f47b4360d8f66b2658134db81ed9cd635051814d319d619cc
kubernetes-client-windows-386.tar.gz	9b8c7e4ebfbba6dd54e74527f95b543716a5f17c2e155b1922bab42859278b5a5ab6
kubernetes-client-windows-amd64.tar.gz	b642b4b15a7c2abe10cc33ad5a7a294a249b1f78d55a1fe3117954d00129307539a9

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	69d60733d208521cd18e05f5caea13b79f3869c008912398da2b3203d1f8665156b9
kubernetes-server-linux-arm.tar.gz	f38e415908a4dc4284713e9ba09499e9e8df429cd1cd11e8693c272d48b753583566
kubernetes-server-linux-arm64.tar.gz	d69d5b0155addfbfa73af8d5336a015cdf217680fd0801b6b8a8264f8504f92db2c47
kubernetes-server-linux-ppc64le.tar.gz	daa02b0c3785d8bf8ece1391aaab71e28dfbd84fafd9c8d5d491d10b901a36557e9d
kubernetes-server-linux-s390x.tar.gz	f390ff8a359a98f39e625a16d86d1c859b165abb0c338fc3af131f2c09969d5d01a3ce

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	6d3e79370eb9353d84a033854174ef0e578a1fa3854e39ef146437adf673c9d6a4615
kubernetes-node-linux-arm.tar.gz	0f7f69b1b5525a62cc4cc30703e50b297b41a306796d987525a091b136a2808527c2
kubernetes-node-linux-arm64.tar.gz	8c6b7957490616e2b731e058ddc2af10c79cdd54175aea2c68dc0b2c595c8afd0a6b
kubernetes-node-linux-ppc64le.tar.gz	8afebd302693f8ca839f699514efd499a15e5e2b7cc9d3514e1169d84f70036989d76
kubernetes-node-linux-s390x.tar.gz	4773f5be2035585d5944e9fae24c15288865ae722628c1b3fc45f89c467320a673644
kubernetes-node-windows-amd64.tar.gz	994d73bde304b7c1cd37a0de3ff0fd5988f4b74c5836c3a86f359aa4e535d8a8219bf

Changelog since v1.18.9

Changes by Kind

Design

- Prevent logging of docker config contents if file is malformed (#95347, @sfowl) [SIG Auth and Node]

Bug or Regression

- Do not fail sorting empty elements. (#94666, @soltysh) [SIG CLI]
- Ensure getPrimaryInterfaceID not panic when network interfaces for Azure VMSS are null (#94801, @nilo19) [SIG Cloud Provider]
- Fix bug where loadbalancer deletion gets stuck because of missing resource group #75198 (#93962, @phiphi282) [SIG Cloud Provider]
- Fix detach azure disk issue when vm not exist (#95177, @andyzhangx) [SIG Cloud Provider]
- Fix etcd_object_counts metric reported by kube-apiserver (#94818, @tkashem) [SIG API Machinery]
- Fix network_programming_latency metric reporting for Endpoints/EndpointSlice deletions, where we don't have correct timestamp (#95363, @wojtek-t) [SIG Network and Scalability]
- Fix scheduler cache snapshot when a Node is deleted before its Pods (#95154, @alculquicondor) [SIG Scheduling]
- 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. (#95375, @marwanad) [SIG Cloud Provider and Instrumentation]

- Fix: azure disk resize error if source does not exist (#93011, @andyzhangx) [SIG Cloud Provider]
- 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 (#94934, @damemi) [SIG Apps, Network and Testing]
- Gracefully delete nodes when their parent scale set went missing (#95289, @bpineau) [SIG Cloud Provider]
- 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.

v1.18.9

Downloads for v1.18.9

Source Code

filename	sha512 hash
kubernetes.tar.gz	b0c98d0876673c72a71f8f55c66bf8a9168e6f5f8e4890bf326d2dd74041cc068b1da
kubernetes-src.tar.gz	67042a766344b5e35251bd1e070003966b57ec7dfb5ab96e280ef81d4e4805661ba

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	fcd559bec419543ef7847e09d9db329e3e6890acc42ed006fdbedef251c51fc57232a
kubernetes-client-darwin-amd64.tar.gz	485defc9db7847f1bcca5c054202f192e1a1e4d0cdd08182f85466d8c776bd4c9d53
kubernetes-client-linux-386.tar.gz	d19ac83e616516b1b35ba6885b39a041d14d5b51752c4fdc7c8a93edde99639bc48
kubernetes-client-linux-amd64.tar.gz	e3a5cb14ac277959254dd64bfa0f5d6f09ce338d3bef9865bd5fa1cf828d56468de4d
kubernetes-client-linux-arm.tar.gz	ccad978695621a924053845e2f34c222e556f642310c6851094f75b70807e08a0d72c
kubernetes-client-linux-arm64.tar.gz	938dc3b603234bf76da08a2b29fd6e58d2effccc91139afb2ce33afff75f42fe62e430ea
kubernetes-client-linux-ppc64le.tar.gz	ed46b16bd790f7feef92637b082f16054eb6ff15ede0a51c4c039ffb716b74f25ae01e4
kubernetes-client-linux-s390x.tar.gz	369b1b0f36aad42eec43530ab031eb3f677a16510a3c15141f3e4ef6c8d86624e897f
kubernetes-client-windows-386.tar.gz	1ccd65a373899278aabc33014f2cf2a96ef2a0311d84939b3c04210d20813197fea4c
kubernetes-client-windows-amd64.tar.gz	413ec6b8047d7ca102c8a4b340401d179102ce47530bbbe17945bffcce41efd8784d

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	fbd2dfe4d92224d2912894ccfe9229d898ffce1a9b18486cf1a9ed7f4a0e78c23f57ea
kubernetes-server-linux-arm.tar.gz	28852cdbb100be11d9c822059701ad29b75516356ffedc63d819580655e403354f81
kubernetes-server-linux-arm64.tar.gz	482ab26fcd641a7dcae044aa5c38b3e6e2486c5a8f6ae84101dc665e8feb4b0f6a42c
kubernetes-server-linux-ppc64le.tar.gz	ca109cbe10eb15224b77b2c35ab54cc0168ffdc9fc68949d5bfe572125dfdd958db3c
kubernetes-server-linux-s390x.tar.gz	3db03e3ebac7e2277fff962c4bd7588639cfb1d6f99f7641e85eb793a23dba513ef481

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	2064978434d28658eec7d64497a94bb672452f358f460fb6cf85fcd02284ded0a4e29
kubernetes-node-linux-arm.tar.gz	9932d727b3a81cde9fa506ad82780d72acbcca9353aaa33146b2aede590dba1194c
kubernetes-node-linux-arm64.tar.gz	542728b9ff7473cdd30afceb4c6216ac1b26eedef950cd09c2f07c1d04b8188d36efde
kubernetes-node-linux-ppc64le.tar.gz	b3e5f99c07d5502940e849f695077f9335f2e9964254301545ab93a220e8c5dbad5e3
kubernetes-node-linux-s390x.tar.gz	833a7df0a49e2461e2b4bfd58f6aaf92b5f7a605ccdbc9cad2e2e31bd6136d7b4a5c5
kubernetes-node-windows-amd64.tar.gz	36cf26e98cd93cd180c876796fb384ec66ecd313ea71b99fa6e862ffef23eb6e6c9125(

Changelog since v1.18.8

Changes by Kind

Bug or Regression

- “unbound immediate PersistentVolumeClaims” causes UnschedulableAndUnresolvable status rather than an Error in the scheduler. (#93892, @ahg-g) [SIG Apps and Storage]
- Fix kubectl printer to correctly handle timestamps of events emitted using events.k8s.io API (#94226, @ingvagabund) [SIG CLI] “‘sh $ kubectl get event LAST SEEN TYPE REASON OBJECT MESSAGE Normal Scheduled pod/nginx-6c975b59f8-gvmjr Successfully assigned default/nginx-6c975b59f8-gvmjr to minikube

  $ kubectl describe pod xxx …… Events: Type Reason Age From Message —- —— —- —- ——- Normal Scheduled default-scheduler Successfully assigned default/nginx-6c975b59f8-gvmjr to minikube ……
- Azure: fix a bug that kube-controller-manager would panic if wrong Azure VMSS name is configured (#94306, @knight42) [SIG Cloud Provider]
- 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]
- Fixed bug in reflector that couldn’t recover from “Too large resource version” errors with API servers 1.17.0-1.18.5 (#94316, @janeczku) [SIG API Machinery]

- Fixed the EndpointSliceController to correctly create endpoints for IPv6-only pods.

  Fixed the EndpointController to allow IPv6 headless services, if the IPv6DualStack feature gate is enabled, by specifying `ipFamily: IPv6` on the service. (This already worked with the EndpointSliceController.) (#91399, @danwinship) [SIG Apps and Network]

- 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]

- Fixing race condition with EndpointSlice controller garbage collection. (#91311, @robscott) [SIG Apps, Network and Testing]

- If firstTimestamp is not set use eventTime when printing event (#94252, @ingvagabund) [SIG CLI]

- Kube-apiserver: fixed a bug returning inconsistent results from list requests which set a field or label selector and set a paging limit (#94002, @wojtek-t) [SIG API Machinery]

- Pod Affinity/AntiAffinity label selectors are now validated in the pod affinity score plugin (#93758, @damemi) [SIG Scheduling]

- Scheduler bugfix: Scheduler doesn't lose pod information when nodes are quickly recreated. This could happen when nodes are restarted or quickly recreated reusing a nodename. (#93964, @alculquicondor) [SIG Scheduling and Testing]

- The EndpointSlice controller now waits for EndpointSlice and Node caches to be synced before starting. (#94086, @robscott) [SIG Apps and Network]

- 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. (#94409, @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

v1.18.8

Downloads for v1.18.8

Source Code

filename	sha512 hash
kubernetes.tar.gz	48dd9909e06b12e015c0b785ab528e700e4e319c942800ec82af42837ecaf6e692b6
kubernetes-src.tar.gz	c81ef7c31d8e34e3edc0983bb59e9d18bb1c6613439d4c52d29f6c26bddd3c1795e4

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	7328660c2a67d214d8d49e93194e1c51b51b7f91b3182dea9688676567f6f00598ec
kubernetes-client-darwin-amd64.tar.gz	2c700d683bc732cd4e353d31528bb6996cbf0f6d7e5dc93fbf45b4d457d5598cfd92
kubernetes-client-linux-386.tar.gz	02c5026b522226ceeb1b032337562039fa30b2a77b27dea26a0854d31a4492bcc5f8
kubernetes-client-linux-amd64.tar.gz	041dd919f7bf530e6fb6881bc475dbd34cec340eae62193cba1174a0fa0b9d30435b
kubernetes-client-linux-arm.tar.gz	539f0eea80d52ba079fa4793acee57a9adeb37e78be300ebc2d34a25a7a09146c3bf
kubernetes-client-linux-arm64.tar.gz	437c20e6d115d1e3ab5a47a10a0df4cb919ba6e139e2115aff2d70cc483bf7c4e9ae4
kubernetes-client-linux-ppc64le.tar.gz	3b167e40bc19e3999503c8edbe867cfa64358129173a9c64e8ad668cbf312a66fe83f

filename	sha512 hash
kubernetes-client-linux-s390x.tar.gz	1c732c60efe80030f9fb2cc1d680a850f96dc6e13451dbc88e302617cf32e781f3ac19
kubernetes-client-windows-386.tar.gz	aa194063f4f784aee3da7a3b7d738bd7a48288d8cfae40209a0ae7b1a2ca93e6fe9d5
kubernetes-client-windows-amd64.tar.gz	ea40da56b2950c68c28f4d96bb8bbba6c24a73a382cd20ffc5d75155a3b62b1a3e8b

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	608020f5882e0f1e374e0125f13e28ac756f057e034557bfd65658d21de666cd13bd1
kubernetes-server-linux-arm.tar.gz	e05b251f3bb17ee38031195ab8f14860966415c45383263c12b26f4b44902d75bca6
kubernetes-server-linux-arm64.tar.gz	27415f005fcaf3b6a93cb62ec784a949a64ec23ffece74e26d9e86e45e45dfd39d5fbff
kubernetes-server-linux-ppc64le.tar.gz	3c4a93ff3418f630361114545cf18f9f22000e511876d2687a7482a0959aa634b672ec
kubernetes-server-linux-s390x.tar.gz	38d976cdac09b0e94fbdba885df5149d65b71d803758eff5ce23d5ad641d13ce4e96

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	be40764df0f10e379c6920692d31a2eb5bf11d160ed7dcae7d05d27c232d5553301b
kubernetes-node-linux-arm.tar.gz	ae74bfabc60c2b3463e29c5dac06ff32314ad4fdcfecfe5fb67f679fcc10ea7e47268d7
kubernetes-node-linux-arm64.tar.gz	e5e697afde1eec79e9a11143585776d57be55c928a9328ad77ce917868e82259f54dc
kubernetes-node-linux-ppc64le.tar.gz	ffc3b5d2bcc490a5fb07c2a9e5e53923903728c69ace143b2e9b46760bfe72be9c4db
kubernetes-node-linux-s390x.tar.gz	656447661f38fed2fac19af4428f35da75fad5db70942722d75717f9d16db1583fcdd
kubernetes-node-windows-amd64.tar.gz	fd55152e72ce747a6ab27d4e6e16c2d4cbceaa60b40a1b6a709963bbf87e3ccb7579

Changelog since v1.18.7

Changes by Kind

Other (Cleanup or Flake)

- Kubernetes is now built with go1.13.15 (#93953, @justaugustus) [SIG Release and Testing]

Dependencies

Added

Nothing has changed.

Changed

Nothing has changed.

Removed

Nothing has changed.

v1.18.7

Downloads for v1.18.7

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

Changelog since v1.18.6

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 an issue with container restarts using a modified configmap or secret subpath volume mount. (#89629, @fatedier) [SIG Architecture, Storage and Testing]
- Fix instance not found issues when an Azure Node is recreated in a short time (#93316, @feiskyer) [SIG Cloud Provider]
- Fix: initial delay in mounting azure disk & file (#93052, @andyzhangx) [SIG Cloud Provider and Storage]

- Fixed a bug whereby the allocation of reusable CPUs and devices was not being honored when the TopologyManager was enabled (#93189, @klueska) [SIG Node]
- Fixed a performance issue applying json patches to deeply nested objects (#93811, @liggitt) [SIG API Machinery, CLI, Cloud Provider, Cluster Lifecycle and Instrumentation]
- Fixes a regression in kube-apiserver causing 500 errors from the `/readyz` endpoint (#93642, @ialidzhikov) [SIG API Machinery]

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 (#93754, @justaugustus) [SIG API Machinery, Cluster Lifecycle, Release and Testing]
- 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 (#93232, @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.

v1.18.6

Downloads for v1.18.6

Source Code

filename	sha512 hash
kubernetes.tar.gz	f036e891ff8dd95df33722b4d13ea2dc36fd8cb0a18fe88654919eb180cadba7724da

filename	sha512 hash
kubernetes-src.tar.gz	460551dcde2288a7f3b90ad0720cf479cd38d64e386fedf66d580c4cd547a0e183543

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	85c4d72f50965a1ecc3e67c02335ec5ae57d8c9617cc79a34a05e1ed3b84e8f80be29
kubernetes-client-darwin-amd64.tar.gz	b01c47bd6a16eed131245fb90abfb8b585c14953f9398f11a1ec402b808305ce1fbca
kubernetes-client-linux-386.tar.gz	15262c62b8b9bf85c8dd8ead7ed0c384114e09ad3120d7e13956c99d93203b5f956
kubernetes-client-linux-amd64.tar.gz	d061bc34c0df55e766d72c066ef366864c77eff5d0033d29869fc871d2e674d86322a
kubernetes-client-linux-arm.tar.gz	7eb961bff92146952d9cda2b741c8d349838ef66112c6b296f1426eeb79357b95d4e
kubernetes-client-linux-arm64.tar.gz	bb863a4bf6d0fd400274536c6571cd35531d92fa40d38703ef126accc94d08a4e381
kubernetes-client-linux-ppc64le.tar.gz	71e0ac8298dca06be5aed01c3a2f12389405bfd1e3edff63a849b8663a7b118543e96
kubernetes-client-linux-s390x.tar.gz	673161c816dfd2369609402461c645a3cc023a09fd9e1418c0fff601c1f5d71f72b438
kubernetes-client-windows-386.tar.gz	017654b27b06afc219dcf5b590a63a917470f698611bd0348e5a27ea8e30c8178b47
kubernetes-client-windows-amd64.tar.gz	d2f5bee260a135007185f8b68a11a6ea10f94e548feb4614dca9a428bbb7ad91a6fb4

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	73cfa5e458205ff81cfa6672c0f6ef10aadbad1244c81b259c3cf9c22c6c9e9272a6977
kubernetes-server-linux-arm.tar.gz	b8723379e26de43ae0bfe5a64d65beb0f79d4820c02a1b9aae4c80f2b1882b952d58
kubernetes-server-linux-arm64.tar.gz	47dc425387f98028d32f40610124ecc70162132c339d97f578dbb8a6b7f98f25a20d3
kubernetes-server-linux-ppc64le.tar.gz	b6fbb68288300ef28c710d65a8acd6bceda13ec4c5b156c1395b98310c74babe1dca
kubernetes-server-linux-s390x.tar.gz	c77d6661461b230fe934c100a2eedf295e394d0c818bc5c21e0db496b08e10ada8a1

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	f3d3cc4b38dff84a0c4e1b2364b8f7a000fa86395b7ccab22905f51c7b876c7524a9d
kubernetes-node-linux-arm.tar.gz	63d2601741fe159b742141f3ff85293e328808ff056e87f81af502da817e4813e963c6
kubernetes-node-linux-arm64.tar.gz	85d24d99e4408dfa00e306ff90eb4b86260feba40cf8e3770845838f0af319dce674b
kubernetes-node-linux-ppc64le.tar.gz	1cef745e18704c77f7c31514ca9bf0eb5be676b3fb80affa2cfc482089e7210f14e42c8
kubernetes-node-linux-s390x.tar.gz	452fc8743c80e05ca0ad6d9267b6a133497bd7779ee74d5a96195d87e68e3e906dc
kubernetes-node-windows-amd64.tar.gz	09113c05a14c34ac07ba4f635e152d983b6822ef95a7034df56a9fca3634388f9041

Changelog since v1.18.5

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

API Change

- Fix bug in reflector that couldn't recover from "Too large resource version" errors (#92537, @wojtek-t) [SIG API Machinery]

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]
- Containers which specify a `startupProbe` but not a `readinessProbe` were previously considered "ready" before the `startupProbe` completed, but are now considered "not-ready". (#92196, @thockin) [SIG Node]

- Extend kube-apiserver /readyz with new "informer-sync" check ensuring that internal informers are synced. (#92644, @wojtek-t) [SIG API Machinery and Testing]
- Fix throttling issues when Azure VM computer name prefix is different from VMSS name (#92793, @feiskyer) [SIG Cloud Provider]
- Fix: GetLabelsForVolume panic issue for azure disk PV (#92166, @andyzhangx) [SIG Cloud Provider]
- Fix: don't use docker config cache if it's empty (#92330, @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 (#92624, @justaugustus) [SIG Cluster Lifecycle, Network and Release]

Dependencies

Added

Nothing has changed.

Changed

Nothing has changed.

Removed

Nothing has changed.

v1.18.5

Downloads for v1.18.5

Source Code

filename	sha512 hash
kubernetes.tar.gz	1e414d955cdde67e1883be27cb47963a905b73e8454bd1b2e665395348c1a88c444
kubernetes-src.tar.gz	9ddcd8b517e3cf78113ef977c365d26f0f27fe9b7fd9410f0214fd38cd38c6de6f37d7

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	197583cb641dab50d6ad9f1f9929ce45a59f98a3ebe315cf1d7edef8df7aba1e1838c
kubernetes-client-darwin-amd64.tar.gz	d0f54e949850c2321081e722367d7baa5c805e0ba1d8b2f651254e0d7b26bbd9c87
kubernetes-client-linux-386.tar.gz	6d04e1aad657e60d3c2b28f0c9c5b0a63fff8c4a35f24f96feccd19ce1d1e65a942bbb
kubernetes-client-linux-amd64.tar.gz	01e9c71d65c4513c03b22b2b036c3e92875fa4ebdb43b4909a6b21608093d280d9f
kubernetes-client-linux-arm.tar.gz	b33f901d13bae3824938e0d0c98f50a50ec7335979d6f9e56c06209898619c40f49d0
kubernetes-client-linux-arm64.tar.gz	ae2f4e5fec58ff47ca2bf91290684c969160ffb89b2574f57f0818fef4d63c4d9b3ea1f8
kubernetes-client-linux-ppc64le.tar.gz	9ebc84fa31184a9d07cbc98abb608c4b48414fb80021b4a4431929baf4c34bcccad9
kubernetes-client-linux-s390x.tar.gz	bbe07152faedb0dc91e6786f4b63eaa79f4bca41b1c9125f70b90e319fda8a7e95033
kubernetes-client-windows-386.tar.gz	2fdf489d8ce8ee5336f953e268e538bfe6748e7afd805031bc3e525e4b823033e8121c
kubernetes-client-windows-amd64.tar.gz	4894700a4406273dff08f36012780216b5c822180944c6e7161c8564c07f4a77f0d79

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	40ed152be522f9793d61721f352ab30db072882512fdf7b9c2d42f057cc30b0ae1ca4
kubernetes-server-linux-arm.tar.gz	8483f12ba4d5263e3029fe658e965da4be62479eb48a6c6d5aa72cf6c344bed3350b
kubernetes-server-linux-arm64.tar.gz	b7bb94940fcc16f777321289ef865d8689a630311e6fd0ccc945e1195c805e2b32343
kubernetes-server-linux-ppc64le.tar.gz	1c82fd55ff1d1496ae2281f9c6df391c3161665e828560efafd3a5269d0745ad14e210
kubernetes-server-linux-s390x.tar.gz	99f29e8159a79655d8f86b41a89e868127a18086519786a3724fc2bbc83734613716

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	3bb05fe8e3f3aa52f7290cc33b606125d4ed666583d3265bac019486e8e7e5956e68a
kubernetes-node-linux-arm.tar.gz	c16db681b24e3094f09b51971c94bf5f8d8347decf0e6e9fab0902b3f17e5d78f9d090
kubernetes-node-linux-arm64.tar.gz	ddccd9b3844bec9d237373c64f27f4e9c065d70ba0633fafb5ffd9abffd510358d08c7
kubernetes-node-linux-ppc64le.tar.gz	f36dd5017eecc6abfdaabf8ec3e91f050a0e5afb82575dbc8f37aa0fdfcb83dab144e6
kubernetes-node-linux-s390x.tar.gz	797b1dae35931cc350a500095806980af3ad4381069c80d8a367a62c6e9dda27ffafc
kubernetes-node-windows-amd64.tar.gz	d784fc4986e03d925a7e855d6f9ce287405133a181a27d12d5495ca6ef3061d106c8c

Changelog since v1.18.4

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]
- Kubeadm increased to 5 minutes its timeout for the TLS bootstrapping process to complete upon join (#89735, @rosti) [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. (#92493, @justaugustus) [SIG Cluster Lifecycle and Release]

Dependencies

Added

Nothing has changed.

Changed

Nothing has changed.

Removed

Nothing has changed.

v1.18.5-rc.1

Downloads for v1.18.5-rc.1

Source Code

filename	sha512 hash
kubernetes.tar.gz	eab1264657dd76babb4159edb6ff2e85c1e4d2baaea053bd479426c8ee0ad544c4b
kubernetes-src.tar.gz	48f16d0a9eada28eacbc90da224d64e2d8a1f1b47dd4be8baaca8a386834a7e0413

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	a079b71c22b6b4893aeb9289354872f07c79e823c26a9a89ea4c72608ff5770356f5c
kubernetes-client-darwin-amd64.tar.gz	4cb738c285226faa885d92495e7b3a2ad2b89fae70dc617bac7e6e2962f0c0c5fcf42
kubernetes-client-linux-386.tar.gz	1f9c1bfbb68ffb19297990bc8d186761e0f40714862939a9b511de770e9c2227acd24
kubernetes-client-linux-amd64.tar.gz	70afde567009acc60e2c349096aca1498bbd0b65688ca9cc0e5ef1b847bb297a6c22
kubernetes-client-linux-arm.tar.gz	9dbabf46ba83b8ac08511b11685f8dd447b7d649db72315674df1ae31c663ed0f36a
kubernetes-client-linux-arm64.tar.gz	a8f0ad8429c1e483471e247f79899874f8168ebc316a5b811f9dc74b562c9e227f252
kubernetes-client-linux-ppc64le.tar.gz	2d81d1eecf2cdb14fe44334271cb53466691948268143b6c22e0b852febbee88d1a0
kubernetes-client-linux-s390x.tar.gz	d8efbc345e7b0833ca010598d915cc3246a01ef940cf5ee7b051929a8e212a530b1a2
kubernetes-client-windows-386.tar.gz	71a4756ea4c4ccb19ad9103080d724bebc5993f973e5e33a25d3b020b2c3be0e3d0
kubernetes-client-windows-amd64.tar.gz	30d0fb3b83222ad90fb78574b63a2de5438f06d918eff13894d34ac70946f9b066181

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	19c78e05023b9d41acda812f87c2588dc0297583254049324d9cd2c0a2d79997ccfa
kubernetes-server-linux-arm.tar.gz	bacec0b0dcbf7d59e78969c22235e0111e95367bd288482110c22a5d41d6a4c31f82
kubernetes-server-linux-arm64.tar.gz	05531280837cbd03dc77d9a726ed1543977d96adcd8e2728e3ef6ee3966e1df7ec2d
kubernetes-server-linux-ppc64le.tar.gz	32762d89c48eb851079c9e6c67dcbb02b04bfb7c63b04a50bfac66ea8ee6b53a4142
kubernetes-server-linux-s390x.tar.gz	d28ecd106e103273949e09ab1d15027ccebb6d9540c199fdb11f130c84209c6f7116

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	1b7eeb2374bfdd3e6baff854b834985ea5cb73774322688ccdc1de0e138e64c643e51

filename	sha512 hash
kubernetes-node-linux-arm.tar.gz	c5d75e3db341d1a909d6acb14ad7a9c64beaae793d0af80971cd33b1f9b9361f3ece
kubernetes-node-linux-arm64.tar.gz	98b8a5c6b8fa2958c8a63e2cd0fff3f947545c80474ceaa7d696910ab1cfaacb4fc520
kubernetes-node-linux-ppc64le.tar.gz	ca479f42ae58f614b077f984984de76cfe8105124d7f20f0be9707007a17ba35ea06d9
kubernetes-node-linux-s390x.tar.gz	e5c85afdb8d2ffcf80c07b8d53ee2bdd5f559d2b0cb18062c9e63dcfc52ce245e91c7e
kubernetes-node-windows-amd64.tar.gz	929f3e575dc02fa2b229ecb369a07972536811f55823fc743002f503caee7ad2ec7b39

Changelog since v1.18.4

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]
- Kubeadm increased to 5 minutes its timeout for the TLS bootstrapping process to complete upon join (#89735, @rosti) [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. (#92493, @justaugustus) [SIG Cluster Lifecycle and Release]

Dependencies

Added

Nothing has changed.

Changed

Nothing has changed.

Removed

Nothing has changed.

v1.18.4

Downloads for v1.18.4

Source Code

filename	sha512 hash
kubernetes.tar.gz	8d2cec9d026bbed016f004c23e205e234bcd40072cda81e805ecebe6e8cc8e4b5f168
kubernetes-src.tar.gz	04a0180addc8c03815652b2cda14608022f0679466028eae475d88661369441f46d6

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	60e5e7b72570c927915a5d9b29bc06c0efbd1f80fbf2e14ccc8811b2962263de4a22b
kubernetes-client-darwin-amd64.tar.gz	189430f4b19cb7a147e9974268874564584ac0e91aa16864e2fe9c2428e5b08f283c7
kubernetes-client-linux-386.tar.gz	078cff6c8c5b902fc3326026894c68c9e8db49c1e247dafff73ed53c61547179537e60
kubernetes-client-linux-amd64.tar.gz	69344ab18d8f9608374cd4994ffbd878a9738b14793a41a25dfbedb0bf9a6174605
kubernetes-client-linux-arm.tar.gz	ae202fa504f9f10a9e6e8d6eb2e5407729dbcc3fbde34ecb7814994a45b7e80446cc8
kubernetes-client-linux-arm64.tar.gz	7ee7d1e493b399e3767e526d5a80b94d099c48798f62fa8e9673f974ea87ec5461a79
kubernetes-client-linux-ppc64le.tar.gz	f8f1c44843584aadacd851f3c33cdd3699ff35cff4503da40e4280586b4281af4a2473
kubernetes-client-linux-s390x.tar.gz	ff796f22edff24d84a8f8952490db78ea20570dc7752cabb60035e84368256c900d32
kubernetes-client-windows-386.tar.gz	aebf17c13b081eeeaf7608e89599441cbeed959f3895dc969beec20e2561b4a89a51d

filename	sha512 hash
kubernetes-client-windows-amd64.tar.gz	7eb3201320139379f095c9d425434edbe7e608499b04033a303e6aa3e205d2b6e7d5

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	e85fbe9aa255cabcf58b4c18fa666d6a85effa0fc9c78d0d150abf3f89bfd13fcd55163
kubernetes-server-linux-arm.tar.gz	6d6befa922522b8c6155cdeea7d56e1f21dc175b71ce2285c87a5ef591abc9590a37a
kubernetes-server-linux-arm64.tar.gz	8158bc2fdb3577816f709a15633a1740872083032962ae0cb42a0975b614e6307e3a
kubernetes-server-linux-ppc64le.tar.gz	d1c799ccebdfce580510cd0c5f61b30e47629cc1f837c8c2fed8408b6289fc7ff27f07a
kubernetes-server-linux-s390x.tar.gz	0b8b357757b3e16ca947ff774b89524a8d2a2be94b422483dbe7148891daabdd6a6

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	b01c34c0303116a2c7a579fec5bcd19d76fa605c6ec9fa7c9885e669437911365cf63c
kubernetes-node-linux-arm.tar.gz	21384a97bea7d4e97a24d660f7c1ba9b5577314f5c6602c6fa29e1501628a513489a
kubernetes-node-linux-arm64.tar.gz	8158b7abd711a42b1ff4eb42ce49d9eeb04d8903f0daa48cd7528516dafaf6693669c
kubernetes-node-linux-ppc64le.tar.gz	5fa9d1306790f8cb8b16b7e9521d46f8e56cc619acd90165180c9fb02ac9bf0908130
kubernetes-node-linux-s390x.tar.gz	ccafa72087fc09e37206e73ff2b2198fd5b2a5d2e56dca31f77c12aabe42d766f877d7
kubernetes-node-windows-amd64.tar.gz	ee2f631d619ac436232db9eb4ea377526738a15ad3a88752e7a481e02cd09d848fbc

Changelog since v1.18.3

Changes by Kind

API Change

- Resolve regression in metadata.managedFields handling in update/patch requests submitted by older API clients (#92007, @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 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]
- Fixes regression in CPUManager that caused freeing of exclusive CPUs at incorrect times (#90377, @cbf123) [SIG Cloud Provider and Node]
- Fixes regression in CPUManager that had the (rare) possibility to release exclusive CPUs in app containers inherited from init containers. (#90419, @klueska) [SIG Node]
- Pod Finalizers and Conditions updates are skipped for re-scheduling attempts (#91298, @alculquicondor) [SIG Scheduling]
- Resolve regression in metadata.managedFields handling in create/update/patch requests not using server-side apply (#91791, @apelisse) [SIG API Machinery and Testing]
- Resolves an issue using `kubectl certificate approve/deny` against a server serving the v1 CSR API (#91691, @liggitt) [SIG Auth and CLI]

Other (Cleanup or Flake)

- Build: Use debian-hyperkube-base@v1.0.0 image (#91476, @justaugustus) [SIG Cluster Lifecycle, Network and Release]
- Content-type and verb for request metrics are now bounded to a known set. (#89451, @logicalhan) [SIG API Machinery and Instrumentation]
- Update CNI to v0.8.6 (#91387, @justaugustus) [SIG Cluster Lifecycle, Network, Release and Testing]

Dependencies

Added

Nothing has changed.

Changed

Nothing has changed.

Removed

Nothing has changed.

v1.18.3

Downloads for v1.18.3

Source Code

filename	sha512 hash
kubernetes.tar.gz	7d511c960f766f76bc087c00d706dc78ed403f661ea62ea6a2e84b9a0498826c0186
kubernetes-src.tar.gz	93b83acf5d15cab94e1d2866b2613d1aeed67c00a9eed064988c3bc4c700e34bd85

Client binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	cf6a22a453b88de6be0e09ad67e8bb3e364b702a86c9ba911540d4f4b2ae0872d380
kubernetes-client-darwin-amd64.tar.gz	bd3c15726d44d083f48dbc1af0f55f2d2d0c82ad020ed583bf05460a4fc9073bdd03
kubernetes-client-linux-386.tar.gz	6cb3d18086e275b78c3019a51de5795f5d112482ea6dc99a58e3985269e948e054a5
kubernetes-client-linux-amd64.tar.gz	cfcb89a706eb8ddc7aa8225e3f0eb76a0d973faa1c82b1bec0a457cd8b44b7bd5c15
kubernetes-client-linux-arm.tar.gz	adbb0383ab50358e479438831168b6f3187a7cafcad84e8c22ff2ec52300be643bf53
kubernetes-client-linux-arm64.tar.gz	32f5e6cc5a811f941faaa92667d236bb08bc245a103a2ab555569a5bf1bfd1926f30c
kubernetes-client-linux-ppc64le.tar.gz	b0b2ade932e17aa4b88b147fcb6aeace81c65e795202e27c780e270a86f50fd7f863f4
kubernetes-client-linux-s390x.tar.gz	db49113c3e5d727d6c66b17a0a5a3f7d383b7179630fb5680d278f34b35e4f3d5a10
kubernetes-client-windows-386.tar.gz	d2a8e6f6e93a3ce6af473372de1c52e039d14a443d93537001e1bc5e7b237768a25a
kubernetes-client-windows-amd64.tar.gz	5f2739b862fbbab9f847b61f9373021b92c4d9188ff7f534125dc48d2d1e6ed51bd7b

Server binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	5561483d796b124b8fe0e1cf5778ea03fec1e244ebc29f4b1b6c5ac93ab6bd10808d0
kubernetes-server-linux-arm.tar.gz	5e0e026fb93ac5452d1ddeb5fc016dbd44276d2340088ef59916bdd264b43ab0288
kubernetes-server-linux-arm64.tar.gz	eb0b72f79e9d0c717995f7e52d24646daa8cbaf0e1502c0b27a15acebcfa5d61495be

filename	sha512 hash
kubernetes-server-linux-ppc64le.tar.gz	52ef224a68d3ea50f320ca43b2ec98fedc07431b05db6fb00556b870bb8a533aa1cel
kubernetes-server-linux-s390x.tar.gz	eb4581d2419734c4835ebd2a91a40fa7e1180c8b8ff4088c9d1995c11787b7d6b7cb

Node binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	1027a6fccadd320f123894dc624db31539333deef0b3d51b4bd3efc9214f2d74a0a5(
kubernetes-node-linux-arm.tar.gz	9dfd609692372660152c6fe6d08be082b0d20d4c70546d722ce5aa5565cc6d810bb(
kubernetes-node-linux-arm64.tar.gz	d0b0a8ac1f448df7c3bb2254000e0ca8567fafe1fd4e680c75a6c8d40dcc9d4b9ae34
kubernetes-node-linux-ppc64le.tar.gz	b5f3a0e3b2b26d3ac5b8be808355233787c1d3663268da88096351b39b6ff6e58bef
kubernetes-node-linux-s390x.tar.gz	52c9cc8a09c5d5c9150dc023b759ebe77632121a54bf0936b96f4148b7e421964f39
kubernetes-node-windows-amd64.tar.gz	f83802db06a86edd9ade8e737ed0e8a11ebeeaa69e102f9550b90f0d8a724e7864f65

Changelog since v1.18.2

Changes by Kind

Bug or Regression

- An issue preventing GCP cloud-controller-manager running out-of-cluster to initialize new Nodes is now fixed. (#90057, @ialidzhikov) [SIG Apps and Cloud Provider]
- Avoid unnecessary scheduling churn when annotations are updated while Pods are being scheduled. (#90373, @fabiokung) [SIG Scheduling]
- Base-images: Update to kube-cross:v1.13.9-5 (#90964, @justaugustus) [SIG Release and Testing]
- 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 IPVS compatibility issue with older kernels (< 3.18) where the netlink address family attribute is not set (#90678, @andrewsykim) [SIG Cluster Lifecycle, Network and Testing]
- Fix flaws in Azure CSI translation (#90324, @andyzhangx) [SIG Cloud Provider]

- Fix: Init containers are now considered for the calculation of resource requests when scheduling (#90378, @alculquicondor) [SIG Scheduling]
- Fix: azure disk dangling attach issue which would cause API throttling (#90749, @andyzhangx) [SIG Cloud Provider]
- Fix: support removal of nodes backed by deleted non VMSS instances on Azure (#91184, @bpineau) [SIG Cloud Provider]
- Fixed a 1.18 regression in wait.Forever that skips the backoff period on the first repeat (#90476, @zhan849) [SIG API Machinery]
- Fixed a regression running kubectl commands with –local or –dry-run flags when no kubeconfig file is present (#90243, @soltysh) [SIG API Machinery, CLI and Testing]
- Fixes a bug defining a default value for a replicas field in a custom resource definition that has the scale subresource enabled (#90019, @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]
- Kubeadm: increase robustness for "kubeadm join" when adding etcd members on slower setups (#90645, @neolit123) [SIG Cluster Lifecycle]
- 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) (#90863, @justaugustus) [SIG API Machinery, Cluster Lifecycle and Release]

Dependencies

Added

Nothing has changed.

Changed

- k8s.io/kube-openapi: bf4fb3b → 61e04a5

Removed

- github.com/docker/libnetwork: c8a5fca

v1.18.2

Documentation

Downloads for v1.18.2

filename	sha512 hash
kubernetes.tar.gz	2f8e853bd59731410259d5357d9969425fbbbea378bbe6cdd0f7a9ddf5c2592
kubernetes-src.tar.gz	0915b658c53b9bad1b3913470cb6728bc51fd49e8ac7778d4653c7271642d56

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	0a0c94fe16819eb16ca7ef0110a2a45ad5368a5cb326ca48e1d72ef56488c5c
kubernetes-client-darwin-amd64.tar.gz	46a056b3bf9936498c1bbb78ca6d882c17271723676ec53409fe6fd67c7f8a9
kubernetes-client-linux-386.tar.gz	58f137f3d13b213a153e7589d82040d5f1aee525368de974c134494c14d0f88
kubernetes-client-linux-amd64.tar.gz	ed36f49e19d8e0a98add7f10f981feda8e59d32a8cb41a3ac6abdfb2491b3b5
kubernetes-client-linux-arm.tar.gz	ae3b7a8f85d2f262b0f24d277602034cd6657aa0a0467768b87c379b821963c
kubernetes-client-linux-arm64.tar.gz	54b10261c354e99d3eeee862461f0c3f99ff0e3b603230da7a48e182fd5890e
kubernetes-client-linux-ppc64le.tar.gz	b9694a0cf9e42bc9299d923de79e61ec52419a1889605cfd2eb5e6f9277191a
kubernetes-client-linux-s390x.tar.gz	144861c7cfc28b63da11de4b847d68bb4a984b5eeb54ccbccf998bd87e0e283
kubernetes-client-windows-386.tar.gz	3fa6e6fdf88b7f9ae7dc8f95526977aea6e2fe65fdbb988c2ea40d160ba3034
kubernetes-client-windows-amd64.tar.gz	733887310c94e70fb33c6fbea9c5e7d4a74b4c2402735ed7856eb2e009bb0ec

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	f808e85a5e6f8dfed18ee3479691be8283c13c787ad5abb1a06f1c84aa7e789
kubernetes-server-linux-arm.tar.gz	7ec6d47cda5f8f2cafaa82ac1179dc181d93562d1a2ad7687dca5dba8737498

filename	sha512 hash
kubernetes-server-linux-arm64.tar.gz	f5341be0c84cbf383662ed333bb2f9a4b83f80b6ebe77526ed2a407e3cd566f
kubernetes-server-linux-ppc64le.tar.gz	1c861320ddd63c9731781079fb00d9b0c80befe9b98103056f3abdd214cdd49
kubernetes-server-linux-s390x.tar.gz	5e57f536844d606873412a5ca46e85c4a6deae5e5dc415b3fbd0b20a58750cc

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	b342dbb9fce1c2667ed255e0b7457063e7f4827a74d4c946087bb471144a552
kubernetes-node-linux-arm.tar.gz	d74d6b9a0c05623fb5f3b7423517c3a8c03f6fd18525554cae5704cadc3676c
kubernetes-node-linux-arm64.tar.gz	d80716155df8ee997b4d81573ab713a04f64e91ec0e7c6c77af2e0031bbbe1f
kubernetes-node-linux-ppc64le.tar.gz	89fe1dbbbefe36169232b46b564fc46b96cf6987bca8c1f9c61475d07a771c6
kubernetes-node-linux-s390x.tar.gz	734e11c10c4e8dea9931ce0e832dac8495808acb7940ca2be4a13cedbea53b5
kubernetes-node-windows-amd64.tar.gz	f121f7893c102ecd491189077ccbddd7aa0625cf2bfe855a7be00cfe615e6d3

Changelog since v1.18.1

Changes by Kind

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. (#89975, @liggitt) [SIG API Machinery and Testing]
- Fix scheduler crash when removing node before its pods (#89908, @alculquicondor) [SIG Scheduling]
- Fixes conversion error for HorizontalPodAutoscaler objects with invalid annotations (#89965, @liggitt) [SIG Autoscaling]
- Fixes kubectl apply/prune in namespace other than default. (#90016, @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]
- Restores priority of static control plane pods in the cluster/gce/manifests control-plane manifests (#89970, @liggitt) [SIG Cluster Lifecycle and

Node]

v1.18.1

Documentation

Downloads for v1.18.1

filename	sha512 hash
kubernetes.tar.gz	460dcc0b27fdfd9b4a574287708c0fef22224bd4c1bc777654a69a76c7dafb3
kubernetes-src.tar.gz	adc6b3ccc9792794b97d2c8c7e5d582ac92aedfa83bb9cdfb782057ce4e8098

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	fe7c4967781720125048391 75c48c69337afc7341c8c71d2858bf9319a2bb46
kubernetes-client-darwin-amd64.tar.gz	a62a894ae001cb3f245595488a46c8c8c5c52d15eb9eefc7b458df6c93399e5
kubernetes-client-linux-386.tar.gz	4cd898e86510f17d0a34c8721f942d81bdaafbf4d6513efde2710aad7dc44e8
kubernetes-client-linux-amd64.tar.gz	37e664e40bb31765572215cf262a5c9bbc7748d158d0db58dbec2d5e593b54c
kubernetes-client-linux-arm.tar.gz	196977d4a09046abb168ea4c6cde261a90226cd391d74877ce1d9907bc8ba67
kubernetes-client-linux-arm64.tar.gz	675f27c170eb888f08db834f03b8123d19f0f2dd357c694c6c1cae59067c8d6
kubernetes-client-linux-ppc64le.tar.gz	dd317cf29ed7cfa664a0f88651273565ca831138994cb37d8d53f5ba3993a6c
kubernetes-client-linux-s390x.tar.gz	57db3fcc952ad57d94f3b92022c1881b3852b321535501af7b2dfca9eb0acde
kubernetes-client-windows-386.tar.gz	ad52ae356e9d0156bdaa5ed4c77cd0226610fd715093e2caf7466c1bf87bb9b
kubernetes-client-windows-amd64.tar.gz	efe66bb5ae58e06c7787b98fc69e191502dadecf719636788f25bff7bd0e50c

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	2183d1fcfca1370f75146797100801d7fbfec97789d1ca5eef4aff79bf66e01

filename	sha512 hash
kubernetes-server-linux-arm.tar.gz	8ca77be8dd999e0a31bb9de597f383628941b7d6537cec19ce3a77c8f4fc537
kubernetes-server-linux-arm64.tar.gz	b1eacba21d8740bba785f94b66aea1fb9e4529bea9740d938cd52409acc970f
kubernetes-server-linux-ppc64le.tar.gz	dc8426bd333aa2fe703003356a6237df760c6753c142e6fea28cbf13656e53e
kubernetes-server-linux-s390x.tar.gz	2398638d5724627573326b6820cb268d30d47f18afc913d367f518ba8cde8a4

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	88a9b68c8cba77fe50751d998117ab632d1e8aa12a45f6bef71a24ee5a8fb6f
kubernetes-node-linux-arm.tar.gz	3b558a1743893a994ec061a86aaf343d90e800d7ccd69c771b92d8915fc1421
kubernetes-node-linux-arm64.tar.gz	534b3db7e21f247189a484bb57958a3276bf74268d5943d712e68db50806afe
kubernetes-node-linux-ppc64le.tar.gz	0bb1c7ee23ce7dbee0614e2d8fb8d79e0a36615ea4ea39ef97acf4e907ca5a9
kubernetes-node-linux-s390x.tar.gz	e4529b0804696c8bae9430411d5b51087fa6c204bef37a1c6e30d01490c7e99
kubernetes-node-windows-amd64.tar.gz	7d976b1b22766cdd65b2b84602053b765e487d947966b4aaa3b169bb462d095

Changelog since v1.18.0

Changes by Kind

Feature

- deps: Update to Golang 1.13.9
  - build: Remove kube-cross image building (#89398, @justaugustus) [SIG Release and Testing]

Other (Bug, Cleanup or Flake)

- Azure: fix concurreny issue in lb creation (#89604, @aramase) [SIG Cloud Provider]
- Ensure Azure availability zone is always in lower cases. (#89722, @feiskyer) [SIG Cloud Provider]
- Fix kubectl diff so it doesn't actually persist patches (#89795, @julian-vmodesto) [SIG CLI and Testing]

- Fix: get attach disk error due to missing item in max count table (#89768, @andyzhangx) [SIG Cloud Provider and Storage]
- Fixed the EndpointSlice controller to run without error on a cluster with the OwnerReferencesPermissionEnforcement validating admission plugin enabled. (#89804, @marun) [SIG Auth and Network]
- Fixes kubectl to apply all validly built objects, instead of stopping on error. (#89864, @seans3) [SIG CLI and Testing]
- In the kubelet resource metrics endpoint at /metrics/resource, change the names of the following metrics:
  - node_cpu_usage_seconds –> node_cpu_usage_seconds_total
  - container_cpu_usage_seconds –> container_cpu_usage_seconds_total
    This is a partial revert of #86282, which was added in 1.18.0, and initially removed the _total suffix (#89540, @dashpole) [SIG Instrumentation and Node]
- Kubeadm: during join when a check is performed that a Node with the same name already exists in the cluster, make sure the NodeReady condition is properly validated (#89602, @kvaps) [SIG Cluster Lifecycle]
- Kubeadm: fix a bug where post upgrade to 1.18.x, nodes cannot join the cluster due to missing RBAC (#89537, @neolit123) [SIG Cluster Lifecycle]
- Kubectl azure authentication: fixed a regression in 1.18.0 where "spn:" prefix was unexpectedly added to the `apiserver-id` configuration in the kubeconfig file (#89706, @weinong) [SIG API Machinery and Auth]
- Kubectl: Fixes bug by aggregating 'apply' errors instead of failing after first error (#89607, @seans3) [SIG CLI and Testing]
- Reduce event spam during a volume operation error. (#89796, @msau42) [SIG Storage]

v1.18.0

Documentation

Downloads for v1.18.0

filename	sha512 hash
kubernetes.tar.gz	`cd5b86a3947a4f2cea6d857743ab2009be127d782b6f2eb4d37d88918a5e433`
kubernetes-src.tar.gz	`fb42cf133355ef18f67c8c4bb555aa1f284906c06e21fa41646e086d34ece77`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`26df342ef65745df12fa52931358e7f744111b6fe1e0bddb8c3c6598faf73af`

filename	sha512 hash
kubernetes-client-darwin-amd64.tar.gz	803a0fed122ef6b85f7a120b5485723eaade765b7bc8306d0c0da03bd3df15c
kubernetes-client-linux-386.tar.gz	110844511b70f9f3ebb92c15105e6680a05a562cd83f79ce2d2e25c2dd70f0c
kubernetes-client-linux-amd64.tar.gz	594ca3eadc7974ec4d9e4168453e36ca434812167ef8359086cd64d048df525
kubernetes-client-linux-arm.tar.gz	d3627b763606557a6c9a5766c34198ec00b3a3cd72a55bc2cb47731060d31c4
kubernetes-client-linux-arm64.tar.gz	ba9056eff1452cbdaef699efbf88f74f5309b3f7808d372ebf6918442d0c9fe
kubernetes-client-linux-ppc64le.tar.gz	f80fb3769358cb20820ff1a1ce9994de5ed194aabe6c73fb8b8048bffc394d1
kubernetes-client-linux-s390x.tar.gz	a9b658108b6803d60fa3cd4e76d9e58bf75201017164fe54054b7ccadbb68c4
kubernetes-client-windows-386.tar.gz	18adffab5d1be146906fd8531f4eae7153576aac235150ce2da05aee5ae161f
kubernetes-client-windows-amd64.tar.gz	162396256429cef07154f817de2a6b67635c770311f414e38b1e2db25961443

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	a92f8d201973d5dfa44a398e95fcf6a7b4feeb1ef879ab3fee1c54370e21f59
kubernetes-server-linux-arm.tar.gz	62fbff3256bc0a83f70244b09149a8d7870d19c2c4b6dee8ca2714fc7388da3
kubernetes-server-linux-arm64.tar.gz	842910a7013f61a60d670079716b207705750d55a9e4f1f93696d19d39e1916
kubernetes-server-linux-ppc64le.tar.gz	95c5b952ac1c4127a5c3b519b664972ee1fb5e8e902551ce71c04e26ad44b39
kubernetes-server-linux-s390x.tar.gz	a46522d2119a0fd58074564c1fa95dd8a929a79006b82ba3c4245611da8d2db

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	f714f80feecb0756410f27efb4cf4a1b5232be0444fbecec9f25cb85a7ccccc
kubernetes-node-linux-arm.tar.gz	806000b5f6d723e24e2f12d19d1b9b3d16c74b855f51c7063284adf1fcc57a9

filename	sha512 hash
kubernetes-node-linux-arm64.tar.gz	`c207e9ab60587d135897b5366af79efe9d2833f33401e469b2a4e0d74ecd2c`
kubernetes-node-linux-ppc64le.tar.gz	`a542ed5ed02722af44ef12d1602f363fcd4e93cf704da2ea5d994463824856`
kubernetes-node-linux-s390x.tar.gz	`651e0db73ee67869b2ae93cb0574168e4bd7918290fc5662a6b12b708fa628`
kubernetes-node-windows-amd64.tar.gz	`d726ed904f9f7fe7e8831df621dc9094b87e767410a129aa675ee08417b662`

Changelog since v1.17.0

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

What's New (Major Themes)

Kubernetes Topology Manager Moves to Beta - Align Up!

A beta feature of Kubernetes in release 1.18, the Topology Manager feature enables NUMA alignment of CPU and devices (such as SR-IOV VFs) that will allow your workload to run in an environment optimized for low-latency. Prior to the introduction of the Topology Manager, the CPU and Device Manager would make resource allocation decisions independent of each other. This could result in undesirable allocations on multi-socket systems, causing degraded performance on latency critical applications.

Serverside Apply - Beta 2

Server-side Apply was promoted to Beta in 1.16, but is now introducing a second Beta in 1.18. This new version will track and manage changes to fields of all new Kubernetes objects, allowing you to know what changed your resources and when.

Extending Ingress with and replacing a deprecated annotation with IngressClass

In Kubernetes 1.18, there are two significant additions to Ingress: A new `pathType` field and a new `IngressClass` resource. The `pathType` field allows specifying how paths should be matched. In addition to the default `ImplementationSpecific` type, there are new `Exact` and `Prefix` path types.

The `IngressClass` resource is used to describe a type of Ingress within a Kubernetes cluster. Ingresses can specify the class they are associated with by using a new `ingressClassName` field on Ingresses. This new resource and field replace the deprecated `kubernetes.io/ingress.class` annotation.

SIG CLI introduces kubectl debug

SIG CLI was debating the need for a debug utility for quite some time already. With the development of ephemeral containers, it became more obvious how we can support developers with tooling built on top of `kubectl exec`. The addition of the `kubectl debug` command (it is alpha but your feedback is more than welcome), allows developers to easily debug their Pods inside the cluster. We think this addition is invaluable. This command allows one to create a temporary container which runs next to the Pod one is trying to examine, but also attaches to the console for interactive troubleshooting.

Introducing Windows CSI support alpha for Kubernetes

With the release of Kubernetes 1.18, an alpha version of CSI Proxy for Windows is getting released. CSI proxy enables non-privileged (pre-approved) containers to perform privileged storage operations on Windows. CSI drivers can now be supported in Windows by leveraging CSI proxy. SIG Storage made a lot of progress in the 1.18 release. In particular, the following storage features are moving to GA in Kubernetes 1.18: - Raw Block Support: Allow volumes to be surfaced as block devices inside containers instead of just mounted filesystems. - Volume Cloning: Duplicate a PersistentVolumeClaim and underlying storage volume using the Kubernetes API via CSI. - CSIDriver Kubernetes API Object: Simplifies CSI driver discovery and allows CSI Drivers to customize Kubernetes behavior.

SIG Storage is also introducing the following new storage features as alpha in Kubernetes 1.18: - Windows CSI Support: Enabling containerized CSI node plugins in Windows via new CSIProxy - Recursive Volume Ownership OnRootMismatch Option: Add a new "OnRootMismatch" policy that can help shorten the mount time for volumes that require ownership change and have many directories and files.

Other notable announcements

SIG Network is moving IPv6 to Beta in Kubernetes 1.18, after incrementing significantly the test coverage with new CI jobs.

NodeLocal DNSCache is an add-on that runs a dnsCache pod as a daemonset to improve clusterDNS performance and reliability. The feature has been in Alpha since 1.13 release. The SIG Network is announcing the GA graduation of Node Local DNSCache #1351

Known Issues

No Known Issues Reported

Urgent Upgrade Notes

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

kube-apiserver:

- in an `--encryption-provider-config` config file, an explicit `cacheSize: 0` parameter previously silently defaulted to caching 1000 keys. In Kubernetes 1.18, this now returns a config validation error. To disable caching, you can specify a negative cacheSize value in Kubernetes 1.18+.
- consumers of the 'certificatesigningrequests/approval' API must now have permission to 'approve' CSRs for the specific signer requested by the CSR. More information on the new signerName field and the required authorization can be found at https://kubernetes.io/docs/reference/access-authn-authz/certificate-signing-requests#authorization (#88246, @munnerz) [SIG API Machinery, Apps, Auth, CLI, Node and Testing]
- The following features are unconditionally enabled and the corresponding `--feature-gates` flags have been removed: `PodPriority`, `TaintNodesByCondition`, `ResourceQuotaScopeSelectors` and `ScheduleDaemonSetPods` (#86210, @draveness) [SIG Apps and Scheduling]

kubelet:

- `--enable-cadvisor-json-endpoints` is now disabled by default. If you need access to the cAdvisor v1 Json API please enable it explicitly in the kubelet command line. Please note that this flag was deprecated in 1.15 and will be removed in 1.19. (#87440, @dims) [SIG Instrumentation, Node and Testing]
- Promote CSIMigrationOpenStack to Beta (off by default since it requires installation of the OpenStack Cinder CSI Driver. The in-tree AWS OpenStack Cinder driver "kubernetes.io/cinder" was deprecated in 1.16 and will be removed in 1.20. Users should enable CSIMigration + CSIMigrationOpenStack features and install the OpenStack Cinder CSI Driver (https://github.com/kubernetes/cloud-provider-openstack) to avoid disruption to existing Pod and PVC objects at that time. Users should start using the OpenStack Cinder CSI Driver directly for any new volumes. (#85637, @dims) [SIG Cloud Provider]

kubectl:

- `kubectl` and k8s.io/client-go no longer default to a server address of `http://localhost:8080`. If you own one of these legacy clusters, you are *strongly* encouraged to secure your server. If you cannot secure your server, you can set the `$KUBERNETES_MASTER` environment variable to `http://localhost:8080` to continue defaulting the server address. `kubectl` users can also set the server address using the `--server` flag, or

in a kubeconfig file specified via `--kubeconfig` or `$KUBECONFIG`. (#86173, @soltysh) [SIG API Machinery, CLI and Testing]
- `kubectl run` has removed the previously deprecated generators, along with flags unrelated to creating pods. `kubectl run` now only creates pods. See specific `kubectl create` subcommands to create objects other than pods. (#87077, @soltysh) [SIG Architecture, CLI and Testing]
- The deprecated command `kubectl rolling-update` has been removed (#88057, @julianvmodesto) [SIG Architecture, CLI and Testing]

client-go:

- Signatures on methods in generated clientsets, dynamic, metadata, and scale clients have been modified to accept `context.Context` as a first argument. Signatures of Create, Update, and Patch methods have been updated to accept CreateOptions, UpdateOptions and PatchOptions respectively. Signatures of Delete and DeleteCollection methods now accept DeleteOptions by value instead of by reference. Generated clientsets with the previous interface have been added in new "deprecated" packages to allow incremental migration to the new APIs. The deprecated packages will be removed in the 1.21 release. A tool is available at http://sigs.k8s.io/clientgofix to rewrite method invocations to the new signatures.

- The following deprecated metrics are removed, please convert to the corresponding metrics:

  - The following replacement metrics are available from v1.14.0:
    * `rest_client_request_latency_seconds` -> `rest_client_request_duration_seconds`
    * `scheduler_scheduling_latency_seconds` -> `scheduler_scheduling_duration_seconds`
    * `docker_operations` -> `docker_operations_total`
    * `docker_operations_latency_microseconds` -> `docker_operations_duration_seconds`
    * `docker_operations_errors` -> `docker_operations_errors_total`
    * `docker_operations_timeout` -> `docker_operations_timeout_total`
    * `network_plugin_operations_latency_microseconds` -> `network_plugin_operations_duration_seconds`
    * `kubelet_pod_worker_latency_microseconds` -> `kubelet_pod_worker_duration_seconds`
    * `kubelet_pod_start_latency_microseconds` -> `kubelet_pod_start_duration_seconds`
    * `kubelet_cgroup_manager_latency_microseconds` -> `kubelet_cgroup_manager_duration_s`
    * `kubelet_pod_worker_start_latency_microseconds` -> `kubelet_pod_worker_start_duration_seconds`
    * `kubelet_pleg_relist_latency_microseconds` -> `kubelet_pleg_relist_duration_seconds`
    * `kubelet_pleg_relist_interval_microseconds` -> `kubelet_pleg_relist_interval_second`
    * `kubelet_eviction_stats_age_microseconds` -> `kubelet_eviction_stats_age_seconds`
    * `kubelet_runtime_operations` -> `kubelet_runtime_operations_total`
    * `kubelet_runtime_operations_latency_microseconds` -> `kubelet_runtime_operations_duration_seconds`
    * `kubelet_runtime_operations_errors` -> `kubelet_runtime_operations_errors_total`
    * `kubelet_device_plugin_registration_count` -> `kubelet_device_plugin_registration_t`

    * kubelet_device_plugin_alloc_latency_microseconds -> kubelet_device_plugin_alloc_duration_seconds
    * scheduler_e2e_scheduling_latency_microseconds -> scheduler_e2e_scheduling_duration_seconds
    * scheduler_scheduling_algorithm_latency_microseconds -> scheduler_scheduling_algorithm_duration_seconds
    * scheduler_scheduling_algorithm_predicate_evaluation -> scheduler_scheduling_algorithm_predicate_evaluation_seconds
    * scheduler_scheduling_algorithm_priority_evaluation -> scheduler_scheduling_algorithm_priority_evaluation_seconds
    * scheduler_scheduling_algorithm_preemption_evaluation -> scheduler_scheduling_algorithm_preemption_evaluation_seconds
    * scheduler_binding_latency_microseconds -> scheduler_binding_duration_seconds
    * kubeproxy_sync_proxy_rules_latency_microseconds -> kubeproxy_sync_proxy_rules_duration_seconds
    * apiserver_request_latencies -> apiserver_request_duration_seconds
    * apiserver_dropped_requests -> apiserver_dropped_requests_total
    * etcd_request_latencies_summary -> etcd_request_duration_seconds
    * apiserver_storage_transformation_latencies_microseconds -> apiserver_storage_transformation_duration_seconds
    * apiserver_storage_data_key_generation_latencies_microseconds -> apiserver_storage_data_key_generation_duration_seconds
    * apiserver_request_count -> apiserver_request_total
    * apiserver_request_latencies_summary
  - The following replacement metrics are available from v1.15.0:
    * apiserver_storage_transformation_failures_total -> apiserver_storage_transformation_operations_total (#76496, @danielqsj) [SIG API Machinery, Cluster Lifecycle, Instrumentation, Network, Node and Scheduling]

Changes by Kind

Deprecation

kube-apiserver:

- the following deprecated APIs can no longer be served:
  - All resources under `apps/v1beta1` and `apps/v1beta2` - use `apps/v1` instead
  - `daemonsets`, `deployments`, `replicasets` resources under `extensions/v1beta1` - use `apps/v1` instead
  - `networkpolicies` resources under `extensions/v1beta1` - use `networking.k8s.io/v1` instead
  - `podsecuritypolicies` resources under `extensions/v1beta1` - use `policy/v1beta1` instead (#85903, @liggitt) [SIG API Machinery, Apps, Cluster Lifecycle, Instrumentation and Testing]

kube-controller-manager:

- Azure service annotation service.beta.kubernetes.io/azure-load-balancer-disable-tcp-reset has been deprecated. Its support would be removed in a future release. (#88462, @feiskyer) [SIG Cloud Provider]

kubelet:

- The StreamingProxyRedirects feature and `--redirect-container-streaming` flag are deprecated, and will be removed in a future release. The default behavior (proxy streaming requests through the kubelet) will be the only supported option. If you are setting `--redirect-container-streaming=true`, then you must migrate off this configuration. The flag will no longer be able to be enabled starting in v1.20. If you are not setting the flag, no action is necessary. (#88290, @tallclair) [SIG API Machinery and Node]
- resource metrics endpoint `/metrics/resource/v1alpha1` as well as all metrics under this endpoint have been deprecated. Please convert to the following metrics emitted by endpoint `/metrics/resource`:
  - scrape_error –> scrape_error
  - node_cpu_usage_seconds_total –> node_cpu_usage_seconds
  - node_memory_working_set_bytes –> node_memory_working_set_bytes
  - container_cpu_usage_seconds_total –> container_cpu_usage_seconds
  - container_memory_working_set_bytes –> container_memory_working_set_bytes
  - scrape_error –> scrape_error (#86282, @RainbowMango) [SIG Node]
- In a future release, kubelet will no longer create the CSI NodePublishVolume target directory, in accordance with the CSI specification. CSI drivers may need to be updated accordingly to properly create and process the target path. (#75535) [SIG Storage]

kube-proxy:

- `--healthz-port` and `--metrics-port` flags are deprecated, please use `--healthz-bind-address` and `--metrics-bind-address` instead (#88512, @SataQiu) [SIG Network]
- a new `EndpointSliceProxying` feature gate has been added to control the use of EndpointSlices in kube-proxy. The EndpointSlice feature gate that used to control this behavior no longer affects kube-proxy. This feature has been disabled by default. (#86137, @robscott)

kubeadm:

- command line option "kubelet-version" for `kubeadm upgrade node` has been deprecated and will be removed in a future release. (#87942, @SataQiu) [SIG Cluster Lifecycle]

- deprecate the usage of the experimental flag '–use-api' under the 'kubeadm alpha certs renew' command. (#88827, @neolit123) [SIG Cluster Lifecycle]
- kube-dns is deprecated and will not be supported in a future version (#86574, @SataQiu) [SIG Cluster Lifecycle]
- the `ClusterStatus` struct present in the kubeadm-config ConfigMap is deprecated and will be removed in a future version. It is going to be maintained by kubeadm until it gets removed. The same information can be found on `etcd` and `kube-apiserver` pod annotations, `kubeadm.kubernetes.io/etcd.advertise-client-urls` and `kubeadm.kubernetes.io/kube-apiserver.advertise-address.endpoint` respectively. (#87656, @ereslibre) [SIG Cluster Lifecycle]

kubectl:

- the boolean and unset values for the –dry-run flag are deprecated and a value –dry-run=server|client|none will be required in a future version. (#87580, @julianvmodesto) [SIG CLI]
- `kubectl apply --server-dry-run` is deprecated and replaced with –dry-run=server (#87580, @julianvmodesto) [SIG CLI]

add-ons:

- Remove cluster-monitoring addon (#85512, @serathius) [SIG Cluster Lifecycle, Instrumentation, Scalability and Testing]

kube-scheduler:

- The `scheduling_duration_seconds` summary metric is deprecated (#86586, @xiaoanyunfei) [SIG Scheduling]
- The `scheduling_algorithm_predicate_evaluation_seconds` and `scheduling_algorithm_priority_evaluation_seconds` metrics are deprecated, replaced by `framework_extension_point_duration_seconds[extension_point="Filter"]` and `framework_extension_point_duration_seconds[extension_point="Score"]`. (#86584, @xiaoanyunfei) [SIG Scheduling]
- `AlwaysCheckAllPredicates` is deprecated in scheduler Policy API. (#86369, @Huang-Wei) [SIG Scheduling]

Other deprecations:

- The k8s.io/node-api component is no longer updated. Instead, use the RuntimeClass types located within k8s.io/api, and the generated clients located within k8s.io/client-go (#87503, @liggitt) [SIG Node and Release]
- Removed the 'client' label from apiserver_request_total. (#87669, @logicalhan) [SIG API Machinery and Instrumentation]

API Change

New API types/versions:

- A new IngressClass resource has been added to enable better Ingress configuration. (#88509, @robscott) [SIG API Machinery, Apps, CLI, Network, Node and Testing]
- The CSIDriver API has graduated to storage.k8s.io/v1, and is now available for use. (#84814, @huffmanca) [SIG Storage]

New API fields:

- autoscaling/v2beta2 HorizontalPodAutoscaler added a `spec.behavior` field that allows scale behavior to be configured. Behaviors are specified separately for scaling up and down. In each direction a stabilization window can be specified as well as a list of policies and how to select amongst them. Policies can limit the absolute number of pods added or removed, or the percentage of pods added or removed. (#74525, @gliush) [SIG API Machinery, Apps, Autoscaling and CLI]
- Ingress:
  - `spec.ingressClassName` replaces the deprecated `kubernetes.io/ingress.class` annotation, and allows associating an Ingress object with a particular controller.
  - path definitions added a `pathType` field to allow indicating how the specified path should be matched against incoming requests. Valid values are `Exact`, `Prefix`, and `ImplementationSpecific` (#88587, @cmluciano) [SIG Apps, Cluster Lifecycle and Network]
- The alpha feature `AnyVolumeDataSource` enables PersistentVolumeClaim objects to use the spec.dataSource field to reference a custom type as a data source (#88636, @bswartz) [SIG Apps and Storage]
- The alpha feature `ConfigurableFSGroupPolicy` enables v1 Pods to specify a spec.securityContext.fsGroupChangePolicy policy to control how file permissions are applied to volumes mounted into the pod. (#88488, @gnufied) [SIG Storage]
- The alpha feature `ServiceAppProtocol` enables setting an `appProtocol` field in ServicePort and EndpointPort definitions. (#88503, @robscott) [SIG Apps and Network]
- The alpha feature `ImmutableEphemeralVolumes` enables an `immutable` field in both Secret and ConfigMap objects to mark their contents as immutable. (#86377, @wojtek-t) [SIG Apps, CLI and Testing]

Other API changes:

- The beta feature `ServerSideApply` enables tracking and managing changed fields for all new objects, which means there will be `managedFields` in `metadata` with the list of managers and their owned fields.

- The alpha feature `ServiceAccountIssuerDiscovery` enables publishing OIDC discovery information and service account token verification keys at `/.well-known/openid-configuration` and `/openid/v1/jwks` endpoints by API servers configured to issue service account tokens. (#80724, @cceckman) [SIG API Machinery, Auth, Cluster Lifecycle and Testing]
- CustomResourceDefinition schemas that use `x-kubernetes-list-map-keys` to specify properties that uniquely identify list items must make those properties required or have a default value, to ensure those properties are present for all list items. See https://kubernetes.io/docs/reference/using-api/api-concepts/#merge-strategy for details. (#88076, @eloyekunle) [SIG API Machinery and Testing]
- CustomResourceDefinition schemas that use `x-kubernetes-list-type: map` or `x-kubernetes-list-type: set` now enable validation that the list items in the corresponding custom resources are unique. (#84920, @sttts) [SIG API Machinery]

Configuration file changes:

kube-apiserver:

- The `--egress-selector-config-file` configuration file now accepts an apiserver.k8s.io/v1beta1 EgressSelectorConfiguration configuration object, and has been updated to allow specifying HTTP or GRPC connections to the network proxy (#87179, @Jefftree) [SIG API Machinery, Cloud Provider and Cluster Lifecycle]

kube-scheduler:

- A kubescheduler.config.k8s.io/v1alpha2 configuration file version is now accepted, with support for multiple scheduling profiles (#87628, @alculquicondor) [SIG Scheduling]
  - HardPodAffinityWeight moved from a top level ComponentConfig parameter to a PluginConfig parameter of InterPodAffinity Plugin in `kubescheduler.config.k8s.io/v1alpha2` (#88002, @alculquicondor) [SIG Scheduling and Testing]
  - Kube-scheduler can run more than one scheduling profile. Given a pod, the profile is selected by using its `.spec.schedulerName`. (#88285, @alculquicondor) [SIG Apps, Scheduling and Testing]
  - Scheduler Extenders can now be configured in the v1alpha2 component config (#88768, @damemi) [SIG Release, Scheduling and Testing]
  - The PostFilter of scheduler framework is renamed to PreScore in kubescheduler.config.k8s.io/v1alpha2. (#87751, @skilxn-go) [SIG Scheduling and Testing]

kube-proxy:

- Added kube-proxy flags `--ipvs-tcp-timeout`, `--ipvs-tcpfin-timeout`, `--ipvs-udp-timeout` to configure IPVS connection timeouts. (#85517, @andrewsykim) [SIG Cluster Lifecycle and Network]
- Added optional `--detect-local-mode` flag to kube-proxy. Valid values are "ClusterCIDR" (default matching previous behavior) and "NodeCIDR" (#87748, @satyasm) [SIG Cluster Lifecycle, Network and Scheduling]
- Kube-controller-manager and kube-scheduler expose profiling by default to match the kube-apiserver. Use `--profiling=false` to disable. (#88663, @deads2k) [SIG API Machinery, Cloud Provider and Scheduling]
- Kubelet pod resources API now provides the information about active pods only. (#79409, @takmatsu) [SIG Node]
- New flag `--endpointslice-updates-batch-period` in kube-controller-manager can be used to reduce the number of endpointslice updates generated by pod changes. (#88745, @mborsz) [SIG API Machinery, Apps and Network]
- New flag `--show-hidden-metrics-for-version` in kube-proxy, kubelet, kube-controller-manager, and kube-scheduler can be used to show all hidden metrics that are deprecated in the previous minor release. (#85279, @RainbowMango) [SIG Cluster Lifecycle and Network]

Features graduated to beta:

- StartupProbe (#83437, @matthyx) [SIG Node, Scalability and Testing]

Features graduated to GA:

- VolumePVCDataSource (#88686, @j-griffith) [SIG Storage]
- TaintBasedEvictions (#87487, @skilxn-go) [SIG API Machinery, Apps, Node, Scheduling and Testing]
- BlockVolume and CSIBlockVolume (#88673, @jsafrane) [SIG Storage]
- Windows RunAsUserName (#87790, @marosset) [SIG Apps and Windows]
- The following feature gates are removed, because the associated features were unconditionally enabled in previous releases: CustomResourceValidation, CustomResourceSubresources, CustomResourceWebhookConversion, CustomResourcePublishOpenAPI, CustomResourceDefaulting (#87475, @liggitt) [SIG API Machinery]

Feature

- API request throttling (due to a high rate of requests) is now reported in client-go logs at log level 2. The messages are of the form:`Throttling request took 1.50705208s, request: GET:<URL>` The presence of these messages may indicate to the administrator the need to tune the cluster accordingly. (#87740, @jennybuckley) [SIG API Machinery]
- Add support for mount options to the FC volume plugin (#87499, @ejweber) [SIG Storage]

- Added a config-mode flag in azure auth module to enable getting AAD token without spn: prefix in audience claim. When it's not specified, the default behavior doesn't change. (#87630, @weinong) [SIG API Machinery, Auth, CLI and Cloud Provider]
- Allow for configuration of CoreDNS replica count (#85837, @pickledrick) [SIG Cluster Lifecycle]
- Allow user to specify resource using –filename flag when invoking kubectl exec (#88460, @soltysh) [SIG CLI and Testing]
- Apiserver added a new flag –goaway-chance which is the fraction of requests that will be closed gracefully(GOAWAY) to prevent HTTP/2 clients from getting stuck on a single apiserver. (#88567, @answer1991) [SIG API Machinery]
- Azure Cloud Provider now supports using Azure network resources (Virtual Network, Load Balancer, Public IP, Route Table, Network Security Group, etc.) in different AAD Tenant and Subscription than those for the Kubernetes cluster. To use the feature, please reference https://kubernetes-sigs.github.io/cloud-provider-azure/install/configs/#host-network-resources-in-different-aad-tenant-and-subscription. (#88384, @bowen5) [SIG Cloud Provider]
- Azure VMSS/VMSSVM clients now suppress requests on throttling (#86740, @feiskyer) [SIG Cloud Provider]
- Azure cloud provider cache TTL is configurable, list of the azure cloud provider is as following:
  - "availabilitySetNodesCacheTTLInSeconds"
  - "vmssCacheTTLInSeconds"
  - "vmssVirtualMachinesCacheTTLInSeconds"
  - "vmCacheTTLInSeconds"
  - "loadBalancerCacheTTLInSeconds"
  - "nsgCacheTTLInSeconds"
  - "routeTableCacheTTLInSeconds" (#86266, @zqingqing1) [SIG Cloud Provider]
- Azure global rate limit is switched to per-client. A set of new rate limit configure options are introduced, including routeRateLimit, SubnetsRateLimit, InterfaceRateLimit, RouteTableRateLimit, LoadBalancerRateLimit, PublicIPAddressRateLimit, SecurityGroupRateLimit, VirtualMachineRateLimit, StorageAccountRateLimit, DiskRateLimit, SnapshotRateLimit, VirtualMachineScaleSetRateLimit and VirtualMachineSizeRateLimit. The original rate limit options would be default values for those new client's rate limiter. (#86515, @feiskyer) [SIG Cloud Provider]
- Azure network and VM clients now suppress requests on throttling (#87122, @feiskyer) [SIG Cloud Provider]
- Azure storage clients now suppress requests on throttling (#87306, @feiskyer) [SIG Cloud Provider]
- Azure: add support for single stack IPv6 (#88448, @aramase) [SIG Cloud Provider]
- DefaultConstraints can be specified for PodTopologySpread Plugin in the

scheduler's ComponentConfig (#88671, @alculquicondor) [SIG Scheduling]
- DisableAvailabilitySetNodes is added to avoid VM list for VMSS clusters. It should only be used when vmType is "vmss" and all the nodes (including control plane nodes) are VMSS virtual machines. (#87685, @feiskyer) [SIG Cloud Provider]
- Elasticsearch supports automatically setting the advertise address (#85944, @SataQiu) [SIG Cluster Lifecycle and Instrumentation]
- EndpointSlices will now be enabled by default. A new `EndpointSliceProxying` feature gate determines if kube-proxy will use EndpointSlices, this is disabled by default. (#86137, @robscott) [SIG Network]
- Kube-proxy: Added dual-stack IPv4/IPv6 support to the iptables proxier. (#82462, @vllry) [SIG Network]
- Kubeadm now supports automatic calculations of dual-stack node cidr masks to kube-controller-manager. (#85609, @Arvinderpal) [SIG Cluster Lifecycle]
- Kubeadm: add a upgrade health check that deploys a Job (#81319, @neolit123) [SIG Cluster Lifecycle]
- Kubeadm: add the experimental feature gate PublicKeysECDSA that can be used to create a cluster with ECDSA certificates from "kubeadm init". Renewal of existing ECDSA certificates is also supported using "kubeadm alpha certs renew", but not switching between the RSA and ECDSA algorithms on the fly or during upgrades. (#86953, @rojkov) [SIG API Machinery, Auth and Cluster Lifecycle]
- Kubeadm: implemented structured output of 'kubeadm config images list' command in JSON, YAML, Go template and JsonPath formats (#86810, @bart0sh) [SIG Cluster Lifecycle]
- Kubeadm: on kubeconfig certificate renewal, keep the embedded CA in sync with the one on disk (#88052, @neolit123) [SIG Cluster Lifecycle]
- Kubeadm: reject a node joining the cluster if a node with the same name already exists (#81056, @neolit123) [SIG Cluster Lifecycle]
- Kubeadm: support Windows specific kubelet flags in kubeadm-flags.env (#88287, @gab-satchi) [SIG Cluster Lifecycle and Windows]
- Kubeadm: support automatic retry after failing to pull image (#86899, @SataQiu) [SIG Cluster Lifecycle]
- Kubeadm: upgrade supports fallback to the nearest known etcd version if an unknown k8s version is passed (#88373, @SataQiu) [SIG Cluster Lifecycle]
- Kubectl/drain: add disable-eviction option.Force drain to use delete, even if eviction is supported. This will bypass checking PodDisruptionBudgets, and should be used with caution. (#85571, @michaelgugino) [SIG CLI]
- Kubectl/drain: add skip-wait-for-delete-timeout option. If a pod's `DeletionTimestamp` is older than N seconds, skip waiting for the pod. Seconds must be greater than 0 to skip. (#85577, @michaelgugino) [SIG CLI]
- Option `preConfiguredBackendPoolLoadBalancerTypes` is added to azure cloud provider for the pre-configured load balancers, possible values:

`""`, `"internal"`, `"external"`,`"all"` (#86338, @gossion) [SIG Cloud Provider]
- PodTopologySpread plugin now excludes terminatingPods when making scheduling decisions. (#87845, @Huang-Wei) [SIG Scheduling]
- Provider/azure: Network security groups can now be in a separate resource group. (#87035, @CecileRobertMichon) [SIG Cloud Provider]
- SafeSysctlWhitelist: add net.ipv4.ping_group_range (#85463, @Akihiro-Suda) [SIG Auth]
- Scheduler framework permit plugins now run at the end of the scheduling cycle, after reserve plugins. Waiting on permit will remain in the beginning of the binding cycle. (#88199, @mateuszlitwin) [SIG Scheduling]
- Scheduler: Add DefaultBinder plugin (#87430, @alculquicondor) [SIG Scheduling and Testing]
- Skip default spreading scoring plugin for pods that define TopologySpreadConstraints (#87566, @skilxn-go) [SIG Scheduling]
- The kubectl –dry-run flag now accepts the values 'client', 'server', and 'none', to support client-side and server-side dry-run strategies. The boolean and unset values for the –dry-run flag are deprecated and a value will be required in a future version. (#87580, @julianvmodesto) [SIG CLI]
- Support server-side dry-run in kubectl with –dry-run=server for commands including apply, patch, create, run, annotate, label, set, autoscale, drain, rollout undo, and expose. (#87714, @julianvmodesto) [SIG API Machinery, CLI and Testing]
- Add –dry-run=server|client to kubectl delete, taint, replace (#88292, @julianvmodesto) [SIG CLI and Testing]
- The feature PodTopologySpread (feature gate `EvenPodsSpread`) has been enabled by default in 1.18. (#88105, @Huang-Wei) [SIG Scheduling and Testing]
- The kubelet and the default docker runtime now support running ephemeral containers in the Linux process namespace of a target container. Other container runtimes must implement support for this feature before it will be available for that runtime. (#84731, @verb) [SIG Node]
- The underlying format of the `CPUManager` state file has changed. Upgrades should be seamless, but any third-party tools that rely on reading the previous format need to be updated. (#84462, @klueska) [SIG Node and Testing]
- Update CNI version to v0.8.5 (#78819, @justaugustus) [SIG API Machinery, Cluster Lifecycle, Network, Release and Testing]
- Webhooks have alpha support for network proxy (#85870, @Jefftree) [SIG API Machinery, Auth and Testing]
- When client certificate files are provided, reload files for new connections, and close connections when a certificate changes. (#79083, @jackkleeman) [SIG API Machinery, Auth, Node and Testing]
- When deleting objects using kubectl with the –force flag, you are no longer required to also specify –grace-period=0. (#87776, @brianpursley) [SIG CLI]

- Windows nodes on GCE can use virtual TPM-based authentication to the control plane. (#85466, @pjh) [SIG Cluster Lifecycle]
- You can now pass "–node-ip ::" to kubelet to indicate that it should autodetect an IPv6 address to use as the node's primary address. (#85850, @danwinship) [SIG Cloud Provider, Network and Node]
- `kubectl` now contains a `kubectl alpha debug` command. This command allows attaching an ephemeral container to a running pod for the purposes of debugging. (#88004, @verb) [SIG CLI]
- TLS Server Name overrides can now be specified in a kubeconfig file and via –tls-server-name in kubectl (#88769, @deads2k) [SIG API Machinery, Auth and CLI]

Metrics:

- Add `rest_client_rate_limiter_duration_seconds` metric to component-base to track client side rate limiter latency in seconds. Broken down by verb and URL. (#88134, @jennybuckley) [SIG API Machinery, Cluster Lifecycle and Instrumentation]
- Added two client certificate metrics for exec auth:
  - `rest_client_certificate_expiration_seconds` a gauge reporting the lifetime of the current client certificate. Reports the time of expiry in seconds since January 1, 1970 UTC.
  - `rest_client_certificate_rotation_age` a histogram reporting the age of a just rotated client certificate in seconds. (#84382, @sambdavidson) [SIG API Machinery, Auth, Cluster Lifecycle and Instrumentation]
- Controller manager serve workqueue metrics (#87967, @zhan849) [SIG API Machinery]
- Following metrics have been turned off:
  - kubelet_pod_worker_latency_microseconds
  - kubelet_pod_start_latency_microseconds
  - kubelet_cgroup_manager_latency_microseconds
  - kubelet_pod_worker_start_latency_microseconds
  - kubelet_pleg_relist_latency_microseconds
  - kubelet_pleg_relist_interval_microseconds
  - kubelet_eviction_stats_age_microseconds
  - kubelet_runtime_operations
  - kubelet_runtime_operations_latency_microseconds
  - kubelet_runtime_operations_errors
  - kubelet_device_plugin_registration_count
  - kubelet_device_plugin_alloc_latency_microseconds
  - kubelet_docker_operations
  - kubelet_docker_operations_latency_microseconds
  - kubelet_docker_operations_errors
  - kubelet_docker_operations_timeout
  - network_plugin_operations_latency_microseconds (#83841, @Rain-

bowMango) [SIG Network and Node]
- Kube-apiserver metrics will now include request counts, latencies, and response sizes for /healthz, /livez, and /readyz requests. (#83598, @jktomer) [SIG API Machinery]
- Kubelet now exports a `server_expiration_renew_failure` and `client_expiration_renew_failure` metric counter if the certificate rotations cannot be performed. (#84614, @rphillips) [SIG API Machinery, Auth, CLI, Cloud Provider, Cluster Lifecycle, Instrumentation, Node and Release]
- Kubelet: the metric process_start_time_seconds be marked as with the ALPHA stability level. (#85446, @RainbowMango) [SIG API Machinery, Cluster Lifecycle, Instrumentation and Node]
- New metric `kubelet_pleg_last_seen_seconds` to aid diagnosis of PLEG not healthy issues. (#86251, @bboreham) [SIG Node]

Other (Bug, Cleanup or Flake)

- Fixed a regression with clients prior to 1.15 not being able to update podIP in pod status, or podCIDR in node spec, against >= 1.16 API servers (#88505, @liggitt) [SIG Apps and Network]
- Fixed "kubectl describe statefulsets.apps" printing garbage for rolling update partition (#85846, @phil9909) [SIG CLI]
- Add a event to PV when filesystem on PV does not match actual filesystem on disk (#86982, @gnufied) [SIG Storage]
- Add azure disk WriteAccelerator support (#87945, @andyzhangx) [SIG Cloud Provider and Storage]
- Add delays between goroutines for vm instance update (#88094, @aramase) [SIG Cloud Provider]
- Add init containers log to cluster dump info. (#88324, @zhouya0) [SIG CLI]
- Addons: elasticsearch discovery supports IPv6 (#85543, @SataQiu) [SIG Cluster Lifecycle and Instrumentation]
- 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 Storage]
- All api-server log request lines in a more greppable format. (#87203, @lavalamp) [SIG API Machinery]
- Azure VMSS LoadBalancerBackendAddressPools updating has been improved with sequential-sync + concurrent-async requests. (#88699, @feiskyer) [SIG Cloud Provider]
- Azure cloud provider now obtains AAD token who audience claim will not have spn: prefix (#87590, @weinong) [SIG Cloud Provider]
- AzureFile and CephFS use the new Mount library that prevents logging of sensitive mount options. (#88684, @saad-ali) [SIG Storage]
- Bind dns-horizontal containers to linux nodes to avoid Windows scheduling

on kubernetes cluster includes linux nodes and windows nodes (#83364, @wawa0210) [SIG Cluster Lifecycle and Windows]
- Bind kube-dns containers to linux nodes to avoid Windows scheduling (#83358, @wawa0210) [SIG Cluster Lifecycle and Windows]
- Bind metadata-agent containers to linux nodes to avoid Windows scheduling on kubernetes cluster includes linux nodes and windows nodes (#83363, @wawa0210) [SIG Cluster Lifecycle, Instrumentation and Windows]
- Bind metrics-server containers to linux nodes to avoid Windows scheduling on kubernetes cluster includes linux nodes and windows nodes (#83362, @wawa0210) [SIG Cluster Lifecycle, Instrumentation and Windows]
- Bug fixes: Make sure we include latest packages node #351 (@caseydavenport) (#84163, @david-tigera) [SIG Cluster Lifecycle]
- CPU limits are now respected for Windows containers. If a node is overprovisioned, no weighting is used, only limits are respected. (#86101, @PatrickLang) [SIG Node, Testing and Windows]
- Changed core_pattern on COS nodes to be an absolute path. (#86329, @mml) [SIG Cluster Lifecycle and Node]
- Client-go certificate manager rotation gained the ability to preserve optional intermediate chains accompanying issued certificates (#88744, @jackkleeman) [SIG API Machinery and Auth]
- Cloud provider config CloudProviderBackoffMode has been removed since it won't be used anymore. (#88463, @feiskyer) [SIG Cloud Provider]
- Conformance image now depends on stretch-slim instead of debian-hyperkube-base as that image is being deprecated and removed. (#88702, @dims) [SIG Cluster Lifecycle, Release and Testing]
- Deprecate –generator flag from kubectl create commands (#88655, @soltysh) [SIG CLI]
- During initialization phase (preflight), kubeadm now verifies the presence of the conntrack executable (#85857, @hnanni) [SIG Cluster Lifecycle]
- EndpointSlice should not contain endpoints for terminating pods (#89056, @andrewsykim) [SIG Apps and Network]
- Evictions due to pods breaching their ephemeral storage limits are now recorded by the `kubelet_evictions` metric and can be alerted on. (#87906, @smarterclayton) [SIG Node]
- Filter published OpenAPI schema by making nullable, required fields non-required in order to avoid kubectl to wrongly reject null values. (#85722, @sttts) [SIG API Machinery]
- Fix /readyz to return error immediately after a shutdown is initiated, before the –shutdown-delay-duration has elapsed. (#88911, @tkashem) [SIG API Machinery]
- Fix API Server potential memory leak issue in processing watch request. (#85410, @answer1991) [SIG API Machinery]
- Fix EndpointSlice controller race condition and ensure that it handles external changes to EndpointSlices. (#85703, @robscott) [SIG Apps and Network]
- Fix IPv6 addresses lost issue in pure ipv6 vsphere environment (#86001,

@hubv) [SIG Cloud Provider]
- Fix LoadBalancer rule checking so that no unexpected LoadBalancer updates are made (#85990, @feiskyer) [SIG Cloud Provider]
- 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 a bug in port-forward: named port not working with service (#85511, @oke-py) [SIG CLI]
- Fix a bug in the dual-stack IPVS proxier where stale IPv6 endpoints were not being cleaned up (#87695, @andrewsykim) [SIG Network]
- Fix a bug that orphan revision cannot be adopted and statefulset cannot be synced (#86801, @likakuli) [SIG Apps]
- Fix a bug where ExternalTrafficPolicy is not applied to service ExternalIPs. (#88786, @freehan) [SIG Network]
- Fix a bug where kubenet fails to parse the tc output. (#83572, @chendotjs) [SIG Network]
- Fix a regression in kubenet that prevent pods to obtain ip addresses (#85993, @chendotjs) [SIG Network and Node]
- Fix azure file AuthorizationFailure (#85475, @andyzhangx) [SIG Cloud Provider and Storage]
- Fix bug where EndpointSlice controller would attempt to modify shared objects. (#85368, @robscott) [SIG API Machinery, Apps and 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. (#83446, @Elias481) [SIG Cloud Provider]
- Fix invalid VMSS updates due to incorrect cache (#89002, @ArchangelSDY) [SIG Cloud Provider]
- Fix isCurrentInstance for Windows by removing the dependency of hostname. (#89138, @feiskyer) [SIG Cloud Provider]
- Fix issue #85805 about a resource not found in azure cloud provider when LoadBalancer specified in another resource group. (#86502, @levimm) [SIG Cloud Provider]
- Fix kubectl annotate error when local=true is set (#86952, @zhouya0) [SIG CLI]
- Fix kubectl create deployment image name (#86636, @zhouya0) [SIG CLI]
- Fix `kubectl drain ignore` daemonsets and others. (#87361, @zhouya0) [SIG CLI]
- Fix missing "apiVersion" for "involvedObject" in Events for Nodes. (#87537, @uthark) [SIG Apps and Node]
- Fix nil pointer dereference in azure cloud provider (#85975, @ldx) [SIG Cloud Provider]
- Fix regression in statefulset conversion which prevents applying a statefulset multiple times. (#87706, @liggitt) [SIG Apps and Testing]
- Fix route conflicted operations when updating multiple routes together (#88209, @feiskyer) [SIG Cloud Provider]

- Fix that prevents repeated fetching of PVC/PV objects by kubelet when processing of pod volumes fails. While this prevents hammering API server in these error scenarios, it means that some errors in processing volume(s) for a pod could now take up to 2-3 minutes before retry. (#88141, @tedyu) [SIG Node and Storage]
- Fix the bug PIP's DNS is deleted if no DNS label service annotation isn't set. (#87246, @nilo19) [SIG Cloud Provider]
- Fix control plane hosts rolling upgrade causing thundering herd of LISTs on etcd leading to control plane unavailability. (#86430, @wojtek-t) [SIG API Machinery, Node and Testing]
- Fix: add azure disk migration support for CSINode (#88014, @andyzhangx) [SIG Cloud Provider and Storage]
- Fix: add non-retriable errors in azure clients (#87941, @andyzhangx) [SIG Cloud Provider]
- Fix: add remediation in azure disk attach/detach (#88444, @andyzhangx) [SIG Cloud Provider]
- Fix: azure data disk should use same key as os disk by default (#86351, @andyzhangx) [SIG Cloud Provider]
- Fix: azure disk could not mounted on Standard_DC4s/DC2s instances (#86612, @andyzhangx) [SIG Cloud Provider and Storage]
- Fix: azure file mount timeout issue (#88610, @andyzhangx) [SIG Cloud Provider and Storage]
- Fix: check disk status before disk azure disk (#88360, @andyzhangx) [SIG Cloud Provider]
- 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]
- Fix: update azure disk max count (#88201, @andyzhangx) [SIG Cloud Provider and Storage]
- Fixed "requested device X but found Y" attach error on AWS. (#85675, @jsafrane) [SIG Cloud Provider and Storage]
- Fixed NetworkPolicy validation that `Except` values are accepted when they are outside the CIDR range. (#86578, @tnqn) [SIG Network]
- Fixed a bug in the TopologyManager. Previously, the TopologyManager would only guarantee alignment if container creation was serialized in some way. Alignment is now guaranteed under all scenarios of container creation. (#87759, @klueska) [SIG Node]
- 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 a data race in the kubelet image manager that can cause static pod workers to silently stop working. (#88915, @roycaihw) [SIG Node]
- Fixed a panic in the kubelet cleaning up pod volumes (#86277, @tedyu) [SIG Storage]
- Fixed a regression where the kubelet would fail to update the ready status

of pods. (#84951, @tedyu) [SIG Node]
- Fixed an issue that could cause the kubelet to incorrectly run concurrent pod reconciliation loops and crash. (#89055, @tedyu) [SIG Node]
- Fixed block CSI volume cleanup after timeouts. (#88660, @jsafrane) [SIG Storage]
- Fixed cleaning of CSI raw block volumes. (#87978, @jsafrane) [SIG Storage]
- Fixed AWS Cloud Provider attempting to delete LoadBalancer security group it didn't provision, and fixed AWS Cloud Provider creating a default LoadBalancer security group even if annotation `service.beta.kubernetes.io/aws-load-balancer-security-groups` is present because the intended behavior of aws-load-balancer-security-groups is to replace all security groups assigned to the load balancer. (#84265, @bhagwat070919) [SIG Cloud Provider]
- Fixed two scheduler metrics (pending_pods and schedule_attempts_total) not being recorded (#87692, @everpeace) [SIG Scheduling]
- Fixes an issue with kubelet-reported pod status on deleted/recreated pods. (#86320, @liggitt) [SIG Node]
- 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 issue where AAD token obtained by kubectl is incompatible with on-behalf-of flow and oidc. The audience claim before this fix has "spn:" prefix. After this fix, "spn:" prefix is omitted. (#86412, @weinong) [SIG API Machinery, Auth and Cloud Provider]
- Fixes an issue where you can't attach more than 15 GCE Persistent Disks to c2, n2, m1, m2 machine types. (#88602, @yuga711) [SIG Storage]
- Fixes kube-proxy when EndpointSlice feature gate is enabled on Windows. (#86016, @robscott) [SIG Auth and Network]
- Fixes kubelet crash in client certificate rotation cases (#88079, @liggitt) [SIG API Machinery, Auth and Node]
- Fixes service account token admission error in clusters that do not run the service account token controller (#87029, @liggitt) [SIG Auth]
- Fixes v1.17.0 regression in –service-cluster-ip-range handling with IPv4 ranges larger than 65536 IP addresses (#86534, @liggitt) [SIG Network]
- Fixes wrong validation result of NetworkPolicy PolicyTypes (#85747, @tnqn) [SIG Network]
- For subprotocol negotiation, both client and server protocol is required now. (#86646, @tedyu) [SIG API Machinery and Node]
- For volumes that allow attaches across multiple nodes, attach and detach operations across different nodes are now executed in parallel. (#88678, @verult) [SIG Storage]
- Garbage collector now can correctly orphan ControllerRevisions when StatefulSets are deleted with orphan propagation policy. (#84984, @cofyc) [SIG Apps]
- `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]
- If a serving certificate's param specifies a name that is an IP for an SNI certificate, it will have priority for replying to server connections. (#85308, @deads2k) [SIG API Machinery]
- Improved yaml parsing performance (#85458, @cjcullen) [SIG API Machinery, CLI, Cloud Provider, Cluster Lifecycle, Instrumentation and Node]
- Improves performance of the node authorizer (#87696, @liggitt) [SIG Auth]
- In GKE alpha clusters it will be possible to use the service annotation `cloud.google.com/network-tier: Standard` (#88487, @zioproto) [SIG Cloud Provider]
- Includes FSType when describing CSI persistent volumes. (#85293, @huffmanca) [SIG CLI and Storage]
- Iptables/userspace proxy: improve performance by getting local addresses only once per sync loop, instead of for every external IP (#85617, @andrewsykim) [SIG API Machinery, CLI, Cloud Provider, Cluster Lifecycle, Instrumentation and Network]
- Kube-aggregator: always sets unavailableGauge metric to reflect the current state of a service. (#87778, @p0lyn0mial) [SIG API Machinery]
- Kube-apiserver: fixed a conflict error encountered attempting to delete a pod with gracePeriodSeconds=0 and a resourceVersion precondition (#85516, @michaelgugino) [SIG API Machinery]
- Kube-proxy no longer modifies shared EndpointSlices. (#86092, @robscott) [SIG Network]
- Kube-proxy: on dual-stack mode, if it is not able to get the IP Family of an endpoint, logs it with level InfoV(4) instead of Warning, avoiding flooding the logs for endpoints without addresses (#88934, @aojea) [SIG Network]
- Kubeadm allows to configure single-stack clusters if dual-stack is enabled (#87453, @aojea) [SIG API Machinery, Cluster Lifecycle and Network]
- Kubeadm now includes CoreDNS version 1.6.7 (#86260, @rajansandeep) [SIG Cluster Lifecycle]
- Kubeadm upgrades always persist the etcd backup for stacked (#86861, @SataQiu) [SIG Cluster Lifecycle]
- Kubeadm: 'kubeadm alpha kubelet config download' has been removed, please use 'kubeadm upgrade node phase kubelet-config' instead (#87944, @SataQiu) [SIG Cluster Lifecycle]
- Kubeadm: Forward cluster name to the controller-manager arguments (#85817, @ereslibre) [SIG Cluster Lifecycle]
- Kubeadm: add support for the "ci/k8s-master" version label as a replacement for "ci-cross/*", which no longer exists. (#86609, @Pensu) [SIG Cluster Lifecycle]

- 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]
- Kubeadm: don't write the kubelet environment file on "upgrade apply" (#85412, @boluisa) [SIG Cluster Lifecycle]
- Kubeadm: fix potential panic when executing "kubeadm reset" with a corrupted kubelet.conf file (#86216, @neolit123) [SIG Cluster Lifecycle]
- Kubeadm: fix the bug that 'kubeadm upgrade' hangs in single node cluster (#88434, @SataQiu) [SIG Cluster Lifecycle]
- Kubeadm: make sure images are pre-pulled even if a tag did not change but their contents changed (#85603, @bart0sh) [SIG Cluster Lifecycle]
- Kubeadm: remove 'kubeadm upgrade node config' command since it was deprecated in v1.15, please use 'kubeadm upgrade node phase kubelet-config' instead (#87975, @SataQiu) [SIG Cluster Lifecycle]
- Kubeadm: remove the deprecated CoreDNS feature-gate. It was set to "true" since v1.11 when the feature went GA. In v1.13 it was marked as deprecated and hidden from the CLI. (#87400, @neolit123) [SIG Cluster Lifecycle]
- Kubeadm: retry `kubeadm-config` ConfigMap creation or mutation if the apiserver is not responding. This will improve resiliency when joining new control plane nodes. (#85763, @ereslibre) [SIG Cluster Lifecycle]
- Kubeadm: tolerate whitespace when validating certificate authority PEM data in kubeconfig files (#86705, @neolit123) [SIG Cluster Lifecycle]
- Kubeadm: use bind-address option to configure the kube-controller-manager and kube-scheduler http probes (#86493, @aojea) [SIG Cluster Lifecycle]
- Kubeadm: uses the api-server AdvertiseAddress IP family to choose the etcd endpoint IP family for non external etcd clusters (#85745, @aojea) [SIG Cluster Lifecycle]
- Kubectl cluster-info dump –output-directory=xxx now generates files with an extension depending on the output format. (#82070, @olivierlemasle) [SIG CLI]
- `Kubectl describe <type>` and `kubectl top pod` will return a message saying `"No resources found"` or `"No resources found in <namespace> namespace"` if there are no results to display. (#87527, @brianpursley) [SIG CLI]
- `Kubectl drain node --dry-run` will list pods that would be evicted or deleted (#82660, @sallyom) [SIG CLI]
- `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) [SIG CLI]
- 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]

- Kubelet metrics have been changed to buckets. For example the `exec/{podNamespace}/{podID}/{containerName}` is now just exec. (#87913, @cheftako) [SIG Node]
- Kubelets perform fewer unnecessary pod status update operations on the API server. (#88591, @smarterclayton) [SIG Node and Scalability]
- Kubernetes will try to acquire the iptables lock every 100 msec during 5 seconds instead of every second. This is especially useful for environments using kube-proxy in iptables mode with a high churn rate of services. (#85771, @aojea) [SIG Network]
- Limit number of instances in a single update to GCE target pool to 1000. (#87881, @wojtek-t) [SIG Cloud Provider, Network and Scalability]
- Make Azure clients only retry on specified HTTP status codes (#88017, @feiskyer) [SIG Cloud Provider]
- Make error message and service event message more clear (#86078, @feiskyer) [SIG Cloud Provider]
- Minimize AWS NLB health check timeout when externalTrafficPolicy set to Local (#73363, @kellycampbell) [SIG Cloud Provider]
- Pause image contains "Architecture" in non-amd64 images (#87954, @BenTheElder) [SIG Release]
- Pause image upgraded to 3.2 in kubelet and kubeadm. (#88173, @BenTheElder) [SIG CLI, Cluster Lifecycle, Node and Testing]
- Plugin/PluginConfig and Policy APIs are mutually exclusive when running the scheduler (#88864, @alculquicondor) [SIG Scheduling]
- Remove `FilteredNodesStatuses` argument from `PreScore`'s interface. (#88189, @skilxn-go) [SIG Scheduling and Testing]
- Resolved a performance issue in the node authorizer index maintenance. (#87693, @liggitt) [SIG Auth]
- Resolved regression in admission, authentication, and authorization webhook performance in v1.17.0-rc.1 (#85810, @liggitt) [SIG API Machinery and Testing]
- Resolves performance regression in `kubectl get all` and in client-go discovery clients constructed using `NewDiscoveryClientForConfig` or `NewDiscoveryClientForConfigOrDie`. (#86168, @liggitt) [SIG API Machinery]
- Reverted a kubectl 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]
- Shared informers are now more reliable in the face of network disruption. (#86015, @squeed) [SIG API Machinery]
- Specifying PluginConfig for the same plugin more than once fails scheduler startup. Specifying extenders and configuring .ignoredResources for the NodeResourcesFit plugin fails (#88870, @alculquicondor) [SIG Scheduling]
- 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]

- The CSR signing cert/key pairs will be reloaded from disk like the kube-apiserver cert/key pairs (#86816, @deads2k) [SIG API Machinery, Apps and Auth]
- The EventRecorder from k8s.io/client-go/tools/events will now create events in the default namespace (instead of kube-system) when the related object does not have it set. (#88815, @enj) [SIG API Machinery]
- 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]
- The sample-apiserver aggregated conformance test has updated to use the Kubernetes v1.17.0 sample apiserver (#84735, @liggitt) [SIG API Machinery, Architecture, CLI and Testing]
- To reduce chances of throttling, VM cache is set to nil when Azure node provisioning state is deleting (#87635, @feiskyer) [SIG Cloud Provider]
- VMSS cache is added so that less chances of VMSS GET throttling (#85885, @nilo19) [SIG Cloud Provider]
- Wait for kubelet & kube-proxy to be ready on Windows node within 10s (#85228, @YangLu1031) [SIG Cluster Lifecycle]
- `kubectl apply -f <file> --prune -n <namespace>` should prune all resources not defined in the file in the cli specified namespace. (#85613, @MartinKaburu) [SIG CLI]
- `kubectl create clusterrolebinding` creates rbac.authorization.k8s.io/v1 object (#85889, @oke-py) [SIG CLI]
- `kubectl diff` now returns 1 only on diff finding changes, and >1 on kubectl errors. The "exit status code 1" message has also been muted. (#87437, @apelisse) [SIG CLI and Testing]

Dependencies

- Update Calico to v3.8.4 (#84163, @david-tigera)[SIG Cluster Lifecycle]
- Update aws-sdk-go dependency to v1.28.2 (#87253, @SaranBalaji90)[SIG API Machinery and Cloud Provider]
- Update CNI version to v0.8.5 (#78819, @justaugustus)[SIG Release, Testing, Network, Cluster Lifecycle and API Machinery]
- Update cri-tools to v1.17.0 (#86305, @saschagrunert)[SIG Release and Cluster Lifecycle]
- Pause image upgraded to 3.2 in kubelet and kubeadm (#88173, @BenTheElder)[SIG CLI, Node, Testing and Cluster Lifecycle]
- Update CoreDNS version to 1.6.7 in kubeadm (#86260, @rajansandeep)[SIG Cluster Lifecycle]
- Update golang.org/x/crypto to fix CVE-2020-9283 (#8838, @BenTheElder)[SIG CLI, Instrumentation, API Machinery, CLuster Lifecycle and Cloud Provider]
- Update Go to 1.13.8 (#87648, @ialidzhikov)[SIG Release and Testing]
- Update Cluster-Autoscaler to 1.18.0 (#89095, @losipiuk)[SIG Autoscaling and Cluster Lifecycle]

v1.18.0-rc.1

Documentation

Downloads for v1.18.0-rc.1

filename	sha512 hash
kubernetes.tar.gz	`c17231d5de2e0677e8af8259baa11a388625821c79b86362049f2edb366404c`
kubernetes-src.tar.gz	`e84ffad57c301f5d6e90f916b996d5abb0c987928c3ca6b1565f7b042588f83`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`1aea99923d492436b3eb91aaecffac94e5d0aa2b38a0930d266fda85c665bbc`
kubernetes-client-darwin-amd64.tar.gz	`07fa7340a959740bd52b83ff44438bbd988e235277dad1e43f125f08ac8523`
kubernetes-client-linux-386.tar.gz	`48cebd26448fdd47aa36257baa4c716a98fda055bbf6a05230f2a3fe3c1b99b`
kubernetes-client-linux-amd64.tar.gz	`c3a5fedf263f07a07f59c01fea6c63c1e0b76ee8dc67c45b6c134255c28ed69`
kubernetes-client-linux-arm.tar.gz	`a6b11a55bd38583bbaac14931a6862f8ce6493afe30947ba29e5556654a715`
kubernetes-client-linux-arm64.tar.gz	`9e15331ac8010154a9b64f5488969fc8ee2f21059639896cb84c5cf4f05f4c9`
kubernetes-client-linux-ppc64le.tar.gz	`f828fe6252678de9d4822e482f5873309ae9139b2db87298ab3273ce45d38aa`
kubernetes-client-linux-s390x.tar.gz	`19da4b45f0666c063934af616f3e7ed3caa99d4ee1e46d53efadc7a8a4d38e4`
kubernetes-client-windows-386.tar.gz	`775c9afb6cb3e7c4ba53e9f48a5df2cf207234a33059bd74448bc9f177dd120`
kubernetes-client-windows-amd64.tar.gz	`208d2595a5b57ac97aac75b4a2a6130f0c937f781a030bde1a432daf4bc51f2`

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	`dcf832eae04f9f52ff473754ef5cfe697b35f4dc1a282622c94fa10943c8c35`
kubernetes-server-linux-arm.tar.gz	`a04e34bea28eb1c8b492e8b1dd3c0dd87ebee71a7dbbef72be10a335e553361`

filename	sha512 hash
kubernetes-server-linux-arm64.tar.gz	a6af086b07a8c2e498f32b43e6511bf6a5e6baf358c572c6910c8df17cd6cae
kubernetes-server-linux-ppc64le.tar.gz	5a960ef5ba0c255f587f2ac0b028cd03136dc91e4efc5d1becab46417852e55
kubernetes-server-linux-s390x.tar.gz	0f32c7d9b14bc238b9a5764d8f00edc4d3bf36bcf06b340b81061424e607076

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	27d8955d535d14f3f4dca501fd27e4f06fad84c6da878ea5332a5c83b695566
kubernetes-node-linux-arm.tar.gz	0d56eccad63ba608335988e90b377fe8ae978b177dc836cdb803a5c99d99e8f
kubernetes-node-linux-arm64.tar.gz	79bb9be66f9e892d866b28e5cc838245818edb9706981fab6ccbff493181b34
kubernetes-node-linux-ppc64le.tar.gz	3e9e2c6f9a2747d828069511dce8b4034c773c2d122f005f4508e22518055c1
kubernetes-node-linux-s390x.tar.gz	4f96e018c336fa13bb6df6f7217fe46a2b5c47f806f786499c429604ccba2eb
kubernetes-node-windows-amd64.tar.gz	ab110d76d506746af345e5897ef4f6993d5f53ac818ba69a334f3641047351a

Changelog since v1.18.0-beta.2

Changes by Kind

API Change

- Removes ConfigMap as suggestion for IngressClass parameters (#89093, @robscott) [SIG Network]

Other (Bug, Cleanup or Flake)

- EndpointSlice should not contain endpoints for terminating pods (#89056, @andrewsykim) [SIG Apps and Network]
- Fix a bug where ExternalTrafficPolicy is not applied to service ExternalIPs. (#88786, @freehan) [SIG Network]
- Fix invalid VMSS updates due to incorrect cache (#89002, @ArchangelSDY) [SIG Cloud Provider]
- Fix isCurrentInstance for Windows by removing the dependency of hostname. (#89138, @feiskyer) [SIG Cloud Provider]
- Fixed a data race in kubelet image manager that can cause static pod workers to silently stop working. (#88915, @roycaihw) [SIG Node]

- Fixed an issue that could cause the kubelet to incorrectly run concurrent pod reconciliation loops and crash. (#89055, @tedyu) [SIG Node]
- Kube-proxy: on dual-stack mode, if it is not able to get the IP Family of an endpoint, logs it with level InfoV(4) instead of Warning, avoiding flooding the logs for endpoints without addresses (#88934, @aojea) [SIG Network]
- Update Cluster Autoscaler to 1.18.0; changelog: https://github.com/kubernetes/autoscaler/releases/tag/clu autoscaler-1.18.0 (#89095, @losipiuk) [SIG Autoscaling and Cluster Lifecycle]

v1.18.0-beta.2

Documentation

Downloads for v1.18.0-beta.2

filename	sha512 hash
kubernetes.tar.gz	3017430ca17f8a3523669b4a02c39cedfc6c48b07281bc0a67a9fbe9d76547b
kubernetes-src.tar.gz	c5fd60601380a99efff4458b1c9cf4dc02195f6f756b36e590e54dff68f7064

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	7e49ede167b9271d4171e477fa21d267b2fb35f80869337d5b323198dc12f71
kubernetes-client-darwin-amd64.tar.gz	3f5cdf0e85eee7d0773e0ae2df1c61329dea90e0da92b02dae1ffd101008dc4
kubernetes-client-linux-386.tar.gz	b67b41c11bfecb88017c33feee21735c56f24cf6f7851b63c752495fc0fb563
kubernetes-client-linux-amd64.tar.gz	1fef2197cb80003e3a5c26f05e889af9d85fbbc23e27747944d2997ace4bfa2
kubernetes-client-linux-arm.tar.gz	84e5f4d9776490219ee94a84adccd5dfc7c0362eb330709771afcde95ec83f0
kubernetes-client-linux-arm64.tar.gz	ba613b114e0cca32fa21a3d10f845aa2f215d3af54e775f917ff93919f7dd70
kubernetes-client-linux-ppc64le.tar.gz	502a6938d8c4bbe04abbd19b59919d86765058ff72334848be4012cec493e0e
kubernetes-client-linux-s390x.tar.gz	c24700e0ed2ef5c1d2dd282d638c88d90392ae90ea420837b39fd8e1cfc1952
kubernetes-client-windows-386.tar.gz	0d4c5a741b052f790c8b0923c9586ee9906225e51cf4dc8a56fc303d4d61bb5

filename	sha512 hash
kubernetes-client-windows-amd64.tar.gz	`841ef2e306c0c9593f04d9528ee019bf3b667761227d9afc1d6ca8bf1aa5631`

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	`b373df2e6ef55215e712315a5508e85a39126bd81b7b93c6b6305238919a88c`
kubernetes-server-linux-arm.tar.gz	`b8103cb743c23076ce8dd7c2da01c8dd5a542fbac8480e82dc673139c8ee5ec`
kubernetes-server-linux-arm64.tar.gz	`8f8f05cf64fb9c8d80cdcb4935b2d3e3edc48bdd303231ae12f93e3f4d97923`
kubernetes-server-linux-ppc64le.tar.gz	`b313b911c46f2ec129537407af3f165f238e48caeb4b9e530783ffa3659304a`
kubernetes-server-linux-s390x.tar.gz	`a1b6b06571141f507b12e5ef98efb88f4b6b9aba924722b2a74f11278d29a29`

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`20e02ca327543cddb2568ead3d5de164cbfb2914ab6416106d906bf12fcfbc4`
kubernetes-node-linux-arm.tar.gz	`ecd817ef05d6284f9c6592b84b0a48ea31cf4487030c9fb36518474b2a33dac`
kubernetes-node-linux-arm64.tar.gz	`0020d32b7908ffd5055c8b26a8b3033e4702f89efcfffe3f6fcdb8a9921fa8e`
kubernetes-node-linux-ppc64le.tar.gz	`e065411d66d486e7793449c1b2f5a412510b913bf7f4e728c0a20e275642b76`
kubernetes-node-linux-s390x.tar.gz	`082ee90413beaaea41d6cbe9a18f7d783a95852607f3b94190e0ca12aacdd97`
kubernetes-node-windows-amd64.tar.gz	`fb5aca0cc36be703f9d4033eababd581bac5de8399c50594db087a99ed4cb56`

Changelog since v1.18.0-beta.1

Urgent Upgrade Notes

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

- `kubectl` no longer defaults to `http://localhost:8080`. If you own one of these legacy clusters, you are *strongly- encouraged to secure your server.

If you cannot secure your server, you can set `KUBERNETES_MASTER` if you were relying on that behavior and you're a client-go user. Set `--server`, `--kubeconfig` or `KUBECONFIG` to make it work in `kubectl`. (#86173, @soltysh) [SIG API Machinery, CLI and Testing]

Changes by Kind

Deprecation

- AlgorithmSource is removed from v1alpha2 Scheduler ComponentConfig (#87999, @damemi) [SIG Scheduling]
- Kube-proxy: deprecate `--healthz-port` and `--metrics-port` flag, please use `--healthz-bind-address` and `--metrics-bind-address` instead (#88512, @SataQiu) [SIG Network]
- Kubeadm: deprecate the usage of the experimental flag '–use-api' under the 'kubeadm alpha certs renew' command. (#88827, @neolit123) [SIG Cluster Lifecycle]

API Change

- A new IngressClass resource has been added to enable better Ingress configuration. (#88509, @robscott) [SIG API Machinery, Apps, CLI, Network, Node and Testing]
- Added GenericPVCDataSource feature gate to enable using arbitrary custom resources as the data source for a PVC. (#88636, @bswartz) [SIG Apps and Storage]
- Allow user to specify fsgroup permission change policy for pods (#88488, @gnufied) [SIG Apps and Storage]
- BlockVolume and CSIBlockVolume features are now GA. (#88673, @jsafrane) [SIG Apps, Node and Storage]
- CustomResourceDefinition schemas that use `x-kubernetes-list-map-keys` to specify properties that uniquely identify list items must make those properties required or have a default value, to ensure those properties are present for all list items. See https://kubernetes.io/docs/reference/using-api/api-concepts/#merge-strategy for details. (#88076, @eloyekunle) [SIG API Machinery and Testing]
- Fixes a regression with clients prior to 1.15 not being able to update podIP in pod status, or podCIDR in node spec, against >= 1.16 API servers (#88505, @liggitt) [SIG Apps and Network]
- Ingress: Add Exact and Prefix maching to Ingress PathTypes (#88587, @cmluciano) [SIG Apps, Cluster Lifecycle and Network]
- Ingress: Add alternate backends via TypedLocalObjectReference (#88775, @cmluciano) [SIG Apps and Network]
- Ingress: allow wildcard hosts in IngressRule (#88858, @cmluciano) [SIG Network]
- Kube-controller-manager and kube-scheduler expose profiling by default to match the kube-apiserver. Use `--enable-profiling=false` to disable.

(#88663, @deads2k) [SIG API Machinery, Cloud Provider and Scheduling]
- Move TaintBasedEvictions feature gates to GA (#87487, @skilxn-go) [SIG API Machinery, Apps, Node, Scheduling and Testing]
- New flag –endpointslice-updates-batch-period in kube-controller-manager can be used to reduce number of endpointslice updates generated by pod changes. (#88745, @mborsz) [SIG API Machinery, Apps and Network]
- Scheduler Extenders can now be configured in the v1alpha2 component config (#88768, @damemi) [SIG Release, Scheduling and Testing]
- The apiserver/v1alph1 #EgressSelectorConfiguration API is now beta. (#88502, @caesarxuchao) [SIG API Machinery]
- The storage.k8s.io/CSIDriver has moved to GA, and is now available for use. (#84814, @huffmanca) [SIG API Machinery, Apps, Auth, Node, Scheduling, Storage and Testing]
- VolumePVCDataSource moves to GA in 1.18 release (#88686, @j-griffith) [SIG Apps, CLI and Cluster Lifecycle]

Feature

- Add `rest_client_rate_limiter_duration_seconds` metric to component-base to track client side rate limiter latency in seconds. Broken down by verb and URL. (#88134, @jennybuckley) [SIG API Machinery, Cluster Lifecycle and Instrumentation]
- Allow user to specify resource using –filename flag when invoking kubectl exec (#88460, @soltysh) [SIG CLI and Testing]
- Apiserver add a new flag –goaway-chance which is the fraction of requests that will be closed gracefully(GOAWAY) to prevent HTTP/2 clients from getting stuck on a single apiserver. After the connection closed(received GOAWAY), the client's other in-flight requests won't be affected, and the client will reconnect. The flag min value is 0 (off), max is .02 (1/50 requests); .001 (1/1000) is a recommended starting point. Clusters with single apiservers, or which don't use a load balancer, should NOT enable this. (#88567, @answer1991) [SIG API Machinery]
- Azure: add support for single stack IPv6 (#88448, @aramase) [SIG Cloud Provider]
- DefaultConstraints can be specified for the PodTopologySpread plugin in the component config (#88671, @alculquicondor) [SIG Scheduling]
- Kubeadm: support Windows specific kubelet flags in kubeadm-flags.env (#88287, @gab-satchi) [SIG Cluster Lifecycle and Windows]
- Kubectl cluster-info dump changed to only display a message telling you the location where the output was written when the output is not standard output. (#88765, @brianpursley) [SIG CLI]
- Print NotReady when pod is not ready based on its conditions. (#88240, @soltysh) [SIG CLI]
- Scheduler Extender API is now located under k8s.io/kube-scheduler/extender (#88540, @damemi) [SIG Release, Scheduling and Testing]
- Signatures on scale client methods have been modified to accept

`context.Context` as a first argument. Signatures of Get, Update, and Patch methods have been updated to accept GetOptions, UpdateOptions and PatchOptions respectively. (#88599, @julianvmodesto) [SIG API Machinery, Apps, Autoscaling and CLI]
- Signatures on the dynamic client methods have been modified to accept `context.Context` as a first argument. Signatures of Delete and DeleteCollection methods now accept DeleteOptions by value instead of by reference. (#88906, @liggitt) [SIG API Machinery, Apps, CLI, Cluster Lifecycle, Storage and Testing]
- Signatures on the metadata client methods have been modified to accept `context.Context` as a first argument. Signatures of Delete and DeleteCollection methods now accept DeleteOptions by value instead of by reference. (#88910, @liggitt) [SIG API Machinery, Apps and Testing]
- Webhooks will have alpha support for network proxy (#85870, @Jefftree) [SIG API Machinery, Auth and Testing]
- When client certificate files are provided, reload files for new connections, and close connections when a certificate changes. (#79083, @jackkleeman) [SIG API Machinery, Auth, Node and Testing]
- When deleting objects using kubectl with the –force flag, you are no longer required to also specify –grace-period=0. (#87776, @brianpursley) [SIG CLI]
- `kubectl` now contains a `kubectl alpha debug` command. This command allows attaching an ephemeral container to a running pod for the purposes of debugging. (#88004, @verb) [SIG CLI]

Documentation

- Update Japanese translation for kubectl help (#86837, @inductor) [SIG CLI and Docs]
- `kubectl plugin` now prints a note how to install krew (#88577, @corneliusweig) [SIG CLI]

Other (Bug, Cleanup or Flake)

- Azure VMSS LoadBalancerBackendAddressPools updating has been improved with squential-sync + concurrent-async requests. (#88699, @feiskyer) [SIG Cloud Provider]
- AzureFile and CephFS use new Mount library that prevents logging of sensitive mount options. (#88684, @saad-ali) [SIG API Machinery, CLI, Cloud Provider, Cluster Lifecycle, Instrumentation and Storage]
- Build: Enable kube-cross image-building on K8s Infra (#88562, @justaugustus) [SIG Release and Testing]
- Client-go certificate manager rotation gained the ability to preserve optional intermediate chains accompanying issued certificates (#88744, @jackkleeman) [SIG API Machinery and Auth]

- Conformance image now depends on stretch-slim instead of debian-hyperkube-base as that image is being deprecated and removed. (#88702, @dims) [SIG Cluster Lifecycle, Release and Testing]
- Deprecate –generator flag from kubectl create commands (#88655, @soltysh) [SIG CLI]
- FIX: prevent apiserver from panicking when failing to load audit webhook config file (#88879, @JoshVanL) [SIG API Machinery and Auth]
- Fix /readyz to return error immediately after a shutdown is initiated, before the –shutdown-delay-duration has elapsed. (#88911, @tkashem) [SIG API Machinery]
- Fix a bug where kubenet fails to parse the tc output. (#83572, @chendotjs) [SIG Network]
- Fix describe ingress annotations not sorted. (#88394, @zhouya0) [SIG CLI]
- 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. (#83446, @Elias481) [SIG Cloud Provider]
- Fix kubectl create deployment image name (#86636, @zhouya0) [SIG CLI]
- Fix missing “apiVersion” for “involvedObject” in Events for Nodes. (#87537, @uthark) [SIG Apps and Node]
- Fix that prevents repeated fetching of PVC/PV objects by kubelet when processing of pod volumes fails. While this prevents hammering API server in these error scenarios, it means that some errors in processing volume(s) for a pod could now take up to 2-3 minutes before retry. (#88141, @tedyu) [SIG Node and Storage]
- Fix: azure file mount timeout issue (#88610, @andyzhangx) [SIG Cloud Provider and Storage]
- Fix: corrupted mount point in csi driver (#88569, @andyzhangx) [SIG Storage]
- Fixed a bug in the TopologyManager. Previously, the TopologyManager would only guarantee alignment if container creation was serialized in some way. Alignment is now guaranteed under all scenarios of container creation. (#87759, @klueska) [SIG Node]
- Fixed block CSI volume cleanup after timeouts. (#88660, @jsafrane) [SIG Node 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]

- For volumes that allow attaches across multiple nodes, attach and detach operations across different nodes are now executed in parallel. (#88678, @verult) [SIG Apps, Node and Storage]
- Hide kubectl.kubernetes.io/last-applied-configuration in describe command (#88758, @soltysh) [SIG Auth and CLI]
- In GKE alpha clusters it will be possible to use the service annotation `cloud.google.com/network-tier: Standard` (#88487, @zioproto) [SIG Cloud Provider]
- Kubelets perform fewer unnecessary pod status update operations on the API server. (#88591, @smarterclayton) [SIG Node and Scalability]
- Plugin/PluginConfig and Policy APIs are mutually exclusive when running the scheduler (#88864, @alculquicondor) [SIG Scheduling]
- Specifying PluginConfig for the same plugin more than once fails scheduler startup.

  Specifying extenders and configuring .ignoredResources for the NodeResourcesFit plugin fails (#88870, @alculquicondor) [SIG Scheduling]
- Support TLS Server Name overrides in kubeconfig file and via –tls-server-name in kubectl (#88769, @deads2k) [SIG API Machinery, Auth and CLI]
- 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]
- The EventRecorder from k8s.io/client-go/tools/events will now create events in the default namespace (instead of kube-system) when the related object does not have it set. (#88815, @enj) [SIG API Machinery]
- 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]
- Update to use golang 1.13.8 (#87648, @ialidzhikov) [SIG Release and Testing]
- Validate kube-proxy flags –ipvs-tcp-timeout, –ipvs-tcpfin-timeout, –ipvs-udp-timeout (#88657, @chendotjs) [SIG Network]

v1.18.0-beta.1

Documentation

Downloads for v1.18.0-beta.1

filename	sha512 hash
kubernetes.tar.gz	7c182ca905b3a31871c01ab5fdaf46f074547536c7975e069ff230af0d402df
kubernetes-src.tar.gz	d104b8c792b1517bd730787678c71c8ee3b259de81449192a49a1c6e37a6576

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	bc337bb8f200a789be4b97ce99b9d7be78d35ebd64746307c28339dc4628f56
kubernetes-client-darwin-amd64.tar.gz	38dfa5e0b0cfff39942c913a6bcb2ad8868ec43457d35cffba08217bb6e7531
kubernetes-client-linux-386.tar.gz	8e63ec7ce29c69241120c037372c6c779e3f16253eabd612c7cbe6aa89326f5
kubernetes-client-linux-amd64.tar.gz	c1be9f184a7c3f896a785c41cd6ece9d90d8cb9b1f6088bdfb5557d8856c55e
kubernetes-client-linux-arm.tar.gz	8eab02453cfd9e847632a774a0e0cf3a33c7619fb4ced7f1840e1f71444e871
kubernetes-client-linux-arm64.tar.gz	f7df0ec02d2e7e63278d5386e8153cfe2b691b864f17b6452cc824a5f328d68
kubernetes-client-linux-ppc64le.tar.gz	36dd5b10addca678a518e6d052c9d6edf473e3f87388a2f03f714c93c5fbfe9
kubernetes-client-linux-s390x.tar.gz	5bdbb44b996ab4ccf3a383780270f5cfdbf174982c300723c8bddf0a48ae5e4
kubernetes-client-windows-386.tar.gz	5dea3d4c4e91ef889850143b361974250e99a3c526f5efee23ff9ccdcd2ceca
kubernetes-client-windows-amd64.tar.gz	db298e698391368703e6aea7f4345aec5a4b8c69f9d8ff6c99fb5804a6cea16

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	c6284929dd5940e750b48db72ffbc09f73c5ec31ab3db283babb8e4e07cd8cb
kubernetes-server-linux-arm.tar.gz	6fc9552cf082c54cc0833b19876117c87ba7feb5a12c7e57f71b52208daf03e
kubernetes-server-linux-arm64.tar.gz	b794b9c399e548949b5bfb2fe71123e86c2034847b2c99aca34b6de718a3535
kubernetes-server-linux-ppc64le.tar.gz	fddaed7a54f97046a91c29534645811c6346e973e22950b2607b8c119c2377e
kubernetes-server-linux-s390x.tar.gz	65951a534bb55069c7419f41cbcdfe2fae31541d8a3f9eca11fc2489addf281

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`992059efb5cae7ed0ef55820368d854bad1c6d13a70366162cd3b5111ce24c3`
kubernetes-node-linux-arm.tar.gz	`c63ae0f8add5821ad267774314b8c8c1ffe3b785872bf278e721fd5dfdad1a5`
kubernetes-node-linux-arm64.tar.gz	`47adb9ddf6eaf8f475b89f59ee16fbd5df183149a11ad1574eaa645b47a6d58`
kubernetes-node-linux-ppc64le.tar.gz	`a3bc4a165567c7b76a3e45ab7b102d6eb3ecf373eb048173f921a4964cf9be8`
kubernetes-node-linux-s390x.tar.gz	`109ddf37c748f69584c829db57107c3518defe005c11fcd2a1471845c15aae0`
kubernetes-node-windows-amd64.tar.gz	`a3a75d2696ad3136476ad7d811e8eabaff5111b90e592695e651d6111f819eb`

Changelog since v1.18.0-beta.0

Urgent Upgrade Notes

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

- The StreamingProxyRedirects feature and `--redirect-container-streaming` flag are deprecated, and will be removed in a future release. The default behavior (proxy streaming requests through the kubelet) will be the only supported option. If you are setting `--redirect-container-streaming=true`, then you must migrate off this configuration. The flag will no longer be able to be enabled starting in v1.20. If you are not setting the flag, no action is necessary. (#88290, @tallclair) [SIG API Machinery and Node]

- Feature Name: Support using network resources (VNet, LB, IP, etc.) in different AAD Tenant and Subscription than those for the cluster.

  Changes in Pull Request:

  1. Add properties `networkResourceTenantID` and `networkResourceSubscriptionID` in cloud provider auth config section, which indicates the location of network resources.
  2. Add function `GetMultiTenantServicePrincipalToken` to fetch multi-tenant service principal token, which will be used by Azure VM/VMSS Clients in this feature.
  3. Add function `GetNetworkResourceServicePrincipalToken` to fetch network resource service principal token, which will be used by Azure Network Resource (Load Balancer, Public IP, Route Table, Network Security Group and their sub level resources) Clients in this feature.
  4. Related unit tests.

User Documentation: In PR https://github.com/kubernetes-sigs/cloud-provider-azure/pull/301 (#88384, @bowen5) [SIG Cloud Provider]

Changes by Kind

Deprecation

- Azure service annotation service.beta.kubernetes.io/azure-load-balancer-disable-tcp-reset has been deprecated. Its support would be removed in a future release. (#88462, @feiskyer) [SIG Cloud Provider]

API Change

- API additions to apiserver types (#87179, @Jefftree) [SIG API Machinery, Cloud Provider and Cluster Lifecycle]
- Add Scheduling Profiles to kubescheduler.config.k8s.io/v1alpha2 (#88087, @alculquicondor) [SIG Scheduling and Testing]
- Added support for multiple sizes huge pages on a container level (#84051, @bart0sh) [SIG Apps, Node and Storage]
- AppProtocol is a new field on Service and Endpoints resources, enabled with the ServiceAppProtocol feature gate. (#88503, @robscott) [SIG Apps and Network]
- Fixed missing validation of uniqueness of list items in lists with `x-kubernetes-list-type: map` or `x-kubernetes-list-type: set` in CustomResources. (#84920, @sttts) [SIG API Machinery]
- Introduces optional –detect-local flag to kube-proxy. Currently the only supported value is "cluster-cidr", which is the default if not specified. (#87748, @satyasm) [SIG Cluster Lifecycle, Network and Scheduling]
- Kube-scheduler can run more than one scheduling profile. Given a pod, the profile is selected by using its `.spec.SchedulerName`. (#88285, @alculquicondor) [SIG Apps, Scheduling and Testing]
- Moving Windows RunAsUserName feature to GA (#87790, @marosset) [SIG Apps and Windows]

Feature

- Add –dry-run to kubectl delete, taint, replace (#88292, @julianvmodesto) [SIG CLI and Testing]
- Add huge page stats to Allocated resources in "kubectl describe node" (#80605, @odinuge) [SIG CLI]
- Kubeadm: The ClusterStatus struct present in the kubeadm-config ConfigMap is deprecated and will be removed on a future version. It is going to be maintained by kubeadm until it gets removed. The same information can be found on `etcd` and `kube-apiserver` pod annotations, `kubeadm.kubernetes.io/etcd.advertise-client-urls` and `kubeadm.kubernetes.io/kube-apiserver.advertise-address.endpoint` respectively. (#87656, @ereslibre) [SIG Cluster Lifecycle]

- Kubeadm: add the experimental feature gate PublicKeysECDSA that can be used to create a cluster with ECDSA certificates from "kubeadm init". Renewal of existing ECDSA certificates is also supported using "kubeadm alpha certs renew", but not switching between the RSA and ECDSA algorithms on the fly or during upgrades. (#86953, @rojkov) [SIG API Machinery, Auth and Cluster Lifecycle]
- Kubeadm: on kubeconfig certificate renewal, keep the embedded CA in sync with the one on disk (#88052, @neolit123) [SIG Cluster Lifecycle]
- Kubeadm: upgrade supports fallback to the nearest known etcd version if an unknown k8s version is passed (#88373, @SataQiu) [SIG Cluster Lifecycle]
- New flag `--show-hidden-metrics-for-version` in kube-scheduler can be used to show all hidden metrics that deprecated in the previous minor release. (#84913, @serathius) [SIG Instrumentation and Scheduling]
- Scheduler framework permit plugins now run at the end of the scheduling cycle, after reserve plugins. Waiting on permit will remain in the beginning of the binding cycle. (#88199, @mateuszlitwin) [SIG Scheduling]
- The kubelet and the default docker runtime now support running ephemeral containers in the Linux process namespace of a target container. Other container runtimes must implement this feature before it will be available in that runtime. (#84731, @verb) [SIG Node]

Other (Bug, Cleanup or Flake)

- Add delays between goroutines for vm instance update (#88094, @aramase) [SIG Cloud Provider]
- Add init containers log to cluster dump info. (#88324, @zhouya0) [SIG CLI]
- CPU limits are now respected for Windows containers. If a node is over-provisioned, no weighting is used - only limits are respected. (#86101, @PatrickLang) [SIG Node, Testing and Windows]
- Cloud provider config CloudProviderBackoffMode has been removed since it won't be used anymore. (#88463, @feiskyer) [SIG Cloud Provider]
- Evictions due to pods breaching their ephemeral storage limits are now recorded by the `kubelet_evictions` metric and can be alerted on. (#87906, @smarterclayton) [SIG Node]
- Fix: add remediation in azure disk attach/detach (#88444, @andyzhangx) [SIG Cloud Provider]
- Fix: check disk status before disk azure disk (#88360, @andyzhangx) [SIG Cloud Provider]
- Fixed cleaning of CSI raw block volumes. (#87978, @jsafrane) [SIG Storage]
- 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]
- Kubeadm now includes CoreDNS version 1.6.7 (#86260, @rajansandeep) [SIG Cluster Lifecycle]
- Kubeadm: fix the bug that 'kubeadm upgrade' hangs in single node cluster (#88434, @SataQiu) [SIG Cluster Lifecycle]
- Optimize kubectl version help info (#88313, @zhouya0) [SIG CLI]
- Removes the deprecated command `kubectl rolling-update` (#88057, @julianvmodesto) [SIG Architecture, CLI and Testing]

v1.18.0-alpha.5

Documentation

Downloads for v1.18.0-alpha.5

filename	sha512 hash
kubernetes.tar.gz	`6452cac2b80721e9f577cb117c29b9ac6858812b4275c2becbf74312566f7d0`
kubernetes-src.tar.gz	`e41d9d4dd6910a42990051fcdca4bf5d3999df46375abd27ffc56aae9b455ae`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`5c95935863492b31d4aaa6be93260088dafea27663eb91edca980ca3a84853`
kubernetes-client-darwin-amd64.tar.gz	`868faa578b3738604d8be62fae599ccc556799f1ce54807f1fe72599f20f8a`
kubernetes-client-linux-386.tar.gz	`76a89d1d30b476b47f8fb808e342f89608e5c1c1787c4c06f2d7e763f9482e`
kubernetes-client-linux-amd64.tar.gz	`07ad96a09b44d1c707d7c68312c5d69b101a3424bf1e6e9400b2e7a3fba78d`
kubernetes-client-linux-arm.tar.gz	`c04fed9fa370a75c1b8e18b2be0821943bb9befcc784d14762ea3278e73600`
kubernetes-client-linux-arm64.tar.gz	`4199147dea9954333df26d34248a1cb7b02ebbd6380ffcd42d9f9ed5fdabae`
kubernetes-client-linux-ppc64le.tar.gz	`4f6d4d61d1c52d3253ca19031ebcd4bad06d19b68bbaaab5c8e8c590774fae`
kubernetes-client-linux-s390x.tar.gz	`e2a454151ae5dd891230fb516a3f73f73ab97832db66fd3d12e7f1657a569f`
kubernetes-client-windows-386.tar.gz	`14b262ba3b71c41f545db2a017cf1746075ada5745a858d2a62bc9df7c5dc1`

filename	sha512 hash
kubernetes-client-windows-amd64.tar.gz	`26353c294755a917216664364b524982b7f5fc6aa832ce90134bb178df8a786`

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	`ba77e0e7c610f59647c1b2601f82752964a0f54b7ad609a89b00fcfd553d0f0`
kubernetes-server-linux-arm.tar.gz	`45e87b3e844ea26958b0b489e8c9b90900a3253000850f5ff9e87ffdcafba72`
kubernetes-server-linux-arm64.tar.gz	`155e136e3124ead69c594eead3398d6cfdbb8f823c324880e8a7bbd1b570b05`
kubernetes-server-linux-ppc64le.tar.gz	`3fa0fb8221da19ad9d03278961172b7fa29a618b30abfa55e7243bb937dede8`
kubernetes-server-linux-s390x.tar.gz	`db3199c3d7ba0b326d71dc8b80f50b195e79e662f71386a3b2976d47d13d7b0`

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`addcdfbad7f12647e6babb8eadf853a374605c8f18bf63f416fa4d3bf1b903a`
kubernetes-node-linux-arm.tar.gz	`b2ac54e0396e153523d116a2aaa32c919d6243931e0104cd47a23f546d710e7`
kubernetes-node-linux-arm64.tar.gz	`7aab36f2735cba805e4fd109831a1af0f586a88db3f07581b6dc2a2aab90076`
kubernetes-node-linux-ppc64le.tar.gz	`a579936f07ebf86f69f297ac50ba4c34caf2c0b903f73190eb581c78382b05e`
kubernetes-node-linux-s390x.tar.gz	`58fa0359ddd48835192fab1136a2b9b45d1927b04411502c269cda07cb8a810`
kubernetes-node-windows-amd64.tar.gz	`9086c03cd92b440686cea6d8c4e48045cc46a43ab92ae0e70350b3f51804b9e`

Changelog since v1.18.0-alpha.3

Deprecation

- Kubeadm: command line option "kubelet-version" for `kubeadm upgrade node` has been deprecated and will be removed in a future release. (#87942, @SataQiu) [SIG Cluster Lifecycle]

API Change

- Kubelet podresources API now provides the information about active pods only. (#79409, @takmatsu) [SIG Node]
- Remove deprecated fields from .leaderElection in kubescheduler.config.k8s.io/v1alpha2 (#87904, @alculquicondor) [SIG Scheduling]
- Signatures on generated clientset methods have been modified to accept `context.Context` as a first argument. Signatures of generated Create, Update, and Patch methods have been updated to accept CreateOptions, UpdateOptions and PatchOptions respectively. Clientsets that with the previous interface have been added in new "deprecated" packages to allow incremental migration to the new APIs. The deprecated packages will be removed in the 1.21 release. (#87299, @mikedanese) [SIG API Machinery, Apps, Auth, Autoscaling, CLI, Cloud Provider, Cluster Lifecycle, Instrumentation, Network, Node, Scheduling, Storage, Testing and Windows]
- The k8s.io/node-api component is no longer updated. Instead, use the RuntimeClass types located within k8s.io/api, and the generated clients located within k8s.io/client-go (#87503, @liggitt) [SIG Node and Release]

Feature

- Add indexer for storage cacher (#85445, @shaloulcy) [SIG API Machinery]
- Add support for mount options to the FC volume plugin (#87499, @ejweber) [SIG Storage]
- Added a config-mode flag in azure auth module to enable getting AAD token without spn: prefix in audience claim. When it's not specified, the default behavior doesn't change. (#87630, @weinong) [SIG API Machinery, Auth, CLI and Cloud Provider]
- Introduced BackoffManager interface for backoff management (#87829, @zhan849) [SIG API Machinery]
- PodTopologySpread plugin now excludes terminatingPods when making scheduling decisions. (#87845, @Huang-Wei) [SIG Scheduling]
- Promote CSIMigrationOpenStack to Beta (off by default since it requires installation of the OpenStack Cinder CSI Driver) The in-tree AWS OpenStack Cinder "kubernetes.io/cinder" was already deprecated a while ago and will be removed in 1.20. Users should enable CSIMigration + CSIMigrationOpenStack features and install the OpenStack Cinder CSI Driver (https://github.com/kubernetes/cloud-provider-openstack) to avoid disruption to existing Pod and PVC objects at that time. Users should start using the OpenStack Cinder CSI Driver directly for any new volumes. (#85637, @dims) [SIG Cloud Provider]

Design

- The scheduler Permit extension point doesn't return a boolean value in its Allow() and Reject() functions. (#87936, @Huang-Wei) [SIG Scheduling]

Other (Bug, Cleanup or Flake)

- 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]
- Fix a bug in the dual-stack IPVS proxier where stale IPv6 endpoints were not being cleaned up (#87695, @andrewsykim) [SIG Network]
- Fix kubectl drain ignore daemonsets and others. (#87361, @zhouya0) [SIG CLI]
- Fix: add azure disk migration support for CSINode (#88014, @andyzhangx) [SIG Cloud Provider and Storage]
- Fix: add non-retriable errors in azure clients (#87941, @andyzhangx) [SIG Cloud Provider]
- Fixed NetworkPolicy validation that Except values are accepted when they are outside the CIDR range. (#86578, @tnqn) [SIG Network]
- Improves performance of the node authorizer (#87696, @liggitt) [SIG Auth]
- Iptables/userspace proxy: improve performance by getting local addresses only once per sync loop, instead of for every external IP (#85617, @andrewsykim) [SIG API Machinery, CLI, Cloud Provider, Cluster Lifecycle, Instrumentation and Network]
- Kube-aggregator: always sets unavailableGauge metric to reflect the current state of a service. (#87778, @p0lyn0mial) [SIG API Machinery]
- Kubeadm allows to configure single-stack clusters if dual-stack is enabled (#87453, @aojea) [SIG API Machinery, Cluster Lifecycle and Network]
- Kubeadm: 'kubeadm alpha kubelet config download' has been removed, please use 'kubeadm upgrade node phase kubelet-config' instead (#87944, @SataQiu) [SIG Cluster Lifecycle]
- Kubeadm: remove 'kubeadm upgrade node config' command since it was deprecated in v1.15, please use 'kubeadm upgrade node phase kubelet-config' instead (#87975, @SataQiu) [SIG Cluster Lifecycle]
- Kubectl describe and kubectl top pod will return a message saying "No resources found" or "No resources found in namespace" if there are no results to display. (#87527, @brianpursley) [SIG CLI]
- 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]
- Kubelet metrics have been changed to buckets. For example the exec/{podNamespace}/{podID}/{containerName} is now just exec. (#87913, @cheftako) [SIG Node]
- Limit number of instances in a single update to GCE target pool to 1000. (#87881, @wojtek-t) [SIG Cloud Provider, Network and Scalability]
- Make Azure clients only retry on specified HTTP status codes (#88017, @feiskyer) [SIG Cloud Provider]
- Pause image contains "Architecture" in non-amd64 images (#87954, @Ben-

TheElder) [SIG Release]
- Pods that are considered for preemption and haven't started don't produce an error log. (#87900, @alculquicondor) [SIG Scheduling]
- Prevent error message from being displayed when running kubectl plugin list and your path includes an empty string (#87633, @brianpursley) [SIG CLI]
- `kubectl create clusterrolebinding` creates rbac.authorization.k8s.io/v1 object (#85889, @oke-py) [SIG CLI]

v1.18.0-alpha.4

Documentation

Important note about manual tag

Due to a tagging bug in our Release Engineering tooling during `v1.18.0-alpha.3`, we needed to push a manual tag (`v1.18.0-alpha.4`).

No binaries have been produced or will be provided for `v1.18.0-alpha.4`.

The changelog for `v1.18.0-alpha.4` is included as part of the [changelog since v1.18.0-alpha.3][#changelog-since-v1180-alpha3] section.

v1.18.0-alpha.3

Documentation

Downloads for v1.18.0-alpha.3

filename	sha512 hash
kubernetes.tar.gz	`60bf3bfc23b428f53fd853bac18a4a905b980fcc0bacd35ccd6357a89cfc26e`
kubernetes-src.tar.gz	`8adf1016565a7c93713ab6fa4293c2d13b4f6e4e1ec4dcba60bd71e218b4dbe`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`abb32e894e8280c772e96227b574da81cd1eac374b8d29158b7f222ed550087`
kubernetes-client-darwin-amd64.tar.gz	`5e4b1a993264e256ec1656305de7c306094cae9781af8f1382df4ce4eed48ce`
kubernetes-client-linux-386.tar.gz	`68da39c2ae101d2b38f6137ceda07eb0c2124794982a62ef483245dbffb0611`

filename	sha512 hash
kubernetes-client-linux-amd64.tar.gz	`dc236ffa8ad426620e50181419e9bebe3c161e953dbfb8a019f61b11286e1eb`
kubernetes-client-linux-arm.tar.gz	`ab0a8bd6dc31ea160b731593cdc490b3cc03668b1141cf95310bd7060dcaf55`
kubernetes-client-linux-arm64.tar.gz	`159ea083c601710d0d6aea423eeb346c99ffaf2abd137d35a53e87a07f5caf1`
kubernetes-client-linux-ppc64le.tar.gz	`16b0459adfa26575d13be49ab53ac7f0ffd05e184e4e13d2dfbfe725d46bb8a`
kubernetes-client-linux-s390x.tar.gz	`d5aa1f5d89168995d2797eb839a04ce32560f405b38c1c0baaa0e313e4771ae`
kubernetes-client-windows-386.tar.gz	`374e16a1e52009be88c94786f80174d82dff66399bf294c9bee18a2159c4225`
kubernetes-client-windows-amd64.tar.gz	`5a94c1068c19271f810b994adad8e62fae03b3d4473c7c9e6d056995ff7757e`

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	`a677bec81f0eba75114b92ff955bac74512b47e53959d56a685dae5edd52728`
kubernetes-server-linux-arm.tar.gz	`2fb696f86ff13ebeb5f3cf2b254bf41303644c5ea84a292782eac6123550702`
kubernetes-server-linux-arm64.tar.gz	`738e95da9cfb8f1309479078098de1c38cef5e1dd5ee1129b77651a936a412b`
kubernetes-server-linux-ppc64le.tar.gz	`7a85bfcbb2aa636df60c41879e96e788742ecd72040cb0db2a93418439c1252`
kubernetes-server-linux-s390x.tar.gz	`1f1cdb2efa3e7cac857203d8845df2fdaa5cf1f20df764effff29371945ec5`

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`4ccfced3f5ba4adfa58f4a9d1b2c5bdb3e89f9203ab0e27d11eb1c325ac323e`
kubernetes-node-linux-arm.tar.gz	`d695a69d18449062e4c129e54ec8384c573955f8108f4b78adc2ec929719f21`
kubernetes-node-linux-arm64.tar.gz	`21df1da88c89000abc22f97e482c3aaa5ce53ec9628d83dda2e04a1d86c4d53`
kubernetes-node-linux-ppc64le.tar.gz	`ff77e3aacb6ed9d89baed92ef542c8b5cec83151b6421948583cf608bca3b77`

filename	sha512 hash
kubernetes-node-linux-s390x.tar.gz	`57d75b7977ec1a0f6e7ed96a304dbb3b8664910f42ca19aab319a9ec33535f`
kubernetes-node-windows-amd64.tar.gz	`63fdbb71773cfd73a914c498e69bb9eea3fc314366c99ffb8bd42ec5b4dae8`

Changelog since v1.18.0-alpha.2

Deprecation

- Remove all the generators from kubectl run. It will now only create pods. Additionally, deprecates all the flags that are not relevant anymore. (#87077, @soltysh) [SIG Architecture, SIG CLI, and SIG Testing]
- kubeadm: kube-dns is deprecated and will not be supported in a future version (#86574, @SataQiu) [SIG Cluster Lifecycle]

API Change

- Add kubescheduler.config.k8s.io/v1alpha2 (#87628, @alculquicondor) [SIG Scheduling]
- –enable-cadvisor-json-endpoints is now disabled by default. If you need access to the cAdvisor v1 Json API please enable it explicitly in the kubelet command line. Please note that this flag was deprecated in 1.15 and will be removed in 1.19. (#87440, @dims) [SIG Instrumentation, SIG Node, and SIG Testing]
- The following feature gates are removed, because the associated features were unconditionally enabled in previous releases: CustomResourceValidation, CustomResourceSubresources, CustomResourceWebhookConversion, CustomResourcePublishOpenAPI, CustomResourceDefaulting (#87475, @liggitt) [SIG API Machinery]

Feature

- The aggregation API will have alpha support for network proxy (#87515, @Sh4d1) [SIG API Machinery]
- API request throttling (due to a high rate of requests) is now reported in client-go logs at log level 2. The messages are of the form

  Throttling request took 1.50705208s, request: GET:<URL>

  The presence of these messages, may indicate to the administrator the need to tune the cluster accordingly. (#87740, @jennybuckley) [SIG API Machinery]
- kubeadm: reject a node joining the cluster if a node with the same name already exists (#81056, @neolit123) [SIG Cluster Lifecycle]

- disableAvailabilitySetNodes is added to avoid VM list for VMSS clusters. It should only be used when vmType is "vmss" and all the nodes (including masters) are VMSS virtual machines. (#87685, @feiskyer) [SIG Cloud Provider]
- The kubectl –dry-run flag now accepts the values 'client', 'server', and 'none', to support client-side and server-side dry-run strategies. The boolean and unset values for the –dry-run flag are deprecated and a value will be required in a future version. (#87580, @julianvmodesto) [SIG CLI]
- Add support for pre-allocated hugepages for more than one page size (#82820, @odinuge) [SIG Apps]
- Update CNI version to v0.8.5 (#78819, @justaugustus) [SIG API Machinery, SIG Cluster Lifecycle, SIG Network, SIG Release, and SIG Testing]
- Skip default spreading scoring plugin for pods that define TopologySpreadConstraints (#87566, @skilxn-go) [SIG Scheduling]
- Added more details to taint toleration errors (#87250, @starizard) [SIG Apps, and SIG Scheduling]
- Scheduler: Add DefaultBinder plugin (#87430, @alculquicondor) [SIG Scheduling, and SIG Testing]
- Kube-apiserver metrics will now include request counts, latencies, and response sizes for /healthz, /livez, and /readyz requests. (#83598, @jktomer) [SIG API Machinery]

Other (Bug, Cleanup or Flake)

- Fix the masters rolling upgrade causing thundering herd of LISTs on etcd leading to control plane unavailability. (#86430, @wojtek-t) [SIG API Machinery, SIG Node, and SIG Testing]
- `kubectl diff` now returns 1 only on diff finding changes, and >1 on kubectl errors. The "exit status code 1" message as also been muted. (#87437, @apelisse) [SIG CLI, and SIG Testing]
- To reduce chances of throttling, VM cache is set to nil when Azure node provisioning state is deleting (#87635, @feiskyer) [SIG Cloud Provider]
- Fix regression in statefulset conversion which prevented applying a statefulset multiple times. (#87706, @liggitt) [SIG Apps, and SIG Testing]
- fixed two scheduler metrics (pending_pods and schedule_attempts_total) not being recorded (#87692, @everpeace) [SIG Scheduling]
- Resolved a performance issue in the node authorizer index maintenance. (#87693, @liggitt) [SIG Auth]
- Removed the 'client' label from apiserver_request_total. (#87669, @logicalhan) [SIG API Machinery, and SIG Instrumentation]
- `(*"k8s.io/client-go/rest".Request).{Do,DoRaw,Stream,Watch}` now require callers to pass a `context.Context` as an argument. The

context is used for timeout and cancellation signaling and to pass supplementary information to round trippers in the wrapped transport chain. If you don't need any of this functionality, it is sufficient to pass a context created with `context.Background()` to these functions. The `(*"k8s.io/client-go/rest".Request).Context` method is removed now that all methods that execute a request accept a context directly. (#87597, @mikedanese) [SIG API Machinery, SIG Apps, SIG Auth, SIG Autoscaling, SIG CLI, SIG Cloud Provider, SIG Cluster Lifecycle, SIG Instrumentation, SIG Network, SIG Node, SIG Scheduling, SIG Storage, and SIG Testing]
- For volumes that allow attaches across multiple nodes, attach and detach operations across different nodes are now executed in parallel. (#87258, @verult) [SIG Apps, SIG Node, and SIG Storage]
- 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]
- Reverted a kubectl 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, SIG Auth, and SIG Cloud Provider]
- Update cri-tools to v1.17.0 (#86305, @saschagrunert) [SIG Cluster Lifecycle, and SIG Release]
- kubeadm: remove the deprecated CoreDNS feature-gate. It was set to "true" since v1.11 when the feature went GA. In v1.13 it was marked as deprecated and hidden from the CLI. (#87400, @neolit123) [SIG Cluster Lifecycle]
- Shared informers are now more reliable in the face of network disruption. (#86015, @squeed) [SIG API Machinery]
- the CSR signing cert/key pairs will be reloaded from disk like the kube-apiserver cert/key pairs (#86816, @deads2k) [SIG API Machinery, SIG Apps, and SIG Auth]
- "kubectl describe statefulsets.apps" prints garbage for rolling update partition (#85846, @phil9909) [SIG CLI]

v1.18.0-alpha.2

Documentation

Downloads for v1.18.0-alpha.2

filename	sha512 hash
kubernetes.tar.gz	`7af83386b4b35353f0aa1bdaf73599eb08b1d1ca11ecc2c606854aff754db69`

filename	sha512 hash
kubernetes-src.tar.gz	a14b02a0a0bde97795a836a8f5897b0ee6b43e010e13e43dd4cca80a5b962a1

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	427f214d47ded44519007de2ae87160c56c2920358130e474b768299751a9af
kubernetes-client-darwin-amd64.tar.gz	861fd81ac3bd45765575bedf5e002a2294aba48ef9e15980fc7d6783985f7d7
kubernetes-client-linux-386.tar.gz	7d59b05d6247e2606a8321c72cd239713373d876dbb43b0fb7f1cb857fa6c99
kubernetes-client-linux-amd64.tar.gz	7cdefb4e32bad9d2df5bb8e7e0a6f4dab2ae6b7afef5d801ac5c342d4effdea
kubernetes-client-linux-arm.tar.gz	6212bbf0fa1d01ced77dcca2c4b76b73956cd3c6b70e0701c1fe0df5ff3716(
kubernetes-client-linux-arm64.tar.gz	1f0d9990700510165ee471acb2f88222f1b80e8f6deb351ce14cf50a70a9840
kubernetes-client-linux-ppc64le.tar.gz	77e00ba12a32db81e96f8de84609de93f32c61bb3f53875a57496d213aa6d1b
kubernetes-client-linux-s390x.tar.gz	a39ec2044bed5a4570e9c83068e0fc0ce923ccffa44380f8bbc3247426beaf1
kubernetes-client-windows-386.tar.gz	1a0ab88f9b7e34b60ab31d5538e97202a256ad8b7b7ed5070cae5f2f12d5d4e
kubernetes-client-windows-amd64.tar.gz	1966eb5dfb78c1bc33aaa6389f32512e3aa92584250a0164182f3566c81d901

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	f814d6a3872e4572aa4da297c29def4c1fad8eba0903946780b6bf9788c72b9
kubernetes-server-linux-arm.tar.gz	56aa08225e546c92c2ff88ac57d3db7dd5e63640772ea72a429f080f706982(
kubernetes-server-linux-arm64.tar.gz	fb87128d905211ba097aa860244a376575ae2edbaca6e51402a24bc2964854b
kubernetes-server-linux-ppc64le.tar.gz	6d21fbf39b9d3a0df9642407d6f698fabdc809aca83af197bceb58a81b25846
kubernetes-server-linux-s390x.tar.gz	ddcda4dc360ca97705f71bf2a18ddacd7b7ddf77535b62e699e97a1b2dd2484

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`78915a9bde35c70c67014f0cea8754849db4f6a84491a3ad9678fd3bc0203e4`
kubernetes-node-linux-arm.tar.gz	`3218e811abcb0cb09d80742def339be3916db5e9bbc62c0dc8e6d87085f7e3c`
kubernetes-node-linux-arm64.tar.gz	`fa22de9c4440b8fb27f4e77a5a63c5e1c8aa8aa30bb79eda843b0f40498c21b`
kubernetes-node-linux-ppc64le.tar.gz	`bbda9b5cc66e8f13d235703b2a85e2c4f02fa16af047be4d27a3e198e11eb11`
kubernetes-node-linux-s390x.tar.gz	`b2ed1eda013069adce2aac00b86d75b84e006cfce9bafac0b5a2bafcb60f8f2`
kubernetes-node-windows-amd64.tar.gz	`bd8eb23dba711f31b5148257076b1bbe9629f2a75de213b2c779bd5b29279e9`

Changelog since v1.18.0-alpha.1

Other notable changes

- Bump golang/mock version to v1.3.1 (#87326, @wawa0210)
- fix a bug that orphan revision cannot be adopted and statefulset cannot be synced (#86801, @likakuli)
- Azure storage clients now suppress requests on throttling (#87306, @feiskyer)
- Introduce Alpha field `Immutable` in both Secret and ConfigMap objects to mark their contents as immutable. The implementation is hidden behind feature gate `ImmutableEphemeralVolumes` (currently in Alpha stage). (#86377, @wojtek-t)
- EndpointSlices will now be enabled by default. A new `EndpointSliceProxying` feature gate determines if kube-proxy will use EndpointSlices, this is disabled by default. (#86137, @robscott)
- kubeadm upgrades always persist the etcd backup for stacked (#86861, @SataQiu)
- Fix the bug PIP's DNS is deleted if no DNS label service annotation isn't set. (#87246, @nilo19)
- New flag `--show-hidden-metrics-for-version` in kube-controller-manager can be used to show all hidden metrics that deprecated in the previous minor release. (#85281, @RainbowMango)
- Azure network and VM clients now suppress requests on throttling (#87122, @feiskyer)
- `kubectl apply -f <file> --prune -n <namespace>` should prune all resources not defined in the file in the cli specified namespace. (#85613, @MartinKaburu)

- Fixes service account token admission error in clusters that do not run the service account token controller (#87029, @liggitt)
- CustomResourceDefinition status fields are no longer required for client validation when submitting manifests. (#87213, @hasheddan)
- All apiservers log request lines in a more greppable format. (#87203, @lavalamp)
- provider/azure: Network security groups can now be in a separate resource group. (#87035, @CecileRobertMichon)
- Cleaned up the output from `kubectl describe CSINode <name>`. (#85283, @huffmanca)
- Fixed the following (#84265, @bhagwat070919)
  - 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
- kubelet: resource metrics endpoint `/metrics/resource/v1alpha1` as well as all metrics under this endpoint have been deprecated. (#86282, @RainbowMango) Please convert to the following metrics emitted by endpoint `/metrics/resource`:
  - scrape_error –> scrape_error
  - node_cpu_usage_seconds_total –> node_cpu_usage_seconds
  - node_memory_working_set_bytes –> node_memory_working_set_bytes
  - container_cpu_usage_seconds_total –> container_cpu_usage_seconds
  - container_memory_working_set_bytes –> container_memory_working_set_bytes
  - scrape_error –> scrape_error
- You can now pass "–node-ip ::" to kubelet to indicate that it should autodetect an IPv6 address to use as the node's primary address. (#85850, @danwinship)
- kubeadm: support automatic retry after failing to pull image (#86899, @SataQiu)
- TODO (#87044, @jennybuckley)
- Improved yaml parsing performance (#85458, @cjcullen)
- 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)
- fix a regression in kubenet that prevent pods to obtain ip addresses (#85993, @chendotjs)
- Bind kube-dns containers to linux nodes to avoid Windows scheduling (#83358, @wawa0210)
- The following features are unconditionally enabled and the corresponding `--feature-gates` flags have been removed: `PodPriority`, `TaintNodesByCondition`, `ResourceQuotaScopeSelectors` and `ScheduleDaemonSetPods` (#86210, @draveness)
- Bind dns-horizontal containers to linux nodes to avoid Windows scheduling on kubernetes cluster includes linux nodes and windows nodes (#83364,

@wawa0210)
- fix kubectl annotate error when local=true is set (#86952, @zhouya0)
- Bug fixes: (#84163, @david-tigera)
  - Make sure we include latest packages node #351 (@caseydavenport)
- fix kuebctl apply set-last-applied namespaces error (#86474, @zhouya0)
- Add VolumeBinder method to FrameworkHandle interface, which allows user to get the volume binder when implementing scheduler framework plugins. (#86940, @skilxn-go)
- elasticsearch supports automatically setting the advertise address (#85944, @SataQiu)
- If a serving certificates param specifies a name that is an IP for an SNI certificate, it will have priority for replying to server connections. (#85308, @deads2k)
- kube-proxy: Added dual-stack IPv4/IPv6 support to the iptables proxier. (#82462, @vllry)
- Azure VMSS/VMSSVM clients now suppress requests on throttling (#86740, @feiskyer)
- New metric kubelet_pleg_last_seen_seconds to aid diagnosis of PLEG not healthy issues. (#86251, @bboreham)
- For subprotocol negotiation, both client and server protocol is required now. (#86646, @tedyu)
- kubeadm: use bind-address option to configure the kube-controller-manager and kube-scheduler http probes (#86493, @aojea)
- Marked scheduler's metrics scheduling_algorithm_predicate_evaluation_seconds and (#86584, @xiaoanyunfei)
  - scheduling_algorithm_priority_evaluation_seconds as deprecated. Those are replaced by framework_extension_point_duration_seconds[extenstion_point="Filter"] and framework_extension_point_duration_seconds[extenstion_point="Score"] respectively.
- Marked scheduler's scheduling_duration_seconds Summary metric as deprecated (#86586, @xiaoanyunfei)
- Add instructions about how to bring up e2e test cluster (#85836, @YangLu1031)
- If a required flag is not provided to a command, the user will only see the required flag error message, instead of the entire usage menu. (#86693, @sallyom)
- kubeadm: tolerate whitespace when validating certificate authority PEM data in kubeconfig files (#86705, @neolit123)
- kubeadm: add support for the "ci/k8s-master" version label as a replacement for "ci-cross/*", which no longer exists. (#86609, @Pensu)
- Fix EndpointSlice controller race condition and ensure that it handles external changes to EndpointSlices. (#85703, @robscott)
- Fix nil pointer dereference in azure cloud provider (#85975, @ldx)
- fix: azure disk could not mounted on Standard_DC4s/DC2s instances (#86612, @andyzhangx)
- Fixes v1.17.0 regression in –service-cluster-ip-range handling with IPv4

ranges larger than 65536 IP addresses (#86534, @liggitt)
- Adds back support for AlwaysCheckAllPredicates flag. (#86496, @ahg-g)
- Azure global rate limit is switched to per-client. A set of new rate limit configure options are introduced, including routeRateLimit, SubnetsRateLimit, InterfaceRateLimit, RouteTableRateLimit, LoadBalancerRateLimit, PublicIPAddressRateLimit, SecurityGroupRateLimit, VirtualMachineRateLimit, StorageAccountRateLimit, DiskRateLimit, SnapshotRateLimit, VirtualMachineScaleSetRateLimit and VirtualMachineSizeRateLimit. (#86515, @feiskyer)
  - The original rate limit options would be default values for those new client's rate limiter.
- Fix issue #85805 about resource not found in azure cloud provider when lb specified in other resource group. (#86502, @levimm)
- `AlwaysCheckAllPredicates` is deprecated in scheduler Policy API. (#86369, @Huang-Wei)
- Kubernetes KMS provider for data encryption now supports disabling the in-memory data encryption key (DEK) cache by setting cachesize to a negative value. (#86294, @enj)
- option `preConfiguredBackendPoolLoadBalancerTypes` is added to azure cloud provider for the pre-configured load balancers, possible values: `""`, `"internal"`, `"external"`, `"all"` (#86338, @gossion)
- Promote StartupProbe to beta for 1.18 release (#83437, @matthyx)
- 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.
- change CounterVec to Counter about PLEGDiscardEvent (#86167, @yiyang5055)
- hollow-node do not use remote CRI anymore (#86425, @jkaniuk)
- hollow-node use fake CRI (#85879, @gongguan)

v1.18.0-alpha.1

Documentation

Downloads for v1.18.0-alpha.1

filename	sha512 hash
kubernetes.tar.gz	`0c4904efc7f4f1436119c91dc1b6c93b3bd9c7490362a394bff10099c18e1e7`
kubernetes-src.tar.gz	`0a50fc6816c730ca5ae4c4f26d5ad7b049607d29f6a782a4e5b4b05ac50e016`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	c6d75f7f3f20bef17fc7564a619b54e6f4a673d041b7c9ec93663763a1cc8dc
kubernetes-client-darwin-amd64.tar.gz	ca1f19db289933beace6daee6fc30af19b0e260634ef6e89f773464a05e2455
kubernetes-client-linux-386.tar.gz	af2e673653eb39c3f24a54efc68e1055f9258bdf6cf8fea42faf42c05abefc2
kubernetes-client-linux-amd64.tar.gz	9009032c3f94ac8a78c1322a28e16644ce3b20989eb762685a1819148aed6e8
kubernetes-client-linux-arm.tar.gz	afba9595b37a3f2eead6e3418573f7ce093b55467dce4da0b8de860028576b9
kubernetes-client-linux-arm64.tar.gz	04fc3b2fe3f271807f0bc6c61be52456f26a1af904964400be819b7914519ec
kubernetes-client-linux-ppc64le.tar.gz	04c7edab874b33175ff7bebfff5b3a032bc6eb088fcd7387ffcd5b3fa71395c
kubernetes-client-linux-s390x.tar.gz	499287dbbc33399a37b9f3b35e0124ff20b17b6619f25a207ee9c606ef261af
kubernetes-client-windows-386.tar.gz	cf84aeddf00f126fb13c0436b116dd0464a625659e44c84bf863517db0406af
kubernetes-client-windows-amd64.tar.gz	69f20558ccd5cd6dbaccf29307210db4e687af21f6d71f68c69d3a397668626

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	3f29df2ce904a0f10db4c1d7a425a36f420867b595da3fa158ae430bfead90c
kubernetes-server-linux-arm.tar.gz	4a21073b2273d721fbf062c254840be5c8471a010bcc0c731b101729e36e61f
kubernetes-server-linux-arm64.tar.gz	7f1cb6d721bedc90e28b16f99bea7e59f5ad6267c31ef39c14d34db6ad6aad8
kubernetes-server-linux-ppc64le.tar.gz	8f2b552030b5274b1c2c7c166eacd5a14b0c6ca0f23042f4c52efe87e22a167
kubernetes-server-linux-s390x.tar.gz	8d9f2c96f66edafb7c8b3aa90960d29b41471743842aede6b47b3b2e61f4306

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	84194cb081d1502f8ca68143569f9707d96f1a28fcf0c574ebd203321463a8b

filename	sha512 hash
kubernetes-node-linux-arm.tar.gz	`0091e108ab94fd8683b89c597c4fdc2fbf4920b007cfcd5297072c44bc3a230`
kubernetes-node-linux-arm64.tar.gz	`b7e85682cc2848a35d52fd6f01c247f039ee1b5dd03345713821ea10a7fa993`
kubernetes-node-linux-ppc64le.tar.gz	`cd1f0849e9c62b5d2c93ff0cebf58843e178d8a88317f45f76de0db5ae020b8`
kubernetes-node-linux-s390x.tar.gz	`e1e697a34424c75d75415b613b81c8af5f64384226c5152d869f12fd7db1a3e`
kubernetes-node-windows-amd64.tar.gz	`c725a19a4013c74e22383ad3fb4cb799b3e161c4318fdad066daf806730a89b`

Changelog since v1.17.0

Action Required

- action required (#85363, @immutableT)
  1. Currently, if users were to explicitly specify CacheSize of 0 for KMS provider, they would end-up with a provider that caches up to 1000 keys. This PR changes this behavior. Post this PR, when users supply 0 for CacheSize this will result in a validation error.
  2. CacheSize type was changed from int32 to *int32. This allows defaulting logic to differentiate between cases where users explicitly supplied 0 vs. not supplied any value.
  3. KMS Provider's endpoint (path to Unix socket) is now validated when the EncryptionConfiguration files is loaded. This used to be handled by the GRPCService.

Other notable changes

- fix: azure data disk should use same key as os disk by default (#86351, @andyzhangx)
- New flag `--show-hidden-metrics-for-version` in kube-proxy can be used to show all hidden metrics that deprecated in the previous minor release. (#85279, @RainbowMango)
- Remove cluster-monitoring addon (#85512, @serathius)
- Changed core_pattern on COS nodes to be an absolute path. (#86329, @mml)
- Track mount operations as uncertain if operation fails with non-final error (#82492, @gnufied)
- add kube-proxy flags –ipvs-tcp-timeout, –ipvs-tcpfin-timeout, –ipvs-udp-timeout to configure IPVS connection timeouts. (#85517, @andrewsykim)
- The sample-apiserver aggregated conformance test has updated to use the Kubernetes v1.17.0 sample apiserver (#84735, @liggitt)
- The underlying format of the `CPUManager` state file has changed. Upgrades

should be seamless, but any third-party tools that rely on reading the previous format need to be updated. (#84462, @klueska)
- kubernetes will try to acquire the iptables lock every 100 msec during 5 seconds instead of every second. This specially useful for environments using kube-proxy in iptables mode with a high churn rate of services. (#85771, @aojea)
- Fixed a panic in the kubelet cleaning up pod volumes (#86277, @tedyu)
- azure cloud provider cache TTL is configurable, list of the azure cloud provider is as following: (#86266, @zqingqing1)
  - "availabilitySetNodesCacheTTLInSeconds"
  - "vmssCacheTTLInSeconds"
  - "vmssVirtualMachinesCacheTTLInSeconds"
  - "vmCacheTTLInSeconds"
  - "loadBalancerCacheTTLInSeconds"
  - "nsgCacheTTLInSeconds"
  - "routeTableCacheTTLInSeconds"
- Fixes kube-proxy when EndpointSlice feature gate is enabled on Windows. (#86016, @robscott)
- Fixes wrong validation result of NetworkPolicy PolicyTypes (#85747, @tnqn)
- Fixes an issue with kubelet-reported pod status on deleted/recreated pods. (#86320, @liggitt)
- kube-apiserver no longer serves the following deprecated APIs: (#85903, @liggitt)
  - All resources under `apps/v1beta1` and `apps/v1beta2` - use `apps/v1` instead
  - `daemonsets`, `deployments`, `replicasets` resources under `extensions/v1beta1` - use `apps/v1` instead
  - `networkpolicies` resources under `extensions/v1beta1` - use `networking.k8s.io/v1` instead
  - `podsecuritypolicies` resources under `extensions/v1beta1` - use `policy/v1beta1` instead
- kubeadm: fix potential panic when executing "kubeadm reset" with a corrupted kubelet.conf file (#86216, @neolit123)
- Fix a bug in port-forward: named port not working with service (#85511, @oke-py)
- kube-proxy no longer modifies shared EndpointSlices. (#86092, @robscott)
- allow for configuration of CoreDNS replica count (#85837, @pickledrick)
- Fixed a regression where the kubelet would fail to update the ready status of pods. (#84951, @tedyu)
- Resolves performance regression in client-go discovery clients constructed using `NewDiscoveryClientForConfig` or `NewDiscoveryClientForConfigOrDie`. (#86168, @liggitt)
- Make error message and service event message more clear (#86078, @feiskyer)
- e2e-test-framework: add e2e test namespace dump if all tests succeed but

the cleanup fails. (#85542, @schrodit)
- SafeSysctlWhitelist: add net.ipv4.ping_group_range (#85463, @Akihiro-Suda)
- kubelet: the metric process_start_time_seconds be marked as with the ALPHA stability level. (#85446, @RainbowMango)
- API request throttling (due to a high rate of requests) is now reported in the kubelet (and other component) logs by default. The messages are of the form (#80649, @RobertKrawitz)
  - Throttling request took 1.50705208s, request: GET:<URL>
  - The presence of large numbers of these messages, particularly with long delay times, may indicate to the administrator the need to tune the cluster accordingly.
- Fix API Server potential memory leak issue in processing watch request. (#85410, @answer1991)
- Verify kubelet & kube-proxy can recover after being killed on Windows nodes (#84886, @YangLu1031)
- Fixed an issue that the scheduler only returns the first failure reason. (#86022, @Huang-Wei)
- kubectl/drain: add skip-wait-for-delete-timeout option. (#85577, @michaelgugino)
  - If pod DeletionTimestamp older than N seconds, skip waiting for the pod. Seconds must be greater than 0 to skip.
- Following metrics have been turned off: (#83841, @RainbowMango)
  - kubelet_pod_worker_latency_microseconds
  - kubelet_pod_start_latency_microseconds
  - kubelet_cgroup_manager_latency_microseconds
  - kubelet_pod_worker_start_latency_microseconds
  - kubelet_pleg_relist_latency_microseconds
  - kubelet_pleg_relist_interval_microseconds
  - kubelet_eviction_stats_age_microseconds
  - kubelet_runtime_operations
  - kubelet_runtime_operations_latency_microseconds
  - kubelet_runtime_operations_errors
  - kubelet_device_plugin_registration_count
  - kubelet_device_plugin_alloc_latency_microseconds
  - kubelet_docker_operations
  - kubelet_docker_operations_latency_microseconds
  - kubelet_docker_operations_errors
  - kubelet_docker_operations_timeout
  - network_plugin_operations_latency_microseconds
- Kubelet cert TTL via GaugeFunc: (#85874, @sambdavidson)
  - Renamed Kubelet metric certificate_manager_server_expiration_seconds to certificate_manager_server_ttl_seconds and changed to report the second until expiration at read time rather than absolute time of expiry.
  - Improved accuracy of Kubelet metric rest_client_exec_plugin_ttl_seconds.

- Bind metadata-agent containers to linux nodes to avoid Windows scheduling on kubernetes cluster includes linux nodes and windows nodes (#83363, @wawa0210)
- Bind metrics-server containers to linux nodes to avoid Windows scheduling on kubernetes cluster includes linux nodes and windows nodes (#83362, @wawa0210)
- During initialization phase (preflight), kubeadm now verifies the presence of the conntrack executable (#85857, @hnanni)
- VMSS cache is added so that less chances of VMSS GET throttling (#85885, @nilo19)
- Update go-winio module version from 0.4.11 to 0.4.14 (#85739, @wawa0210)
- Fix LoadBalancer rule checking so that no unexpected LoadBalancer updates are made (#85990, @feiskyer)
- kubectl drain node –dry-run will list pods that would be evicted or deleted (#82660, @sallyom)
- Windows nodes on GCE can use TPM-based authentication to the master. (#85466, @pjh)
- kubectl/drain: add disable-eviction option. (#85571, @michaelgugino)
  - Force drain to use delete, even if eviction is supported. This will bypass checking PodDisruptionBudgets, and should be used with caution.
- kubeadm now errors out whenever a not supported component config version is supplied for the kubelet and kube-proxy (#85639, @rosti)
- Fixed issue with addon-resizer using deprecated extensions APIs (#85793, @bskiba)
- Includes FSType when describing CSI persistent volumes. (#85293, @huffmanca)
- kubelet now exports a "server_expiration_renew_failure" and "client_expiration_renew_failure" metric counter if the certificate rotations cannot be performed. (#84614, @rphillips)
- kubeadm: don't write the kubelet environment file on "upgrade apply" (#85412, @boluisa)
- fix azure file AuthorizationFailure (#85475, @andyzhangx)
- Resolved regression in admission, authentication, and authorization webhook performance in v1.17.0-rc.1 (#85810, @liggitt)
- kubeadm: uses the apiserver AdvertiseAddress IP family to choose the etcd endpoint IP family for non external etcd clusters (#85745, @aojea)
- kubeadm: Forward cluster name to the controller-manager arguments (#85817, @ereslibre)
- Fixed "requested device X but found Y" attach error on AWS. (#85675, @jsafrane)
- addons: elasticsearch discovery supports IPv6 (#85543, @SataQiu)
- kubeadm: retry `kubeadm-config` ConfigMap creation or mutation if the apiserver is not responding. This will improve resiliency when joining new control plane nodes. (#85763, @ereslibre)

- Update Cluster Autoscaler to 1.17.0; changelog: https://github.com/kubernetes/autoscaler/releases/tag/clu
  autoscaler-1.17.0 (#85610, @losipiuk)
- Filter published OpenAPI schema by making nullable, required fields non-required in order to avoid kubectl to wrongly reject null values. (#85722, @sttts)
- kubectl set resources will no longer return an error if passed an empty change for a resource. (#85490, @sallyom)
  - kubectl set subject will no longer return an error if passed an empty change for a resource.

- kube-apiserver: fixed a conflict error encountered attempting to delete a pod with gracePeriodSeconds=0 and a resourceVersion precondition (#85516, @michaelgugino)
- kubeadm: add a upgrade health check that deploys a Job (#81319, @neolit123)
- kubeadm: make sure images are pre-pulled even if a tag did not change but their contents changed (#85603, @bart0sh)
- kube-apiserver: Fixes a bug that hidden metrics can not be enabled by the command-line option `--show-hidden-metrics-for-version`. (#85444, @RainbowMango)
- kubeadm now supports automatic calculations of dual-stack node cidr masks to kube-controller-manager. (#85609, @Arvinderpal)
- Fix bug where EndpointSlice controller would attempt to modify shared objects. (#85368, @robscott)
- 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)
- kubeadm: reset raises warnings if it cannot delete folders (#85265, @SataQiu)
- Wait for kubelet & kube-proxy to be ready on Windows node within 10s (#85228, @YangLu1031)