- v1.13.12
  - Downloads for v1.13.12
    - Client Binaries
    - Server Binaries
    - Node Binaries
  - Changelog since v1.13.11
    - Other notable changes
- v1.13.11
  - Downloads for v1.13.11
    - Client Binaries
    - Server Binaries
    - Node Binaries
  - Changelog since v1.13.10
    - Other notable changes
- v1.13.10
  - Downloads for v1.13.10
    - Client Binaries
    - Server Binaries
    - Node Binaries
  - Changelog since v1.13.9
    - Other notable changes
- v1.13.9
  - Downloads for v1.13.9
    - Client Binaries
    - Server Binaries
    - Node Binaries
  - Changelog since v1.13.8
- v1.13.8
  - Downloads for v1.13.8
    - Client Binaries
    - Server Binaries
    - Node Binaries
  - Changelog since v1.13.7
    - Other notable changes
- v1.13.7
  - Downloads for v1.13.7
    - Client Binaries
    - Server Binaries
    - Node Binaries
  - Changelog since v1.13.6
    - Other notable changes
- v1.13.6
  - Downloads for v1.13.6
    - Client Binaries
    - Server Binaries

        - Node Binaries
    - Changelog since v1.13.5
        - Other notable changes
- v1.13.5
    - Downloads for v1.13.5
        - Client Binaries
        - Server Binaries
        - Node Binaries
    - Changelog since v1.13.4
        - Other notable changes
- v1.13.4
    - Downloads for v1.13.4
        - Client Binaries
        - Server Binaries
        - Node Binaries
    - Changelog since v1.13.3
        - Other notable changes
- v1.13.3
    - Downloads for v1.13.3
        - Client Binaries
        - Server Binaries
        - Node Binaries
    - Changelog since v1.13.2
        - Other notable changes
- v1.13.2
    - Downloads for v1.13.2
        - Client Binaries
        - Server Binaries
        - Node Binaries
    - Changelog since v1.13.1
        - Other notable changes
- v1.13.1
    - Downloads for v1.13.1
        - Client Binaries
        - Server Binaries
        - Node Binaries
    - Changelog since v1.13.0
        - Other notable changes
- v1.13.0
    - Downloads for v1.13.0
        - Client Binaries
        - Server Binaries
        - Node Binaries
- Kubernetes 1.13 Release Notes

    - Security Content
    - Urgent Upgrade Notes
        - (No, really, you MUST do this before you upgrade)
    - Known Issues
    - Deprecations
    - Major Themes
        - SIG API Machinery
        - SIG Auth
        - SIG AWS
        - SIG Azure
        - SIG Big Data
        - SIG CLI
        - SIG Cloud Provider
        - SIG Cluster Lifecycle
        - SIG IBM Cloud
        - SIG Multicluster
        - SIG Network
        - SIG Node
        - SIG Openstack
        - SIG Scalability
        - SIG Scheduling
        - SIG Service Catalog
        - SIG Storage
        - SIG UI
        - SIG VMWare
        - SIG Windows
    - New Features
    - Release Notes From SIGs
        - SIG API Machinery
        - SIG Auth
        - SIG Autoscaling
        - SIG AWS
        - SIG Azure
        - SIG CLI
        - SIG Cloud Provider
        - SIG Cluster Lifecycle
        - SIG GCP
        - SIG Network
        - SIG Node
        - SIG OpenStack
        - SIG Release
        - SIG Scheduling
        - SIG Storage
        - SIG Windows
    - External Dependencies
- v1.13.0-rc.2
    - Downloads for v1.13.0-rc.2
        - Client Binaries
        - Server Binaries

        - Node Binaries
    - Changelog since v1.13.0-rc.1
        - Other notable changes
- v1.13.0-rc.1
    - Downloads for v1.13.0-rc.1
        - Client Binaries
        - Server Binaries
        - Node Binaries
    - Changelog since v1.13.0-beta.2
        - Other notable changes
- v1.13.0-beta.2
    - Downloads for v1.13.0-beta.2
        - Client Binaries
        - Server Binaries
        - Node Binaries
    - Changelog since v1.13.0-beta.1
        - Other notable changes
- v1.13.0-beta.1
    - Downloads for v1.13.0-beta.1
        - Client Binaries
        - Server Binaries
        - Node Binaries
    - Changelog since v1.13.0-alpha.3
        - Action Required
        - Other notable changes
- v1.13.0-alpha.3
    - Downloads for v1.13.0-alpha.3
        - Client Binaries
        - Server Binaries
        - Node Binaries
    - Changelog since v1.13.0-alpha.2
        - Other notable changes
- v1.13.0-alpha.2
    - Downloads for v1.13.0-alpha.2
        - Client Binaries
        - Server Binaries
        - Node Binaries
    - Changelog since v1.13.0-alpha.1
        - Other notable changes
- v1.13.0-alpha.1
    - Downloads for v1.13.0-alpha.1
        - Client Binaries
        - Server Binaries
        - Node Binaries

- Changelog since v1.12.0
  - Action Required
  - Other notable changes

v1.13.12

Documentation

Downloads for v1.13.12

filename	sha512 hash
kubernetes.tar.gz	bacb75dca1dff0b48fafbaa3380d250a58e2220426af05c35623d976b1490bcac38677de4f4033ea1d87
kubernetes-src.tar.gz	d3d9a067848c06efc0351bab055de92bede0abaa7e85b0d05a4bbd3b224b162a18af2b80ab7977693d45

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	cdefbeac3df649874c36693093815b295db9c153b44a64a8ebd1188a5e68ba9aaa38465adb436ee9450d394
kubernetes-client-darwin-amd64.tar.gz	4dc1c342851d277ff609bcd117868cee36ea0c49f365a992802832568646dd347b742c6e0076de18a21eb1c
kubernetes-client-linux-386.tar.gz	6d61936a0efd6c0f630701d04cb160382ea3a1054abda1a7adade6c12791e62e5bbd9d411ab10fc6613d8c2
kubernetes-client-linux-amd64.tar.gz	43830293485863452aa2b5d87456ac575fbfa2f2115e04091596dd51ca8192cccdd18704e31ab5f20da4bfd
kubernetes-client-linux-arm.tar.gz	61fca1e2c0577869729ba6f18e2e674202712e81abc65dc6cf34e172ef9c973da7c5a7faf7707cd75cfbb99
kubernetes-client-linux-arm64.tar.gz	37efee69f151523fa0f43587baf22d90c5020bc91f2fc3f010fe2a09313a1ffff64d385c4ec25cd01da06a9
kubernetes-client-linux-ppc64le.tar.gz	d6a46958b3cb925909898e12c929eed1f4451638e162f3ca913c0728b95be0e5b0c102f4a96c1915c82fc44
kubernetes-client-linux-s390x.tar.gz	dbd7e9137ec0631916c0089bc69b843693e72c7920e3faadcbc21fb680c3532e9e90ede1d3dfcee8ab79765

kubernetes-client-windows-386.tar.gz	bd871c650f754002342508f520a9115bcc047bd681fe12059f8bd7bf491aca9fd5bd2744aaa918f267a1c29
kubernetes-client-windows-amd64.tar.gz	9fc5a9fea723536de913cc2f3f277e583a838cd38ca65bd02a9f6283565d33bdd90a597c70e0e46a9845b85

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	ef5b94257a8dcb0c40d27eb35ba34631b90b0d64653339347d43b5448b9faab3a50fb2271c6b471799c0e9a
kubernetes-server-linux-arm.tar.gz	4439ffff8ca1d151a73b0c0784f206bc0c09647d7f4be354f078fc08d60a001a5bcf9188585f7995b76083e
kubernetes-server-linux-arm64.tar.gz	bb91bc1c575098ee015c00c2d82787d49efdad0756125cc3d5c135b32760d5a6fdbf074895120bd2b5ecd74
kubernetes-server-linux-ppc64le.tar.gz	331f64ecb87565ccb965bc78cf1d9f6179758de384bf3a832bfde11e6499b07e95b8d95e0714cbc82986683
kubernetes-server-linux-s390x.tar.gz	f55e8f24294fb1d172bee44b91737c1e77062eb8bc00036901f258393b2942d7a44ef6a6253799224b54710

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	b575e22344c7cf15c3073e452c6eca140178f238f8eee262433a89e042ee23feb6e9f7e8dffb9d3d6de8865
kubernetes-node-linux-arm.tar.gz	e28e0c1663250478ccdba8c016d6fd1add6abdeeb7b7f56c751d8b0298d4d382dfb745dcd3a42ba63f2d544
kubernetes-node-linux-arm64.tar.gz	e6ebf4f7399cf157cfd6a3b18d28cd489e78166de50f1c2642435c30b3bd99dd567be0520b1d78b94390d9e
kubernetes-node-linux-ppc64le.tar.gz	c41078db96a57448fd5e8736952ff295aefbb6712082e81c5d8123c98287cbd6fa5a7797889a2aa7ecde9f8

kubernetes-node-linux-s390x.tar.gz	109487345a50fc4384a09398d1492e67d8aef2dea35546ee58e14f57abcf7e87eba8a964c9509d9a3172fbe
kubernetes-node-windows-amd64.tar.gz	0b912fe7d65823ea73af42f412a913aead889f4958ce3d5e2bb92000a89f9951d4d0714c2b1fa7f56d0d995

Changelog since v1.13.11

Other notable changes

- Fix aggressive VM calls for Azure VMSS (#83102, @feiskyer)
- Fixes a flaw (CVE-2019-11253) in json/yaml decoding where large or malformed documents could consume excessive server resources. Request bodies for normal API requests (create/delete/update/patch operations of regular resources) are now limited to 3MB. (#83261, @liggitt)
- Resolves bottleneck in internal API server communication that can cause increased goroutines and degrade API Server performance (#80465, @answer1991)
- fix: azure disk detach failure if node not exists (#82640, @andyzhangx)

v1.13.11

Documentation

Downloads for v1.13.11

filename	sha512 hash
kubernetes.tar.gz	cb32ac05cd396ab0a75b054750d93fa9892940c6d9795ce3a40448f177bf780197f10bec64ecb2cbc27f
kubernetes-src.tar.gz	cf12468b2361076e9e8c142e687b8ddb4ede970bee236e085afe6e85cbc875639458ccab0f5e005a19e9

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	ce320f7af51aa4305b68b542c95dd17c8ada87774734cf4756c7a5092d3aa03b96431d32c4cfd40b883b046
kubernetes-client-darwin-amd64.tar.gz	ccda950311c5a39ac3ffdc639ddf0939ed498f5eb1e22ada2d8cddeb10e9ce1c4790f0321195521cfa807fd
kubernetes-client-linux-386.tar.gz	077c93c2bf806e6b333b58b5277ac4c8a48de377e9e8e998342ac24af53fd9c8fc3cb3db30e075213e719a9
kubernetes-client-linux-	461b22d0656d1a838be9957675776dd96c464f06e05a1789b6778c9db81a5d16ff2622b5d453dc0d9721901

amd64.tar.gz	
kubernetes-client-linux-arm.tar.gz	30a57464264a2a4033c7b6fe873d6910179d66a8ce0cfa908ede8c4fbe8e1c067e1cafa9971965c9b1da8d8
kubernetes-client-linux-arm64.tar.gz	4779a7cc80ed47c01cefc89132ed9c3bc523a92d1b2b68f7f1e1354f5e191c8af932ed62b5ea158e3185597
kubernetes-client-linux-ppc64le.tar.gz	95818f1c504cb992d5242797f6104bc6a1645b78770595479d1554a31ab88ae9ea157215b7191b3ce5f4746
kubernetes-client-linux-s390x.tar.gz	ee7a59f474a025229e7639b1e4464cb2dc8613c91eb1a4474d5b3576722dd28a779e4c29bc91c2bf51bbc84
kubernetes-client-windows-386.tar.gz	acc0021250fe05e32265d2dfb040cf2535a7f8027e1d9b5893cd7c3c4f4f2196c795655ee13e3368c8f68f3
kubernetes-client-windows-amd64.tar.gz	eedffdef23b11bb859c9b1bac1ad4d98788dc72a7d4ef8ec23b4131cfabf13c7eeeba1fbf9a1fa9565071f2

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	f340b86fafa50e8eb9e2c4c8fc35d35403263811a8f2f40f16335eee86229083f5ee7e9200c4679de5d1c5d
kubernetes-server-linux-arm.tar.gz	8beef625107d19ef1b4ca9c9daf2ee6725a2f3376b71e55fbf388908fe8fb0f3ef9fe9d99762d6a68e417e0
kubernetes-server-linux-arm64.tar.gz	3695832332e9e2302f2012b5faaa5af6b521a1b34385456cacbcecd1b8599329f61882dd8f750ce5b11fee4
kubernetes-server-linux-ppc64le.tar.gz	51071c154b7b23c9e61f99186c7e7b109f28f1ffd654396dc6068130287a583b8e7a4698670c79e24cccd0d
kubernetes-server-linux-s390x.tar.gz	c48d2ec1b76b6d37bfec603a85c09e4092e326902625a28a7f87a16332382169e672ffd7052ff02c9418a5c

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	b890788b20b82519f3ab05a0f247d9e428ef546c4a408a31f7e5e73975bc0784917600aab07209d8621826c
kubernetes-node-linux-arm.tar.gz	a48029542526247acfd99d8d8dec6496645d172f37adead467cb78f87951270504bcd1ad5ce051f064ab182
kubernetes-node-linux-arm64.tar.gz	cce6a070985ab71c5a4a398d139b0a56bdfb85e69760b868ed37ffe069b3ee4b4363249b0fa872918b9c585
kubernetes-node-linux-ppc64le.tar.gz	c0ec49e3ae99886edb472043077a9679c7f23aa0954ef388b23328443b95662417cd1e0cbbe7f0e49a634c3
kubernetes-node-linux-s390x.tar.gz	a6f8b60b8593666f05bd96391c16b8943d0bdb06d5f7f61fa1c69ab5605903410a12e1399abc1f2459a3a43
kubernetes-node-windows-amd64.tar.gz	b70e43148e304dc5eb9c012b2eaebdfd16ab3f9e2f8e3de0782789be45edc3410d6efc7975f4ef3d9dec79d

Changelog since v1.13.10

Other notable changes

- Fix a bug in apiserver that could cause a valid update request to be rejected with a precondition check failure. (#82303, @roycaihw)
- kubectl cp now safely allows unpacking of symlinks that may point outside the destination directory (#82384, @tallclair)
- fix azure disk naming matching issue due to case sensitive comparison (#81720, @andyzhangx)
- fix: detach azure disk issue using dangling error (#81266, @andyzhangx)
- Fix a bug in the IPVS proxier where virtual servers are not cleaned up even though the corresponding Service object was deleted. (#80942, @gongguan)
- remove iSCSI volume storage cleartext secrets in logs (#81215, @zouyee)
- Fix a bug in server printer that could cause kube-apiserver to panic. (#79349, @roycaihw)

v1.13.10

Documentation

Downloads for v1.13.10

filename	sha512 hash
kubernetes.tar.gz	d1fced0c505667b7a74ca2df6738e43f18cc05b11fa407ef49eae730e83294064617ea590dc44f1cc083
kubernetes-	97c083ff85f2c714add2727851a080abe75198dc258767b80ed8344ac2526fcc9c532299fdbcdbba2479

src.tar.gz	

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	fbd9389eac2e2f49125e40967c8d8bfad5c96010d9972e31387ac1f06f947b20ff734f35c55c38930a67b8f
kubernetes-client-darwin-amd64.tar.gz	0e01864de60e776d7531a13e685139998b2d67d00032d040f0be1eff251b3de2334673618421673254e2d8b
kubernetes-client-linux-386.tar.gz	18e9fa00d1fc3c78025ce076a601965ae559456ec88d0aa7ce99a4bdc03290b8a12a6ac5bcfb2b91f1970d9
kubernetes-client-linux-amd64.tar.gz	1e605d6d2a1c6091bff9f6bffe4404d50b437b4b8014014fd251b73ac1d2d89d31756334eed68644b52e836
kubernetes-client-linux-arm.tar.gz	09265476898aebbf13e61b741251c8b94bc6d23e4f6a61548661b02f6f1b7d2cb547a6066fcb105f4b62100
kubernetes-client-linux-arm64.tar.gz	d5ab4fbf359d488e40ec33da596d3a1e174fcc03e86b1cfd202dd8e30e37e4700131e38e2bc73649ef683e2
kubernetes-client-linux-ppc64le.tar.gz	882978ba492c930a13216426fe0dd2c3211372b8df8117b80cfade23babc94d3893a08494cefcc21f6efc8d
kubernetes-client-linux-s390x.tar.gz	c43ea5d089fc39cdc08e36ea6462bb7e8edc194daad1e2a83df8b1ad8473042e0ab70da4869c4046036c75d
kubernetes-client-windows-386.tar.gz	56871894e4c7f0beaa036f73ede8e51b9b8410b2ebad84534614812ce5a3e59b5c3dddcb718d0add1fbe59c
kubernetes-client-windows-amd64.tar.gz	69caba4b9296fbf0c06445e6698a6872a7bcc88162bb01ba70ae44787e5cf4c6321391d6186402b6a2fab09

Server Binaries

filename	sha512 hash
kubernetes-server-linux-	d1c0873f72836ad2bf1f71af372db479b3475cdd2cd651a1620ed562352a05fc9ba010c145a25888d9c19c5

amd64.tar.gz	
kubernetes-server-linux-arm.tar.gz	f4e67913022cd352d10c031fabb0459f9c55396ffa7df0d7240fe69f6fae0765c62feff5cac8626ee0d1229
kubernetes-server-linux-arm64.tar.gz	644c5f80b3840cc312e63cbab288865fbf26e22196aff1b633ea08f88d29b2b18a47784d1e9c6573f5b7ba0
kubernetes-server-linux-ppc64le.tar.gz	07e24ee8a39bb9676688d3b37b7c2cb3aeb13c096f1c7b107a5a84a6a4eecbe7abf58ab640665ec7c3cb06a
kubernetes-server-linux-s390x.tar.gz	e4de596c6ee1ab2ac03ae47fc822503f87520cdae1987b706ffe460fee0498efbd9d3ee4edec93cef10708e

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	9c4868b0399d529c6bedb89f30570acc67357bb6a42a4a3d2c5224922ea30d57898a5031dcfd3745d052680
kubernetes-node-linux-arm.tar.gz	4f17df5e61666aabfa6d450dec7c506c2d8912e670eb6f28bc356e8fb8f3ea5eef9bd5b1bfe6b53bad0db8b
kubernetes-node-linux-arm64.tar.gz	12b0a1c380de90fa1c4bb02fc274aaff040e86ed64f68bc8fd8448456a7432daa7dee006e1225d00b6a6e6b
kubernetes-node-linux-ppc64le.tar.gz	52f993bf9f01879b344c51c6d0644c007dc15c50475e2c392d813acc70d439308e685a6daa39458dc22fe89
kubernetes-node-linux-s390x.tar.gz	3b75d024aec3a090eabf6ea66facdcfd3e5f6e0b0890aaa8a3af76b2deb9597042d138bcdbf05a3b94feaa5
kubernetes-node-windows-amd64.tar.gz	2790196a386b76144c0f4f31ff39e1d7a5569f5d23e735c5153dd938b290d555da714f40c4de42c8838d353

Changelog since v1.13.9

Other notable changes

- Update golang/x/net dependency to bring in fixes for CVE-2019-9512, CVE-2019-9514 (#81546, @cblecker)
- Update to use go 1.11.13 (#81542, @BenTheElder)
- Fix Azure client requests stuck issues on http.StatusTooManyRequests (HTTP Code 429). (#81279, @feiskyer)

- Reduces GCE PD Node Attach Limits by 1 since the node boot disk is considered an attachable disk (#80923, @davidz627)
- Fix public IP not found issues for VMSS nodes (#80703, @feiskyer)
- Resolves a bug that prevented sending a multi-version custom resource to an admission webhook. (#79495, @liggitt)
- Pass-through volume MountOptions to global mount (NodeStageVolume) on the node for CSI (#80191, @davidz627)
- changes timeout value in csi plugin from 15s to 2min which fixes the timeout issue (#79529, @andyzhangx)

v1.13.9

Documentation

Downloads for v1.13.9

filename	sha512 hash
kubernetes.tar.gz	47404fa7de9c036b7036c9583418b5d5d693e750a68508ce1308df48d21898b465b9ff6c9476aedd0260
kubernetes-src.tar.gz	ba16dc0d6fa2a375613fb5d55a948d089f0c6448d46a6c37bf03a6be5b2ac4a4edbf4fa49ea8273b6ee0

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	e5f2d7eed263b3786b5246b171e68c6504be00a8e37bc955bcff169cdcd4574065ad761924eebac53e66c2a
kubernetes-client-darwin-amd64.tar.gz	f08a3b1a490a5ec2611951df1a164d949aaa7b66003a40fb27e5863a86862e9a339e90f13fdaa2e09d863bc
kubernetes-client-linux-386.tar.gz	8dd9ef36b0a00dc7f0f2f29294729c7611e1cd664dc50dcc46028ddfd6b11a42703942a5453bebdbbda303c
kubernetes-client-linux-amd64.tar.gz	8c76e782e6aab12f21447d3e5b9241b0d8e4d4058fe16972c62d91dc92b130d646693fd497be9318a284c94
kubernetes-client-linux-arm.tar.gz	7c32e7d86a9b896c0f8d249cf7f04c0a36a4cd934c3192b3cd8089fa4e45efce24f6625adeecf9ff0c274c9
kubernetes-client-linux-arm64.tar.gz	8aa797e3e3eb2d295b2e3d77f02d0b2fc736dfee927ffcd7f2dcc1c8901ed961f1af47d8c2215f0fcb0c9aa
kubernetes-client-linux-ppc64le.tar.gz	fb55d4c2235e15fec9fb3d846014a264a31702ea112e4715e6f88526a4c3a5c77d03c43bf9b6cbed19d10bf

kubernetes-client-linux-s390x.tar.gz	bbb7a66a036449656dd5ae564db7e91ed7ff25321c044f3e819f2591e939cba0540d454d21ff3ceddd89eda
kubernetes-client-windows-386.tar.gz	91eff924e57a5dfee56a0bb5bfc7910b03c0250783964c1e7593c7aa9e102e5088906170e339a055110ef16
kubernetes-client-windows-amd64.tar.gz	a3078a917df26a00d5cc7e11becc592c79323147d73b7703562e24df4cc020f9026304b7da11fbdef8dbf6d

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	f1f64dc4f781d95ad72f94391b0431165d133b99e146b18b1e312a0eeaaf09c69cea448b36cd2d591c573ae
kubernetes-server-linux-arm.tar.gz	77ebc8daea2e7f118b1ec458ca34087712c40817abdc3d14e73e998ed0b9d947475a5fbbf01edbd5c3055ce
kubernetes-server-linux-arm64.tar.gz	70187e2045e47cffcd80e3ac58ad7ff6fb413e420d80009cc4b30477e78c9a9cee78e2188f0e126ccb4a8a4
kubernetes-server-linux-ppc64le.tar.gz	71e40ffe36bca2eab371129f44c81022e81646240de4aa7015d63b6ee39da3e7ad20cf2f68c167b96d3e50a
kubernetes-server-linux-s390x.tar.gz	b4e9c1eaae905af97787371a2100fa2bbecd9c9d3b18b9f4b5915860c49c8eafa61835a82ed33bf79c0eaf6

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	135043fa57fdadc7ecd1754bc291dc78292efab27e17f64b11e5825719e8b2b8ccd74b4ad5a6cd9902a0940
kubernetes-node-linux-arm.tar.gz	18f68e06f6098060aa32e234e7090257db0768dd29516129b026c6a3120e2140b2098556d8d8c50211a1bb3
kubernetes-node-linux-arm64.tar.gz	c9839e75ba4e5f29d1eb5d252bc781b011050139b906de8eeac64b23dc552f853c7c818586dabd221d19a6d

kubernetes-node-linux-ppc64le.tar.gz	39d108cb81d9ee5debb2c609ef4e50d6c478a91c0bdc0c766507cb71a88a15f53a462131e13fdff3266866b
kubernetes-node-linux-s390x.tar.gz	125c1649b3f43fa47f2ac7a70de7205484f95a6ef12b2d350ebaada4b73ba0e9cb066d0ba3a7601374b7536
kubernetes-node-windows-amd64.tar.gz	1f1e8cc6f2c75e3b927771d8d4277e7a68511d80b9c495c177c8552fa2097e088119fadfc529b52df71beba

Changelog since v1.13.8

- Fix CVE-2019-11249: Incomplete fixes for CVE-2019-1002101 and CVE-2019-11246, kubectl cp potential directory traversal (#80436)
- Fix CVE-2019-11247: API server allows access to custom resources via wrong scope (#80750)

See also the security announcement for this release.

v1.13.8

Documentation

Downloads for v1.13.8

filename	sha512 hash
kubernetes.tar.gz	0ed1d28d371e4ce23c71cbc1bdc5b30d9d06d2b6f4314f144612195dcf3766c13b44e90fefea27908d4a
kubernetes-src.tar.gz	9f96cdd4743bfd6b27ca2d252c278ce23d8a5af3185b780e8ee6446c0681598d215669f4d6a44ca6f9d8

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	467d0dd06c705d729511e84d685805d42291552ccff7697c423e50743c0392a26a9b18c60a7e9e1adc182f1
kubernetes-client-darwin-amd64.tar.gz	fe121adea43b9c715f1616f2eab7b673bf8c07260203f2e5750140c1fda18991183a1d86a7f260c42a3a12f
kubernetes-client-linux-386.tar.gz	cbcd7be1d73a5537d0c90aa641a0a9b90cbf3b2a027dbf65699367cc9ebed78e46bd32619fe13e000e6d9cc
kubernetes-client-linux-amd64.tar.gz	b24d2f026064945a7e1571fd413bd974e165ca4514e35a3dae7df8cbf97bd283169c40e7720cbf40d6fdce2

kubernetes-client-linux-arm.tar.gz	dc60bdf00e6c7806e3c11e4f73e2ff27a603e968f22567d8c87ed5ece04263e557cb0df8d7b5196bc28a96b
kubernetes-client-linux-arm64.tar.gz	00a98acd51107d1cb935cfc07ca31487290412f92ac34a91ec8c7f4b802bf798a7cc9cac22978a92001641c
kubernetes-client-linux-ppc64le.tar.gz	4ac265059df882995d25c5d006f522b34c60d9befda78f6fc5090e53311966d5ecaccdd60f6c87b7c3ad610
kubernetes-client-linux-s390x.tar.gz	b9b18c448ee875e9ca11d6c3d3db77aba9087ca3ea91034699bb093ecf2bd3d87cea4e4aae56964241497cf
kubernetes-client-windows-386.tar.gz	08b50e22470364204b1389476d4ae7e27bd2a5c4451528da730c1d0daf5255c1ae7534c678c27de31c3934f
kubernetes-client-windows-amd64.tar.gz	e1bf168bd2f6bf170c1aba7fc2efcfa0f03c47e8a3b2d8fa44add88a44df09f4667c13787a5a91d9d843c04

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	02f698baeb6071a1b900c88537eef27ed7fda55a59db09148def066ddccec34b74f21831d35e9f1ef8205f6
kubernetes-server-linux-arm.tar.gz	281ffef2c27c3c96da5ce83be5efa91a9f4a0adf6d4fbeb89e696d20095a789acfd850de0f068058180825c
kubernetes-server-linux-arm64.tar.gz	b9e21507bf99b7b832ea6350e962c0ba1aab9553d2b399dacb941cad8015b16c050c001b2cd72c7ec644d39
kubernetes-server-linux-ppc64le.tar.gz	00c222f0f8bae1afa24bb77bbbd9b4bebf55d61ca5174054302c1460eaf3d9b1f75b7596004adc2ae9ab1fc
kubernetes-server-linux-s390x.tar.gz	1501cfe5cd4e6e7bd137512c24d7047484626a1eeaf801a35dd74561c6321ed3494550cfb9b4e63d045aec1

Node Binaries

filename	sha512 hash

kubernetes-node-linux-amd64.tar.gz	bdd5ea8bd426ce3f90853c786215327bbd83b78c0cb262d4a16aec97facf901aaa1a0bf1425ed626f95e138
kubernetes-node-linux-arm.tar.gz	b5c2b0fc83cccb24195b89ee6d7bd969855dd08c6b69f01e19cba538dba9697390294c696052decb6bdcb50
kubernetes-node-linux-arm64.tar.gz	029fa9e24bf9355d648c0ae4e1dea1898f58fee1dec9d7961e9688566edcb5ce0feeaad69293c0c33ed9a5f
kubernetes-node-linux-ppc64le.tar.gz	d7fef0d7a38b437eb61e4c6a84002cec6b42a232b213f9cded1ca06862b82043dde176760f73d4d87e5b3ab
kubernetes-node-linux-s390x.tar.gz	fef7814ee2f352f933f00fef009cb941b1084109b43ea98888509e7158db010c766385e68703e97baf4f9ef
kubernetes-node-windows-amd64.tar.gz	4cc8c6e509ffccbb86dbf4923c8e77b44aca5e8c2ed986b58f2186015683c2b9e8f0bb4075db6596fc96df3

Changelog since v1.13.7

Other notable changes

- Fix possible fd leak and closing of dirs in doSafeMakeDir (#79534, @odinuge)
- fix kubelet fail to delete orphaned pod directory when the kubelet's pods directory (default is "/var/lib/kubelet/pods") symbolically links to another disk device's directory (#79094, @gaorong)
- Default resourceGroup should be used when the value of annotation azure-load-balancer-resource-group is an empty string. (#79514, @feiskyer)
- Fix a bug where kubelet would not retry pod sandbox creation when the restart policy of the pod is Never (#79451, @yujuhong)
- Fix a string comparison bug in IPVS graceful termination where UDP real servers are not deleted. (#78999, @andrewsykim)
- fix: retry detach azure disk issue (#78700, @andyzhangx)
  - try to only update vm if detach a non-existing disk when got <200, error> after detach disk operation
- fix pod stuck issue due to corrupt mnt point in flexvol plugin, call Unmount if PathExists returns any error (#75234, @andyzhangx)
- Resolves spurious rollouts of workload controllers when upgrading the API server due to incorrect defaulting of an alpha procMount field in pods (#78882, @liggitt)
- Bump ip-masq-agent version to v2.3.0 to fix vulnerabilities (#77833, @anfernee)
- Bump addon-manager to v8.9.1 (#77623, @MrHohn)
  - Rebase image on debian-base:v1.0.0

v1.13.7

Documentation

Downloads for v1.13.7

filename	sha512 hash
kubernetes.tar.gz	361621b451b225b49f4e1782246851f50cc9638327dd5a98c574343532fae07a617505a6c649e82d5d03
kubernetes-src.tar.gz	e24151c80f2e0d6df24b4c4fc891695a3eba2b415b3fe4d53bca3ef76d54f1cd9a3b682b3ad8a433cf35

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	7fc4d4a0a78a327321abe95d1f370a8a075bcdcce01ba350df8dff9cdcd9b49dfaf3b259a125b9e8d79a48e
kubernetes-client-darwin-amd64.tar.gz	9d06e2ceee5e316c0a8b3264f5047470cabc7c7fd08001d42519804a23064bfce8c6d41369375acc77df5a2
kubernetes-client-linux-386.tar.gz	82739ac7331f11b8d52b102565dcb3d309c7e640054714cf9e8af4d550b3099850b2389749e1934ffbd4e92
kubernetes-client-linux-amd64.tar.gz	677838b3fe8a06385c2433f2cb2bc59e902b90a95a8fb441f499b88560d6d9a11d18947fe17549d6d76a9c6
kubernetes-client-linux-arm.tar.gz	e12f268750a075ffdae1034902d3bc62526d2b77f135decd6766489a39b906da1574dcd0aacc549f9e7bf2c
kubernetes-client-linux-arm64.tar.gz	f98279e2bf2358f8b2d13eefccfd74c69df3538432eab41742835a5661a621b987e6a98860938593dbd9cff
kubernetes-client-linux-ppc64le.tar.gz	701c9708fe83fe8fb9335cbdc95c4a7d3e68c68366da42bc21e2ce7498e1202e2212f6cbe0861c087f5cb6c
kubernetes-client-linux-s390x.tar.gz	8a227c2b2946b20c1635381f03dd62cd11722471cc635a74aeec821527a30eaa89a3cf0a996cf267ad5bbce
kubernetes-client-windows-386.tar.gz	ad82690db12080fc1f3fd16a53d0113e33535f97164c7e9cad2e8ca791900865ca645d919d224c9c1d4ab57
kubernetes-client-	c348990f2a51a2f849ca04ae94be2da3aa19111b4b7deb20f1edae013c7c4671b7a6781ec585d74953dda2a

windows-amd64.tar.gz	

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	57c07e52b18d8cf4b6a41115c125995796561cd7b6d54bc6020f7660c1e5fabfc27ba8cd2816855b45b9406
kubernetes-server-linux-arm.tar.gz	4394b5e74862527d7e4146e256a39f33bb8d895d9c977c36a4ce78931f72a7fc3145481a726d0c64be79d74
kubernetes-server-linux-arm64.tar.gz	1956162425811f7b2dfd46cae12625055a43dfbf4d25efa18c13878dfa7f795aa6b41e351de2d2ffedbc3e9
kubernetes-server-linux-ppc64le.tar.gz	ca49b7cc9cb1ae1c87b7ebcdded43d0d7955a16cd0f4476527a78351e8e31c686cf795d3cb9282ff345fb33
kubernetes-server-linux-s390x.tar.gz	14dbbe6be6d7e4d00ff5d2430d87d32b12e0005d8f31a98e96c77c8585ef2bea6298f9e569667fed77cb93c

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	fd43140329e1aa1ef55083e3812f8351a835619420cc322d6df1882c2f1b626456828392d2e4b6f1cd3b547
kubernetes-node-linux-arm.tar.gz	c6f97cba9426e1caa28442fb8a09c5dcf3323a40310d20cd93c7ccddc44b8910285736f77a4f2d16dda2418
kubernetes-node-linux-arm64.tar.gz	03b895c398f4ee12a8183023ad3e945ee253545801a6d69cec14bfaadc1b3c143757bdc3963a17b70c39925
kubernetes-node-linux-ppc64le.tar.gz	515dfdda151087fa3b603c8bf1f8868406bacc4956866e0a8ec976b2981063ec9bca02fcf1ddf7d7c6b3fbc
kubernetes-node-linux-s390x.tar.gz	aff410344de29dbf86d5d1dcffe6555fc5b278268e8bb81052725b6c111b281538d58e580a8ff9399117eba
kubernetes-node-	40fc44271f69a90685d6193f785b9a8523b6db3cc9c1fdb5586dfbab32a11153f8271793589087582a90621

windows-amd64.tar.gz	

Changelog since v1.13.6

Other notable changes

- IPVS: Disable graceful termination for UDP traffic to solve issues with high number of UDP connections (DNS / syslog in particular) (#77802, @lbernail)
- Fix broken detection of non-root image user ID (#78261, @tallclair)
- Active watches of custom resources now terminate properly if the CRD is modified. (#78029, @liggitt)
- fix azure retry issue when return 2XX with error (#78298, @andyzhangx)
- fix incorrect prometheus azure metrics (#77722, @andyzhangx)
- Fixes a bug where dry-run is not honored for pod/eviction sub-resource. (#76969, @apelisse)
- Fixes bug in DaemonSetController causing it to stop processing some DaemonSets for 5 minutes after node removal. (#76060, @krzysztof-jastrzebski)
- Check if container memory stats are available before accessing it (#77656, @yastij)
- client-go and kubectl no longer write cached discovery files with world-accessible file permissions (#77874, @yuchengwu)
- Fixed a bug in the apiserver storage that could cause just-added finalizers to be ignored on an immediately following delete request, leading to premature deletion. (#77619, @caesarxuchao)
- If a pod has a running instance, the stats of its previously terminated instances will not show up in the kubelet summary stats any more for CRI runtimes like containerd and cri-o. (#77426, @Random-Liu)
    - This keeps the behavior consistent with Docker integration, and fixes an issue that some container Prometheus metrics don't work when there are summary stats for multiple instances of the same pod.
- Kubelet: add usageNanoCores from CRI stats provider (#73659, @feiskyer)

v1.13.6

Documentation

Downloads for v1.13.6

filename	sha512 hash
kubernetes.tar.gz	`34c179b8bd55aecf3e93ae83062533e11bdd6149a2ee0e0c2c3504b266789c348d161734186304ce04e5`
kubernetes-src.tar.gz	`8db3afbab1b4f967bc6ed69914a8fb83e9595774b8779419064b0576a333a628602c204a4a0fc0d5abae`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`37dcdd4962e92dfda5ab5c6cc445802840f61ae50666e6505dbdab89e0773600132a0422d4ead360f6f76f2`
kubernetes-client-darwin-	`792ce272955283332bb00cce6778a7ecf473f3820ad300702a092ba8e1103c7542eec793fd2a62162b74bae`

amd64.tar.gz	
kubernetes-client-linux-386.tar.gz	a1d19d97e9ed0ac3809fc8b6a80091d130c4e9cb720bc3ad4b16ec943cefeb632c491a402590a4708e6613b
kubernetes-client-linux-amd64.tar.gz	d093208aaa4f60f1ade3b6b725a3db7ce1db680cd994f0a7af9919a2c6843002a7c31bf847cc14d42c9b273
kubernetes-client-linux-arm.tar.gz	883d09d7923ee0879788d2d9f4666b42d256c2ee31beeaeac8de7203c2cb8ca8ed556e6a6d8208065838ac1
kubernetes-client-linux-arm64.tar.gz	755eea86c726e1161c7f6766d7c20e6dfcaa6a548c0f597fcd5bc093a2ba141ba7dcb6409fb01f659ad33c5
kubernetes-client-linux-ppc64le.tar.gz	65b0e312cb45226be8331b26264cffe3f769d775b3fb303618887521bba99bc4fb6159a55c85a8d403ed38c
kubernetes-client-linux-s390x.tar.gz	202a22cbbb2d552dcd85e4a750b06b1b08966a2e818912f534837ae0620eebaf8fe82a1d48b9520971ce8c9
kubernetes-client-windows-386.tar.gz	896a324dbb12e3a1e403104a4a86e213d565ee1d9d73ea02e2347632b14cc2712ffa78b9a869d1cf5062a1b
kubernetes-client-windows-amd64.tar.gz	354166046a15266b4c049c65ebca47a5487fb3fefd17e14d6f1094882d8c3e4257fab34c148aaf9d3e076fa

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	c7cd2cc2c4b028996d7294a4d60ef7e41ed4107d5c2e8e0ca24ed3ac244132a18ac472244c39ca147190e4a
kubernetes-server-linux-arm.tar.gz	101bbc1a126d7bb435826172d6f8f82d69e75bd6c3b1048ddf9346218f50492372c42a6abec25fd388f5188
kubernetes-server-linux-arm64.tar.gz	30ebb7bf93a874038cf3635c643e08df27f86f73b192e8fe0234734a198346a5b32ee6f6cfc23c5f2b472a8
kubernetes-server-linux-ppc64le.tar.gz	7b1a1dbea2f1ca79bde2ad3a3d5994eacb3f3b6064ca9a87b2629313cd21242581640e89790968abd55908d

kubernetes-server-linux-s390x.tar.gz	ec875423de5e118434dcab18323882c133c7794bda848afcb648a325072e2d272ac3bdfdfd64a76a1470f11

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	93e5f03807f38661903152995a201e99d8da60ea24f04e64f46ddf4dcdb5f45c888ec04b14e3aac63122f85
kubernetes-node-linux-arm.tar.gz	ea8f77ad3e3cd957c76a9ad9d645f0e1883fb56e8586aa3693cc04f5495e75f84f2269851ed44278a2011a7
kubernetes-node-linux-arm64.tar.gz	bf271629348e40001b958e7891fadd15f1836e3fd8fcff5938f44ec46f5a326db9a2e6c11c86b78add5f6c4
kubernetes-node-linux-ppc64le.tar.gz	27637102fe9b41b94f7d25263235abf809d929420c1ca4a4e8043a506b5f93f34f7aa22da2d293a4e331f52
kubernetes-node-linux-s390x.tar.gz	b511d8df67f66b38ee333c4a741ed799ed322370ab3c5bee4b680f7b694222773401c671a7170adda28635e
kubernetes-node-windows-amd64.tar.gz	95430f8523a1d7e63670d6bb5b019d0f456ccaac74219129c58c0d6636b1d60348b76018f1ec1a1efc5eb37

Changelog since v1.13.5

Other notable changes

- Connections from Pods to Services with 0 endpoints will now ICMP reject immediately, rather than blackhole and timeout. (#72534, @thockin)
- Services of type=LoadBalancer which have no endpoints will now immediately ICMP reject connections, rather than time out. (#74394, @thockin)
- Fixes an error with stuck informers when an etcd watch receives update or delete events with missing data (#76675, @ryanmcnamara)
- Update Cluster Autoscaler to 1.13.4 (#77065, @losipiuk)
  - https://github.com/kubernetes/autoscaler/releases/tag/cluster-autoscaler-1.13.4
  - https://github.com/kubernetes/autoscaler/releases/tag/cluster-autoscaler-1.13.3
- Add name validation for dynamic client methods in client-go (#75072, @lblackstone)
- fix smb unmount issue on Windows (#75087, @andyzhangx)
- Fixes segmentation fault issue with Protobuf library when log entries are deeply nested. (#77224, @qingling128)
- Fixes possible panic during volume detach, if corresponding volume plugin became non-attachable (#71471, @mshaverdo)

- [fluentd-gcp addon] Bump fluentd-gcp-scaler to v0.5.2 to pick up security fixes. (#76762, @serathius)
- specify azure file share name in azure file plugin (#76988, @andyzhangx)
- Clean links handling in cp's tar code (#76788, @soltysh)
- Fix issue in Portworx volume driver causing controller manager to crash (#76341, @harsh-px)
- fix azure disk list corruption issue (#77187, @andyzhangx)
- fix detach azure disk back off issue which has too big lock in failure retry condition (#76573, @andyzhangx)
- Increase Azure default maximumLoadBalancerRuleCount to 250. (#72621, @feiskyer)
- fix race condition issue for smb mount on windows (#75371, @andyzhangx)
- Ensure the backend pools are set correctly for Azure SLB with multiple backend pools (e.g. outbound rules) (#76691, @feiskyer)
- [metrics-server addon] Restore connecting to nodes via IP addresses (#76819, @serathius)
- Fixes a NPD bug on GCI, so that it disables glog writing to files for log-counter (#76211, @wangzhen127)
- Fixed parsing of fsType in AWS StorageClass parameters (#75943, @jsafrane)
- [stackdriver addon] Bump prometheus-to-sd to v0.5.0 to pick up security fixes. (#75362, @serathius)
  - [fluentd-gcp addon] Bump fluentd-gcp-scaler to v0.5.1 to pick up security fixes.
  - [fluentd-gcp addon] Bump event-exporter to v0.2.4 to pick up security fixes.
  - [fluentd-gcp addon] Bump prometheus-to-sd to v0.5.0 to pick up security fixes.
  - [metatada-proxy addon] Bump prometheus-to-sd v0.5.0 to pick up security fixes.
- Node-Problem-Detector configuration is now decoupled from the Kubernetes release on GKE/GCE. (#73288, @wangzhen127)
- [IPVS] Allow for transparent kube-proxy restarts (#75283, @lbernail)
- [IPVS] Introduces flag ipvs-strict-arp to configure stricter ARP sysctls, defaulting to false to preserve existing behaviors. This was enabled by default in 1.13.0, which impacted a few CNI plugins. (#75295, @lbernail)
- Fix AAD support for Azure sovereign cloud in kubectl (#72143, @karataliu)
- Fixed scanning of failed iSCSI targets. (#74306, @jsafrane)

v1.13.5

Documentation

Downloads for v1.13.5

filename	sha512 hash
kubernetes.tar.gz	08ea2a11208a5b237f7d03acb44f5b670f0d1fe35aac48e937492a14767abdcd80e94d94be39fcbb7445
kubernetes-src.tar.gz	2f26c75707b783ff670e13346e5978ba99848d61759ac10eb23e0dda3ad4294d4f9ab1f728c320b3e2f5

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	aa59753fd0d386bb82adc4c966c751aae8b1d3fc2e00d2373296e3636f2296c0ca4e286ab3bc3242f4e5dc7
kubernetes-client-darwin-amd64.tar.gz	e0c01f8f368b3159e92fbd78c99015735a5cd7c4fbc41c3fa3561f3ad671e2768d9672a1541cf62bde7f7fa

kubernetes-client-linux-386.tar.gz	1150f1e69b9700c0daae98fb5d6e27fe4de0a31bc8abc0c63adf76a952b996877129380a3d53d9023834822
kubernetes-client-linux-amd64.tar.gz	11439519bbf81aca17cd883c3f8fbeb6ad0b6d4360e17c9c45303c5fb473ebe6a9be32ca2df27a492a16fcc
kubernetes-client-linux-arm.tar.gz	8f1088b152236bfdb0ea49a674ed55c6163698c3d0bda5ef830cc2fe8e4a89abd245f9b6d56cf6374457c6a
kubernetes-client-linux-arm64.tar.gz	fb64aa0fed8af1fdb882da5e92ad4b6dc15fe7ecaf5ce49c5404bf652483c26349f2b8587d9c948a51dd2c9
kubernetes-client-linux-ppc64le.tar.gz	72a6b04fd29c5b91cd6b9bcb6eafda7ad9ec748ef77f4bbb6330cf3c6b8cc6a40dbc3c6a59b6883c021ca13
kubernetes-client-linux-s390x.tar.gz	a7f88cf9fd81c53f4f1767c6a9dc6ace49d97d57096739864d7ab6f1c17a7807d32d58a26f5d7d7ce87f70b
kubernetes-client-windows-386.tar.gz	0410e02913fe3eb2368647ae0f3c8a357f1fd01550bd828e1bbf8b8cc1d48416427a1b597e69620de554483
kubernetes-client-windows-amd64.tar.gz	0221b271971c2eb65c66a73d53cfc98506f30216168509cb06bc017a0bb4aa71d9dd905d28a4a42d831fe9e

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	02fcb55286d8753262688884fc720098135651c8a41a0f5d7f08e4446f1b2bf45b32c2efaa0ed059eb83208
kubernetes-server-linux-arm.tar.gz	4bdc0490acfea82227f6905a882042f0aae8b743431052d63afb3ca081cc133a78ef1cbfd7513be9466623c
kubernetes-server-linux-arm64.tar.gz	e9d883b1b616cc027a4624228455618fa920c7960802cfd403a755aeef10462b2a05a52545afeeb212ed98c
kubernetes-server-linux-ppc64le.tar.gz	d252fdf2a656ebcaac92f59eaa616e8a73de1c6e7942b86093a0496a55f93ca73b33ae79f6320a92d6b07ce
kubernetes-	ed773b0c82ff7b929d4aa4b26f51b7649fc7cdce05fc857b69889bf804ed6a93f38416a34c91f967c799503

server-linux-s390x.tar.gz	

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	d715b3d7ffcdc368d6cb7a4cfe81ae114059ef3bcb5cac249b5e55fe41384b26b348af55161e355ffbd6091
kubernetes-node-linux-arm.tar.gz	0f6c93522ed93abeddab3921f44b56eb5c7174fc405c75ae582cc6154cc43da584d125c24fb99d6920da51e
kubernetes-node-linux-arm64.tar.gz	a1c6637915409e099b44525352af538006db9e72519ad2fd9f7893ac34e3709dcc2899643b56ec02676dd43
kubernetes-node-linux-ppc64le.tar.gz	d6375b20fcacffd2d393c9100389e2bd67d123e7de691176f6c75f7d68967751d76a7a19a7431ee7488070a
kubernetes-node-linux-s390x.tar.gz	0b904e1436d8706caaad815dad6c6b5801db2981f6ca9547e31bb4de52cfeb40bb4dd76595b3b3ecaf5aef4
kubernetes-node-windows-amd64.tar.gz	39a3dbf65b32738223098a0f52953610b1764c44d90bd21f20f26265b62d817f8f5817194f615ae4d9bd7b4

Changelog since v1.13.4

Other notable changes

- Restores --username and --password flags to kubectl (#75451, @liggitt)
- Applies zone labels to vSphere Volumes and honors allowedTopologies when provisioning. (#74654, @subramanian-neelakantan)
- Re-issue Allocate grpc calls before starting a container that requests device-plugin resources if the cached state is missing. (#73824, @jiayingz)
- Kubelet won't evict a static pod with priority `system-node-critical` upon resource pressure. (#74222, @Huang-Wei)
- Update Cluster Autoscaler version to 1.13.2. Release notes: https://github.com/kubernetes/autoscaler/releases/tag/cluster-autoscaler-1.13.2 (#75291, @losipiuk)
- Delay CSI client initialization to make reconstruction of CSI volume possible because clients may not be available on kubelet restart. (#74652, @cofyc)
- Fixes an issue with missing apiVersion/kind in object data sent to admission webhooks (#74448, @liggitt)
- Because some plugins mount volume on sub-directory of volume path, we need to distinguish between volume path and mount path to fix issue in reconstruction. (#74653, @cofyc)
- Allow disable outbound SNAT when Azure standard load balancer is used together with outbound rules. (#75282, @feiskyer)

- Ensure Azure load balancer cleaned up on 404 or 403 when deleting LoadBalancer services. (#75256, @feiskyer)
- Fix kubelet start failure issue on Azure Stack due to InstanceMetadata setting (#74936, @rjaini)
- Fix panic in kubectl cp command (#75037, @soltysh)
- Prevent AWS Network Load Balancer security groups ingress rules to be deleted by ensuring target groups are tagged. (#73594, @masterzen)
- kubelet: resolved hang/timeout issues when running large numbers of pods with unique configmap/secret references (#74755, @liggitt)
- fix Azure Container Registry anonymous repo image pull error (#74715, @andyzhangx)
- This PR removes the following metrics: (#74636, @logicalhan)
    - reflector_items_per_list
    - reflector_items_per_watch
    - reflector_last_resource_version
    - reflector_list_duration_seconds
    - reflector_lists_total
    - reflector_short_watches_total
    - reflector_watch_duration_seconds
    - reflector_watches_total
    - While this is a backwards-incompatible change, it would have been impossible to setup reliable monitoring around these metrics since the labels were not stable.

v1.13.4

Documentation

Downloads for v1.13.4

filename	sha512 hash
kubernetes.tar.gz	591cd3f4f479744a1d47544902817350321c63f8c37ad771d559e293bcdbc421e89d62663300a6739c66
kubernetes-src.tar.gz	3f3b5318321b661b028da62798b2cb85ccc7d5bfa90605944bd8a626c86e7e77f54fdb7e340587528f41

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	78c604ac5c54beff498fffa398abcd6c91f6d6ee6ec7249b675f10a2fa5866e336a560b85275c408daf8bf2
kubernetes-client-darwin-amd64.tar.gz	0678f0305608589b15dbc6a5dca00de99adfb296d881a33fb1745a1393b17a2e9f59becb3978e5194659367
kubernetes-client-linux-386.tar.gz	2c311839a0b843c9203d4b7a558f2c0cff3fa97c40ebcd3838cf592b764c9387d31c315e0ff39da32d73b41
kubernetes-client-linux-	71f813f0d8461967e9a002a9d8842b3ac40ffcaa59979d84499aff1958b2ac78d7ac75b562cffd5a9d122f0

amd64.tar.gz	
kubernetes-client-linux-arm.tar.gz	20c1779c51692b1bbcddc96dcb1f41868414d9585c53f62aa07ad0ca3ca4cf7a0e2414ee2095fb3a1096bf8
kubernetes-client-linux-arm64.tar.gz	58dd72a04f31613572b58095279a91fa9c16e8a8c052b0ec3e3badea60cf8a2a33953e9d5b839d931070c04
kubernetes-client-linux-ppc64le.tar.gz	1e68cd52396cc554d6446575f5de4656fbe9965a432328fdd9ee317db232f875eda3925bcc2956543085560
kubernetes-client-linux-s390x.tar.gz	3fcba2802db6662392b4eaf2465753f88c6b5de2e4e264e2669ad196f6a984dd4ac0a41bf7f11d955e130e5
kubernetes-client-windows-386.tar.gz	47c50b8a4bf9541096efba51e8034e4a9b796ff69221e5d0f5589bf921c186053c5f1617cd75913d8bbd288
kubernetes-client-windows-amd64.tar.gz	0572c7755a5190b2f687645a17d6b75e8544dc8b84c1dd09a396fc8dec0ec56be367098da903db1127eeeb8

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	a36eff3dd5769df6af8a39c0b50268c6b324db5b7000fe4f6c9a5c83d87b971cf187abf1a38e9970602cb0c
kubernetes-server-linux-arm.tar.gz	9564dc220de5210d8e690a5a84f46a7ca0d43fd6e1f5f68b49754ab6335e4bb9e0faf8490109ff28417233f
kubernetes-server-linux-arm64.tar.gz	e9d345633188352caadd9356f3816cd66137721a32b28986bcb516fbd7b9d23dc0dd04223bf177619baf0e0
kubernetes-server-linux-ppc64le.tar.gz	3062e04932d9386aeccf142734a0ebe2aca0614b4c57ddef735d7554e439d60927a1a64cbf53160ba0b7c8d
kubernetes-server-linux-s390x.tar.gz	337cfb3894f818ca116630678e9b596f44506ce680670b416ee0edb2adae98be34110cbddd5faed5f7b672f

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`1e5e40bb5650a4aef147d21c31af322d44959aa4d7869cda84ba1e2bdd5c983710c6fe50b19c998fb3376cd`
kubernetes-node-linux-arm.tar.gz	`c16b0adbf3296e886a0f0ec6ec36d5a18fb8ff62718bf59ac71ceb06985e73c5f33f0e2c9132faed75e54e8`
kubernetes-node-linux-arm64.tar.gz	`16cc2c021c0bb09d903ce027a0e8eee5884395ee4e16998969fee29ef87af4e32540e96e6dd90584a6a919b`
kubernetes-node-linux-ppc64le.tar.gz	`0bbe3d990fa2aeccf4445980a4046b987d4b508db7d07e09cd6d2570f67d5a0620c11d2026afc142f2fb8ca`
kubernetes-node-linux-s390x.tar.gz	`0bd7e19efcb09eb0136292dee397cf2893068378e584d098c451e759ffc6b52c86e877f4da2ec61e78871b7`
kubernetes-node-windows-amd64.tar.gz	`1909c5b0cc63851f4b9dcbec871ad8e626f974eb86e3488a95eaf1f6736cf15cfd850904f44f2d278f8d6da`

Changelog since v1.13.3

Other notable changes

- fix get azure accounts timeout issue when there is no out-bound IP (#74191, @andyzhangx)
- fix issue: fail to detach azure disk when there is server side error (#74398, @andyzhangx)
- Fix keymutex issues which may crash in some platforms. (#74386, @danielqsj)
- fix parse devicePath issue on Azure Disk (#74499, @andyzhangx)
- kubeadm: fixed nil pointer dereference caused by a bug in url parsing (#74454, @bart0sh)
- fix mixed protocol issue for azure load balancer (#74200, @andyzhangx)
- fix smb remount issue on Windows (#73661, @andyzhangx)
- remove stale OutOfDisk condition from kubelet side (#72507, @dixudx)
- Adds deleting pods created by DaemonSet assigned to not existing nodes. (#73401, @krzysztof-jastrzebski)
- scheduler: use incremental scheduling cycle in PriorityQueue to put all in-flight unschedulable pods back to active queue if we received move request (#73309, @cofyc)
- Add `metrics-port` to kube-proxy cmd flags. (#72682, @whypro)
- kube-apiserver: a request body of a CREATE/UPDATE/PATCH/DELETE resource operation larger than 100 MB will return a 413 "request entity too large" error. (#73805, @caesarxuchao)
    - Custom apiservers built with the latest apiserver library will have the 100MB limit on the body of resource requests as well. The limit can be altered via ServerRunOptions.MaxRequestBodyBytes.
    - The body size limit does not apply to subresources like pods/proxy that proxy request content to another server.
- The apiserver, including both the kube-apiserver and apiservers built with the generic apiserver library, will now return 413 RequestEntityTooLarge error if a json patch contains more than 10,000 operations. (#74000, @caesarxuchao)

- Fix watch to not send the same set of events multiple times causing watcher to go back in time (#73845, @wojtek-t)
- fixes an error processing watch events when running skewed apiservers (#73482, @liggitt)
- MAC Address filter has been fixed in vSphere Cloud Provider, it no longer ignores `00:1c:14` and `00:05:69` prefixes (#73721, @frapposelli)

v1.13.3

Documentation

Downloads for v1.13.3

filename	sha512 hash
kubernetes.tar.gz	151af896b72c7fd09c05da1a7685e8b2f167c717adbe5776f80a264171e5f3359a948af93642856e0bfb
kubernetes-src.tar.gz	6b9afce63c970e62304767f4a3a58b6974608f7052ede634bffd3b8cc9562e8af56b26c66b8420fb748a

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	945329155f78bcab5f5c062bda17220d0fea427a1ee522cf17fe4f32fab295e9baa6d20f88531b198abe821
kubernetes-client-darwin-amd64.tar.gz	3aabe9d26818abdbb66724cc047f8ad2e6fa45e48d62d05eb555ac62180fe941d688169c5b876986b742192
kubernetes-client-linux-386.tar.gz	62e18f5d9551ab56c02fefc4a7e7b5f3ad169a2c11c5d3696742231fefe583d4e6c530907a65019f9bca943
kubernetes-client-linux-amd64.tar.gz	b326f6c1177c1176bea8ef404e3652cd64ceefb895f040a1364432e63a516a0a963eb65ce7f1fd294c7d398
kubernetes-client-linux-arm.tar.gz	669949d8eb3b12f1952c4f8f0289268d521cb2b58a2ef4551d7532114c82bcaa5269a42ac4094d7dbed5194
kubernetes-client-linux-arm64.tar.gz	efc677cc24279734f669faa056a11f61a5bf069ce07919ab8e007f4ed2f6083aa9b168de3adee50a56fd350
kubernetes-client-linux-ppc64le.tar.gz	2b4fc4bdba12809d3cf0159cd1a8afb8404fad0b55c312c28e85d0064b4d1f7c322d1c322ac2f77f1cb7f6a
kubernetes-client-linux-	aba33e8a2ab026ba687eb46c67e79caeee8c74fc959de167ba9d6f2929e6a5e18d29f05a2d70bf80ed66db4

s390x.tar.gz	
kubernetes-client-windows-386.tar.gz	295920b3797947308b37f5852cf136e47d900bca6d442495df97b88c02182eba2487f23519ea92af2d3f33b
kubernetes-client-windows-amd64.tar.gz	9cc3b24e92a8b7c49cc6225876ef9513fbb50520da11eaf897f4bd864304350d20726af580dc1663a03839a

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	024847f8a370c4edb920a4621904540bf15c3afc0c688a134090ae8503a51296c83ebc402365f5a2be5aff0
kubernetes-server-linux-arm.tar.gz	5fc1f6b60102e8830c6946750d0115cf71cdf59ef9878add2fc0edfed7b3396d25f6e1918d51481403ba669
kubernetes-server-linux-arm64.tar.gz	5cbd4ad922476262eae523c5dddaba9d4af3778b1dd731b7c3c538061d81f0a0913df872c9e34dbfdc5fd57
kubernetes-server-linux-ppc64le.tar.gz	1dfd2365cca9fc828f3cedf61f8d74da108a8416bb9320e0ce071da61808125ad79724092d3345b95c0a9f4
kubernetes-server-linux-s390x.tar.gz	cd096d1229c0e89595fe1353b7c095ba0cbbe72be701392672cbd7d73269c2dccf64a6234eee5d90aba5c7c

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	18245cfc11f3e0eaad4a331f5a73deee5029c747a6c8183184ccc243ff2df010492146ae40b5f8eee312898
kubernetes-node-linux-arm.tar.gz	52e3e5e6ab31df0be542ee6d4d9a4c2ef4cbbc9e28dc18a819d9f31283af11338bd75683d2722d04894f87e
kubernetes-node-linux-arm64.tar.gz	de4e718e0d996a5e3d7093eb97aef703ec23a0af5bd2d7116a3825a7834a00cd3080fb94acca87786ae6a49
kubernetes-node-linux-	5981ec0b91f1fef0ca11a877362e1507935d03472d1d1de210fe8ef4cb8f45f656829eff23bdf448f68a421

ppc64le.tar.gz	
kubernetes-node-linux-s390x.tar.gz	b4ee2806c67d71697923d29dac821b90004eb0e4f43b3f0d3f3c1d9401c63b00c0e5f54f83111fb857ab69d
kubernetes-node-windows-amd64.tar.gz	3b97d44c038245b860ba08a9b4cc8fe77e75cd1a70b568ead58562dcd4a34e04a9dfa9e7819f2c2098685f3

Changelog since v1.13.2

Other notable changes

- Update to go1.11.5 (#73326, @ixdy)
- add goroutine to move unschedulable pods to activeq if they are not retried for more than 1 minute (#72558, @denkensk)
- A new `TaintNodesByCondition` admission plugin taints newly created Node objects as "not ready", to fix a race condition that could cause pods to be scheduled on new nodes before their taints were updated to accurately reflect their reported conditions. This admission plugin is enabled by default if the `TaintNodesByCondition` feature is enabled. (#73097, @bsalamat)
- kubeadm: add back `--cert-dir` option for `kubeadm init phase certs sa` (#73239, @mattkelly)
- Scale max-inflight limits together with master VM sizes. (#73268, @wojtek-t)
- kubeadm: explicitly wait for `etcd` to have grown when joining a new control plane (#72984, @ereslibre)
- Improve efficiency of preemption logic in clusters with many pending pods. (#72895, @bsalamat)
- Fix AWS NLB security group updates where valid security group ports were incorrectly removed (#68422, @kellycampbell)
  - when updating a service or when node changes occur.
- Allow for watching objects larger than 1MB given etcd accepts objects of size up to 1.5MB (#72053, @wojtek-t)
- kubectl: fixed an issue with "too old resource version" errors continuously appearing when calling `kubectl delete` (#72825, @liggitt)
- Fix scheduling starvation of pods in cluster with large number of unschedulable pods. (#72619, @everpeace)
- Fixes spurious 0-length API responses. (#72856, @liggitt)

v1.13.2

Documentation

Downloads for v1.13.2

filename	sha512 hash
kubernetes.tar.gz	fe1c30efaffb70b4102879580470031baf78f11c94fc37773bd69568a3aca9a93a0350d067faa2fa0f25
kubernetes-src.tar.gz	a6fb14fef46a566a68847cbb522ea091c545293f16af7ddf9ab26a801e548debcd4e4dc48aa6e38cc92b

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	9998b7286281018f9bb1d0eeac9d59f287c2f4240f55ff362a9ce2d01565d60931793715904ef76cc820045
kubernetes-client-darwin-amd64.tar.gz	4b1016ed9194d6c1e96a5aa896426be3288cf2f5c98cad9383b3760247c52bcdddbdbe4c697196e31cd0491
kubernetes-client-linux-386.tar.gz	a48aba3f68a77a65d44121a0fc8ae6b508c71e483f19b05faea924f60cc18c7443c218b7c5170ba958dadb1
kubernetes-client-linux-amd64.tar.gz	1c389c36b531349e745bd036b6f33224a116fc4b6fbaff86d96a15dbae436730848263bb83f93fcf63a0e6c
kubernetes-client-linux-arm.tar.gz	87e958e7a9436d4db2264a21c96a113d2e88d485bbb5ea9e73fbeff39dbb3d0f3678cc5a491b72cde19a856
kubernetes-client-linux-arm64.tar.gz	9ad4f639a95a2211594f125db38f67528ff3c38d6ae32b1cee3b7102bb475d9724ec232acf13f1ee5cbb9e2
kubernetes-client-linux-ppc64le.tar.gz	25223a041dca0d13f8f26edae7d559c21c481c42b78a131614db71a8bee2fb85b81857eb34979a42d061e08
kubernetes-client-linux-s390x.tar.gz	62473b3798f01f0c1776bea6c2877d68e0d0f7221eceabb9108aa2f6060343bd46eba6b9564ae0d6a03fafa
kubernetes-client-windows-386.tar.gz	6e43661690067229691df9f62788f23e1af40e23136e1e6c2c316c88a705b1554560c1489787fd34c594f81
kubernetes-client-windows-amd64.tar.gz	4bdf3074f3f50fd794d7ccf16c076d412686a1e3c435c9970d3e84da2b44c176c5f17f787e0e08bc30ac33a

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	e2d2f02f76578c5a1c04a9a417e9f1dc16abcc28daab688c50554a1bf64bb75dfbf5aae6d6f3e5c4463b214
kubernetes-	6f4a331fd78157866238dd9b8d986d33bfce6548ae503d0c9f4fb42854b0793df659298f95577103994047d

server-linux-arm.tar.gz	
kubernetes-server-linux-arm64.tar.gz	50fc95da2598775029b828f31978f6e2a98eceee890bd575122e7697dc7805f1fb9de060998999f3f9d8bc7
kubernetes-server-linux-ppc64le.tar.gz	eea26a444b99d5fe984efa12672125f4482ab6f0e5cd52b5d110669bc0f1ff1239293cdca5af4ac862507e1
kubernetes-server-linux-s390x.tar.gz	d2277b94c0f487eb8636355e8d0880af9f7a7e4fd5e6688278814582a0d872aa4884b2411d8a2ff5ea1b917

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	f908a95f264792bdc0d8c79c818d044b81bf5cf7179b239a3c3835a58d1e61e5b31df913bb6cfeb66286410
kubernetes-node-linux-arm.tar.gz	24d5bedf4da1aa7d445b8ff2e62f43210f6bd5cc4a3a53b157e5edfe1e00c71b25d84767c8738c9c4f6fdfc
kubernetes-node-linux-arm64.tar.gz	52936dfe3c41207495f5831c9ec93be2e188ee97d696de3a0317ed8caefab2b002c3b1b72c375bd11368a6a
kubernetes-node-linux-ppc64le.tar.gz	c07bee8d4511eadd0fb45107b672898c53fc817f5de034c57f4ef0fbeef0a8964f188604b3fc0ce042e5114
kubernetes-node-linux-s390x.tar.gz	12b588e226bb7b7dc78378962d46553e540539c666c364bdfc0f1228a87bca90d54ba42dfd7558369f4c986
kubernetes-node-windows-amd64.tar.gz	219fe75c216a0d42b944699e8da9f5b4eeff3cc43415d139954c577b75a27b108dc787e7b459cdc02510953

Changelog since v1.13.1

Other notable changes

- client-go: shortens refresh period for token files to 1 minute to ensure auto-rotated projected service account tokens are read frequently enough. (#72437, @liggitt)
- Updates the kubernetes dashboard add-on to v1.10.1. Skipping dashboard login is no longer enabled by default. (#72495, @liggitt)
- Fixes a bug in HPA controller so HPAs are always updated every resyncPeriod (15 seconds). (#72373, @krzysztof-jastrzebski)

- Fix device mountable volume names in DSW to prevent races in device mountable plugin, e.g. local. (#71509, @cofyc)
- change azure disk host cache to ReadOnly by default (#72229, @andyzhangx)
- Fixes issue with cleaning up stale NFS subpath mounts (#71804, @msau42)
- Fix a race condition in the scheduler preemption logic that could cause nominatedNodeName of a pod not to be considered in one or more scheduling cycles. (#72259, @bsalamat)
- Fixes `kubectl create secret docker-registry` compatibility (#72344, @liggitt)
- Fix race condition introduced by graceful termination which can lead to a deadlock in kube-proxy (#72361, @lbernail)
- Support graceful termination with IPVS when deleting a service (#71895, @lbernail)
- Fixes issue where subpath volume content was deleted during orphaned pod cleanup for Local volumes that are directories (and not mount points) on the root filesystem. (#72291, @msau42)
- kube-proxy in IPVS mode will stop initiating connections to terminating pods for services with sessionAffinity set. (#71834, @lbernail)
- fix race condition when attach azure disk in vmss (#71992, @andyzhangx)
- Reduce CSI log and event spam. (#71581, @saad-ali)
- fix kubelet log flushing issue in azure disk (#71990, @andyzhangx)
- Update to use go1.11.3 with fix for CVE-2018-16875 (#72035, @seemethere)
- Fix a race condition in which kubeadm only waits for the kubelets kubeconfig file when it has performed the TLS bootstrap, but wasn't waiting for certificates to be present in the filesystem (#72030, @ereslibre)
- kubeadm: fix a possible panic when joining a new control plane node in HA scenarios (#72123, @anitgandhi)
- kubeadm: fix a bug when syncing etcd endpoints (#71945, @pytimer)

v1.13.1

Documentation

Downloads for v1.13.1

filename	sha512 hash
kubernetes.tar.gz	de3858357b2b4444bccc0599c7d0edd3e6ec1a80267ef96883ebcfb06c518ce467dd8720b48084644677
kubernetes-src.tar.gz	7f0a8dbd3c7397cc5a5bc0297eb24b8e734c3c7b78e48fc794c525377c3895f4fd84fd0a2fa70c5513cc

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	371028dba7a28ec3c8f10b861448cb1574dce25d32d847af254b76b7f158aa4fcda695972e2a08440faa4e1
kubernetes-client-darwin-amd64.tar.gz	6aa7025308e9fb1eb4415e504e8aa9c7a0a20b09c500cb48df82bbd04443101664b2614fb284875b9670d4b
kubernetes-client-linux-386.tar.gz	6453670bb61b4f5f7fe8ae78804864ecd52682b32592f6956faf3d2220884a64fb22ae2e668b63f28ea8fd3

kubernetes-client-linux-amd64.tar.gz	ca00442f50b5d5627357dce97c90c17cb0126d746b887afdab2d4db9e0826532469fd1ee62f40eb69237616
kubernetes-client-linux-arm.tar.gz	5fa170cbe56b8f5d103f520e2493f911c5eb59b51a6afdbaa9c08196943f1235e533f0384ce7c01c73a020c
kubernetes-client-linux-arm64.tar.gz	710343ad067f0d642c43cd26871828275645b08b4f4c86bd555865318d8fe08b7f0a720174c04d58acffcb2
kubernetes-client-linux-ppc64le.tar.gz	0fa7ab255f0cba3adc754337c6184e6ec464aa5a4d6dd4d38aad8a0e2430a0044f4ed1ffcd7cc7c863190d3
kubernetes-client-linux-s390x.tar.gz	749a8dce5b81e2edbd315841acac64a0e5d17bb1ead8173560b6a4ccc28604bc8254051297ab51cb5df8454
kubernetes-client-windows-386.tar.gz	cd4732fbe569009c426f963318d05ddcc7c63dc27ec9d2bf9c60d716195e3676aa5b0e6ccbde6298f621450
kubernetes-client-windows-amd64.tar.gz	40f5b5d221b3a611511690d316539dc8fb3f4513e4f9eb141bffa17c9ddeee875a462f5bd45e62ce7c75353

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	e0e48825c5fe33a3f82b1b74847d9bfb8c5716c4313c5e4e6f46be0580e20a1e396a669b8ca446cfa581e3e
kubernetes-server-linux-arm.tar.gz	7ff4856e7959cf14eba0e1ab274c0bf0d3193391e7034a936697f0c4813e81d8dda4a019d3185677bee9d13
kubernetes-server-linux-arm64.tar.gz	b8c2356002e675bd3de5ee9c2337a12e2a1bbfa2478f8e3b91065a578dfa8d50f596fd606d9f0232b06b826
kubernetes-server-linux-ppc64le.tar.gz	5d3a15b1241d849d8954894aa7f3fb12606f9966f73fc36aa15152038fc385153b0f0e967cc0bf410a5d589
kubernetes-server-linux-s390x.tar.gz	78a9cccaf9d737b519db0866c2e80c472c7136bc723910d08649ece1c420ae7f6e56e610d65c436c56ccef8

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`3a7881a52885bebe5958f02dc54194cc8c330576b7cf5935189df4f0b754b958917b104e1d3358c0bc9277f`
kubernetes-node-linux-arm.tar.gz	`d0bfcff3ef7c0aa36005e7b111685438ebd0ea61d48dc68a7bd06eea3782b6eb224f9b651d80c955afa162f`
kubernetes-node-linux-arm64.tar.gz	`2e23bd00661aceb30fa37e24ab71315755bd93dfcc5ff361d78445a8e9ff99e7b3a56641112af3184e8b107`
kubernetes-node-linux-ppc64le.tar.gz	`8d0fdb743c700d662886636fe67b52202cf9e6e57c2d7de5961b8189d8c03c91fda1d68c47033286efcc582`
kubernetes-node-linux-s390x.tar.gz	`70445038b4db62c3fc99540f5ddbb8813870182442421f182332b8eaa7159ce1aa8929145010ab2befd4e101`
kubernetes-node-windows-amd64.tar.gz	`a87ad43f5a6b8f66d1bbd64f9c91e8bcbdf4adc8de0ec3cd559adaa8c14a6fe078ffdf090e52627c0522b79`

Changelog since v1.13.0

Other notable changes

- Fix overlapping filenames in diff if multiple resources have the same name. (#71923, @apelisse)
- Disable proxy to loopback and linklocal (#71980, @micahhausler)
- kube-scheduler: restores ability to run without authentication configuration lookup permissions (#71755, @liggitt)
- client-go: restores behavior of populating the BearerToken field in rest.Config objects constructed from kubeconfig files containing tokenFile config, or from in-cluster configuration. An additional BearerTokenFile field is now populated to enable constructed clients to periodically refresh tokens. (#71713, @liggitt)
- apply: fix detection of non-dry-run enabled servers (#71854, @apelisse)
- Scheduler only activates unschedulable pods if node's scheduling related properties change. (#71551, @mlmhl)
- Fixes pod deletion when cleaning old cronjobs (#71802, @soltysh)
- fix issue: vm sku restriction policy does not work in azure disk attach/detach (#71941, @andyzhangx)
- Include CRD for BGPConfigurations, needed for calico 2.x to 3.x upgrade. (#71868, @satyasm)
- UDP connections now support graceful termination in IPVS mode (#71515, @lbernail)
- kubeadm: use kubeconfig flag instead of kubeconfig-dir on init phase bootstrap-token (#71803, @yagonobre)
- On GCI, NPD starts to monitor kubelet, docker, containerd crashlooping, read-only filesystem and corrupt docker overlay2 issues. (#71522, @wangzhen127)
- Fixes an issue where Portworx volumes cannot be mounted if 9001 port is already in use on the host and users remap 9001 to another port. (#70392, @harsh-px)

- Only use the first IP address got from instance metadata. This is because Azure CNI would set up a list of IP addresses in instance metadata, while only the first one is the Node's IP. (#71736, @feiskyer)
- kube-controller-manager: fixed issue display help for the deprecated insecure --port flag (#71601, @liggitt)
- Update Cluster Autoscaler version in gce manifests to 1.13.1 (https://github.com/kubernetes/autoscaler/releases/tag/cluster-autoscaler-1.13.1) (#71842, @losipiuk)
- kubectl: fixes regression in --sort-by behavior (#71805, @liggitt)
- Fixes apiserver nil pointer panics when requesting v2beta1 autoscaling object metrics (#71744, @yue9944882)
- Fix scheduling starvation of pods in cluster with large number of unschedulable pods. (#71488, @bsalamat)

v1.13.0

Documentation

Downloads for v1.13.0

filename	sha512 hash
kubernetes.tar.gz	7b6a81c9f1b852b1e889c1b62281569a4b8853c79e5675b0910d941dfa7863c97f244f6d607aae3faf60
kubernetes-src.tar.gz	844b9fbba21374dd190c8f12dd0e5b3303dd2cd7ad25f241d6f7e46f74adf6987afad021553521d4f479

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	0c010351acb660a75122feb876c9887d46ec2cb466872dd073b7f5b26fdadd96888a350e01606f2ae43606a
kubernetes-client-darwin-amd64.tar.gz	c2c40bd202900124f4e9458b067a1e1fc040030dc84ce9bcc6a5beb263de05892c16f3bdafb8d854e343e71
kubernetes-client-linux-386.tar.gz	5f5449be103b103d72a4e2b1028ab014cf7f74781166327f2ae284e4f5ecb539f6b60f36b8f7c7be0ae43df
kubernetes-client-linux-amd64.tar.gz	61a6cd3b1fb34507e0b762a45da09d88e34921985970a2ba594e0e5af737d94c966434b4e9f8e84fb73a0ae
kubernetes-client-linux-arm.tar.gz	dd5591e2b88c347759a138c4d2436a0f5252341d0e8c9fbab16b8f151e2744cbdd0c8583555a451425bc471
kubernetes-client-linux-arm64.tar.gz	894ed30261598ebf3485f3575e95f85e3c353f4d834bf9a6ea53b265427704b43fba5403fbc4d522b3f02af
kubernetes-client-linux-	6c26c807fc730ea736fda75dc57ac73395ba78bb828fffeee18b385be550d8f3ba2bbc27a52a8f15bcbbe68

ppc64le.tar.gz	
kubernetes-client-linux-s390x.tar.gz	41e6e972de77c0bde22fdd779ea64e731b60f32e97e78a024f33fc3e33a3b364b7f77ece7d3c64ad85b7f8f
kubernetes-client-windows-386.tar.gz	442229e5030452901b924a94e7a879d4085597a4f201a5b3fc5ac9806cab5830c836cfa7a33e8f1693fe2e8
kubernetes-client-windows-amd64.tar.gz	a11a8e8e732e7292781b9cb1de6e3e41683f95fb3fefc2b1a7b5fb1f064a0d80c0833876d93167513577845

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	a8e3d457e5bcc1c09eeb66111e8dd049d6ba048c3c0fa90a61814291afdcde93f1c6dbb07beef090d1d8a99
kubernetes-server-linux-arm.tar.gz	4e17494767000256775e4dd33c0a9b2d152bd4b5fba9f343b6dfeb5746ff34e400a8e0aaf2153476453225e
kubernetes-server-linux-arm64.tar.gz	0ddd0cf0ff56cebfa89efb1972cc2bc6916e824c2af56cfd330ac5638c8918eaf3c60d05714b220dbf4f896
kubernetes-server-linux-ppc64le.tar.gz	b93828560224e812ed21b57fea5458fa8560745cfec96fc1677b258393c00e208ad9b99467b575e74e01699
kubernetes-server-linux-s390x.tar.gz	154d565329d5ba52cdb7c3d43d8854b7a9b8e34803c4df6b3e6ae74c1a6e255c78e6559b7546b9158df0e3f

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	9d18ba5f0c3b09edcf29397a496a1e908f4906087be3792989285630d7bcbaf6cd3bdd7b07dace439823885
kubernetes-node-linux-arm.tar.gz	959b04ff7b8690413e01bffeabaab2119794dedf06b7aae1743e49988f797cb7e6ff12e1a91af2d4c5f6644
kubernetes-node-linux-	b5c18e8c9e28cf276067c871446720d86b6f162e22c3a5e9343cdbc6857baa6961d09a6908b6acd1bbd132c

arm64.tar.gz	
kubernetes-node-linux-ppc64le.tar.gz	63e3504d3b115fdf3396968afafd1107b98e5a1a15b7c042a87f5a9cffbdc274f7b06b07ce90eb51876cfff
kubernetes-node-linux-s390x.tar.gz	21c5c2721febf7fddeada9569f3ecbd059267e5d2cc325d98fb74faf1ae9e9e15899750225a1fc7c25feef9
kubernetes-node-windows-amd64.tar.gz	3e73d3ecff14b4c85a71bb6cf91b1ab7d9c3075c64bd5ce6863562ab17bf808b0cbc33ddd25346d25040649

Kubernetes 1.13 Release Notes

Security Content

- CVE-2018-1002105, a critical security issue in the Kubernetes API Server, is resolved in v1.13.0 (and in v1.10.11, v1.11.5, and v1.12.3). We recommend all clusters running previous versions update to one of these releases immediately. See issue #71411 for details.

Urgent Upgrade Notes

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

Before upgrading to Kubernetes 1.13, you must keep the following in mind:

- kube-apiserver
  - The deprecated `etcd2` storage backend has been removed. Before upgrading a kube-apiserver using `--storage-backend=etcd2`, etcd v2 data must be migrated to the v3 storage backend, and kube-apiserver invocations changed to use `--storage-backend=etcd3`. Please consult the installation procedure used to set up etcd for specific migration instructions. Backups prior to upgrade are always a good practice, but since the etcd2 to etcd3 migration is not reversible, an etcd backup prior to migration is essential.
  - The deprecated `--etcd-quorum-read` flag has been removed. Quorum reads are now always enabled when fetching data from etcd. Remove the `--etcd-quorum-read` flag from kube-apiserver invocations before upgrading.
- kube-controller-manager
  - The deprecated `--insecure-experimental-approve-all-kubelet-csrs-for-group` flag has been removed.
- kubelet
  - The deprecated `--google-json-key` flag has been removed. Remove the `--google-json-key` flag from kubelet invocations before upgrading. (#69354, @yujuhong)
  - DaemonSet pods now make use of scheduling features that require kubelets to be at 1.11 or above. Ensure all kubelets in the cluster are at 1.11 or above before upgrading kube-controller-manager to 1.13.
  - The schema for the alpha `CSINodeInfo` CRD has been split into `spec` and `status` fields, and new fields `status.available` and `status.volumePluginMechanism` added. Clusters

using the previous alpha schema must delete and recreate the CRD using the new schema. (#70515, @davidz627)

- kube-scheduler dropped support for configuration files with apiVersion `componentconfig/v1alpha1`. Ensure kube-scheduler is configured using command-line flags or a configuration file with apiVersion `kubescheduler.config.k8s.io/v1alpha1` before upgrading to 1.13.
- kubectl
  - The deprecated command `run-container` has been removed. Invocations should use `kubectl run` instead (#70728, @Pingan2017)
- client-go releases will no longer have bootstrap (k8s.io/client-go/tools/bootstrap) related code. Any reference to it will break. Please redirect all references to k8s.io/bootstrap instead. (#67356, @yliaog)
- Kubernetes cannot distinguish between GCE Zonal PDs and Regional PDs with the same name. To workaround this issue, precreate PDs with unique names. PDs that are dynamically provisioned do not encounter this issue. (#70716, @msau42)

Known Issues

- If kubelet plugin registration for a driver fails, kubelet will not retry. The driver must delete and recreate the driver registration socket in order to force kubelet to attempt registration again. Restarting only the driver container may not be sufficient to trigger recreation of the socket, instead a pod restart may be required. (#71487)
- In some cases, a Flex volume resize may leave a PVC with erroneous Resizing condition even after volume has been successfully expanded. Users may choose to delete the condition, but it is not required. (#71470)
- The CSI driver-registrar external sidecar container v1.0.0-rc2 is known to take up to 1 minute to start in some cases. We expect this issue to be resolved in a future release of the sidecar container. For verification, please see the release notes of future releases of the external sidecar container. (#76)
- When using IPV6-only, be sure to use `proxy-mode=iptables` as `proxy-mode=ipvs` is known to not work. (#68437)

Deprecations

- kube-apiserver
  - The `--service-account-api-audiences` flag is deprecated in favor of `--api-audiences`. The old flag is accepted with a warning but will be removed in a future release. (#70105, @mikedanese)
  - The `--experimental-encryption-provider-config` flag is deprecated in favor of `--encryption-provider-config`. The old flag is accepted with a warning but will be removed in 1.14. (#71206, @stlaz)
  - As part of graduating the etcd encryption feature to beta, the configuration file referenced by `--encryption-provider-config` now uses `kind: EncryptionConfiguration` and `apiVersion: apiserver.config.k8s.io/v1`. Support for `kind: EncryptionConfig` and `apiVersion: v1` is deprecated and will be removed in a future release. (#67383, @stlaz)
  - The `--deserialization-cache-size` flag is deprecated, and will be removed in a future release. The flag is inactive since the etcd2 storage backend was removed. (#69842, @liggitt)
  - The `Node` authorization mode no longer allows kubelets to delete their Node API objects (prior to 1.11, in rare circumstances related to cloudprovider node ID changes, kubelets would attempt to delete/recreate their Node object at startup) (#71021, @liggitt)
  - The built-in `system:csi-external-provisioner` and `system:csi-external-attacher` cluster roles are deprecated and will not be auto-created in a future release. CSI

deployments should provide their own RBAC role definitions with required permissions. (#69868, @pohly))
    - The built-in `system:aws-cloud-provider` cluster role is deprecated and will not be auto-created in a future release. Deployments using the AWS cloud provider should grant required permissions to the `aws-cloud-provider` service account in the `kube-system` namespace as part of deployment. (#66635, @wgliang)
- kubelet
    - Use of the beta plugin registration directory `{kubelet_root_dir}/plugins/` for registration of external drivers via the kubelet plugin registration protocol is deprecated in favor of `{kubelet_root_dir}/plugins_registry/`. Support for the old directory is planned to be removed in v1.15. Device plugin and CSI storage drivers should switch to the new directory prior to v1.15. Only CSI storage drivers that support 0.x versions of the CSI API are allowed in the old directory. (#70494 by @RenaudWasTaken and #71314 by @saad-ali)
    - With the release of the CSI 1.0 API, support for CSI drivers using 0.3 and older releases of the CSI API is deprecated, and is planned to be removed in Kubernetes v1.15. CSI drivers should be updated to support the CSI 1.0 API, and deployed in the new kubelet plugin registration directory (`{kubelet_root_dir}/plugins_registry/`) once all nodes in the cluster are at 1.13 or higher (#71020 and #71314, both by @saad-ali)
    - Use of the `--node-labels` flag to set labels under the `kubernetes.io/` and `k8s.io/` prefix will be subject to restriction by the `NodeRestriction` admission plugin in future releases. See admission plugin documentation for allowed labels. (#68267, @liggitt)
- kube-scheduler
    - The alpha critical pod annotation (`scheduler.alpha.kubernetes.io/critical-pod`) is deprecated. Pod priority should be used instead to mark pods as critical. (#70298, @bsalamat)
- The following features are now GA, and the associated feature gates are deprecated and will be removed in a future release:
    - CSIPersistentVolume
    - GCERegionalPersistentDisk
    - KubeletPluginsWatcher
    - VolumeScheduling
- kubeadm
    - The DynamicKubeletConfig feature gate is deprecated. The functionality is still accessible by using the kubeadm alpha kubelet enable-dynamic command.
    - The command `kubeadm config print-defaults` is deprecated in favor of `kubeadm config print init-defaults` and `kubeadm config print join-defaults` (#69617, @rosti)
    - support for the `v1alpha3` configuration file format is deprecated and will be removed in 1.14. Use `kubeadm config migrate` to migrate `v1alpha3` configuration files to `v1beta1`, which provides improvements in image repository management, addons configuration, and other areas. The documentation for `v1beta1` can be found here: https://godoc.org/k8s.io/kubernetes/cmd/kubeadm/app/apis/kubeadm/v1beta1
- The `node.status.volumes.attached.devicePath` field is deprecated for CSI volumes and will not be set in future releases (#71095, @msau42)
- kubectl
    - The `kubectl convert` command is deprecated and will be removed in a future release (#70820, @seans3)

- Support for passing unknown provider names to the E2E test binaries is deprecated and will be removed in a future release. Use `--provider=skeleton` (no ssh access) or `--provider=local` (local cluster with ssh) instead. (#70141, @pohly)

Major Themes

SIG API Machinery

For the 1.13 release, SIG API Machinery is happy to announce that the dry-run functionality is now beta.

SIG Auth

With this release we've made several important enhancements to core SIG Auth areas. In the authorization category, we've further reduced Kubelet privileges by restricting node self-updates of labels to a whitelisted selection and by disallowing kubelets from deleting their Node API object. In authentication, we added alpha-level support for automounting improved service account tokens through projected volumes. We also enabled audience validation in TokenReview for the new tokens for improved scoping. Under audit logging, the new alpha-level "dynamic audit configuration" adds support for dynamically registering webhooks to receive a stream of audit events. Finally, we've enhanced secrets protection by graduating etcd encryption out of experimental.

SIG AWS

In v1.13 we worked on tighter integrations of Kubernetes API objects with AWS services. These include three out-of-tree alpha feature releases:

1. Alpha for AWS ALB (Application Load Balancer) integration to Kubernetes Ingress resources.
2. Alpha for CSI specification 0.3 integration to AWS EBS (Elastic Block Store)
3. Alpha for the cloudprovider-aws cloud controller manager binary. Additionally we added aws-k8s-tester, deployer interface for kubetest, to the test-infra repository. This plugin allowed us to integrate Prow to the 3 subprojects defined above in order to provide CI signal for all 3 features. The CI signal is visible here under SIG-AWS.

For detailed release notes on the three alpha features from SIG AWS, please refer to the following Changelogs:

- aws-alb-ingress-controller v1.0.0
- aws-ebs-csi-driver v0.1
- cloudprovider-aws external v0.1.0

SIG Azure

For 1.13 SIG Azure was focused on adding additional Azure Disk support for Ultra SSD, Standard SSD, and Premium Azure Files. Azure Availability Zones and cross resource group nodes were also moved from Alpha to Beta in 1.13.

SIG Big Data

During the 1.13 release cycle, SIG Big Data has been focused on community engagements relating to 3rd-party project integrations with Kubernetes. There have been no impacts on the 1.13 release.

SIG CLI

Over the course of 1.13 release SIG CLI mostly focused on stabilizing the items we've been working on over the past releases such as server-side printing and its support in kubectl, as well as finishing kubectl diff which is based on server-side dry-run feature. We've continued separating kubectl code to prepare for extraction out of main repository. Finally, thanks to the awesome support and feedback from community we've managed to promote the new plugin mechanism to Beta.

SIG Cloud Provider

For v1.13, SIG Cloud Provider has been focused on stabilizing the common APIs and interfaces consumed by cloud providers today. This involved auditing the cloud provider APIs for anything that should be deprecated as well as adding changes where necessary. In addition, SIG Cloud Provider has begun exploratory work around having a "cloud provider" e2e test suite which can be used to test common cloud provider functionalities with resources such as nodes and load balancers.

We are also continuing our long running effort to extract all the existing cloud providers that live in k8s.io/kubernetes into their own respective repos. Along with this migration, we are slowly transitioning users to use the cloud-controller-manager for any cloud provider features instead of the kube-controller-manager.

SIG Cluster Lifecycle

For 1.13 SIG Cluster Lifecycle is pleased to announce the long awaited promotion of kubeadm to stable GA, and the promotion of kubeadm's configuration API to `v1beta1`. In this release the SIG again focused on further improving the user experience on cluster creation and also fixing a number of bugs and other assorted improvements.

Some notable changes in kubeadm since Kubernetes 1.12:

- kubeadm's configuration API is now `v1beta1`. The new configuration format provides improvements in - image repository management, addons configuration, and other areas. We encourage `v1alpha3` users to migrate to this configuration API using `kubeadm config migrate`, as `v1alpha3` will be removed in 1.14. The documentation for `v1beta1` can be found here: https://godoc.org/k8s.io/kubernetes/cmd/kubeadm/app/apis/kubeadm/v1beta1
- kubeadm has graduated `kubeadm alpha phase` commands to `kubeadm init phase`. This means that the phases of creating a control-plane node are now tightly integrated as part of the `init` command. Alpha features, not yet ready for GA are still kept under `kubeadm alpha` and we appreciate feedback on them.
- `kubeadm init` and `kubeadm init phase` now have a `--image-repository` flag, improving support for environments with limited access to official kubernetes repository.
- The DynamicKubeletConfig and SelfHosting functionality was moved outside of `kubeadm init` and feature gates and is now exposed under `kubeadm alpha`.
- Kubeadm init phase certs now support the `--csr-only` option, simplifying custom CA creation.
- `kubeadm join --experimental-control-plane` now automatically adds a new etcd member for `local etcd` mode, further simplifying required tasks for HA clusters setup.
- Improvements were made to `kubeadm reset` related to cleaning etcd and notifying the user about the state of iptables.
- kubeadm commands now print warnings if input YAML documents contain unknown or duplicate fields.
- kubeadm now properly recognizes Docker 18.09.0 and newer, but still treats 18.06 as the default supported version.
- kubeadm now automatically sets the `--pod-infra-container-image` flag when starting the kubelet.

SIG IBM Cloud

The IBM Cloud SIG was focused on defining its charter and working towards moving its cloud provider code to an external repository with a goal to have this work done by the end of Kubernetes 1.14 release cycle. In the SIG meetings, we also made sure to share updates on the latest Kubernetes developments in the IBM Cloud like the availability of Kubernetes v1.12.2 in the IBM Cloud Kubernetes Service (IKS). The SIG updates were provided in the Kubernetes community weekly call and at the KubeCon China 2018.

SIG Multicluster

Moving Federation v2 from Alpha towards Beta has been the focus of our effort over the past quarter. To this end we engaged with end users, and successfully enlisted additional contributors from companies including IBM, Amadeus, Cisco and others. Federation v2 provides a suite of decoupled API's and re-usable components for building multi-cluster control planes. We plan to start releasing Beta components in late 2018. In addition, more minor updates were made to our cluster-registry and multi-cluster ingress sub-projects.

SIG Network

For 1.13, the areas of focus were in IPv6, DNS improvements and some smaller items: CoreDNS is now the default cluster DNS passing all of the scale/resource usage tests Node-local DNS cache feature is available in Alpha. This feature deploys a lightweight DNS caching Daemonset that avoids the conntrack and converts queries from UDP to more reliable TCP. PodReady++ feature now has `kubectl` CLI support.

Progress was made towards finalizing the IPv6 dual stack support KEP and support for topological routing of services.

SIG Node

SIG Node focused on stability and performance improvements in the 1.13 release. A new alpha feature is introduced to improve the mechanism that nodes heartbeat back to the control plane. The `NodeLease` feature results in the node using a `Lease` resource in the `kube-node-lease` namespace that is renewed periodically. The `NodeStatus` that was used previously to heartbeat back to the control plane is only updated when it changes. This reduces load on the control plane for large clusters. The Kubelet plugin registration mechanism, which enables automatic discovery of external plugins (including CSI and device plugins) has been promoted to stable in this release (introduced as alpha in 1.11 and promoted to beta in 1.12).

SIG Openstack

The major theme for the SIG OpenStack release is the work-in-progress for removing the in-tree provider. This work, being done in conjunction with SIG Cloud Provider, is focusing on moving internal APIs that the OpenStack (and other providers) depends upon to staging to guarantee API stability. This work also included abstracting the in-tree Cinder API and refactoring code to the external Cinder provider to remove additional Cinder volume provider code.

Additional work was also done to implement an OpenStack driver for the Cluster API effort lead by SIG Cluster Lifecycle. For the external Cloud-Provider-OpenStack code, the SIG largely focused on bug fixes and updates to match K8s 1.13 development.

SIG Scalability

SIG Scalability has mostly focused on stability and deflaking our tests, investing into framework for writing scalability tests (ClusterLoader v2) with a goal to migrate all tests to it by the end of 2018 and on the work towards extending definition of Kubernetes scalability by providing more/better user-friendly SLIs/SLOs.

SIG Scheduling

SIG Scheduling has mostly focused on stability in 1.13 and has postponed some of the major features to the next versions. There are still two notable changes: 1. TaintBasedEviction is moved to Beta and will be enabled by default. With this feature enabled, condition taints are automatically added to the nodes and pods can add tolerations for them if needed. 2. Pod critical annotation is deprecated. Pods should use pod priority instead of the annotation.

It is worth noting again that kube-scheduler will use apiVersion `kubescheduler.config.k8s.io/v1alpha1` instead of `componentconfig/v1alpha1` in its configuration files in 1.13.

SIG Service Catalog

The Service Plan Defaults feature is still under active development. We continue to improve the UX for the svcat CLI, specifically filling in gaps for the new Namespaced Service Broker feature.

SIG Storage

Over the last year, SIG Storage has been focused on adding support for the Container Storage Interface (CSI) to Kubernetes. The specification recently moved to 1.0, and on the heels of this achievement, Kubernetes v1.13 moves CSI support for PersistentVolumes to GA.

With CSI the Kubernetes volume layer becomes truly extensible, allowing third party storage developers to write drivers making their storage systems available in Kubernetes without having to touch the core code.

CSI was first introduction as alpha in Kubernetes v1.9 and moved to beta in Kubernetes v1.10.

You can find a list of sample and production drivers in the CSI Documentation.

SIG Storage also moves support for Block Volumes to beta (introduced as alpha in v1.9) and support for Topology Aware Volume Scheduling to stable (introduced as alpha in v1.9 and promoted to beta in 1.10).

SIG UI

The migration to the newest version of Angular is still under active development as it is most important thing on the roadmap at the moment. We are getting closer to the new release. We continue fixing bugs and adding other improvements.

SIG VMWare

Major focus for SIG VMware for this release is the work on moving internal APIs that the vSphere provider depends upon to staging to guarantee API stability. This work is being done in conjunction with SIG Cloud Provider and includes the creation of a brand new vsphere-csi plugin to replace the current volume functionalities in-tree.

Additional work was also done to implement a vSphere provider for the Cluster API effort lead by SIG Cluster Lifecycle. For the out-of-tree vSphere cloud provider, the SIG largely focused on bug fixes and updates to match K8s 1.13 development.

SIG Windows

SIG Windows focused on improving reliability for Windows and Kubernetes support

New Features

- kubelet: When node lease feature is enabled, kubelet reports node status to api server only if there is some change or it didn't report over last report interval. (#69753, @wangzhen127)
- vSphereVolume implements Raw Block Volume Support (#68761, @fanzhangio)
- CRD supports multi-version Schema, Subresources and AdditionalPrintColumns (NOTE that CRDs created prior to 1.13 populated the top-level additionalPrinterColumns field by default. To apply an updated that changes to per-version additionalPrinterColumns, the top-level additionalPrinterColumns field must be explicitly set to null). (#70211, @roycaihw)
- New addon in addon manager that automatically installs CSI CRDs if CSIDriverRegistry or CSINodeInfo feature gates are true. (#70193, @saad-ali)
- Delegated authorization can now allow unrestricted access for `system:masters` like the main kube-apiserver (#70671, @deads2k)
- Added dns capabilities for Windows CNI plugins: (#67435, @feiskyer)

- kube-apiserver: `--audit-webhook-version` and `--audit-log-version` now default to `audit.k8s.io/v1` if unspecified (#70476, @charrywanganthony)
- kubeadm: timeoutForControlPlane is introduced as part of the API Server config, that controls the timeout for the wait for control plane to be up. Default value is 4 minutes. (#70480, @rosti)
- `--api-audiences` now defaults to the `--service-account-issuer` if the issuer is provided but the API audience is not. (#70308, @mikedanese)
- Added support for projected volume in describe function (#70158, @WanLinghao)
- kubeadm now automatically creates a new stacked etcd member when joining a new control plane node (does not applies to external etcd) (#69486, @fabriziopandini)
- Display the usage of ephemeral-storage when using `kubectl describe node` (#70268, @Pingan2017)
- Added functionality to enable br_netfilter and ip_forward for debian packages to improve kubeadm support for CRI runtime besides Docker. (#70152, @ashwanikhemani)
- Added regions ap-northeast-3 and eu-west-3 to the list of well known AWS regions. (#70252, @nckturner)
- kubeadm: Implemented preflight check to ensure that number of CPUs (#70048, @bart0sh)
- CoreDNS is now the default DNS server in kube-up deployments. (#69883, @chrisohaver)
- Opt out of chowning and chmoding from kubectl cp. (#69573, @bjhaid)
- Failed to provision volume with StorageClass "azurefile-premium": failed to create share andy-mg1121-dynamic-pvc-1a7b2813-d1b7-11e8-9e96-000d3a03e16b in account f7228f99bcde411e8ba4900: failed to create file share, err: storage: service returned error: StatusCode=400, ErrorCode=InvalidHeaderValue, ErrorMessage=The value for one of the HTTP headers is not in the correct format. (#69718, @andyzhangx)
- `TaintBasedEvictions` feature is promoted to beta. (#69824, @Huang-Wei)
- Fixed https://github.com/kubernetes/client-go/issues/478 by adding support for JSON Patch in client-go/dynamic/fake (#69330, @vaikas)
- Dry-run is promoted to Beta and will be enabled by default. (#69644, @apelisse)
- `kubectl get priorityclass` now prints value column by default. (#69431, @Huang-Wei)
- Added a new container based image for running e2e tests (#69368, @dims)
- The `LC_ALL` and `LC_MESSAGES` env vars can now be used to set desired locale for `kubectl` while keeping `LANG` unchanged. (#69500, @m1kola)
- NodeLifecycleController: Now node lease renewal is treated as the heartbeat signal from the node, in addition to NodeStatus Update. (#69241, @wangzhen127)
- Added dynamic shared informers to write generic, non-generated controllers (#69308, @p0lyn0mial)
- Upgraded to etcd 3.3 client (#69322, @jpbetz)
- It is now possible to use named ports in the `kubectl port-forward` command (#69477, @m1kola)
- `kubectl wait` now supports condition value checks other than true using `--for condition=available=false` (#69295, @deads2k)
- Updated defaultbackend image to 1.5. Users should concentrate on updating scripts to the new version. (#69120, @aledbf)
- Bumped Dashboard version to v1.10.0 (#68450, @jeefy)
- Added env variables to control CPU requests of kube-controller-manager and kube-scheduler. (#68823, @loburm)
- PodSecurityPolicy objects now support a `MayRunAs` rule for `fsGroup` and `supplementalGroups` options. This allows specifying ranges of allowed GIDs for pods/containers without forcing a default GID the way `MustRunAs` does. This means that a container to which such a policy applies to won't use any fsGroup/supplementalGroup GID if not explicitly specified, yet a specified GID must still fall in the GID range according to the policy. (#65135, @stlaz)
- Upgrade Stackdriver Logging Agent addon image to 0.6-1.6.0-1 to use Fluentd v1.2. This provides nanoseconds timestamp granularity for logs. (#70954, @qingling128)
- When the BoundServiceAccountTokenVolumes Alpha feature is enabled, ServiceAccount volumes now use a projected volume source and their names have the prefix "kube-api-access". (#69848, @mikedanese)

- Raw block volume support is promoted to beta, and enabled by default. This is accessible via the `volumeDevices` container field in pod specs, and the `volumeMode` field in persistent volume and persistent volume claims definitions. (#71167, @msau42)
- TokenReview now supports audience validation of tokens with audiences other than the kube-apiserver. (#62692, @mikedanese)
- StatefulSet is supported in `kubectl autoscale` command (#71103, @Pingan2017)
- Kubernetes v1.13 moves support for Container Storage Interface to GA. As part of this move Kubernetes now supports CSI v1.0.0 and deprecates support for CSI 0.3 and older releases. Older CSI drivers must be updated to CSI 1.0 and moved to the new kubelet plugin registration directory in order to work with Kubernetes 1.15+. (#71020, @saad-ali)
- Added option to create CSRs instead of certificates for kubeadm init phase certs and kubeadm alpha certs renew (#70809, @liztio)
- Added a kubelet socket which serves an grpc service containing the devices used by containers on the node. (#70508, @dashpole)
- Added DynamicAuditing feature which allows for the configuration of audit webhooks through the use of an AuditSink API object. (#67257, @pbarker)
- The kube-apiserver's healthz now takes in an optional query parameter which allows you to disable health checks from causing healthz failures. (#70676, @logicalhan)
- Introduced support for running a nodelocal dns cache. It is disabled by default, can be enabled by setting KUBE_ENABLE_NODELOCAL_DNS=true (#70555, @prameshj)
- Added readiness gates in extended output for pods (#70775, @freehan)
- Added `Ready` column and improve human-readable output of Deployments and StatefulSets (#70466, @Pingan2017)
- Added `kubelet_container_log_size_bytes` metric representing the log file size of a container. (#70749, @brancz)
- NodeLifecycleController: When node lease feature is enabled, node lease will be deleted when the corresponding node is deleted. (#70034, @wangzhen127)
- GCERegionalPersistentDisk feature is GA now! (#70716, @jingxu97)
- Added secure port 10259 to the kube-scheduler (enabled by default) and deprecate old insecure port 10251. Without further flags self-signed certs are created on startup in memory. (#69663, @sttts)

Release Notes From SIGs

SIG API Machinery

- The OwnerReferencesPermissionEnforcement admission plugin now checks authorization for the correct scope (namespaced or cluster-scoped) of the owner resource type. Previously, it always checked permissions at the same scope as the child resource. (#70389, @caesarxuchao)
- OpenAPI spec now correctly marks delete request's body parameter as optional (#70032, @iamneha)
- The rules for incrementing `metadata.generation` of custom resources changed: (#69059, @caesarxuchao)
    - If the custom resource participates the spec/status convention, the metadata.generation of the CR increments when there is any change, except for the changes to the metadata or the changes to the status.
    - If the custom resource does not participate the spec/status convention, the metadata.generation of the CR increments when there is any change to the CR, except for changes to the metadata.
    - A custom resource is considered to participate the spec/status convention if and only if the "CustomResourceSubresources" feature gate is turned on and the CRD has `.spec.subresources.status={}`.
- Fixed patch/update operations on multi-version custom resources (#70087, @liggitt)

- Reduced memory utilization of admission webhook metrics by removing resource related labels. (#69895, @jpbetz)
- Kubelet can now parse PEM file containing both TLS certificate and key in arbitrary order. Previously key was always required to be first. (#69536, @awly)
- Code-gen: Removed lowercasing for project imports (#68484, @jsturtevant)
- Fixed client cert setup in delegating authentication logic (#69430, @DirectXMan12)
- OpenAPI spec and API reference now reflect dryRun query parameter for POST/PUT/PATCH operations (#69359, @roycaihw)
- Fixed the sample-apiserver so that its BanFlunder admission plugin can be used. (#68417, @MikeSpreitzer)
- APIService availability related to networking glitches are corrected faster (#68678, @deads2k)
- Fixed an issue with stuck connections handling error responses (#71412, @liggitt)
- apiserver: fixed handling and logging of panics in REST handlers (#71076, @liggitt)
- kube-controller-manager no longer removes ownerReferences from ResourceQuota objects (#70035, @liggitt)
- "unfinished_work_microseconds" is added to the workqueue metrics; it can be used to detect stuck worker threads. (kube-controller-manager runs many workqueues.) (#70884, @lavalamp)
- Timeouts set in ListOptions for clients are also be respected locally (#70998, @deads2k)
- Added support for CRD conversion webhook (#67006, @mbohlool)
- client-go: fixed sending oversized data frames to spdystreams in remotecommand.NewSPDYExecutor (#70999, @liggitt)
- Fixed missing flags in `-controller-manager --help` . (#71298, @stewart-yu)
- Fixed missing flags in `kube-apiserver --help` . (#70204, @imjching)
- The caBundle and service fields in admission webhook API objects now correctly indicate they are optional (#70138, @liggitt)
- Fixed an issue with stuck connections handling error responses (#71419, @liggitt)
- kube-controller-manager and cloud-controller-manager now hold generated serving certificates in-memory unless a writeable location is specified with --cert-dir (#69884, @liggitt)
- CCM server will not listen insecurely if secure port is specified (#68982, @aruneli)
- List operations against the API now return internal server errors instead of partially complete lists when a value cannot be transformed from storage. The updated behavior is consistent with all other operations that require transforming data from storage such as watch and get. (#69399, @mikedanese)

SIG Auth

- API Server can be configured to reject requests that cannot be audit-logged. (#65763, @x13n)
- Go clients created from a kubeconfig that specifies a TokenFile now periodically reload the token from the specified file. (#70606, @mikedanese)
- When `--rotate-server-certificates` is enabled, kubelet will no longer request a new certificate on startup if the current certificate on disk is satisfactory. (#69991, @agunnerson-ibm)
- Added dynamic audit configuration api (#67547, @pbarker)
- Added ability to control primary GID of containers through Pod Spec and PodSecurityPolicy (#67802, @krmayankk)
- kube-apiserver: the `NodeRestriction` admission plugin now prevents kubelets from modifying `Node` labels prefixed with `node-restriction.kubernetes.io/` . The `node-restriction.kubernetes.io/` label prefix is reserved for cluster administrators to use for labeling `Node` objects to target workloads to nodes in a way that kubelets cannot modify or spoof. (#68267, @liggitt)

SIG Autoscaling

- Updated Cluster Autoscaler version to 1.13.0. See the Release Notes for more information. (#71513, @losipiuk)

SIG AWS

- `service.beta.kubernetes.io/aws-load-balancer-internal` now supports true and false values, previously it only supported non-empty strings (#69436, @mcrute)
- Added `service.beta.kubernetes.io/aws-load-balancer-security-groups` annotation to set the security groups to the AWS ELB to be the only ones specified in the annotation in case this is present (does not add `0.0.0.0/0`). (#62774, @Raffo)

SIG Azure

- Ensured orphan public IPs on Azure deleted when service recreated with the same name. (#70463, @feiskyer)
- Improved Azure instance metadata handling by adding caches. (#70353, @feiskyer)
- Corrected check for non-Azure managed nodes with the Azure cloud provider (#70135, @marc-sensenich)
- Fixed azure disk attach/detach failed forever issue (#71377, @andyzhangx)
- DisksAreAttached --> getNodeDataDisks--> GetDataDisks --> getVirtualMachine --> vmCache.Get (#71495, @andyzhangx)

SIG CLI

- `kubectl apply` can now change a deployment strategy from rollout to recreate without explicitly clearing the rollout-related fields (#70436, @liggitt)
- The `kubectl plugin list` command now displays discovered plugin paths in the same order as they are found in a user's PATH variable. (#70443, @juanvallejo)
- `kubectl get` no longer exits before printing all of its results if an error is found (#70311, @juanvallejo)
- Fixed a runtime error occurring when sorting the output of `kubectl get` with empty results (#70740, @mfpierre)
- kubectl: support multiple arguments for cordon/uncordon and drain (#68655, @goodluckbot)
- Fixed ability for admin/edit/view users to see controller revisions, needed for kubectl rollout commands (#70699, @liggitt)
- `kubectl rollout undo` now returns errors when attempting to rollback a deployment to a non-existent revision (#70039, @liggitt)
- kubectl run now generates apps/v1 deployments by default (#71006, @liggitt)
- The "kubectl cp" command now supports path shortcuts (../) in remote paths. (#65189, @juanvallejo)
- Fixed dry-run output in kubectl apply --prune (#69344, @zegl)
- The kubectl wait command must handle when a watch returns an error vs closing by printing out the error and retrying the watch. (#69389, @smarterclayton)
- kubectl: support multiple arguments for cordon/uncordon and drain (#68655, @goodluckbot)

SIG Cloud Provider

- Added deprecation warning for all cloud providers (#69171, @andrewsykim)

SIG Cluster Lifecycle

- kubeadm: Updates version of CoreDNS to 1.2.6 (#70796, @detiber)
- kubeadm: Validate kubeconfig files in case of external CA mode. (#70537, @yagonobre)
- kubeadm: The writable config file option for extra volumes is renamed to readOnly with a reversed meaning. With readOnly defaulted to false (as in pod specs). (#70495, @rosti)
- kubeadm: Multiple API server endpoints support upon join is removed as it is now redundant. (#69812, @rosti)
- `kubeadm reset` now cleans up custom etcd data path (#70003, @yagonobre)
- kubeadm: Fixed unnecessary upgrades caused by undefined order of Volumes and VolumeMounts in manifests (#70027, @bart0sh)

- kubeadm: Fixed node join taints. (#69846, @andrewrynhard)
- Fixed cluster autoscaler addon permissions so it can access batch/job. (#69858, @losipiuk)
- kubeadm: JoinConfiguration now houses the discovery options in a nested Discovery structure, which in turn has a couple of other nested structures to house more specific options (BootstrapTokenDiscovery and FileDiscovery) (#67763, @rosti)
- kubeadm: Fixed a possible scenario where kubeadm can pull much newer control-plane images (#69301, @neolit123)
- kubeadm now allows mixing of init/cluster and join configuration in a single YAML file (although a warning gets printed in this case). (#69426, @rosti)
- kubeadm: Added a `v1beta1` API. (#69289, @fabriziopandini)
- kubeadm init correctly uses `--node-name` and `--cri-socket` when `--config` option is also used (#71323, @bart0sh)
- kubeadm: Always pass spec.nodeName as `--hostname-override` for kube-proxy (#71283, @Klaven)
- `kubeadm join` correctly uses `--node-name` and `--cri-socket` when `--config` option is also used (#71270, @bart0sh)
- kubeadm now supports the `--image-repository` flag for customizing what registry to pull images from (#71135, @luxas)
- kubeadm: The writable config file option for extra volumes is renamed to readOnly with a reversed meaning. With readOnly defaulted to false (as in pod specs). (#70495, @rosti)
- kubeadm: Multiple API server endpoints support upon join is removed as it is now redundant. (#69812, @rosti)
- kubeadm: JoinConfiguration now houses the discovery options in a nested Discovery structure, which in turn has a couple of other nested structures to house more specific options (BootstrapTokenDiscovery and FileDiscovery) (#67763, @rosti)
- kubeadm: Added a `v1beta1` API. (#69289, @fabriziopandini)
- kubeadm: Use `advertise-client-urls` instead of `listen-client-urls` as and `etcd-servers` options for apiserver. (#69827, @tomkukral)
- Kubeadm now respects the custom image registry configuration across joins and upgrades. Kubeadm passes the custom registry to the kubelet for a custom pause container. (#70603, @chuckha)
- `kubeadm reset` now outputs instructions about manual iptables rules cleanup. (#70874, @rdodev)
- kubeadm: remove the AuditPolicyConfiguration feature gate (#70807, @Klaven)
- kubeadm pre-pulls Etcd image only if external Etcd is not used and --etcd-upgrade=false is not specified (#70743, @bart0sh)
- kubeadm: UnifiedControlPlaneImage is replaced by UseHyperKubeImage boolean value. (#70793, @rosti)
- For kube-up and derived configurations, CoreDNS will honor master taints, for consistency with kube-dns behavior. (#70868, @justinsb)
- Recognize newer docker versions without -ce/-ee suffix: 18.09.0 (#71001, @thomas-riccardi)
- Any external provider should be aware the cloud-provider interface should be imported from :- cloudprovider "k8s.io/cloud-provider" (#68310, @cheftako)
- Fixed 'kubeadm upgrade' infinite loop waiting for pod restart (#69886, @bart0sh)
- Bumped addon-manager to v8.8 (#69337, @MrHohn)
- GCE: Filter out spammy audit logs from cluster autoscaler. (#70696, @loburm)
- GCE: Enable by default audit logging truncating backend. (#68288, @loburm)
- Bumped cluster-proportional-autoscaler to 1.3.0 (#69338, @MrHohn)
- Updated defaultbackend to v1.5 (#69334, @bowei)

SIG GCP

- Added tolerations for Stackdriver Logging and Metadata Agents. (#69737, @qingling128)
- Enabled insertId generation, and updated Stackdriver Logging Agent image to 0.5-1.5.36-1-k8s. This help reduce log duplication and guarantee log order. (#68920, @qingling128)

- Updated crictl to v1.12.0 (#69033, @feiskyer)

SIG Network

- Corrected family type (inet6) for ipsets in ipv6-only clusters (#68436, @uablrek)
- kube-proxy argument `hostname-override` can be used to override hostname defined in the configuration file (#69340, @stevesloka)
- CoreDNS correctly implements DNS spec for Services with externalNames that look like IP addresses. Kube-dns does not follow the spec for the same case, resulting in a behavior change when moving from Kube-dns to CoreDNS. See: coredns/coredns#2324
- IPVS proxier now set net/ipv4/vs/conn_reuse_mode to 0 by default, which will highly improve IPVS proxier performance. (#71114, @Lion-Wei)
- CoreDNS is now version 1.2.6 (#70799, @rajansandeep)
- Addon configuration is introduced in the kubeadm config API, while feature flag CoreDNS is now deprecated. (#70024, @fabriziopandini)

SIG Node

- Fixed a bug in previous releases where a pod could be placed inside another pod's cgroup when specifying --cgroup-root (#70678, @dashpole)
- Optimized calculating stats when only CPU and Memory stats are returned from Kubelet stats/summary http endpoint. (#68841, @krzysztof-jastrzebski)
- kubelet now supports `log-file` option to write logs directly to a specific file (#70917, @dims)
- Do not detach volume if mount in progress (#71145, @gnufied)
- The runtimeHandler field on the RuntimeClass resource now accepts the empty string. (#69550, @tallclair)
- kube-apiserver: fixes `procMount` field incorrectly being marked as required in openapi schema (#69694, @jessfraz)

SIG OpenStack

- Fixed cloud-controller-manager crash when using OpenStack provider and PersistentVolume initializing controller (#70459, @mvladev)

SIG Release

- Use debian-base instead of busybox as base image for server images (#70245, @ixdy)
- Images for cloud-controller-manager, kube-apiserver, kube-controller-manager, and kube-scheduler now contain a minimal /etc/nsswitch.conf and should respect /etc/hosts for lookups (#69238, @BenTheElder)

SIG Scheduling

- Added metrics for volume scheduling operations (#59529, @wackxu)
- Improved memory use and performance when processing large numbers of pods containing tolerations (#65350, @liggitt)
- Fixed a bug in the scheduler that could cause the scheduler to go to an infinite loop when all nodes in a zone are removed. (#69758, @bsalamat)
- Clear pod binding cache on bind error to make sure stale pod binding cache will not be used. (#71212, @cofyc)
- Fixed a scheduler panic due to internal cache inconsistency (#71063, @Huang-Wei)
- Report kube-scheduler unhealthy if leader election is deadlocked. (#71085, @bsalamat)
- Fixed a potential bug that scheduler preempts unnecessary pods. (#70898, @Huang-Wei)

SIG Storage

- Fixed CSI volume limits not showing up in node's capacity and allocatable (#70540, @gnufied)

- CSI drivers now have access to mountOptions defined on the storage class when attaching volumes. (#67898, @bswartz)
- change default azure file mount permission to 0777 (#69854, @andyzhangx)
- Fixed subpath in containerized kubelet. (#69565, @jsafrane)
- Fixed panic on iSCSI volume tear down. (#69140, @jsafrane)
- CSIPersistentVolume feature, i.e. PersistentVolumes with CSIPersistentVolumeSource, is GA. (#69929, @jsafrane)
- Fixed CSIDriver API object to allow missing fields. (#69331, @jsafrane)
- Flex volume plugins now support expandvolume (to increase underlying volume capacity) and expanfs (resize filesystem) commands that Flex plugin authors can implement to support expanding in use Flex PersistentVolumes (#67851, @aniket-s-kulkarni)
- Enabled AttachVolumeLimit feature (#69225, @gnufied)
- The default storage class annotation for the storage addons has been changed to use the GA variant (#68345, @smelchior)
- GlusterFS PersistentVolumes sources can now reference endpoints in any namespace using the `spec.glusterfs.endpointsNamespace` field. Ensure all kubelets are upgraded to 1.13+ before using this capability. (#60195, @humblec)
- Fixed GetVolumeLimits log flushing issue (#69558, @andyzhangx)
- The `MountPropagation` feature is unconditionally enabled in v1.13, and can no longer be disabled. (#68230, @bertinatto)

SIG Windows

- ```
  `kubelet --system-reserved` and `--kube-reserved` are supported now on Windows nodes ([#69960](https://github.com/kubernetes/kubernetes/pull/69960), [@feiskyer](https://github.com/feiskyer))
  ```
- Windows runtime endpoints is now switched to `npipe:////./pipe/dockershim` from `tcp://localhost:3735`. (#69516, @feiskyer)
- Fixed service issues with named targetPort for Windows (#70076, @feiskyer)
- Handle Windows named pipes in host mounts. (#69484, @ddebroy)
- Fixed inconsistency in windows kernel proxy when updating HNS policy. (#68923, @delulu)

External Dependencies

- Default etcd server is unchanged at v3.2.24 since Kubernetes 1.12. (#68318)
- The list of validated docker versions remain unchanged at 1.11.1, 1.12.1, 1.13.1, 17.03, 17.06, 17.09, 18.06 since Kubernetes 1.12. (#68495)
- The default Go version was updated to 1.11.2. (#70665)
- The minimum supported Go version was updated to 1.11.2 (#69386)
- CNI is unchanged at v0.6.0 since Kubernetes 1.10 (#51250)
- CSI is updated to 1.0.0. Pre-1.0.0 API support is now deprecated. (#71020])
- The dashboard add-on has been updated to v1.10.0. (#68450)
- Heapster remains at v1.6.0-beta, but is now retired in Kubernetes 1.13 (#67074)
- Cluster Autoscaler has been upgraded to v1.13.0 (#71513)
- kube-dns is unchanged at v1.14.13 since Kubernetes 1.12 (#68900)
- Influxdb is unchanged at v1.3.3 since Kubernetes 1.10 (#53319)
- Grafana is unchanged at v4.4.3 since Kubernetes 1.10 (#53319)
- Kibana has been upgraded to v6.3.2. (#67582)
- CAdvisor has been updated to v0.32.0 (#70964)
- fluentd-gcp-scaler has been updated to v0.5.0 (#68837)
  ```

- Fluentd in fluentd-elasticsearch is unchanged at v1.2.4 since Kubernetes 1.11 (#67434)
- fluentd-elasticsearch has been updated to v2.2.1 (#68012)
- The fluent-plugin-kubernetes_metadata_filter plugin in fluentd-elasticsearch is unchanged at 2.0.0 since Kubernetes 1.12 (#67544)
- fluentd-gcp has been updated to v3.2.0 (#70954)
- OIDC authentication is unchanged at coreos/go-oidc v2 since Kubernetes 1.10 (#58544)
- Calico was updated to v3.3.1 (#70932)
- Upgraded crictl on GCE to v1.12.0 (#69033)
- CoreDNS has been updated to v1.2.6 (#70799)
- event-exporter has been updated to v0.2.3 (#67691)
- Es-image remains unchanged at Elasticsearch 6.3.2 since Kubernetes 1.12 (#67484)
- metrics-server remains unchanged at v0.3.1 since Kubernetes 1.12 (#68746)
- GLBC remains unchanged at v1.2.3 since Kubernetes 1.12 (#66793)
- Ingress-gce remains unchanged at v1.2.3 since Kubernetes 1.12 (#66793)
- ip-masq-agen remains unchanged at v2.1.1 since Kubernetes 1.12 (#67916)

v1.13.0-rc.2

Documentation

Downloads for v1.13.0-rc.2

filename	sha512 hash
kubernetes.tar.gz	12fbaf943ae72711cd93c9955719ec1773a229dbb8f86a44fcda179229beb82add4dc1a54ceb50b9f48f
kubernetes-src.tar.gz	8e94f0fe73909610e85c201bb1ba4f66fd55ca2b4ded77217a4dfad2874d402cc1cc94203ecc195f9091

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	ac555f5d1e6b88fa4de1e06e0a1ebd372582f97c526c938334a8c63fbf17545607efbba9975d1767e147113
kubernetes-client-darwin-amd64.tar.gz	2eae428a0e4bcb2237343d7ac1e431ccfc1f7037622bb3131ad8d48a3af6f5ed34be899ec1ec32af7eb7d41
kubernetes-client-linux-386.tar.gz	89e671679b4516f184f7fd5ea0fe2a9ab0245fab34447625786bf55841223124527d3aa2ee6fa2474333f37
kubernetes-client-linux-amd64.tar.gz	61f6513722e9c485300b822d6fc5998927bbffa18862d2d3f177a7c7cc0ee56c51ec169e3c8239e352c0220
kubernetes-client-linux-arm.tar.gz	ef0e5fd4bf2074dfd3cf54d45307550273695906baca3533a9d23424e7b693d706f6d1d3a09a34e2d1f84d9

kubernetes-client-linux-arm64.tar.gz	d34bb9ce9bfe2a5375fd58920e63b4eef818348719dba460f35838433af57a1a23fa659e53de52c8174fa21
kubernetes-client-linux-ppc64le.tar.gz	4dc4e4a5e166e63360ba86e1278bbe75212ac7c3f60ba30425a1c5654bf5a9b1164543fdc23d7dfd9d3aea7
kubernetes-client-linux-s390x.tar.gz	d27675f4753469cd5e31faed13a1ea9654c25d38b0d96c1340215fd231050ffc66dc40c5103f8377339bacf
kubernetes-client-windows-386.tar.gz	9d6e6de2d4a55eaeebd7fa6b861548e0768381d50838430722b56636428a3417b8f2bbc953bc365294a857d
kubernetes-client-windows-amd64.tar.gz	30b2da5c015ef88b9efcf90bffe0498d367df7c126b65f2e878af263c5d62b8c93792dbf20511d0ff034c7a

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	8180f2b788249fe65f7f1d3ee431ac758ede29a6349db312afbee080ff2c24586fc468f11a9cbcb8d228427
kubernetes-server-linux-arm.tar.gz	e9165284a0b82a9ab88dad05f43bfe1bebecad3bb1c7118475c3426e0b6f9f91d340e1e6223d81df9337ab4
kubernetes-server-linux-arm64.tar.gz	03797c021ebed3b08835e72eed405c57aaacce972bbbbf88bf49310efbf8c7242f2f223d73b5d2ed4c21e51
kubernetes-server-linux-ppc64le.tar.gz	ceb49af22e3b518f3ba27c1e7de28e577e2735175e84a6d203f1f8766eceaa7c0424746ff71498d7847e98f
kubernetes-server-linux-s390x.tar.gz	bee4752e8a52e217ae1ffcfbc263453c724de684b4d463d5ddb24a3a30a67fc8f78e6c0a8154c6b6581d17f

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	b368989bbb8ab4d29b51d5d4d71d073b0ceb39614c944859dcd14c3303c31475850f7012deaa8d5ba9c17ed

kubernetes-node-linux-arm.tar.gz	404b7b74a1e0d0fed9088a7e9461e02cfd9a6992c554baa125b7a361a6baa03d1e4622fbc4ec51836f00a7a
kubernetes-node-linux-arm64.tar.gz	fa531b1675a778c572a2175fb1bed00e78dc589f638f2096b3b5c9d3d691a5668787a43d69898678abd70c7
kubernetes-node-linux-ppc64le.tar.gz	a7ecc1f63e632c1b4f9b312babd6882ec966420bf4f8346edf80495fcf860d912729072c79d23cc071a0723
kubernetes-node-linux-s390x.tar.gz	a7171ed95de943a0ac5a32da4458e8d4366eb1fadbe426bebc371d2bb6536636b14db9d2cd03952258b3cb1
kubernetes-node-windows-amd64.tar.gz	8a3a71d142b99fb200c4c1c9c0fa4dc6a3b64a0b506dc37dc3d832a94a791619a09ae4b2c6f73802f683323

Changelog since v1.13.0-rc.1

Other notable changes

- Update Cluster Autoscaler version to 1.13.0. Release notes: https://github.com/kubernetes/autoscaler/releases/tag/cluster-autoscaler-1.13.0 (#71513, @losipiuk)
- fix detach azure disk issue due to dirty cache (#71495, @andyzhangx)

v1.13.0-rc.1

Documentation

Downloads for v1.13.0-rc.1

filename	sha512 hash
kubernetes.tar.gz	1c047e4edcf3553a568679e6e5083988b06df9d938f299a9193c72ad96a9c439a1f47f98b86f75d94746
kubernetes-src.tar.gz	d2fd47c38abd29a2037b9e2a3a958ec250e2c6ae77532f6e935a6422bd626485fd720932b18fe2fdfcc7

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	44d0733359be5036953775e12fc1723e4c64452a24a8c3b522c8a624e0a132cf61483a120cafebe1370939b
kubernetes-client-darwin-amd64.tar.gz	2acd37ed234271b0ff9c30273261e4b127309a1bc91a006b7a07e1a948703fa550699cd7f44dceb4e7cc6be

kubernetes-client-linux-386.tar.gz	5fe07ea2f776086df0e9447b7e6b0863c5b3af71f5aff8e302087e242d78613278023a169f211be96feab51
kubernetes-client-linux-amd64.tar.gz	7541d5850d74156862e5fe00817bd954d2b49b2c0cf15abe5cde34406928b8ca34b6907eea51e79e0051569
kubernetes-client-linux-arm.tar.gz	122121d3e469b6e33cc3fd910b32a5a94b9d3479f0367c54fbc4e7f13df7b097c061b0624b36c0e59f9a35d
kubernetes-client-linux-arm64.tar.gz	5e3d415db4239f27461c4ea404903cfc762084d5c1e84f9ed8bc0325d7fa845ac540a279e3bd67ac80d00fc
kubernetes-client-linux-ppc64le.tar.gz	8651f4161569913b616695bdd1a41c4b177cbfb4773fbca649b3e97957f6c5f46f4fa84bfa92ba24abc34b9
kubernetes-client-linux-s390x.tar.gz	920b81f6bbc7e7d4fa2f9c61fbc6f529621f2f134dbbb0f407866ffd0ec47791484187c609cca3b615034a5
kubernetes-client-windows-386.tar.gz	0d49277cb7c36e5538d4c1c0fd6e6a69da7cd73c226f5869b29fad1e5b9bf434ffc8423b72d807df67b6674
kubernetes-client-windows-amd64.tar.gz	34ae587e2d439f925d1e324d2bbff3a751bb73b18e98b13c93e5742e7e16c00b4d9956b91721b4e06a00087

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	7030ef7463bef0871e524a5233d23c5f8aee18ac92e96555910ddc7a891772d451dac08b583f391132c654e
kubernetes-server-linux-arm.tar.gz	ccd1f413ad357581a904d1ff67f3e376be7882bd72efb13657f8aa1191c4481691743016a1385b777b5e62f
kubernetes-server-linux-arm64.tar.gz	ff589f5b6c56713818edda8ae9b39b17dfbf34e881c09736f722de5d70e6dd1508b5fefc60f40547dfd4fdd
kubernetes-server-linux-ppc64le.tar.gz	f748985751bf403bc7b1f9160ce937cd2915552b27c3c79764a66789dc39ef9e3069e6f25d21e15bfaf81c5
kubernetes-	

server-linux-s390x.tar.gz	b3b0075948d72784defe94073dff251b79083aa46b4f29419026757665cac554356486948a41b5929390423

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	01907a104c043607985053571183b7bdccf655f847d1dd9d8991cd2c464ddf9953f25cacb255be3067c1b65
kubernetes-node-linux-arm.tar.gz	dbf1801c456312698253767dd36b186fb4e503a03454cd16bba68a1ede9d29e14939591eb39516129bc8c88
kubernetes-node-linux-arm64.tar.gz	15f3259370f1419fcc372a28faa9a3caae5f2c89ee76286c14ea62d612fdca94ac7358a3cd7687773638908
kubernetes-node-linux-ppc64le.tar.gz	00dc7f5bd40d045baeb72d5dcfb302b8566aacc23cd7de1b877724e1160ee1608b3b121358d2c3b081d06de
kubernetes-node-linux-s390x.tar.gz	2b80e4dffa0b8bdc0305d1263c06320918541f3a7b6519123752b89be335a2c48965b7d16d814ffc02e304e
kubernetes-node-windows-amd64.tar.gz	600b442a1665e39621fce03ad07b162e2353cc8bc982cad849dab7e1c2db34bde675ef12a4907a75f2ba82e

Changelog since v1.13.0-beta.2

Other notable changes

- CVE-2018-1002105: Fix critical security issue in kube-apiserver upgrade request proxy handler (#71411, @liggitt)
- Update Cluster Autoscaler version to 1.13.0-rc.2. Release notes: https://github.com/kubernetes/autoscaler/releases/tag/cluster-autoscaler-1.13.0-rc.2 (#71452, @losipiuk)
- Upgrade Stackdriver Logging Agent addon image to 0.6-1.6.0-1 to use Fluentd v1.2. This provides nanoseconds timestamp granularity for logs. (#70954, @qingling128)
- fixes a runtime error occurring when sorting the output of `kubectl get` with empty results (#70740, @mfpierre)
- fix azure disk attach/detach failed forever issue (#71377, @andyzhangx)
- Do not detach volume if mount in progress (#71145, @gnufied)

v1.13.0-beta.2

Documentation

Downloads for v1.13.0-beta.2

filename	sha512 hash
kubernetes.tar.gz	e8607473e2b3946a3655fa895c2b7dee74818b4c2701047fee5343ab6b2f2aa3d97b19b11c7e7aeaca32
kubernetes-src.tar.gz	6ca15ad729a82b41587e1dbbd4e9ad5447e202e8e7ee8c01c411090031ee3feb83f0cc65e211e8634a01

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	5727218280ea7c68350aa5cf04e3d3c346f97d462e3f60f5196e27358f71841e19523b277a5b8fe9cea4b8f
kubernetes-client-darwin-amd64.tar.gz	3e3975a41da08135dc654a40acb86ce862b1f56a9361e0c38c9c99c5b5bcad970f2271ae9a17e03c3d6e13e
kubernetes-client-linux-386.tar.gz	26cfa99fbe09b20ebe3d2aebb4d08f0f9f2661d5533b94daf6c8354701b1e4ddb8981c10323073c0d06e52e
kubernetes-client-linux-amd64.tar.gz	42204953b02af81bb5f695c957aca9fa382609447ada5e3a9701da3e8bbd54923084e0b28dd5be455f39ec0
kubernetes-client-linux-arm.tar.gz	c680c94699b0b319b654a4c1c0a9b7fc387c44fb22744f30049142b17c3fabd3ba5358904cf8d5ccb077d0f
kubernetes-client-linux-arm64.tar.gz	aa997b3428979ba2652fd251c4c5ece87043472ebe2ee15d8a179e69ddbefd47e8030e9392c4f6659b8207f
kubernetes-client-linux-ppc64le.tar.gz	684dfc462d84d3902e322535997e57f7874003ab17c41508c057bc7c6220062cf57d0486086d28940d9b4c0
kubernetes-client-linux-s390x.tar.gz	ff98b3a23dfe436a12843eb388be9568cbc29c9328648a1d166518aac40841bd8d855916918259cd92a0cc4
kubernetes-client-windows-386.tar.gz	6897a0f59fb409526dae9c86680702f3d2a1dc68d145504ed2e98b05d8f1dcc9b6a977c1af17277775b6450
kubernetes-client-windows-amd64.tar.gz	6ed67eecb2b79ace8d428cbd4d07ef7d52ba4e5b3b44eb59d46aff99a7a862f158573b4c2678cbdd31ba060

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	351292b217c1c49b5c0241da11b4be0929a5d1645bec7dd05051930df8a70090b130d3ceef2482657db16dd
kubernetes-server-linux-arm.tar.gz	88f166a7b5a3f9d9c19a5b911adb6e8e4cac1a3323b83d681f13aaf7bb285b0d016b147b4168c886efeccb3
kubernetes-server-linux-arm64.tar.gz	fb4868a939eca18de17e0b606d1ab127712e277e01c02ffa96138a53973cd583bfc28cf9c29679068967406
kubernetes-server-linux-ppc64le.tar.gz	47a4e8e96c1e8a8cc37eabd19194b9d174fa93c3feaf1384895f89c5c6836511eb9f4ff3c91dd84c05398b7
kubernetes-server-linux-s390x.tar.gz	4e0823d1da55a71f001fcb07511a7b3416641ea93bfbd56b1e1e435c0a78bafbcecc873ba43808985b66b01

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	e21964063b80f52e387cd35826f3081ad0a3b62608d182e008b8b76f572442905e4b0625839d3ff28a353f1
kubernetes-node-linux-arm.tar.gz	cb665911af59a1cf86e5d66a4cdc134dc412e9e479dd89fa0bbbaeb8324eb87d090ffb0985e31bb12b5e063
kubernetes-node-linux-arm64.tar.gz	c172126829aea38e2238af6b62035abad6ed08d041175b0bf99792b7c608a0b27dd7f80b5ad301843cbdfee
kubernetes-node-linux-ppc64le.tar.gz	0367940078ea9b4d46778b8406840fd2925f612304b5fa5b675fc07d5457bea524ebaf0378691af27f97d0c
kubernetes-node-linux-s390x.tar.gz	74382ed862ae099b91ce6056b85b7ee4f075fbdb4e737a8448c92e20fe3a0717047a138c23e13b0a8bda3e4
kubernetes-node-windows-amd64.tar.gz	9164c4eae920c727965caae046e1b2daabf4822e2dee2260697b22e5208a0d8c6e7ce152a5df7852e8203d4

Changelog since v1.13.0-beta.1

Other notable changes

- Fix missing flags in kube-apiserver --help. (#70204, @imjching)
- kubeadm init correctly uses --node-name and --cri-socket when --config option is also used (#71323, @bart0sh)
- API server flag `--experimental-encryption-provider-config` was renamed to `--encryption-provider-config`. The old flag is accepted with a warning but will be removed in 1.14. (#71206, @stlaz)
- Fix missing flags in *-controller-manager --help. (#71298, @stewart-yu)
- Clear pod binding cache on bind error to make sure stale pod binding cache will not be used. (#71212, @cofyc)
- kubeadm: always pass spec.nodeName as --hostname-override for kube-proxy (#71283, @Klaven)
- kubeadm join correctly uses --node-name and --cri-socket when --config option is also used (#71270, @bart0sh)
- apiserver can be configured to reject requests that cannot be audit-logged. (#65763, @x13n)
- Kubelet Device Plugin Registration directory changed from `{kubelet_root_dir}/plugins/` to `{kubelet_root_dir}/plugins_registry/`. Any drivers (CSI or device plugin) that were using the old path must be updated to work with this version. (#70494, @RenaudWasTaken)
- When the BoundServiceAccountTokenVolumes Alpha feature is enabled, ServiceAccount volumes now use a projected volume source and their names have the prefix "kube-api-access". (#69848, @mikedanese)

v1.13.0-beta.1

Documentation

Downloads for v1.13.0-beta.1

filename	sha512 hash
kubernetes.tar.gz	`78245b2357a5eeafd193d28f86655327edce7bbc4da142c826eba5f5c05a624cd30b2551f63da37f38e9`
kubernetes-src.tar.gz	`880c5a8b16215bc58b307922474703048020b38be1d41672425cd07bdcf0626a88f04a080eac13ebb63c`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`0f804c77ef6122b4b6586a507179fe0f1a383752342b3e5575e09223fdda9731acd89631ad236969e19ba10`
kubernetes-client-darwin-amd64.tar.gz	`0bdbd8003bcbecb4494b4778411e7d057067e78a99a7e8e8e45a3982cbe476dab822bccdeb73b989dfc5222`
kubernetes-client-linux-386.tar.gz	`522795df77ff8543251232863cb36fe2d501671e04a5279a112aa3ffa784de93f3f567af50fffa5367fd277`
kubernetes-client-linux-amd64.tar.gz	`b6481bae237e6971f7b9cc039d3b7e62d49ddd48d52dd979432fa0318a8e3e5bf1677298ffee5c3d9af07e3`

kubernetes-client-linux-arm.tar.gz	45b8fa2557bb742a8ce16e0a69fa64fe898509418c6f9099a24bf1ab20c7d5de61f2e79f2de46c660c53eec
kubernetes-client-linux-arm64.tar.gz	475b823a5e2c4c6e1bc49f35fbef45d1fc6e6279f5335762bad05d0f695fd033a3a81bd90ea854d8ee2c9b4
kubernetes-client-linux-ppc64le.tar.gz	bc289b249051e9918f8f842bb98bf4d0b8951709fe5b65c2185f04b78213ec0099973f3459ffb062342a0a0
kubernetes-client-linux-s390x.tar.gz	0935e0ad23a61d570de087e72f22bc3da2a34c19bb5aea0ab342f91655b4a02ba781448c35b837e0174fcd1
kubernetes-client-windows-386.tar.gz	4833425ff040983b841722a00edd2cfa56f85099658ae04890c4e2262931e3c74d7276f3e95a74fbdd6934f
kubernetes-client-windows-amd64.tar.gz	156a5328834055f7b9732c762cc917cfdbf2d2fc67dd80ba89ae7dcb9c2e7d271fc4fe2b2074f98fc308f22

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	9435be5cced10252954be579408e2a253eb51dd7b649417f1e91679bce33f6ff735f1c24687994a133155b1
kubernetes-server-linux-arm.tar.gz	8dc3d4a0c09830831efd77fdf193ed9ccc1247bd981b4811192cac38cf5ffd04042575632d4259af933959e
kubernetes-server-linux-arm64.tar.gz	f2549f87f21ea44c5d776a706c59bb2ea61d7f2cca304850aa6ad5b09c4486b16ae1be19ab9f9166a2f9f9d
kubernetes-server-linux-ppc64le.tar.gz	0c0671eaf7cf7262c95411930311bb4610f895834317381 49f0ee7f8f6a55b094322fc6717db1cdd496944c
kubernetes-server-linux-s390x.tar.gz	ff24909b0b044924d241d6aeac9e9b4f0696c0ca7e973d56a874b02b613a45d00c30c5709326d3ad02f0e30

Node Binaries

filename	sha512 hash

kubernetes-node-linux-amd64.tar.gz	235b1c4348b5779ca71a5f63121ff6a162db02bb24b4d815ec73412afedbe0ce5f969a40569e709017fbaf8
kubernetes-node-linux-arm.tar.gz	cd23813419a74983bdd3a3104e20684e947ef7302dcfa1802132439b21e7621ad129621c633094e74a50c2e
kubernetes-node-linux-arm64.tar.gz	fb6283dae828f8d9275a05c6a4ea27bc1136e8e8253b5ddac52c8254813b11e8e4373038bf145a51d9680bb
kubernetes-node-linux-ppc64le.tar.gz	f910922d422b65f6b6a8d7762a23048991695496c0fc07c3dc4f1a81e32d250d592851a2f5b19588f7ed652
kubernetes-node-linux-s390x.tar.gz	d895fed57caf038afe0087ff44d2adfdd8955d18135adad9935952702e9abf2bc07289e1a7545b30f4d9f7a
kubernetes-node-windows-amd64.tar.gz	4bc09e54935d2cb4d2bad7db06831d040cc03906d8934575932ed6eab5f0bc9ab67cdb2720c919c89d8b293

Changelog since v1.13.0-alpha.3

Action Required

- ACTION REQUIRED: The Node.Status.Volumes.Attached.DevicePath fields is deprecated for CSI volumes and will be unset in a future release (#71095, @msau42)

Other notable changes

- Raw block volume support is promoted to beta, and enabled by default. This is accessible via the `volumeDevices` container field in pod specs, and the `volumeMode` field in persistent volume and persistent volume claims definitions. (#71167, @msau42)
- Fix a scheduler panic due to internal cache inconsistency (#71063, @Huang-Wei)
- Fix a potential bug that scheduler preempts unnecessary pods. (#70898, @Huang-Wei)
- The API server encryption configuration file format has graduated to stable and moved to `apiVersion: apiserver.config.k8s.io/v1` and `kind: EncryptionConfiguration`. (#67383, @stlaz)
- kubelet now supports `log-file` option to write logs directly to a specific file (#70917, @dims)
- kubeadm now supports the `--image-repository` flag for customizing what registry to pull images from (#71135, @luxas)
- timeouts set in ListOptions for clients will also be respected locally (#70998, @deads2k)
- IPVS proxier now set net/ipv4/vs/conn_reuse_mode to 0 by default, which will highly improve IPVS proxier performance. (#71114, @Lion-Wei)
- StatefulSet is supported in `kubectl autoscale` command (#71103, @Pingan2017)
- Report kube-scheduler unhealthy if leader election is deadlocked. (#71085, @bsalamat)
- apiserver: fixes handling and logging of panics in REST handlers (#71076, @liggitt)
- kubelets are no longer allowed to delete their own Node API object. Prior to 1.11, in rare circumstances related to cloudprovider node ID changes, kubelets would attempt to delete/recreate their Node object at

startup. Kubelets older than 1.11 are not supported running against a v1.13+ API server. If an unsupported legacy kubelet encounters this situation, a cluster admin can remove the Node object: (#71021, @liggitt)
    - `kubectl delete node/<nodeName>`
    - or grant self-deletion permission explicitly:
        - `kubectl create clusterrole self-deleting-nodes --verb=delete --resource=nodes`
        - `kubectl create clusterrolebinding self-deleting-nodes --clusterrole=self-deleting-nodes --group=system:nodes`

- Kubernetes v1.13 moves support for Container Storage Interface to GA. As part of this move Kubernetes now supports CSI v1.0.0 and drops support for CSI 0.3 and older releases. Older CSI drivers must be updated to CSI 1.0 in order to work with Kubernetes 1.13+. (#71020, @saad-ali)
- Remove deprecated kubectl command aliases 'run-container' (#70728, @Pingan2017)
- kubeadm: enable strict unmarshaling of YAML configuration files and show warnings for unknown and duplicate fields. (#70901, @neolit123)
- For kube-up and derived configurations, CoreDNS will honor master taints, for consistency with kube-dns behavior. (#70868, @justinsb)
- CoreDNS is now version 1.2.6 (#70799, @rajansandeep)
- kubeadm: Use `advertise-client-urls` instead of `listen-client-urls` as and `etcd-servers` options for apiserver. (#69827, @tomkukral)
- Add option to create CSRs instead of certificates for kubeadm init phase certs and kubeadm alpha certs renew (#70809, @liztio)
- Add a kubelet socket which serves an grpc service containing the devices used by containers on the node. (#70508, @dashpole)
- kube-apiserver: the `NodeRestriction` admission plugin now prevents kubelets from modifying `Node` labels prefixed with `node-restriction.kubernetes.io/`. The `node-restriction.kubernetes.io/` label prefix is reserved for cluster administrators to use for labeling `Node` objects to target workloads to nodes in a way that kubelets cannot modify or spoof. (#68267, @liggitt)
    - kubelet: it is now deprecated to use the `--node-labels` flag to set `kubernetes.io/` and `k8s.io/`-prefixed labels other than the following labels:
        - `kubernetes.io/hostname`
        - `kubernetes.io/instance-type`
        - `kubernetes.io/os`
        - `kubernetes.io/arch`
        - `beta.kubernetes.io/instance-type`
        - `beta.kubernetes.io/os`
        - `beta.kubernetes.io/arch`
        - `failure-domain.kubernetes.io/zone`
        - `failure-domain.kubernetes.io/region`
        - `failure-domain.beta.kubernetes.io/zone`
        - `failure-domain.beta.kubernetes.io/region`
        - `[*.]kubelet.kubernetes.io/*`
        - `[*.]node.kubernetes.io/*`
    - Setting other `kubernetes.io/`- and `k8s.io/`-prefixed labels using the `--node-labels` flag will produce a warning in v1.13, and be disallowed in v1.15. Setting labels that are not prefixed with `kubernetes.io/` or `k8s.io/` is still permitted.

- Adds DynamicAuditing feature which allows for the configuration of audit webhooks through the use of an AuditSink API object. (#67257, @pbarker)
- The Kubelet plugin registration mechanism used by device plugins and CSI plugins is now GA (#70559, @vladimirvivien)
- CSIPersistentVolume feature, i.e. PersistentVolumes with CSIPersistentVolumeSource, is GA. (#69929, @jsafrane)
    - CSIPersistentVolume feature gate is now deprecated and will be removed according to deprecation policy.
- kubectl: support multiple arguments for cordon/uncordon and drain (#68655, @goodluckbot)
- The kube-apiserver's healthz now takes in an optional query parameter which allows you to disable health checks from causing healthz failures. (#70676, @logicalhan)
- client-go: fixes sending oversized data frames to spdystreams in remotecommand.NewSPDYExecutor (#70999, @liggitt)
- kube-controller-manager no longer removes ownerReferences from ResourceQuota objects (#70035, @liggitt)
- Introduces support for running a nodelocal dns cache. It is disabled by default, can be enabled by setting KUBE_ENABLE_NODELOCAL_DNS=true (#70555, @prameshj)
    - An ip address is required for the cache instance to listen for requests on, default is a link local ip address of value 169.254.20.10
- Fix dry-run output in kubectl apply --prune (#69344, @zegl)
- kubectl run now generates apps/v1 deployments by default (#71006, @liggitt)
- `kubeadm reset` now outputs instructions about manual iptables rules cleanup. (#70874, @rdodev)
- Recognize newer docker versions without -ce/-ee suffix: 18.09.0 (#71001, @thomas-riccardi)
- "unfinished_work_microseconds" is added to the workqueue metrics; it can be used to detect stuck worker threads. (kube-controller-manager runs many workqueues.) (#70884, @lavalamp)
- add readiness gates in extended output for pods (#70775, @freehan)
- add `Ready` column and improve human-readable output of Deployments and StatefulSets (#70466, @Pingan2017)
- Kubeadm now respects the custom image registry configuration across joins and upgrades. Kubeadm passes the custom registry to the kubelet for a custom pause container. (#70603, @chuckha)
- kubeadm: deprecate the DynamicKubeletConfig feature gate. The functionality is still accessible by using the kubeadm alpha kubelet enable-dynamic command. (#70849, @yagonobre)
- Add `kubelet_container_log_size_bytes` metric representing the log file size of a container. (#70749, @brancz)
- kubeadm: remove the AuditPolicyConfiguration feature gate (#70807, @Klaven)
- Kubeadm: attributes for join --control-plane workflow are now grouped into a dedicated JoinControlPlane struct (#70870, @fabriziopandini)
- Addon configuration is introduced in the kubeadm config API, while feature flag CoreDNS is now deprecated. (#70024, @fabriziopandini)
- Fixes ability for admin/edit/view users to see controller revisions, needed for kubectl rollout commands (#70699, @liggitt)
- kubeadm pre-pulls Etcd image only if external Etcd is not used and --etcd-upgrade=false is not specified (#70743, @bart0sh)
- Add support for CRD conversion webhook (#67006, @mbohlool)
- Delete node lease if the corresponding node is deleted (#70034, @wangzhen127)
- In a future release the kubectl convert command will be deprecated. (#70820, @seans3)
- kubeadm: UnifiedControlPlaneImage is replaced by UseHyperKubeImage boolean value. (#70793, @rosti)
- kubeadm v1beta1 API: InitConfiguration.APIEndpoint has been renamed to .LocalAPIEndpoint (#70761, @luxas)

- Breaking change: CSINodeInfo split into Spec and Status. New fields Available and VolumePluginMechanism added to CSINodeInfo csi-api object. CSIDriverInfo no longer deleted on Driver uninstallation, instead Available flag is set to false. (#70515, @davidz627)
- GCERegionalPersistentDisk feature is GA now! (#70716, @jingxu97)
- Add secure port 10259 to the kube-scheduler (enabled by default) and deprecate old insecure port 10251. Without further flags self-signed certs are created on startup in memory. (#69663, @sttts)
- `--feature-gates` argument has been removed from the `kubeadm join` command. Feature gates will be retrieved from the cluster configuration during the join process. (#70755, @ereslibre)
- [kubeadm] Updates version of CoreDNS to 1.2.6 (#70796, @detiber)
- kubelet: When node lease feature is enabled, kubelet reports node status to api server only if there is some change or it didn't report over last report interval. (#69753, @wangzhen127)
- Self hosted is no longer supported in the standard workflow. The feature flags have been removed and your self hosted cluster is no longer able to upgrade via kubeadm. (#69878, @Klaven)
- vSphereVolume implements Raw Block Volume Support (#68761, @fanzhangio)
- [GCE] Filter out spammy audit logs from cluster autoscaler. (#70696, @loburm)
- CRD supports multi-version Schema, Subresources and AdditionalPrintColumns (NOTE that CRDs created prior to 1.13 populated the top-level additionalPrinterColumns field by default. To apply an update that changes to per-version additionalPrinterColumns, the top-level additionalPrinterColumns field must be explicitly set to null). (#70211, @roycaihw)
- Fixes a bug in previous releases where a pod could be placed inside another pod's cgroup when specifying --cgroup-root (#70678, @dashpole)
- Upgrade golang.org/x/net image to release-branch.go1.10 (#70663, @wenjiaswe)
- New addon in addon manager that automatically installs CSI CRDs if CSIDriverRegistry or CSINodeInfo feature gates are true. (#70193, @saad-ali)
- delegated authorization can now allow unrestricted access for `system:masters` like the main kube-apiserver (#70671, @deads2k)
- Update to use go1.11.2 (#70665, @cblecker)
- Add dns capabilities for Windows CNI plugins: (#67435, @feiskyer)
  - "dns" {
  - "servers": ["10.0.0.10"],
  - "searches": ["default.svc.cluster.local","svc.cluster.local","cluster.local"],
  - "options": []
  - }
- The VolumeScheduling feature is GA. The VolumeScheduling feature gate is deprecated and will be removed in a future release. (#70673, @msau42)
- Go clients created from a kubeconfig that specifies a TokenFile now periodically reload the token from the specified file. (#70606, @mikedanese)
- kubeadm: validate kubeconfig files in case of external CA mode. (#70537, @yagonobre)
- kube-apiserver: `--audit-webhook-version` and `--audit-log-version` now default to `audit.k8s.io/v1` if unspecified (#70476, @charrywanganthony)
- kubeadm: timeoutForControlPlane is introduced as part of the API Server config, that controls the timeout for the wait for control plane to be up. Default value is 4 minutes. (#70480, @rosti)
- kubeadm: The writable config file option for extra volumes is renamed to readOnly with a reversed meaning. With readOnly defaulted to false (as in pod specs). (#70495, @rosti)
- remove retry operation on attach/detach azure disk (#70568, @andyzhangx)
- Fix CSI volume limits not showing up in node's capacity and allocatable (#70540, @gnufied)
- Flex volume plugins now support expandvolume (to increase underlying volume capacity) and expanfs (resize filesystem) commands that Flex plugin authors can implement to support expanding in use Flex PersistentVolumes (#67851, @aniket-s-kulkarni)

- kubeadm: Control plane component configs are separated into ClusterConfiguration sub-structs. (#70371, @rosti)
- The `MountPropagation` feature is unconditionally enabled in v1.13, and can no longer be disabled. (#68230, @bertinatto)
- add azure UltraSSD, StandardSSD disk type support (#70477, @andyzhangx)
- The OwnerReferencesPermissionEnforcement admission plugin now checks authorization for the correct scope (namespaced or cluster-scoped) of the owner resource type. Previously, it always checked permissions at the same scope as the child resource. (#70389, @caesarxuchao)
- Ensure orphan public IPs on Azure deleted when service recreated with the same name. (#70463, @feiskyer)
- `kubectl apply` can now change a deployment strategy from rollout to recreate without explicitly clearing the rollout-related fields (#70436, @liggitt)
- Fix cloud-controller-manager crash when using OpenStack provider and PersistentVolume initializing controller (#70459, @mvladev)

v1.13.0-alpha.3

Documentation

Downloads for v1.13.0-alpha.3

filename	sha512 hash
kubernetes.tar.gz	`1d50cfd34306ace7354516125c45f8c546bba3ca5081af2b21969b535967d302821c06e7d4d590ba05f3`
kubernetes-src.tar.gz	`bf097b99d7b9af15bc1d592ee3782da1e811d8eb68dc9ae9d287589ce9174d3743beaf51422283c42ad0`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`77778ae2887eda52ee716fb0e843c17b2705b1284a67cdf53f91292eb7f1055ef942be1ae0eac25ad9f4c90`
kubernetes-client-darwin-amd64.tar.gz	`b3399767df12b71ee4b7b30126bd8001a0c1396161eb7535d797fd5847c55bccc18fb475f1639c3bf8e5f5c`
kubernetes-client-linux-386.tar.gz	`5ef0d318ff8da28c332ae25164e5a441272d2ee8ef2ac26438a47fe3e7e645ed0b132325243f3f33c93a868`
kubernetes-client-linux-amd64.tar.gz	`1f429eae5b0b1e39b1d4d30e3220a82d0ae6672a6f4b34a05246c3efc131a236f79e5876d7a98c56d98fbf2`
kubernetes-client-linux-arm.tar.gz	`5583aecdc9b4a54a4aa904fc1de66400f50628969e31b5a63ab1d3b6628e3c547a9cef9c2bc9e53a0eeb015`
kubernetes-client-linux-	`2453b9100c06b11e8c424d59cfd1c5e111c22b596191a9cfb0b330d198abecd982e19eb2ac38d91c3d1ef22`

arm64.tar.gz	
kubernetes-client-linux-ppc64le.tar.gz	4991ec4c19a82d50caed78bc8db51e7cdcd1f2896dfcaa45d84f347a72fe7ee0d0280c897af54afec93f548
kubernetes-client-linux-s390x.tar.gz	c55f2802afb2e5d261bb26b6c396df8ebe6b95913ddab1e124cf177f59a00524a26cc9dd74cbf06cc7a6a22
kubernetes-client-windows-386.tar.gz	df78465267e35ef078c3c0fd33f8898a9df26fbf411df3ed3283fbdc2e79380693abe2a2815d5a4d5374213
kubernetes-client-windows-amd64.tar.gz	5b93fdaaa931ef8e24196e53c484f91ef9e50b7d11e1053ccb61b2d6bdc8164767dd1d885cdc4949fdb7ed0

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	922a93ce677e686e594c11db75e1969c995b23062bba511bff4a43d3a530e21e1d15cbe9b38d06af407de5a
kubernetes-server-linux-arm.tar.gz	5dd550b58dedf25df020e66f1526e80c50b46d2df3ddd241bd02b6ebf10308599e7739917cbd9a3d2d3e787
kubernetes-server-linux-arm64.tar.gz	3e1037e71d85a74cd5d40dd836bd442b2dcc457f8ccc8247e4537f3deca6f99d6805857c44b4fd69a765530
kubernetes-server-linux-ppc64le.tar.gz	a89c46b558613ad09efe44a81574ad18157a787d1e9c5d09c98d3911b499573cd9b9845b7a7526d4de5b938
kubernetes-server-linux-s390x.tar.gz	47a68668e38ac1b8cb801f4bff3b15060cd88801f446ebfbf06125dbc9aef52be79faa94acee65af46b9351

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	74d5d46ac6ba336fa8aaf55d0a15860f6ebde2ff58d377ca93063593da12fbd4c758fe92c6b3285df0e4cc2
kubernetes-node-linux-	90372cb5270ffe6179d5d7efd3fff6aa029f73853805038fef1a6f92683399d692aee7790eacc3a59681f66

arm.tar.gz	
kubernetes-node-linux-arm64.tar.gz	09693303a1a8489d9599d32f7fbf549d18f31eb53671fa2ed342fe5089f2fba9322d8c52088b141da2414bb
kubernetes-node-linux-ppc64le.tar.gz	cbdb3b9ffd9be524ec0b38d72b0545b6dd1b3b789747f41a661fd7cbeffe942eb592c7e928a61e26152e740
kubernetes-node-linux-s390x.tar.gz	fc296b386bc03bf10773559118cd4a3d5be3d4c296f09748507fac812a1c791b435881b2ae425846632404f
kubernetes-node-windows-amd64.tar.gz	ae79c62fcb0654a62606d65cf131188d93e4a10787a862e7b0363269942df19543b55fd119ec6ff73578b24

Changelog since v1.13.0-alpha.2

Other notable changes

- kubelet --system-reserved and --kube-reserved are supported now on Windows nodes (#69960, @feiskyer)
- CSI drivers now have access to mountOptions defined on the storage class when attaching volumes. (#67898, @bswartz)
- The `kubectl plugin list` command will now display discovered plugin paths in the same order as they are found in a user's PATH variable. (#70443, @juanvallejo)
- Handle Windows named pipes in host mounts. (#69484, @ddebroy)
- kubeadm: Multiple API server endpoints support upon join is removed as it is now redundant. (#69812, @rosti)
- OpenAPI spec marks delete request's body parameter as optional (#70032, @iamneha)
- kube-controller-manager and cloud-controller-manager now hold generated serving certificates in-memory unless a writeable location is specified with --cert-dir (#69884, @liggitt)
- Scheduler only activates unschedulable pods if node's scheduling related properties change. (#70366, @mlmhl)
- --api-audiences now defaults to the --service-account-issuer if the issuer is provided but the API audience is not. (#70308, @mikedanese)
- Refactor scheduler_test.go to use a fake k8s client. (#70290, @tossmilestone)
- `kubectl rollout undo` now returns errors when attempting to rollback a deployment to a non-existent revision (#70039, @liggitt)
  - `kubectl rollout undo` no longer uses the deprecated extensions/v1beta1 rollback API, which means that Events are no longer emitted when rolling back a deployment
- The builtin system:csi-external-provisioner and system:csi-external-attacher cluster roles are deprecated and will not be updated for deployments of CSI sidecar container versions >= 0.4. Deployments with the current CSI sidecar containers have to provide their own RBAC definitions. The reason is that the rules depend on how the sidecar containers are used, which is defined by the deployment. (#69868, @pohly)
- Use debian-base instead of busybox as base image for server images (#70245, @ixdy)
- add support for projected volume in describe function (#70158, @WanLinghao)
- Speedup process lookup in /proc (#66367, @cpuguy83)
- Kubeadm reset now clean up custom etcd data path (#70003, @yagonobre)

- We changed when the `metadata.generation` of a custom resource (CR) increments. (#69059, @caesarxuchao)
  - If the CR participates the spec/status convention, the metadata.generation of the CR increments when there is any change, except for the changes to the metadata or the changes to the status.
  - If the CR does not participate the spec/status convention, the metadata.generation of the CR increments when there is any change to the CR, except for changes to the metadata.
  - A CR is considered to participate the spec/status convention if and only if the "CustomResourceSubresources" feature gate is turned on and the CRD has `.spec.subresources.status={}`.
- Improve Azure instance metadata handling by adding caches. (#70353, @feiskyer)
- adding cn-northwest-1 for AWS China Ningxia region (#70155, @pahud)
- "kubectl get" no longer exits before printing all of its results if an error is found (#70311, @juanvallejo)
- kubeadm now automatically creates a new stacked etcd member when joining a new control plane node (does not applies to external etcd) (#69486, @fabriziopandini)
- Critical pod annotation is deprecated. Pod priority should be used instead to mark pods as critical. (#70298, @bsalamat)
- Display the usage of ephemeral-storage when using `kubectl describe node` (#70268, @Pingan2017)
- Added functionality to enable br_netfilter and ip_forward for debian packages to improve kubeadm support for CRI runtime besides Docker. (#70152, @ashwanikhemani)
- Add regions ap-northeast-3 and eu-west-3 to the list of well known AWS regions. (#70252, @nckturner)
- Remove kube-controller-manager flag '--insecure-experimental-approve-all-kubelet-csrs-for-group'(deprecated in v1.7) (#69209, @Pingan2017)
- GCE/GKE load balancer health check default interval changes from 2 seconds to 8 seconds, unhealthyThreshold to 3. (#70099, @grayluck)
  - Health check parameters are configurable to be bigger than default values.
- The kubectl wait command must handle when a watch returns an error vs closing by printing out the error and retrying the watch. (#69389, @smarterclayton)
- Updates to use debian-iptables v11.0, debian-hyperkube-base 0.12.0, and kube-addon-manager:v8.9. (#70209, @ixdy)
- Fixed patch/update operations on multi-version custom resources (#70087, @liggitt)
- When `--rotate-server-certificates` is enabled, kubelet will no longer request a new certificate on startup if the current certificate on disk is satisfactory. (#69991, @agunnerson-ibm)
- Support for passing unknown provider names to the E2E test binaries is going to be deprecated. Use `--provider=skeleton` (no ssh access) or `--provider=local` (local cluster with ssh) instead. (#70141, @pohly)
- Add scheduler benchmark tests for PodAffinity and NodeAffinity. (#69898, @Huang-Wei)
- fix azure disk attachment error on Linux (#70002, @andyzhangx)

v1.13.0-alpha.2

Documentation

Downloads for v1.13.0-alpha.2

filename	sha512 hash
kubernetes.tar.gz	`cbe7ef29c7e7bbed82e173289f5f84d7a85ee4965cc5b7ccd16cf8236a3b8171bb8f52011d00ea4dd111`
kubernetes-	`8b0b8e1b635cd849c2974d755fe174f0ce8fe8c690721d8ac6312683bbd2ca2c6f7eada38e4e470d3a01`

src.tar.gz	

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	fca661a5001e7f368374d0805f20910be24baa485bf4ae5d993185b974f70ff7241497e7a130658dca69abf
kubernetes-client-darwin-amd64.tar.gz	d31dfea475981c7f7b758c7f201aa5b866db48d87942c79d0a12d464b7cdf501dba2255282c72b53928ccac
kubernetes-client-linux-386.tar.gz	fecf8362c572fff48952fd2748ddcb9d375462cb484670cda4fda1387eb692713be0a323e93746bb1845a4e
kubernetes-client-linux-amd64.tar.gz	136cb82ac94bcd791d56e997a948a7e1bee4af03bcc69ce9c835895cdda75524f5916756c778ff8aa693624
kubernetes-client-linux-arm.tar.gz	e561c37895edef44614ecd59f497d393275ee62455b6269b169a891873d661d46cbf68e6148447f142ebddd
kubernetes-client-linux-arm64.tar.gz	c0d5eb49763e8bf50b5e8e3785c7889fecbd8bf7c0b3c18250fa894a1c5e58a14f796f7526279dbf41d5d47
kubernetes-client-linux-ppc64le.tar.gz	a5a8c150af163e7c726662eeddfc3de8e43f123daaa100b8e82c9bc786313a5ce8135cbaadd41ebbb6c2307
kubernetes-client-linux-s390x.tar.gz	fd162e0244e107f1892d79029f3452cdba84d8616ad1b15eebe197afb3b536328cd8cba9c73c0ce1cd8ac6f
kubernetes-client-windows-386.tar.gz	e01fedec8f700e037bc43cb13bc916b85601cd1c9361a0f63fd27092640f89d2faaff4a6157638af8af5253
kubernetes-client-windows-amd64.tar.gz	d2601efcfa6a4ba8a017e9cac571fb454b21b7700a7b3f8e2fbabdd5301545ef2459da93eca3684c1aa73ea

Server Binaries

filename	sha512 hash
kubernetes-server-linux-	4dda298d44bc309f250c067e9282eea37903838a140cf5abf6f861dca624d5a055ba1c43129454ae9abc835

amd64.tar.gz	
kubernetes-server-linux-arm.tar.gz	e9c3bdf60272399bc6f85a15bbc55cd69db389c223b275661ddcab4ae8c3afcd2171ec3c35a53df2420376f
kubernetes-server-linux-arm64.tar.gz	d0a1701a34365f939799b6ea676129acdcfa1582bcf50e82a9751d9aafc73ebffd0fc0365fe352755caa9a2
kubernetes-server-linux-ppc64le.tar.gz	1a23473960aaaa639e796020741b63c11dad8a93903926e80c871814b8209166ef06f5205172cd9b2438f8c
kubernetes-server-linux-s390x.tar.gz	293d0eb93e2ed641d0c1e26d58423670c04c307dddb034a9fc252043abe5694f63e772d4dfe2bf505fc0b68

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	e3cba71c2b2d151cdcc44937c1bea083ee0ceb829e7feb25cd37edd4d0bd7adac0a166144bd33f9aa616d73
kubernetes-node-linux-arm.tar.gz	28d7f1cf4fecdc72da7f5f19836cc06bb08182f8e8fb1641dc01e9299247905e305b04c676efa9afbdb8b1e
kubernetes-node-linux-arm64.tar.gz	cfe22b11502cd857f0e277e7c1af08e6202f7ffc36f852c6154159bdd67bb330ffd18e5f768cf6968f0524a
kubernetes-node-linux-ppc64le.tar.gz	195a6785c49af419361a8901c99bb6613a6578a8eac5e8f08ec28077645be18c6d04c9afc2839d07de27b15
kubernetes-node-linux-s390x.tar.gz	51f5b5ed47b50f5188d9e2f57b03555492d3e490494842247fa04fe81ea350c6694a52caa46ea50578ca07e
kubernetes-node-windows-amd64.tar.gz	d2690d57cd485c0c7ebe425464ad59f2c7722870abd6f264ea7fae65a4e403c89446373ba9cd23cd43e8316

Changelog since v1.13.0-alpha.1

Other notable changes

- Corrected family type (inet6) for ipsets in ipv6-only clusters (#68436, @uablrek)
- Corrects check for non-Azure managed nodes with the Azure cloud provider (#70135, @marc-sensenich)

- Windows runtime endpoints is now switched to 'npipe:////./pipe/dockershim' from 'tcp://localhost:3735'. (#69516, @feiskyer)
- The caBundle and service fields in admission webhook API objects now correctly indicate they are optional (#70138, @liggitt)
- The --service-account-api-audiences on kube-apiserver is deprecated in favor of --api-audiences. (#70105, @mikedanese)
- kubeadm: fix unnecessary upgrades caused by undefined order of Volumes and VolumeMounts in manifests (#70027, @bart0sh)
- kubeadm: Implemented preflight check to ensure that number of CPUs (#70048, @bart0sh)
  - on the master node is not less than required.
- Reduce memory utilization of admission webhook metrics by removing resource related labels. (#69895, @jpbetz)
- kubeadm: Introduce config print init/join-defaults that deprecate config print-defaults by decoupling init and join configs. (#69617, @rosti)
- Images based on debian-base no longer include the libsystemd0 package. This should have no user-facing impact. (#69995, @ixdy)
  - Additionally, the addon-manager image is updated to use kubectl v1.11.3.
- fix 'kubeadm upgrade' infinite loop waiting for pod restart (#69886, @bart0sh)
- add more logging for azure disk diagnostics (#70012, @andyzhangx)
- Fluentd: concatenate long logs (#68012, @desaintmartin)
- CoreDNS is now the default DNS server in kube-up deployments. (#69883, @chrisohaver)
- Optimizes calculating stats when only CPU and Memory stats are returned from Kubelet stats/summary http endpoint. (#68841, @krzysztof-jastrzebski)
- kubeadm: Fix node join taints. (#69846, @andrewrynhard)
- Opt out of chowning and chmoding from kubectl cp. (#69573, @bjhaid)
- support Azure premium file for azure file plugin (#69718, @andyzhangx)
- `TaintBasedEvictions` feature is promoted to beta. (#69824, @Huang-Wei)
- improves memory use and performance when processing large numbers of pods containing tolerations (#65350, @liggitt)
- Add dynamic audit configuration api (#67547, @pbarker)
- Promote resource limits priority function to beta (#69437, @ravisantoshgudimetla)
- Fix cluster autoscaler addon permissions so it can access batch/job. (#69858, @losipiuk)
- change default azure file mount permission to 0777 (#69854, @andyzhangx)
- kubeadm: JoinConfiguration now houses the discovery options in a nested Discovery structure, which in turn has a couple of other nested structures to house more specific options (BootstrapTokenDiscovery and FileDiscovery) (#67763, @rosti)
- Fix tests to use fsync instead of sync (#69755, @mrunalp)
- kube-proxy argument `hostname-override` can be used to override hostname defined in the configuration file (#69340, @stevesloka)
- kube-apiserver: the `--deserialization-cache-size` flag is no longer used, is deprecated, and will be removed in a future release (#69842, @liggitt)
- Add support for JSON patch in fake client (#69330, @vaikas)

v1.13.0-alpha.1

Documentation

Downloads for v1.13.0-alpha.1

filename	sha512 hash
kubernetes.tar.gz	9f8a34b54a22ea4d7925c2f8d0e0cb2e2005486b1ed89e594bc0100ec7202fc247b89c5cbde5dc50c1f9
kubernetes-src.tar.gz	a27a7c254d3677c823bd6fd1d0d5f9b1e78ccf807837173669a0079b0812a23444d646d80c2433c167ae

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	d77d33c6d6357b99089f65e1c9ec3cabdcf526ec56e87bdee6b09a8c1b1f1b8f6f0ed6d32f2d3b352391da8
kubernetes-client-darwin-amd64.tar.gz	5b4a586defa2ba0ea7c8893dedfe48cae52a2cd324bcb311a3877e27493abb6cb76550e8201a9cac488cde9
kubernetes-client-linux-386.tar.gz	d50572fbb716393004ad2984a15043d2dfadedd16ae03a73fc85653266ae389071fd2c993923fbe9ea7fbd6
kubernetes-client-linux-amd64.tar.gz	12ab709e574228f170a2ee2686e18dcbfcf59f64599b2ab9047c2ed63f4bd23d6c9fc48104431c9fa616e0b
kubernetes-client-linux-arm.tar.gz	3a8c75b62cf9e6476417246d4aaeda5a13b74bc073444fc3649198b9d5dc1e7a62aa6b914c7da5a42bcd616
kubernetes-client-linux-arm64.tar.gz	0f5b5956850f11a826d59d226b6a22645ca1f63893cd33c17dfe004bd316f2704d800beb0b9c91a204efc12
kubernetes-client-linux-ppc64le.tar.gz	06c60dd2e4e8d1ab45474a5b85345b4f644d0c1c66e167596c6c91bd607f957b68121fdb7efed362cb6799e
kubernetes-client-linux-s390x.tar.gz	4630e9e523beb02d8d3900c71b3306561c2d119d588399c93d578184eb1a53601ceefe15a600740c13d565e
kubernetes-client-windows-386.tar.gz	0c0fcc9c492aceb00ff7fd3c10ba228c7bb10d6139b75ceecd8f85532797c5dc1162b39d94ebae5fa6b4c26
kubernetes-client-windows-amd64.tar.gz	3548a6d8618c6c7c8042ae8c3eb69654314392c46f839de24ab72d9faa79993a6cf989f6ac619e418e81730

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	9dbf2343ef9539b7d4d73949bcd9eef6f46ece59e97fa3390a0e695d0cb2eacbbbae17e3ed53432a8018f55
kubernetes-server-linux-arm.tar.gz	a985f3c302246df9bff4b927a2596d209c19fb2f245aa5cb5de189b6a9d247d6fd0234edd45968a691f1a27
kubernetes-server-linux-arm64.tar.gz	80d20df07e6a29b7aedccbd4e26c1c0565b2a1c3146e1a5bb2ebd2e8cf9ab063db137389a498fd6a6c3c42d
kubernetes-server-linux-ppc64le.tar.gz	7d45ed3aa8b36e9e666b334ff3ed3de238caea34b4a92b5e1a61a6e7223ae8581bafff43a5b72447a43e118
kubernetes-server-linux-s390x.tar.gz	30698478fab2fe7daccac97917b0b21b018c194ec39b005728f8cddf77f889aa3e1a520e0d1d681f9d8b788

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	4497d14ac81677b43f0b75a457890c1f3bb8745a39875f58d53c734bec1947c37388228e0c952ca87f22d74
kubernetes-node-linux-arm.tar.gz	a3b0357db50e0dec7b0474816fec287388adabc76cc309a40dee9bc73771c951e4526a06145a8b332d72e59
kubernetes-node-linux-arm64.tar.gz	43af8ec4c5f2a1e2baa8cd13817e127fb6a3576dd811a30c4cc5f04d8a9a8bb2267eb5c42e0a895cf2ec0e3
kubernetes-node-linux-ppc64le.tar.gz	840354219b3e59ed05b5b44cbbf4d45ccc4c0d74044e28c8a557ca75d12e509b091eb10d9bed81e300cb484
kubernetes-node-linux-s390x.tar.gz	796ca2e6855bd942a9a63d93f847ae62c5ee74195e041b60b89ee7d0e5a75643a8809bfaa36898daa176bcc
kubernetes-node-windows-amd64.tar.gz	96d666e8446d09088bdcb440559035118dce07a2d9f5718856192fd807b61840d2d6cee2a808eb13f2e9477

Changelog since v1.12.0

Action Required

- kube-apiserver: the deprecated `--etcd-quorum-read` flag has been removed, and quorum reads are always enabled when fetching data from etcd. (#69527, @liggitt)
- Moved staging/src/k8s.io/client-go/tools/bootstrap to staging/src/k8s... (#67356, @yliaog)
- [action required] kubeadm: The `v1alpha2` config API has been removed. (#69055, @fabriziopandini)
  - Please convert your `v1alpha2` configuration files to `v1alpha3` using the
  - `kubeadm config migrate` command of kubeadm v1.12.x

Other notable changes

- Refactor factory_test.go to use a fake k8s client. (#69412, @tossmilestone)
- kubeadm: fix a case where fetching a kubernetesVersion from the internet still happened even if some commands don't need it. (#69645, @neolit123)
- Add tolerations for Stackdriver Logging and Metadata Agents. (#69737, @qingling128)
- Fix a bug in the scheduler that could cause the scheduler to go to an infinite loop when all nodes in a zone are removed. (#69758, @bsalamat)
- Dry-run is promoted to Beta and will be enabled by default. (#69644, @apelisse)
- `kubectl get priorityclass` now prints value column by default. (#69431, @Huang-Wei)
- Added a new container based image for running e2e tests (#69368, @dims)
- Remove the deprecated --google-json-key flag from kubelet. (#69354, @yujuhong)
- kube-apiserver: fixes `procMount` field incorrectly being marked as required in openapi schema (#69694, @jessfraz)
- The `LC_ALL` and `LC_MESSAGES` env vars can now be used to set desired locale for `kubectl` while keeping `LANG` unchanged. (#69500, @m1kola)
- Add ability to control primary GID of containers through Pod Spec and PodSecurityPolicy (#67802, @krmayankk)
- NodeLifecycleController: Now node lease renewal is treated as the heartbeat signal from the node, in addition to NodeStatus Update. (#69241, @wangzhen127)
- [GCE] Enable by default audit logging truncating backend. (#68288, @loburm)
- Enable insertId generation, and update Stackdriver Logging Agent image to 0.5-1.5.36-1-k8s. This help reduce log duplication and guarantee log order. (#68920, @qingling128)
- Move NodeInfo utils into pkg/scheduler/cache. (#69495, @wgliang)
- adds dynamic shared informers to write generic, non-generated controllers (#69308, @p0lyn0mial)
- Move CacheComparer to pkg/scheduler/internal/cache/comparer. (#69317, @wgliang)
- Updating OWNERS list for vSphere Cloud Provider. (#69187, @SandeepPissay)
- The default storage class annotation for the storage addons has been changed to use the GA variant (#68345, @smelchior)
- Upgrade to etcd 3.3 client (#69322, @jpbetz)
- fix GetVolumeLimits log flushing issue (#69558, @andyzhangx)
- It is now possible to use named ports in the `kubectl port-forward` command (#69477, @m1kola)
- kubeadm: fix a possible scenario where kubeadm can pull much newer control-plane images (#69301, @neolit123)
- test/e2e/e2e.test: (#69105, @pohly)
  - -viper-config can be used to set also the options defined by command line flags
  - the default config file is "e2e.yaml/toml/json/..." and the test starts when no such config is found (as before) but if -viper-config is used, the config file must exist
  - -viper-config can be used to select a file with full path, with or without file suffix
  - the csiImageVersion/Registry flags were renamed to storage.csi.imageVersion/Registry
- Move FakeCache to pkg/scheduler/internal/cache/fake. (#69318, @wgliang)
- The "kubectl cp" command now supports path shortcuts (../) in remote paths. (#65189, @juanvallejo)
- Fixed subpath in containerized kubelet. (#69565, @jsafrane)

- The runtimeHandler field on the RuntimeClass resource now accepts the empty string. (#69550, @tallclair)
- Kubelet can now parse PEM file containing both TLS certificate and key in arbitrary order. Previously key was always required to be first. (#69536, @awly)
- Scheduling conformance tests related to daemonsets should set the annotation that relaxes node selection restrictions, if any are set. This ensures conformance tests can run on a wider array of clusters. (#68793, @aveshagarwal)
- Replace Parallelize with function ParallelizeUntil and formally deprecate the Parallelize. (#68403, @wgliang)
- Move scheduler cache interface and implementation to pkg/scheduler/internal/cache. (#68968, @wgliang)
- Update to use go1.11.1 (#69386, @cblecker)
- Any external provider should be aware the cloud-provider interface should be imported from :- cloudprovider "k8s.io/cloud-provider" (#68310, @cheftako)
- kubeadm: Fix a crash if the etcd local alpha phase is called when the configuration contains an external etcd cluster (#69420, @ereslibre)
- kubeadm now allows mixing of init/cluster and join configuration in a single YAML file (although a warning gets printed in this case). (#69426, @rosti)
- Code-gen: Remove lowercasing for project imports (#68484, @jsturtevant)
- Fix client cert setup in delegating authentication logic (#69430, @DirectXMan12)
- service.beta.kubernetes.io/aws-load-balancer-internal now supports true and false values, previously it only supported non-empty strings (#69436, @mcrute)
- OpenAPI spec and API reference now reflect dryRun query parameter for POST/PUT/PATCH operations (#69359, @roycaihw)
- kubeadm: Add a `v1beta1` API. (#69289, @fabriziopandini)
- kube-apiserver has removed support for the `etcd2` storage backend (deprecated since v1.9). Existing clusters must migrate etcd v2 data to etcd v3 storage before upgrading to v1.13. (#69310, @liggitt)
- List operations against the API now return internal server errors instead of partially complete lists when a value cannot be transformed from storage. The updated behavior is consistent with all other operations that require transforming data from storage such as watch and get. (#69399, @mikedanese)
- `kubectl wait` now supports condition value checks other than true using `--for condition=available=false` (#69295, @deads2k)
- CCM server will not listen insecurely if secure port is specified (#68982, @aruneli)
- Bump cluster-proportional-autoscaler to 1.3.0 (#69338, @MrHohn)
  - Rebase docker image on scratch.
- fix inconsistency in windows kernel proxy when updating HNS policy. (#68923, @delulu)
- Fixes the sample-apiserver so that its BanFlunder admission plugin can be used. (#68417, @MikeSpreitzer)
- Fixed CSIDriver API object to allow missing fields. (#69331, @jsafrane)
- Bump addon-manager to v8.8 (#69337, @MrHohn)
  - Rebase docker image on debian-base:0.3.2.
- Update defaultbackend image to 1.5. Users should concentrate on updating scripts to the new version. (#69120, @aledbf)
- Bump Dashboard version to v1.10.0 (#68450, @jeefy)
- Fixed panic on iSCSI volume tear down. (#69140, @jsafrane)
- Update defaultbackend to v1.5 (#69334, @bowei)
- Remove unused chaosclient. (#68409, @wgliang)
- Enable AttachVolumeLimit feature (#69225, @gnufied)
- Update crictl to v1.12.0 (#69033, @feiskyer)
- Wait for pod failed event in subpath test. (#69300, @mrunalp)
- [GCP] Added env variables to control CPU requests of kube-controller-manager and kube-scheduler. (#68823, @loburm)
- Bump up pod short start timeout to 2 minutes. (#69291, @mrunalp)

- Use the mounted "/var/run/secrets/kubernetes.io/serviceaccount/token" as the token file for running in-cluster based e2e testing. (#69273, @dims)
- apiservice availability related to networking glitches are corrected faster (#68678, @deads2k)
- extract volume attachment status checking operation as a common function when attaching a CSI volume (#68931, @mlmhl)
- PodSecurityPolicy objects now support a `MayRunAs` rule for `fsGroup` and `supplementalGroups` options. This allows specifying ranges of allowed GIDs for pods/containers without forcing a default GID the way `MustRunAs` does. This means that a container to which such a policy applies to won't use any fsGroup/supplementalGroup GID if not explicitly specified, yet a specified GID must still fall in the GID range according to the policy. (#65135, @stlaz)
- Images for cloud-controller-manager, kube-apiserver, kube-controller-manager, and kube-scheduler now contain a minimal /etc/nsswitch.conf and should respect /etc/hosts for lookups (#69238, @BenTheElder)
- add deprecation warning for all cloud providers (#69171, @andrewsykim)
- IPVS proxier mode now support connection based graceful termination. (#66012, @Lion-Wei)
- Fix panic in kubectl rollout commands (#69150, @soltysh)
- Add fallbacks to ARM API when getting empty node IP from Azure IMDS (#69077, @feiskyer)
- Deduplicate PATH items when reading plugins. (#69089, @soltysh)
- Adds permissions for startup of an on-cluster kube-controller-manager (#69062, @dghubble)
- Fixes issue #68899 where pods might schedule on an unschedulable node. (#68984, @k82cn)
- Returns error if NodeGetInfo fails. (#68979, @xing-yang)
- Pod disruption budgets shouldn't be checked for terminal pods while evicting (#68892, @ravisantoshgudimetla)
- Fix scheduler crashes when Prioritize Map function returns error. (#68563, @DylanBLE)
- kubeadm: create control plane with ClusterFirstWithHostNet DNS policy (#68890, @andrewrynhard)
- Reduced excessive logging from fluentd-gcp-scaler. (#68837, @x13n)
- adds dynamic lister (#68748, @p0lyn0mial)
- kubectl: add the --no-headers flag to `kubectl top ...` (#67890, @WanLinghao)
- Restrict redirect following from the apiserver to same-host redirects, and ignore redirects in some cases. (#66516, @tallclair)
- Fixed pod cleanup when /var/lib/kubelet is a symlink. (#68741, @jsafrane)
- Add "only_cpu_and_memory" GET parameter to /stats/summary http handler in kubelet. If parameter is true then only cpu and memory will be present in response. (#67829, @krzysztof-jastrzebski)
- Start synchronizing pods after network is ready. (#68752, @krzysztof-jastrzebski)
- kubectl has gained new --profile and --profile-output options to output go profiles (#68681, @dlespiau)
- Provides FSGroup capability on FlexVolume driver. It allows to disable the VolumeOwnership operation when volume is mounted (#68680, @benoitf)
- Apply _netdev mount option on bind mount (#68626, @gnufied)
- fix UnmountDevice failure on Windows (#68608, @andyzhangx)
- Allows changing nodeName in endpoint update. (#68575, @prameshj)
- kube-apiserver would return 400 Bad Request when it couldn't decode a json patch. (#68346, @CaoShuFeng)
    - kube-apiserver would return 422 Unprocessable Entity when a json patch couldn't be applied to one object.
- remove unused ReplicasetControllerOptions (#68121, @dixudx)
- Pass signals to fluentd process (#68064, @gianrubio)
- Flex drivers by default do not produce metrics. Flex plugins can enable metrics collection by setting the capability 'supportsMetrics' to true. Make sure the file system can support fs stat to produce metrics in this case. (#67508, @brahmaroutu)
- Use monotonically increasing generation to prevent scheduler equivalence cache race. (#67308, @cofyc)
- Fix kubelet service file permission warning (#66669, @daixiang0)

- Add prometheus metric for scheduling throughput. (#64526, @misterikkit)
- Get public IP for Azure vmss nodes. (#68498, @feiskyer)
- test/integration: add a basic test for covering CronJobs (#66937, @mortent)
- Make service environment variables optional (#68754, @bradhoekstra)