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    - Other notable changes
- v1.13.7
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    - 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

        * 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	bacb75dca1dff0b48fafbaa3380d250a58e2220426af05c35623d976b1490bc
kubernetes-src.tar.gz	d3d9a067848c06efc0351bab055de92bede0abaa7e85b0d05a4bbd3b224b162

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	cdefbeac3df649874c36693093815b295db9c153b44a64a8ebd1188a5e68ba9
kubernetes-client-darwin-amd64.tar.gz	4dc1c342851d277ff609bcd117868cee36ea0c49f365a992802832568646dd3
kubernetes-client-linux-386.tar.gz	6d61936a0efd6c0f630701d04cb160382ea3a1054abda1a7adade6c12791e62
kubernetes-client-linux-amd64.tar.gz	43830293485863452aa2b5d87456ac575fbfa2f2115e04091596dd51ca8192c
kubernetes-client-linux-arm.tar.gz	61fca1e2c0577869729ba6f18e2e674202712e81abc65dc6cf34e172ef9c973
kubernetes-client-linux-arm64.tar.gz	37efee69f151523fa0f43587baf22d90c5020bc91f2fc3f010fe2a09313a1ff
kubernetes-client-linux-ppc64le.tar.gz	d6a46958b3cb925909898e12c929eed1f4451638e162f3ca913c0728b95be0e
kubernetes-client-linux-s390x.tar.gz	dbd7e9137ec0631916c0089bc69b843693e72c7920e3faadcbc21fb680c3532
kubernetes-client-windows-386.tar.gz	bd871c650f754002342508f520a9115bcc047bd681fe12059f8bd7bf491aca9
kubernetes-client-windows-amd64.tar.gz	9fc5a9fea723536de913cc2f3f277e583a838cd38ca65bd02a9f6283565d33b

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	ef5b94257a8dcb0c40d27eb35ba34631b90b0d64653339347d43b5448b9faab

filename	sha512 hash
kubernetes-server-linux-arm.tar.gz	4439ffff8ca1d151a73b0c0784f206bc0c09647d7f4be354f078fc08d60a001
kubernetes-server-linux-arm64.tar.gz	bb91bc1c575098ee015c00c2d82787d49efdad0756125cc3d5c135b32760d5a
kubernetes-server-linux-ppc64le.tar.gz	331f64ecb87565ccb965bc78cf1d9f6179758de384bf3a832bfde11e6499b07
kubernetes-server-linux-s390x.tar.gz	f55e8f24294fb1d172bee44b91737c1e77062eb8bc00036901f258393b2942c

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	b575e22344c7cf15c3073e452c6eca140178f238f8eee262433a89e042ee23f
kubernetes-node-linux-arm.tar.gz	e28e0c1663250478ccdba8c016d6fd1add6abdeeb7b7f56c751d8b0298d4d38
kubernetes-node-linux-arm64.tar.gz	e6ebf4f7399cf157cfd6a3b18d28cd489e78166de50f1c2642435c30b3bd99c
kubernetes-node-linux-ppc64le.tar.gz	c41078db96a57448fd5e8736952ff295aefbb6712082e81c5d8123c98287cbc
kubernetes-node-linux-s390x.tar.gz	109487345a50fc4384a09398d1492e67d8aef2dea35546ee58e14f57abcf7e8
kubernetes-node-windows-amd64.tar.gz	0b912fe7d65823ea73af42f412a913aead889f4958ce3d5e2bb92000a89f995

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	cb32ac05cd396ab0a75b054750d93fa9892940c6d9795ce3a40448f177bf780
kubernetes-src.tar.gz	cf12468b2361076e9e8c142e687b8ddb4ede970bee236e085afe6e85cbc8756

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	ce320f7af51aa4305b68b542c95dd17c8ada87774734cf4756c7a5092d3aa03
kubernetes-client-darwin-amd64.tar.gz	ccda950311c5a39ac3ffdc639ddf0939ed498f5eb1e22ada2d8cddeb10e9ce1
kubernetes-client-linux-386.tar.gz	077c93c2bf806e6b333b58b5277ac4c8a48de377e9e8e998342ac24af53fd9c
kubernetes-client-linux-amd64.tar.gz	461b22d0656d1a838be9957675776dd96c464f06e05a1789b6778c9db81a5d1
kubernetes-client-linux-arm.tar.gz	30a57464264a2a4033c7b6fe873d6910179d66a8ce0cfa908ede8c4fbe8e1c0
kubernetes-client-linux-arm64.tar.gz	4779a7cc80ed47c01cefc89132ed9c3bc523a92d1b2b68f7f1e1354f5e191c8
kubernetes-client-linux-ppc64le.tar.gz	95818f1c504cb992d5242797f6104bc6a1645b78770595479d1554a31ab88ae
kubernetes-client-linux-s390x.tar.gz	ee7a59f474a025229e7639b1e4464cb2dc8613c91eb1a4474d5b3576722dd28
kubernetes-client-windows-386.tar.gz	acc0021250fe05e32265d2dfb040cf2535a7f8027e1d9b5893cd7c3c4f4f219
kubernetes-client-windows-amd64.tar.gz	eedffdef23b11bb859c9b1bac1ad4d98788dc72a7d4ef8ec23b4131cfabf13c

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	f340b86fafa50e8eb9e2c4c8fc35d35403263811a8f2f40f16335eee8622908
kubernetes-server-linux-arm.tar.gz	8beef625107d19ef1b4ca9c9daf2ee6725a2f3376b71e55fbf388908fe8fb0f
kubernetes-server-linux-arm64.tar.gz	3695832332e9e2302f2012b5faaa5af6b521a1b34385456cacbcecd1b859932
kubernetes-server-linux-ppc64le.tar.gz	51071c154b7b23c9e61f99186c7e7b109f28f1ffd654396dc6068130287a583

filename	sha512 hash
kubernetes-server-linux-s390x.tar.gz	`c48d2ec1b76b6d37bfec603a85c09e4092e326902625a28a7f87a163323821`

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`b890788b20b82519f3ab05a0f247d9e428ef546c4a408a31f7e5e73975bc07`
kubernetes-node-linux-arm.tar.gz	`a48029542526247acfd99d8d8dec6496645d172f37adead467cb78f879512`
kubernetes-node-linux-arm64.tar.gz	`cce6a070985ab71c5a4a398d139b0a56bdfb85e69760b868ed37ffe069b3ee`
kubernetes-node-linux-ppc64le.tar.gz	`c0ec49e3ae99886edb472043077a9679c7f23aa0954ef388b23328443b9566`
kubernetes-node-linux-s390x.tar.gz	`a6f8b60b8593666f05bd96391c16b8943d0bdb06d5f7f61fa1c69ab5605903`
kubernetes-node-windows-amd64.tar.gz	`b70e43148e304dc5eb9c012b2eaebdfd16ab3f9e2f8e3de0782789be45edc3`

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	d1fced0c505667b7a74ca2df6738e43f18cc05b11fa407ef49eae730e83294(
kubernetes-src.tar.gz	97c083ff85f2c714add2727851a080abe75198dc258767b80ed8344ac2526f(

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	fbd9389eac2e2f49125e40967c8d8bfad5c96010d9972e31387ac1f06f947b2
kubernetes-client-darwin-amd64.tar.gz	0e01864de60e776d7531a13e685139998b2d67d00032d040f0be1eff251b3de
kubernetes-client-linux-386.tar.gz	18e9fa00d1fc3c78025ce076a601965ae559456ec88d0aa7ce99a4bdc03290b
kubernetes-client-linux-amd64.tar.gz	1e605d6d2a1c6091bff9f6bffe4404d50b437b4b8014014fd251b73ac1d2d89
kubernetes-client-linux-arm.tar.gz	09265476898aebbf13e61b741251c8b94bc6d23e4f6a61548661b02f6f1b7d2
kubernetes-client-linux-arm64.tar.gz	d5ab4fbf359d488e40ec33da596d3a1e174fcc03e86b1cfd202dd8e30e37e47
kubernetes-client-linux-ppc64le.tar.gz	882978ba492c930a13216426fe0dd2c3211372b8df8117b80cfade23babc94c
kubernetes-client-linux-s390x.tar.gz	c43ea5d089fc39cdc08e36ea6462bb7e8edc194daad1e2a83df8b1ad8473042
kubernetes-client-windows-386.tar.gz	56871894e4c7f0beaa036f73ede8e51b9b8410b2ebad84534614812ce5a3e59
kubernetes-client-windows-amd64.tar.gz	69caba4b9296fbf0c06445e6698a6872a7bcc88162bb01ba70ae44787e5cf4c

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	d1c0873f72836ad2bf1f71af372db479b3475cdd2cd651a1620ed562352a05f
kubernetes-server-linux-arm.tar.gz	f4e67913022cd352d10c031fabb0459f9c55396ffa7df0d7240fe69f6fae076
kubernetes-server-linux-arm64.tar.gz	644c5f80b3840cc312e63cbab288865fbf26e22196aff1b633ea08f88d29b2b
kubernetes-server-linux-ppc64le.tar.gz	07e24ee8a39bb9676688d3b37b7c2cb3aeb13c096f1c7b107a5a84a6a4eecbe

filename	sha512 hash
kubernetes-server-linux-s390x.tar.gz	e4de596c6ee1ab2ac03ae47fc822503f87520cdae1987b706ffe460fee0498e

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	9c4868b0399d529c6bedb89f30570acc67357bb6a42a4a3d2c5224922ea30d5
kubernetes-node-linux-arm.tar.gz	4f17df5e61666aabfa6d450dec7c506c2d8912e670eb6f28bc356e8fb8f3ea5
kubernetes-node-linux-arm64.tar.gz	12b0a1c380de90fa1c4bb02fc274aaff040e86ed64f68bc8fd8448456a7432c
kubernetes-node-linux-ppc64le.tar.gz	52f993bf9f01879b344c51c6d0644c007dc15c50475e2c392d813acc70d4393
kubernetes-node-linux-s390x.tar.gz	3b75d024aec3a090eabf6ea66facdcfd3e5f6e0b0890aaa8a3af76b2deb9597
kubernetes-node-windows-amd64.tar.gz	2790196a386b76144c0f4f31ff39e1d7a5569f5d23e735c5153dd938b290d55

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	47404fa7de9c036b7036c9583418b5d5d693e750a68508ce1308df48d21898b
kubernetes-src.tar.gz	ba16dc0d6fa2a375613fb5d55a948d089f0c6448d46a6c37bf03a6be5b2ac4a

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	e5f2d7eed263b3786b5246b171e68c6504be00a8e37bc955bcff169cdcd4574
kubernetes-client-darwin-amd64.tar.gz	f08a3b1a490a5ec2611951df1a164d949aaa7b66003a40fb27e5863a86862e9
kubernetes-client-linux-386.tar.gz	8dd9ef36b0a00dc7f0f2f29294729c7611e1cd664dc50dcc46028ddfd6b11a4
kubernetes-client-linux-amd64.tar.gz	8c76e782e6aab12f21447d3e5b9241b0d8e4d4058fe16972c62d91dc92b130c
kubernetes-client-linux-arm.tar.gz	7c32e7d86a9b896c0f8d249cf7f04c0a36a4cd934c3192b3cd8089fa4e45efc
kubernetes-client-linux-arm64.tar.gz	8aa797e3e3eb2d295b2e3d77f02d0b2fc736dfee927ffcd7f2dcc1c8901ed96
kubernetes-client-linux-ppc64le.tar.gz	fb55d4c2235e15fec9fb3d846014a264a31702ea112e4715e6f88526a4c3a5c
kubernetes-client-linux-s390x.tar.gz	bbb7a66a036449656dd5ae564db7e91ed7ff25321c044f3e819f2591e939cba
kubernetes-client-windows-386.tar.gz	91eff924e57a5dfee56a0bb5bfc7910b03c0250783964c1e7593c7aa9e102e5
kubernetes-client-windows-amd64.tar.gz	a3078a917df26a00d5cc7e11becc592c79323147d73b7703562e24df4cc020f

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	f1f64dc4f781d95ad72f94391b0431165d133b99e146b18b1e312a0eeaaf09c
kubernetes-server-linux-arm.tar.gz	77ebc8daea2e7f118b1ec458ca34087712c40817abdc3d14e73e998ed0b9d94
kubernetes-server-linux-arm64.tar.gz	70187e2045e47cffcd80e3ac58ad7ff6fb413e420d80009cc4b30477e78c9a9
kubernetes-server-linux-ppc64le.tar.gz	71e40ffe36bca2eab371129f44c81022e81646240de4aa7015d63b6ee39da3e

filename	sha512 hash
kubernetes-server-linux-s390x.tar.gz	b4e9c1eaae905af97787371a2100fa2bbecd9c9d3b18b9f4b5915860c49c8ea

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	135043fa57fdadc7ecd1754bc291dc78292efab27e17f64b11e5825719e8b2b
kubernetes-node-linux-arm.tar.gz	18f68e06f6098060aa32e234e7090257db0768dd29516129b026c6a3120e214
kubernetes-node-linux-arm64.tar.gz	c9839e75ba4e5f29d1eb5d252bc781b011050139b906de8eeac64b23dc552f8
kubernetes-node-linux-ppc64le.tar.gz	39d108cb81d9ee5debb2c609ef4e50d6c478a91c0bdc0c766507cb71a88a15f
kubernetes-node-linux-s390x.tar.gz	125c1649b3f43fa47f2ac7a70de7205484f95a6ef12b2d350ebaada4b73ba0e
kubernetes-node-windows-amd64.tar.gz	1f1e8cc6f2c75e3b927771d8d4277e7a68511d80b9c495c177c8552fa2097e0

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	0ed1d28d371e4ce23c71cbc1bdc5b30d9d06d2b6f4314f144612195dcf3766c
kubernetes-src.tar.gz	9f96cdd4743bfd6b27ca2d252c278ce23d8a5af3185b780e8ee6446c068159

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`467d0dd06c705d729511e84d685805d42291552ccff7697c423e50743c0392a`
kubernetes-client-darwin-amd64.tar.gz	`fe121adea43b9c715f1616f2eab7b673bf8c07260203f2e5750140c1fda189`
kubernetes-client-linux-386.tar.gz	`cbcd7be1d73a5537d0c90aa641a0a9b90cbf3b2a027dbf65699367cc9ebed7`
kubernetes-client-linux-amd64.tar.gz	`b24d2f026064945a7e1571fd413bd974e165ca4514e35a3dae7df8cbf97bd2`
kubernetes-client-linux-arm.tar.gz	`dc60bdf00e6c7806e3c11e4f73e2ff27a603e968f22567d8c87ed5ece04263`
kubernetes-client-linux-arm64.tar.gz	`00a98acd51107d1cb935cfc07ca31487290412f92ac34a91ec8c7f4b802bf7`
kubernetes-client-linux-ppc64le.tar.gz	`4ac265059df882995d25c5d006f522b34c60d9befda78f6fc5090e53311966`
kubernetes-client-linux-s390x.tar.gz	`b9b18c448ee875e9ca11d6c3d3db77aba9087ca3ea91034699bb093ecf2bd3`
kubernetes-client-windows-386.tar.gz	`08b50e22470364204b1389476d4ae7e27bd2a5c4451528da730c1d0daf5255`
kubernetes-client-windows-amd64.tar.gz	`e1bf168bd2f6bf170c1aba7fc2efcfa0f03c47e8a3b2d8fa44add88a44df09`

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	`02f698baeb6071a1b900c88537eef27ed7fda55a59db09148def066ddccec3`
kubernetes-server-linux-arm.tar.gz	`281ffef2c27c3c96da5ce83be5efa91a9f4a0adf6d4fbeb89e696d20095a78`
kubernetes-server-linux-arm64.tar.gz	`b9e21507bf99b7b832ea6350e962c0ba1aab9553d2b399dacb941cad8015b1`
kubernetes-server-linux-ppc64le.tar.gz	`00c222f0f8bae1afa24bb77bbbd9b4bebf55d61ca5174054302c1460eaf3d9`
kubernetes-server-linux-s390x.tar.gz	`1501cfe5cd4e6e7bd137512c24d7047484626a1eeaf801a35dd74561c6321e`

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`bdd5ea8bd426ce3f90853c786215327bbd83b78c0cb262d4a16aec97facf90`

filename	sha512 hash
kubernetes-node-linux-arm.tar.gz	`b5c2b0fc83cccb24195b89ee6d7bd969855dd08c6b69f01e19cba538dba9697`
kubernetes-node-linux-arm64.tar.gz	`029fa9e24bf9355d648c0ae4e1dea1898f58fee1dec9d7961e9688566edcb5c`
kubernetes-node-linux-ppc64le.tar.gz	`d7fef0d7a38b437eb61e4c6a84002cec6b42a232b213f9cded1ca06862b8204`
kubernetes-node-linux-s390x.tar.gz	`fef7814ee2f352f933f00fef009cb941b1084109b43ea98888509e7158db010`
kubernetes-node-windows-amd64.tar.gz	`4cc8c6e509ffccbb86dbf4923c8e77b44aca5e8c2ed986b58f2186015683c2b`

Changelog since v1.13.7

Other notable changes

- Fix possible fd leak and closing of dirs in doSafeMakeDir (#79534, @oding-uge)
- 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	361621b451b225b49f4e1782246851f50cc9638327dd5a98c574343532fae07
kubernetes-src.tar.gz	e24151c80f2e0d6df24b4c4fc891695a3eba2b415b3fe4d53bca3ef76d54f1c

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	7fc4d4a0a78a327321abe95d1f370a8a075bcdcce01ba350df8dff9cdcd9b49
kubernetes-client-darwin-amd64.tar.gz	9d06e2ceee5e316c0a8b3264f5047470cabc7c7fd08001d42519804a23064bf
kubernetes-client-linux-386.tar.gz	82739ac7331f11b8d52b102565dcb3d309c7e640054714cf9e8af4d550b3099
kubernetes-client-linux-amd64.tar.gz	677838b3fe8a06385c2433f2cb2bc59e902b90a95a8fb441f499b88560d6d9a
kubernetes-client-linux-arm.tar.gz	e12f268750a075ffdae1034902d3bc62526d2b77f135decd6766489a39b906c
kubernetes-client-linux-arm64.tar.gz	f98279e2bf2358f8b2d13eefccfd74c69df3538432eab41742835a5661a621b
kubernetes-client-linux-ppc64le.tar.gz	701c9708fe83fe8fb9335cbdc95c4a7d3e68c68366da42bc21e2ce7498e1202
kubernetes-client-linux-s390x.tar.gz	8a227c2b2946b20c1635381f03dd62cd11722471cc635a74aeec821527a30ea
kubernetes-client-windows-386.tar.gz	ad82690db12080fc1f3fd16a53d0113e33535f97164c7e9cad2e8ca7919008
kubernetes-client-windows-amd64.tar.gz	c348990f2a51a2f849ca04ae94be2da3aa19111b4b7deb20f1edae013c7c467

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	57c07e52b18d8cf4b6a41115c125995796561cd7b6d54bc6020f7660c1e5fab
kubernetes-server-linux-arm.tar.gz	4394b5e74862527d7e4146e256a39f33bb8d895d9c977c36a4ce78931f72a7f
kubernetes-server-linux-arm64.tar.gz	1956162425811f7b2dfd46cae12625055a43dfbf4d25efa18c13878dfa7f795
kubernetes-server-linux-ppc64le.tar.gz	ca49b7cc9cb1ae1c87b7ebcdded43d0d7955a16cd0f4476527a78351e8e31c6

filename	sha512 hash
kubernetes-server-linux-s390x.tar.gz	`14dbbe6be6d7e4d00ff5d2430d87d32b12e0005d8f31a98e96c77c8585ef2be`

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`fd43140329e1aa1ef55083e3812f8351a835619420cc322d6df1882c2f1b626`
kubernetes-node-linux-arm.tar.gz	`c6f97cba9426e1caa28442fb8a09c5dcf3323a40310d20cd93c7cddc44b891`
kubernetes-node-linux-arm64.tar.gz	`03b895c398f4ee12a8183023ad3e945ee253545801a6d69cec14bfaadc1b3c1`
kubernetes-node-linux-ppc64le.tar.gz	`515dfdda151087fa3b603c8bf1f8868406bacc4956866e0a8ec976b2981063e`
kubernetes-node-linux-s390x.tar.gz	`aff410344de29dbf86d5d1dcffe6555fc5b278268e8bb81052725b6c111b281`
kubernetes-node-windows-amd64.tar.gz	`40fc44271f69a90685d6193f785b9a8523b6db3cc9c1fdb5586dfbab32a1115`

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	34c179b8bd55aecf3e93ae83062533e11bdd6149a2ee0e0c2c3504b266789c3
kubernetes-src.tar.gz	8db3afbab1b4f967bc6ed69914a8fb83e9595774b8779419064b0576a333a62

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	37dcdd4962e92dfda5ab5c6cc445802840f61ae50666e6505dbdab89e077360
kubernetes-client-darwin-amd64.tar.gz	792ce272955283332bb00cce6778a7ecf473f3820ad300702a092ba8e1103c7
kubernetes-client-linux-386.tar.gz	a1d19d97e9ed0ac3809fc8b6a80091d130c4e9cb720bc3ad4b16ec943cefeb6
kubernetes-client-linux-amd64.tar.gz	d093208aaa4f60f1ade3b6b725a3db7ce1db680cd994f0a7af9919a2c684300
kubernetes-client-linux-arm.tar.gz	883d09d7923ee0879788d2d9f4666b42d256c2ee31beeaeac8de7203c2cb8ca
kubernetes-client-linux-arm64.tar.gz	755eea86c726e1161c7f6766d7c20e6dfcaa6a548c0f597fcd5bc093a2ba141
kubernetes-client-linux-ppc64le.tar.gz	65b0e312cb45226be8331b26264cffe3f769d775b3fb303618887521bba99bc
kubernetes-client-linux-s390x.tar.gz	202a22cbbb2d552dcd85e4a750b06b1b08966a2e818912f534837ae0620eeba
kubernetes-client-windows-386.tar.gz	896a324dbb12e3a1e403104a4a86e213d565ee1d9d73ea02e2347632b14cc27
kubernetes-client-windows-amd64.tar.gz	354166046a15266b4c049c65ebca47a5487fb3fefd17e14d6f1094882d8c3e4

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	`c7cd2cc2c4b028996d7294a4d60ef7e41ed4107d5c2e8e0ca24ed3ac244132a`
kubernetes-server-linux-arm.tar.gz	`101bbc1a126d7bb435826172d6f8f82d69e75bd6c3b1048ddf9346218f50492`
kubernetes-server-linux-arm64.tar.gz	`30ebb7bf93a874038cf3635c643e08df27f86f73b192e8fe0234734a198346a`
kubernetes-server-linux-ppc64le.tar.gz	`7b1a1dbea2f1ca79bde2ad3a3d5994eacb3f3b6064ca9a87b2629313cd21242`
kubernetes-server-linux-s390x.tar.gz	`ec875423de5e118434dcab18323882c133c7794bda848afcb648a325072e2d2`

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`93e5f03807f38661903152995a201e99d8da60ea24f04e64f46ddf4dcdb5f45`
kubernetes-node-linux-arm.tar.gz	`ea8f77ad3e3cd957c76a9ad9d645f0e1883fb56e8586aa3693cc04f5495e75f`
kubernetes-node-linux-arm64.tar.gz	`bf271629348e40001b958e7891fadd15f1836e3fd8fcff5938f44ec46f5a326`
kubernetes-node-linux-ppc64le.tar.gz	`27637102fe9b41b94f7d25263235abf809d929420c1ca4a4e8043a506b5f93f`
kubernetes-node-linux-s390x.tar.gz	`b511d8df67f66b38ee333c4a741ed799ed322370ab3c5bee4b680f7b6942227`
kubernetes-node-windows-amd64.tar.gz	`95430f8523a1d7e63670d6bb5b019d0f456ccaac74219129c58c0d6636b1d60`

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	08ea2a11208a5b237f7d03acb44f5b670f0d1fe35aac48e937492a14767abdc
kubernetes-src.tar.gz	2f26c75707b783ff670e13346e5978ba99848d61759ac10eb23e0dda3ad4294

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	aa59753fd0d386bb82adc4c966c751aae8b1d3fc2e00d2373296e3636f2296c
kubernetes-client-darwin-amd64.tar.gz	e0c01f8f368b3159e92fbd78c99015735a5cd7c4fbc41c3fa3561f3ad671e27
kubernetes-client-linux-386.tar.gz	1150f1e69b9700c0daae98fb5d6e27fe4de0a31bc8abc0c63adf76a952b9968
kubernetes-client-linux-amd64.tar.gz	11439519bbf81aca17cd883c3f8fbeb6ad0b6d4360e17c9c45303c5fb473ebe
kubernetes-client-linux-arm.tar.gz	8f1088b152236bfdb0ea49a674ed55c6163698c3d0bda5ef830cc2fe8e4a89a
kubernetes-client-linux-arm64.tar.gz	fb64aa0fed8af1fdb882da5e92ad4b6dc15fe7ecaf5ce49c5404bf652483c26
kubernetes-client-linux-ppc64le.tar.gz	72a6b04fd29c5b91cd6b9bcb6eafda7ad9ec748ef77f4bbb6330cf3c6b8cc6a
kubernetes-client-linux-s390x.tar.gz	a7f88cf9fd81c53f4f1767c6a9dc6ace49d97d57096739864d7ab6f1c17a780
kubernetes-client-windows-386.tar.gz	0410e02913fe3eb2368647ae0f3c8a357f1fd01550bd828e1bbf8b8cc1d4841
kubernetes-client-windows-amd64.tar.gz	0221b271971c2eb65c66a73d53cfc98506f30216168509cb06bc017a0bb4aa7

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	02fcb55286d8753262688884fc720098135651c8a41a0f5d7f08e4446f1b2bf

filename	sha512 hash
kubernetes-server-linux-arm.tar.gz	`4bdc0490acfea82227f6905a882042f0aae8b743431052d63afb3ca081cc133`
kubernetes-server-linux-arm64.tar.gz	`e9d883b1b616cc027a4624228455618fa920c7960802cfd403a755aeef10462`
kubernetes-server-linux-ppc64le.tar.gz	`d252fdf2a656ebcaac92f59eaa616e8a73de1c6e7942b86093a0496a55f93ca`
kubernetes-server-linux-s390x.tar.gz	`ed773b0c82ff7b929d4aa4b26f51b7649fc7cdce05fc857b69889bf804ed6a9`

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`d715b3d7ffcdc368d6cb7a4cfe81ae114059ef3bcb5cac249b5e55fe41384b2`
kubernetes-node-linux-arm.tar.gz	`0f6c93522ed93abeddab3921f44b56eb5c7174fc405c75ae582cc6154cc43da`
kubernetes-node-linux-arm64.tar.gz	`a1c6637915409e099b44525352af538006db9e72519ad2fd9f7893ac34e3709`
kubernetes-node-linux-ppc64le.tar.gz	`d6375b20fcacffd2d393c9100389e2bd67d123e7de691176f6c75f7d6896775`
kubernetes-node-linux-s390x.tar.gz	`0b904e1436d8706caaad815dad6c6b5801db2981f6ca9547e31bb4de52cfeb4`
kubernetes-node-windows-amd64.tar.gz	`39a3dbf65b32738223098a0f52953610b1764c44d90bd21f20f26265b62d817`

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	`591cd3f4f479744a1d47544902817350321c63f8c37ad771d559e293bcdbc42`
kubernetes-src.tar.gz	`3f3b5318321b661b028da62798b2cb85ccc7d5bfa90605944bd8a626c86e7e7`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	78c604ac5c54beff498fffa398abcd6c91f6d6ee6ec7249b675f10a2fa5866e
kubernetes-client-darwin-amd64.tar.gz	0678f0305608589b15dbc6a5dca00de99adfb296d881a33fb1745a1393b17a2
kubernetes-client-linux-386.tar.gz	2c311839a0b843c9203d4b7a558f2c0cff3fa97c40ebcd3838cf592b764c938
kubernetes-client-linux-amd64.tar.gz	71f813f0d8461967e9a002a9d8842b3ac40ffcaa59979d84499aff1958b2ac7
kubernetes-client-linux-arm.tar.gz	20c1779c51692b1bbcddc96dcb1f41868414d9585c53f62aa07ad0ca3ca4cf7
kubernetes-client-linux-arm64.tar.gz	58dd72a04f31613572b58095279a91fa9c16e8a8c052b0ec3e3badea60cf8a2
kubernetes-client-linux-ppc64le.tar.gz	1e68cd52396cc554d6446575f5de4656fbe9965a432328fdd9ee317db232f87
kubernetes-client-linux-s390x.tar.gz	3fcba2802db6662392b4eaf2465753f88c6b5de2e4e264e2669ad196f6a984c
kubernetes-client-windows-386.tar.gz	47c50b8a4bf9541096efba51e8034e4a9b796ff69221e5d0f5589bf921c1860
kubernetes-client-windows-amd64.tar.gz	0572c7755a5190b2f687645a17d6b75e8544dc8b84c1dd09a396fc8dec0ec56

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	a36eff3dd5769df6af8a39c0b50268c6b324db5b7000fe4f6c9a5c83d87b971
kubernetes-server-linux-arm.tar.gz	9564dc220de5210d8e690a5a84f46a7ca0d43fd6e1f5f68b49754ab6335e4bb
kubernetes-server-linux-arm64.tar.gz	e9d345633188352caadd9356f3816cd66137721a32b28986bcb516fbd7b9d23
kubernetes-server-linux-ppc64le.tar.gz	3062e04932d9386aeccf142734a0ebe2aca0614b4c57ddef735d7554e439d60
kubernetes-server-linux-s390x.tar.gz	337cfb3894f818ca116630678e9b596f44506ce680670b416ee0edb2adae98b

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	1e5e40bb5650a4aef147d21c31af322d44959aa4d7869cda84ba1e2bdd5c983

filename	sha512 hash
kubernetes-node-linux-arm.tar.gz	`c16b0adbf3296e886a0f0ec6ec36d5a18fb8ff62718bf59ac71ceb06985e73c`
kubernetes-node-linux-arm64.tar.gz	`16cc2c021c0bb09d903ce027a0e8eee5884395ee4e16998969fee29ef87af4e`
kubernetes-node-linux-ppc64le.tar.gz	`0bbe3d990fa2aeccf4445980a4046b987d4b508db7d07e09cd6d2570f67d5a0`
kubernetes-node-linux-s390x.tar.gz	`0bd7e19efcb09eb0136292dee397cf2893068378e584d098c451e759ffc6b52`
kubernetes-node-windows-amd64.tar.gz	`1909c5b0cc63851f4b9dcbec871ad8e626f974eb86e3488a95eaf1f6736cf15`

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	`151af896b72c7fd09c05da1a7685e8b2f167c717adbe5776f80a264171e5f33`
kubernetes-src.tar.gz	`6b9afce63c970e62304767f4a3a58b6974608f7052ede634bffd3b8cc9562e8`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`945329155f78bcab5f5c062bda17220d0fea427a1ee522cf17fe4f32fab295e`
kubernetes-client-darwin-amd64.tar.gz	`3aabe9d26818abdbb66724cc047f8ad2e6fa45e48d62d05eb555ac62180fe94`
kubernetes-client-linux-386.tar.gz	`62e18f5d9551ab56c02fefc4a7e7b5f3ad169a2c11c5d3696742231fefe583c`
kubernetes-client-linux-amd64.tar.gz	`b326f6c1177c1176bea8ef404e3652cd64ceefb895f040a1364432e63a516a0`
kubernetes-client-linux-arm.tar.gz	`669949d8eb3b12f1952c4f8f0289268d521cb2b58a2ef4551d7532114c82bca`
kubernetes-client-linux-arm64.tar.gz	`efc677cc24279734f669faa056a11f61a5bf069ce07919ab8e007f4ed2f6083`
kubernetes-client-linux-ppc64le.tar.gz	`2b4fc4bdba12809d3cf0159cd1a8afb8404fad0b55c312c28e85d0064b4d1f7`
kubernetes-client-linux-s390x.tar.gz	`aba33e8a2ab026ba687eb46c67e79caeee8c74fc959de167ba9d6f2929e6a5e`
kubernetes-client-windows-386.tar.gz	`295920b3797947308b37f5852cf136e47d900bca6d442495df97b88c02182eb`
kubernetes-client-windows-amd64.tar.gz	`9cc3b24e92a8b7c49cc6225876ef9513fbb50520da11eaf897f4bd864304350`

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	`024847f8a370c4edb920a4621904540bf15c3afc0c688a134090ae8503a512`
kubernetes-server-linux-arm.tar.gz	`5fc1f6b60102e8830c6946750d0115cf71cdf59ef9878add2fc0edfed7b3396`
kubernetes-server-linux-arm64.tar.gz	`5cbd4ad922476262eae523c5dddaba9d4af3778b1dd731b7c3c538061d81f0a`
kubernetes-server-linux-ppc64le.tar.gz	`1dfd2365cca9fc828f3cedf61f8d74da108a8416bb9320e0ce071da6180812`
kubernetes-server-linux-s390x.tar.gz	`cd096d1229c0e89595fe1353b7c095ba0cbbe72be701392672cbd7d73269c2c`

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`18245cfc11f3e0eaad4a331f5a73deee5029c747a6c8183184ccc243ff2df01`
kubernetes-node-linux-arm.tar.gz	`52e3e5e6ab31df0be542ee6d4d9a4c2ef4cbbc9e28dc18a819d9f31283af113`
kubernetes-node-linux-arm64.tar.gz	`de4e718e0d996a5e3d7093eb97aef703ec23a0af5bd2d7116a3825a7834a00c`
kubernetes-node-linux-ppc64le.tar.gz	`5981ec0b91f1fef0ca11a877362e1507935d03472d1d1de210fe8ef4cb8f45f`
kubernetes-node-linux-s390x.tar.gz	`b4ee2806c67d71697923d29dac821b90004eb0e4f43b3f0d3f3c1d9401c63b0`
kubernetes-node-windows-amd64.tar.gz	`3b97d44c038245b860ba08a9b4cc8fe77e75cd1a70b568ead58562dcd4a34e0`

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	`fe1c30efaffb70b4102879580470031baf78f11c94fc37773bd69568a3aca9a`
kubernetes-src.tar.gz	`a6fb14fef46a566a68847cbb522ea091c545293f16af7ddf9ab26a801e548de`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`9998b7286281018f9bb1d0eeac9d59f287c2f4240f55ff362a9ce2d01565d60`
kubernetes-client-darwin-amd64.tar.gz	`4b1016ed9194d6c1e96a5aa896426be3288cf2f5c98cad9383b3760247c52bc`
kubernetes-client-linux-386.tar.gz	`a48aba3f68a77a65d44121a0fc8ae6b508c71e483f19b05faea924f60cc18c7`
kubernetes-client-linux-amd64.tar.gz	`1c389c36b531349e745bd036b6f33224a116fc4b6fbaff86d96a15dbae43673`
kubernetes-client-linux-arm.tar.gz	`87e958e7a9436d4db2264a21c96a113d2e88d485bbb5ea9e73fbeff39dbb3d0`

filename	sha512 hash
kubernetes-client-linux-arm64.tar.gz	`9ad4f639a95a2211594f125db38f67528ff3c38d6ae32b1cee3b7102bb475d9`
kubernetes-client-linux-ppc64le.tar.gz	`25223a041dca0d13f8f26edae7d559c21c481c42b78a131614db71a8bee2fb8`
kubernetes-client-linux-s390x.tar.gz	`62473b3798f01f0c1776bea6c2877d68e0d0f7221eceabb9108aa2f6060343b`
kubernetes-client-windows-386.tar.gz	`6e43661690067229691df9f62788f23e1af40e23136e1e6c2c316c88a705b15`
kubernetes-client-windows-amd64.tar.gz	`4bdf3074f3f50fd794d7ccf16c076d412686a1e3c435c9970d3e84da2b44c17`

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	`e2d2f02f76578c5a1c04a9a417e9f1dc16abcc28daab688c50554a1bf64bb75`
kubernetes-server-linux-arm.tar.gz	`6f4a331fd78157866238dd9b8d986d33bfce6548ae503d0c9f4fb42854b0793`
kubernetes-server-linux-arm64.tar.gz	`50fc95da2598775029b828f31978f6e2a98eceee890bd575122e7697dc7805f`
kubernetes-server-linux-ppc64le.tar.gz	`eea26a444b99d5fe984efa12672125f4482ab6f0e5cd52b5d110669bc0f1ff1`
kubernetes-server-linux-s390x.tar.gz	`d2277b94c0f487eb8636355e8d0880af9f7a7e4fd5e6688278814582a0d872a`

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`f908a95f264792bdc0d8c79c818d044b81bf5cf7179b239a3c3835a58d1e61e`
kubernetes-node-linux-arm.tar.gz	`24d5bedf4da1aa7d445b8ff2e62f43210f6bd5cc4a3a53b157e5edfe1e00c71`
kubernetes-node-linux-arm64.tar.gz	`52936dfe3c41207495f5831c9ec93be2e188ee97d696de3a0317ed8caefab2b`
kubernetes-node-linux-ppc64le.tar.gz	`c07bee8d4511eadd0fb45107b672898c53fc817f5de034c57f4ef0fbeef0a89`
kubernetes-node-linux-s390x.tar.gz	`12b588e226bb7b7dc78378962d46553e540539c666c364bdfc0f1228a87bca9`
kubernetes-node-windows-amd64.tar.gz	`219fe75c216a0d42b944699e8da9f5b4eeff3cc43415d139954c577b75a27b1`

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	de3858357b2b4444bccc0599c7d0edd3e6ec1a80267ef96883ebcfb06c518ce
kubernetes-src.tar.gz	7f0a8dbd3c7397cc5a5bc0297eb24b8e734c3c7b78e48fc794c525377c3895f

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	371028dba7a28ec3c8f10b861448cb1574dce25d32d847af254b76b7f158aa4
kubernetes-client-darwin-amd64.tar.gz	6aa7025308e9fb1eb4415e504e8aa9c7a0a20b09c500cb48df82bbd0444310
kubernetes-client-linux-386.tar.gz	6453670bb61b4f5f7fe8ae78804864ecd52682b32592f6956faf3d2220884a6
kubernetes-client-linux-amd64.tar.gz	ca00442f50b5d5627357dce97c90c17cb0126d746b887afdab2d4db9e082653
kubernetes-client-linux-arm.tar.gz	5fa170cbe56b8f5d103f520e2493f911c5eb59b51a6afdbaa9c08196943f123
kubernetes-client-linux-arm64.tar.gz	710343ad067f0d642c43cd26871828275645b08b4f4c86bd555865318d8fe08
kubernetes-client-linux-ppc64le.tar.gz	0fa7ab255f0cba3adc754337c6184e6ec464aa5a4d6dd4d38aad8a0e2430a00
kubernetes-client-linux-s390x.tar.gz	749a8dce5b81e2edbd315841acac64a0e5d17bb1ead8173560b6a4ccc28604b
kubernetes-client-windows-386.tar.gz	cd4732fbe569009c426f963318d05ddcc7c63dc27ec9d2bf9c60d716195e367
kubernetes-client-windows-amd64.tar.gz	40f5b5d221b3a611511690d316539dc8fb3f4513e4f9eb141bffa17c9ddeee8

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	e0e48825c5fe33a3f82b1b74847d9bfb8c5716c4313c5e4e6f46be0580e20a1
kubernetes-server-linux-arm.tar.gz	7ff4856e7959cf14eba0e1ab274c0bf0d3193391e7034a936697f0c4813e81c
kubernetes-server-linux-arm64.tar.gz	b8c2356002e675bd3de5ee9c2337a12e2a1bbfa2478f8e3b91065a578dfa8d5
kubernetes-server-linux-ppc64le.tar.gz	5d3a15b1241d849d8954894aa7f3fb12606f9966f73fc36aa15152038fc3851
kubernetes-server-linux-s390x.tar.gz	78a9cccaf9d737b519db0866c2e80c472c7136bc723910d08649ece1c420ae7

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`3a7881a52885bebe5958f02dc54194cc8c330576b7cf5935189df4f0b754b95`
kubernetes-node-linux-arm.tar.gz	`d0bfcff3ef7c0aa36005e7b111685438ebd0ea61d48dc68a7bd06eea3782b6e`
kubernetes-node-linux-arm64.tar.gz	`2e23bd00661aceb30fa37e24ab71315755bd93dfcc5ff361d78445a8e9ff99e`
kubernetes-node-linux-ppc64le.tar.gz	`8d0fdb743c700d662886636fe67b52202cf9e6e57c2d7de5961b8189d8c03c9`
kubernetes-node-linux-s390x.tar.gz	`70445038b4db62c3fc99540f5ddbb881387018244242f182332b8eaa7159ce1`
kubernetes-node-windows-amd64.tar.gz	`a87ad43f5a6b8f66d1bbd64f9c91e8bcbdf4adc8de0ec3cd559adaa8c14a6fe`

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	`7b6a81c9f1b852b1e889c1b62281569a4b8853c79e5675b0910d941dfa7863c`
kubernetes-src.tar.gz	`844b9fbba21374dd190c8f12dd0e5b3303dd2cd7ad25f241d6f7e46f74adf69`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`0c010351acb660a75122feb876c9887d46ec2cb466872dd073b7f5b26fdadd9`
kubernetes-client-darwin-amd64.tar.gz	`c2c40bd202900124f4e9458b067a1e1fc040030dc84ce9bcc6a5beb263de058`
kubernetes-client-linux-386.tar.gz	`5f5449be103b103d72a4e2b1028ab014cf7f74781166327f2ae284e4f5ecb53`
kubernetes-client-linux-amd64.tar.gz	`61a6cd3b1fb34507e0b762a45da09d88e34921985970a2ba594e0e5af737d94`
kubernetes-client-linux-arm.tar.gz	`dd5591e2b88c347759a138c4d2436a0f5252341d0e8c9fbab16b8f151e2744c`
kubernetes-client-linux-arm64.tar.gz	`894ed30261598ebf3485f3575e95f85e3c353f4d834bf9a6ea53b265427704b`

filename	sha512 hash
kubernetes-client-linux-ppc64le.tar.gz	`6c26c807fc730ea736fda75dc57ac73395ba78bb828fffeee18b385be550d8f`
kubernetes-client-linux-s390x.tar.gz	`41e6e972de77c0bde22fdd779ea64e731b60f32e97e78a024f33fc3e33a3b36`
kubernetes-client-windows-386.tar.gz	`442229e5030452901b924a94e7a879d4085597a4f201a5b3fc5ac9806cab583`
kubernetes-client-windows-amd64.tar.gz	`a11a8e8e732e7292781b9cb1de6e3e41683f95fb3fefc2b1a7b5fb1f064a0d8`

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	`a8e3d457e5bcc1c09eeb66111e8dd049d6ba048c3c0fa90a61814291afdcde9`
kubernetes-server-linux-arm.tar.gz	`4e17494767000256775e4dd33c0a9b2d152bd4b5fba9f343b6dfeb5746ff34e`
kubernetes-server-linux-arm64.tar.gz	`0ddd0cf0ff56cebfa89efb1972cc2bc6916e824c2af56cfd330ac5638c8918e`
kubernetes-server-linux-ppc64le.tar.gz	`b93828560224e812ed21b57fea5458fa8560745cfec96fc1677b258393c00e2`
kubernetes-server-linux-s390x.tar.gz	`154d565329d5ba52cdb7c3d43d8854b7a9b8e34803c4df6b3e6ae74c1a6e255`

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`9d18ba5f0c3b09edcf29397a496a1e908f4906087be3792989285630d7bcbaf`
kubernetes-node-linux-arm.tar.gz	`959b04ff7b8690413e01bffeabaab2119794dedf06b7aae1743e49988f797cb`
kubernetes-node-linux-arm64.tar.gz	`b5c18e8c9e28cf276067c871446720d86b6f162e22c3a5e9343cdbc6857baa6`
kubernetes-node-linux-ppc64le.tar.gz	`63e3504d3b115fdf3396968afafd1107b98e5a1a15b7c042a87f5a9cffbdc27`
kubernetes-node-linux-s390x.tar.gz	`21c5c2721febf7fddeada9569f3ecbd059267e5d2cc325d98fb74faf1ae9e9e`
kubernetes-node-windows-amd64.tar.gz	`3e73d3ecff14b4c85a71bb6cf91b1ab7d9c3075c64bd5ce6863562ab17bf808`

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 cloud-provider 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 AdditionalPrint-Columns (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 additional-PrinterColumns 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, @krzysztofjastrzebski)
- 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, @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	`12fbaf943ae72711cd93c9955719ec1773a229dbb8f86a44fcda179229beb82`
kubernetes-src.tar.gz	`8e94f0fe73909610e85c201bb1ba4f66fd55ca2b4ded77217a4dfad2874d402`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`ac555f5d1e6b88fa4de1e06e0a1ebd372582f97c526c938334a8c63fbf1754`
kubernetes-client-darwin-amd64.tar.gz	`2eae428a0e4bcb2237343d7ac1e431ccfc1f7037622bb3131ad8d48a3af6f5e`

filename	sha512 hash
kubernetes-client-linux-386.tar.gz	89e671679b4516f184f7fd5ea0fe2a9ab0245fab34447625786bf558412231
kubernetes-client-linux-amd64.tar.gz	61f6513722e9c485300b822d6fc5998927bbffa18862d2d3f177a7c7cc0ee56
kubernetes-client-linux-arm.tar.gz	ef0e5fd4bf2074dfd3cf54d45307550273695906baca3533a9d23424e7b693
kubernetes-client-linux-arm64.tar.gz	d34bb9ce9bfe2a5375fd58920e63b4eef818348719dba460f35838433af57a1
kubernetes-client-linux-ppc64le.tar.gz	4dc4e4a5e166e63360ba86e1278bbe75212ac7c3f60ba30425a1c5654bf5a9b
kubernetes-client-linux-s390x.tar.gz	d27675f4753469cd5e31faed13a1ea9654c25d38b0d96c1340215fd231050f1
kubernetes-client-windows-386.tar.gz	9d6e6de2d4a55eaeebd7fa6b861548e0768381d50838430722b56636428a341
kubernetes-client-windows-amd64.tar.gz	30b2da5c015ef88b9efcf90bffe0498d367df7c126b65f2e878af263c5d62b8

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	8180f2b788249fe65f7f1d3ee431ac758ede29a6349db312afbee080ff2c245
kubernetes-server-linux-arm.tar.gz	e9165284a0b82a9ab88dad05f43bfe1bebecad3bb1c7118475c3426e0b6f9f9
kubernetes-server-linux-arm64.tar.gz	03797c021ebed3b08835e72eed405c57aaacce972bbbbf88bf49310efbf8c72
kubernetes-server-linux-ppc64le.tar.gz	ceb49af22e3b518f3ba27c1e7de28e577e2735175e84a6d203f1f8766eceaa7
kubernetes-server-linux-s390x.tar.gz	bee4752e8a52e217ae1ffcfbc263453c724de684b4d463d5ddb24a3a30a67fc

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	b368989bbb8ab4d29b51d5d4d71d073b0ceb39614c944859dcd14c3303c3147
kubernetes-node-linux-arm.tar.gz	404b7b74a1e0d0fed9088a7e9461e02cfd9a6992c554baa125b7a361a6baa03
kubernetes-node-linux-arm64.tar.gz	fa531b1675a778c572a2175fb1bed00e78dc589f638f2096b3b5c9d3d691a56

filename	sha512 hash
kubernetes-node-linux-ppc64le.tar.gz	a7ecc1f63e632c1b4f9b312babd6882ec966420bf4f8346edf80495fcf860d9
kubernetes-node-linux-s390x.tar.gz	a7171ed95de943a0ac5a32da4458e8d4366eb1fadbe426bebc371d2bb653663
kubernetes-node-windows-amd64.tar.gz	8a3a71d142b99fb200c4c1c9c0fa4dc6a3b64a0b506dc37dc3d832a94a79161

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	1c047e4edcf3553a568679e6e5083988b06df9d938f299a9193c72ad96a9c43
kubernetes-src.tar.gz	d2fd47c38abd29a2037b9e2a3a958ec250e2c6ae77532f6e935a6422bd62648

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	44d0733359be5036953775e12fc1723e4c64452a24a8c3b522c8a624e0a132c
kubernetes-client-darwin-amd64.tar.gz	2acd37ed234271b0ff9c30273261e4b127309a1bc91a006b7a07e1a948703fa
kubernetes-client-linux-386.tar.gz	5fe07ea2f776086df0e9447b7e6b0863c5b3af71f5aff8e302087e242d78613
kubernetes-client-linux-amd64.tar.gz	7541d5850d74156862e5fe00817bd954d2b49b2c0cf15abe5cde34406928b8c
kubernetes-client-linux-arm.tar.gz	122121d3e469b6e33cc3fd910b32a5a94b9d3479f0367c54fbc4e7f13df7b09
kubernetes-client-linux-arm64.tar.gz	5e3d415db4239f27461c4ea404903cfc762084d5c1e84f9ed8bc0325d7fa845

filename	sha512 hash
kubernetes-client-linux-ppc64le.tar.gz	8651f4161569913b616695bdd1a41c4b177cbfb4773fbca649b3e97957f6c5f
kubernetes-client-linux-s390x.tar.gz	920b81f6bbc7e7d4fa2f9c61fbc6f529621f2f134dbbb0f407866ffd0ec4779
kubernetes-client-windows-386.tar.gz	0d49277cb7c36e5538d4c1c0fd6e6a69da7cd73c226f5869b29fad1e5b9bf43
kubernetes-client-windows-amd64.tar.gz	34ae587e2d439f925d1e324d2bbff3a751bb73b18e98b13c93e5742e7e16c00

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	7030ef7463bef0871e524a5233d23c5f8aee18ac92e96555910ddc7a891772c
kubernetes-server-linux-arm.tar.gz	ccd1f413ad357581a904d1ff67f3e376be7882bd72efb13657f8aa1191c4481
kubernetes-server-linux-arm64.tar.gz	ff589f5b6c56713818edda8ae9b39b17dfbf34e881c09736f722de5d70e6dd1
kubernetes-server-linux-ppc64le.tar.gz	f748985751bf403bc7b1f9160ce937cd2915552b27c3c79764a66789dc39ef9
kubernetes-server-linux-s390x.tar.gz	b3b0075948d72784defe94073dff251b79083aa46b4f29419026757665cac55

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	01907a104c043607985053571183b7bdccf655f847d1dd9d8991cd2c464ddf9
kubernetes-node-linux-arm.tar.gz	dbf1801c456312698253767dd36b186fb4e503a03454cd16bba68a1ede9d29e
kubernetes-node-linux-arm64.tar.gz	15f3259370f1419fcc372a28faa9a3caae5f2c89ee76286c14ea62d612fdca9
kubernetes-node-linux-ppc64le.tar.gz	00dc7f5bd40d045baeb72d5dcfb302b8566aacc23cd7de1b877724e1160ee16
kubernetes-node-linux-s390x.tar.gz	2b80e4dffa0b8bdc0305d1263c06320918541f3a7b6519123752b89be335a2c
kubernetes-node-windows-amd64.tar.gz	600b442a1665e39621fce03ad07b162e2353cc8bc982cad849dab7e1c2db34b

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	`e8607473e2b3946a3655fa895c2b7dee74818b4c2701047fee5343ab6b2f2aa`
kubernetes-src.tar.gz	`6ca15ad729a82b41587e1dbbd4e9ad5447e202e8e7ee8c01c411090031ee3fe`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`5727218280ea7c68350aa5cf04e3d3c346f97d462e3f60f5196e27358f7184`
kubernetes-client-darwin-amd64.tar.gz	`3e3975a41da08135dc654a40acb86ce862b1f56a9361e0c38c9c99c5b5bcad9`
kubernetes-client-linux-386.tar.gz	`26cfa99fbe09b20ebe3d2aebb4d08f0f9f2661d5533b94daf6c8354701b1e4c`
kubernetes-client-linux-amd64.tar.gz	`42204953b02af81bb5f695c957aca9fa382609447ada5e3a9701da3e8bbd549`
kubernetes-client-linux-arm.tar.gz	`c680c94699b0b319b654a4c1c0a9b7fc387c44fb22744f30049142b17c3fabc`
kubernetes-client-linux-arm64.tar.gz	`aa997b3428979ba2652fd251c4c5ece87043472ebe2ee15d8a179e69ddbefd4`
kubernetes-client-linux-ppc64le.tar.gz	`684dfc462d84d3902e322535997e57f7874003ab17c41508c057bc7c622006`

filename	sha512 hash
kubernetes-client-linux-s390x.tar.gz	ff98b3a23dfe436a12843eb388be9568cbc29c9328648a1d166518aac40841b
kubernetes-client-windows-386.tar.gz	6897a0f59fb409526dae9c86680702f3d2a1dc68d145504ed2e98b05d8f1dc
kubernetes-client-windows-amd64.tar.gz	6ed67eecb2b79ace8d428cbd4d07ef7d52ba4e5b3b44eb59d46aff99a7a862f

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	351292b217c1c49b5c0241da11b4be0929a5d1645bec7dd05051930df8a700
kubernetes-server-linux-arm.tar.gz	88f166a7b5a3f9d9c19a5b911adb6e8e4cac1a3323b83d681f13aaf7bb285b
kubernetes-server-linux-arm64.tar.gz	fb4868a939eca18de17e0b606d1ab127712e277e01c02ffa96138a53973cd5
kubernetes-server-linux-ppc64le.tar.gz	47a4e8e96c1e8a8cc37eabd19194b9d174fa93c3feaf1384895f89c5c68365
kubernetes-server-linux-s390x.tar.gz	4e0823d1da55a71f001fcb07511a7b3416641ea93bfbd56b1e1e435c0a78ba

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	e21964063b80f52e387cd35826f3081ad0a3b62608d182e008b8b76f57244
kubernetes-node-linux-arm.tar.gz	cb665911af59a1cf86e5d66a4cdc134dc412e9e479dd89fa0bbbaeb8324eb8
kubernetes-node-linux-arm64.tar.gz	c172126829aea38e2238af6b62035abad6ed08d041175b0bf99792b7c608a0
kubernetes-node-linux-ppc64le.tar.gz	0367940078ea9b4d46778b8406840fd2925f612304b5fa5b675fc07d5457bea
kubernetes-node-linux-s390x.tar.gz	74382ed862ae099b91ce6056b85b7ee4f075fbdb4e737a8448c92e20fe3a07
kubernetes-node-windows-amd64.tar.gz	9164c4eae920c727965caae046e1b2daabf4822e2dee2260697b22e5208a0d

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	`78245b2357a5eeafd193d28f86655327edce7bbc4da142c826eba5f5c05a624`
kubernetes-src.tar.gz	`880c5a8b16215bc58b307922474703048020b38be1d41672425cd07bdcf0626`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`0f804c77ef6122b4b6586a507179fe0f1a383752342b3e5575e09223fdda973`
kubernetes-client-darwin-amd64.tar.gz	`0bdbd8003bcbecb4494b4778411e7d057067e78a99a7e8e8e45a3982cbe476c`
kubernetes-client-linux-386.tar.gz	`522795df77ff8543251232863cb36fe2d501671e04a5279a112aa3ffa784de9`
kubernetes-client-linux-amd64.tar.gz	`b6481bae237e6971f7b9cc039d3b7e62d49ddd48d52dd979432fa0318a8e3e5`

filename	sha512 hash
kubernetes-client-linux-arm.tar.gz	45b8fa2557bb742a8ce16e0a69fa64fe898509418c6f9099a24bf1ab20c7d5c
kubernetes-client-linux-arm64.tar.gz	475b823a5e2c4c6e1bc49f35fbef45d1fc6e6279f5335762bad05d0f695fd03
kubernetes-client-linux-ppc64le.tar.gz	bc289b249051e9918f8f842bb98bf4d0b8951709fe5b65c2185f04b78213ec0
kubernetes-client-linux-s390x.tar.gz	0935e0ad23a61d570de087e72f22bc3da2a34c19bb5aea0ab342f91655b4a02
kubernetes-client-windows-386.tar.gz	4833425ff040983b841722a00edd2cfa56f85099658ae04890c4e2262931e3c
kubernetes-client-windows-amd64.tar.gz	156a5328834055f7b9732c762cc917cfdbf2d2fc67dd80ba89ae7dcb9c2e7d2

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	9435be5cced10252954be579408e2a253eb51dd7b649417f1e91679bce33f6f
kubernetes-server-linux-arm.tar.gz	8dc3d4a0c09830831efd77fdf193ed9ccc1247bd981b4811192cac38cf5ffd0
kubernetes-server-linux-arm64.tar.gz	f2549f87f21ea44c5d776a706c59bb2ea61d7f2cca304850aa6ad5b09c4486b
kubernetes-server-linux-ppc64le.tar.gz	0c0671eaf7cf7262c95411930311bb4610f89583431738149f0ee7f8f6a55b0
kubernetes-server-linux-s390x.tar.gz	ff24909b0b044924d241d6aeac9e9b4f0696c0ca7e973d56a874b02b613a45c

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	235b1c4348b5779ca71a5f63121ff6a162db02bb24b4d815ec73412afedbe0c
kubernetes-node-linux-arm.tar.gz	cd23813419a74983bdd3a3104e20684e947ef7302dcfa1802132439b21e7621
kubernetes-node-linux-arm64.tar.gz	fb6283dae828f8d9275a05c6a4ea27bc1136e8e8253b5ddac52c8254813b11e
kubernetes-node-linux-ppc64le.tar.gz	f910922d422b65f6b6a8d7762a23048991695496c0fc07c3dc4f1a81e32d250
kubernetes-node-linux-s390x.tar.gz	d895fed57caf038afe0087ff44d2adfdd8955d18135adad9935952702e9abf2

filename	sha512 hash
kubernetes-node-windows-amd64.tar.gz	`4bc09e54935d2cb4d2bad7db06831d040cc03906d8934575932ed6eab5f0bc9`

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 AdditionalPrint-Columns (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 additionalPrinter-Columns 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, @saadali)
- 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	`1d50cfd34306ace7354516125c45f8c546bba3ca5081af2b21969b535967d30`
kubernetes-src.tar.gz	`bf097b99d7b9af15bc1d592ee3782da1e811d8eb68dc9ae9d287589ce9174d3`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	`77778ae2887eda52ee716fb0e843c17b2705b1284a67cdf53f91292eb7f1055`
kubernetes-client-darwin-amd64.tar.gz	`b3399767df12b71ee4b7b30126bd8001a0c1396161eb7535d797fd5847c55bc`
kubernetes-client-linux-386.tar.gz	`5ef0d318ff8da28c332ae25164e5a441272d2ee8ef2ac26438a47fe3e7e645e`
kubernetes-client-linux-amd64.tar.gz	`1f429eae5b0b1e39b1d4d30e3220a82d0ae6672a6f4b34a05246c3efc131a23`
kubernetes-client-linux-arm.tar.gz	`5583aecdc9b4a54a4aa904fc1de66400f50628969e31b5a63ab1d3b6628e3c5`
kubernetes-client-linux-arm64.tar.gz	`2453b9100c06b11e8c424d59cfd1c5e111c22b596191a9cfb0b330d198abecc`
kubernetes-client-linux-ppc64le.tar.gz	`4991ec4c19a82d50caed78bc8db51e7cdcd1f2896dfcaa45d84f347a72fe7ee`
kubernetes-client-linux-s390x.tar.gz	`c55f2802afb2e5d261bb26b6c396df8ebe6b95913ddab1e124cf177f59a0052`
kubernetes-client-windows-386.tar.gz	`df78465267e35ef078c3c0fd33f8898a9df26fbf411df3ed3283fbdc2e79380`

filename	sha512 hash
kubernetes-client-windows-amd64.tar.gz	`5b93fdaaa931ef8e24196e53c484f91ef9e50b7d11e1053ccb61b2d6bdc8164`

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	`922a93ce677e686e594c11db75e1969c995b23062bba511bff4a43d3a530e21`
kubernetes-server-linux-arm.tar.gz	`5dd550b58dedf25df020e66f1526e80c50b46d2df3ddd241bd02b6ebf10308`
kubernetes-server-linux-arm64.tar.gz	`3e1037e71d85a74cd5d40dd836bd442b2dcc457f8ccc8247e4537f3deca6f9`
kubernetes-server-linux-ppc64le.tar.gz	`a89c46b558613ad09efe44a81574ad18157a787d1e9c5d09c98d3911b49957`
kubernetes-server-linux-s390x.tar.gz	`47a68668e38ac1b8cb801f4bff3b15060cd88801f446ebfbf06125dbc9aef52`

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`74d5d46ac6ba336fa8aaf55d0a15860f6ebde2ff58d377ca93063593da12fbc`
kubernetes-node-linux-arm.tar.gz	`90372cb5270ffe6179d5d7efd3fff6aa029f73853805038fef1a6f92683399c`
kubernetes-node-linux-arm64.tar.gz	`09693303a1a8489d9599d32f7fbf549d18f31eb53671fa2ed342fe5089f2fba`
kubernetes-node-linux-ppc64le.tar.gz	`cbdb3b9ffd9be524ec0b38d72b0545b6dd1b3b789747f41a661fd7cbeffe942`
kubernetes-node-linux-s390x.tar.gz	`fc296b386bc03bf10773559118cd4a3d5be3d4c296f09748507fac812a1c791`
kubernetes-node-windows-amd64.tar.gz	`ae79c62fcb0654a62606d65cf131188d93e4a10787a862e7b0363269942df19`

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	cbe7ef29c7e7bbed82e173289f5f84d7a85ee4965cc5b7ccd16cf8236a3b817
kubernetes-src.tar.gz	8b0b8e1b635cd849c2974d755fe174f0ce8fe8c690721d8ac6312683bbd2ca2

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	fca661a5001e7f368374d0805f20910be24baa485bf4ae5d993185b974f70f1
kubernetes-client-darwin-amd64.tar.gz	d31dfea475981c7f7b758c7f201aa5b866db48d87942c79d0a12d464b7cdf50
kubernetes-client-linux-386.tar.gz	fecf8362c572fff48952fd2748ddcb9d375462cb484670cda4fda1387eb6927
kubernetes-client-linux-amd64.tar.gz	136cb82ac94bcd791d56e997a948a7e1bee4af03bcc69ce9c835895cdda7552
kubernetes-client-linux-arm.tar.gz	e561c37895edef44614ecd59f497d393275ee62455b6269b169a891873d661c
kubernetes-client-linux-arm64.tar.gz	c0d5eb49763e8bf50b5e8e3785c7889fecbd8bf7c0b3c18250fa894a1c5e58a
kubernetes-client-linux-ppc64le.tar.gz	a5a8c150af163e7c726662eeddfc3de8e43f123daaa100b8e82c9bc786313a5
kubernetes-client-linux-s390x.tar.gz	fd162e0244e107f1892d79029f3452cdba84d8616ad1b15eebe197afb3b5363
kubernetes-client-windows-386.tar.gz	e01fedec8f700e037bc43cb13bc916b85601cd1c9361a0f63fd27092640f89c
kubernetes-client-windows-amd64.tar.gz	d2601efcfa6a4ba8a017e9cac571fb454b21b7700a7b3f8e2fbabdd5301545e

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	4dda298d44bc309f250c067e9282eea37903838a140cf5abf6f861dca624d5a
kubernetes-server-linux-arm.tar.gz	e9c3bdf60272399bc6f85a15bbc55cd69db389c223b275661ddcab4ae8c3afc
kubernetes-server-linux-arm64.tar.gz	d0a1701a34365f939799b6ea676129acdcfa1582bcf50e82a9751d9aafc73eb
kubernetes-server-linux-ppc64le.tar.gz	1a23473960aaaa639e796020741b63c11dad8a93903926e80c871814b820916
kubernetes-server-linux-s390x.tar.gz	293d0eb93e2ed641d0c1e26d58423670c04c307dddb034a9fc252043abe5694

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	`e3cba71c2b2d151cdcc44937c1bea083ee0ceb829e7feb25cd37edd4d0bd7ac`
kubernetes-node-linux-arm.tar.gz	`28d7f1cf4fecdc72da7f5f19836cc06bb08182f8e8fb1641dc01e9299247905`
kubernetes-node-linux-arm64.tar.gz	`cfe22b11502cd857f0e277e7c1af08e6202f7ffc36f852c6154159bdd67bb33`
kubernetes-node-linux-ppc64le.tar.gz	`195a6785c49af419361a8901c99bb6613a6578a8eac5e8f08ec28077645be18`
kubernetes-node-linux-s390x.tar.gz	`51f5b5ed47b50f5188d9e2f57b03555492d3e490494842247fa04fe81ea350c`
kubernetes-node-windows-amd64.tar.gz	`d2690d57cd485c0c7ebe425464ad59f2c7722870abd6f264ea7fae65a4e403c`

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	`9f8a34b54a22ea4d7925c2f8d0e0cb2e2005486b1ed89e594bc0100ec7202f`
kubernetes-src.tar.gz	`a27a7c254d3677c823bd6fd1d0d5f9b1e78ccf807837173669a0079b0812a2`

Client Binaries

filename	sha512 hash
kubernetes-client-darwin-386.tar.gz	d77d33c6d6357b99089f65e1c9ec3cabdcf526ec56e87bdee6b09a8c1b1f1b8
kubernetes-client-darwin-amd64.tar.gz	5b4a586defa2ba0ea7c8893dedfe48cae52a2cd324bcb311a3877e27493abb6
kubernetes-client-linux-386.tar.gz	d50572fbb716393004ad2984a15043d2dfadedd16ae03a73fc85653266ae389
kubernetes-client-linux-amd64.tar.gz	12ab709e574228f170a2ee2686e18dcbfcf59f64599b2ab9047c2ed63f4bd23
kubernetes-client-linux-arm.tar.gz	3a8c75b62cf9e6476417246d4aaeda5a13b74bc073444fc3649198b9d5dc1e7
kubernetes-client-linux-arm64.tar.gz	0f5b5956850f11a826d59d226b6a22645ca1f63893cd33c17dfe004bd316f27
kubernetes-client-linux-ppc64le.tar.gz	06c60dd2e4e8d1ab45474a5b85345b4f644d0c1c66e167596c6c91bd607f957
kubernetes-client-linux-s390x.tar.gz	4630e9e523beb02d8d3900c71b3306561c2d119d588399c93d578184eb1a536
kubernetes-client-windows-386.tar.gz	0c0fcc9c492aceb00ff7fd3c10ba228c7bb10d6139b75ceecd8f85532797c5c
kubernetes-client-windows-amd64.tar.gz	3548a6d8618c6c7c8042ae8c3eb69654314392c46f839de24ab72d9faa79993

Server Binaries

filename	sha512 hash
kubernetes-server-linux-amd64.tar.gz	9dbf2343ef9539b7d4d73949bcd9eef6f46ece59e97fa3390a0e695d0cb2eac
kubernetes-server-linux-arm.tar.gz	a985f3c302246df9bff4b927a2596d209c19fb2f245aa5cb5de189b6a9d247c
kubernetes-server-linux-arm64.tar.gz	80d20df07e6a29b7aedccbd4e26c1c0565b2a1c3146e1a5bb2ebd2e8cf9ab06
kubernetes-server-linux-ppc64le.tar.gz	7d45ed3aa8b36e9e666b334ff3ed3de238caea34b4a92b5e1a61a6e7223ae85
kubernetes-server-linux-s390x.tar.gz	30698478fab2fe7daccac97917b0b21b018c194ec39b005728f8cddf77f889a

Node Binaries

filename	sha512 hash
kubernetes-node-linux-amd64.tar.gz	4497d14ac81677b43f0b75a457890c1f3bb8745a39875f58d53c734bec1947c

filename	sha512 hash
kubernetes-node-linux-arm.tar.gz	`a3b0357db50e0dec7b0474816fec287388adabc76cc309a40dee9bc73771c95`
kubernetes-node-linux-arm64.tar.gz	`43af8ec4c5f2a1e2baa8cd13817e127fb6a3576dd811a30c4cc5f04d8a9a8b`
kubernetes-node-linux-ppc64le.tar.gz	`840354219b3e59ed05b5b44cbbf4d45ccc4c0d74044e28c8a557ca75d12e50`
kubernetes-node-linux-s390x.tar.gz	`796ca2e6855bd942a9a63d93f847ae62c5ee74195e041b60b89ee7d0e5a756`
kubernetes-node-windows-amd64.tar.gz	`96d666e8446d09088bdcb440559035118dce07a2d9f5718856192fd807b618`

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, @Sandeep-Pissay)
- 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](https://github.com/kubernetes/kubernetes/pull/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)