Replicated App Manager Release Notes

v1.9.0 - v1.65.0

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1.65.0

New Features

- Permanently enables the redesigned admin console app dashboard and version history pages introduced in [KOTS 1.60.0](#).
- Application versions that fail to download now appear in the version history. A new button is also present with the version to allow the download to be retried. Previously, these failures were lost when a newer version was downloaded successfully.
- Introduces the `kots upstream download` command to retry downloading a failed update of the upstream application.

Improvements

- The port-forward initiated to access the admin console will continually retry when it is disconnected. If a new kotsadm pod comes up, the port forward will switch and forward to the new pod.
- If the `kots` CLI version doesn't match the KOTS API version in the cluster, a warning message is displayed advising the user to update the `kots` CLI to the appropriate version.

Bug Fixes

- Fixes uploading preflight results from the CLI.
- Fixes a bug where the app icon in the metadata would not show as the favicon in Google Chrome.

1.64.0

Improvements

- A MinIO image will no longer be present in new deployments when MinIO is not specified as an add-on in the Kubernetes installer specification.
- Enables an alternative that does not use MinIO for `hostPath` snapshots if the MinIO image is not present on the instance.

Bug Fixes

- Fixes a bug that showed an incorrect diff on the version history page.
- Fixes deploy log errors for PVCs when using OpenEBS with Kubernetes 1.19 through 1.21.

1.63.0

New Features

- Changes the `kots upstream upgrade` command to be synchronous by default and exposes error messages for it.

Improvements

- Sets the Native Helm timeout to 60 minutes instead of 5 minutes.

1.62.0

- Adds `targetKotsVersion` as a field in the application spec. This field allows you to set a target version of KOTS for a release. The initial installation of an application will fail if the currently installed KOTS version is greater than the target version. When a target version is set, end users will receive a notification in the admin console if their currently deployed version of KOTS is less than the target version. For more informaiton, see the documentation.

- Adds `minKotsVersion` (Beta) as a field in the application spec. This allows you to specify the minimum supported KOTS version for a release. An application cannot be installed if the currently deployed KOTS version is less than the minimum KOTS version specified for a release. See the `minKotsVersion` documentation for caveats since this is a Beta feature.

Improvements

- Defaults `kubectl kots get config --appslug` to the app slug of the deployed application if there is only one in the namespace.
- Defaults `kubectl kots get config --sequence` to the sequence of the latest available version.

Bug Fixes

- Fixes a bug that caused the "Details" link, which shows the application status, to be not visible in the new dashboard UI.
- Fixes the omission of certain password values from the rendered YAML file when using `kubectl kots pull` .
- Fixes an issue that caused the license file included in a support bundle to contain a long array of integers instead of a string in the signature field.
- Fixes an issue which caused setting up a host path as a snapshot storage destination to fail.

1.61.0

New Features

- Adds a CLI command to get all available versions for an application from the app manager.
- Adds the ability to block installing or upgrading an application if the current KOTS version is incompatible with the KOTS version required by the application. This feature is experimental and is only available to vendors who have requested access.

Bug Fixes

- Fixes a bug that caused images to be pushed to a private registry multiple times during an air gap installation.
- Fixes a bug that erroneously displays a message to edit the current config when performing a new installation.
- Fixes an issue that caused image garbage collection to only remove images with the "latest" tag.

1.60.0

New Features

- The admin console app dashboard and version history pages have been redesigned! This redesign improves the aesthetics of these pages and brings key functionality directly to the app dashboard. See this blog for more details.

Improvements

- Updates MinIO to RELEASE.2022-01-08T03-11-54Z (resolves CVE-2021-43858 CVE).
- Updates Postgres to version 10.19.

- Fixes an issue that caused images to be pushed multiple times during an [airgap installation](#) when the [Native Helm](#) feature is enabled.
- Fixes an issue that prevented the deployment status labels from breaking into multiple lines on small displays.

1.59.3

Improvements

- Updates the [kubectl](#) patch versions and added kubectl version 1.22.x.

Bug Fixes

- Fixes an issue that caused the load balancer services to regenerate, resulting in downtime.

1.59.2

Bug Fixes

- Adds a more descriptive error message to the KOTS CLI when the provided host path does not exist for snapshots storage.
- Fixes a bug that caused the "Send bundle to vendor" link to display when this feature is not enabled.
- Resolves CSS style issues.
- Fixes a bug where excluded Helm charts could not change between `UseHelmInstall: true` and `UseHelmInstall: false` without errors.
- Fixes a problem where the "Internal Storage" option was not selected by default in kURL clusters with the `disableS3` option set.
- Fixes a bug when Helm dependencies are aliased for Helm-native releases.

1.59.1

Bug Fixes

- Fixes a `panic: runtime error` that occurs when the [kots upstream upgrade](#) command is run.

1.59.0

New Features

- Adds the `kubectl kots get config` command to export config values. This includes a `--decrypt` flag to decrypt sensitive values.
- The internal storage location for snapshots now uses a persistent volume instead of object storage when the `disableS3` flag is set to `true` for embedded clusters. For more information about removing KOTS use of object storage, see the [kURL add-on documentation](#).

Improvements

- Adds version output for current and new releases to the `upstream upgrade` CLI command.

Bug Fixes

- Fixes a bug that caused analyzers to surface errors in namespaces not used by the application when the admin console has cluster access in existing cluster installations.
- Fixes an issue that caused image pull secrets to be rendered in the admin console namespace instead of the `namespace` specified in the kots.io/v1beta1.HelmChart when using `useHelmInstall`.
- Fixes the `kots pull` CLI command to properly inject `imagePullSecrets` when using Helm Charts with `useHelmInstall` set to `true`.
- Fixes a bug that causes application images to not be deleted from a [private registry](#).
- Fixes a bug that causes images included in support bundle's `run` `collector` to not be deleted from a private registry.

1.58.2

Bug Fixes

- Fixes a bug that caused config updates to take a long time.

1.58.1

Bug Fixes

- Fixes a bug that caused Native Helm to skip deploying some Helm resources on automated installations.

1.58.0

New Features

- Adds support for the semantic versioning of releases when the version labels are [valid](#). To use this feature, [enable semantic versioning for the channel](#) that the license is currently on.
- Adds the ability to automatically deploy new patch, minor, or major [valid](#) semantic versions when [semantic versioning is enabled](#). This new capability can be configured from the Version History page under the 'Configure automatic updates' option.

1.57.0

New Features

- [Installing with Native Helm](#) is generally available (GA). This workflow provides the ability to have the admin console work directly with Helm to install and manage chart resources, including support for hook weights and [most Helm hooks](#). The existing workflow with Helm is renamed to [Installing with Replicated KOTS](#) and is still available for use. Any charts currently deployed to application instances will be unaffected by this change. Any new charts are eligible to use the [Native Helm](#) workflow.

Improvements

- Weave Net container logs are now included in the default KOTS support bundle.

- Fixes a bug that prevented [garbage collection of unused images](#) from working in an embedded cluster when the registry is backed by a Rook Ceph object store.
- Fixes a bug with [Native Helm](#) that caused Kustomize "resource not found" errors when supplying multiple Helm charts with the same name prefix.
- Fixes a bug associated with Config Item dependencies not being discovered when combining Replicated and non-Replicated template functions.
- Fixes a bug that would show the "Send bundle to vendor" button while installed in an airgap environment.
- Increases the timeout for the kotsadm-postgres readiness probe.
- Fixes a Helm issue that prevented charts with empty sub-charts/dependencies from deploying.
- Fixes stuck Postgres pod in KOTS v1.56.0 caused by additional security contexts. The strict security contexts can now be enabled during admin console install and upgrade by using the `strict-pod-security` flag.

1.56.0

New Features

- From the Troubleshoot tab in the admin console, you can view some detailed information (such as logs, events, etc.) for each unhealthy pod in the Support bundle analysis view.

Improvements

- KOTS resources now provide an explicit security context per pod and container, along with a seccomp profile (`runtime/default`). This allows for policy validation through tools such as [OPA Gatekeeper](#). KOTS containers use a read-only root filesystem, do not run as the root user or group, and do not require privileged escalation.
- Added more default analyzers for Kubernetes objects.

Bug Fixes

- To fix errors related to duplicate YAML keys, the version of Kustomize was reverted to 3.8.10 from 3.10.0.
- Fixed a bug that caused Weave analyzers to show Weave errors on installs that don't use Weave.
- Fixed a bug that masked the "License expired" message when sharing a support bundle with a vendor.
- Fixed a bug on the admin console license page where the ["Sync License"](#) button was misaligned.

1.55.0

New Features

- For licenses with the "Support Bundle Upload" feature enabled (experimental, reach out if interested), you can upload a support bundle from the admin console directly from the Troubleshoot tab.

Improvements

- Updated the Kustomize version from 3.5.4 to 3.10.0.
- Updated the Helm version from 3.4.2 to 3.7.1.

1.54.0

New Features

- Upgraded Troubleshoot version to 0.16.0, which enables users to write host preflights with a collector and analyzer for the operating system distribution and kernel version.

Improvements

- Switched the names of the "Application" and "Dashboard" navigation tabs in the admin console. This is a more intuitive organization. "Application" is now in the top-level navigation menu, and "Dashboard" is in the "Application" subnavigation menu.

Bug Fixes

- Helm charts now get the proper Kustomization for images and pull secrets at each chart level when using the beta Helm install feature.

1.53.0

New Features

- Troubleshoot is updated to v0.15.0, which includes an added default `sysctl` collector and analyzers on embedded clusters (introduced in v0.14.0), and an improved `ceph` analyzer that reports disk usage on failures.

Bug Fixes

- Fixed an issue in automated installs where a non-configurable application was not automatically deployed when the preflights were skipped.

1.52.1

Bug Fixes

- Fixed an issue with the Helm rendering workflow beta where private image Kustomize targets inside of Helm charts failed when sub-charts were present.
- Changed preflight check logs to `info` level for progress messages and to `error` level for error messages.
- Fixed a bug that caused the Admin Console memory usage to increase significantly while collecting the support bundle.
- Fixed an issue with the Helm rendering workflow beta where Chart.yaml and Chart.lock files were being ignored and lost for nested sub-charts.

1.52.0

New Features

- Added the ability to force image garbage collection via the KOTS CLI even if rollback is enabled for the application by passing the `--ignore-rollback` flag.

- KOTS can now successfully [install](#) and [upgrade](#) when `readOnlyRootFilesystem` is enforced in an existing cluster.

- Fixed a beta Helm hooks bug where resources failed to pull images if the resource had a negative Hook Weight value.
- Fixed a bug that caused image garbage collection to fail on embedded clusters.
- Fixed a bug that caused collecting [cluster resources](#) for the support bundle to fail in installations that require minimal RBAC priviliges.
- Fixed a bug that caused applications with an image pull secret name hardcoded as `kotsadm-replicated-registry` to fail to deploy.

1.51.0

- Added the ability to check the status of each individual status informer from the Application tab.
- The default support bundle spec includes a new analyzer for the Weave report.

- Installing or updating an application will now fail over to `kubectl create` or `kubectl patch` when the YAML metadata is too large for `kubectl apply` .
- Fixed a bug that caused KOTS to fail when copying/transferring images to an [Amazon Elastic Container Registry (ECR) repository](#) using instance roles.
- Fixed a bug that caused template functions other than [Static Context](#) to not render correctly in support bundle specs.
- Fixed a bug where Markdown did not render properly when viewing a support bundle analyzer message.

1.50.2

- Fixed a bug that caused KOTS to fail to detect [private images](#) when their domains are inaccessible during online installs.
- Fixed a bug that caused the [set config](#) command to fail if an appliction config has a required password value that was already set.
- Fixed a bug that caused the [LocalImageName](#) function to not require private images when `proxyPublicImages` is set.
- Fixed a bug that could cause the secret used to pull [private images](#) to be removed during a [KOTS Snapshot](#) restore when multiple applications are installed.
- Fixed a bug that could cause [Helm render](#) on a chart deployed via the API to not be supported by the target Kubernetes cluster.
- Fixed a bug where [private images](#) would fail to kustomize when the [experimental Helm rendering workflow beta](#) for Helm charts was in use.
- Fixed a bug where [private images](#) would fail to deploy when both existing [Helm Charts](#) and the [experimental Helm rendering workflow beta](#) Helm charts were in use.

1.50.1

- Fixed a bug that caused KOTS in some cases to falsely identify a regular cluster as an OpenShift cluster.
- Fixed a bug that required the registry namespace to be provided in airgapped existing cluster installs and upgrades even though it's an optional flag.
- Fixed a bug in the Admin Console license page where the "Sync License" button was misaligned.

1.50.0

New Features

- Added the ability to opt-in to removing the MinIO object store dependency for `hostpath` and `nfs` snapshot options for kURL embedded and existing cluster upgrades. The opt-in flags for this feature are the same as those introduced in KOTS 1.47.0 to remove KOTS' dependency on Minio for application archives and support bundles. This feature leverages a new Velero plugin, `local-volume-provider`, to provide file system backups. If this opt-in is selected as part of the upgrade, KOTS will attempt to reconfigure Velero to use the new provider. Data is neither deleted, nor copied, from the filesystem during the migration and the migration process is irreversible. This option can also be specified for new KOTS installations on kURL embedded and existing clusters. When specified on new installs, MinIO will not be used by KOTS for filesystem snapshots.
  NOTE: For existing offline clusters, customers will need to add this plugin to Velero prior to migration or installation.

- Added an output flag to KOTS CLI that provides a JSON formatted object to the following CLI commands: kots backup, restore, download, upload, upstream upgrade, and version.

- Added command line completion to KOTS CLI.

Improvements

- Adjusted preflight statuses to more clearly reflect when these checks are bypassed by an Admin Console user.
- When some collectors are blocked by RBAC permissions, support-bundle and preflight CLI will now run for all permissible collectors, instead of terminating with an error, by default.
- Instance roles may now be used for authentication when using an Amazon Elastic Container Registry (ECR) repository.

Bug Fixes

- Fixed a bug that prevented installing an Airgap Package if the registry password contained a colon (":") character.

1.49.0

Improvements

- The kots pull and kots admin-console generate-manifests CLI commands will now save the manifests in the current working directory by default.
- Updated the warning message printed by the kots install command so that when KOTS fails to pull the application metadata it will mention that it could also cause the Admin Console to run without minimal role-based-access-control (RBAC) privileges, which may be required by the application.
- The `--kotsadm-namespace` flag is now optional in airgapped existing cluster installations and for the kots upstream upgrade CLI command. Its value can be concatenated to the `--kotsadm-registry` flag instead (such as in the kots install command).
- Added better preflight check status on version history rows.

Bug Fixes

- Fixed a bug that caused the existing cluster workflow to show in an embedded environment if a user logged out before finishing app setup.
- Fixed a bug that made it possible to install the same license multiple times using automated installs.
- Fixed a bug that caused KOTS to not be able to detect the application spec (along with other KOTS kinds) if it's part of a multi-yaml document, which caused status informers to be ignored in that case for example.

1.48.1

Bug Fixes

- Fixed a bug that caused application images to not be rewritten correctly in airgapped embedded clusters.
- Fixed a bug that caused some admin console installation flags to not be respected when applying the generated manifests manually due to a missing configmap.
- Fixed a bug that could cause some admin console installation flags to not be respected on consecutive installation attempts.

1.48.0

New Features

- Added image garbage collection for embedded clusters that will remove unused images from the embedded registry.

Improvements

- Added a new CLI command for generating Admin Console YAML manifests.

Bug Fixes

- Fixed a bug that could cause some custom objects to not be removed from the cluster when they are removed from the application.
- Fixed a bug that could cause private images hosted in GitHub's Docker registry fail to pull.
- Fixed a bug that could cause Admin Console to become inaccessible if an application Config did not have any config groups defined.

1.47.3

Improvements

- Added support for uploading multiple files in the application config for repeatable config items.
- Added support to remove a file from the application config when using the file item type.

Bug Fixes

- Fixed a bug causing LicenseFieldValue template evaluations in the Config file to not render correctly.
- Fixed a bug that caused failed deployments to show as successful.
- Fixed a bug that prevented Helm charts from being deployed in multiple namespaces.
- Fixed a bug that caused the Admin Console to panic if the application did not contain a Config file.
- Fixed a bug that caused kots pull command to traverse the directory structure of the current working directory.
- Fixed a bug that caused some deployment status to show the wrong color and icon in the UI if preflight checks were skipped.

1.47.2

Bug Fixes

- Fixed a bug that could cause the namespace specified in a [HelmChart](#) spec to be ignored.

1.47.1

Improvements

- Upgraded [Troubleshoot](#) version to 0.13.3 which supports the [ConfigMap collector and analyzer](#).
- `kots get apps` [CLI command](#) displays currently deployed application version label.

Bug Fixes

- Fixed a bug where the `reset-tls` command would not restart the kurl-proxy-kotsadm pod.
- Fixed a bug where using the `--ensure-rbac=false` flag with [install](#) and [upgrade](#) commands would still attempt to modify RBAC objects.
- Fixed a bug where a deployment would fail if the same resource is included in different [Helm charts](#).

1.47.0

New Features

- Adds the ability to opt-in to removing the MinIO object store dependency for KOTS for [kURL embedded](#) and [existing cluster](#) upgrades. If this opt-in is selected as part of the upgrade, KOTS migrates all application archives and support bundles to a blob/filesystem that is part of the new KOTS admin console `statefulset`. The migration process is irreversible. This option is also available for new KOTS installations on [kURL embedded](#) and [existing clusters](#). When specified on new installations, MinIO is not used by KOTS for application archive or support bundle storage.
- Adds a config option for repeatable items. This allows for more than one value to be provided under a single config item. The config item targets a YAML array or YAML file, which is duplicated and rendered for as many values as are provided.
- Adds experimental support for a new Helm rendering workflow that supports hook and hook weight for v3 Helm charts. The new workflow applies to the following hooks: pre-install, post-install, pre-upgrade, post-upgrade. This feature is experimental and only available to vendors who have requested access.

Improvements

- Adds a default analyzer for [Longhorn](#).

1.46.0

New Features

- The [Private registry](#) namespace can now have more than one path component, or it may be omitted altogether.

Improvements

- Added default collector and analyzer for [Longhorn](#).

Bug Fixes

- Fixed a bug that allowed installing an [airgap bundle](#) from a channel that didn't match the license channel.
- Fixed a bug that made it impossible to update a license once an expired license was [installed from command line](#) using the `--license-file` flag.
- Fixed a bug that could cause Admin Console to not validate TLS certificates after a support bundle is collected.
- Fixed a bug that could cause the Postgres password to be included in support bundles.
- Fixed a bug that caused file names to not be preserved on [file type config options](#).

1.45.0

New Features

- Filenames are now captured and saved as part of the [File](#) configuration items. You can template resources with the filename(s) using the new `ConfigOptionFilename` [template function](#).
- Added support for Google Artifact Registry as an externally linked private registry.

Improvements

- If the [Goldpinger add-on](#) is included with kURL, the KOTS support bundle will now include data collected and analyzed by Goldpinger, which helps identify in-cluster network connectivity issues.
- Improved visibility that GitOps is enabled when on the Version History page in Admin Console.

Bug Fixes

- Replaced "Continue editing" button with "Edit latest config" button on the [Config page](#) to ensure users are able to continue editing rather than remaining on a read-only config screen.

1.44.1

Bug Fixes

- Fixed an issue where the `kots pull` command required a functioning kubernetes cluster in order to render the application in KOTS v1.44.0.
- Fixed an issue where the [Config page](#) in the Admin Console failed to load if rendered default values produced invalid yaml.

1.44.0

New Features

- Added the ability to provide a Docker Hub username and password via the [kots docker ensure-secret](#) CLI command that the Admin Console can utilize when pulling images to increase [rate limits](#).

Improvements

- Admin Console log timestamps are now human-readable.

- Fixed an issue where the KOTS registry password that is passed through the [KOTS install](#) CLI command was not respected when submitting the airgap bundle form through the UI.
- Fixed an issue in the Config page in the Admin Console where default values were not dynamically re-evaluated.
- Fixed an issue where the terminal cursor becomes permanently hidden when interrupting a [KOTS install](#) using CTRL+C.

1.43.2

- Fixed a bug that caused the `kots install` command to fail due to previously available MinIO image being missing from http://hub.docker.com.

1.43.1

> 📢 New installations of this KOTS version into non-airgapped existing clusters may fail due to removal of a needed MinIO image from DockerHub. This issue only impacts KOTS v1.41.1 to v1.43.1. We recommend upgrading to KOTS v1.43.2 or higher.

- When the `--skip-preflights` flag is used with the `kots install` command, the KOTS Admin UI will now show a `Checks skipped` status in Version History.

- Fixed a bug that could cause ClusterRoles to be created in namespace scoped environment when [upgrading Admin Console](#).
- Fixed a bug that caused release notes to not be shown when the application is [installed from an airgap bundle](#).
- Fixed a bug that caused the Preflight Checks screen in the KOTS Admin UI to be stuck on a progress bar indefinitely when the `--skip-prefligths` flag was used with the `kots install` command.
- Fixed a bug that caused the cursor to block user input on the interactive shell interface of the `kots install` command.
- Fixed a bug that caused [airgap bundle upload](#) to fail with anonymous private registries.
- Fixed a bug that would allow an application with newly required configurations to be deployed with those required configurations missing when the `--deploy` flag was used with the `kots upstream upgrade` command.

1.43.0

> 📢 New installations of this KOTS version into non-airgapped existing clusters may fail due to removal of a needed MinIO image from DockerHub. This issue only impacts KOTS v1.41.1 to v1.43.1. We recommend upgrading to KOTS v1.43.2 or higher.

- When rendering a Helm Chart, KOTS will attempt to determine the version of Helm to use based on the apiVersion key in Chart.yaml if `helmVersion` in [HelmChart](#) spec is not set.

- Fixed an issue where the progress bar could keep spinning while configuring KOTS Snapshots settings.
- Fixed an issue that did not allow changing the KOTS Snapshots backup provider if there was an error during setup.
- Fixed an issue where the KOTS Snapshots 'add a new destination' screen would not display if Velero v1.6.0 plugins were present in the private registry.
- Fixed an issue that allowed invalid URLs for S3 Compatible KOTS Snapshots provider endpoints.

1.42.1

> 📣 New installations of this KOTS version into non-airgapped existing clusters may fail due to removal of a needed MinIO image from DockerHub. This issue only impacts KOTS v1.41.1 to v1.43.1. We recommend upgrading to KOTS v1.43.2 or higher.

Bug Fixes

- Fixed a bug that caused KOTS Snapshots destinations to not be shown when velero images are pushed to a private registry that contains a port number.

1.42.0

> 📣 New installations of this KOTS version into non-airgapped existing clusters may fail due to removal of a needed MinIO image from DockerHub. This issue only impacts KOTS v1.41.1 to v1.43.1. We recommend upgrading to KOTS v1.43.2 or higher.

New Features

- Added experimental support for multiple applications for a single customer under a consolidated license. This feature is experimental, and only available to vendors who have requested access.

Improvements

- KOTS will detect if a user has insufficient privileges to KOTS install/upgrade and print an error message. Please reference [KOTS RBAC](#).
- New `kots reset-tls` [CLI command](#) is available. If a bad TLS certificate is uploaded to the Admin Console or the kotsadm-tls secret is missing, the `kots reset-tls` command will reapply a default self-signed TLS certificate.

Bug Fixes

- Fixed a bug that caused images to be pulled from the internet instead of the private on-prem registry when an anonymous registry was used.
- Fixed a bug that caused a kurl proxy unavailable error when a bad TLS certificate/key was uploaded.

1.41.1

> 📣 New installations of this KOTS version into non-airgapped existing clusters may fail due to removal of a needed MinIO image from DockerHub. This issue only impacts KOTS v1.41.1 to v1.43.1. We recommend upgrading to KOTS v1.43.2 or higher.

- Updated MinIO image to RELEASE.2021-05-11T23-27-41Z.
- Installs to OpenShift 4.2 and later will now use Alpine based Postgres image.

- Fixed an issue that would cause support bundles generated from the KOTS Admin Console for embedded kURL clusters to omit cluster resources for all namespaces other than default.
- Fixed an issue that would cause displayed redactions to be from the wrong support bundle.

1.41.0

New Features

- Added support for Bitbucket Server in GitOps.

Improvements

- Clicking on the Application menu `Config` tab now navigates to the deployed config instead of latest release version config if those are not the same.
- Updated instrumentation for preflight usage.
- Changed the spinner to a progress bar with status while generating a support bundle for an application within the KOTS Admin UI.

Bug Fixes

- Updating [KOTS Snapshot settings](#) will now wait for Velero and Restic to start running before showing the success message. Additionally, error feedback was improved to differentiate between `Velero is not installed` and `Velero is not ready` as the pod is being spun up.
- Fixed a CSS bug that caused the selected state of a boxed checkbox item to have the wrong color background.
- Updated KOTS Admin and CLI support-bundle binaries to match in order to ensure similar output.

1.40.0

New Features

- Configuration for the currently deployed application version can now be updated even when there are [newer pending releases](#).
- Added `--cacert` flag for [configuring other s3 backup providers](#) with custom and self-signed certificates.

Improvements

- Troubleshoot [support bundle and analyzers](#) has been upgraded to v0.10.21.
- Updated icons for viewing and editing release config on KOTS Admin Version History page.
- Made scss and styling improvements in the KOTS Admin UI.

Bug Fixes

- Fixed a bug on the [License page](#) where large license fields extend off the browser screen.

- Fixed a bug that caused usage numbers for RAM and CPU to not be rounded to the first decimal point.
- Fixed a bug where the Application dashboard "Start a snapshot" link didn't create the correct snapshot if you clicked on "Learn More" first.
- Fixed a bug that caused Velero filesystem cli commands to log the progress even if the output format was specified.

1.39.1

Improvements

- Links in application release notes will now open in a new tab.
- Upgraded the Troubleshoot dependency version from v0.10.18 to v0.10.20.

Bug Fixes

- Fixed a bug that caused cluster metrics to be inverted on the Cluster tab.
- Fixed a bug that caused an error when navigating to the redactors page for a support bundle that was uploaded though the Admin Console UI.
- Fixed a bug that caused credential validation to fail when Disable Image Push option is used.
- Fixed a bug that caused config set command to fail on required item validation when it should be succeeding.
- Merged PR 1794 which fixed a bug that caused entitlement values to be rendered as an empty map.

1.39.0

New Features

- Updated KOTS Snapshots to work with Velero 1.5.1 or greater (including 1.6.0). Migration to 1.6.0 also resolves issues with frozen snapshot restores occasionally seen with Velero 1.5.4.

Improvements

- Added additional instrumentation for preflight usage.
- Upgraded the Go version to 1.16.
- Upgraded the Kuberentes dependency version from v1.20.2 to v1.20.5.
- Upgraded Helm 3 dependency from v3.5.2 to v3.5.3.
- Upgraded the Troubleshoot dependency version from v0.10.16 to v0.10.18.
- Updated Registry page to have registry namespace as required field.

Bug Fixes

- Fixed a bug where the Restic missing error was not displayed on the Full or Partial Snapshots page.
- Fixed a bug that could cause user name and password to be empty in pull secret during airgap install.
- Fixed a bug where the kotsadm-postgres statefulset would attempt to pull images from the internet instead of the specified registry if no registry credentials were provided.

1.38.1

Bug Fixes

- Fixed a bug that caused installations and upgrades to fail in OpenShift clusters.

1.38.0

- Added CLI commands to configure [AWS](#), [other S3](#), [GCP](#) and [Azure](#) as KOTS Snapshot storage destinations.
- The [kots install](#) and [kots upstream upgrade](#) commands now support the `--disable-image-push` flag.
- Added a [Helm](#) opt-in feature where values and optionalValues are recursively merged if the dataset is recursive in nature.

- Troubleshoot [support bundle and analyzers](#) has been upgraded to v0.10.16.

- Default values of password types are now hidden on the [application config screen](#).
- Fixed a bug that caused the Azure Blob Storage option to be hidden in the KOTS Snapshots settings.
- Fixed a bug that could cause errors switching between KOTS Snapshots providers.
- Fixed a bug where KOTS would watch for changes to Kubernetes Namespaces even when the `additionalNamespaces` parameter was not set, causing excessive logging when `requireMinimalRBACPrivileges` is set and the kotsadm and kotsadm-operator Service Accounts have insufficient permissions in the cluster.
- Silenced excessive logging by the kotsadm-operator when the application deploy loop fails repetedly.
- Fixed an issue that would cause a broken login screen icon when the [Identity Service](#) is enabled and there in no application [icon](#).
- Fixed a bug that caused Prometheus metrics not to work when kotsadm is not running in the default namespace.
- Fixed a bug that allowed deploying an update via the KOTS Admin UI without requiring configuration when there are non-set required config items.
- Fixed a bug that caused "no basic auth credentials" image pull errors after running a [kots install](#) command with private registry credentials.

1.37.0

- Updated KOTS Snapshots [restore CLI](#) to report errors and warnings from Velero.
- Updated KOTS Admin UI to include local timezone when displaying app version deployment time.
- Updated KOTS [GitOps integration](#) to use default branch when no branch is specified.
- Updated Postgres to use Alpine as base image instead of Debian Stretch.
- Updated Schemahero to use Debian Buster as base image instead of Debian Stretch.

- Fixed a bug that could cause a [Full snapshot restore](#) to be be stuck in `In Progress` state indefinitely.
- Fixed a bug that caused the application to be redeployed right after a [snapshot restore](#).
- Fixed a bug that required user to upload license from KOTS Admin UI even if it was specified in the [install command](#) when `--airgap` flag is used.

1.36.1

- Fixed a bug that caused Logout and Login buttons to stop working.
- Fixed a bug that caused the Postgres image to be missing from the Admin Console airgap package.

1.36.0

Improvements

- Updated the Preflight Checks are in progress experience in KOTS Admin UI to show a progress bar and information about the test currently running.
- Increased kotsadm Pod CPU limits from 500m to 1 in order to improve performance of [Preflights](#) and [Support Bundle](#) collection.
- Updated to Primary and Secondary node language in the KOTS Admin Cluster Management UI to reflect newer inclusive language standards.
- Updated KOTS Admin GitOps UI to remove mention of functionality that is not yet available.
- Updated base images for KOTS Admin Console components from debian:stretch to debian:buster to address open CVEs in upstream components.
- Updated the [SchemaHero](#) dependency to 0.12.0

Bug Fixes

- Fixed a bug that caused Kubernetes objects with exclude-labels to be undeployed during backup restorations.
- Fixed a bug that caused S3 region lookup failure if duplicate bucket names are present across aws-gov and non-aws-gov regions.
- Fixed a bug that caused the Support Bundle command shown in the KOTS Admin Console Troubleshoot UI to not respect custom redactors that are defined in the application or the Admin Console.
- Fixed a bug that could cause an analyzer or its graphic to not properly render in the Support Bundle analysis within KOTS Admin Console Troubleshoot UI.
- Fixed a bug that could cause KOTS Admin Console pods to be started before database schema migrations are applied, resulting in unpredictable behavior.
- Fixed a bug that could cause the user to be logged out of KOTS Admin Console during an airgap bundle upload.

1.35.0

Improvements

- Updated Skip Preflights modal in KOTS Admin UI to make it more obvious that skipping preflights is not the recommended installation behavior.
- Added instrumentation for the Admin Console and application installation outcome.

Bug Fixes

- Fixed a bug that could cause Admin Console pods to be scheduled on nodes with the wrong architecture.

1.34.0

New Features

- Added `--deploy` and `--skip-preflights` flags to KOTS upload cli.

Improvements

- Added ability to copy default value from config page.

Bug Fixes

- Fixed a bug that could cause cluster scoped resources to not be included in Snapshots.
- Fixed a bug that caused Full Snapshots to ignore the backup spec defined in the application release.
- Fixed a bug where config icon was still visible on Version History page if there was no present config.
- Fixed a bug that could cause config screen to not work if application config has an empty config group.
- Fixed a bug that could cause airgap bundle upload to fail if license channel was changed previously.
- Fixed a bug that caused license upload to fail during airgapped license update if unicode characters were present in custom fields.
- Fixed a bug that caused the namespace specified in additionalNamespaces to be removed if the same namespace was previously used in the application spec.
- Fixed KOTS casing in version output message to align with style guidelines.
- Fixed a bug that caused app redactors to be ignored during support bundle collection.
- Fixed a bug that caused upgrading the app using the cli in airgapped kurl clusters to require the registry namespace to be provided.

1.33.2

Bug Fixes

- Fixed a bug that caused custom redactors defined in the Admin Console to have no effect on the generated support bundles.

1.33.1

Bug Fixes

- Fixed a bug that caused configuring Network File System (NFS) or Host Path as a Snapshots storage destination to fail the first time if the default bucket does not exist.

1.33.0

New Features

- KOTS Snapshots now supports Network File System (NFS) and Host Path as two additional storage destination options.

Improvements

- Application Config form under the config tab now has a min and max width to better maintain spacing on the page.
- Upgraded [Helm v3](#) dependency from v3.2.4 to v3.5.2.
- Added instrumentation for preflight usage.

Bug Fixes

- Fixed a bug where boolean custom fields were not displayed properly on the [license page](#).
- Fixed a bug where the wrong page title was shown on the [Cluster Management](#) page.
- Fixed a bug where conditional config items would show up on the navigation tree even when they are hidden in the main config. Now Application Config groups that have a conditional 'when' value or that have been set to 'hidden' will be hidden in the sidebar when necessary.
- Fixed a bug where the Admin Console could hang if you attempted to upgrade KOTS when the latest was already running.
- Fixed a bug that could cause documents to get ignored in Helm Charts.
- Removed duplicate secrets while generating [support bundle](#).

1.32.0

New Features

- New design for [application configuration](#) screen that allows easy navigation to different sections of the configuration. This feature requires no change to existing configuration. It leverages any existing Groups and Items hierarchy in the current [config](#).

Improvements

- Updated links to version configuration to indicate whether config is read-only or editable.
- Improvements to memory and disk usage when [airgap bundles are being uploaded](#).
- Troubleshoot ([support bundle and analyzers](#)) has been upgraded to v0.10.7.
- Added helper text to replace default external documentation links where possible to better support airgap and white labeling use cases.

Bug Fixes

- Fixed a bug that allowed editing read-only fields on the [application config screen](#).
- Fixed a bug that caused viewing the list of [Full Snapshots](#) in the Admin Console to fail if one of the snapshots contains an app that no longer exists.

1.31.1

Improvements

- Updated Snapshots content when choosing "Learn more about differences" from the App Dashboard.

Bug Fixes

- Fixed a bug on the [config page](#) that navigated you to the incorrect config when choosing "view the currently deployed config".
- Fixed a bug on the [config page](#) that allowed you to edit previously deployed configs.

1.31.0

- KOTS Snapshots with Disaster Recovery is now generally available (GA). In order to better clarify functionality, Instance Snapshots have been renamed to Full Snapshots and Application Snapshots have been renamed to Partial Snapshots. These changes are reflected throughout the KOTS Admin UI and the KOTS documentation.
- All available Snapshot functionality is now under the "Snapshots" global navigation. Both Full Snapshots (Instances) and Partial Snapshots (Applications) can be initiated and scheduled from the global Snapshots section.
- Added ability to do partial restore from Full Snapshots (Instance).
- Added ability to initiate a Full Snapshot (Instance) from the App Dashboard.
- Snapshots functionality will now support minimal role-based-access-control (RBAC) privileges installations.
- Added new CLI for setting application config values.

Bug Fixes

- Fixed a bug that showed "Node drain successful" on all node rows instead of just the node that was actually drained.
- Fixed a bug where application metadata config map is not updated with the new app name.
- Fixed a bug that caused having two different instances of the Admin Console running in different clusters due to disaster recovery to report back to the vendor as if they are the same instance.
- Fixed a bug that caused warnings about Roles and RoleBindings to be shown when restoring Snapshots on OpenShift clusters.
- Fixed a bug that caused a false error to be reported at the end of the install when –port-forward flag is set to false.
- Fixed a bug that caused Full Snapshots (Instance) to fail on instances with multiple apps when at least one app does not have snapshots enabled.

1.30.0

Improvements

- Updated support bundle to Troubleshoot v0.10.2.
- Improved airgap install CLI flag copy.
- Added new commands to list backups and restores.
- Cluster Management UI now indicates which node is primary.
- Changed positioning of CPU Pressure and Memory Pressure in the Cluster Management UI.

Bug Fixes

- Fixed a bug that caused file handle leak during airgap bundle upload.
- Fixed a nil pointer panic when syncing license.
- Fixed a bug that could cause Admin Console data to become inconsistent due to errors during license updates.
- Fixed a bug that could cause the wrong app version to be deployed when using the kots upstream upgrade with the `--deploy` flag.
- Better error logging when downloading support bundle.
- Removed a superfluous HTTP error when using the kots download command.
- Fixed a bug that caused snapshot duration time to be shown incorrectly.

1.29.3

- UI enhancements to provide more clarity on node rows while on the cluster management tab.
- Add a confirmation before starting the drain node process.
- Show feedback while a node is being drained.

- Fixed a bug that resulted in postgres connection leak, which could result in Admin Console being inaccessible.
- Fixed a bug that could cause Admin Console pod to crash when Velero backup objects don't have annoatations.

1.29.2

- Updated text on the snapshot restore page to give user more explanation about the restore process.

1.29.1

- Fixed a bug that caused the banner on the config page that informs the user whether config is current or not to be missing when clicking on the main menu `Config` link.

1.29.0

- Improved license field display on the License page.
- Added a user friendly error message when non-existing app slug is used in upgrade command.
- Updated documentation links on various snapshots screens.

- Fixed link for snapshot deduplication docs.
- Fixed snapshot time display and added chronological sort order.
- Fixed a bug that caused not all snapshot hooks to be shown due to long log lines.
- Fixed a bug that caused private images in preflight checks to fail to pull due to missing password.
- Fixed a bug that caused the wrong namespace to be shown in the generated `kots remove command`.
- Fixed a bug that caused jobs in additional namespaces to not be cleaned.

1.28.0

- Added new `kots get apps` command.

- Added Weave collector and analyzer to default Admin Console support bundle.

Improvements

- Added a modal to handle OIDC login error when a user does not belong to a valid group.
- Improved config page with banner that will show if you're not on the latest config.
- Fixed Safari issues on latest KOTS Admin Console view.
- License page has been improved to accept multiline license fields.

Bug Fixes

- Fixed a bug that caused restore to fail if a PVC was missing on the instance being restored.
- Fixed a bug that caused preflight check pods to fail when used with private images.
- Fixed a bug that caused application to be deployed before configuration was applied if there are no required config items.

1.27.1

Bug Fixes

- Fixed a bug that caused Admin Console to not run after an instance restore.
- Fixed a bug that caused `kots backup` command to fail in embedded clusters.

1.27.0

New Features

- Added beta support for the ability to enable and integrate Role Based Access Control for both the KOTS Admin Console and/or the Vendor Application.
- Added the ability to include custom branding for the Vendor Application Identity Service login page.

Improvements

- Omitted the top level directory from the KOTS Admin Console support bundle file tree.

Bug Fixes

- Fixed a bug that caused logging in with certain identity providers to fail with "missing 'email_verified' claim".
- Fixed a bug that caused some images to be pulled through the proxy registry instead of the private registry when private registry was configured.
- Fixed a bug that caused the `ConfigOption` to resolve to a previous value for some config items.

1.26.0

New Features

- Added the ability to control access to the Vendor Application by integrating with an identity provider. This feature is experimental and only available to vendors and licenses that have the Identity Service feature enabled. It is currently only available for the embedded Kubernetes installation method.

- [Sprig](#) functions upgraded to v3.2.0 and related [TLS](#) functions have been deprecated.
- Added a modal to confirm action when clicking deploy, re-deploy or rollback on a release in KOTS Admin.

- Added validation for registry endpoint format in [kots admin-console push-images](#) command.
- Fixes an issue where port forwarder would sometimes fail instead of selecting a random port automatically when the local port is not available.
- Fixes a navigation issue within the application snapshots section that resulted in the inability to navigate to instance snapshots.
- Fixes a bug that caused CRDs included in [Helm v3](#) charts to not be applied automatically on the initial deployment of the app.

1.25.2

- Fixed a bug that prevented application upgrade downloads in some cases.

1.25.1

- Fixed a bug that could prevent further application upgrades when a bad configuration results in invalid spec being rendered and license is updated by the application vendor at the same time.

1.25.0

- Added the ability to control access to the KOTS Admin Console by integrating with an identity provider. This feature is experimental and only available to vendors and licenses that have the [Identity Service](#) feature enabled. It is currently only available for the embedded Kubernetes installation method.
- Added the ability to redeploy the currently deployed app version.
- Added beta support for instance snapshots in embedded clusters.

- Added retry logic to improve reliability of private image detection in environments with challenging networking configuration. This will retry 3 times before failing.
- Added `skip-preflights` flag to [`kots install`](#) and [`kots upstream upgrade`](#) commands.

- Fixed "v1 docker registries are not supported" error message.
- Fixed a bug in the Admin Console which caused the UI to crash when clicking the redacted file link under the "Redactors" tab in the troubleshoot page.

- Fixed a bug in the Admin Console that showed the wrong CLI command in the error modal when uploading the license fails.
- Fixed a bug that caused Helm charts to be silently excluded from deployments due to invalid YAML.
- Fixed an issue with the "Node Resources" analyzer label filtering that caused an error when the label is not found.
- Fixed an issue when configuring "Gitops" that would cause a permission denied error when adding a path.

1.24.2

Bug Fixes

- Fixed a bug that caused airgapped application updates to fail in some cases after upgrading Admin Console from 1.19 or earlier.

1.24.1

Bug Fixes

- Fixed a bug that caused applications that use operators fail to deploy on the first attempt due to missing CRDs, unless the CRD version was `apiextensions.k8s.io/v1beta1` . Now any version that begins with `apiextensions.k8s.io/` will be recognized.
- Fixed a bug that caused kubectlVersion to be ignored, unless it was `1.14.x` or `1.16.x` .

1.24.0

New Features

- Added a command that allows removing application references from dashboard.
- Support bundle collected from Admin Console will now include a go-routine profile.

Improvements

- The same license can no longer be installed twice on the same Admin Console instance.
- Pull policy for Admin Console images has been changed from `Always` to `IfNotPresent` to account for new rate limits enforced by Docker Hub.
- License page has been improved to better highlight application features.
- Removed support for Kustomize 2.0.3.

Bug Fixes

- Fixed a bug that caused `kots admin-console push-images` command to fail when secret ID and secret key are used for authentication with ECR.
- Fixed a bug that caused errors to not be surfaced to the user on the Snapshots page.
- Fixed a bug that caused a compatibility warning to be shown on the Snapshots page if Velero 1.5.2 is installed, which is fully supported.

1.23.1

- Fixed a bug that caused `LabelSelectors` to be removed from the application's [Backup spec](#).

1.23.0

New Features

- Added new template function for [KotsVersion](#)
- Added a [collector](#) and an [analyzer](#) for Ceph.
- Added a [collector](#) for Collectd RRD files.

Improvements

- Added a button for redeploying failed deployments.
- Added warning if an incompatible version of [Velero](#) is installed.
- Improved description of what instance and application snapshots do.
- Better error handling when live-rendering [app configuration](#).

Bug Fixes

- Fixed a bug that could cause old certificates to be used in [kURL](#) based installs.
- Fixed a bug that caused updates to not be deployed from the CLI when [upgrading from an airgap bundle](#) with the `deploy` flag specified.
- Fixed a bug that caused `kotsadm` pod to be evicted during backup.
- Fixed a bug that caused authentication to fail if secret `kotsadm-password` is deleted prior to using the [`kots reset-password`](#) command.
- Fixed a bug that caused airgap [application update using command line](#) to print that no updates are available.

1.22.4

Bug Fixes

- Fixed a bug that caused templated boolean and numeric values in [HelmCharts](#) to be quoted as strings.

1.22.3

Improvements

- This release includes changes omitted from previous 1.22.x patch releases.

Bug Fixes

- Fixed a bug that caused [additional application ports](#) to not be automatically forwarded with [namespace scoped installs](#).

1.22.2

- Fixed a bug that caused deployments to fail due to missing quotes in annotations in Helm charts.

1.22.1

- Improved failed password handling.

1.22.0

- Added beta support for disaster recovery backups and restores of instance snapshots, which include the Admin Console and all installed applications. Backups can be restored to the original instance or to a different instance. Instance snapshots do not yet support embedded clusters.

- Fixed a bug where base64 encoded application icons do not render in airgapped installations.
- Fixed reporting of total snapshot capture time.
- Fixed reporting of remaining seconds when restoring volumes from application snapshots.
- Fixed a bug in the KOTS Admin Console UI where a failure from "Check for updates" was not properly indicated.

1.21.3

- Fixed a bug that resulted in application deployment getting stuck in `Deploying` state.

1.21.2

- Fixed a bug in the Admin Console that caused the GitOps workflow to break when set up with GitLab Enterprise.

1.21.1

- Fixed a bug that caused headless airgap install to fail when application spec exceeded 1MB.

1.21.0

Improvements

- Support bundle files will now be saved under a subdirectory, so that it won't pollute the current directory when extracted.
- Rolling back to a version with known invalid files will require confirmation before deploying.

Bug Fixes

- Fixed a bug that caused the deploy status to still show as "failed" after a successful rollback.
- Fixed an issue where the redacted file did not scroll into view when selected from the "Redactor report" tab in troubleshoot.

1.20.3

Improvements

- Support bundles will now have unique names when downloaded. The collection date is added as a suffix to the bundle name.
- Support Velero version 1.5.1.

Bug Fixes

- Fixed a bug that caused file leaks of application archives under the `/tmp` directory.
- Fixed a bug in the Admin Console config screen that caused template responses to arrive out of order.

1.20.2

Bug Fixes

- Fixed a bug that caused snapshot restore complete with a warning due to a troubleshoot or a preflight spec being included in the snapshot.

1.20.1

Bug Fixes

- Fixed a bug that caused getting the command to generate a support bundle to fail in the Admin Console.

1.20.0

New Features

- Added ability to delete disconnected nodes from the cluster management page of the Admin Console on embedded clusters.
- Added template function support in Collect, Analyze, and SupportBundle specs.
- Added template functions for Sequence, Cursor, ChannelName, VersionLabel, ReleaseNotes, and IsAirgap.
- Added support for automated (unattended, headless) upgrades of applications installed into airgapped instances using KOTS CLI.

- Added support for automated (unattended, headless) installs of applications into an embedded cluster (both airgap and online) using KOTS CLI.
- Private images used by SupportBundle and Preflight collectors are now automatically rewritten so they can be pulled from inside the cluster and are included in airgap bundles.

Improvements

- Added support for Kubernetes 1.19 and dropped support for Kubernetes 1.16.
- Updated design of Version History page.
- Updated design of the version card on the application dashboard.
  - Latest available version information is shown in the card.
  - Check for updates button is always available.
  - Current deployment status is included.
- Added resource limits and requests for Admin Console pods.
- Admin Consoles will use `NODE_PORT` environment variable if set (e.g. from kURL embedded clusters), instead of the default 8800.
- Port forwarding no longer uses the `app.k8s.io/v1beta1` Application spec and has been aligned with the documentation.
- SupportBundle and Preflight specs are no longer served on unauthenticated endpoints and instead are provided to support-bundle and preflight binaries via secrets.
- The version check endpoint now correctly reports the current application version and adds information about KOTS Admin Console version, Kubernetes version, app status, etc.

Bug Fixes

- Added an explicit error message when an uploaded airgap bundle does not match the installed license.
- Airgap bundle uploads via web UI no longer use a lot of memory.
- Fixed a bug that caused airgap automated (unattended, headless) installs to pull the application from the internet.
- Fixed a bug that could cause Admin Console instance to become unusable if application installation failed under certain circumstances.
- Fixed a bug that caused registry template functions to return no data.
- Fixed a bug that caused HasLocalRegistry and LocalRegistryHost to return incorrect information.
- Fixed a bug that caused GitOps to fail on initial setup if the repo is empty.
- Fixed a troubleshoot bug where the result of a secret collector would have a missing key.
- Fixed a troubleshoot bug where a run collector would hang if the Pod was in the `ImagePullBackoff` state.
- Fixed a troubleshoot bug that caused the ingress analyzer to not produce a result.
- Fixed a troubleshoot bug that caused the database version analyzer to fail on versions that aren't strictly semver conformant.
- Fixed a troubleshoot bug that caused the distribution analyzer to not recognize IBM and minikube distributions.
- Fixed reporting of the "released on" date to use the date the release was promoted to a channel rather than the date the release was downloaded.

1.19.6

Bug Fixes

- Added data migrations to address a bug that caused the KOTS Admin console to not function due to missing data after upgrading from an older version.

1.19.5

- Fixed a bug in the KOTS Admin Console that caused the airgap upload "pushing images" screen to not show up while pushing images.

1.19.4

Bug Fixes

- Fixed a bug in the KOTS Admin Console that caused app analysis on the `Troubleshoot` tab to look for the `kotsadm-api` pod (which does not exist anymore).
- Fixed a bug in the KOTS Admin Console that caused the UI to not show any feedback while processing the airgap bundle on app updates.
- Updated the generated `kustomization.yaml` to allow using multiple tags of the same base image with a private registry.

1.19.3

Improvements

- Enhanced security of embedded cluster installations by removing deprecated TLS versions.

1.19.2

Bug Fixes

- Fixed a bug that could cause the primary node join script to fail to be created on the Cluster Management tab.
- Fixed a bug that caused slightly increased memory usage when uploading airgap packages.
- Fixed a bug that could cause the kurl-join-cert pod to fail to be cleaned up after completion.

1.19.1

Bug Fixes

- Fixed a bug that caused some airgap uploads to fail with `fatal error: concurrent map read and map write`.

1.19.0

New Features

- Support for [automated (unattended, headless) airgap install](#) to an existing cluster. Note, automated upgrading is not supported yet.
- More robust handling of airgap bundle uploads in the Admin Console, including better error handling and the ability to resume uploads.
- Support for additional authentication methods including OIDC and IBM Cloud in the `kots` command.
- Support for `apiVersion: troubleshoot.sh/v1beta2`.

- Support for `kind: SupportBundle` .

Improvements

- The KOTS Admin Console no longer includes the Node API deployment. The functionality has been migrated into the existing Go API deployment, and the resulting release bundle size is 200MB smaller (from 663MB to 463MB) and contains 1 fewer deployment. All upgrades will remove this deployment.
- Helm render errors will now be included in the skippedFiles directory in the "View Files" tab.
- KOTS will no longer require a namespace when configuring the registry settings.
- Preflight checks using the textAnalyze function can now run against multiple files when the provided filepath is a glob.
- Preflight checks relying on the storageClass function can check for the presence of a default storageclass by leaving `storageClassName` empty.
- Support `imagePullSecret` in the troubleshoot Run collector.
- Supoort filtering by label in the troubleshoot NodeResources analyzer.
- Include Kubernetes events in the troubleshoot ClusterResources collector.
- Show a clearer message in a modal when Admin Console loses connection to the API.
- The KOTS Admin Console will now redirect to the login page automatically when session becomes invalid.

Bug Fixes

- Empty files will no longer be included in the skippedFiles directory in the View Files tab.
- Fixed support of the `helm.sh/hook-delete-policy` annotation, and fixed transpiling to `kots.io/hook-delete-policy` .
- Fixed a bug that caused Admin Console pods to fail with `ImagePullBackOff` errors after an upgrade in airgapped installs.
- Fixed an issue where some errors were not logged when restoring a snapshot.
- Fixed a bug that caused the `kots upstream upgrade` command to fail with error 500.
- Fixed a bug that caused license installation to fail if app had a missing or malformed Application spec.
- Fixed a bug that caused KOTS to re-deploy the first release of the application when re-running preflight checks for that release.
- Empty files are no longer included in yamlErrors.
- Fixed a bug that caused the user to be redirected to the wrong version after editing the registry settings and clicking the "View Files" tab.
- Fixed a bug that caused the `kots upload` command to fail with an empty KOTS config.yaml.
- Fixed a bug that caused the registry settings configuration to fail when entering ECR registry credentials.
- Fixed a bug that could cause an error `panic: d.nx != 0` when images were being pushed to a private registry during airgapped installs.
- Fixed an unclear error message when failing to parse an image ref while checking whether images were private. This error message will now include the filename that the offending image was found within.
- Fixed a bug where previously deployed versions in the KOTS Admin Console "Version History" tab showed a status of "Deployed" instead of "Previously Deployed".
- Fixed an issue in troubleshoot where some analyzers ignored the `checkName` field.
- Fixed an issue in troubleshoot where statefulset status was incorrect.
- Fixed a bug that caused snapshots to be left in the `Incomplete` state when switching plugins using the Admin Console UI.

1.18.1

Bug Fixes

- Fixed a bug where `required` config items that were not visible prevented config updates even though their config group was hidden (`when` is `false`).
- Fixed a bug that caused hidden license entitlements to be visible in the license page.

1.18.0

- Added support for using the `when` attribute on config groups to dynamically show and hide all items in a group.
- Added support for applications to request a namespace-scoped RBAC authorization instead of the default cluster-scoped authorization.
- Added new template functions for `TLSCACert`, `TLSCertFromCA`, and `TLSKeyFromCA`
- A new directory named skippedFiles to the View Files tab. All files that were not valid YAML or unable to render will be listed here.
- When one or more files cannot be rendered, information about the error will be visible on the Version History page of the Admin Console. Previously, the file was silently ignored.
- Added support for templates in status informers allowing status informers to be optionally included an other use cases.
- Added support for all built-in license fields in the `LicenseFieldValue` function.
- Added alpha support for converting secrets to sealed secrets when using GitOps.
- Ability to create, edit and delete redactors for support bundles in Admin Console.

- Error will be shown if release diff summary cannot be generated, allowing the installation to continue.
- Text from stderr output will be surfaced to the user when kustomize exists with an error when application is deployed.
- Added another confirmation before application restore is started since it is a destructive operation.
- Made changes to ensure that size and positioning of app icons are consistent throughout the Admin Console UI.
- When preflight checks are failing, there is now a Rerun button that allows running prefligth checks again.
- Changed volume size displayed on the Snapshots page to be in a human readable format.
- Changed messaging for gitops-enabled clusters to say that "Click-to-deploy is disabled".
- Surfaced some unexpected error messages from the logs to be visible on the UI now.

- The embedded cluster installation script will no longer report that the Admin Console is ready before it's available.
- Fixed a bug that caused config and application changes to be included in rendered application yaml by the `[kots upload]` (/kots-cli/upload/) command.
- Scheduled snapshots will no long fail in embedded kURL clusters.
- Fixed snapshot list flashing empty page before the first snapshot is started.
- `Other S3-Compatible Storage` in snapshot settings now works.
- If scheduled updates download a version while on the Version History page, the UI will now show the correct state.
- The Join command generated on the Cluster Management page will no logner generate a new CA which caused the operation to fail with x509 errors.
- Fixed a bug where a snapshot could not be restored with the error that the matching application release was never deployed to the cluster.
- Installing an application from an invalid release will no longer prevent updating to a valid release.
- Fixed a bug where syncing license would prevent Admin Console from fetching application updates when an invalid release is present in version history.
- Fixed a bug where images from `Pod` objects were not included in airgap builds and image URLs were not re-written to use private registries. This affected pods that were not wrapped in Deployments, Statefulsets or other objects.
- Fixed various bugs related to installing KOTS into existing clusters that require HTTP_PROXY support.
- Fixed a bug that caused the `kots install ... --config <filename>` command to ignore `valuePlaintext` password fields. This prevented automated installations for applications with password type fields on the config screen.
- Omit empty hostname from kotsadm-tls secret in order to resolve compatibility issues with Istio.

- Save button on the Config screen will now surface errors if the API call does not return a valid response.
- Fixed a bug that caused the deployed application to not be fully removed from the cluster before snapshot restore started, causing snapshot restore warnings.
- `TLSCert` and `TLSKey` functions will now ensure that the key and cert match.
- Fixed a bug that randomly caused `panic: d.nx != 0` error when images were being pushed to private registry during airgapped installs.
- After the ssh key is successfully configured on the [Deployment key](#) page, Admin Console will now automatically navigate to the global Gitops settins page.
- Running `kots upstream upgrade --deploy` command will now deploy the latest version, even if it was previously downloaded.
- Fixed a bug that caused an incorrect "invalid yaml" error when the application is deployed in certain cases.
- Added a spinner and working state to the Download Support Bundle button.
- Fixed a bug that caused the total number of lines added and removed on the Version History page did not match the number of lines in the diff view.
- In gitops-enabled installed, the Commit button will now be disabled if there are no changes to commit.
- Fixed a bug that caused warnings in the terminal while connecting to the Admin Console due to creation of too many clients to communicate with the Kubernetes API server.
- Fixed a bug that caused a blank screen to be presented to the user when an application snapshot failed to restore.

1.17.2

Bug Fixes

- Fixed a bug that caused the imagePullSecret for private images to not be included in snapshot backup/restore

1.17.1

Bug Fixes

- Fixed a bug where after generating a new support bundle using the Analyze button on the Troubleshoot page, the user is redirected to a previous bundle.
- Fixed a bug where having wrapped lines in the KOTS [Config.yaml](#) file resulted in KOTS falsely reporting the release `Contains invalid yaml` on the version history page.

1.17.0

New Features

- Admin Console now supports GitHub Enterprise as a GitOps repository.
- Ability to change to a different snapshot storage provider using the UI on the Snapshot Settings page.
- "Internal Storage" snapshot provider option has been added to the snapshot providers list for kURL embedded clusters. This allows the user to easily return to the default snapshot configuration when another provider (such as AWS S3 or Google Storage) has been configured.
- Added `when` field support for config groups https://kots.io/reference/v1beta1/config/#when.
- Added support for [installing Admin Console into an existing cluster using an airgap bundle](#).

Improvements

- Velero add-on in kURL has been updated to match the official Velero configuration.
  This is a breaking change that requires the velero namespace to be deleted before performing the next update with kURL.
- The most recent support bundles on the Admin Console troubleshoot page are now shown first.
- Helpful warnings now appear on the Version History page if the user attempts to deploy a version of the application with invalid YAML.
- Removed the KOTS metadata that was added to all application manifests for GitOps enabled clusters. This metadata could result in situations where pods were incorrectly force-restarted.
- Improved the granularity of the airgap upload progress indicator.
- Removed the "Re-analyze" button from the troubleshoot support bundle analysis page.
- Auto deploy the app's first version when installing the app and no preflight checks are available or preflight checks pass.
- Updated KOTS to use Kubernetes 1.18 libraries
- Improved error message when `kubectl kots download` is called with an app slug that does not exist.

Bug Fixes

- Fixed a bug where preflight checks fail to trigger for UI-based airgap installations, or for automated installations where license and configuration has been provided to `kots install` via the CLI.
- Fixed a bug in KOTS CLI where the `--deploy` flag when checking for upstream updates fails to deploy the latest release.
- Fixed a bug in KOTS CLI install command where automated installs fail to deploy if no preflight checks are configured for the application.
- Fixed a bug in upstream KOTS CLI where checking for updates shows `There are no application updates available` even when updates are actually available.
- Fixed an issue where license expiration isn't checked until after fetching application.
- Fixed a bug where Snapshots scheduled `@daily` run just on day 1 of the month instead of every day.
- Fixed an issue on the "View Files" tab in the Admin Console that shows full path instead of just subdirectory.
- Removed the CAP_CHOWN capability from the minio docker file. When deploying to existing clusters, this SELinux capability will no longer be required.
- Fixed visual glitches on the buttons of the TLS certificate page that appears during embedded cluster installation.
- Fixed failed snapshots hooks which were shown as completed.
- Fixed bug when Velero is installed but not running, UI says velero needs to be installed.
- Fixed a bug where clicking "Save changes" in the "Registry settings" tab on an embedded cluster install in airgapped mode without changing anything results in corrupted registry credentials.
- Fixed an issue where the diff viewer in Admin Console does not scroll to the end of the file.
- Fixed an issue where pushing images during an airgap installation hangs when the progress bar is nearly complete. Attempting to reload the page will either fix the problem, or prompt another upload that will work the second time around.
- Fixed a bug where automatic update checks result in duplicate releases on the Version History page.
- Fixed a bug where re-uploading an airgap bundle does not work if previous upload fails while pushing to s3/docker.

1.16.2

New Features

- Added support for Sonatype Nexus registries from the Admin Console.

1.16.1

New Features

- Added a flag, `--wait-duration`, to allow changing the time `kubectl kots install` will wait for kotsadm to start.

- Fixed an issue where the kurl install script would provide an incorrect command to load images on other airgapped nodes.
- Fixed an issue where `kubectl kots install` could fail when the staging API was unavailable.
- Fixed an issue where automatic update checks could result in duplicate updates being downloaded.

1.16.0

New Features

- Support for HTTP_PROXY and NO_PROXY environment variables in embedded cluster installations.
- Update checks within the Admin Console occur at periodic intervals (every 4 hours by default), and can be configured or disabled.

Improvements

- Snapshot storage configuration is now validated on save.
- Updated to [Troubleshoot](#) v0.9.36
- Beta support for explicit [Helm 3](#) rendering
- Added KOTS metadata to all application manifests. A unique identifier for the local application and the version sequence will be injected as annotations to all deployed manifests.
- ConfigItem's `when` can now be a boolean
- Namespaces will be applied before the rest of the application YAML.
- Additional snapshot information from Velero and Restic is now included in support bundles

Bug Fixes

- Fixed issue where Admin Console can crash sometimes when using `LocalImageName` and `LocalRegistryImagePullSecret`.
- Snapshots page will show a message when connection to the API is lost.
- Fixed a bug that would cause orphaned pods to be left on the system when jobs are deleted.
- Fixed a bug that could cause a mismatch between TLS cert and key when using `TLSCert` and `TLSKey` template functions
- Airgapped upload progress may be cropped without the ability to scroll in some situations. Fixed by adding the ability to scroll on this page.
- Fixed a bug that could cause kotsadm-operator to not be deployed, resulting in applications being stuck in `Deploying` state indefinitely.
- Fixed a bug where some text on the config page doesn't wrap.
- Fixed a bug that prevented private images from being used in CronJobs.

1.15.5

New Features

- Adds support for `proxyPublicImages` flag in v1beta1 kots.io application spec.

1.15.4

- Fixed a bug that prevented support bundle from collecting application data in embedded kURL clusters.
- Added support for installing Velero using the official Helm chart.

1.15.3

- Fixed a bug that caused custom links to not not be shown on the dashboard.
- Application links now work in kURL clusters.
- Fixed a bug that caused snapshot restore to fail when application YAML included a pod without a value in the namespace key.
- Fixed a bug that caused license upload screen to be stuck on progress bar indefinitely on error.
- Fixed a crash loop in the operator pod when application YAML included a custom object.

1.15.2

- Fixed a bug where objects with the same kubernetes group, version, kind and name would be treated as referring to the same object, even if they were in different namespaces. Kots now properly identifies objects in different namespaces as being distinct.
- Fixed an issue where some kotsadm support bundle files would be included within `kots/admin_console` . They are now properly included within `kots/admin-console` .
- Fixed a bug that caused `kots install` with the `--license-file` parameter specified to fail silently.
- Fixed a bug that caused support bundles to not be generated when snapshots fail.

1.15.1

- Fixed a bug where non-fatal kustomize standard error output would break saving config changes, checking for new updates and syncing licenses.

1.15.0

- Added support for including snapshots (backup and restore) to an application by including a Velero Backup spec. Documentation is available at https://kots.io/vendor/snapshots/overview/.
- The Admin Console can now include custom redactors to be applied to all support bundles that are generated.
- When installing using `kots install` , it's possible to supply config values via a `--config-values` flag to automate an online installation
- When downloading using `kots download` , it's possible to get the password values in plain text when using a `--decrypt-password-values` flag (#451).

- When `kots upload` receives a file in `upstream/userdata/config.yaml` that contains plainText fields, if the matching config item is a password type, the plainText field will be encrypted and saved.
- Added a new kURL add-on to specify SELinux config.
- Added the ability to include a Docker daemon.json in a kURL spec.
- Added a new kURL add-on to specify a firewalld config.
- kURL supports local YAML patches for customers to override (or add) custom settings.
- Added the ability to upload a .RLI file (Replicated Classic) to the Admin Console. When this happens, the RLI file will be exchanged for a valid YAML file (KOTS License). Please contact us to enable this feature.

Improvements

- The diff calculation in the Admin Console now shows a diff of the output of `kustomize build`, not the full directory. This makes the diff view show only the changes that will be applied.
- Changed how `kots install` works when a `--license-file` flag is provided. It now just hands off the license file for the Admin Console to complete, causing the behavior of install with/without this field to be closer ([#450](#)).
- Update sprig template function library to 3.1.0 (see [corresponding release notes](#)).
- Changed default of `kots download` to be the current directory instead of the home directory ([#436](#)).
- Removed `--dest` flag from recommend `kots download` command on the View Files tab of the Admin Console.
- Added a timestamp to the support bundle rows on the Troubleshoot page.
- Removed the Copyright Replicated notice from the bottom of the Admin Console.
- When using the kURL embedded cluster and the customer passes a local patch yaml, both files will be stored in the cluster as `apiVersion: installers.kurl.sh/v1beta1, kind: Installer` objects.
- All Admin Console objects are annotated with velero annotations now.

Bug Fixes

- Fixed a bug where generated TLS certs would not be recreated if the CN changed.
- Fixed a bug where templated helm values containing commas would cause kotsadm to fail with `failed to render archive directory` when saving configuration.
- Fixed a panic that caused status informers to incorrectly report the status of the application as missing.
- Fixed a bug that was causing `kots upstream` commands to fail with 500 errors ([#473](#)).

1.14.2

Bug Fixes

- Fixed issue where rolling back to an older version of the application appeared successful in the UI, but did not actually complete until the kotsadm-api pod was manually restarted.

1.14.1

Bug Fixes

- Fixed issue that prevented deployment of anything other than the latest version in the Admin Console. Clicking the 'deploy' button next to an older version in the Admin Console will now correctly deploy that version, instead of always deploying the latest version.
- Fixed UI issue preventing all airgap bundle uploads from the dashboard. Uploads on the 'Version History' page were not affected.
- Addressed layout issues on the Admin Console dashboard that appeared if there were any errors reported during airgapped package upload.

1.14.0

- Added support for a new `additionalNamespaces` field in the `apiVersion: k8s.io/v1beta1, Kind=Application` manifest.
- Added a `requireMinimimalRBAC` field in the `apiVersion: k8s.io/v1beta1, Kind=Application` manifest. When enabled and running `kots install`, KOTS will default to a namespaced-scoped RBAC role instead of a cluster-scoped role.
- Added a new `Distribution` template function to return a string indicating the managed Kubernetes offering (i.e. `openshift`, `eks`, etc).
- Added a new kURL Context and corresponding template functions to read values from the kURL Installer CRD. These functions are not available on the config page.

Improvements

- Changed the internal API that `kots upload` and `kots download` use to the Go API. The Typescript implementations are deprecated.
- Added Velero status to the dashboard tile to identify if Velero is not installed and Snapshots are enabled.
- When running the Admin Console port forward (after `kots install` or `kots admin-console`), if port 8800 is not available, a random port will be used instead of showing an error.
- Default support bundle collectors now include rook, ceph, and kURL information.
- Removed the `allowSnapshots` flag from the `kots.io/v1beta1/Appplication` resource. Snapshots are now enabled by including a `velero.io/v1/Backup` resource in a release.

Bug Fixes

- Fixed the bug that caused the Login button to become disabled.
- Fixed the bug that caused the `NoSuchKey` error when deploying a version.

1.13.9

Bug Fixes

- Fixed issue that caused the Admin Console to crash when checking for updates if the installed app did not have a previous configuration saved.
- Fixed a bug that prevented fetching updates when a license update was pending. Now, the license will be synced, and then updates will be fetched.

1.13.8

Bug Fixes

- Fixed a bug that would cause subsequent updates in the Admin Console to fail if a previous release failed to upload to the internal object store (Minio, Rook, S3).
- Template functions in Preflight checks were not being rendered properly before execution.
- Fixed a bug that caused updates to fail if they did not contain a kots.io/v1beta1, Kind=Config document.
- Expanding deeply nested subdirectories within the View Files tab caused parent directories to be collapsed.

1.13.6

Bug Fixes

- Config screen will not render if the app config has unicode characters (even if commented out).

1.13.5

Bug Fixes

- Preflight outcomes generated using regex analyzers with less-than (`<`), less-than-or-equal (`<=`), or greater-than-or-equal (`>=`) conditions were evaluated in reverse. Fixed by ensuring the operators strings correspond to the correct comparison operator.

1.13.4

Bug Fixes

- Admin Console configuration screen no longer fails to render when the config screen manifest refers to integers or booleans in the 'when' field.
- Errors while uploading current directory using the KOTS CLI. `kubectl kots upload .` now uploads the current directory as expected.
- Fixed some situations preflight checks having a valid `exclude` parameter were improperly included.

1.13.3

Improvements

- New releases with required config options (where `required: true`) are not deployable until all required fields are present.
- The application-level GitOps page has been collapsed into a single view.

Bug Fixes

- When multiple releases are available for upgrade in the Admin Console, any new configuration changes would only apply to the latest available release. Fixed by ensuring that any configuration change applies to all available releases for upgrade, not just the latest.
- When private registry changes are being saved, they will no longer be persisted until all images are pushed successfully.
- Better error messaging when detecting invalid ConfigItem template usage.
- Fixed a bug that caused the internal use of Kustomize to fail when a manifest specified a static namespace.
- Support bundle command now works from the host on embedded online installs.
- It was possible for the Admin Console to show the GitOps application tab without first enabling GitOps.
- [License](#) template functions now work on the config screen.
- Non-library DockerHub images in airgap scenarios are now properly rewritten to use the private registry.

1.13.2

- `kubectl kots reset-password` now allows using `-n` or `--namespace` to specify the namespace, in addition to passing the namespace as an argument.

- Fixed a bug that could cause the app to be deployed without the initial settings in airgap scenarios.

1.13.1

New Features

- Added a new `IsKurl` template function that can be used to determine if the install is running on a kURL embedded cluster

Improvements

- Updated the UI when installing an initial airgap image to show progress of each image as it's transferred to the local registry
- Updated icons in the troubleshoot analyzers page
- Highlight the new release on the Version History page when a new release is detected by KOTS

Bug Fixes

- Fixed a bug that could cause the `LocalRegistryImagePullSecret` function to panic when used in Config items
- Fixed a bug that could cause Preflight checks to not complete when there is a locally configured registry

1.13.0

New Features

- Added support for deploying Operators as KOTS applications:
  - Added `additionalImages` to the kots.io/v1beta1, Kind=Application spec
  - Added new template functions for operators to read the local image name and image pull secrets

- Added support for `--kubeconfig` and all other `kubectl` flags in all `kots` commands. These can be used with `kubectl kots --kubeconfig ...`
- Added `TLSKey` and `TLSCert` template functions, to generate matching cert and private key for a hostname.

Improvements

- `ConfigOption` template functions will now be evaluated recursively. Items defined in the config can reference other config items, and will be updated when any value changes.
- When there is no TTY, the default KOTS logger will not show a spinner.
- The upstream directory has been excluded from diff calculation and view in order to show clearly what changes are being deployed.
- The diff calculation now shows the lines added and removed in the base and downstream only.
- `kubectl kots admin-console upgrade` command will no longer upgrade kURL installs.
- `kots` can now push images to unsecured private registries.
- Multi-doc YAML files will be automatically split when rendered into the base directory.

- Added messages that show the reason that certs are not accepted when uploading them on the embedded cluster page
- When uploading a cert with a hostname on the embedded cluster, the browser will automatically redirect to the hostname after applying the cert

- `kots version` command now doesn't hang and doesn't display networking errors when it's unable to connect to github.com to check for updates.
- Fixed the issue that caused kURL installer to fail when `kotsadm` add-on was included, but application did not have any metadata.
- Fixed the 404 error when Secure Console page is refreshed in the browser on kURL+kotsadm installs.
- Clicking "Continue to Setup" on the Secure Console page no longer shows the "Anonymous uploads have been disabled" message.
- Fixed the issue that allowed users to upload certificates that had expired or had an invalid hostname.
- Fixed the issue that caused kURL installs to fail when `kotsadm` add-on is enabled but no app slug is specified.
- Fixed the issue that caused scroll bars to be shown on the Preflight Checks page while the spinner is the only thing visible on the page.
- Fixed the bug that caused GitOps page to show "Oops, something went wrong" message when trying to add a repo.
- Fixed the support bundle command shown on embedded cluster installs.
- Fixed the bug that caused `updateCursor` and `versionLabel` to be removed from the installation.yaml file by the `kots pull` command.
- Fixed a bug that caused `kots.io/exclude` annotations to be either completely ignored or applied to all objects in a single file.
- Fixed error display when the Add Node button on the Cluster Management page.

1.12.2

- Ability to apply `count()`, `min()`, `max()`, and `sum()` aggregate functions to node resource analyzers. Especially useful for preflight checks against resources on a node (e.g., `min(memoryCapacity) >= 16Gi`). See Node Resources Analyzer documentation for more details.

- Improved performance of application and license updates by caching image privacy status when the release has not changed.
- Past preflight results are now always displayed on the version history page, even when they were successful.
- Progress indicators have been added to the license upload screen.
- Once a TLS certificate has been uploaded or skipped, future visits on HTTP will be redirected to HTTPS.

- Fixed an issue where the Config page would fail to load when current release has `'{{repl ...}}'` template functions that are over 80 characters.
- License expiration is now enforced in airgap installations. After this fix, any new attempts to update or install applications on an expired license will not succeed.
- Changes to `default` on config item types are now respected on upgrades to a new release.
- Fixed an issue where the application logo in the navigation bar would not update when switching to another KOTS application. Issue-910
- Fixed an issue where the "diffing releases" view incorrectly overlaps with version history when the differences between releases is small.

- `kubectl kots upload` command shown for editing application patches on the "View files" tab now includes the correct namespace.
- Fixed an issue where "Anonymous uploads have been disabled" message appears during initial setup of embedded cluster installations.

1.12.1

New Features

- The kustomize version used to render releases can be specified, with the currently accepted versions being "2.0.3" and "3.5.4". Documentation can be found here.
- Support for embedded installations with kURL on RHEL and CentOS 7.7.

Bug Fixes

- CPU and memory usage graphs were not rendering in embedded cluster installations with Kubernetes 1.16 and later.
- Application crashes when using gestures to viewing files in troubleshoot file inspector. issue-920
- When checking for updates from the version history page, errors from previous releases were not cleared when a new working release became available.

1.12.0

New Features

- Namespace can now be specified for Helm charts in KOTS
- Preflight and Troubleshoot analyzers now support analysis of Node resources, including CPU, Memory, and Disk Space
- Rook registry is now object store backed.

Improvements

- If license is updated during a sync, a dialog is shown linking to version history.
- Better feedback when saving app config.
- Support bundle analysis now has breadcrumbs.
- `replicated/kurl-util` container uses a versioned tag instead of `latest`.
- `kots` CLI now includes an `Authorization` header when making requests to `kotsadm-api`.
- Airgapped upload endpoints now require `Authorization` headers.
- Helm chart rendering errors are now displayed in the Admin Console.
- The Dashboard link has been removed from the license upload pages.
- License is synced to the latest version on installation.

Bug Fixes

- `kotsadm-api` no longer needs to be restarted when console password is reset using the CLI.
- Airgapped upload doesn't redirect back to license upload.
- A failed airgapped upload will display an error.
- Failing preflight checks incorrectly rendered as successful in the version history page.
- Fixed an issue where Preflight checks fail if a `when` condition is missing.
- If your preflight check fails to parse, the error message is displays as a failing preflight.

- Fixed issues with kURL HA registry availability when a node is lost.
- Fixed an issue where the Admin Console would not pull new releases when changing a customer's channel and syncing their license.
- Fixed error 404 when the Secure Console page is refreshed.
- Fixes for license sync:
  - When a new license field is created, it will be pulled down on the next license sync.
  - When new license fields are added, they will be used in rendering the next app version.

1.11.4

Bug Fixes

- Config screen in Admin Console hangs when the Helm chart in an airgapped installation contains a nested Helm chart.

1.11.3

Bug Fixes

- After initial upload of the airgap bundle, user will be asked for the license file a second time. This results in the creation of two apps.
- Missing fixes that were applied to 1.11.1, but removed from 1.11.2

1.11.2

Bug Fixes

- When there are multiple deployments with the same private image, only one deployment has the necessary pull secret.

1.11.1

Bug Fixes

- `kots admin-console upgrade` fails to upgrade Admin Console.
- Unable to upload airgap bundles to KOTS clusters installed with kURL (clusters embedded with application).

1.11.0

New Features

- Openshift 4.3 support for existing clusters
- Support for embedding Kubernetes 1.16.4
- Support for development environments with insecure local registries
- Compatibility layer for ship-style entitlements (not titled)
- `kots install helm://` now enables the GitOps tab by default

- Significant performance improvements to uploadLicense and saveConfig in Admin Console
- We no longer require manual changes to firewalld settings when installing on RHEL
- kURL / Embedded Cluster Improvements:
    - Changed TLS secret type from opaque to tls
    - Ability to reuse to re-use the TLS certs for Kotsadm in a contour Ingress/IngressRoute
    - Add a node label to to identify all kURL installs
    - Silence irrelevant warnings about use of 3rd party components and upstream components during embedded cluster installation
- Support-Bundle and Preflight Improvements:
    - Openshift distribution detection
    - Statefulset collection
    - Automatic limit range negotiation for PVC size

Bug Fixes

- Master join button on Cluster Management tab enabled when not on HA installs
- `kots admin-console upgrade` fails to upgrade admin console.
- Server error when saving config manifests containing items of type 'file'
- statusInformers in Admin Console show incorrect status when deploying to the default namespace
- Migrations crash-loop-back-offing container not working as expected

1.10.0

New Features

- Support for array types in helm charts
- SelfSubjectRulesReview is used determine RBAC rules for operator when own rules cannot be listed.
- 'exclude-admin-console' is now hidden from 'kots install –help'

Bug Fixes

- `kots install` with namespace on command line does nothing and exits without any errors
- Error when restricted operator role already exists
- Postgres invalid size prompt

1.9.1

New Features

- Added a new `--deploy` to the `kots upstream upgrade` command. When specified, kots CLI automatically deploys the latest version in addition to downloading it.
- Improved addition of image pull secrets to jobs and other objects. Previous releases would add the image pull secret too often, causing a job object to unecessarily change.

1.9.0

- When deploying an update, kotsadm operator removes old resources no longer exist in the new version
- Added support for optional resources in KOTS applications. This is specified using an annotation, documented https://kots.io/vendor/packaging/include-resources/
- Added KOTS Hooks to manage job lifecycle. KOTS will now be able to delete a job on success or failure, and Helm Hooks will be respected. Documented at https://github.com/replicatedhq/kots.io/pull/61 (merged in at release)
- KOTS Operator now handle CRDs and Custom Resources deployed to the same application. Nothing needed to enable this, kots detects this and handles it. Side effect: dry run is not executed if the application contains custom resource definitions for now.
- KOTS application can now specify a namespace hard-coded (or templated) in the YAML. This isn't recommended for most applications and we can't guarantee that "existing cluster" installations will have proper RBAC set up. But this will work in kURL installs, and was required to handle scenarios where a CRD and custom resource was deployed at the same time (CRDs aren't deployed to a namespace).
- When the operator doesn't have permissions to execute preflight checks, we show the error, and allow the user to execute manually using the kubectl plugin, try again, or run with the limited preflights.
- KOTS install will now respect `LimitRanges` defined in the Kubernetes namespace, when deploying to a new namespace. This is useful in managed services (i.e. OpenShift Online) that have a strict 1Gi limit on PVCs.
- Removed the binary rendering from the diff tab when using a Helm chart

- Application update via airgap bundle does not work.
- Errors while injecting image pull secrets into Helm charts that contain private images
- `kots download` CLI command showing invalid errors

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