# Sitecore Experience Commerce 10.2 Release Notes

November 4, 2021 – Released Sitecore Experience Commerce 10.2.


Contents:

## Improvements

| Area | Improvements | ID |
|---|---|---|
| Deployment | Items as Resources: Improved the upgrade experience by storing default content items as resources outside of the database. This applies to XC components that are deployed as modules on Sitecore, e.g. Commerce Connect, Commerce Engine Connect, SXA Storefront.<br>This simplifies the upgrade; developers no longer need to deploy update packages for these commerce components deployed on Sitecore.<br>As an example, Sitecore translation files are now provided as items resource files (.datfiles) instead of .XML files.<br>This feature aligns XC with the corresponding Experience Platform feature. The feature was first introduced in the platform layer in release XP10.1, and support for Platform modules was added in release XP10.2. | 467962 |
| Containers Deployment | Container Asset Images: Restructured XC container images to make it easier to deploy and configure commerce assets on an XP deployment. Introduced commerce Asset images, which are now separated from Runnable images.<br>This change avoids needing to create XC images that are supersets of XP, SXA and XC assets; instead you now layer commerce asset images on top of XP images.<br>All XC container images are now provided as non-production images.<br>- Asset images enable you to build your own custom images on top of XP runnable images deployed on the CD and CM.<br>- Runnable XC images (xc1-cxa/CD, xc1-cxa/CM, engine etc.) are for non-production usage, e.g. for demo or development.<br>For more information, see Sitecore Commerce Container SDK and Workflow for creating custom Commerce container images | 464542<br>490221 |
| Containers Deployment | Added a new initialize startup script in Docker-compose, called ComposeInit.ps1, to remove manual steps. | 493196 |
| Upgrade | Added the ability to upgrade from an XC10.1 Kubernetes Containers deployment to XC10.2. Introduced a new upgrade container to automate the database migration during upgrade.<br>For more information, refer to the Sitecore Experience Commerce 10.2 Container Upgrade Guide on the Sitecore Downloads site. | 456607 |
| Indexing | Added a sample asynchronous call in the custom index field handler, to make it possible to call Engine pipelines inside the custom field handler during indexing. | 478131<br>460903 |

| Area | Improvements | ID |
|---|---|---|
| | The sample was added in the Engine SDK and is not enabled by default; enable it by updating the related policy file and bootstrapping.<br>For more information, refer to this section of the documentation. | |
| Indexing | Added an index field hander for crawling `ExternalSettingsComponent`. | 459418 |
| Indexing | Improved the handling of item/html cache refresh when only variants are updated, without making changes to parent sellable items. | 463597 |
| Composer templates | Added the ability for the merchandiser to select a Rich Text field type option when creating a new custom property in the Composer feature.<br>For more information, refer to the documentation. | 362326 |
| Composer templates | Changed the Composer Template custom properties to be optional, instead of required by default. | 469147 |
| Business Tools | Added the ability for the merchandiser to re-order product images using the Business Tools interface, and have those changes reflected in the Storefront.<br>For more information, refer to this topic. | 312233 |
| Personalization | Added a new "Lines added to cart" goal, to enable a simple A/B testing scenario in XP. Previously this existed as a collected event, but not as a goal. | 466425 |
| Performance | Added support for Redis Cluster in the Commerce Engine and in Commerce Engine Connect.<br>For more information, refer to this topic. | 477273 |
| Performance | Added support for a new `CommerceCache.Clear` operation in Redis, for the Commerce Engine and Commerce Engine Connect, to improve memory utilization and to address cache cohesion problems.<br>`ClearCachesForArtifactStore` (replaces `ClearDataStoreCache`) clears the entire cache store for a specific artifact store ID, so keys all environments that use that artifact store id will be cleared.<br>`ClearAllCaches` (replaces `ClearCacheStore`) clears all caches across all artifact stores.<br>For more information, refer to this topic. | 408368 |
| Performance | Reduced the occurrence of thread starvation due to asynchronous methods being called from synchronous code. As part of the solution, support for asynchronous methods was added to the Sitecore Framework layer. | 427065<br>427363 |
| Performance | Improved the performance of the purge carts stored procedure. Introduced batching. A batch of carts (e.g. 5,000) are purged then once complete they are deleted. Should a timeout occur, then the rollback affects only the batch, instead of the entire set to be purged. | 464582<br>464587 |
| Performance | Introduced wildcard matching for the SQL sharding policy as an optional replacement of Regex matching, to minimize the likelihood of bottlenecks occurring resulting from request queuing on `ListShardingPolicy.GetByName()`, especially with large data sets (e.g. many categories each with 50 – 100 products, and over 15 languages).<br>Wildcard matching is enabled by default in a new XC10.2 deployment, but not enabled across an upgrade. It is enabled via a policy setting "UseWildcardExpressions": "true".<br>See also ID 485913 in the Breaking Changes section below.<br>For more information, refer to this topic. | 485913<br>413371 |
| Logging | Reduced unnecessary error logging in several functional areas including: | 380492 |

| Area | Improvements | ID |
|---|---|---|
| | - Storefront scaffolding errors during tenant/site creation<br>- Error associated with a null entry in the parameters dictionary, for parameter 'quantity' of non-nullable type `System.Decimal`.<br>- Intermittent errors in `ProfileViewRenderingModel` methods related to a keynotfoundException.<br>- Solr errors in the search.log for example: undefined field query, undefined field: "preorderable".<br>- A nullRefernce exception in the authoring logs, in `Sitecore.Commerce.Core.LocalizeValuesBlock`2.LoadLocalizeProperties`.<br>- Exceptions in the Sitecore PowerShell Extension logs after a deployment with Storefront, during the site creation. | 380494<br>380503<br>423372<br>456052<br>479269 |

## Resolved Issues

| Area | Resolved Issues | ID |
|---|---|---|
| Commerce Engine | Removed the creation of duplicate entries that appeared in the Journal entity. | 426195 |
| Commerce Engine | Corrected an unwanted behavior in a Dynamic Bundles feature scenario, where the bundle price dropped below the bundle list price when the shopper selected an upgrade that should have increased the bundle price. The bundle incorrectly used the sellable item price to calculate the price of the bundle, instead of the variant price that the shopper had selected. | 437433 |
| Commerce Engine | Resolved an error where populating the promotions of a promotion book unnecessarily retrieved all the available promotions, which had an unnecessary performance impact. | 443189 |
| Commerce Engine | Resolved an issue where importing local catalogs did not pass the batch size from the user's input, and instead defaulted to the value 900. | 447422 |
| Commerce Engine | Fixed "InvalidEntityIds" warnings in that were produced in the Engine logs upon submitting anonymous orders from the Storefront. | 456341<br>361476 |
| Commerce Engine | Resolved the occurrence of Commerce Engine thread starvation on start-up due to due to a lock contention in the RedisCacheConnectionPoolManager. | 459527 |
| Commerce Engine | Fixed an issue where the Engine did not index 'Int' Types properly; changed the `System.Int64 FieldTypeMapper` to use `{0}_tl` to be consistent with the Experience Platform. | 464565 |
| Commerce Engine | Fixed the type of class `Sitecore.Commerce.Plugin.Catalog.ItemIndexingResult` which was incorrectly set as internal instead of public. | 479463 |
| Commerce Engine | Fixed an empty value in the defined Composer property `ComposerFieldHandler`, in the SellableItem index. | 480837 |
| Commerce Engine | Removed `CheckForNavChildren` code because it is no longer needed. This used to be required in earlier releases to look for the navigation template and clear those items. | 487086 |

| Area | Resolved Issues | ID |
|---|---|---|
| Commerce Engine | Cleaned up four catalog related templates that incorrectly referred to non-existing items. | 452329 |
| Engine SDK | Removed the `Stylelabs_PartnerPublic` nuget feed, which is not needed for this release. | 464260 |
| Engine SDK | Fixed the `update-proxy.ps1` in the Engine SDK ServiceProxy that did not work after updating the OData Connect Service. | 468642 |
| Engine SDK | Changed the default solr port value in the Commerce Engine SDK launchsettings to match with default XP deployment. | 484539 |
| Engine SDK | Fixed an issue where Postman sample GetApiRoutes call always returns empty collection | 457874 |
| Commerce Engine Connect | Fixed an issue where the `CommerceMemoryCacheStore` could not be configured. Changing Commerce-Connector-Memory cache parameters in configuration did not work because the `CachingConfigurator` incorrectly applied configuration values to the `MemoryCacheStoreOptions` object. | 475755 475492 |
| Commerce Engine Connect | Resolved an out-of-memory exception occurring in the `GetCatalogMappings` request when the mapping table contains a large number of mappings, for example over 3 million records. | 466181 466202 |
| Commerce Engine Connect | Fixed a dependency error that returns an older version of the `Sitecore.Commerce.Engine.Connect.dll` brings older version of `System.*.dll`. | 474354 |
| Commerce Connect | Resolved a race condition in `CommerceMemoryCacheStore` where a Read Lock instead of a Write Lock was applied. | 475480 475492 |
| Commerce Connect | Fixed a memory leak in `RegisterConnectEventModels`, where each time it was read it lead to rebuilding the model. | 476372 487129 |
| Commerce Connect | Resolved a missing item associated with the Product Synchronization feature; where a null or empty string was expected, it instead included… `{AC9EAEB7-5682-4245-AE38-F4B8393D494B}` | 474398 |
| Commerce Connect | Removed the following file because Azure search is no longer supported (as of XC10.1)… `Sitecore.Commerce.Products.Azure.DefaultIndexConfiguration.config.disabled` | 493689 |
| Storefront | Resolved the missing Country/Region data that did not get populated after adding an address to the Address book. | 277025 464757 |
| Storefront | Resolved the scenario where the Sitecore index `_templatename` field value can be wrong when a template override has been changed to a non-default value. | 459176 |
| Storefront | Fixed an "Unable to locate the product with id" error presented on the Storefront product detail page, which occurred when the product had been updated in the Business Tools and incremental indexing was in progress. "Unable to locate product error" appears on Storefront when the product is being incrementally updated | 469246 |
| Storefront | Fixed a PowerShell error that could occur upon deleting a Storefront site. | 475857 |
| Storefront | Fixed an issue where a visitor to a Storefront site could see another visitor's account details on shared computer or browser. | 476724 476726 |
| Storefront | Fixed the deletion of a Storefront site, where after deleting the site and republishing, the site continued to appear in the web database. | 477477 |

| Area | Resolved Issues | ID |
|---|---|---|
| Storefront | Fixed an issue where SXA Site Selector Rendering doesn't resolve site/URL properly when switch sites from a Commerce category page. | 500574 500408 |
| Business Tools | Fixed the edit end date action upon editing an existing promotion, which was not correctly validating the promotion end date. | 428127 |
| Business Tools | Fixed a missing display of the number of orders in the PendingOrders1 and PendingOrders2 columns. | 442749 |
| Business Tools | Fixed a label property that was missing when a RichText UI type was used. | 443932 |
| Business Tools | Resolved an issue where the translated text does not display in a scenario where the language is switched to the local language, and the `LocalizationEntities` cache is not generated correctly when the sellable item is still present in the SellableItems cache.<br>Note: this fix introduced a breaking change. See breaking changes section below. | 460421 460717 498475 |
| Business Tools | Resolved a missing required symbol `*` in the email field for adding a customer record; the email field is required but it did not correctly display as mandatory. | 469146 |
| Content Editor | Improved the consistency of template name and ID values displayed in the Sitecore Content Editor, to ensure values of categories and products match what is in the index. | 470756 411151 |
| Content Editor | Resolved an issue where the user was unable to delete the Commerce Catalog Folder Item in the Sitecore Content Editor. | 477045 477055 |
| Content Editor | Fixed a date/time reporting issue in the Sitecore Content Editor for created and updated sellable items. Sellable items were being incorrectly reported as 1/1/0001 and 12:00 AM. | 487151 488169 |
| Experience Editor | Resolved a "startIndex cannot be larger than length of string" exception thrown during export when using Creative Exchange from the Experience Editor. | 405263 |
| Experience Profile | Fixed a reporting issue in the Experience Profile related to removed and updated cart lines. Updated the following `CartController` methods with the optional parameters needed to gather the analytics data:<br>- `UpdateCartLineQuantity` – added optional parameters: productid, variantId<br>- `RemoveMinicartLine` – added optional parameters: `productId`, `productName`, `productPrice`<br>- `RemoveShoppingCartLine` - added optional parameters: `productId`, `productName` and `productPrice` | 480000 |
| Experience Analytics | Fixed an error where after an Azure Kubernetes deployment, the "Commerce" section in Experience Analytics did not display. | 476721 |
| Marketing Automation | Fixed a NullReferenceException that occurred in the marketing automation logs after creating a new order with a registered user. | 479680 |
| Marketing Automation | Fixed the incorrectly set Marketing Theme in Abandoned Cart and New Order Placed marketing automation campaigns. A raw value "85506484-7854-4b14-ab0c-dfc61ca65cc0" was displayed. | 479655 |
| Performance | Reduced the occurrence of thread starvation in the CommerceController, on system cold start. Removed synchronous calls over a-synchronous code in the Commerce Engine. | 451507 |
| Deployment | Fixed errors that occurred in Experience Platform logs during the installation of the Sitecore Experience Accelerator package. This was addressed by removing the SXA deployment from the Commerce instance of the Sitecore Installation Framework (SIF) | 374211 |

| Area | Resolved Issues | ID |
|------|-----------------|-----|
| | package and instead treating SXA and a Platform pre-requisite to the XC installation. See details in 473653 under Breaking Changes section. | |
| Deployment | Updated the `ingress-nginx/kustomization.yaml` to include `configuration.yaml`. In previous versions, an extra command was needed to deploy `configuration.yaml`. | 461065 |
| Deployment | Fixed an intermittent issue with MSQL-Init where the initiation failed and the deployed containers remained unhealthy; added restart on failure functionality. | 468180 |
| Deployment | Fixed mismatched `Deploy-Sitecore-Commerce.ps1` default settings, where the settings did not match the defaults set in the Experience Platform. | 473915 |
| Deployment | Resolved an incorrect version of PowerShell Extensions that was defined in the Docker `xc1-ca` environment configuration file. | 473918 |

## Removed and Obsoleted Code

| Area | Removed or Deprecated | ID |
|------|-----------------------|-----|
| Commerce Engine | Removed the Commerce Ops Service from all deployment configurations. The Ops service is not actually required; its removal reduces this deployment time and can save Azure hosting costs. | 395131 |
| Commerce Engine | Obsoleted support for in-memory cache in both the Commerce Engine and Commerce Engine Connect, due to replacement by new support for Redis Cluster (see IDs 477273 and 408368 above). The following are obsoleted:<br>`ClearDataStoreCaches`<br>`ClearDataStoreCachesCommand`<br>`ClearDataStoreCachesPipeline`<br>`ClearDataStoreCachesBlock`<br>`ClearCacheStore`<br>`ClearCacheStoreCommand`<br>`ClearCacheStorePipeline`<br>`ClearCacheStoreBlock` | 430466 |
| Commerce Engine | Obsoleted the `DeleteUpdatedItemsInIndexBlock` to avoid deleting index entries during incremental indexing. This has been replaced with `DeleteUpdatedItemsPreviousVersionBloc` and `DeleteUpdatedItemsDisassociationsBlock` | 469246 |

## Breaking Changes

| Area | Breaking Changes | ID |
|------|------------------|-----|
| Performance | The performance improvement… Reduce occurrence of thread starvation due to asynchronous methods being called… (see 427363 earlier in this document) introduces changes to many out-of-box conditions to implement `IAsyncCondition` with `EvaluateAsync` method, where asynchronous execution is needed.  RuleSet Rules now implement the `IAsyncRule` interface. | 427363 |

| Area | Breaking Changes | ID |
|---|---|---|
| Performance | The new optional wildcard matching for the SQL sharding policy… (see 485913 earlier in this document) is disabled by default when upgrading from an older XC release to XC10.2. Deployments will remain with Regex enabled if you do not change sections containing `Sitecore.Commerce.Plugin.SQL.ListShardingPolicy` and `Sitecore.Commerce.Plugin.SQL.EntityShardingPolicy`.<br>If enabling wildcard matching, then the array of values for `$values` property will need to change also, for example from `^Entity-Catalog.*?$` for Regex to `Entity-Catalog*` for Wildcard. | 485913 |
| Translations | The resolution of a translated text display error… (see 460421 earlier in this document) introduces the following change:<br>`"CacheName": "LocalizationEntities"` is no longer used.  Entries in the `LocalizationEntities` cache are now handled internally by the Commerce Engine to ensure that they have the same cache expiration as their related CommerceEntity. If you bootstrap the Commerce Engine with the `PlugIn.Caching.PolicySet-1.0.0.json` file still containing this entry, it will be ignored. | 460421 |
| Deployment | The procedure for deploying SXA in an XC deployment has changed  (see also 374211 earlier in this document).<br>The deployment of SXA has been removed from the Commerce installation, and instead installed as a Platform pre-requisite before installing Commerce packages. | 473653 |