



# Tridion Sites 10 Bootcamp Upgrade Unleashed

Ben Middleton

10 May 2023



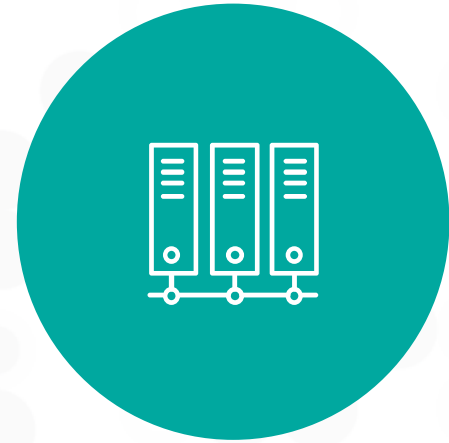
# Agenda



Support



OpenSearch

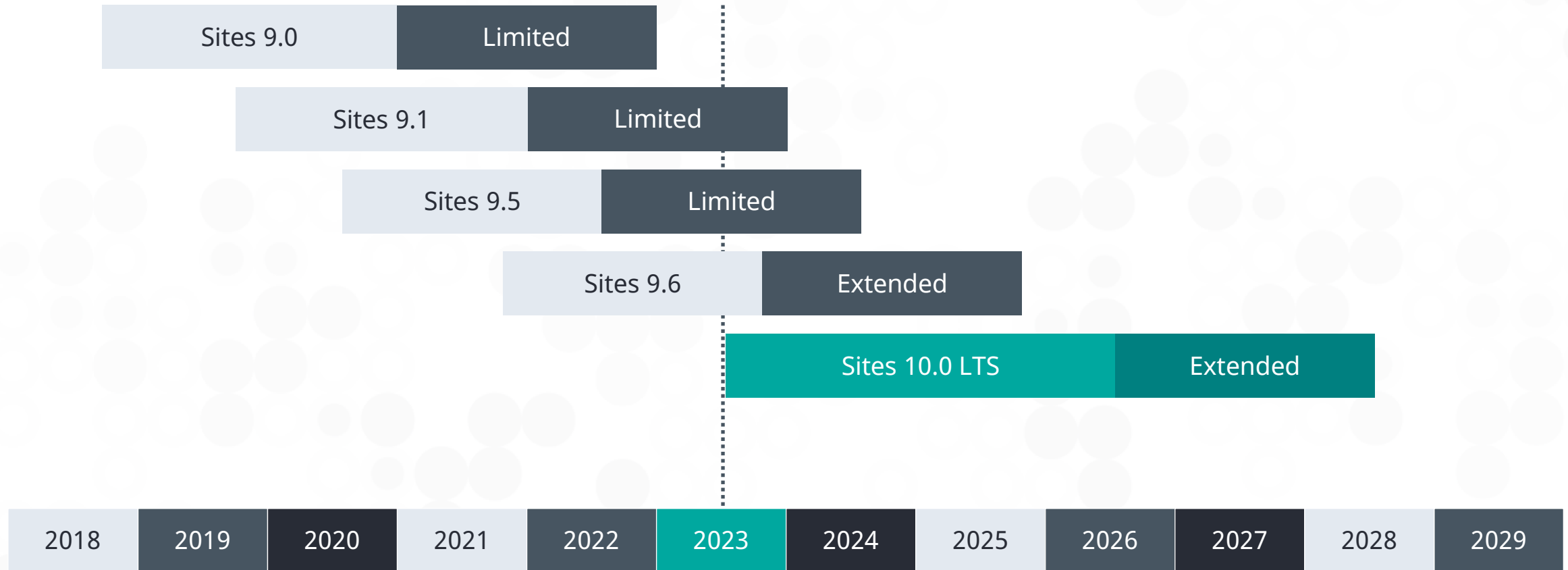


Platforms &  
Deprecations



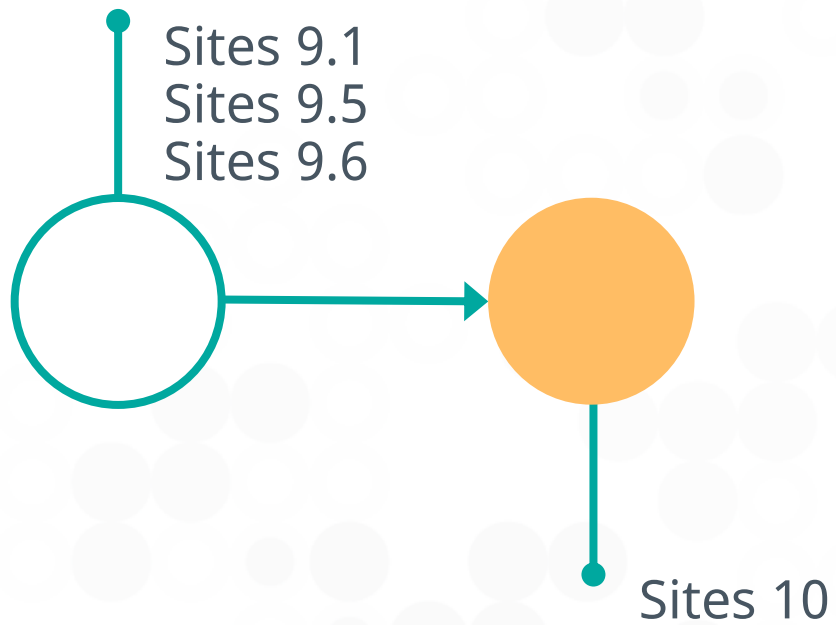
# Long Term Support

# Sites 10 Long Term Support (LTS)

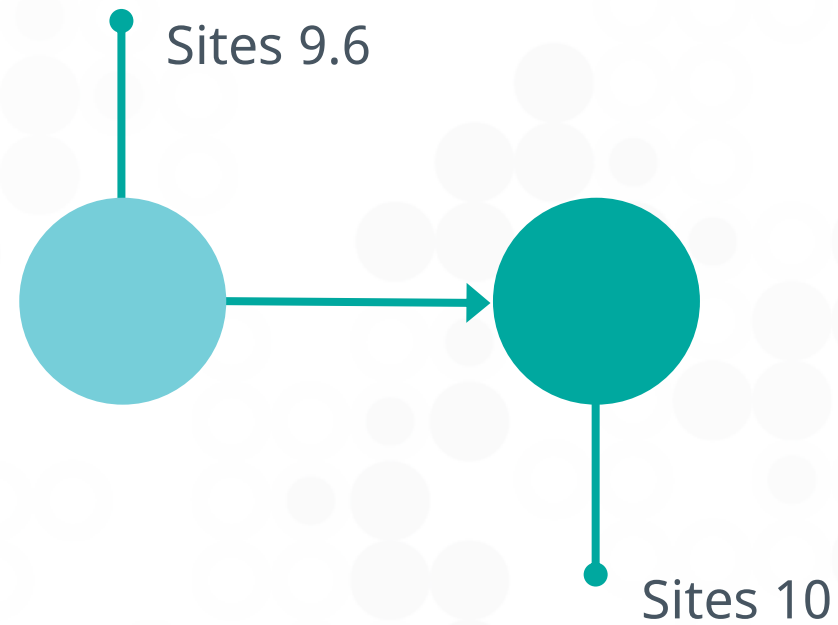




# Upgrade paths



**All at once /  
Staged**



**Rolling**



## RWS Stage 1 Veracode Security Policy

Static Application Security Testing (SAST)

Software Composition Analysis (SCA)

Penetration Testing (AppCheck)



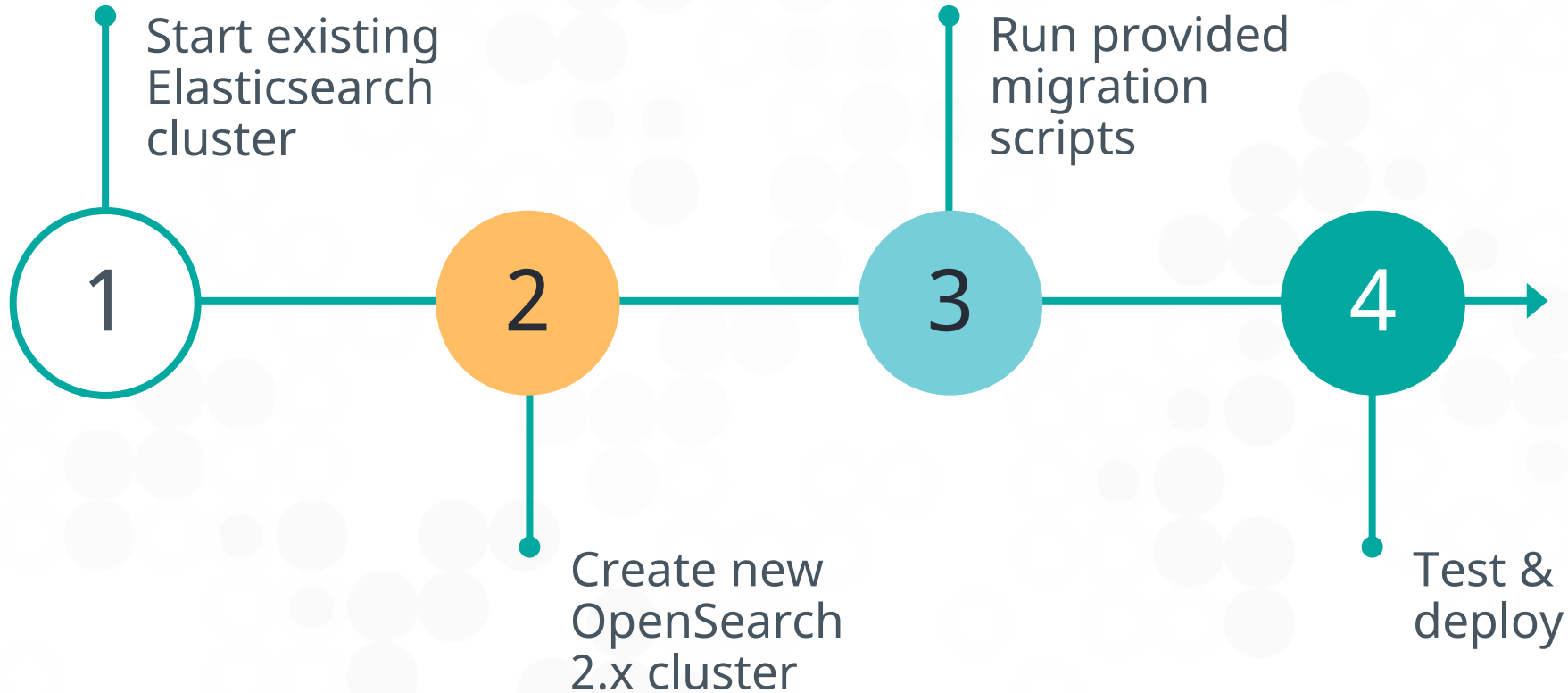
# OpenSearch

# OpenSearch

- Elastic changed the license on Elasticsearch, making it broadly incompatible with our customer's deployment requirements
- OpenSearch was forked from Elasticsearch 7.10 in 2021
- OpenSearch is Apache 2.0 licensed
- Many security features provided out-of-the-box
- Addition Machine Learning features available
- Sites 10.0 CD is supported against the latest OpenSearch 2.x release



# Elasticsearch > OpenSearch migration







# Platform support

# Platform Support – Database Systems

Platform	CM	CD
AWS RDS MSSQL 2017	*	*
AWS RDS MSSQL 2019	✓	✓
Microsoft Azure SQL Database	✓	✓
MS SQL Server 2017	X	X
MS SQL Server 2019	✓	✓
MS SQL Server 2022	✓	✓
Oracle Database 18c (18.3)	X	X
Oracle Database 19c (19.3)	✓	✓
Elasticsearch 7.10	X	X
OpenSearch 2.x		✓
Apache Ignite 2.15.0		✓

# Platform Support – Operating Systems

Platform	CM	CD
macOS Ventura (CME Browser OS)	✓	
Windows 8.1 (CME Browser OS)	X	
Windows 10 (CME Browser OS)	✓	
Windows 11 (CME Browser OS)	✓	
Windows Server 2016 (x64)	X	X
Windows Server 2019 (x64)	✓	✓
Windows Server 2022 (x64)	✓	✓
Red Hat Ent Linux 7 (latest minor)		X
Red Hat Ent Linux 8 (latest minor)		*
Red Hat Ent Linux 9 (latest minor)		✓

# Platform Support – Virtual Machines & Browsers

Platform	CM	CD
.NET Framework 4.8.x	✓	✓
.NET Core 6.0.x	✓	✓
Eclipse Temurin 11.0	X	X
Eclipse Temurin 17.0	✓	✓
Oracle JDK 11.0	X	X
Oracle JDK 17.0	✓	✓
Chrome	✓	
Firefox	✓	
Microsoft Internet Explorer 11 (CME/Add-on)	X	
Microsoft Edge	✓	
Safari	✓	

# Platform Support – Application Servers

Platform	CM	CD
Microsoft IIS 10.0	✓	✓
Apache Tomcat 8.5		*
Apache Tomcat 9.0		✓
IBM WebSphere 8.5.5.22 *		*
IBM WebSphere 9.0.5.12 (Liberty)		✓
JBoss EAP 7.4 (Update 8+)		*
Oracle WebLogic Server 12c R2 *		*
Oracle WebLogic Server 14c *		*

*\* These Web Application Servers do not support JDK17. However, the CD 11.6 Java CIL library is forward compatible with CD 12 services.*





# Deprecations

# Dropped functionality

Component	Deprecated	Dropped
Audience Manager	9.1	10.0
Cache Channel Service	9.1	10.0
Monitoring Service	9.1	10.0
Outbound e-mail	8.5	10.0
User Generated Content	9.1	10.0

# Deprecated functionality

Component	CM/CD	Deprecated
Ambient Data Framework (ADF)	CD	9.6
Content Interaction Libraries (CIL)	CD	10.0
Content Interaction Services (CIS)	CD	10.0
Context Service	CD	10.0
Contextual Image Delivery Service	CD	10.0
Filesystem Storage	CD	9.0
WebDAV	CM	10.0

# IQ Standalone Services

- Standalone IQ Index and IQ Query services have been removed
- We continue to provide the IQ Combined Service (which contains both capabilities)
- Customers still using IQ Query are encouraged to switch to the Content Service Search API instead
- Search API supports legacy Raw queries

Confidential and Copyright Statement © 2023 RWS Group (meaning all subsidiaries and affiliates under the RWS Holdings plc company).

All rights reserved. Unless explicitly stated otherwise, all intellectual property rights including those in copyright in the content of this documentation are owned by or controlled for these purposes by RWS Group. Except as otherwise expressly permitted hereunder or in accordance with copyright legislation, the content of this documentation may not be copied, reproduced, republished, downloaded, posted, broadcast or transmitted in any way without the express written permission of RWS Group. The information contained herein is deemed confidential and commercially sensitive and protected by under the laws of England and Wales. It may only be shared for the purposes disclosed and made available to personnel for the strict and sole purpose of reviewing the content contained herein. Any unauthorised distribution or use of the information will be deemed a breach of confidentiality laws and protected accordingly.

The Information contained related to the Product Roadmap and any associated statements and collateral received or delivered are intended to outline the current product direction and is for informational purposes only and cannot for part of any legal commitment between the parties. The Product Roadmap does not commit RWS Group to deliver any material, code or functionality and should not be relied upon. The development, release, timing of any feature or functionality remain the sole and exclusive direction of the RWS group. Any rights, warranties and representations are hereby expressly excluded.





[www.rws.com](http://www.rws.com)



# Tridion Sites 10 Bootcamp Semantic AI

Ben Middleton

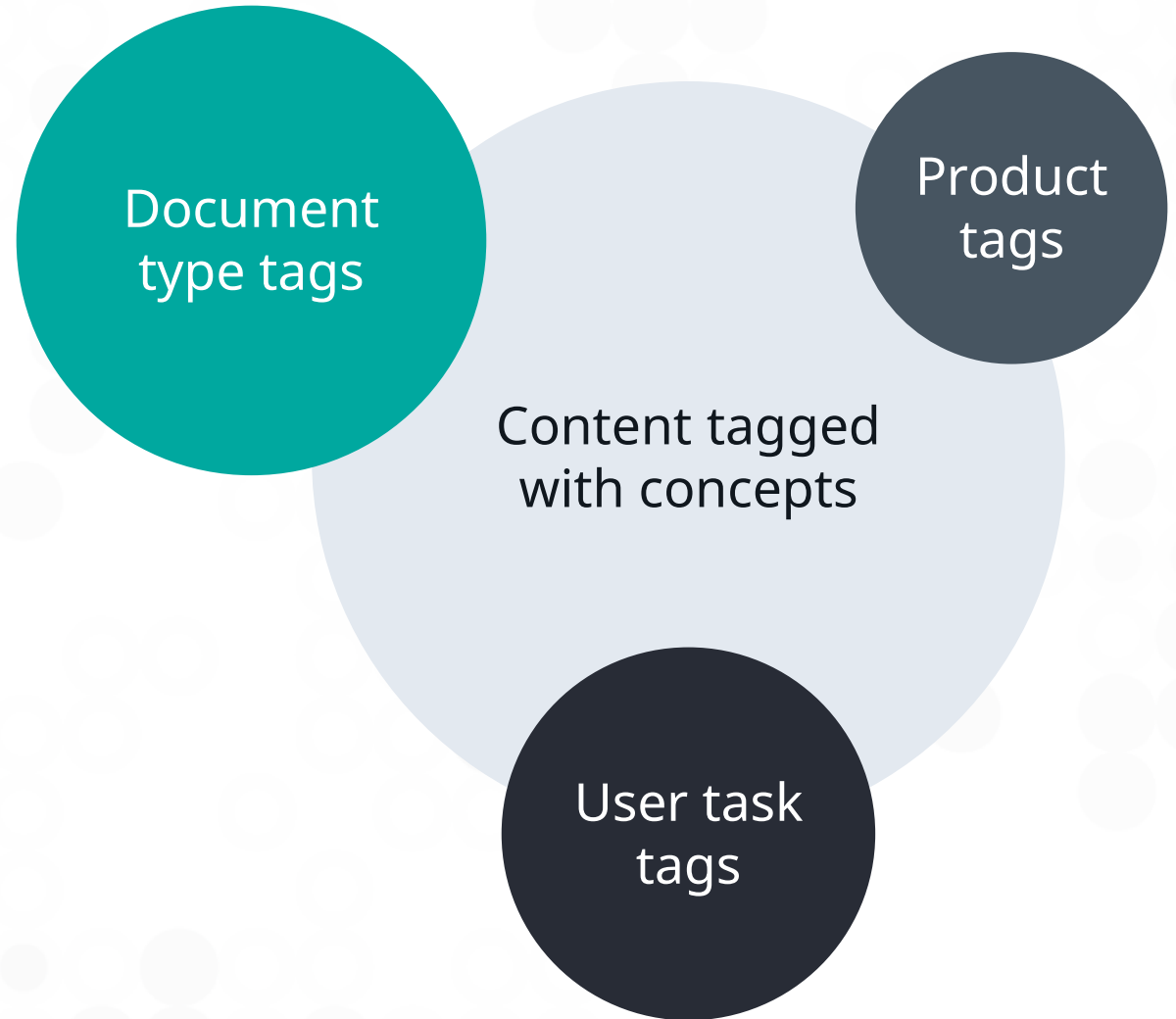
10 May 2023



# Revolutionizing search: Introducing our new Semantic AI Recommendation system

# Content Recommendations

*“Show me other content like this...”*



# Content Recommendations

- Extended Content search API to allow recommendations
- Existing document footprint can be used to drive the recommendations
- Reliable taxonomy-based recommendations (using PoolParty Semantic AI index)
- Concept schemes can be configured, and their relative weights boosted
- Full filtering of results using existing search criteria
- Combine Semantic Content Model in results



# Content Recommendations

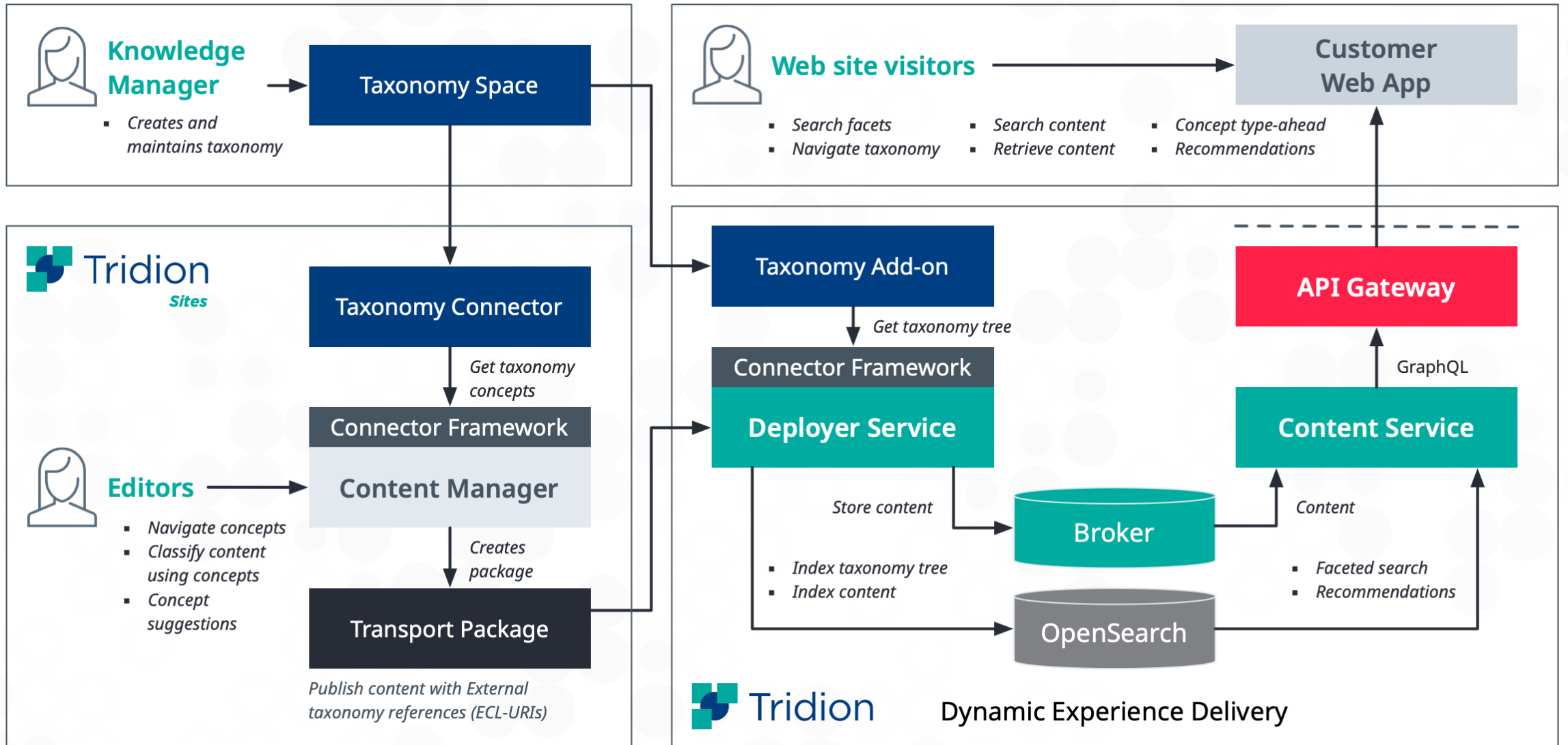
## REQUEST

```
{
  search(
    recommend: { id: "tcm_5-1962" }
    criteria: { field: { key: "namespace", value: "tcm" } }
  ) {
    results(first: 5) {
      hits
      edges {
        node {
          search {
            score
            id
            itemType
            rawLanguageTitle
            conceptSchemes {
              connectorId
              concepts {
                id
                label
              }
            }
          }
        }
      }
    }
  }
}
```

## RESPONSE

```
{
  "data": {
    "search": {
      "results": {
        "hits": 2,
        "edges": [
          {
            "node": {
              "search": {
                "score": 0.9186288,
                "id": "tcm_5-1984",
                "itemType": "component",
                "rawLanguageTitle": "Mudslide cocktail",
                "conceptSchemes": [
                  {
                    "connectorId": "ppingredients",
                    "concepts": [
                      {
                        "id": "e-learning-poolparty-biz_cocktails_7c4a2cfe-6750-419a-87d1-dcb4919ff92b",
                        "label": "Blackberry"
                      },
                      {
                        "id": "e-learning-poolparty-biz_cocktails_94cca1b4-3603-472b-9c78-6d6a43b6b4ca",
                        "label": "Tabasco sauce"
                      },
                      {
                        "id": "e-learning-poolparty-biz_cocktails_59ccd2fc-1807-45eb-8621-8d3e898e6d37",
                        "label": "Dark rum"
                      }
                    ]
                  },
                  {
                    "connectorId": "ppcocktails",
                    "concepts": [
                      {
                        "id": "e-learning-poolparty-biz_cocktailsii_a91e62df-cee0-4c41-a43b-63b3026e4193",
                        "label": "Mudslide"
                      }
                    ]
                  }
                ]
              }
            }
          }
        ]
      }
    }
  }
}
```

# Search Architecture



# Demonstration



Confidential and Copyright Statement © 2023 RWS Group (meaning all subsidiaries and affiliates under the RWS Holdings plc company).

All rights reserved. Unless explicitly stated otherwise, all intellectual property rights including those in copyright in the content of this documentation are owned by or controlled for these purposes by RWS Group. Except as otherwise expressly permitted hereunder or in accordance with copyright legislation, the content of this documentation may not be copied, reproduced, republished, downloaded, posted, broadcast or transmitted in any way without the express written permission of RWS Group. The information contained herein is deemed confidential and commercially sensitive and protected by under the laws of England and Wales. It may only be shared for the purposes disclosed and made available to personnel for the strict and sole purpose of reviewing the content contained herein. Any unauthorised distribution or use of the information will be deemed a breach of confidentiality laws and protected accordingly.

The Information contained related to the Product Roadmap and any associated statements and collateral received or delivered are intended to outline the current product direction and is for informational purposes only and cannot for part of any legal commitment between the parties. The Product Roadmap does not commit RWS Group to deliver any material, code or functionality and should not be relied upon. The development, release, timing of any feature or functionality remain the sole and exclusive direction of the RWS group. Any rights, warranties and representations are hereby expressly excluded.



[www.rws.com](http://www.rws.com)





# Tridion Sites 10 Bootcamp Product Evolution

Andriy Zhidko, Ben Middleton & Nataliia Napriienko

10 May 2023



# Content Delivery Performance Improvements



# The old Content Delivery cache

- Relies on hand-crafted cache memory management and configuration
  - Implements a complicated dependency-based invalidation strategy
  - Hard to monitor & debug
- Caused 19 hotfixes in 2021



# However



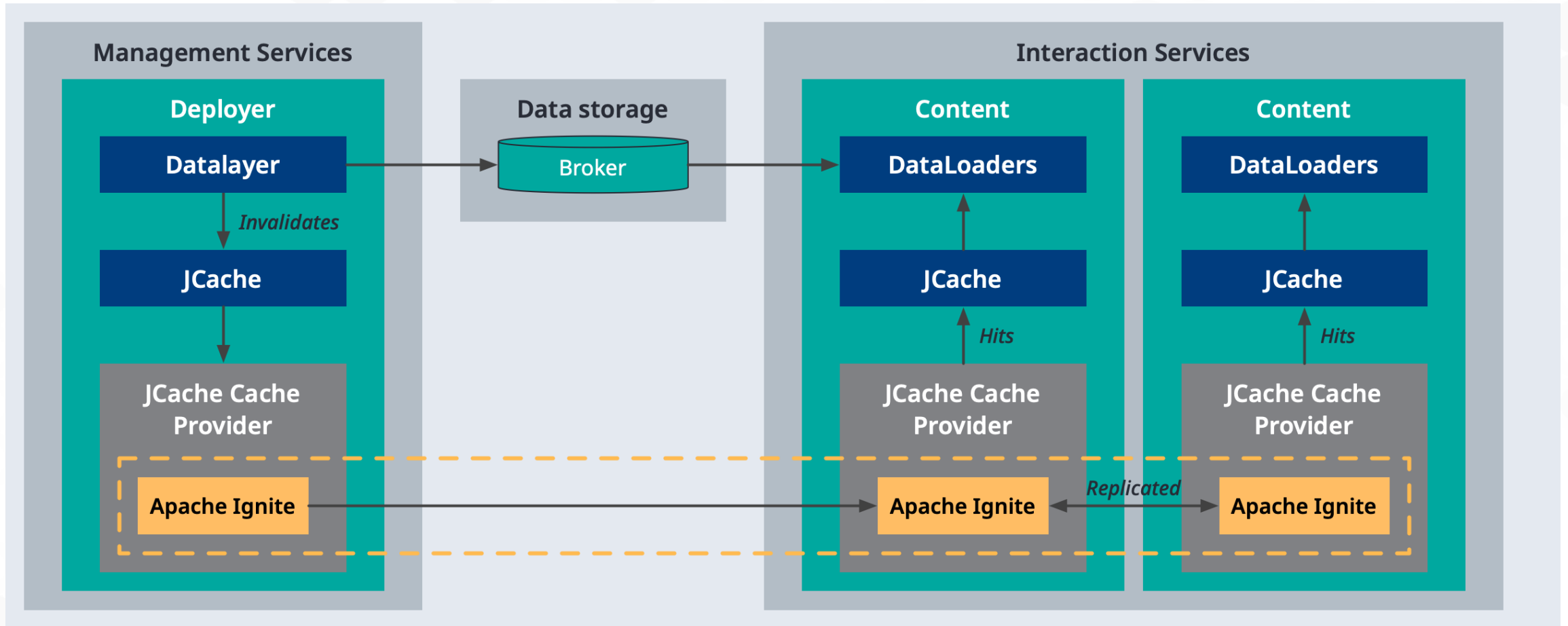
- Customers demand ever-greater performance from our delivery service
- The way we cache and invalidate entries is changing
- Improved scaling is key to these changes

# Introducing a new Content Delivery cache

- Standards-based (JCache)
- Simple, timestamp-based design, providing fast staleness check
- Relies on 3<sup>rd</sup> party cache provider to handle memory management, expiration and scaling
- Flexible deployment options - embedded (partitioned or replicated), distributed
- Updated database connection pool (HikariCP)



# Cache architecture



# Configuration

application.properties

```
# Cache configuration
spring.cache.type=jcache
spring.cache.jcache.provider=org.apache.ignite.cache.CachingProvider
spring.cache.jcache.config=${cacheconf:file:config/cache-conf.xml}

# Enable cache for entire service
cache.enabled=${cacheenabled:true}

# Enable or disable cache for specific cache in form:
#   cache.content.<cachename>.enabled
# where <cachename> can be one of the following:
#   BinaryComponent, BinaryContent, BinaryVariant,
#   Component, ComponentPresentation,
#   ComponentPresentationContent, ContentJsonByPath,
#   ContentParsedJson, ContentRawJson, CustomMeta,
#   Page, Publication, Schema, Taxonomy,
#   TaxonomyKeywords, TaxonomyList, Template,
#   EvictionBlocks
```

cache-conf.xml

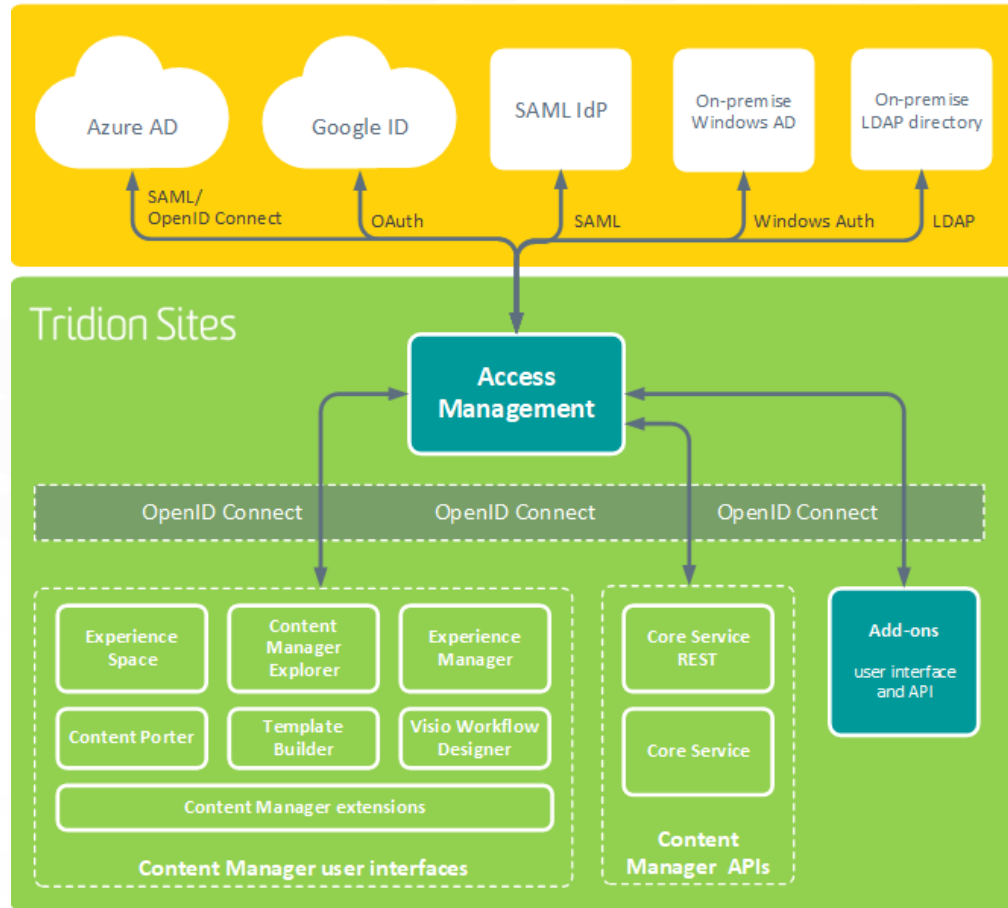
```
<property name="discoverySpi">
  <bean class="org.apache.ignite.spi.discovery.tcp.TcpDiscoverySpi">
    <property name="ipFinder">
      <bean
class="org.apache.ignite.spi.discovery.tcp.ipfinder.jdbc.TcpDiscoveryJdbcIpFinder">
        <property name="shared" value="true"/>
        <property name="initSchema" value="false"/>
        <property name="dataSource">
          <bean class="com.zaxxer.hikari.HikariDataSource">
            <property name="poolName" value="ignite-ipfinder-pool"/>
            <property name="maximumPoolSize" value="1"/>
            <property name="dataSourceClassName" value="${dbclass}"/>
            <property name="username" value="${dbuser}"/>
            <property name="password" value="${dbpassword}"/>
            <property name="dataSourceProperties">
              <bean
class="com.sdl.delivery.ignite.FilteredDataSourcePropertiesFactory">
                <property name="dbClass" value="${dbclass}"/>
                <property name="dataSourceProperties">
                  <props>
                    <prop key="serverName">${dbhost}</prop>
                    <prop key="portNumber">${dbport}</prop>
                    <prop key="databaseName">${dbname}</prop>
                    <prop key="driverType">thin</prop>
                    <prop key="serviceName">${dbname}</prop>
                    <prop key="user">${dbuser}</prop>
                    <prop key="password">${dbpassword}</prop>
                    <prop key="encrypt">${dbencrypt:false}</prop>
                  </props>
                </property>
              </bean>
            </property>
          </bean>
        </property>
      </bean>
    </property>
  </bean>
</property>
```



# Access Management: Custom applications and improvements



# Tridion Access Management



Tridion Access Management simplifies implementation of SSO by using a single authentication protocol OpenID Connect while still supporting use of various protocols by individual applications and services

# Access Management is required component

- Access Management becomes mandatory component to be installed for Experience Space, due to security improvement by introducing Backend for Front End API
- Direct Windows authentication is not supported with Experience Space anymore, instead you can use Windows authentication by configuring Windows Identity Provider in Access Management
- Dropping support for legacy authentication configurations: **SAML, SSO SiteMinder, SSO Tivoli**
  - Migrate SAML configuration to Access Management as Identity Provider
  - SSO can also be migrated if it supports SAML or OpenID Connect



# Windows identity provider where Access Management is installed as a Windows service

- Before Sites 10 you needed to install Access Management in IIS in order to use Windows authentication
- Sites 10 supports using a Windows Identity provider where Access Management is installed as a Windows service

# Support custom applications in Access Management

- Register custom application and service accounts

The screenshot shows the 'Register application' dialog box. It contains the following fields and options:

- \* Client ID:** A unique identifier for your custom application, as coded in the application code. After registering the application you can no longer change the ID. The value entered is 'CustomApplication'.
- \* Name:** The display name of your custom application. The value entered is 'Custom Application'.
- \* Allowed authentication flow type:** The supported authentication flow of your custom application that determines how the tokens are requested and returned to the client. The dropdown menu is set to 'AuthorizationCodeWithPkce'.
- \* Allowed redirect URLs:** Application URLs that can return a user to the application following user authentication. Define at least one redirect url. The text box contains 'https://custom\_application/ui/signin-oidc'.
- + Add another URL:** A button to add more redirect URLs.

At the bottom right, there are 'Save' and 'Cancel' buttons.

The screenshot shows the 'Add service account' dialog box. It contains the following fields and options:

- \* Client ID:** A unique identifier for the service account. Use this ID also in your application code. After saving the service account, you can no longer change the ID. The value entered is 'dd16a21e-8bc6-4c66-a82f-5d13bee2bc77'.
- \* Name:** The display name of the service account. The value entered is 'Service Account for Custom Application'.
- \* Services and roles:** Select the APIs and roles this service account can access. The list includes:
  - Access Management API
  - Add-ons API
  - Tridion Sites G
  - Global Service
  - Service AccountUnder each category, there are checkboxes for roles: Administrator, Read-only, and Service. The 'Administrator' role for 'Tridion Sites Content Manager API' is checked.

At the bottom right, there are 'Save' and 'Cancel' buttons.

- Provides the client library to be used in custom application
  - Supports applications with Net 6.0 backend
  - Use to authenticate users in custom application to leverage same SSO experience as for Tridion Sites applications

# Demonstration



# Automatic signing keys management

- **Before Sites 10** you needed to configure and rotate a signing certificate in Access Management's appsettings.json file

```
"Certificates": {  
  "Signing": {  
    "Path": "Certificates/TridionAccessManagementService.pfx",  
    "Password": "*****"  
  },  
  "Validation": [  
    {  
      "Path": "Certificates/TridionAccessManagementServiceNew.pfx",  
      "Password": "*****"  
    }  
  ]  
},
```

- **Sites 10** release adds automatic key management
  - Automatic rotation of keys
  - Announcement of upcoming new keys
  - Maintenance of retired keys
- SAML-based identity provider still requires configuring the certificate, however, is used only to communicate with external SAML IdP and is *not* used to sign a token

```
..  
"Certificates": {  
  "Signing": {  
    "Path": "Certificates/TridionAccessManagementService.pfx",  
    "Password": "*****"  
  }  
},
```

# Predefined, bootstrapped data

- Ability to quickly and consistently set up Access Management using a bootstrapping mechanism and bootstrap files
- Bootstrap files are JSON files containing predefined data for the environment, including definitions of applications, roles, and service accounts
- Support custom bootstrap files, you can add predefined data to Access Management for the following entities:
  - Identity providers
  - Custom applications
  - Custom API resources and roles
  - Custom service account

```
"Bootstrap": {  
  "Modules": "AccessManagement, AddonService, SitesCM, Custom"  
}
```

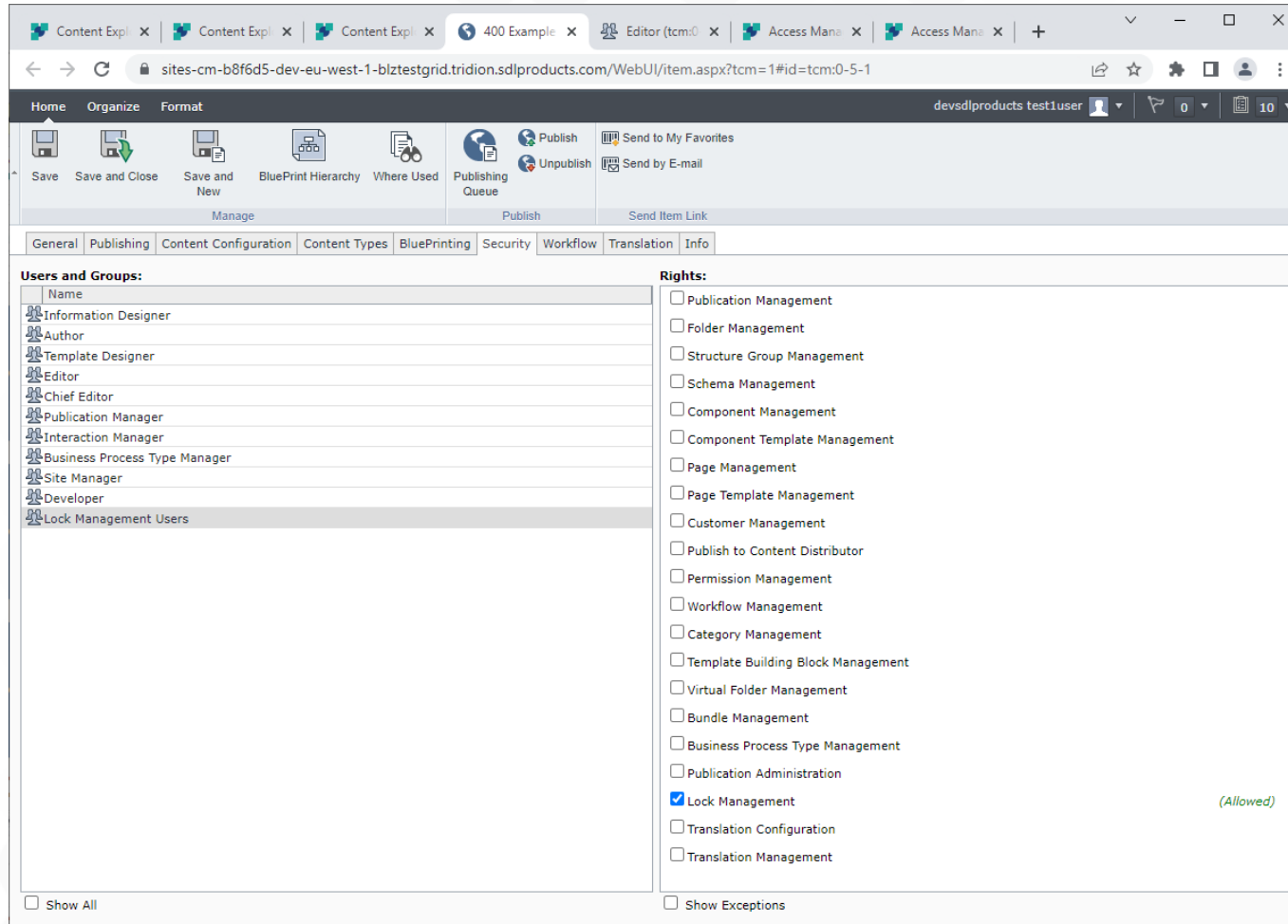
Default configuration (don't change)

Custom configuration



# Content Manager: Lock management right

# Lock management right



- Resolving locks on items that are locked or and checked out by another user without being a System Administrator

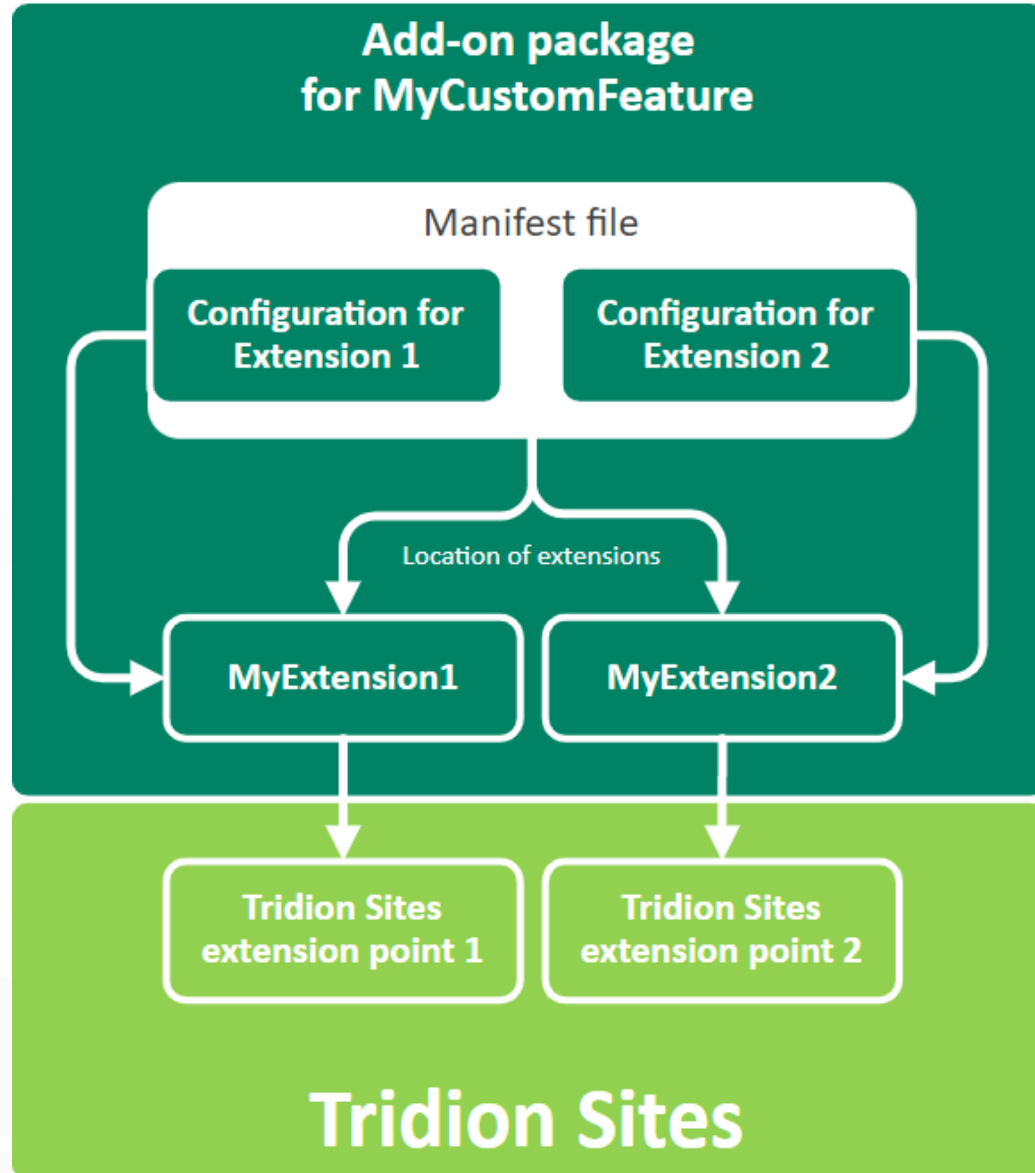




# Add-ons: Usability and auditing improvements



# Tridion Add-on Management



Various Add-ons, Extensions and Connectors are available for Tridion Sites, which can be used to extend product functionality or integrate it with other systems. You can also develop your own custom Extensions and Connectors and add them to your implementation using the Add-ons feature.

# Add-ons: improving usability and auditing

- Store auditing data
  - Upload/Update add-ons or configuration
- Capability to enable/disable Add-on
  - Usability

The screenshot shows the 'Add-ons' management interface. At the top, a green banner reads 'Add-ons' and 'The quickest and easiest way to extend Tridion Sites'. Below this, there are tabs for 'Manage' and 'Find and Develop'. The main section is titled 'Add-ons 6' and includes a '+ Upload Add-on Package' button and a 'Refresh' button. A table lists the installed add-ons with columns for Name, Version, Status, Configuration, Author, Uploaded By, and Uploaded. The table contains six entries, with the first three marked as 'Success' and the last three as 'Pending activation'.

<input type="checkbox"/>	NAME	VERSION	STATUS	CONFIGURATION	AUTHOR	UPLOADED BY	UPLOADED	
<input type="checkbox"/>	deployer-xo 2	12.0.0-stable	Success	Optional	RWS Group	N/A	Mar 16, 2023 9:25 PM	>
<input type="checkbox"/>	context-extension 1	12.0.0-stable	Success	Optional	RWS Group	N/A	Mar 16, 2023 9:26 PM	>
<input type="checkbox"/>	connector-framework-extension 1	12.0.0-stable	Success	Optional	RWS Group	N/A	Mar 16, 2023 9:26 PM	>
<input type="checkbox"/>	udp-content-session-extension 1	12.0.0-stable	Pending activation	Mar 17, 2023 11:29 AM	RWS Group	N/A	Mar 16, 2023 9:26 PM	>
<input type="checkbox"/>	xo-content-extension 1	12.0.0-stable	Pending activation	Optional	RWS Group	AMSLDAP\MMouse	Mar 17, 2023 11:34 AM	>
<input type="checkbox"/>	dxa-model-extension 1	12.0.0-stable	Pending activation	Optional	RWS Group	AMSLDAP\MMouse	Mar 17, 2023 11:34 AM	>

# Extension point for Experience Space

```
{
  "manifestVersion": "1.0",
  "id": "example-extension",
  "name": "example-extension",
  "description": "Example Extension",
  "version": "1.0.0",
  "author": "My Company",
  "extensions": [
    {
      "name": "example-extension",
      "type": "ExperienceSpaceExtension",
      "properties": {
        "files": [
          "extension.js",
          "navigation\\public\\*.css",
          "navigation\\public\\*.js",
          "navigation\\public\\dashboard.html",
          "public\\*.css",
          "public\\*.js",
          "public\\dashboard.html", "s"
        ]
      }
    }
  ]
}
```

New extension point for Experience Space in Add-on Service

Files parameter supports wildcards, for example "extensionFiles/\*.js" - to mention all JS files in the extensionFiles folder.

# Demonstration



# CoreService.REST updates



# CoreService.REST API delta

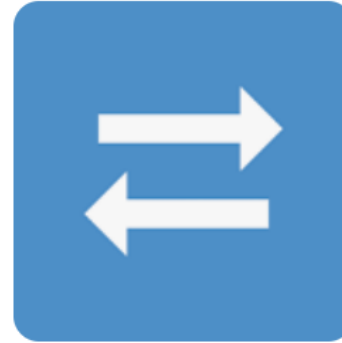
New/Changed/Deleted	Controller	Method/Property	Description
NEW	Binaries	POST /v{api-version}/items/{escapedFolderId}/upload	Uploads a single binary file and creates a multimedia component.
NEW	BatchOperations	POST /v2.0/batch/startActivity	Starts a batch of activities.
NEW	BatchOperations	POST /v2.0/batch/finishActivity	Finishes a batch of activities.
NEW	BatchOperations	POST /v2.0/batch/restartActivity	Restarts a batch of activities.
NEW	BatchOperations	POST /v2.0/batch/reassignActivity	Reassigns a batch of activities.
NEW	Lists	GET /v2.0/lockedItems	Gets a list of locked items (either versioned items or organizational items).
NEW	Lists	GET /v2.0/users	Gets a list of Users.
NEW	Lists	GET /v2.0/groups	Gets a list of Groups.
NEW	OrganizationalItems	GET /v2.0/items/{escapedOrgItemId}/itemsPage/{pageIndex}	Gets a paged list of child items of a specified organizational item.
CHANGED	Search	GET /v{api-version}/items/search changed to GET /v2.0/system/search	Searches the system for a specified text string.
NEW	Settings	GET /v2.0/userSettings	Gets user settings for authenticated user
NEW	Settings	PUT /v2.0/userSettings	Saves user settings for authenticated user
NEW	Settings	DELETE /v2.0/userSettings	Deletes user settings for authenticated user
NEW	Settings	GET /v2.0/applicationSettings	Gets application settings for specified application Id
NEW	Settings	PUT /v2.0/applicationSettings	Saves application settings with specified application Id
NEW	Settings	DELETE /v2.0/applicationSettings	Deletes application settings for specified application Id
NEW	Workflow	GET /v2.0/activityInstances	Gets a list of Activity Instances.
NEW	Workflow	POST /v2.0/items/{escapedActivityInstanceId}/restartActivity	Restarts an automated Activity Instance which is in Failed state.
NEW	Workflow	POST /v2.0/items/{escapedActivityInstanceId}/reassignActivity	Reassigns a Workflow Activity to another User or Group.

# Deprecated methods


Method	Controller	Description	Notes
GET /v2.0/items/{escapedItemId}/appData	ApplicationData	Gets application data for all applications related to a specified item.	Replaced with GET /v2.0/applicationSettings
GET /v2.0/extensions	Extensions	Gets a list of Experience Space extensions	We do not see use cases for customers to use this method. It will be moved to the internal API next release
GET /v2.0/checkedOutItems	Lists	Gets a list of items that are checked out.	Replaced with a new method GET /v2.0/lockedItems



# CORS support for CoreService.REST

Cross-origin resource sharing (CORS) is a **standard mechanism that allows JavaScript XMLHttpRequest (XHR) calls executed in a web page to interact with resources from non-origin domains**. CORS is a commonly implemented solution to the same-origin policy that is enforced by all browsers.




- Dashboards
- Content creation
  - Jira
  - Confluence
  - Custom apps like blogs
- Bots

 In Progress 2 months ago [More](#)


  
+3  


### Tridion Core Service REST API - CORS Support

Ability to use Tridion Core Service API to use with Javascript Clients

 API

[Create Jira Ticket](#)

 Rajesh Saminathan



# Demonstration

Confidential and Copyright Statement © 2023 RWS Group (meaning all subsidiaries and affiliates under the RWS Holdings plc company).

All rights reserved. Unless explicitly stated otherwise, all intellectual property rights including those in copyright in the content of this documentation are owned by or controlled for these purposes by RWS Group. Except as otherwise expressly permitted hereunder or in accordance with copyright legislation, the content of this documentation may not be copied, reproduced, republished, downloaded, posted, broadcast or transmitted in any way without the express written permission of RWS Group. The information contained herein is deemed confidential and commercially sensitive and protected by under the laws of England and Wales. It may only be shared for the purposes disclosed and made available to personnel for the strict and sole purpose of reviewing the content contained herein. Any unauthorised distribution or use of the information will be deemed a breach of confidentiality laws and protected accordingly.

The Information contained related to the Product Roadmap and any associated statements and collateral received or delivered are intended to outline the current product direction and is for informational purposes only and cannot for part of any legal commitment between the parties. The Product Roadmap does not commit RWS Group to deliver any material, code or functionality and should not be relied upon. The development, release, timing of any feature or functionality remain the sole and exclusive direction of the RWS group. Any rights, warranties and representations are hereby expressly excluded.



[www.rws.com](http://www.rws.com)







# Tridion Sites 10 Bootcamp What's new in Experience Space

Nataliia Napriienko, Nick Hill, & Mihai Papasima

10 May 2023





# User interface security

# Experience Space security improvement

- Introduced Backend For Frontend API (BFF)
  - Access token management are handled by BFF instead of front end
  - BFF creates security Sessions and only provides a Security Session Identifier to the user interface (stored in a cookie)
- BFF provides security benefits
  - No secure or sensitive data is stored on the user interface (browser)
  - It also applies to requests for images and other binaries
  - There is less data to transmit from frontend to backend for each request



# Tag Suggestions Improvements



# Tag suggestions improvement

- Suggest tags are now supported on organizational items metadata

The screenshot shows the Tridion Sites editor interface. The browser address bar indicates the URL: `sites-cm-b8f6d5-dev-eu-west-1-blztestgrid.tridion.sdlproducts.com/ui/editor/page?activeItem=tcm:5-744-64&item=tcm:5-744-64&tab=general.metad...`. The page title is "Demo News (tcm:5-744-64)\*". The left sidebar shows a "Demo News" item. The main content area displays the "General" tab for the "Demo News" item. The "Name" field is "Demo News", the "File name" is "DemoNews.html", and the "Page template" is "Default Page Template". The "Page schema" is set to "Select schema...". The "Constraints" tab is active, showing the "Metadata" section. The "Description" field contains the text: "IBA official cocktails are divided into three categories: unforgettables, contemporary classics, and new era drinks." The "Tags" section shows three tags: "IBA official cocktails", "Contemporary Classics", and "New Era Drinks". A notification message at the bottom right states: "We updated one or more fields with suggestions for tags to classify 'Demo News'. Review the suggestions, and change as needed."

Access Management x Demo News (tcm:5-744-64)\* +

Tridion Sites Content Activities devsdproducts test1user

Finish page Last saved 4 days ago

Demo News 0

Demo News

General 1 History Blueprint Where used Published to View on site Translation Information

Name \* Demo News

File name \* DemoNews .html

Page template \* Default Page Template

☐ Inherit from parent

Page schema Select schema...

Constraints Metadata 1

Description

IBA official cocktails are divided into three categories: unforgettables, contemporary classics, and new era drinks.

Tags IBA official cocktails Contemporary Classics New Era Drinks Suggestions updated

We updated one or more fields with suggestions for tags to classify "Demo News". Review the suggestions, and change as needed.

# Demonstration





# Workflow Support

# Activities View

Tridion Sites

Content

Activities 1

devsdproducts test1user

Workflow Activities

Filters

Assigned to

Sort by: (None)

ACTIVITY DEFINITION	DATE ASSIGNED	ASSIGNED TO	PUBLICATION	PERFORMER	PRIMARY ITEM	DATE STARTED	STATUS
<input type="checkbox"/> Assign to Proc...	5/9/2023 5:52...	Tridion Sites C...	200 Example C...		<a href="#">Compone...</a>		WAITING
<input type="checkbox"/> Assign to Proc...	5/8/2023 11:4...	Tridion Sites C...	200 Example C...	Tridion Sites C...	<a href="#">Compone...</a>	5/8/2023 11:4...	FAILED
<input type="checkbox"/> Perform Task	5/8/2023 11:4...	devsdproduct...	200 Example C...	devsdproduct...	<a href="#">Compone...</a>	5/8/2023 11:4...	COMPLETED
<input type="checkbox"/> Perform Task	5/8/2023 8:11...	Tridion Sites C...	200 Example C...				ASSIGNED
<input checked="" type="checkbox"/> Perform Task	5/5/2023 9:49...	devsdproduct...	200 Example C...	devsdproduct...	<a href="#">Compone...</a>	5/5/2023 9:49...	COMPLETED
<input type="checkbox"/> Perform Task	5/5/2023 9:49...	devsdproduct...	200 Example C...	devsdproduct...	<a href="#">Compone...</a>	5/5/2023 9:49...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:48...	devsdproduct...	200 Example C...	devsdproduct...	<a href="#">Compone...</a>	5/5/2023 9:48...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:27...	devsdproduct...	200 Example C...	devsdproduct...	<a href="#">Page 4</a>	5/5/2023 9:27...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:27...	devsdproduct...	200 Example C...	devsdproduct...	<a href="#">Page 3</a>	5/5/2023 9:27...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:26...	devsdproduct...	200 Example C...	devsdproduct...	<a href="#">Page 2</a>	5/5/2023 9:26...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:26...	devsdproduct...	200 Example C...	devsdproduct...	<a href="#">Page 1</a>	5/5/2023 9:26...	IN PROGRESS

1. Perform Task

Information

URI  
tcm:4-13-131104

Activity definition  
Perform Task

Description  
Perform the specified task.

Publication  
[200 Example Content](#)

Status  
COMPLETED

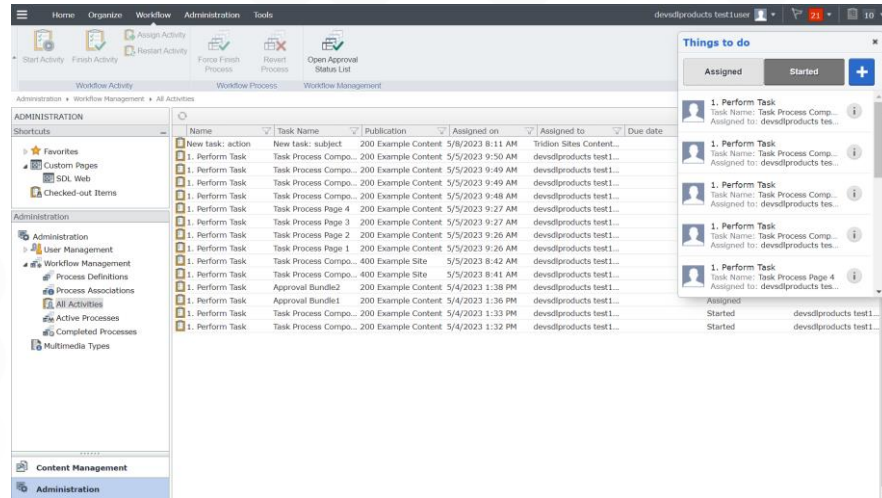
Assigned to  
[devsdproducts test1user](#)

Date assigned  
5/5/2023 9:49 AM

Performer  
[devsdproducts test1user](#)

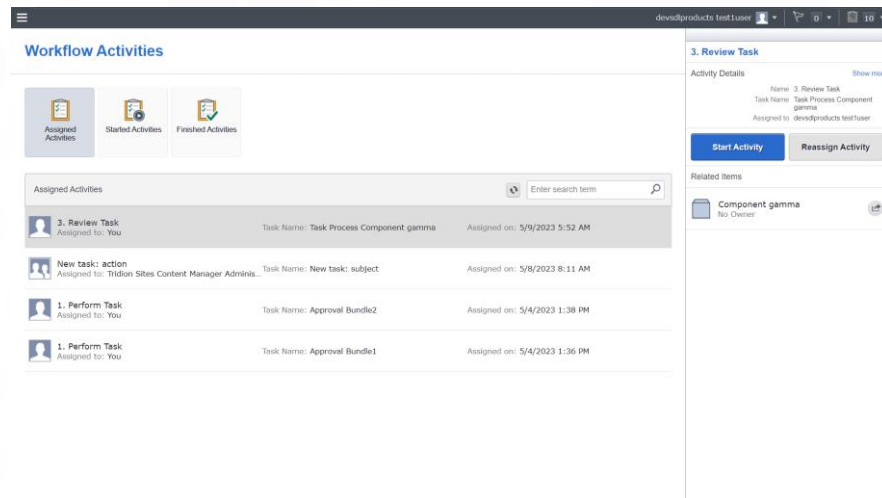
Date started

# Activities View



## Features

- **Single list**
- Updated terminology
- Insights panels provide better context
- Batch action support
- Extensibility
- Unobtrusive 'new activity' notification



# Activities View

The screenshot displays the 'Activities View' in Tridion Sites. The top navigation bar includes 'Tridion Sites', 'Content', and 'Activities'. The main area shows a table of workflow activities. The table has columns: ACTIVITY DEFINITION, DATE ASSIGNED, ASSIGNED TO, PUBLICATION, PERFORMER, PRIMARY ITEM, DATE STARTED, and STATUS. The activities are listed with checkboxes, dates, user names, publication names, performer names, primary item names, dates, and status labels (WAITING, FAILED, COMPLETED, ASSIGNED, IN PROGRESS). A sidebar on the right shows details for the selected activity '1. Perform Task', including its URI, activity definition, description, publication, status, assigned to, date assigned, performer, and date started.

ACTIVITY DEFINITION	DATE ASSIGNED	ASSIGNED TO	PUBLICATION	PERFORMER	PRIMARY ITEM	DATE STARTED	STATUS
<input type="checkbox"/> Assign to Proc...	5/9/2023 5:52...	Tridion Sites C...	200 Example C...		Compone...		WAITING
<input type="checkbox"/> Assign to Proc...	5/8/2023 11:4...	Tridion Sites C...	200 Example C...	Tridion Sites C...	Compone...	5/8/2023 11:4...	FAILED
<input type="checkbox"/> Perform Task	5/8/2023 11:4...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/8/2023 11:4...	COMPLETED
<input type="checkbox"/> Perform Task	5/8/2023 8:11...	Tridion Sites C...	200 Example C...				ASSIGNED
<input checked="" type="checkbox"/> Perform Task	5/5/2023 9:49...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:49...	COMPLETED
<input type="checkbox"/> Perform Task	5/5/2023 9:49...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:49...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:48...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:48...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:27...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 4	5/5/2023 9:27...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:27...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 3	5/5/2023 9:27...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:26...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 2	5/5/2023 9:26...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:26...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 1	5/5/2023 9:26...	IN PROGRESS

1. Perform Task

Information

URI  
tcm:4-13-131104

Activity definition  
Perform Task

Description  
Perform the specified task.

Publication  
200 Example Content

Status  
COMPLETED

Assigned to  
devsdlproducts test1user

Date assigned  
5/5/2023 9:49 AM

Performer  
devsdlproducts test1user

Date started

## Features

- **Single list**
  - Updated terminology
  - Insights panels provide better context
  - Batch action support
  - Extensibility
  - Unobtrusive 'new activity' notification
- 
- Editors only see 'their' activities
  - Admins/workflow managers see all activities
  - Can be changed via request configurator



# Activities View

Workflow Activities

Filters: Assigned to

Sort by: (None)

ACTIVITY DEFINITION	DATE ASSIGNED	ASSIGNED TO	PUBLICATION	PERFORMER	PRIMARY ITEM	DATE STARTED	STATUS
<input type="checkbox"/> Assign to Proc...	5/9/2023 5:52...	Tridion Sites C...	200 Example C...		Compone...		WAITING
<input type="checkbox"/> Assign to Proc...	5/8/2023 11:4...	Tridion Sites C...	200 Example C...	Tridion Sites C...	Compone...	5/8/2023 11:4...	FAILED
<input type="checkbox"/> Perform Task	5/8/2023 11:4...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/8/2023 11:4...	COMPLETED
<input type="checkbox"/> Perform Task	5/8/2023 8:11...	Tridion Sites C...	200 Example C...				ASSIGNED
<input checked="" type="checkbox"/> Perform Task	5/5/2023 9:49...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:49...	COMPLETED
<input type="checkbox"/> Perform Task	5/5/2023 9:49...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:49...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:48...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:48...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:27...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 4	5/5/2023 9:27...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:27...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 3	5/5/2023 9:27...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:26...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 2	5/5/2023 9:26...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:26...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 1	5/5/2023 9:26...	IN PROGRESS

1. Perform Task

Information

URI  
tcm:4-13-131104

Activity definition  
Perform Task

Description  
Perform the specified task.

Publication  
200 Example Content

Status  
COMPLETED

Assigned to  
devsdlproducts test1user

Date assigned  
5/5/2023 9:49 AM

Performer  
devsdlproducts test1user

Date started

## Features

- Single list
  - Updated terminology
  - Insights panels provide better context
  - Batch action support
  - Extensibility
  - Unobtrusive 'new activity' notification
- 
- Task name (Classic UI) → Process
    - Process definition
    - Primary item
  - Consolidated owner and performer into single property (Performer)
  - Distinctive colors help identify activity state



# Activities View

Workflow Activities

Filters: Assigned to

Sort by: (None)

ACTIVITY DEFINITION	DATE ASSIGNED	ASSIGNED TO	PUBLICATION	PERFORMER	PRIMARY ITEM	DATE STARTED	STATUS
<input type="checkbox"/> Assign to Proc...	5/9/2023 5:52...	Tridion Sites C...	200 Example C...		Compone...		WAITING
<input type="checkbox"/> Assign to Proc...	5/8/2023 11:4...	Tridion Sites C...	200 Example C...	Tridion Sites C...	Compone...	5/8/2023 11:4...	FAILED
<input type="checkbox"/> Perform Task	5/8/2023 11:4...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/8/2023 11:4...	COMPLETED
<input type="checkbox"/> Perform Task	5/8/2023 8:11...	Tridion Sites C...	200 Example C...				ASSIGNED
<input checked="" type="checkbox"/> Perform Task	5/5/2023 9:49...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:49...	COMPLETED
<input type="checkbox"/> Perform Task	5/5/2023 9:49...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:49...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:48...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:48...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:27...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 4	5/5/2023 9:27...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:27...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 3	5/5/2023 9:27...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:26...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 2	5/5/2023 9:26...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:26...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 1	5/5/2023 9:26...	IN PROGRESS

1. Perform Task

Information

URI  
tcm:4-13-131104

Activity definition  
Perform Task

Description  
Perform the specified task.

Publication  
200 Example Content

Status  
COMPLETED

Assigned to  
devsdlproducts test1user

Date assigned  
5/5/2023 9:49 AM

Performer  
devsdlproducts test1user

Date started

## Features

- Single list
- Updated terminology
- Insights panels provide better context
- Batch action support
- Extensibility
- Unobtrusive 'new activity' notification

- Information panel  
general info about selected activity
- Related items panel  
lists the item(s) the activity is associated with
- Process history panel  
shows selected activity in the context of the other activities for the corresponding process

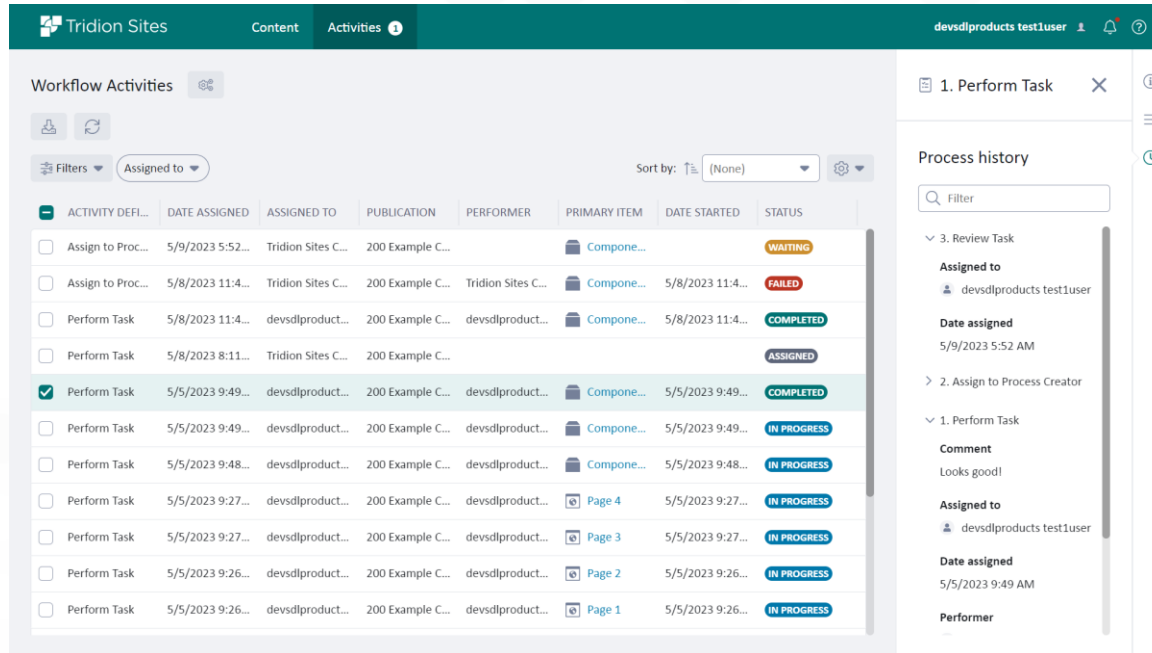
# Activities View

The screenshot displays the 'Activities View' in Tridion Sites. The main area shows a table of workflow activities. The table has columns: ACTIVITY DEFINITION, DATE ASSIGNED, ASSIGNED TO, PUBLICATION, PERFORMER, PRIMARY ITEM, DATE STARTED, and STATUS. The activities are listed with checkboxes, dates, user names, publication names, performer names, primary item names, start dates, and status indicators (e.g., IN PROGRESS, ASSIGNED). A sidebar on the right shows details for the selected activity '1. Perform Task', including a list of related items like 'Approval Bundle2', 'Component D', 'Component C', and 'Page B'.

## Features

- Single list
  - Updated terminology
  - Insights panels provide better context
  - Batch action support
  - Extensibility
  - Unobtrusive 'new activity' notification
- 
- Information panel
    - general info about selected activity
  - Related items panel
    - lists the item(s) the activity is associated with
  - Process history panel
    - shows selected activity in the context of the other activities for the corresponding process

# Activities View



ACTIVITY DEFINITION	DATE ASSIGNED	ASSIGNED TO	PUBLICATION	PERFORMER	PRIMARY ITEM	DATE STARTED	STATUS
<input type="checkbox"/> Assign to Proc...	5/9/2023 5:52...	Tridion Sites C...	200 Example C...		Compone...		WAITING
<input type="checkbox"/> Assign to Proc...	5/8/2023 11:4...	Tridion Sites C...	200 Example C...	Tridion Sites C...	Compone...	5/8/2023 11:4...	FAILED
<input type="checkbox"/> Perform Task	5/8/2023 11:4...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/8/2023 11:4...	COMPLETED
<input type="checkbox"/> Perform Task	5/8/2023 8:11...	Tridion Sites C...	200 Example C...				ASSIGNED
<input checked="" type="checkbox"/> Perform Task	5/5/2023 9:49...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:49...	COMPLETED
<input type="checkbox"/> Perform Task	5/5/2023 9:49...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:49...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:48...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:48...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:27...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 4	5/5/2023 9:27...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:27...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 3	5/5/2023 9:27...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:26...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 2	5/5/2023 9:26...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:26...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 1	5/5/2023 9:26...	IN PROGRESS

### 1. Perform Task

Process history

Filter

3. Review Task

Assigned to  
devsdlproducts test1user

Date assigned  
5/9/2023 5:52 AM

2. Assign to Process Creator

1. Perform Task

Comment  
Looks good!

Assigned to  
devsdlproducts test1user

Date assigned  
5/5/2023 9:49 AM

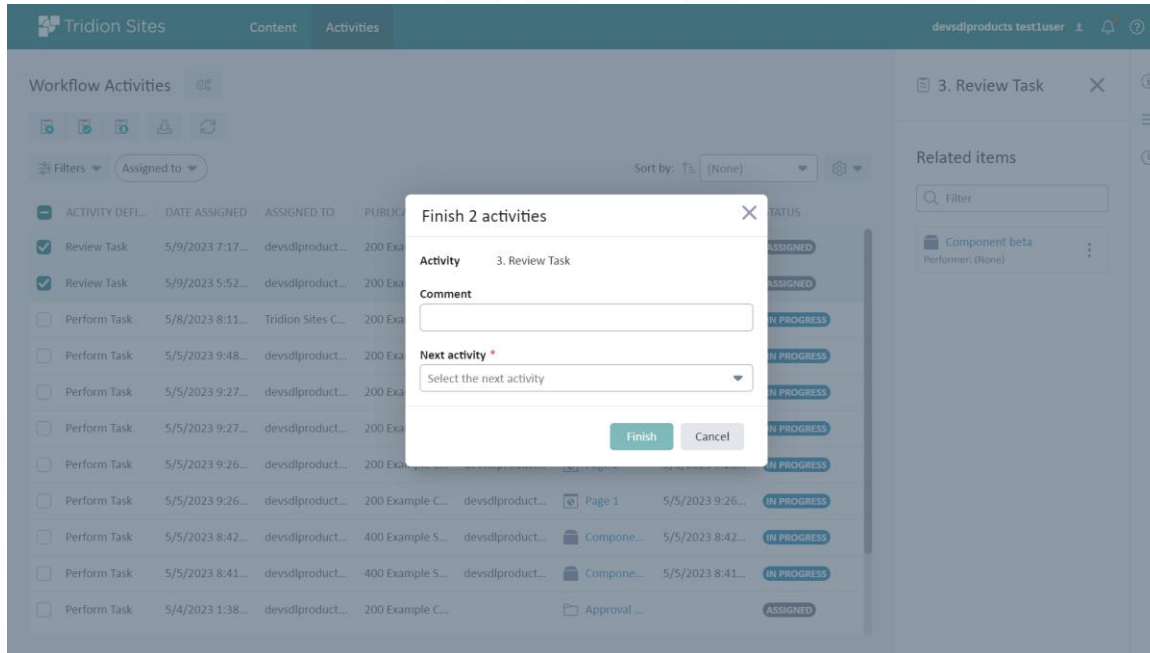
Performer

## Features

- Single list
- Updated terminology
- Insights panels provide better context
- Batch action support
- Extensibility
- Unobtrusive 'new activity' notification

- Information panel  
general info about selected activity
- Related items panel  
lists the item(s) the activity is associated with
- Process history panel  
shows selected activity in the context of the other activities for the corresponding process

# Activities View



## Features

- Single list
- Updated terminology
- Insights panels provide better context
- **Batch action support**
- Extensibility
- Unobtrusive 'new activity' notification

- Supported actions
  - Start
  - Finish
  - Assign
  - Restart
- Batch support for all actions
  - Batch actions are not available to editors in Classic UI

# Activities View

The screenshot displays the 'Workflow Activities' section of the Tridion Sites interface. The table lists various tasks, including 'Review Task', 'Assign to Proc...', and 'Perform Task'. The 'Assign to Proc...' activity is highlighted, showing its status as 'FAILED'. The sidebar on the right provides detailed information for the selected activity, including its URI, activity definition, description, publication, status, assigned to, date assigned, and performer.

ACTIVITY DEFINITION	DATE ASSIGNED	ASSIGNED TO	PUBLICATION	PERFORMER	PRIMARY ITEM	DATE STARTED	STATUS
<input type="checkbox"/> Review Task	5/9/2023 7:17...	devsdlproduct...	200 Example C...		Compone...		ASSIGNED
<input checked="" type="checkbox"/> Assign to Proc...	5/9/2023 7:15...	Tridion Sites C...	200 Example C...	Tridion Sites C...	Compone...	5/9/2023 7:15...	FAILED
<input type="checkbox"/> Review Task	5/9/2023 5:52...	devsdlproduct...	200 Example C...		Compone...		ASSIGNED
<input type="checkbox"/> Assign to Proc...	5/8/2023 11:4...	Tridion Sites C...	200 Example C...	Tridion Sites C...	Compone...	5/8/2023 11:4...	FAILED
<input type="checkbox"/> Perform Task	5/8/2023 8:11...	Tridion Sites C...	200 Example C...	devsdlproduct...		5/9/2023 7:17...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:48...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:48...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:27...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 4	5/5/2023 9:27...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:27...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 3	5/5/2023 9:27...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:26...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 2	5/5/2023 9:26...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:26...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 1	5/5/2023 9:26...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 8:42...	devsdlproduct...	400 Example S...	devsdlproduct...	Compone...	5/5/2023 8:42...	IN PROGRESS

**Information**

URI  
tcm:4-27-131104

**Activity definition**  
Assign to Process Creator

**Description**  
Task was finished and it will be sent to the process creator.

**Publication**  
200 Example Content

**Status**  
FAILED

**Assigned to**  
Tridion Sites Content Manager  
System NT Authority User

**Date assigned**  
5/9/2023 7:15 AM

**Performer**  
Tridion Sites Content Manager

## Features

- Single list
  - Updated terminology
  - Insights panels provide better context
  - Batch action support
  - **Extensibility**
  - Unobtrusive 'new activity' notification
- 
- Custom actions
    - action buttons
    - context menu items
  - Custom columns (user configurable)
  - Activities view menu item can be hidden

# Activities View

The screenshot displays the 'Activities View' in Tridion Sites. The main area shows a list of workflow activities. The table has the following columns: ACTIVITY DEFINITION, DATE ASSIGNED, ASSIGNED TO, PUBLICATION, PERFORMER, PRIMARY ITEM, DATE STARTED, and STATUS. The activities are sorted by 'None'. The selected activity is '1. Perform Task', which is shown in detail in the right sidebar. The sidebar includes sections for Information (URI, Activity definition, Description, Publication, Status, Assigned to, Date assigned, Performer, Date started).

ACTIVITY DEFINITION	DATE ASSIGNED	ASSIGNED TO	PUBLICATION	PERFORMER	PRIMARY ITEM	DATE STARTED	STATUS
<input type="checkbox"/> Assign to Proc...	5/9/2023 5:52...	Tridion Sites C...	200 Example C...		Compone...		WAITING
<input type="checkbox"/> Assign to Proc...	5/8/2023 11:4...	Tridion Sites C...	200 Example C...	Tridion Sites C...	Compone...	5/8/2023 11:4...	FAILED
<input type="checkbox"/> Perform Task	5/8/2023 11:4...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/8/2023 11:4...	COMPLETED
<input type="checkbox"/> Perform Task	5/8/2023 8:11...	Tridion Sites C...	200 Example C...				ASSIGNED
<input checked="" type="checkbox"/> Perform Task	5/5/2023 9:49...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:49...	COMPLETED
<input type="checkbox"/> Perform Task	5/5/2023 9:49...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:49...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:48...	devsdlproduct...	200 Example C...	devsdlproduct...	Compone...	5/5/2023 9:48...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:27...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 4	5/5/2023 9:27...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:27...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 3	5/5/2023 9:27...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:26...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 2	5/5/2023 9:26...	IN PROGRESS
<input type="checkbox"/> Perform Task	5/5/2023 9:26...	devsdlproduct...	200 Example C...	devsdlproduct...	Page 1	5/5/2023 9:26...	IN PROGRESS

**1. Perform Task**

**Information**

**URI**  
tcm:4-13-131104

**Activity definition**  
Perform Task

**Description**  
Perform the specified task.

**Publication**  
200 Example Content

**Status**  
COMPLETED

**Assigned to**  
devsdlproducts test1user

**Date assigned**  
5/5/2023 9:49 AM

**Performer**  
devsdlproducts test1user

**Date started**

## Features

- Single list
  - Updated terminology
  - Insights panels provide better context
  - Batch action support
  - Extensibility
  - Unobtrusive 'new activity' notification
- Counter shows number of newly assigned activities since list was last viewed.



# Data Loading & Caching



# Background loading

The Classic UI and previous versions of Experience Space store item data on the client in a central repository.

When a user modifies an item, or we receive an updated version of an item in a list request, we do our best to keep this repository up to date.

But over time, the data in the client becomes desynchronized, e.g., changes to parent items are not propagated to shared children.

In Tridion Sites 10.0, we've migrated 'Explorer' functionality from a central store approach (React Redux) to an approach where each component is responsible for its own data (React Query).

# Background loading

The screenshot displays the Tridion Sites Content Manager interface. The top navigation bar includes 'Tridion Sites', 'Content', and 'Activities'. The user is logged in as 'devsdlproducts test1user'. The left sidebar shows a tree view of the content structure, with '500 Items - B' selected under '400 Example Site' > 'Building Blocks' > 'Bootcamp'. The main area shows a list of items within '500 Items - B', including 'Copy 10 of ...' through 'Copy 18 of ...'. The right sidebar provides detailed information for the selected folder, including its URI, name, type, location, and creation/modification dates.

**Content Manager**

Filter publications

- > 200 Example Content
- > 300 slddemo content en-us
- > 400 Example Site
  - > Building Blocks
    - > Bootcamp
      - > 10 Items
      - > 100 Items - A
      - > 100 Items - B
      - > 500 Items - A
      - 500 Items - B**
      - > Workflow Test Cont...
    - > Content
    - > Default Templates
    - > Framework
    - > Modules

**500 Items - B**

Search 500 Items - B

+ Add new

Filters Schema Shared from

Status Type

Sort by: (None)

NAME	STATUS	SCHEMA	SHARED FROM	DATE MODIFIED
Copy 10 of ...		Bootstrap Confi...	200 Example Co...	5/5/2023 12:09...
Copy 11 of ...		Bootstrap Confi...	200 Example Co...	5/5/2023 12:09...
Copy 12 of ...		Bootstrap Confi...	200 Example Co...	5/5/2023 12:09...
Copy 13 of ...		Bootstrap Confi...	200 Example Co...	5/5/2023 12:09...
Copy 14 of ...		Bootstrap Confi...	200 Example Co...	5/5/2023 12:09...
Copy 15 of ...		Bootstrap Confi...	200 Example Co...	5/5/2023 12:09...
Copy 16 of ...		Bootstrap Confi...	200 Example Co...	5/5/2023 12:09...
Copy 17 of ...		Bootstrap Confi...	200 Example Co...	5/5/2023 12:09...
Copy 18 of ...		Bootstrap Confi...	200 Example Co...	5/5/2023 12:09...

**Information**

**URI**  
tcm:5-191-2

**Name**  
500 Items - B

**Type**  
Folder

**Location**  
\400 Example Site\Building Blocks\Bootcamp

**Date created**  
5/5/2023 12:09 PM

**Date modified**  
5/5/2023 12:10 PM

**Publish status**  
Not published

**Shared from**

Publications > 400 Example Site > Building Blocks > Bootcamp > 500 Items - B

# Demonstration

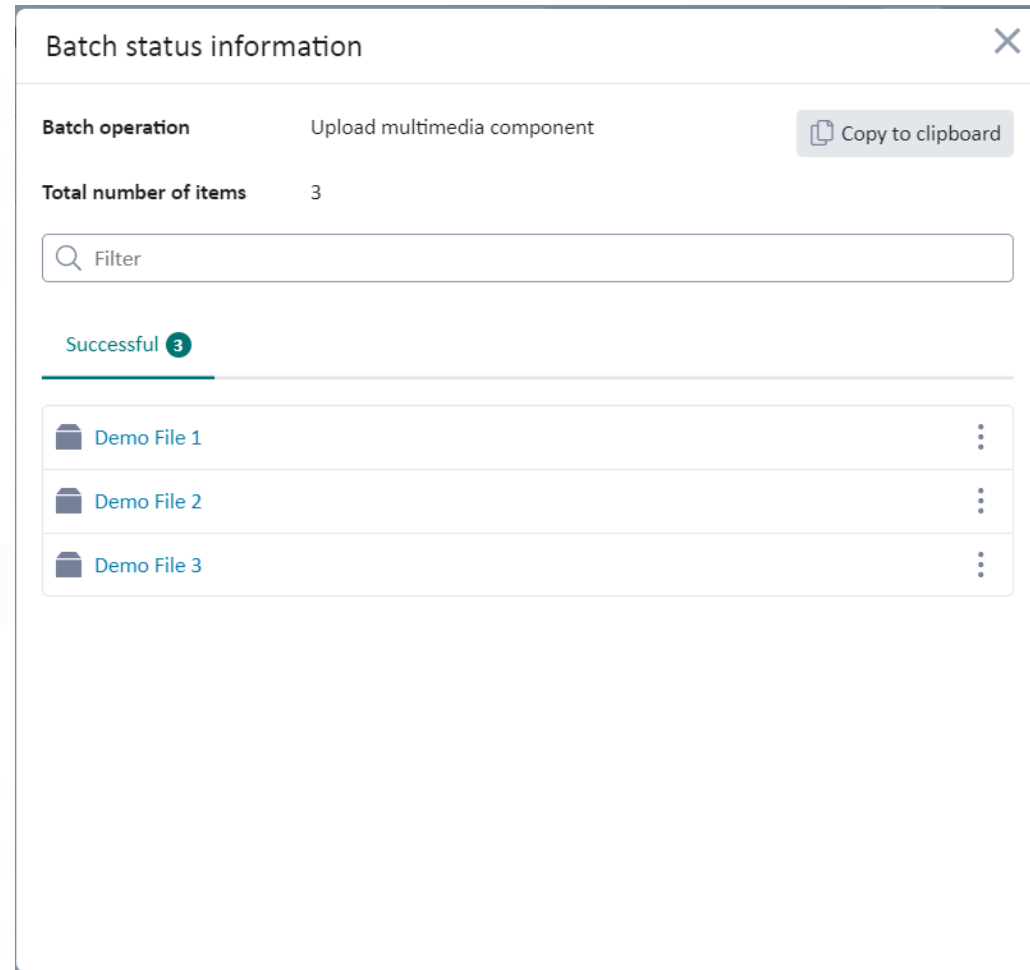
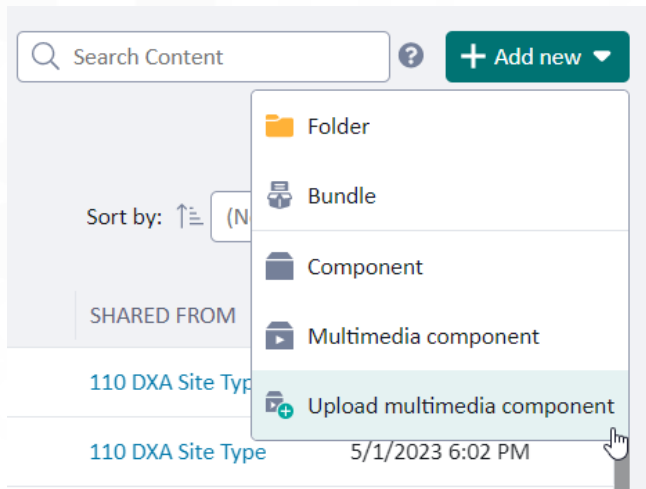




# Multiple file Upload

# Multiple file Upload

- Deprecated WebDav
- Queuing mechanism
- Batch report





# Configurable Lists

# Configurable Lists

- Column Configurator
- Added additional columns
- Filtering
- Sorting
- Activities

The screenshot displays the Tridion Configurable Lists interface. At the top, there are filter buttons: 'Filters', 'Modified by', 'Schema', 'Shared from', and 'Status'. Below these are 'Type' and 'URI' dropdowns. To the right, a 'Sort by' dropdown is set to '(None)'. A table lists folders with columns 'NAME' and 'DATE CREATED'. A dropdown menu is open on the right, showing a search bar and checkboxes for 'Approval status', 'Date created' (which is checked), 'Date modified', 'Locale', and 'Locked by'.

<input type="checkbox"/>	NAME	DATE CREATED
<input type="checkbox"/>	Bootcamp	5/4/2023 1:09 PM
<input type="checkbox"/>	Bootcamp Mihai	5/9/2023 2:18 PM
<input type="checkbox"/>	Content	5/1/2023 6:00 PM
<input type="checkbox"/>	Default Templates	5/1/2023 6:00 PM
<input type="checkbox"/>	Framework	5/1/2023 6:00 PM
<input type="checkbox"/>	Modules	5/1/2023 6:00 PM
<input type="checkbox"/>	Modules Content	5/1/2023 6:00 PM
<input type="checkbox"/>	Schemas	5/9/2023 12:12 PM
<input type="checkbox"/>	Settings	5/1/2023 6:00 PM
<input type="checkbox"/>	Stubs	5/8/2023 12:35 PM





# UX Improvements

# Data request configurator

- Items in progress
- Activities View

Items in progress preferences

User scope

☐ Show only my items in progress

☒ Show items in progress by all users

Maximum number of items

500

Confirm

Cancel

Workflow activity preferences

User scope

☐ Show only my activities

☒ Show activities for all users

Included activity states

☒ Assigned

☒ In progress

☐ Completed

☒ Waiting for workflow agent

☒ Failed

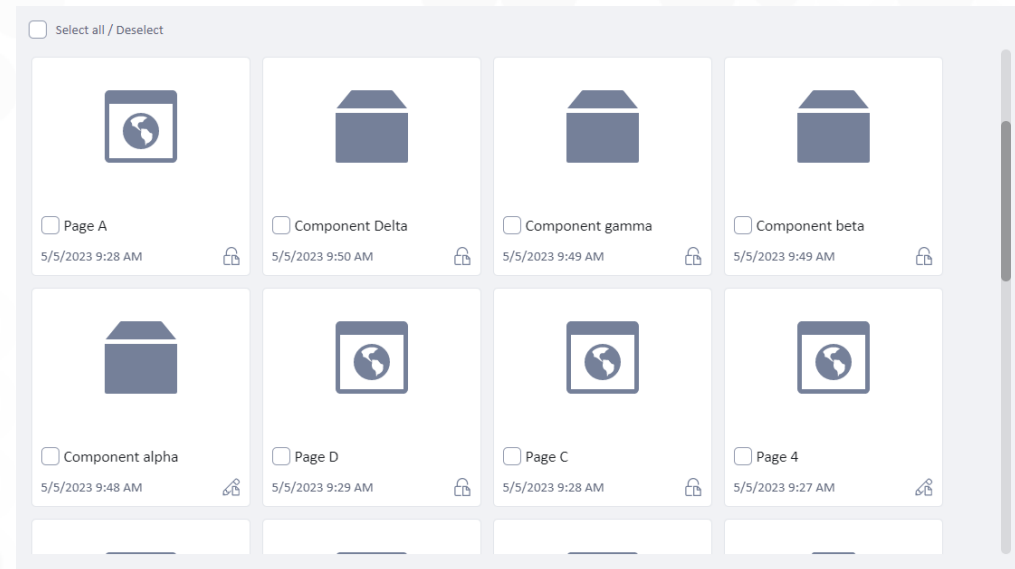
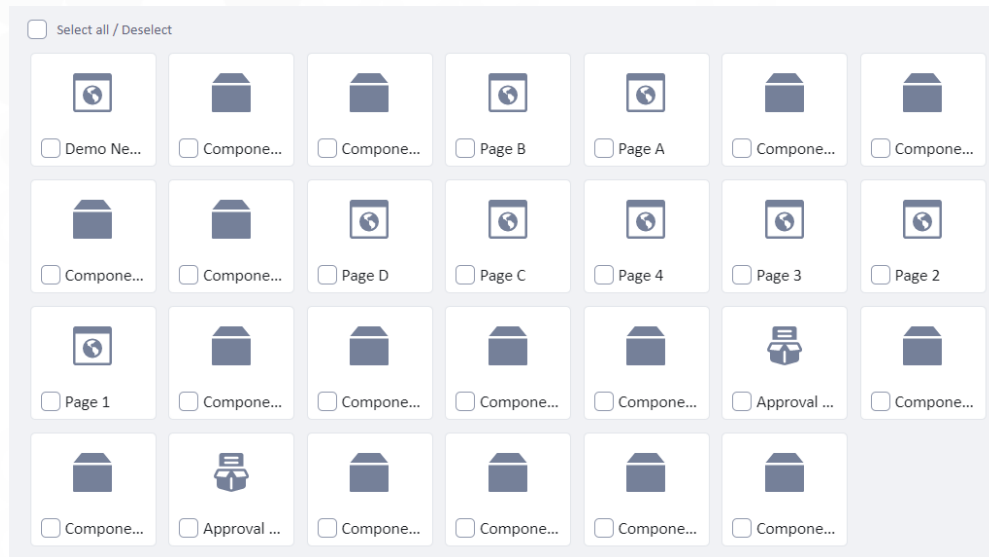
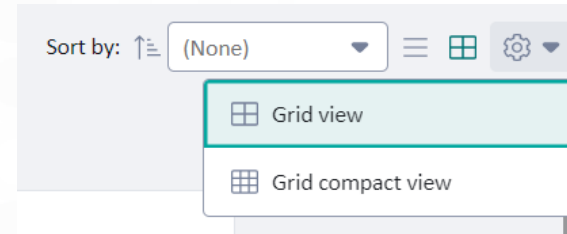
☒ Suspended

Confirm

Cancel

# Thumbnail view in explorer

- Grid View
- Grid Compact View



# Demonstration



Confidential and Copyright Statement © 2023 RWS Group (meaning all subsidiaries and affiliates under the RWS Holdings plc company).

All rights reserved. Unless explicitly stated otherwise, all intellectual property rights including those in copyright in the content of this documentation are owned by or controlled for these purposes by RWS Group. Except as otherwise expressly permitted hereunder or in accordance with copyright legislation, the content of this documentation may not be copied, reproduced, republished, downloaded, posted, broadcast or transmitted in any way without the express written permission of RWS Group. The information contained herein is deemed confidential and commercially sensitive and protected by under the laws of England and Wales. It may only be shared for the purposes disclosed and made available to personnel for the strict and sole purpose of reviewing the content contained herein. Any unauthorised distribution or use of the information will be deemed a breach of confidentiality laws and protected accordingly.

The Information contained related to the Product Roadmap and any associated statements and collateral received or delivered are intended to outline the current product direction and is for informational purposes only and cannot for part of any legal commitment between the parties. The Product Roadmap does not commit RWS Group to deliver any material, code or functionality and should not be relied upon. The development, release, timing of any feature or functionality remain the sole and exclusive direction of the RWS group. Any rights, warranties and representations are hereby expressly excluded.



[www.rws.com](http://www.rws.com)







# Tridion Sites 10 Bootcamp Experience Space UI Extensions

Egor Chikunov

11 May 2023





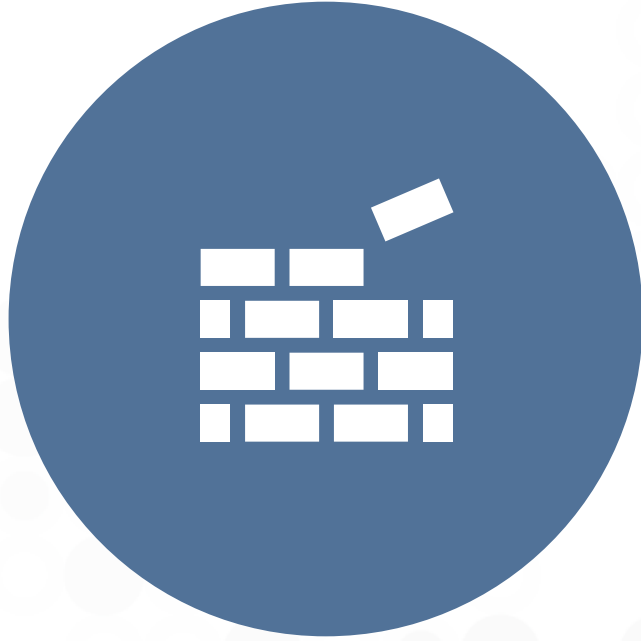
# Requirements

- Support most common extension scenarios
- Have well defined and documented API
- Based on industry standards
- Make it easy to create an extension from scratch
- Provide fast feedback during the development process
- Allow usage of the third-party dependencies
- Customization of the build process

# Limitations

- React-based extensions
- Versions of third-party packages shared from the host application are fixed

# Experience Space UI Extensions



Framework



Extension points



Command-line  
interface

# Framework



# Framework

- Extensions format
- Loading of extensions into the host application
- Communication between an extension and the host application
- Data loading
- Reusable components and functionality available for extensions

# Extensions format

- Add-ons Service package
- Can contain multiple backend and frontend extensions
- Each frontend extension is a standalone React library

```
"id": "addon-example",
"name": "Addon example",
"author": "RWS",
"description": "Addon example for Tridion Experience Space",
"manifestVersion": "1.0.0",
"requireConfiguration": "optional",
"version": "1.0.0",
"extensions": [
  {
    "name": "extension-example",
    "type": "ExperienceSpaceExtension",
    "properties": {
      "main": "dist\\extension-example\\main.js",
      "files": [
        "dist\\extension-example\\main.js",
        "dist\\extension-example\\main.css"
      ]
    }
  }
]
```

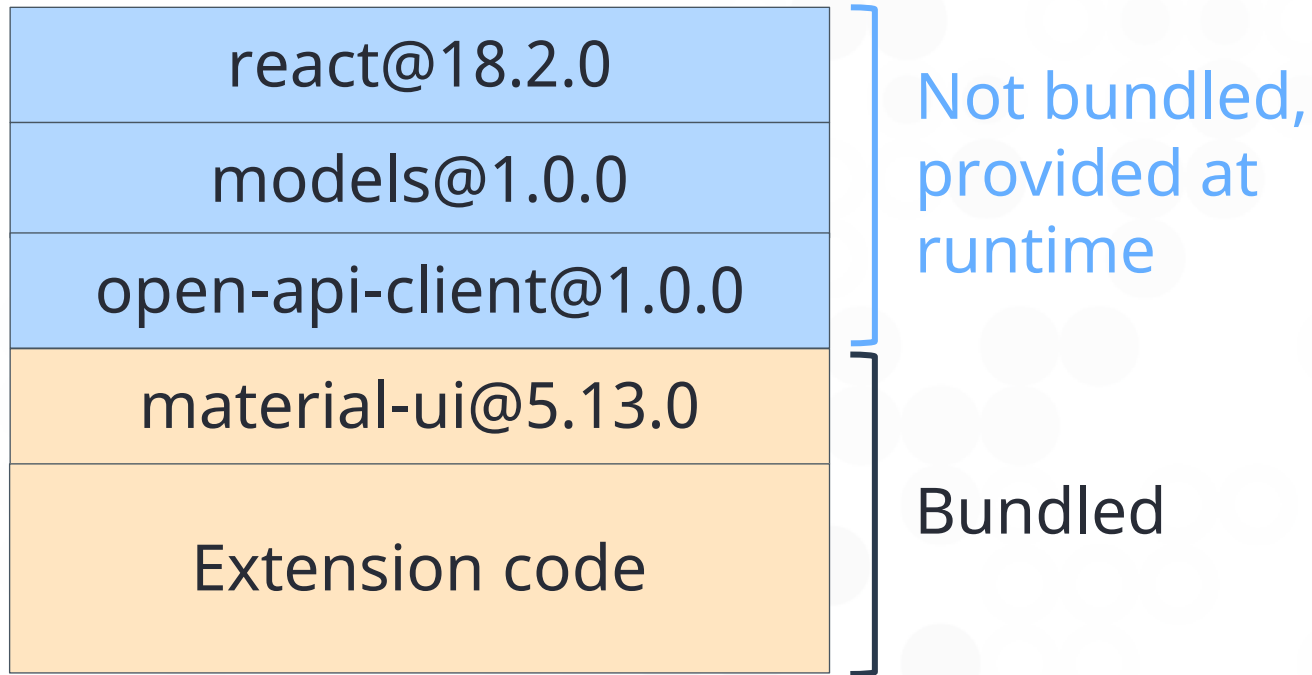
# Loading of extensions

- SystemJS format
  - Provides cross-browser support for dynamically loaded JS modules
  - Natively supported by Webpack and Rollup
  - Commonly used for the micro-frontends
  - Standardized and stable



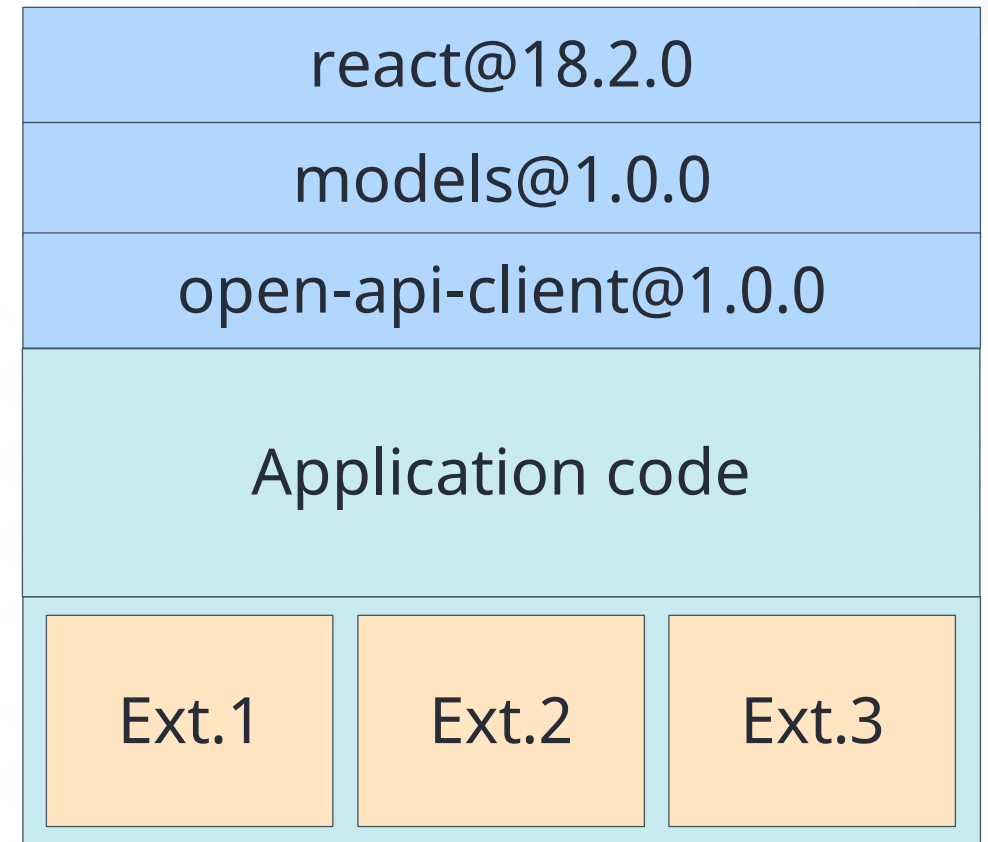
# Loading of extensions

## Extension



Shared libraries versions are **validated** on loading

## Host application



# Data contexts

- Each context provides the data and functionality available at the corresponding level
- Data contexts can be nested
- An extension has access to all parent data contexts
- Extension point API is not affected by new functionality in data contexts

# Data contexts

Tridion Sites

Content

Activities

Test User

Content Manager

Filter publications

Favorites

000 Empty

100 Master

110 DXA Site Type

Building Blocks

Home

Taxonomies

Business process ...

200 Example Content

300 sddemo conten...

400 Example Site

500 sddemo www

Building Blocks

Search Building Blocks

Filters

Schemas

	HEMA	SHARED FROM	DATE MODIFIED
<input type="checkbox"/> Content		100 Master	4/10/2023 6:02 PM
<input type="checkbox"/> Default Templates		100 Master	4/10/2023 4:52 PM
<input type="checkbox"/> Framework		000 Empty	4/10/2023 4:51 PM
<input type="checkbox"/> Modules		100 Master	4/10/2023 4:51 PM
<input type="checkbox"/> Modules Content		100 Master	4/10/2023 4:52 PM
<input type="checkbox"/> New Folder			4/21/2023 1:53 PM
<input type="checkbox"/> Schemas		000 Empty	4/10/2023 6:00 PM
<input type="checkbox"/> Settings		100 Master	4/10/2023 4:52 PM

Information

URI

tcm:3-130-2

Name

Component Examples

Type

Folder

Location

\110 DXA Site Type\Building Blocks

Date created

4/10/2023 6:00 PM

Date modified

4/10/2023 6:02 PM

Publish status

Not published

Publications

110 DXA Site Type

Building Blocks

Content Explorer context

Content Explorer Table context

Content Explorer Tree context

# Data loading

- Host application exposes a large number of query and mutation hooks to extensions
- The cache used by queries is shared across the host application and extensions
- They return backend data already converted into application models
- OpenAPI client package is provided for direct access to all backend endpoints

# Reusable components and functionality

- Components
  - Text
  - Button
  - Icon
  - Link
- Hooks
  - useConfirmation
  - useNotification
  - useUserProfile
- Queries
  - useItem
  - useItemBlueprint
  - useSystemSearch
  - ...
- Mutations
  - useCopyItems
  - useFinishActivities
  - useStartWorkflow
  - ...

# Extension points



# Extension points

Primary navigation config

Custom primary navigation

Action bar config

Custom actions

Context menu config

Custom columns

Tridion Sites

Activities

Administrator only

Help ?

Users list

Content

Test User

Content Manager

Search Building Blocks

+ Add new

Filter publications

★ Favorites

✎ Items in progress

▼ Publications

> 000 Empty

> 100 Master

> 110 DXA Site Type

▼ 200 Example Content

> Building Blocks

> Home

> FileSystem

> Taxonomies

> Business process types

> 300 slddemo content en-us

> 400 Example Site

> 500 slddemo www

> Child 1

> Child 2

> Diamond Blueprint - 00 Top

> Diamond Blueprint - 01 Sche...

NAME

STATUS

SCHEMA

SHARED FROM

BundleTestContent

Component

Component

Content

Default Te

Framework

Modules

Modules C

Multimedi

New Folds

Nick

Schemas

Settings

Open

Open editor

Open editor in new tab

Publish

Unpublish

Copy

Cut

Add to a bundle

Delete

Say hello

Switch language to NL

Go to publications

Folder

COPY ID TO CLIPBOARD

Copy

Copy

Copy

Copy

Copy

Copy

Copy

Copy

Copy

Copy

Copy

Copy

Copy

Copy

Information

URI

tcm:4-186-2

Name

BundleTestContent

Type

Folder

Location

\200 Example Content\Building Blocks

Date created

4/10/2023 7:07 PM

Date modified

4/10/2023 7:07 PM

Publish status

Not published



# Extension points

- Primary navigation
- Localization
- Item editors
  - Fields extensions
  - Rich Text fields extensions
- Activities Explorer
  - Custom action
  - Action bar configuration
  - Context menu configuration
- Content Explorer
  - Custom action
- Content Explorer Table
  - Action bar configuration
  - Context menu configuration
  - Custom column
- Content Explorer Tree
  - Context menu configuration

# Command-line interface



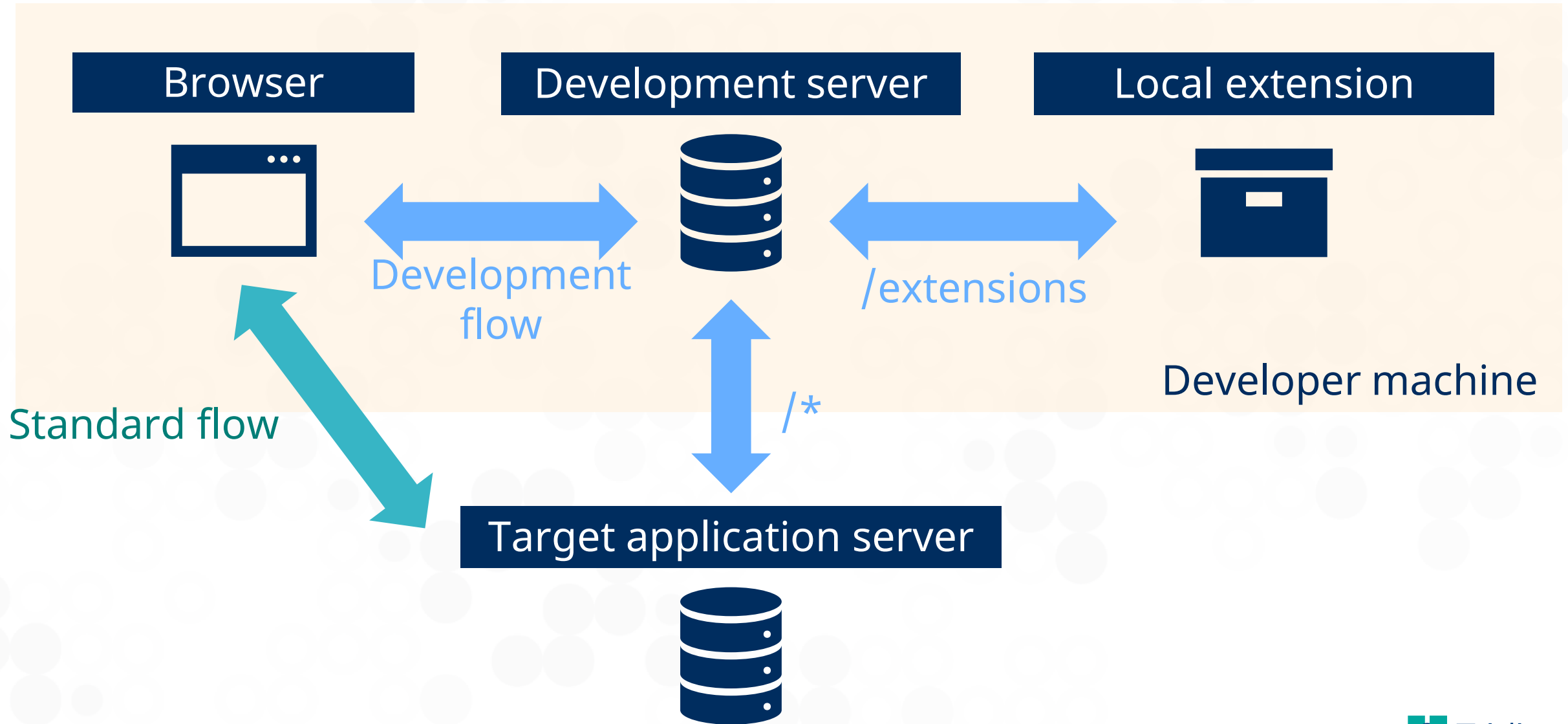
# Command-line interface

- Simplifies creating an add-on from scratch
- Provides an environment to develop and test extensions locally
- Prepares and creates an Add-ons Service package ready for deployment
- Designed as a scaffolding tool rather than a black-box that hides implementation

# Create command

- Creates a basic structure for an add-on with a frontend extension
- Requires an environment URL that would be used as a target for development
- Generates a frontend project with Webpack, linting and a development server
- The development server allows to run a local extension against any compatible target environment

# Development server



# Pack command

- Creates an Add-ons Service package based on the manifest file
- Works seamlessly with the output of Create command of CLI
- Package is ready for deployment after the execution of this command

Confidential and Copyright Statement © 2023 RWS Group (meaning all subsidiaries and affiliates under the RWS Holdings plc company).

All rights reserved. Unless explicitly stated otherwise, all intellectual property rights including those in copyright in the content of this documentation are owned by or controlled for these purposes by RWS Group. Except as otherwise expressly permitted hereunder or in accordance with copyright legislation, the content of this documentation may not be copied, reproduced, republished, downloaded, posted, broadcast or transmitted in any way without the express written permission of RWS Group. The information contained herein is deemed confidential and commercially sensitive and protected by under the laws of England and Wales. It may only be shared for the purposes disclosed and made available to personnel for the strict and sole purpose of reviewing the content contained herein. Any unauthorised distribution or use of the information will be deemed a breach of confidentiality laws and protected accordingly.

The Information contained related to the Product Roadmap and any associated statements and collateral received or delivered are intended to outline the current product direction and is for informational purposes only and cannot for part of any legal commitment between the parties. The Product Roadmap does not commit RWS Group to deliver any material, code or functionality and should not be relied upon. The development, release, timing of any feature or functionality remain the sole and exclusive direction of the RWS group. Any rights, warranties and representations are hereby expressly excluded.





RWS Holdings plc is a unique, world-leading provider of technology-enabled language, content and intellectual property services. Through content transformation and multilingual data analysis, our unique combination of technology and cultural expertise helps our clients to grow by ensuring they are understood anywhere, in any language.

Our purpose is unlocking global understanding. By combining cultural understanding, client understanding and technical understanding, our services and technology assist our clients to acquire and retain customers, deliver engaging user experiences, maintain compliance and gain actionable insights into their data and content.

We work with over 80% of the world's top 100 brands, more than three-quarters of Fortune's 20 'Most Admired Companies' and almost all of the top pharmaceutical companies, investment banks, law firms and patent filers. Our client base spans Europe, Asia Pacific and North and South America. Our 65+ global locations across five continents service clients in the automotive, chemical, financial, legal, medical, pharmaceutical, technology and telecommunications sectors.

Founded in 1958, RWS is headquartered in the UK and publicly listed on AIM, the London Stock Exchange regulated market (RWS.L).

For further information, please visit: [www.rws.com](https://www.rws.com)

© 2023 All rights reserved. Information contained herein is deemed confidential and the proprietary information of RWS Group\*.

\*RWS Group shall mean RWS Holdings PLC for and on behalf of its affiliates and subsidiaries.