Content Exchange User Guide



Content Exchange User Guide

Updated iii 14 Nov 2017

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Product Overview

Content Exchange is an application which stories rules, queries and other content used to support and provide Raytheon Cyber Services.

Architecture

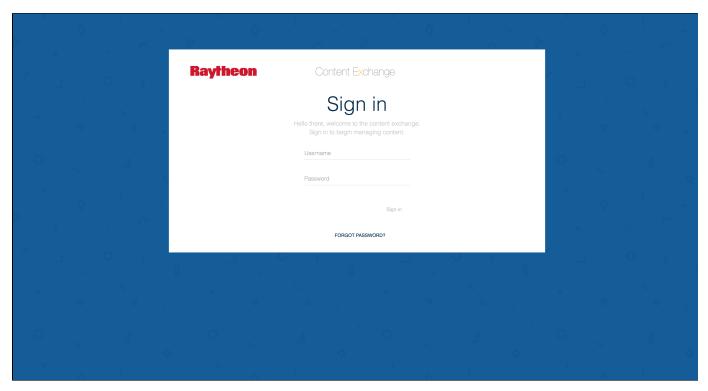
This application uses a Django API server and Angular user interface.

Login

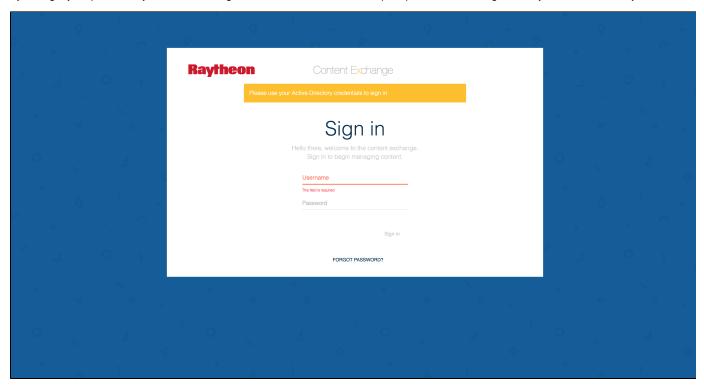
Enter your Username and Password, then click the



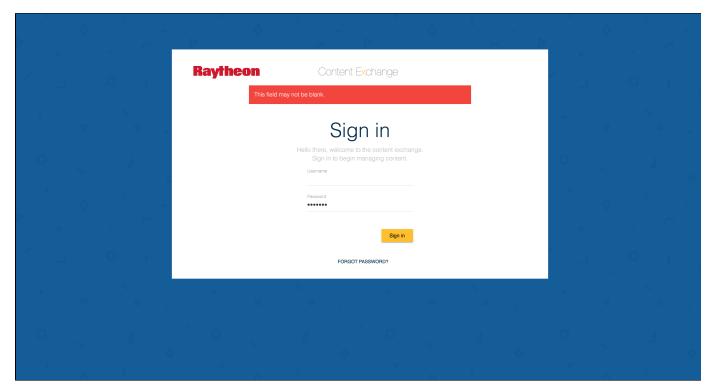
button.



If you forgot your password, you can click "Forgot Password". You will then be prompted with a message to use your Active Directory credentials.



If the Active Directory does not recognize your account, you will be unable to log in. You will be prompted for required fields if any are missing.



After successfully signing in, your personal Dashboard screen will display.

Navigation

Primary Navigation

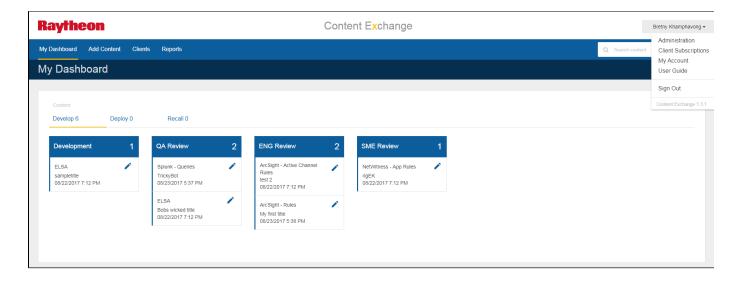
The primary navigation options are displayed after a successful sign in. The options displayed depend on the user's access rights. All users have access to the Dashboard, Clients and Reports.

If the user has the access rights to add new content into the application, the 'Add Content' option will also be available in the navigation menu.



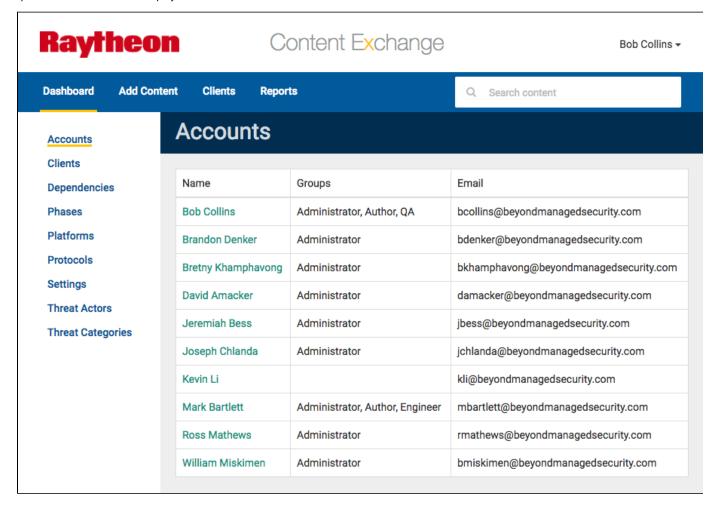
User Menu

Clicking on the user's name will display the user menu. Users in the Administrator group will see the 'Administration' menu option. The other menu options are available for all users.



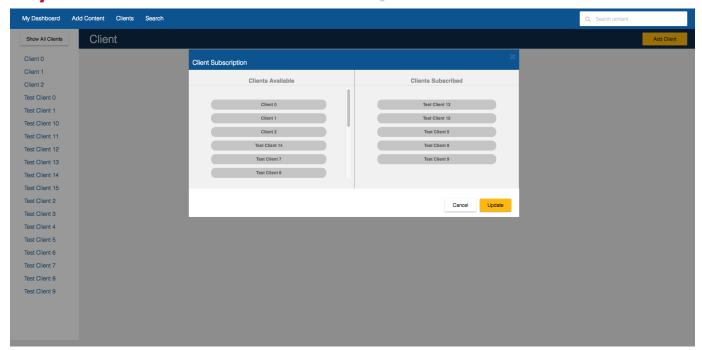
Administration

Users in the Administrator group has access to the Administration screens to manage user accounts and list data. Click the 'Administration' option in the User Menu to display the administration screen. See "Administration Interface" for instructions for Accounts.



Client Subscriptions

As a user, you have the option to subscribe to clients by clicking 'Client Subscriptions' in the dropdown.



Choose the clients you would like to subscribe to by clicking on the client name in the 'Clients Available' list on the left and dragging it over to the right.

Click



after selecting your subscribed clients, or



if you wish to exit.

My Account

User Guide

On any screen, you can download this user guide and save it to your computer in a PDF file format by choosing the User Guide dropdown menu option.

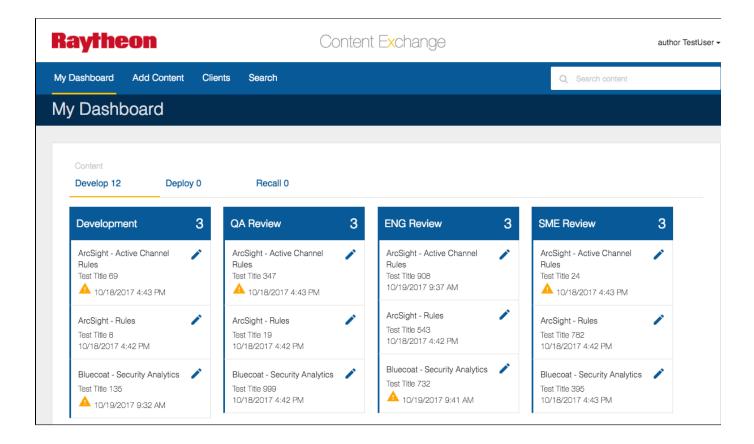
Version

On any screen, you can view the version details of the application by clicking on the user's name in the user menu. A version number for Content Exchange will be listed at the bottom of the dropdown.

General Interface

My Dashboard

All users have access to their personal Dashboard which displays Content they have created or are responsible for reviewing. Click on the "My Dashboard" option in the primary navigation menu.



A count will display for the number of content in Develop, Deploy, or Recall status. Click on the Content card and the Content details will display. Clicking on the



button will display the Content Edit screen. The gold warning icon indicates the content requires client customization during deployment at the client site. When the mouse hovers over the warning icon, the help text "Client Customization Needed" is displayed.

Content

Add Content

Users in the Author group have the ability to add new content. Click on the "Add Content" option in the primary navigation menu.



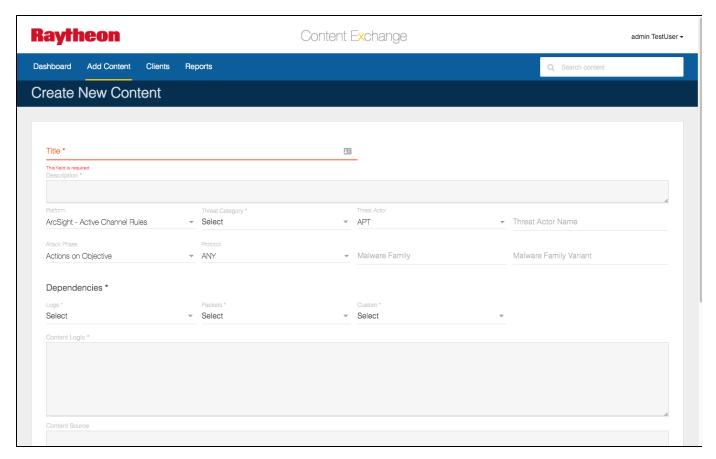
The New Content screen will appear.

Enter the following information:

Item	Field Type	Description	Example
Title*	Text	The name of the newly added content.	
Description*	Text	A short explanation of the new content.	
Platform	Dropdown select	The appliance which content can be published or disseminated to.	Yara, Netwitness, Snort
Threat Category	Multi-select dropdown	The type of threat associated with the content.	Exploit, RAT, Lateral Movement

Threat Actor	Dropdown select	The type of threat group or actor set associated with the activity.	Cyber Crime, State Sponsored, Hacktivist
Threat Actor Name	Text	Name of the actor associated with the activity.	APT28, Anonymous, Lotus Blossom, Dark Seoul
Attack Phase	Dropdown select	The phase in which the activity was created on. This is the Kill Chain by Lockheed Martin.	Delivery, Exploitation, Command and Control (https://en.wikipedia.org/wiki/Kill_chain)
Protocol	Dropdown select	The standard communication channel used by the associated content.	HTTP, ICMP, FTP, TCP, IRC
Malware Family	Text	The family name of the identified malware.	Vawtrack, Cridex, Plugx, Dyre, CryptoLocker
Malware Family Variant	Text	A variant name or version number of the identified malware.	v1, v0.3
Logs*	Multi-select dropdown	Information source for a platform such as email log or syslog.	Bit9, BlueCoat, Bro
Packets*	Multi-select dropdown	Information source for a platform in packet form.	
Custom*	Multi-select dropdown	Content requires specific customization before deployment.	Specific IP Range or VIP username needs to be defined within the content logic
Content Logic*	Text	The signature, rules structure, query, or report being added to the Exchange.	Query regex 'user=([a-zA-Z0-9]{0,})&ver=([0-9]{0,})&key=([a-zA-Z0-9]{0,})' && action='post','put'
Sample	Text	Optional field used to reference links to specific malware or use case samples.	
Reference	Text	Optional field used to describe or link to a description of the use case to add additional context.	
Expiration Days	Number	The number of days which the content will expire.	
CVE	Text	Common vulnerabilities and exposures identifier that is associated with the activity.	CVE-2017-0143, CVE-2017-1274
Zero Day	Checkbox	Checked if the vulnerability is not publicly reported or announced before becoming active or widely seen.	

^{*}Denotes a required field.



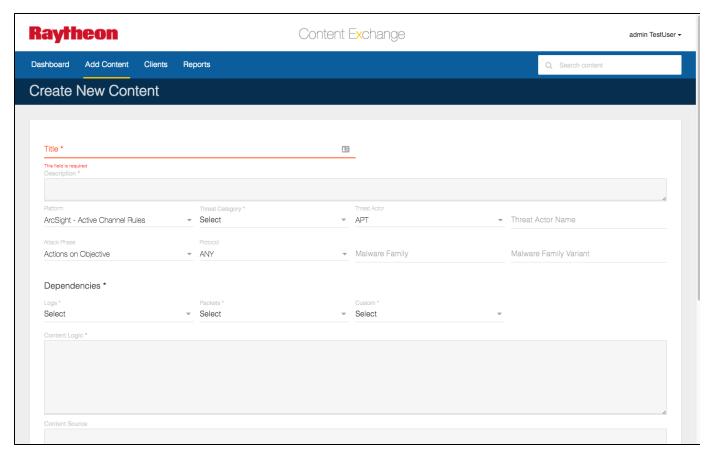
When ready, click the



button. Congratulations, you have successfully added new content to the database.

Modify Content

After Content is created, Authors and Reviewers have the ability to modify it.



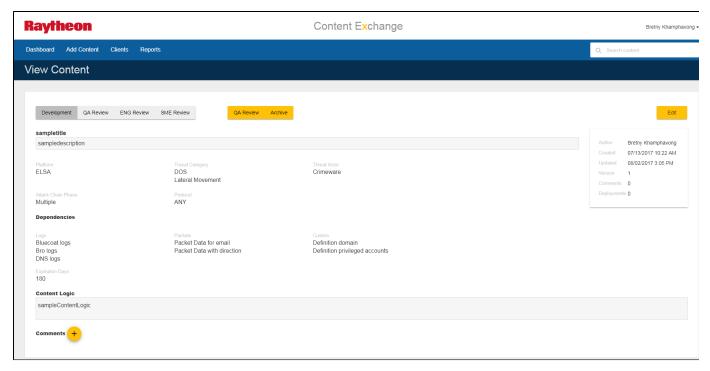
Click the



button and you will able able to View Content.

View Content

The View Content screen displays the Content details and the workflow state.



On the View Content screen, you have the option to click on the



button to modify the displayed Content.

Comments can be added to Content by clicking on the



button in the 'Comments' section.

C	Comments			
	Comment			
	Enter comment here.			
			//	
		cancel	Save	

Enter your comment and click

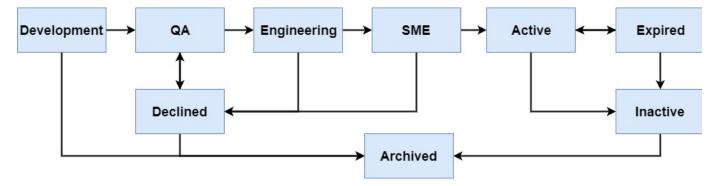


if you wish to exit.

Workflow States

Content flows through a series workflow states. User permissions assigned to a user determines who can promote pieces of Content to which state.

See the diagram below to understand how Content moves through the process.



Every Content item begins in a 'Development' state. At any time during the workflow, a piece of content can be updated to an 'Archived' state.

Once Content is promoted from 'Development' it will move into the 'QA' queue. Content in 'QA' will move into 'Engineering', and 'Engineering' into 'SME'. If Content is ready to be 'Depoyed' it will become 'Active'. If Content is deemed not ready to become active, then it can be 'Declined'.

Each Content item has an expiration date. The default is set to 90 days, but can be manually configured. If Content passes the number of days specified, then it will become 'Expired'.

Deployment

Workflow States

The Deployment model is the connection between content and a client's appliance. A Deployment object has a workflow to show the status of the actual deployment.

- Proposed The application has matched the content with the appliance.
- **Exported** Engineer/liaison has exported the content logic from the application.
- Deployed Engineer/liaison has successfully added the content logic to the client's appliance.

Recall Needed - When the Deployment state is Deployed and the Content state is Inactive, the application will change Deployment state to Recall Needed.

Recalled - The content was deployed to the appliance then removed, probably because the content expired and became inactive.

Declined - Either 1) the engineer/liaison has decided not to deploy the content to the appliance, or 2) the client has declined to receive the content.

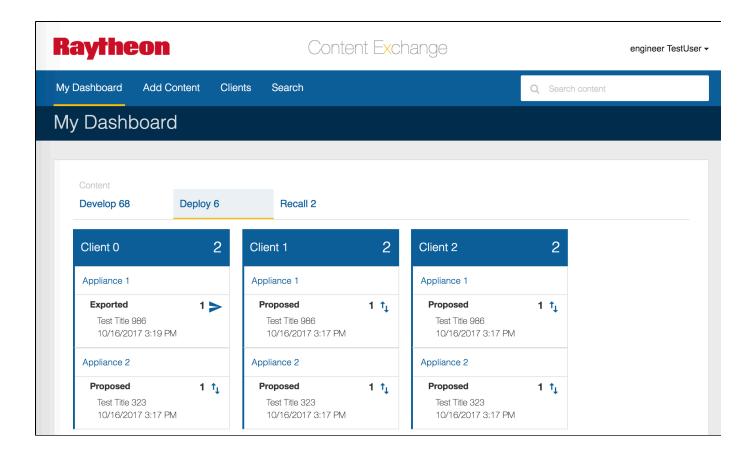
Deploy

My Dashboard displays the content that needs deployment to your subscribed clients.

Click the Export button to export all content for an appliance to a text file. If the content is Netwitness content, you will be prompted to provide the Key and Index variables.

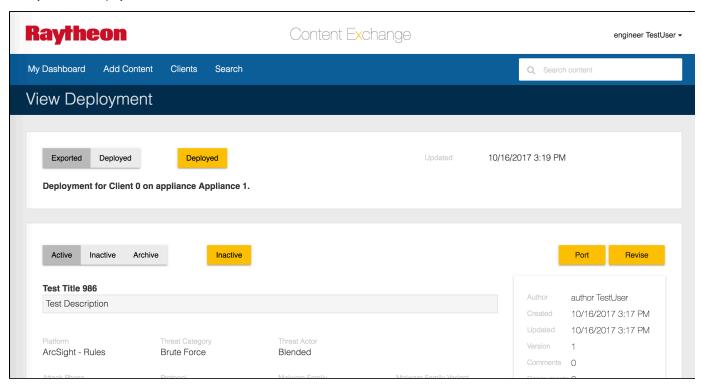
Click the Deployed button to mark the content as being deployed at the client site.

Click the content's title to display the deployment detail page.



Deployment detail page displays the buttons for promoting the deployment through the workflow.

Directly below the deployment detail is the content detail.

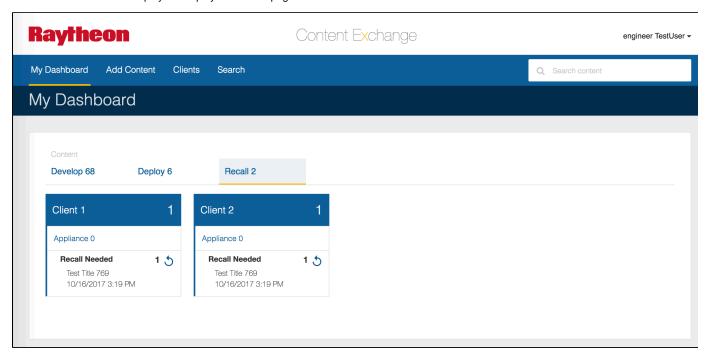


Recall

My Dashboard displays the content that has become inactive and needs to be recalled from the client's appliance.

Click the Recalled button to mark the content as being recalled from the client.

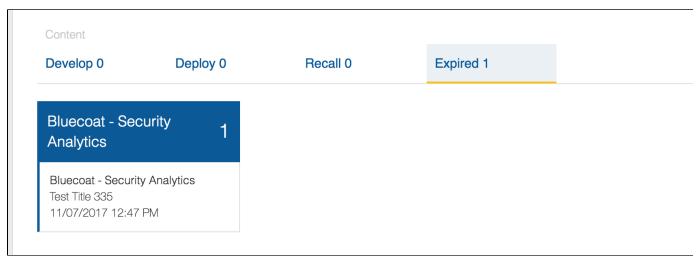
Click the content's title to dispaly the deployment detail page.



Expired

My Dashboard displays the content that has become expired and needs to go back to the active or inactive state. Only QA users will see the expired tab.

Click the content card to view the content details screen with the worfklow display.



Declining Content or Deployment

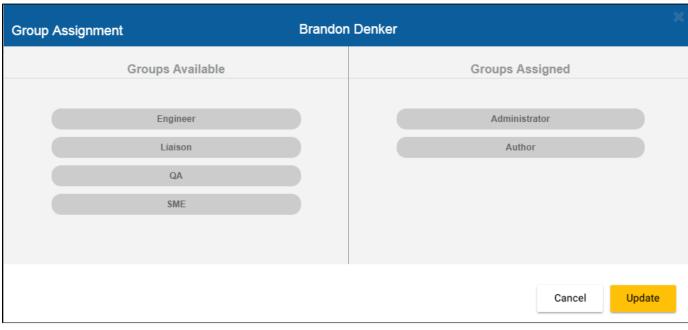
A user will be prompted for a required comment before a piece of Content or Deployment is declined.

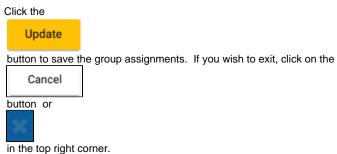


Administration Interface

Accounts

User names and email addresses are maintained in the Active Directory. Click on a user's name to modify the group assignments. Drag and drop the groups to the appropriate columns.





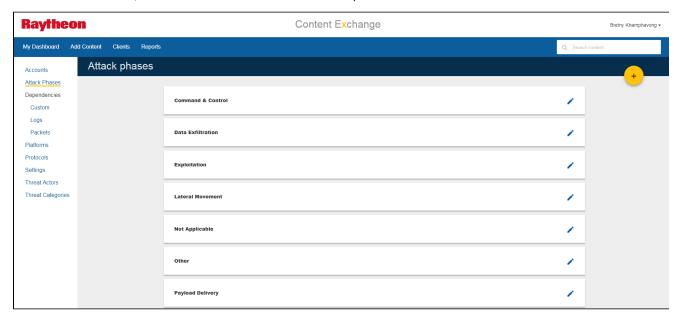
User Permissions

The actions for which a user can perform depends on the group or groups they are assigned to. The table below displays a list of permissions for each group in the application.

Group	Permission
Administrator	Modify all the items listed in the Admin menu.
Author	 Add content. Modify content from 'Develop' to 'QA' state. Promote content from 'Decline' to 'QA' state.
QA	 Modify content in the 'QA' state. Promote content from 'QA' to Engineering state. Demote content from 'QA' to Declined state.
Engineer	 Modify content in the 'Engineering' state. Promote content from 'Engineering' to 'SME' state. Demote content from 'Engineering' to 'Declined' state.
SME	 Modify content in the 'SME' state. Promote content from 'SME' to 'Active' state. Demote content from 'SME' to 'Declined' state.
Liaison	Add clients.Modify clients.

Attack Phases

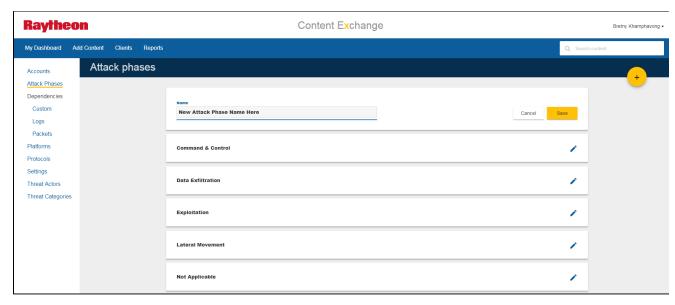
To access the Attack Phases list, click on 'Attack Phases' in the Administration panel.



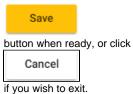
Add Attack Phase

You can add a new Attack Phase by clicking on the



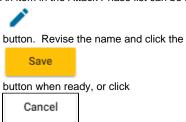


Enter a name for the new Attack Phase. Click the



Modify Attack Phase

An item in the Attack Phase list can be modified by clicking on the



Dependencies

if you wish to exit.

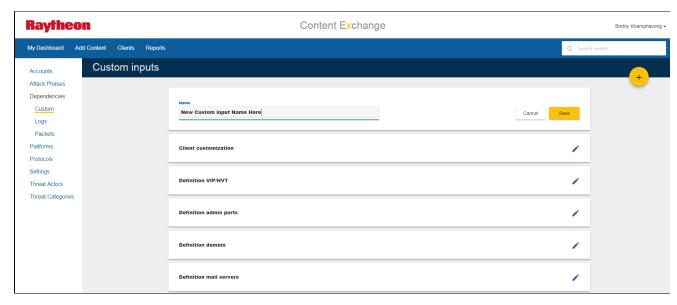
Dependencies consists of three components: Custom, Logs, and Packets. Click on any of the components to access the corresponding list.

Custom

Add Custom Input

You can add a new Custom input by clicking on the





Enter a name for the new Custom input. Click the



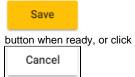
if you wish to exit.

Modify Custom Input

An item in the Custom inputs list can be modified by clicking on the



button. Revise the name and click the



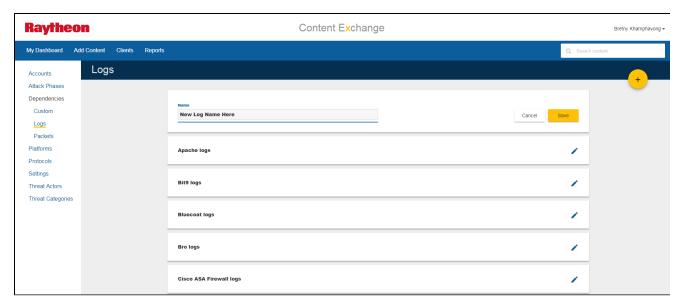
if you wish to exit.

Logs

Add Log

You can add a new Log by clicking on the





Enter a name for the new Log. Click the



button when ready, or click

Cancel

if you wish to exit.

Modify Log

An item in the Logs list can be modified by clicking on the



button. Revise the name and click the



button when ready, or click



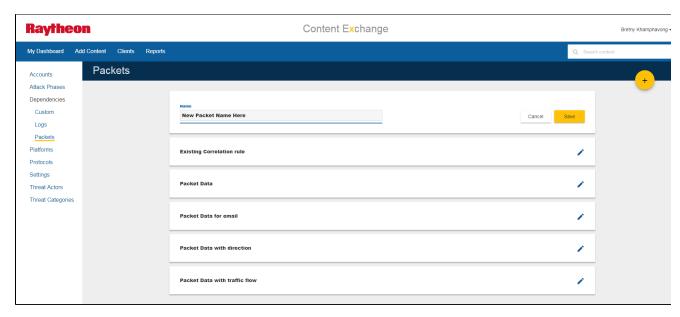
if you wish to exit.

Packets

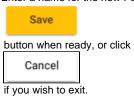
Add Packet

You can add a new Packet by clicking on the





Enter a name for the new Packet. Click the

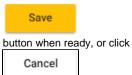


Modify Packet

An item in the Packets list can be modified by clicking on the



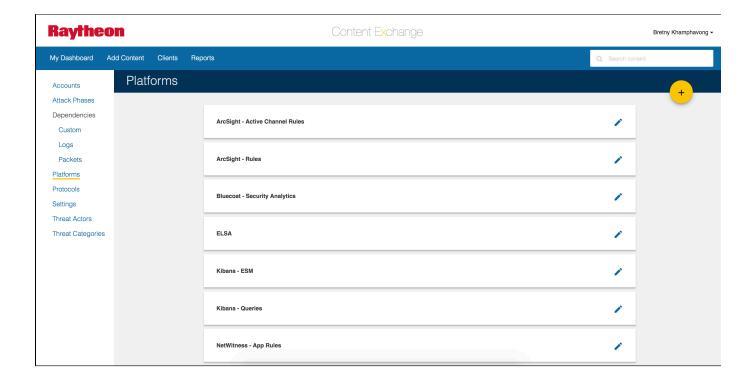
button. Revise the name and click the



if you wish to exit.

Platforms

To access the Platforms list, click on 'Platforms' in the Administration panel.

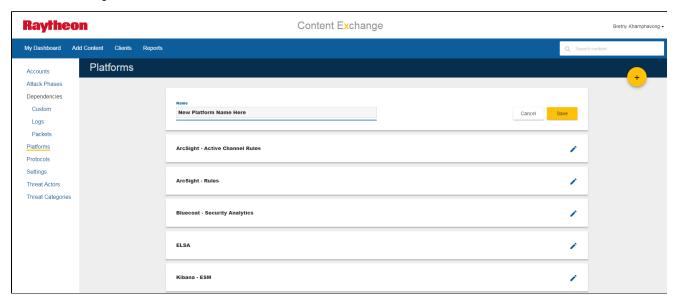


Add Platform

You can add a new Platform by clicking on the



button and selecting the 'Name' field.



Enter a name for the new Platform. Click the

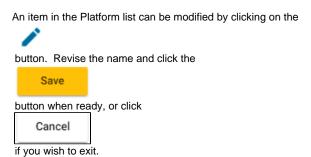


button when ready, or click

Cancel

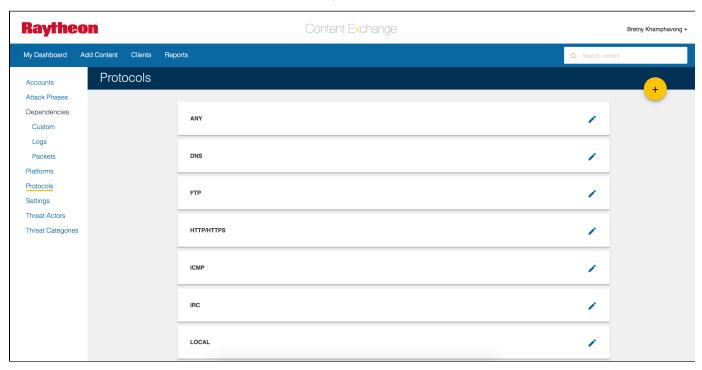
if you wish to exit.

Modify Platform



Protocols

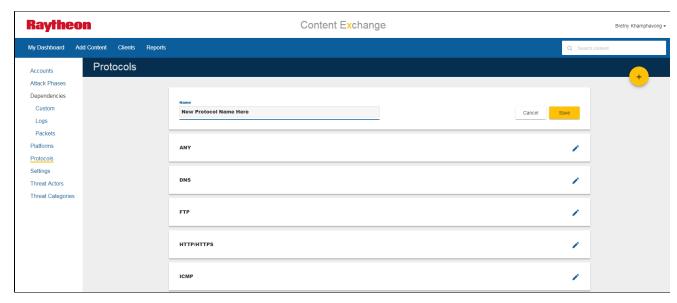
To access the Protocols list, click on 'Protocols' in the Administration panel.



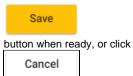
Add Protocol

You can add a new Protocol by clicking on the





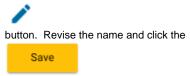
Enter a name for the new Protocol. Click the



Modify Protocol

if you wish to exit.

An item in the Protocol list can be modified by clicking on the



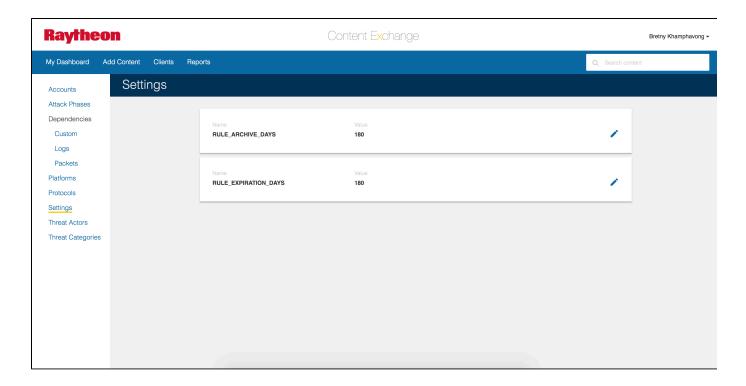
button when ready, or click

Cancel

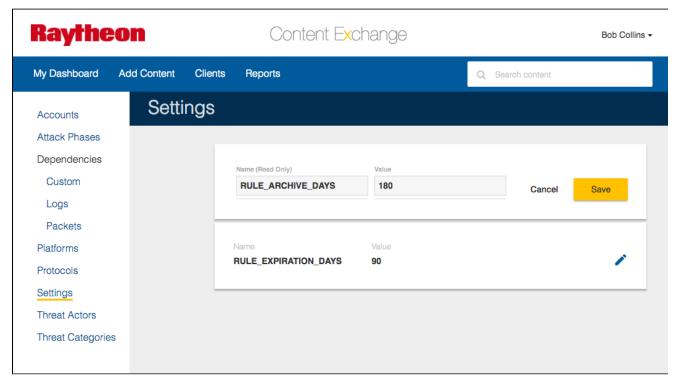
if you wish to exit.

Settings

To access the Settings list, click on 'Settings' in the Administration panel.



Modify Setting



An item in the Setting list can be modified by clicking on the



button. Revise the Settings name or days value and click the



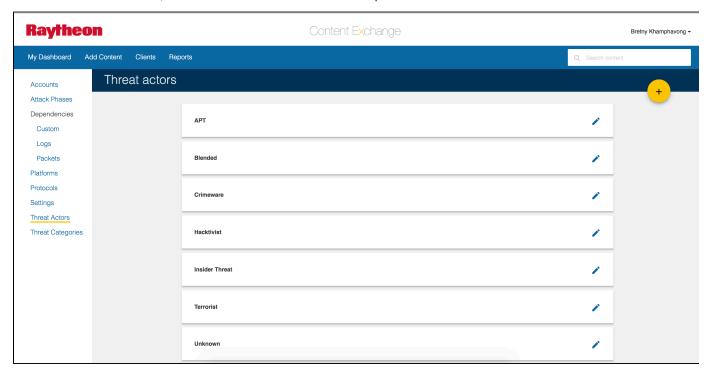
button when ready, or click

Cancel

if you wish to exit.

Threat Actors

To access the Threat Actors list, click on 'Threat Actors' in the Administration panel.

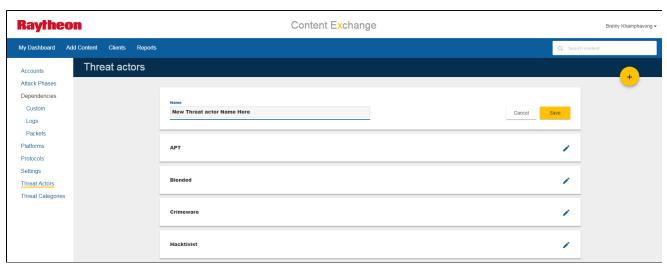


Add Threat Actor

You can add a new Threat Actor by clicking on the



button and selecting the 'Name' field.



Enter a name for the new Threat Actor. Click the



button when ready, or click

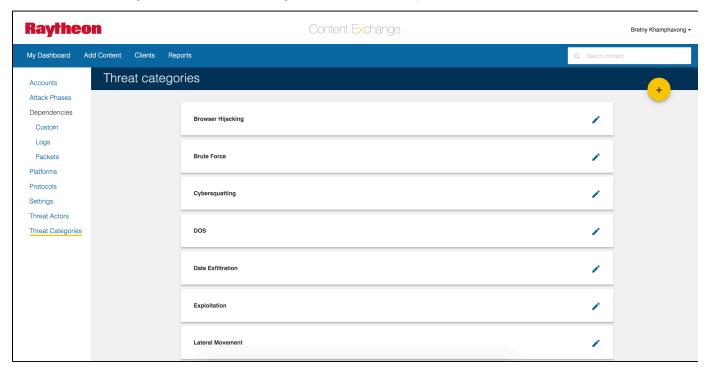
Cancel
if you wish to exit.

Modify Threat Actor

An item in the Threat Actor list can be modified by clicking on the button. Revise the name and click the Save button when ready, or click Cancel if you wish to exit.

Threat Categories

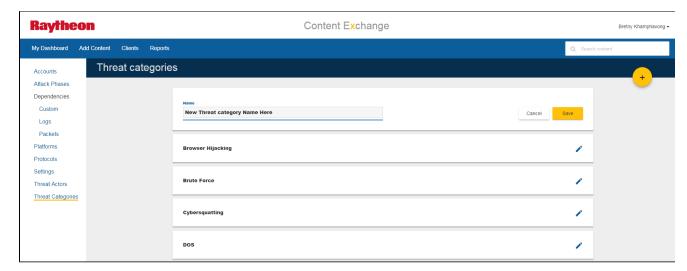
To access the Threat Categories list, click on 'Threat Categories' in the Administration panel.



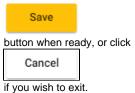
Add Threat Category

You can add a new Threat Category by clicking on the

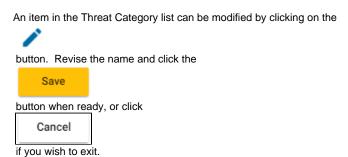




Enter a name for the new Threat Category. Click the



Modify Threat Category



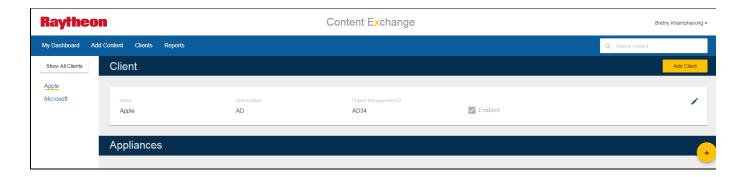
Client Interface

Clients

Clicking on 'Clients' in the primary navigation will display the Clients view. The view should be defaulted to show only the clients you have subscribed to. To subscribe to clients, see "Client Subscriptions" in the User Menu.



Choose any client in the left menu panel to show the client details and appliances associated.



Show My Clients

Clicking on the

Show All Clients

button in the left menu panel will show all the clients entered into the application.

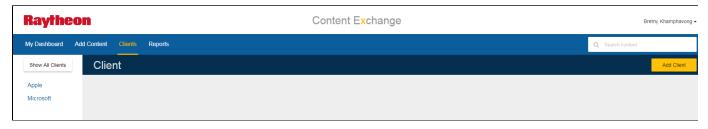


Show All Clients

Clicking on the

Show My Clients

button in the left menu panel will show all the clients you have subscribed to.



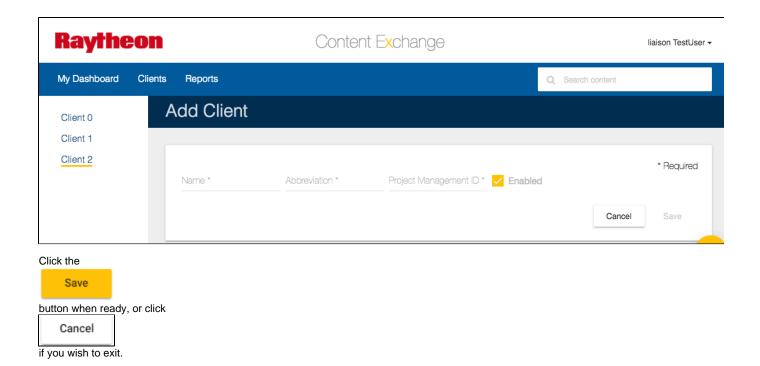
Add Client

You can add a new client by clicking the



button.

Enter the Client's Name, Abbreviation, Project Management ID and Enabled/Disabled status. When a client is disabled, it will not appear on the Dashboard and the application will not identify new deployments for the client.

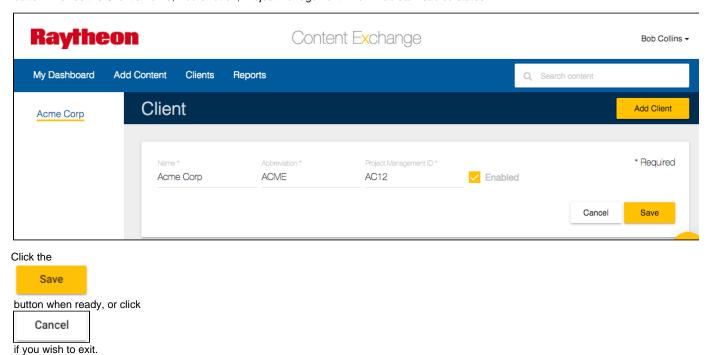


Modify Client

You can modify a client by clicking the

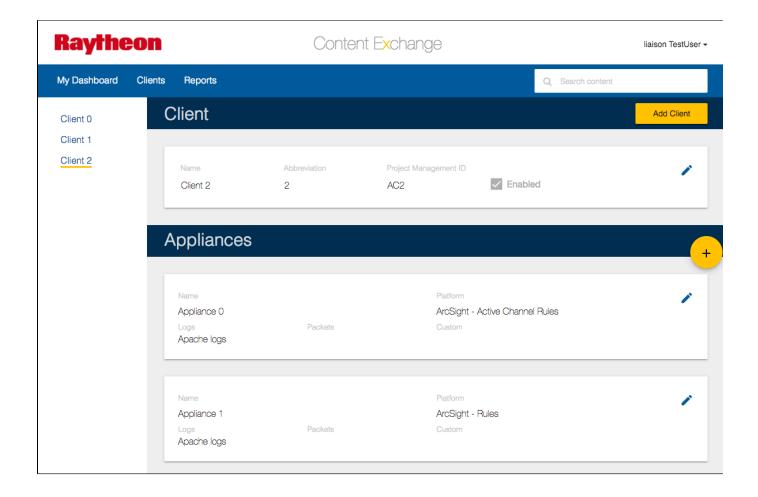


button. Revise the Client's Name, Abbreviation, Project Management ID or Enabled/Disabled status.



Appliance Interface

Display the list of appliances for a client by clicking on the client's name in the client list.

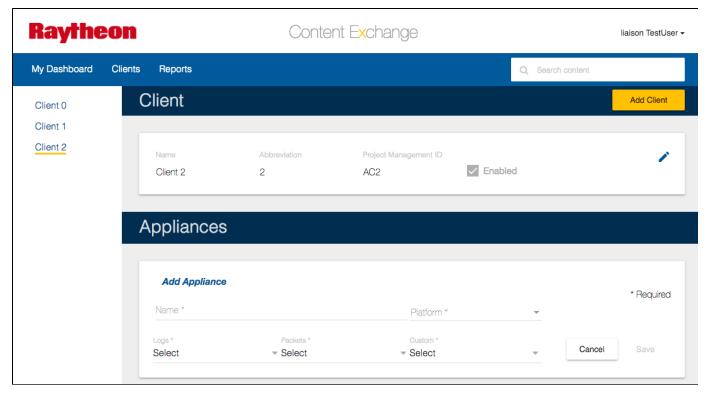


Add Appliance

You can add a new appliance to a client by clicking the



button. Enter the appliance's name, select the platform and dependencies.



Click the

Save

button when ready, or click

Cancel

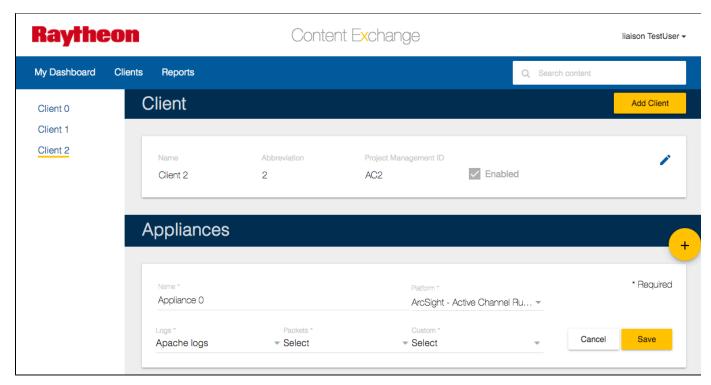
if you wish to exit.

Edit Appliance

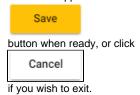
You can modify an existing appliance by clicking the



button.



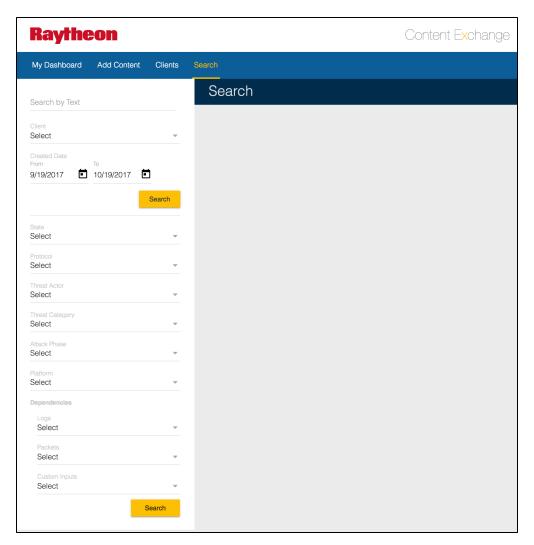
Revise the appliance's values and click the



Search and Filter

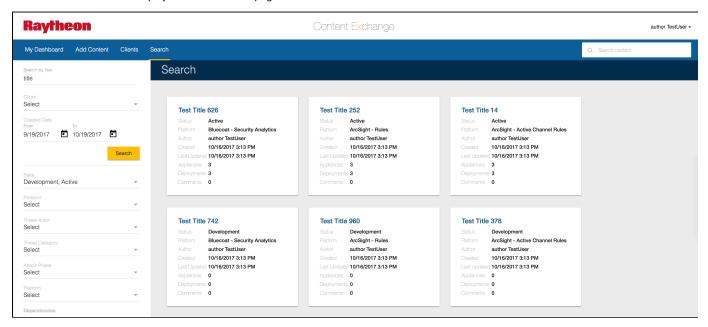
Use the search and filter fields in the left panel to specify the content search criteria.

Click the Search button to initiate the search.



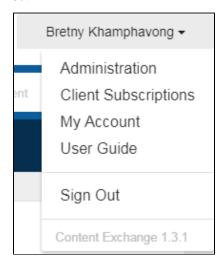
Search resutls are displayed in the right panel. The large blue text is the content's title.

Click the content's card to display the content detail page.



Signing Out

On any page, you can sign out of the application by clicking on your username in the top right corner. In the dropdown User Menu, select 'Sign Out'.



You will have successfully signed out of the application.

Glossary

Client Subscriptions - Subscribe to receive email messages when content is added or changed for the selected clients.

Platform Subscriptions - Subscribe to receive email messages when content is added or changed for the selected platforms.