



Effective Security Strategies in Cloud Service

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Artwork by **Dan Zucco**

Bē

Share in chat:



- Where are you joining us from?
- What are you hoping to learn today?

Welcome to today's session!

RAMI EL GAMAL

Senior Solution Consultant

A little about me...

Adobe Experience:

- ❖ 12+ years of experience with the Adobe Stack (AEM, Analytics, Target, Adobe Commerce, etc.)
- ❖ 2022 Adobe Experience Manager Champion
- ❖ AEM Architect, Developer, and Business Practitioner certified
- ❖ Director of RENY Consulting, specialized in AEM implementations and migrations
- ❖ A big Disney and Star Wars fan because .. This is the way!
- ❖ LinkedIn: <https://www.linkedin.com/in/ramielgamal/>

Agenda

01

Adobe Identity Management System

02

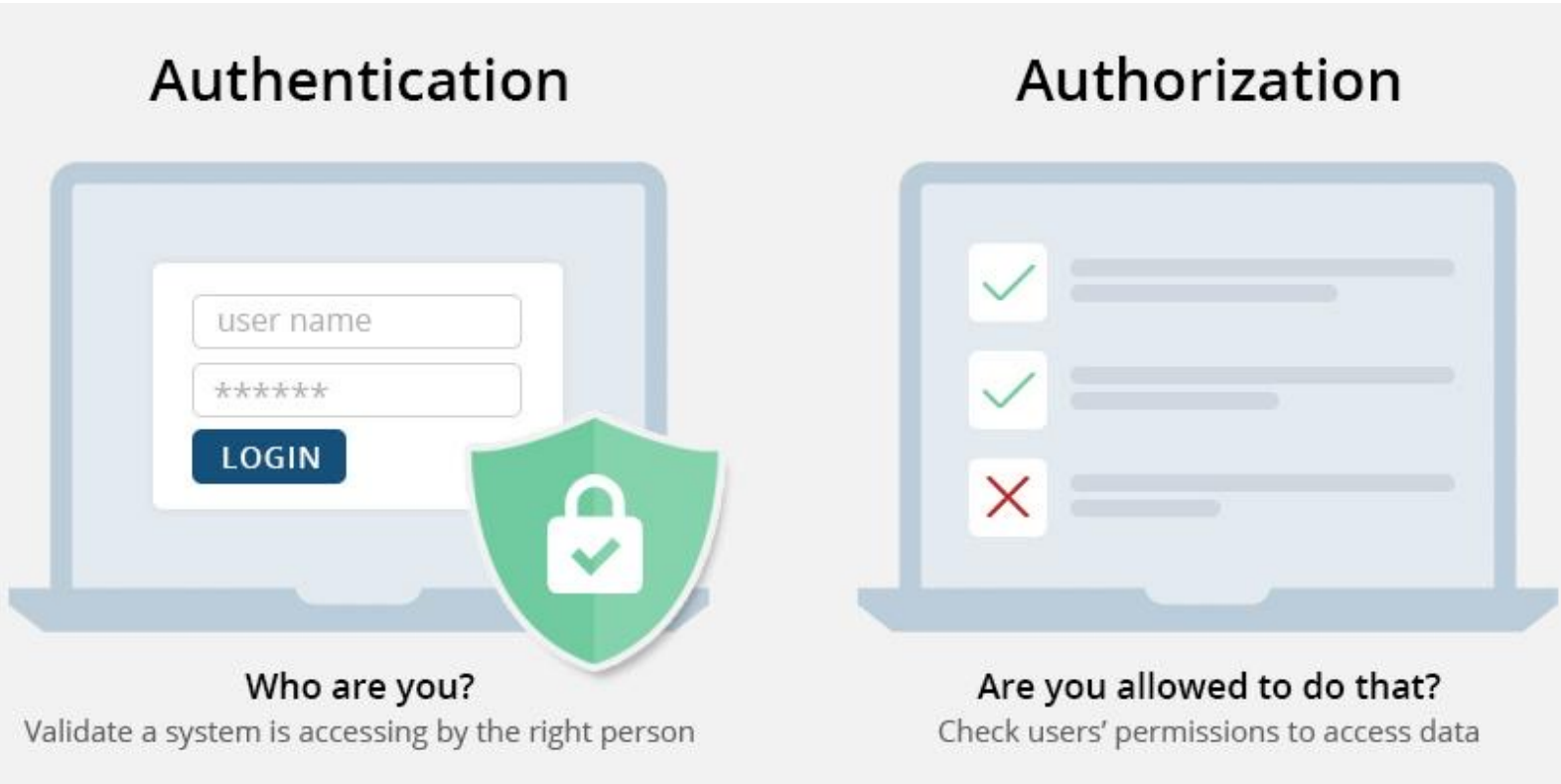
User Management

03

Adobe Cloud Manager

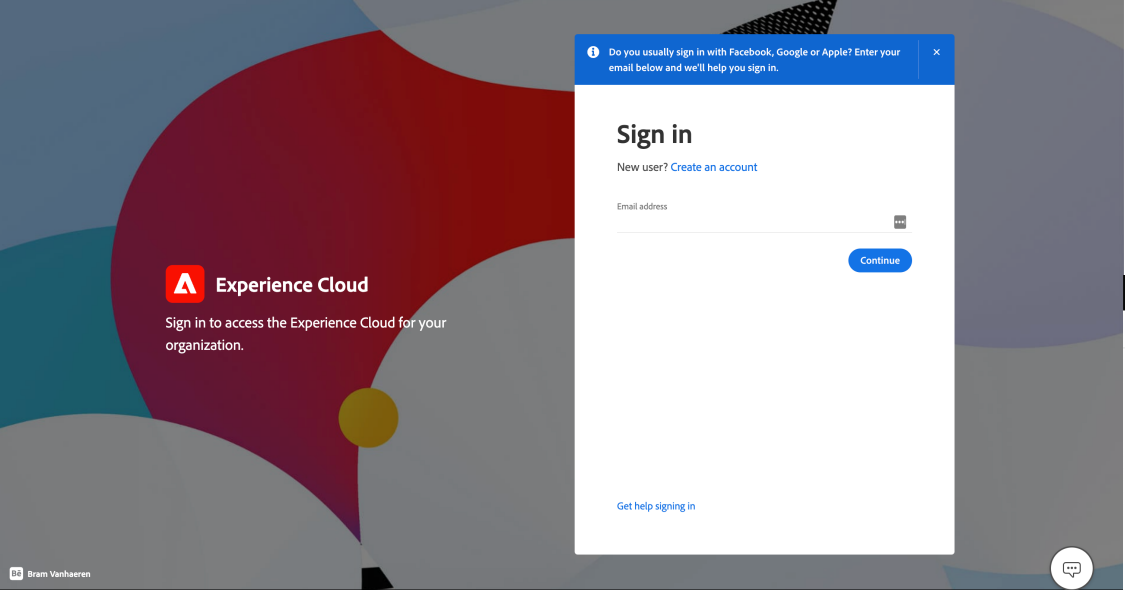
Adobe Identity Management System (IMS)

Authorization VS Authentication



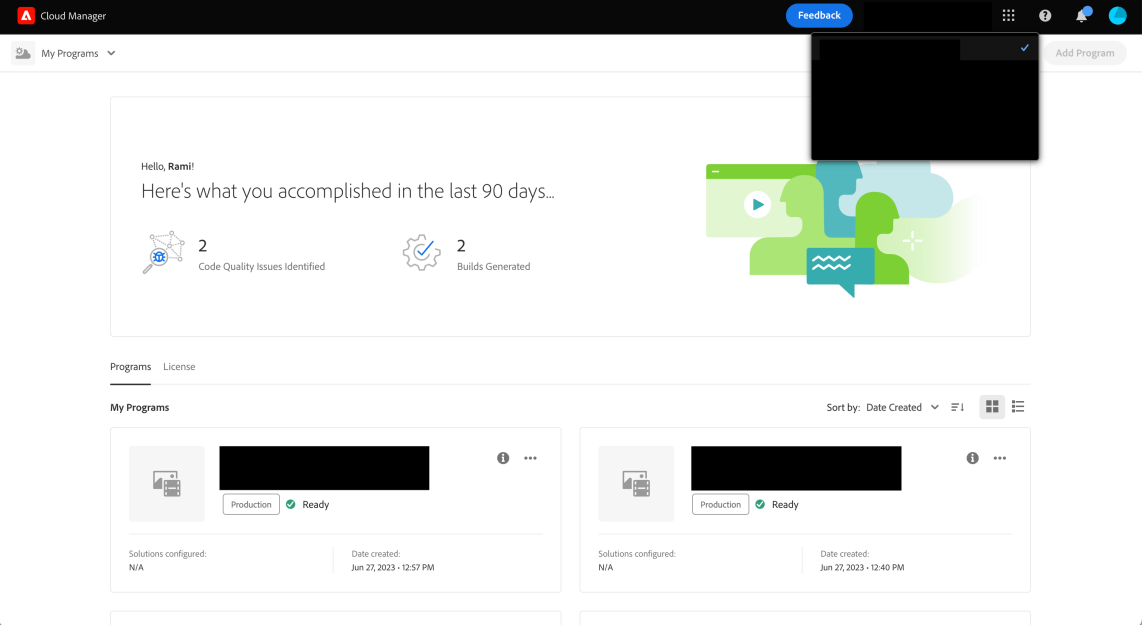
Adobe Identity Management System (IMS)

What is IMS?

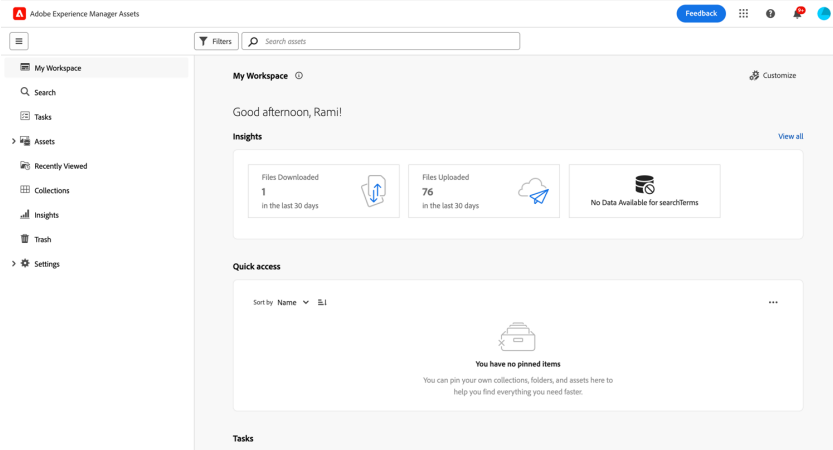


Authentication

Authorization

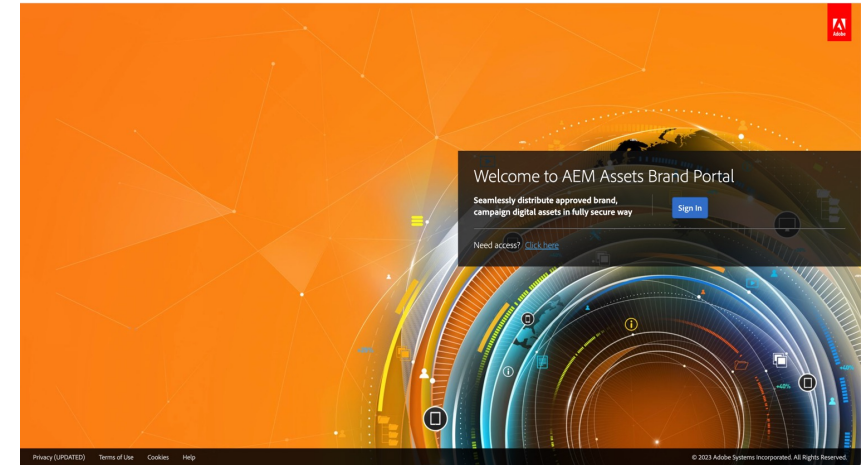
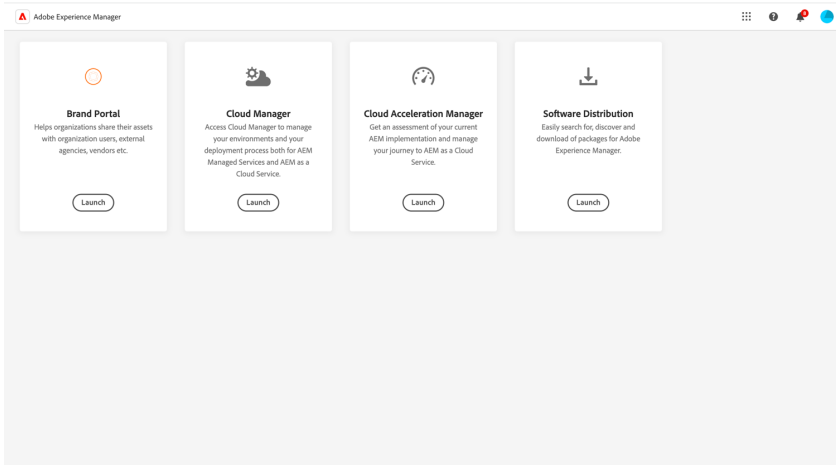
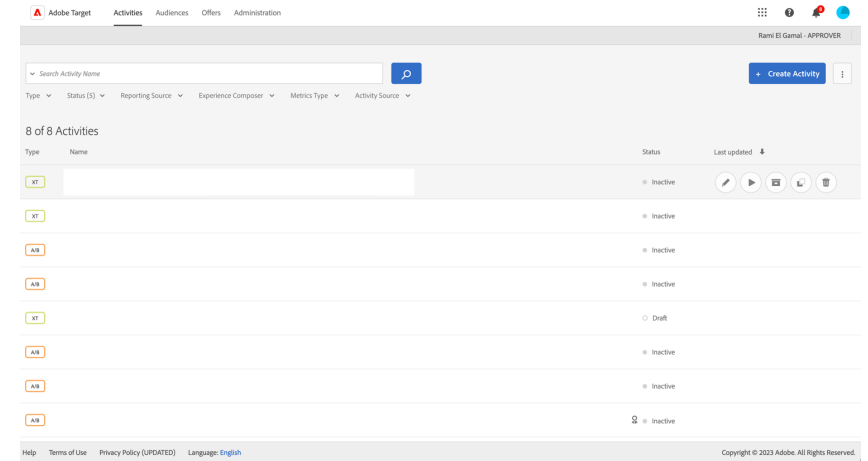


Adobe Identity Management System (IMS)



Single Sign-On (SSO)

- Allows the users to sign in once and access multiple Adobe Services
- *It supports integration with various identity providers*



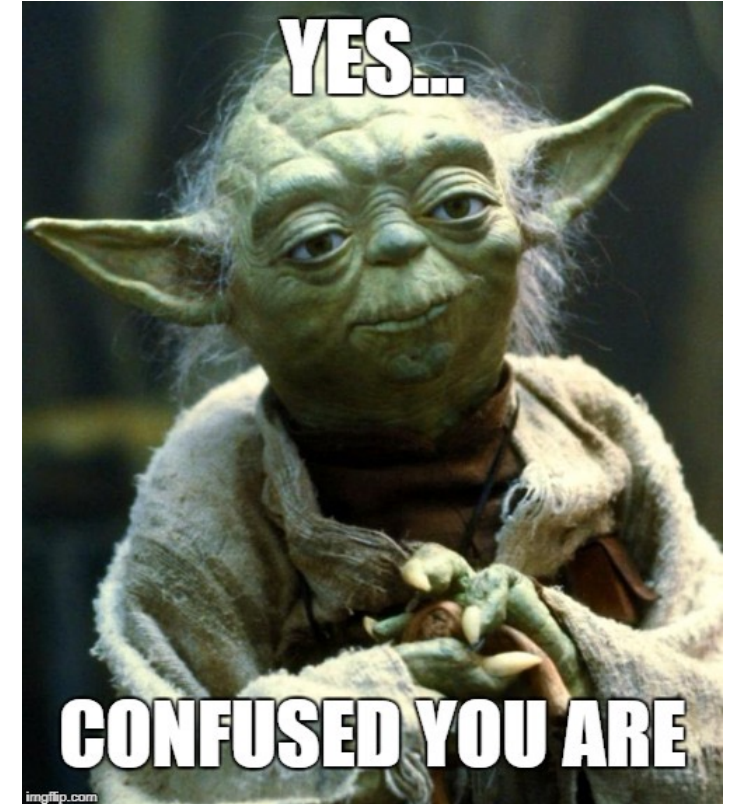
Adobe Identity Management System (IMS)

Wait!

I thought you said IMS is used for both Authentication and Authorization.

Why do we need to integrate with an Identity Provider?

- SSO
- User Identity Management
- Security and Compliance
- Enterprise Integration
- Federated Identity and Trust Relationships
- Compliance with Standards



Adobe Identity Management System (IMS)

Setting Up an IdP

The screenshot displays the Adobe Cloud Manager interface. At the top left, the 'Cloud Manager' logo is visible. The main header includes a 'Feedback' button, a grid icon, a help icon, a notification bell with a red '8', and a user profile icon. Below the header, there's a 'My Programs' dropdown menu and a 'Getting Started' button. The central area features a 'Hello, Rami!' greeting and a summary of accomplishments over the last 90 days:

- 12 Successful production deployments
- 594 Code Quality Issues Identified
- 104 Successful non-production deployments
- 123 Builds Generated

To the right of this summary is a graphic with stylized human figures and a play button. Below the summary, there are tabs for 'Programs' and 'License'. The 'My Programs' section shows a card for a program with a 'Production' status and a 'Ready' indicator. Below the card, it lists 'Solutions configured: Forms - Digital Enrollment, Assets, Sites' and 'Date created: Nov 19, 2020 - 9:11 AM'. On the right side, a navigation menu is open, listing various options: Home, Analytics, App Builder Catalog, Experience Manager, Experience Manager Assets, Experience Platform, Offers, People, Software Distribution, Target, Assets, Data Collection, Exchange, and Admin Console. A red arrow points to the 'Admin Console' option in the menu.

Adobe Identity Management System (IMS)

Setting Up an IdP

The screenshot displays the Adobe Admin Console interface. At the top, a navigation bar contains the following tabs: Overview, Products, Users, Account, Insights, Settings, and Support. A red arrow points to the 'Settings' tab. To the right of the navigation bar are icons for help, notifications (56), and user profile. Below the navigation bar, there is a section titled 'Learn more about your Admin Console' with a 'Take a tour' button. To the right, there are 'Quick links' for 'Add users', 'Add admins', and 'Add developers'. The main content area is divided into two sections: 'Products and services' and 'Users'. The 'Products and services' section has a 'Manage' link and a table with columns for 'Products' and 'Quantity'. The 'Users' section has a 'Manage' link and a list of user roles: 'Users', 'Administrators', 'Developers', and 'User groups'. At the bottom, there is a 'Latest features and product news' section with a 'See all Creative Cloud news' link.

Adobe Identity Management System (IMS)

Setting Up an IdP

The screenshot shows the Adobe Identity Management System (IMS) Admin Console. The main heading is "Identity Settings". At the top right, there are four summary statistics: 1 DIRECTORY, 1 DOMAIN, 0 TRUSTEES, and 0 ACCESS REQUESTS. Below this, there are tabs for "Directories" and "Domains". A search bar labeled "Search by directory name" and a status dropdown menu labeled "Select status" (currently set to "All Statuses") are present. A blue "Create directory" button is on the right. A table below shows the following entry:

<input type="checkbox"/>	NAME ↓	TYPE	STATUS
<input type="checkbox"/>		Federated ID	● Active

At the bottom of the table, there are navigation arrows for "Previous" and "Next", and a dropdown for "Items per page" set to "20". The footer contains links for "Terms of Use", "Privacy", "AdChoices", "Cookie preferences", "Do not sell or share my personal information", "English", and a copyright notice: "© 2023 Adobe. All rights reserved."

Adobe Identity Management System (IMS)

Setting Up an IdP

The screenshot shows the Adobe Admin Console interface for creating a new directory. The page is titled "Create directory" and includes a navigation sidebar on the left with options like "Identity Settings", "Asset settings", "Privacy and Security", "Console Settings", "Content Logs", and "Encryption settings". The main content area is divided into sections: "Add directory name" with a text input field for the "Directory name", and "Choose directory type" which presents two options: "Federated ID" and "Enterprise ID".

Create directory

Enter a directory name, then choose a directory type for your new directory.

Add directory name

Directory name

Choose directory type

Federated ID

Federated ID support Single Sign-On (SSO) via an Identity Provider. The organization hosts and maintains the user accounts and their assets.

Benefits

- Users can use organization password via SSO.
- Sync existing users and SSO setup from some identity providers.

[Learn more about Federated ID](#)

Enterprise ID

Enterprise ID allows the organization to maintain user accounts and assets, while Adobe takes care of the authentication. This option does not support SSO.

Benefits

- Users create their own password for Adobe.
- 3rd-party identity provider is not required.
- Quick, easy setup.

[Learn more about Enterprise ID](#)

Cancel Next

Terms of Use Privacy AdChoices Cookie preferences Do not sell or share my personal information English

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Adobe Identity Management System (IMS)

Setting Up an IdP

The screenshot shows the Adobe Admin Console interface. At the top, there is a navigation bar with 'Admin Console' on the left and 'Overview', 'Products', 'Users', 'Account', 'Insights', 'Settings', and 'Support' on the right. A sidebar on the left lists 'Identity Settings', 'Asset settings', 'Privacy and Security', 'Console Settings', 'Content Logs', and 'Encryption settings'. The main content area is titled 'Select your identity provider for authentication' and contains the following text: 'Select the identity provider that your organization uses to authenticate users.' Below this, there are three selectable options:

- Microsoft Azure Active Directory**: Select this option if you are using Microsoft Azure Active Directory for single sign-on (SSO) with OpenID Connect. [Learn more about authentication with Azure](#)
- Google**: Select this option if you are using Google Workspace for single sign-on (SSO) with SAML. [Learn more about authentication with Google](#)
- Other SAML Providers**: Select this option if your organization uses SAML for single sign-on (SSO). [Learn more about authentication with SAML](#)

At the bottom right of the main content area, there are 'Cancel' and 'Next' buttons. The footer of the console contains 'Terms of Use', 'Privacy', 'AdChoices', 'Cookie preferences', 'Do not sell or share my personal information', 'English', and '© 2023 Adobe. All rights reserved.'

Adobe Identity Management System (IMS)

Setting Up an IdP

Edit identity provider

Download Adobe metadata

OPTION 2

ACS URL

[Input field]

Copy to clipboard

Entity Id

[Input field]

Copy to clipboard

User Management

What are the best practices before we start creating users?

- Implement RBAC
- Assign Minimum Necessary Permissions
- Clearly Define and Document Roles
- Regular User and Group Reviews
- Limit Administrative Privileges
- Regular Training and Awareness
- Testing and Validation
- Group-Based Authorization



User Management

Creating a Group in IMS

The screenshot shows the Adobe Admin Console interface. The top navigation bar includes 'Admin Console' and links for 'Overview', 'Products', 'Users', 'Account', 'Insights', 'Settings', and 'Support'. The left sidebar lists navigation options: 'Users', 'User groups', 'Administrators', 'Developers', 'Directory users', and 'API credentials'. A red arrow points to 'User groups'. The main content area is titled 'Users' and shows '89' users. Below the title is a search bar with the placeholder text 'Search by email, username, first or last name'. To the right of the search bar are buttons for 'Add users by CSV', 'Add users', 'Remove users', and a menu icon. Below the search bar is a table of users with the following columns: 'Name', 'Email', 'ID type', and 'Products'. The table contains 8 rows of user data, all with 'Federated ID' as the ID type. The 'Products' column shows counts in red triangles, such as (6) and (7). The footer of the page includes links for 'Terms of Use', 'Privacy', 'AdChoices', 'Cookie preferences', 'Do not sell or share my personal information', 'English', and a copyright notice: '© 2023 Adobe. All rights reserved.'

User Management

Creating a Group in IMS

The screenshot displays the Adobe Admin Console interface for user management. The top navigation bar includes 'Admin Console' and links for 'Overview', 'Products', 'Users', 'Account', 'Insights', 'Settings', and 'Support'. The left sidebar shows a hierarchy: 'Users' > 'User groups' (selected), 'Administrators', 'Developers', 'Directory users', and 'API credentials'. The main content area is titled 'User groups' and shows '4' user groups. A search bar is labeled 'Search by user group name'. Action buttons include 'New user group' (highlighted with a red arrow), 'Remove user groups', and a menu icon. A table with columns 'Group name', 'Number of users', and 'Number of admins' is present but empty. The footer contains legal links, language settings (English), and copyright information: '© 2023 Adobe. All rights reserved.'

User Management

Creating a Group in IMS

Admin Console Overview Products Users Account Insights Settings Support

Users
User groups
Administrators
Developers
Directory users
API credentials

Create a new user group

User groups can help admins quickly assign the same products to a group of users. [Learn more about using user groups](#)

User group name

Description (optional)

Add Description!

I SENSE THE FRUSTRATION
RUNS DEEP IN THIS ONE

Cancel Save

... user groups

Number of admins	
	2
	0
	3
	0

Items per page 20

Terms of Use Privacy AdChoices Cookie preferences Do not sell or share my personal information English

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User Management

Creating a Group in IMS

The screenshot shows the Adobe IMS User Management interface for a 'Test Group'. On the left is a navigation menu with options: Users, User groups (selected), Administrators, Developers, Directory users, and API credentials. The main content area is titled 'User groups > Test Group' and includes an 'Edit user group' button. Below this, it shows 'Users assigned: 0' and 'Admins assigned: 0'. There are three tabs: 'Users', 'Admins', and 'Assigned product profiles' (which is selected). A search bar labeled 'Search by name' is present, with an 'Assign profile' button and a 'Delete profiles' button to its right. A red arrow points from the search bar to the 'Assigned product profiles' tab. Below the tabs is a table header with columns for 'Name' and 'Product name'. The table area is currently empty, displaying a 'No product profiles' message with a window icon and an 'X'.

Users

User groups > **Test Group**

Test Group Edit user group

Users assigned: **0** | Admins assigned: **0**

Users | Admins | **Assigned product profiles**

Search by name Assign profile Delete profiles

<input type="checkbox"/>	↑ Name	Product name
No product profiles		

Terms of Use | Privacy | AdChoices | Cookie preferences | Do not sell or share my personal information | English | ▼ | © 2023 Adobe. All rights reserved.

User Management







Creating a Group in IMS

Assign products and profiles

Adding products to users groups will assign a license to all users in this group. Note: Users will be notified via email according to the notification settings in the product profile. [Learn more about managing user groups](#)

Profiles assigned: 0

Select products

- EXPERIENCE CLOUD (20)
-  AEM Brand Portal >
-  AEM Managed Services >
-  AEM Managed Services - cloud-manager >
-  Adobe Analytics - >
-  Adobe Dynamic Tag Management - >
-  Adobe Experience Manager as a Cloud Service - Atco Group Production-atco- >

User Management

Creating a Group in IMS - Profiles

- System Administrator
- Account Administrator
- Product Administrator
- Group Administrator
- User Administrator
- Content Manager
- Viewer
- Contributor



User Management

Creating a Group in IMS

The screenshot displays the Adobe IMS user management interface for a group named "Test Group". On the left, a navigation menu includes "Users", "User groups", "Administrators", "Developers", "Directory users", and "API credentials". The main content area shows the breadcrumb "User groups > Test Group" and a group profile card with a person icon and the name "Test Group". A blue "Edit user group" button is located in the top right of this card. Below the card, two tabs are visible: "Users assigned" and "Admins assigned", both showing a count of "0". A secondary navigation bar includes "Users", "Admins", and "Assigned product profiles", with "Users" being the active tab. A search bar is present with the placeholder text "Search by email, username, first or last name" and a magnifying glass icon. To the right of the search bar are three buttons: "Add users" (highlighted with a red arrow), "Remove users", and a three-dot menu icon. Below these elements is a table header with columns for "Name", "Email", and "ID type". The table body is empty, displaying a large "X" icon and the text "No users". At the bottom of the page, there is a footer with links for "Terms of Use", "Privacy", "AdChoices", "Cookie preferences", and "Do not sell or share my personal information", along with a language selector set to "English" and a copyright notice: "© 2023 Adobe. All rights reserved."

User Management

Creating a User in IMS

The screenshot displays the Adobe IMS User Management interface. On the left, a navigation menu includes 'Users', 'User groups', 'Administrators', 'Developers', 'Directory users', and 'API credentials'. The 'Users' section is active, showing a header 'Users' with a count of '89'. Below the header is a search bar with the placeholder text 'Search by email, username, first or last name' and a magnifying glass icon. To the right of the search bar are three buttons: 'Add users by CSV', 'Add users' (highlighted with a red arrow), and 'Remove users', followed by a three-dot menu icon. Below the buttons is a table with columns for 'Name', 'Email', 'ID type', and 'Products'. The table contains several rows, each with a checkbox and a user icon in the 'Name' column. At the bottom of the page, there is a footer with links for 'Terms of Use', 'Privacy', 'AdChoices', 'Cookie preferences', and 'Do not sell or share my personal information', along with a language selector set to 'English' and a copyright notice: '© 2023 Adobe. All rights reserved.'

User Management

Creating a User in IMS

Add users to your team

You can add up to 10 users below by entering their email addresses.
Need to add many users? Go to the [Users tab](#), then click on **Add users by CSV**.

User 1 Remove

Email or username

ID type

This user can only be assigned to certain products.

First name (optional) Last name (optional)

Select products or user groups

User 2

Email or username

Select products or user groups

Take A Break!



User Management

How is this IdP stuff different from the SAML OSGi Configuration in AEM?

- IMS and its IdP integrations are used on the Author, not the Publish
- If the implementation needs Authentication on AEM Publish, the SAML OSGi configuration will still be required
- CUGs will still need to be created on the Author and Activated/Published to AEM Publish



Adobe Cloud Manager

Roles and responsibilities

- Business Owner
- Program Manager
- Deployment Manager
- Developer
- Customer Success Engineer
- Content Author

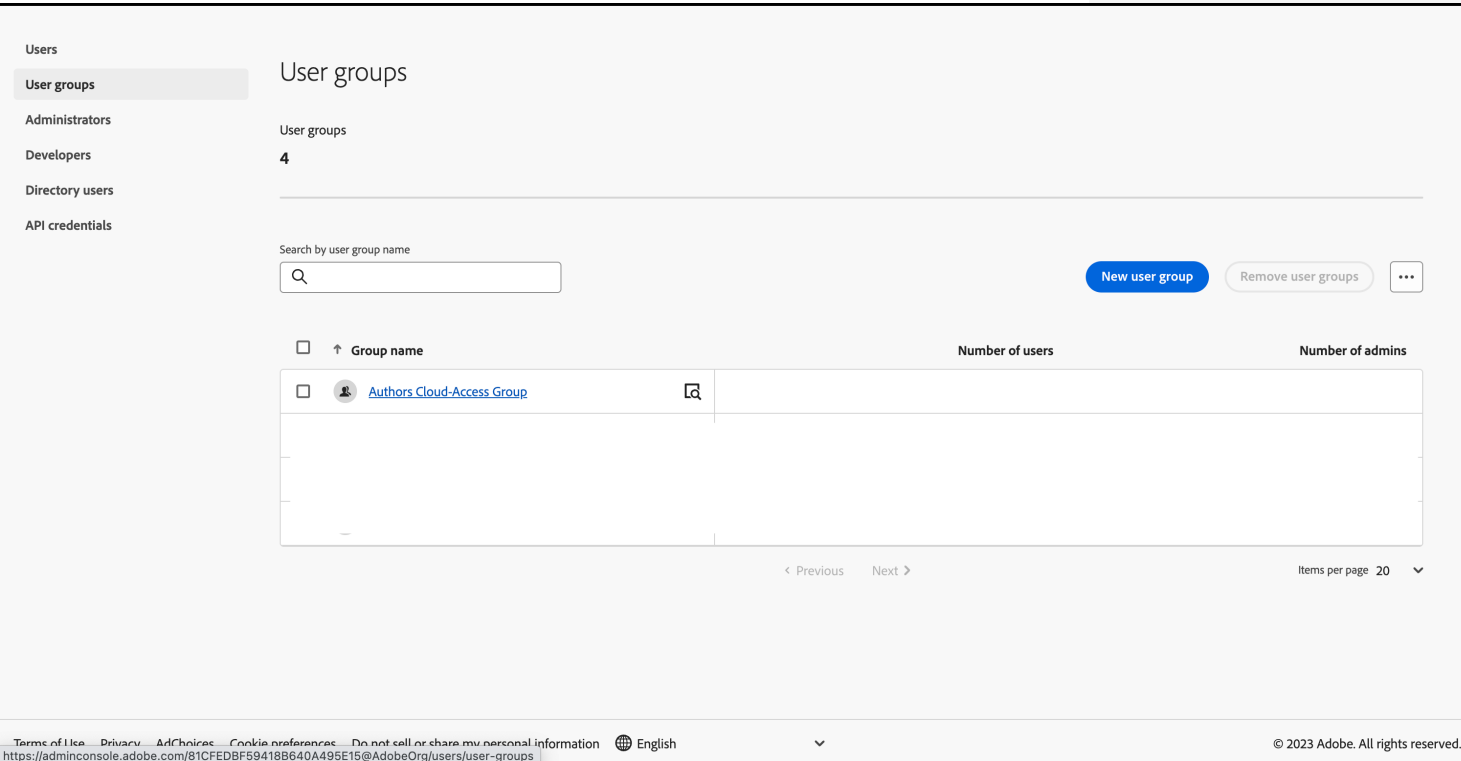
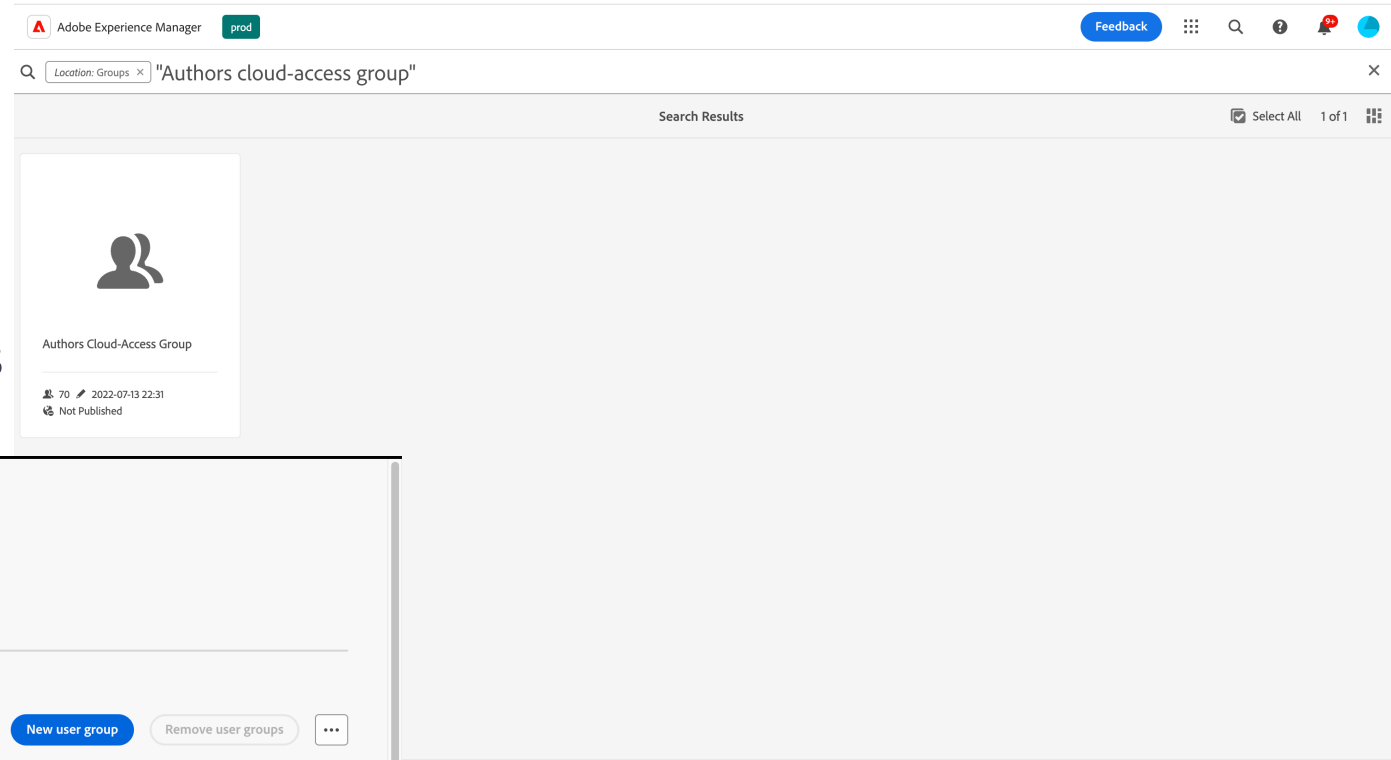
What does it do?

- Continuous Integration and Deployment
- Environment Management
- Pipeline Management
- Testing and Quality Assurance
- Insights and Analytics

Adobe Cloud Manager

AEM Group IMS Sync

- Groups created in IMS are synced down to the AEM Instances with the assigned users



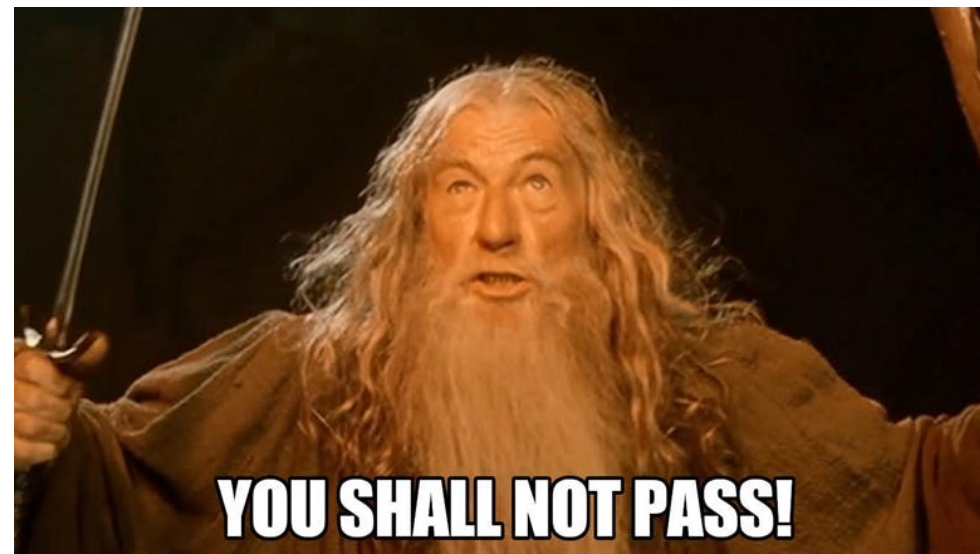
- These groups should be used to assign and limiting user access within AEM

User Management

Role-Based Access Control

There are major roles you should consider to secure different parts within AEM

- Sites: Includes Content Authors, Approvers, and Publishers
- Assets: Includes Content Authors, Approvers, and Publishers
- Tags: Includes Administrators and Users
- Editable Templates: Includes Administrators and Users
- Workflows: Includes Administrators and Users



Adobe Cloud Manager

AEM Apache Sling Repo Init

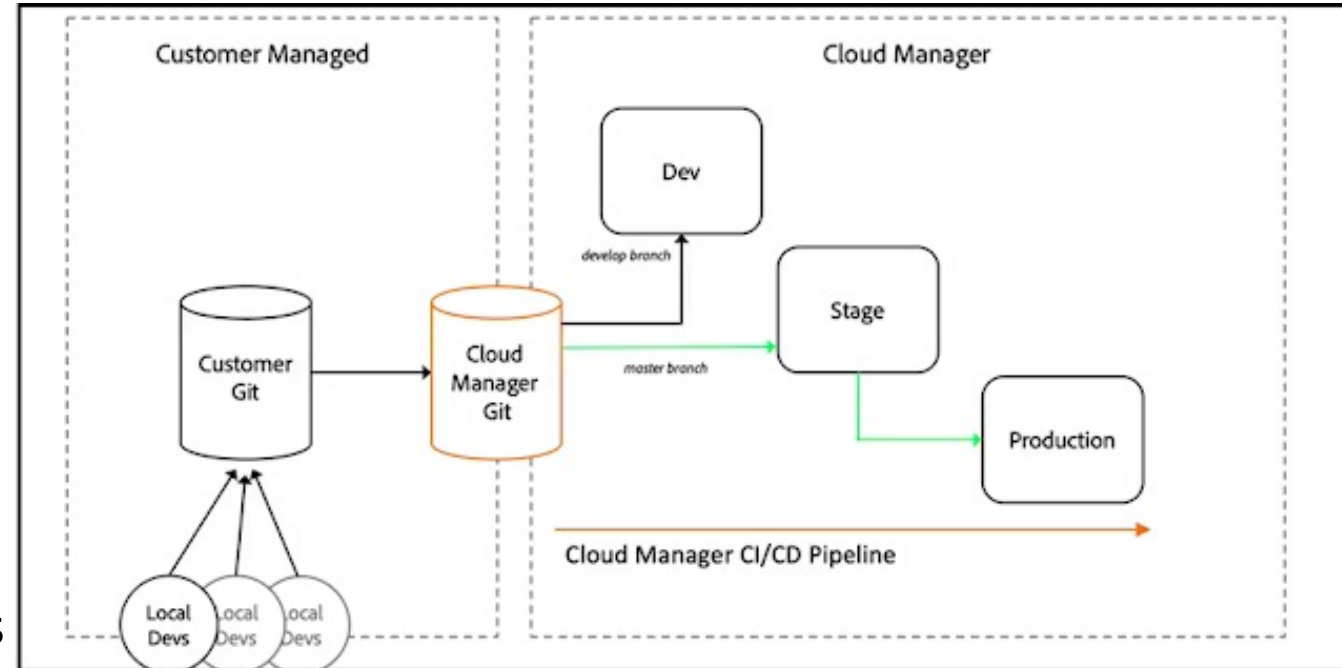
- Creating Service Users
- Creating User Groups
- Assigning Users to Groups or Groups to Groups
- Setting up ACLs for Users and Groups

```
1  scripts=[
2  ""
3      # Create paths examples
4      create path (sling:OrderedFolder) /content/dam/secure-site
5      create path (nt:unstructured) /content/dam/secure-site/jcr:content
6      set properties on /content/dam/secure-site/jcr:content
7      set cq:conf{String} to /conf/secure-site
8      set jcr:title{String} to \"Secure Site\"
9      end
10
11     create path /content/secure-site(cq:Page)
12
13     # service user secure-site-service-user (path is relative)
14     create service user secure-site-service-user with path system/secure-site
15     set ACL for secure-site-service-user
16         allow jcr:all on /
17     end
18
19     # Create a group
20     create group secure-site-group
21     set ACL for secure-site-group
22     allow crx:replicate, jcr:lockManagement, jcr:versionManagement, rep:write on /content/my-site
23     end
24
25     # Add group members
26     add secure-site-group to group administrators
27
28 ]
```

Adobe Cloud Manager

Git Repository Flow

- Importance of securing the Git repository
- Best practices for securing the Git repository in the context of Adobe Cloud Manager and CI/CD
- Integration of the Git repository with Adobe Cloud Manager for secure CI/CD
- Key considerations for securing the Adobe Cloud Manager deployment process
- Implementing secure deployment workflows
- Enforcing authentication, access controls, and audit logging



Adobe Cloud Manager

Environment Variables

- Overview of environment variables in Adobe Cloud Manager
- Purpose and benefits of using environment variables
- When to use environment variables instead of OSGi configurations for security reasons



Adobe Cloud Manager

Environment Variables

The screenshot displays the Adobe Cloud Manager interface for configuring environment variables. The top navigation bar includes 'Cloud Manager', 'Overview', 'Environments', 'Pipelines', 'Repositories', 'Activity', 'Reports', and 'Learn'. A 'Feedback' button and utility icons are on the right. The breadcrumb trail shows 'Program Overview > Environments >'. The left sidebar lists 'Environments' (selected), 'SSL Certificates', 'Domain Settings', 'IP Allow Lists', 'Content Sets', and 'Copy Content Activity'. The main content area shows a 'Production' environment with a 'Running' status. Below this are tabs for 'General' and 'Configuration'. The 'Environment Information' section contains a table with the following data:

Field	Value	Notes
Author URL		
Region	United States (East US)	
AEM Release	2023.7.12549.20230704T084019Z	New release available ⓘ

The 'Environment Segments' section features a table with the following data:

SEGMENT	STATUS	DOMAIN
Author Service	● Running	🌐 N/A
Publish Service (AEM & Dispatcher)	● Running	🌐 56 domains
Preview Service (AEM & Dispatcher)	● Running	🌐 N/A

The 'Domain Names' section is partially visible at the bottom.

Adobe Cloud Manager

Environment Variables

Environment Configuration

Change environment variables so you can avoid changing functional code. After you enter your new variable you must select Add. When you're done with all your updates, select Save to submit your changes. [Learn More](#)

NAME	VALUE	SERVICE APPLIED	TYPE	
<input type="text" value="testconfig"/>	<input type="text" value="testvalue"/>	<input type="button" value="All"/> ▾	<input type="button" value="Type"/> ▾	<input type="button" value="+ Add"/>

No configuration added

Environment Configuration

Change environment variables so you can avoid changing functional code. After you enter your new variable you must select Add. When you're done with all your updates, select Save to submit your changes. [Learn More](#)

NAME	VALUE	SERVICE APPLIED	TYPE	
<input type="text" value="testconfig"/>	<input type="text" value="testvalue"/>	<input type="button" value="All"/> ▾	<input type="button" value="Type"/> ▾	<input type="button" value="+ Add"/>

No configuration added

Adobe Cloud Manager

Environment Variables

OSGi Configuration

```
{
  "connection.timeout": 1000,
  "api-key": "${secret:server-api-key}",
  "url": "${env:server-url}"
}
```

POM XML

```
<servers>
  <server>
    <id>myco-repository</id>
    <username>cloudmanager</username>
    <password>${env.CUSTOM_MYCO_REPOSITORY_PASSWORD}</password>
  </server>
</servers>
```

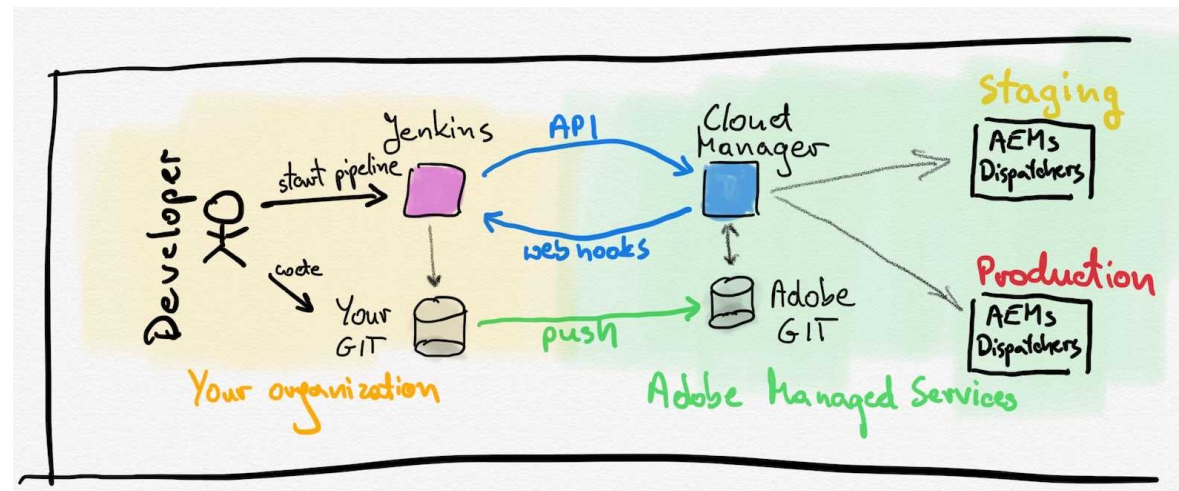
Maven Settings

```
<?xml version="1.0" encoding="UTF-8"?>
<settings xmlns="https://maven.apache.org/SETTINGS/1.0.0" xmlns:xsi="https://maven.apache.org/SETTINGS/1.0.0" xsi:schemaLocation="https://maven.apache.org/SETTINGS/1.0.0 https://maven.apache.org/SETTINGS/1.0.0/xsd/maven-settings-1.0.0.xsd">
  <servers>
    <server>
      <id>myco-repository</id>
      <username>cloudmanager</username>
      <password>${env.CUSTOM_MYCO_REPOSITORY_PASSWORD}</password>
    </server>
  </servers>
</settings>
```

Adobe Cloud Manager

Securing AEM with Allowed IPs

- Environment specific (Prod Author vs Publish vs Preview)
- Can be applied without a code deploy
- Only accessible by Cloud Manager Admins and Developers



Adobe Cloud Manager

Securing AEM with Allowed IPs

Cloud Manager Overview **Environments** Pipelines Repositories Activity Reports Learn Feedback ? 8

Program Overview > **IP Allow Lists** Add IP Allow List

- Environments
- SSL Certificates
- Domain Settings
- IP Allow Lists**
- Content Sets
- Copy Content Activity

IP ALLOW LIST NAME	STATUS	IP / CIDR	
Preview Default [86055]	✔ Applied on 1 service(s)	0.0.0.0/32	...
Preview Default [78293]	✔ Applied on 1 service(s)	0.0.0.0/32	...
Preview Default [86103]	✔ Applied on 1 service(s)	0.0.0.0/32	...
Preview Default [336102]	✔ Applied on 1 service(s)	0.0.0.0/32	...
Publish Server	● <i>Not in use</i>	74.222.76.151/32	...



Adobe Cloud Manager

Securing AEM with Allowed IPs

Add IP Allow List

Define IP Allow List rules here. Include trusted IP/CIDR addresses that you would like to access your AEM services. [Learn More](#)

IP Allow List name

IP address / CIDR

You can add maximum 50 IP / CIDR addresses. 50/50 IP / CIDR left

Cancel

Save



Adobe Cloud Manager

Securing AEM with Allowed IPs

The screenshot shows the Adobe Cloud Manager interface. The top navigation bar includes 'Cloud Manager', 'Overview', 'Environments', 'Pipelines', 'Repositories', 'Activity', 'Reports', and 'Learn'. A 'Feedback' button and utility icons are on the right. The breadcrumb trail is 'Program Overview > Environments >'. The left sidebar contains 'Environments', 'SSL Certificates', 'Domain Settings', 'IP Allow Lists', 'Content Sets', and 'Copy Content Activity'. The main content area is divided into two sections: 'Environment Segments' and 'Domain Names'. The 'Environment Segments' table lists three services: 'Author Service', 'Publish Service (AEM & Dispatcher)', and 'Preview Service (AEM & Dispatcher)', all with 'Update Available' status and 'N/A' domain. The 'Domain Names' section has a search bar and a dropdown menu with options like 'Preview Default [86055]', 'Preview Default [78293]', 'Preview Default [86103]', 'Preview Default [336102]', and 'Publish Server'. Below this is a table for IP allow lists with columns for 'SERVICE APPLIED' and 'IP / CIDR', showing 'Preview Default [336102]' with 'Preview' service and '0.0.0/32' IP range.

SEGMENT	STATUS	DOMAIN
Author Service	• Update Available	N/A
Publish Service (AEM & Dispatcher)	• Update Available	N/A
Preview Service (AEM & Dispatcher)	• Update Available	N/A

DOMAIN NAME	SSL CERTIFICATE	DNS RECORD
<input type="text" value="Enter Domain Name"/>	<input type="text" value="Please enter the Domain Name first"/>	<input type="button" value="+ Add"/>
No Domain Names added		

IP ALLOW LIST	SERVICE APPLIED	IP / CIDR
<input type="text" value="Select IP Allow List"/>	<input type="text" value="Select Service"/>	<input type="button" value="+ Apply"/>
<input checked="" type="checkbox"/> Preview Default [336102]	Preview	0.0.0/32

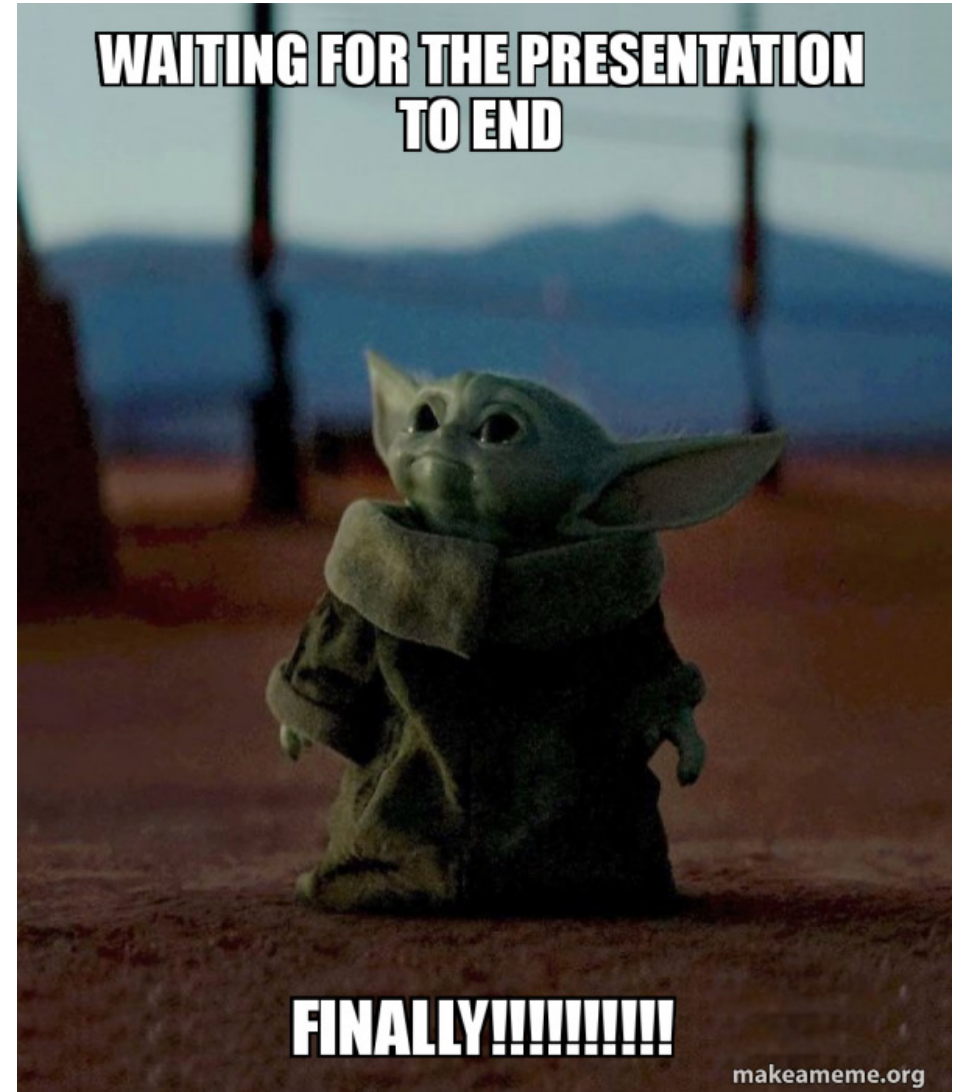
Adobe Cloud Manager

Dispatcher Whitelisting

- Can be domain specific based on which vhost is being used
- Requires a code deploy when changes happen
- Accessible by all developers as it is part of the codebase

Takeaways

- Adobe IMS can be used for Authentication and Authorization or just Authorization
- It is important to assign the right permissions to the groups based on Role-Based Access Control
- Users should be assigned to groups and not directly to applications
- Cloud Environment Variables should be used, specially for “Secret” strings
- Adobe Cloud can be used along side the Dispatcher to limit access to your environments
- *Using too many memes might not be a good idea!*





Q&A



Artwork by Dan Zucco

Bē

Don't forget...



Experience Makers

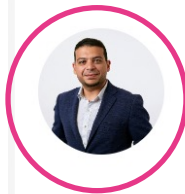
The Skill Exchange

August 15: Adobe Experience Manager-Sites

AEM Developer Starter Kit

9:15 AM-9:55 AM

Developer Track (...)



Rami El Gamal
Senior Solution Arc...
RENY Consulting In...

There's me!



