

**Content Transfer Tool Documentation**

The **Content Transfer Tool (CTT)** is Adobe's official solution for migrating content from on-premise or Adobe Managed Services (AMS) hosted Adobe Experience Manager (AEM) instances to AEM as a Cloud Service. This tool streamlines the migration process by automating content transfer while integrating seamlessly with the Cloud Acceleration Manager (CAM).

**Definition**

The Content Transfer Tool is a specialized migration utility developed by Adobe that facilitates the transfer of existing content from a source AEM instance (version 6.3 or higher) to a target AEM Cloud Service instance[[1]](#fn1). The tool also automatically transfers user groups and maintains content integrity throughout the migration process[[1]](#fn1). CTT operates through a two-phase approach: **extraction** and **ingestion**, utilizing temporary cloud storage managed by Adobe for intermediate content storage[[1]](#fn1)[[2]](#fn2).

**Prerequisites**

Before implementing the Content Transfer Tool, several technical and environmental prerequisites must be met:

**System Requirements**

* **AEM Version**: Source AEM instance must be version 6.3 or higher[[3]](#fn3)
* **Java Environment**: Java 8 must be configured on the AEM environment[[4]](#fn4)
* **User Permissions**: Users must have administrative permissions on both source and target environments

**Repository Size Limitations**

* **Segment Store**: Maximum 750 million JCR nodes and up to 500 GB (online compacted size) on Author environments, 50 GB on Publish environments[[3]](#fn3)
* **Total Content Repository**: Up to 20 terabytes for File Data Store types[[3]](#fn3)
* **Lucene Index Size**: Maximum 25 GB total, excluding /oak:index/lucene and /oak:index/damAssetLucene[[3]](#fn3)

**Network Connectivity**

* Source AEM instance must have access to Azure blob storage service: casstorageprod.blob.core.windows.net[[5]](#fn5)
* Proper firewall configuration to allow communication with Adobe's cloud infrastructure

**Pre-Migration Preparation**

* Execute revision cleanup and data store consistency checks on the source repository[[4]](#fn4)
* Ensure sufficient disk space in the crx-quickstart subdirectory (1.5 times the current repository size recommended)[[6]](#fn6)
* Run Data Store Garbage Collection within seven days prior to migration[[7]](#fn7)

**Installation Steps**

**Source Environment Installation**

**Step 1: Download the Tool**

* Access the Software Distribution Portal through Adobe Experience Cloud[[5]](#fn5)
* Navigate to AEM as a Cloud Service section
* Search for "Content Transfer Tool" and download the latest version (2.0.0 or higher)[[5]](#fn5)

**Step 2: Install via Package Manager**

* Log into your source AEM instance
* Navigate to **Tools > Deployment > Packages**[[5]](#fn5)
* Upload the downloaded CTT package (.zip file)
* Install the package through Package Manager[[5]](#fn5)

**Step 3: Verify Installation**

* After installation, navigate to **Operations > Content Migration** from the AEM start screen[[5]](#fn5)
* Confirm the Content Transfer Tool interface is accessible

**Source Environment Configuration**

**Step 4: Network Configuration**

* Ensure the source AEM instance can reach required endpoints
* Configure SSL logging if needed by navigating to **Tools > Operations > Web Console**[[5]](#fn5)
* Search for "Content Transfer Tool Extraction Service Configuration" and enable SSL logging for troubleshooting[[5]](#fn5)

**Configuration Options and Features**

**Migration Set Parameters**

**Include Versions Option**

* When enabled, includes version history in migration[[5]](#fn5)
* Automatically includes /var/audit path for audit events migration[[5]](#fn5)
* **Important**: If performing top-ups with wipe=false, version purging must be disabled[[5]](#fn5)

**Path Selection Methods**

* **Manual Selection**: Use the UI path browser to select individual paths[[5]](#fn5)
* **CSV Upload**: Upload a CSV file with one path per line (no commas allowed)[[5]](#fn5)
* **Path Restrictions**: Cannot include /apps, /libs, /home, or most /etc paths[[5]](#fn5)

**Exclusion Capabilities**

* Specify paths to exclude from migration (e.g., exclude /content/dam/catalogs while including /content/dam)[[5]](#fn5)
* Useful for selective content migration strategies

**Advanced Options**

**Migration Set Management**

* Maximum of 10 migration sets per Cloud Acceleration Manager project[[5]](#fn5)
* Each migration set expires after prolonged inactivity[[5]](#fn5)
* Geographic region selection for optimal performance during ingestion[[5]](#fn5)

**Size Check Feature**

* Verify sufficient disk space before extraction[[5]](#fn5)
* Confirm migration set size falls within supported product limits[[5]](#fn5)
* Prevents failed content ingestions due to size constraints[[5]](#fn5)

**Pre-Copy Feature for Large Repositories**

* Automatically enabled for migration sets larger than 200 GB (CTT version 2.0.16+)[[7]](#fn7)
* Uses AzCopy for optimized blob transfer from Amazon S3, Azure Blob Storage, or File Data Store[[7]](#fn7)
* Significantly reduces extraction and ingestion time for large repositories[[7]](#fn7)

**Cloud Acceleration Manager Configuration**

**Project Setup**

**Step 1: Access CAM**

* Log into Adobe Experience Cloud[[8]](#fn8)
* Click the **Experience Manager** card[[8]](#fn8)
* Select **Launch** from the **Cloud Acceleration Manager** card[[8]](#fn8)

**Step 2: Create Migration Project**

* Click **Create project** from the CAM landing page[[8]](#fn8)
* Enter project **Name** and **Description**[[8]](#fn8)
* Click **Create** to establish the project[[8]](#fn8)

**Step 3: Configure Content Transfer**

* Navigate to the **Content Transfer** card within your project[[5]](#fn5)
* Click **Create Migration Set** to establish a new migration container[[5]](#fn5)
* Configure migration set name, region, and other parameters[[5]](#fn5)

**Migration Set Configuration in CAM**

**Extract Key Management**

* Copy the extraction key from CAM (treat as sensitive information)[[5]](#fn5)
* Use this key to securely connect the source AEM environment to the migration set[[5]](#fn5)
* Paste the key into the source AEM Content Transfer Tool interface[[5]](#fn5)

**Environment Target Configuration**

* Specify the target AEM Cloud Service environment[[5]](#fn5)
* Configure ingestion settings for Author and/or Publish tiers[[5]](#fn5)
* Set up validation and reporting preferences[[5]](#fn5)

**Operational Workflow**

**Extraction Phase**

The extraction phase copies content from the source AEM repository to Adobe's temporary cloud storage[[6]](#fn6). This process:

* Creates a migration set containing selected content paths[[6]](#fn6)
* Uploads extracted content to temporary cloud storage managed by Adobe[[6]](#fn6)
* Generates detailed logs for monitoring and troubleshooting[[6]](#fn6)
* Supports differential extraction for subsequent migrations[[1]](#fn1)

**Ingestion Phase**

The ingestion phase transfers content from temporary storage to the target AEM Cloud Service environment[[6]](#fn6). Key features include:

* **Wipe Mode**: Removes existing content before ingestion (recommended for initial migrations)[[4]](#fn4)
* **Non-Wipe Mode**: Applies migration set content on top of existing content[[4]](#fn4)
* **Environment Selection**: Target Author, Publish, or both environments[[6]](#fn6)
* **Parallel Processing**: Supports simultaneous ingestion into multiple environments[[1]](#fn1)

**Known Issues and Limitations**

**Data Integrity Issues**

**Missing Blob IDs**

* **Symptom**: Error messages indicating missing blob records[[9]](#fn9)
* **Resolution**: Execute consistency check using oak-run.jar with appropriate parameters[[9]](#fn9)
* **Prevention**: Perform data store consistency checks before migration[[9]](#fn9)

**User Interface Limitations**

**UI Behavior Variations**

* Icons may appear differently depending on source AEM version[[9]](#fn9)
* Some UI elements may not display correctly across different AEM versions[[9]](#fn9)

**Migration Constraints**

**Content Path Restrictions**

* Cannot migrate content from immutable paths like /apps, /libs, /home[[3]](#fn3)
* Limited /etc path support (only specific paths for AEM Forms integration)[[3]](#fn3)

**Performance Considerations**

* Large extractions may take multiple days without pre-copy optimization[[7]](#fn7)
* Pre-copy feature not recommended for top-ups smaller than 200 GB[[7]](#fn7)
* Migration sets automatically expire after extended periods of inactivity[[5]](#fn5)

**Technical Limitations**

**Version Management**

* Version purging conflicts with top-up migrations when wipe=false[[5]](#fn5)
* Requires careful planning for incremental migration strategies[[5]](#fn5)

**Resource Requirements**

* Significant disk space requirements (1.5x repository size recommended)[[6]](#fn6)
* Network bandwidth considerations for large content transfers[[7]](#fn7)

**Best Practices and Recommendations**

**Pre-Migration Optimization**

* Run revision cleanup and compaction on source instances[[4]](#fn4)
* Perform data store consistency checks to identify potential issues[[4]](#fn4)
* Plan migration during low-traffic periods to minimize performance impact[[4]](#fn4)

**Migration Strategy**

* Use wipe mode for initial migrations to ensure clean target environment[[4]](#fn4)
* Implement frequent top-up migrations leading to go-live for efficient cutover[[6]](#fn6)
* Leverage pre-copy feature for repositories larger than 200 GB[[7]](#fn7)

**Monitoring and Validation**

* Regularly review extraction and ingestion logs for early problem detection[[5]](#fn5)
* Utilize validation reports to verify successful content and group migration[[1]](#fn1)
* Monitor migration set expiration dates to prevent data loss[[5]](#fn5)

The Content Transfer Tool represents a sophisticated solution for AEM content migration, offering comprehensive features for various migration scenarios while requiring careful planning and configuration to ensure successful implementation. Its integration with Cloud Acceleration Manager provides a streamlined approach to moving from traditional AEM deployments to the cloud-native AEM as a Cloud Service platform.

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1. <https://experienceleague.adobe.com/en/docs/experience-manager-cloud-service/content/migration-journey/cloud-migration/content-transfer-tool/overview-content-transfer-tool>

1. <https://www.aemguide.in/2025/01/adobe-experience-managers-content.html>

1. <https://experienceleague.adobe.com/en/docs/experience-manager-cloud-service/content/migration-journey/cloud-migration/content-transfer-tool/prerequisites-content-transfer-tool>

1. <https://help.sap.com/doc/saphelp_tdm40/4.0.11/en-US/17/4ff82295534fc6a7b1ed57009350dd/content.htm>

1. <https://experienceleague.adobe.com/en/docs/experience-manager-cloud-service/content/migration-journey/cloud-migration/content-transfer-tool/getting-started-content-transfer-tool>

1. <https://solutionshub.epam.com/blog/post/content-migration-plan?blog-post-solution=migvisor-by-epam>

1. <https://www.atlassian.com/git/tutorials/big-repositories>

1. <https://www.gspann.com/resources/blogs/aem-as-a-cloud-service-step-by-step-migration-guide/>

1. <https://www.linkedin.com/pulse/ctt-model-its-limitations-simple-words-brian-mumba>