



Content API Best Practices

Feature Requirements for version 1.0 of any Generic Connector to the Content API.

Version 1.0.0

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Connector Installer

Typically, the target content platform defines how the Connector is to be installed. We recommend the following standards while respecting requirements of the Target System:

- Requirement : Ability to install, uninstall and upgrade the Connector. Upgrade should not impact in progress jobs.
 - Recommendation :
 - Optimal installers would not require the restart of the target content system
- Ability to Enable/Disable Connector - Most content platforms support the notion of active and inactive software components.

- Recommendation : Installation should query existing version to ensure compatibility when upgrading.

Logging:

The Connector will log transaction information, including errors.

- Requirement : Application will write transaction information to a log file.
- Requirement : Application will create one log file per day - On each new day, a new log file will be created.
- Recommendation : Application will support multiple logging levels - Our Connectors supports two logging levels, Default (Informational, Warnings, Errors) and Debug (Verbose Logging for All Connector Activities).
- Recommendation : Provide a UI to find and consume, and possibly download log files.
- Recommendation : Error reporting and Handling should be clearly indicated when submissions encounter issues

Payload

The quotas are put in place to ensure the provisioned server resources can adequately handle workloads. They can be increased on a case-by-case basis. Below is a list of quota names followed by the default values.

"MaxJobsPerUser", 1000

"Site" in this context is the organization the user is under

"MaxListenersPerSite", 100

"MaxStatusUpdatesPerSite", 10000

These are limits per job.

"MaxReqsPerJob", 1000 (max # of requests per job)

"MaxSupportAssetsPerJob", 1000

"MaxFilesPerJob", 1000

FileSize Limitation : 500mb per file

Optional : Ability to Clone previously delivered jobs to resubmit it as a new job

By default, all orgs are throttled to 10 requests/second. New Integrations should either handle the throttling error with a try-catch, or introduce a delay between method invocations.

These quotas are per customer. Expectation is that customer will periodically clean up their jobs. If there is a likelihood that these quotas will be exceeded, then Lionbridge should be contacted and requested for an exemption.

Max Number of Files in Payload

Lionbridge recommend that when multiple files are included in the payload, that this does not exceed 1000 files. It is important that this is advised to customer as part of the business process also

XML files within the Payload

Requirement : Split content into multiple files based on localisation needs. Eg separate SEO content from non SEO content.

Requirement: Present as much context as possible eg: **within the payload XML Lionbridge should be able to distinguish the H1, H2, H3 Headings, etc.**

Recommendation : When in doubt give Lionbridge as much metadata as possible. Lionbridge can parse out anything not required or has no value. Ideally construct the payload in such a way that an XLST can be applied to give as faithful a rendering as possible.

Connector Configuration Options

The Connector typically has various configuration options, which an administrator can modify to affect the performance of the software. For version 1.0 releases, a graphical Administration user interface is not required. An administrator must be able to configure these options, but it is acceptable to do so via a configuration file only.

- Requirement : Ability to Specify Configuration Options – via an editable configuration file stored locally on the file system or some other method, an administrator can control the following application settings.
 - Recommendation : Ability to Change Configuration Options without Restarting Target Content System
 - Requirement : Ability to add in new providers via an admin configuration
- Recommendation : Ability to Define the Number of Items per XML File
- Requirement : Ability to Set Application Logging Level – Default and Debug is supported and Default should be the default option specified.

- Recommendation : Ability to Set standard Proxy Configuration Options - Configure standard Proxy Implementation settings, including proxy server address, port and protocol. (where applicable)
- Requirement : connector developer should not to simply list all available providers for end users to pick from when submitting jobs. Instead, the connector should have a feature to configure which providers are available for user to pick, thus limiting users' choice to only ones that are relevant to the particular connector instance, making it less likely for user to pick the wrong one.

Language Mapping:

Requirement : Mechanism by which users can map a language in host system to Lionbridge accepted language codes

Application Versioning

Keeping the application and database versions synchronized is a critical component to the normal operation of the Connector. In addition, it makes support and troubleshooting much easier. As such, the following Application Versioning requirements apply:

- Requirement : The Connector must write its version information to the log files on instantiation.
- Requirement : The Connector must write relevant configuration information (eg. Api keys, metadata) to the log files on instantiation.

User Interfaces

The following User Interfaces should be provided in all Connectors. UIs will respect the design and operational considerations of their target system.

- Individual Item selection
- Bulk Translation
- Translation Queue
- Translation Status

Basic Functionality

The following functionality shall be provided across the various UIs. Each Target System may have different implementations of these features.

- Requirement : Ability to Specify Source Language

- Requirement : Ability to Specify Target Language
- Requirement : Ability to Specify Multiple Target Languages
- Requirement : Ability to Search for Content Items by String
- Requirement : Ability to Search for Content Items by Content Tree, including Child Items
- Requirement : Ability to Select One, Multiple or All Items from a Result Set
- Requirement : Ability to Send Items to Queue
- Requirement : Ability to Send Items Immediately for Translation
- Requirement : Ability to Define Job Metadata - Standard base set includes Job Name, Description, Purchase Order. Consider additional metadata such as Delivery Date, SEO needed, Special Instructions, Analysis codes etc.
- Recommendation : Multi-workflow model to be supported
- Requirement : Ability to Check on Job Status via Translation Status UI
- Requirement : Ability to accept a “Redelivery” of a job. Customer Connector should check for redelivery
 - Recommendation : To eliminate the risk of content being overwritten as a result of a redelivery on assets updated by customer, the connector should check and **warn** for updated content after a previous delivery
- Recommendation : Ability to push “reference material” with the payload. Alternatively you can pass information (instructions) via the description field in ContentAPI. This is text input, restricted to 500 characters downstream. Any more and the information should be sent as a reference file.
- Recommendation : Ability to specify that a job could be quoted
- Submission structure should be in accordance with guidelines defined in developer key concepts [workflow](#)
- Requirement : Provide the ability to Filter Results Sets by Criteria, including strings, dates.
- Recommendation : ability to hide completed jobs from UI after configurable time period (aka N days).
- Required : Checking or job status changes. Use listeners so that contentapi pushes. If you use poll, use statusupdate per job endpoint (do not get list of each request in a job)
- Requirement : Do not allow users to cancel or delete jobs that are in progress
- Requirement : To Respond correctly to cancellation status on API

Notifications

The Connector utilizes notifications to send job information to administrators and end users. The Connector notification system must support the following requirements:

- Requirement : Send notification upon sending a job for translation.

- Requirement : Send notification upon a job returning from translation.
- Recommendation : Ability to define notification parameters such as Email Server information, including hostname, credentials and protocols to use.
- Recommendation : Extend the default feature set. Additional features would include notifications when jobs fail etc...

Being added (ConnectorName and Connector Version)

Team Profiles

Ability to keep groups of users, their content and jobs and status separate.

Requirement : The ability to assign specific providers to specific environments\user groups

LocalTM Implementation

This feature varies depending on the target Content System. The goal is to store translated content locally, then compare translation requests, or compare field level time stamps if the functionality exists. The idea is to reduce the payload down to the delta between handoffs

Polling

ContentAPI would be using push notification so polling is an **option** in ContentAPI connectors

We would recommend that when polling is employed that a default setting of 60 minutes is used. If it needs to be shorter, then this can be configured as required. However, for large file payloads, a longer polling should be used.

Passwords

Passwords need to be hashed and not stored in cleartext

Summary of Best practice

- Ability to mash payload files together. Avoid hundreds of files per payload.
- Poll Freeway every hour (as opposed to every minute)
- Retrieve at the job level (as opposed to the file level)
- Use ISO 9002 language codes
- Validate your language list. It can be a nasty surprise when you've programmed pt-br but meant pt-pt
- Create as much business logic within the Connector as possible e.g. Job approval : When delivery is made, that the content is not made publicly available until customer reviews and accepts delivery (this can be user configurable)
- Connectors should be provided with User Guide/Install Guide for effective support post deployment.

What's Next

Once you have read this document, we can set up a call with you in relation to process or the best practices contained herein. Otherwise, during the development, please reach out to connectors@lionbridge.com with any queries.

Once a Connector has been developed, the next step is to send a ticket to connectors@lionbridge.com and request a certification meeting with Lionbridge to certify the connector for production use. Note: this is required before Production access is granted.