

Open CDE APIs

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Supported By



What do users say?



“Vendors are often unwilling to build integrations between tools, especially the project management solutions used by owners, designers, and contractors. It is a critical need in our industry, and we have needed to engage third parties and spend significant resources to get this done.”

Brian Tighe

Skanska USA

Current state of the market



- No seamless transfer of information between tools



- No single source of truth



- Products are disconnected



- Low automation caused by missing integrations, so lots of manual work is required

Open CDE APIs

Why

- Multiple applications used to manage the various BIM processes.
- This can lead to multiple sources of the truth being scattered across different systems.
- Projects need to trust the Common Data Environment to provide a single source of truth.

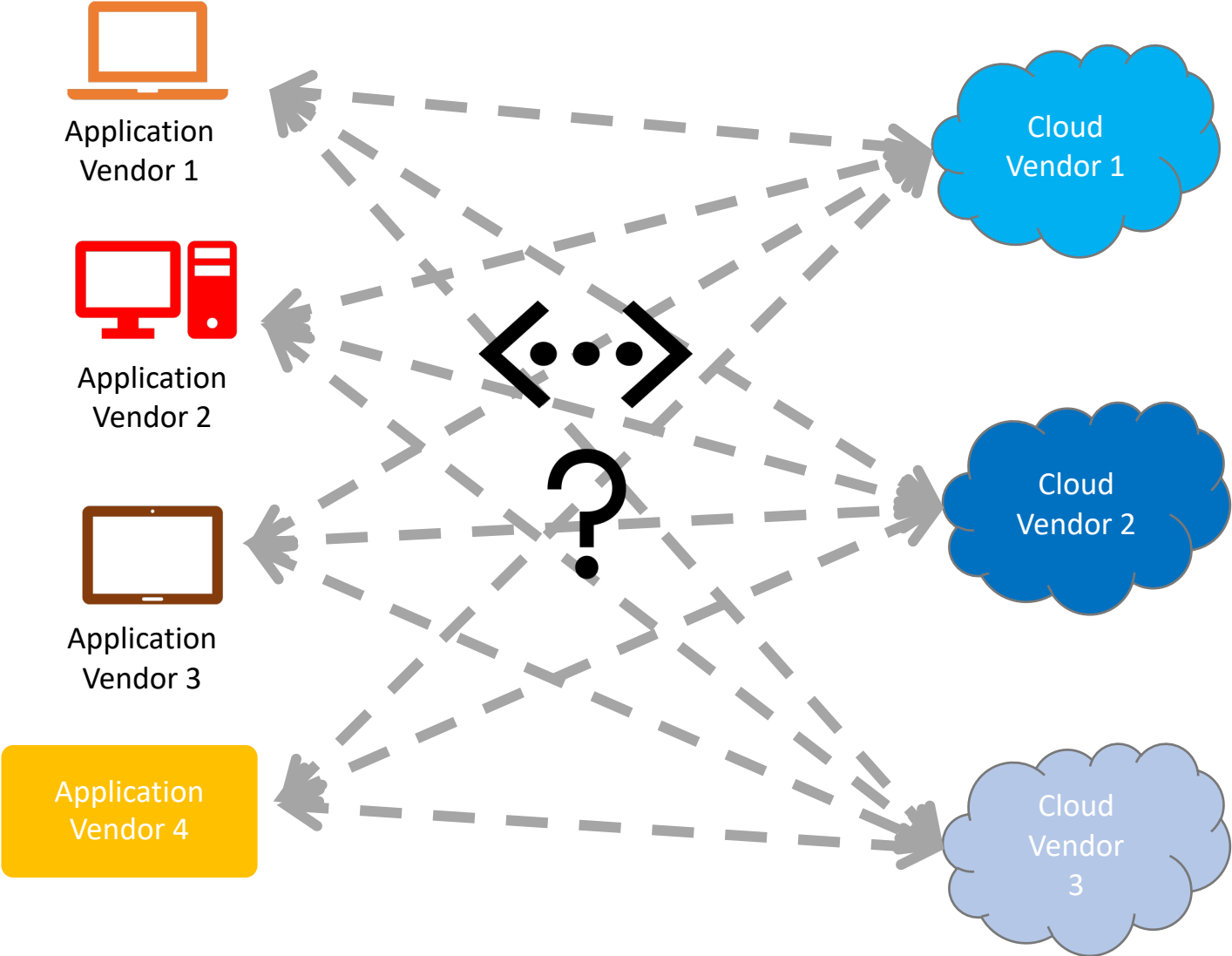
Purpose

- Well-defined, lossless data exchanges that ensure a continuous flow of information during a buildings' lifecycle.
- To reduce double handling and multiple versions of the truth

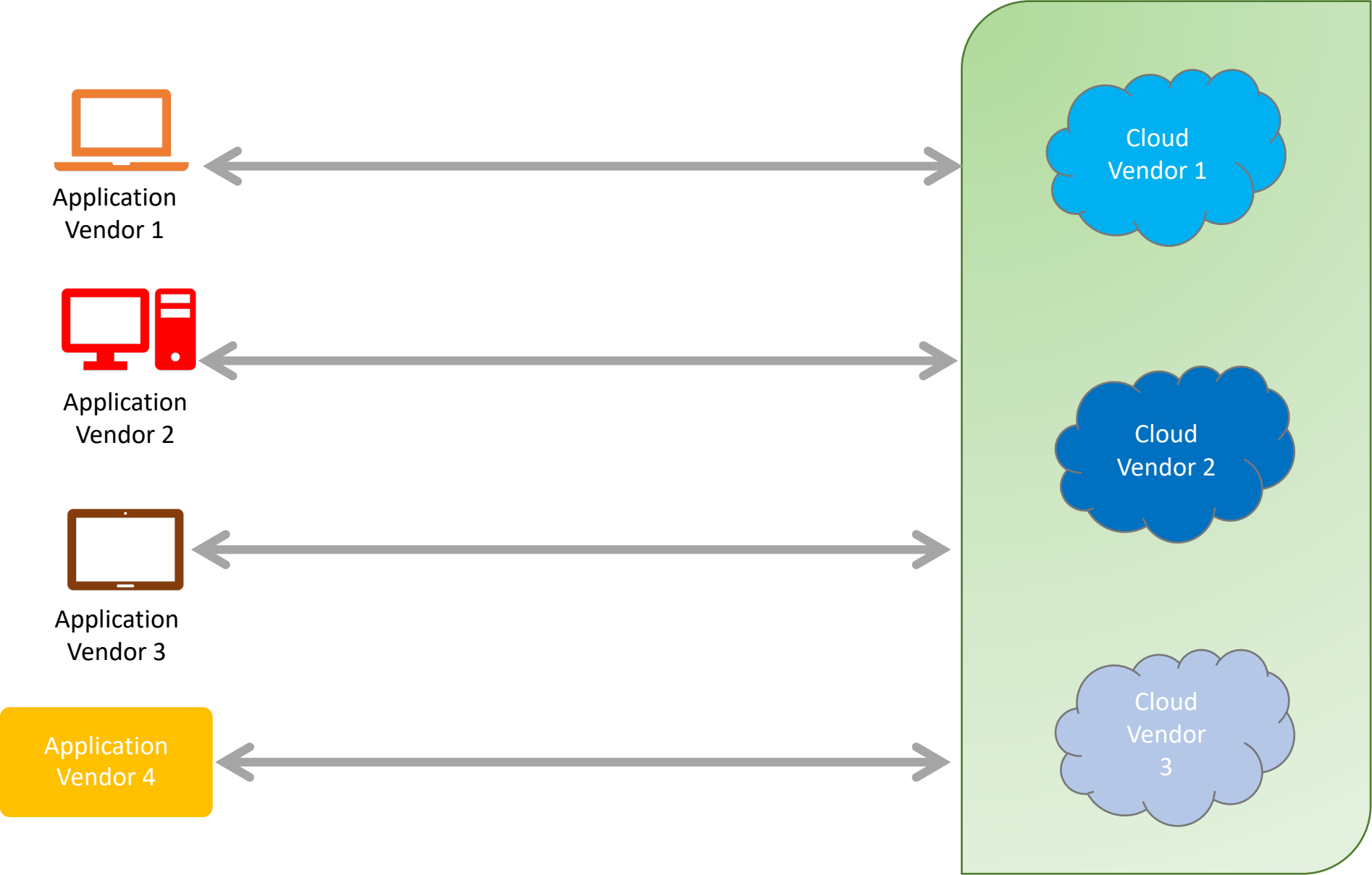
Value

- Faster process and cycle times
- Seamless transfer and flow of information
- Every project participant has the right and most up-to-date information
- No double handling of information across systems

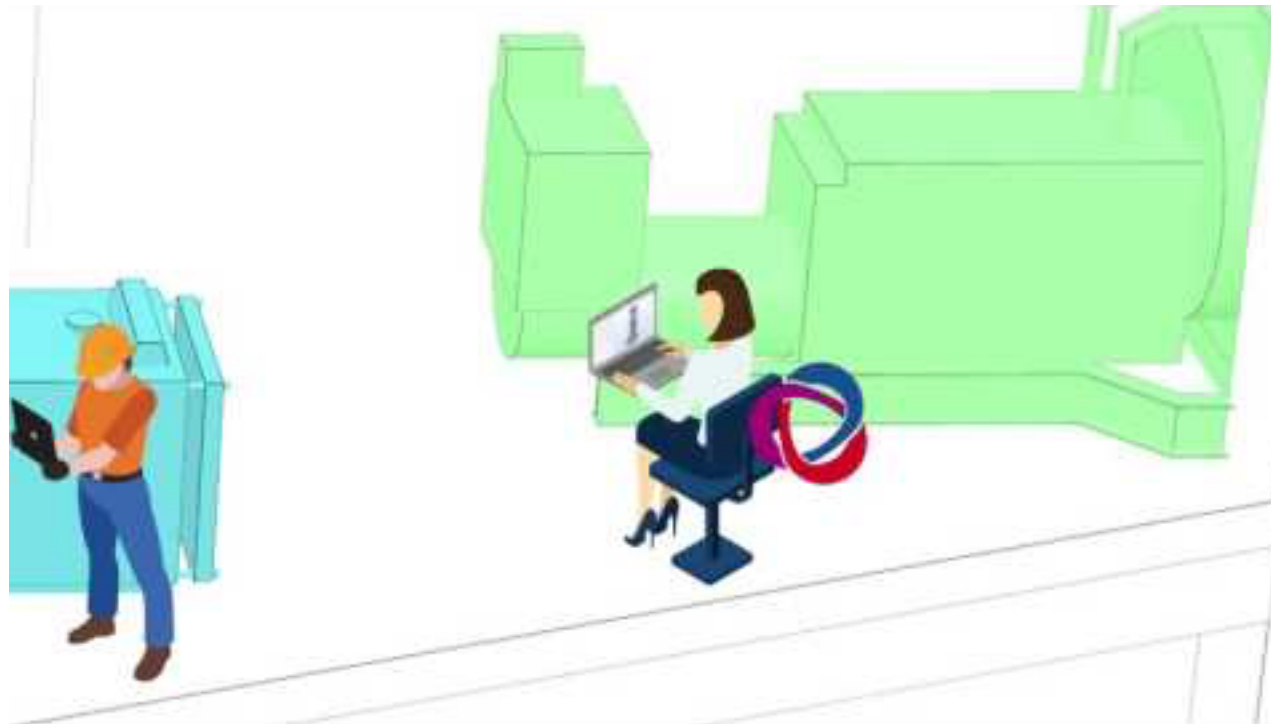
Integration Dilemma



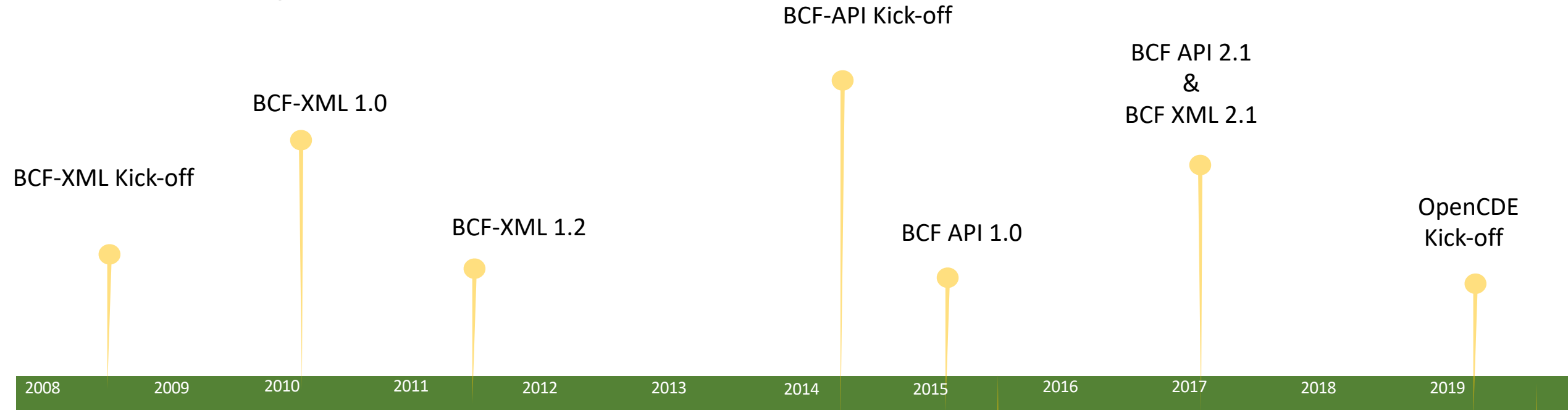
CDE API as a solution



BCF – Problem Statement



BCF & OpenCDE



- Meetings online every second Monday at 11^{am} CET
- Follow/contribute in <https://github.com/buildingSMART/OpenCDE-API>
- To join, contact Klaus Linhard linhard@iabi.eu or Georg Dangl dangl@iabi.eu

First BCF Hackathon
Helsinki

Open CDE
Hackathon
Nov 27th 28th
Munich

Approach



Focused APIs – each addressing a specific domain or workflow



APIs work in conjunction and share a similar “Look&Feel”



Prototype first, specify later



Put in front of users and get feedback

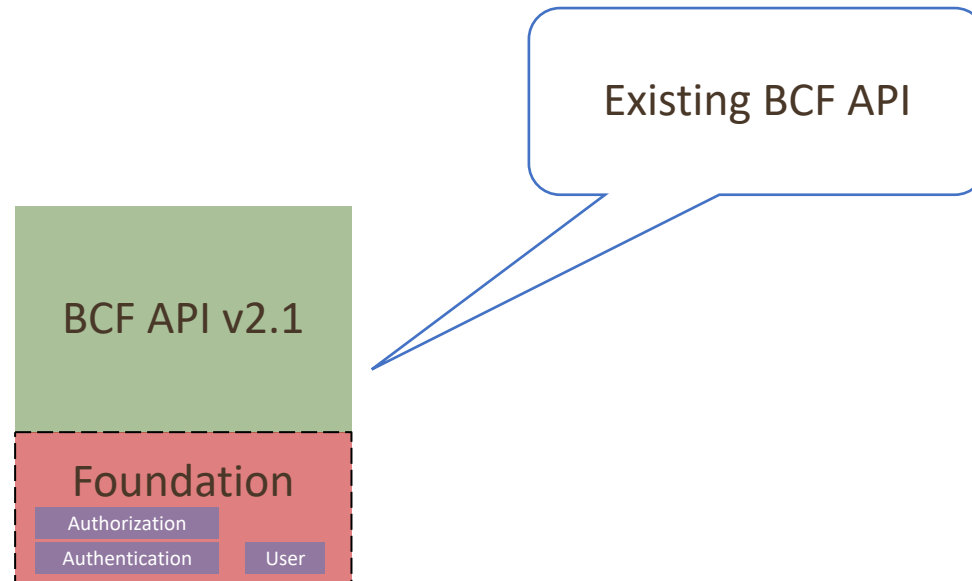


Reduce barriers to adoption

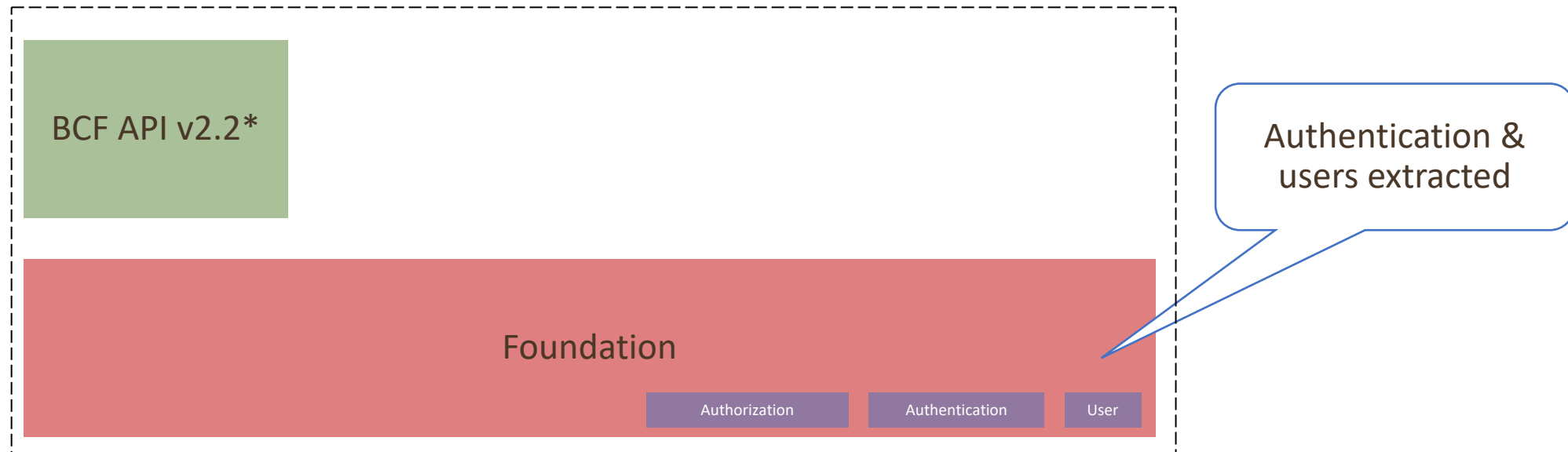


Open for all industries in all markets to join and influence

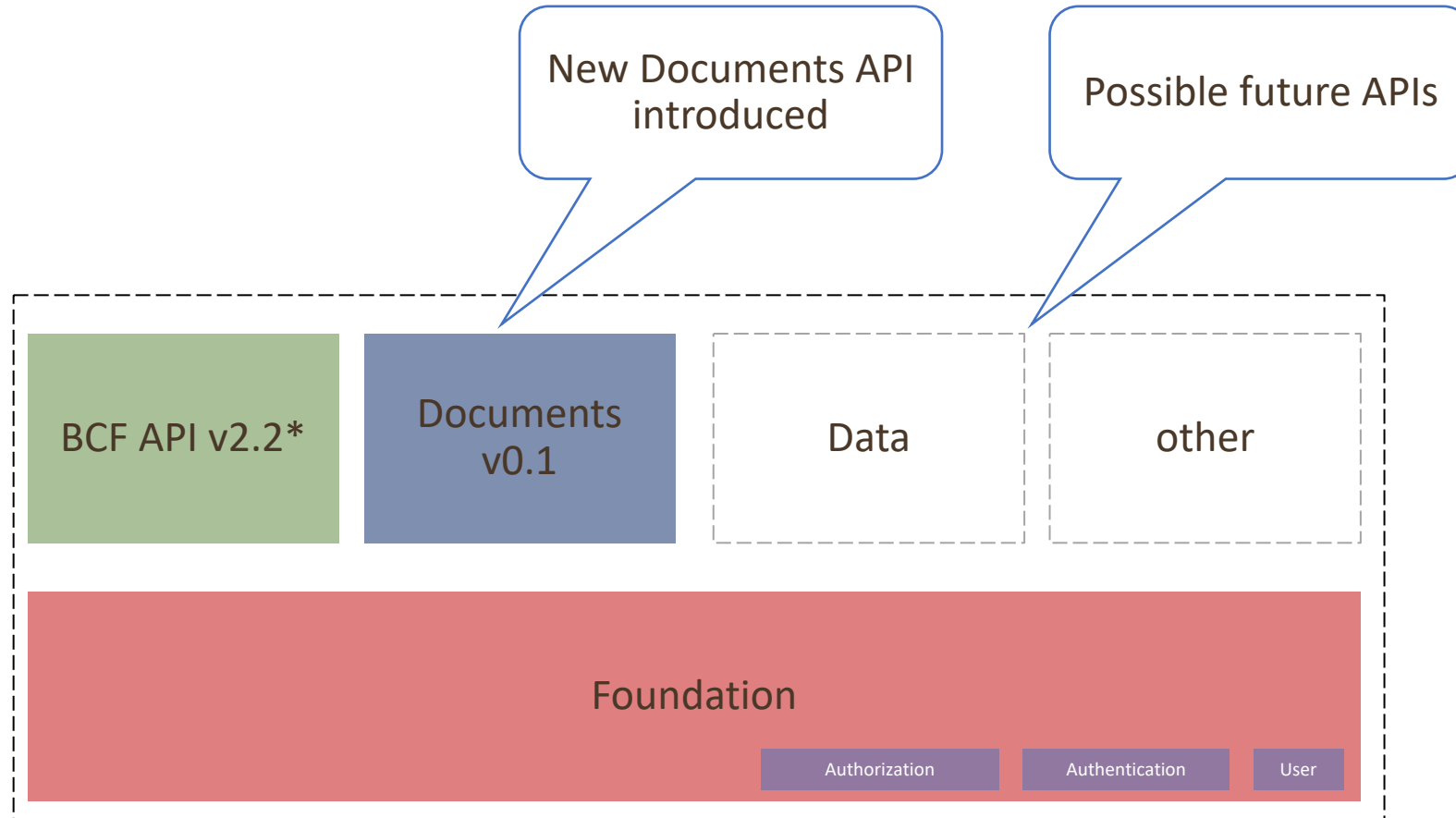
Open CDE APIs



Open CDE APIs

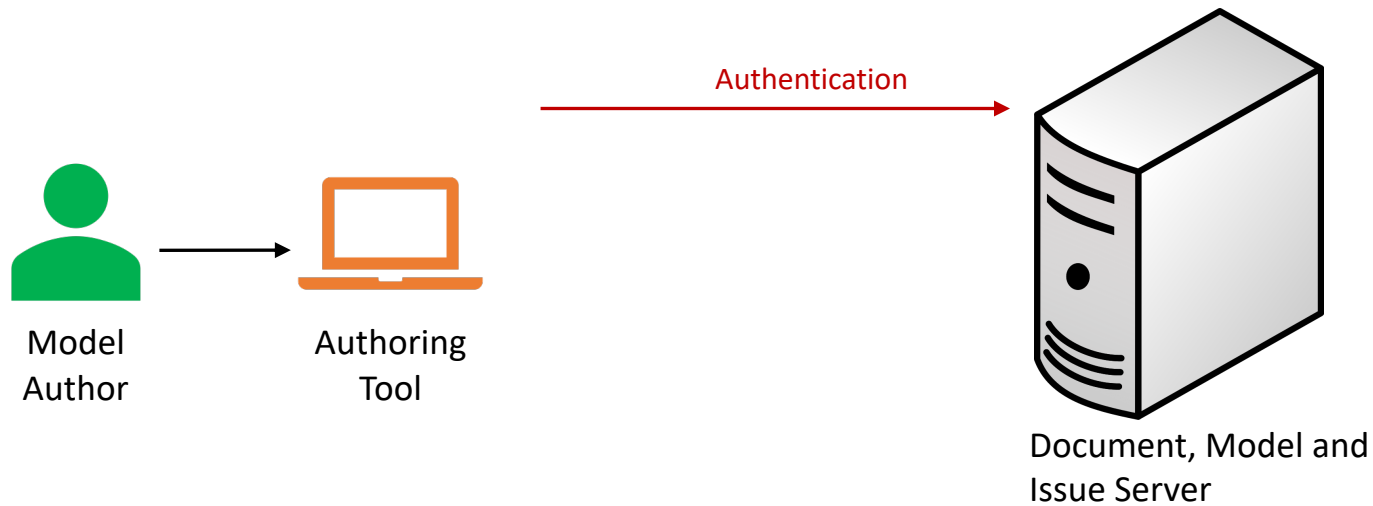


Open CDE APIs



Interactive Use Case

Interactive Use Case



Interactive Use Case



Model
Author

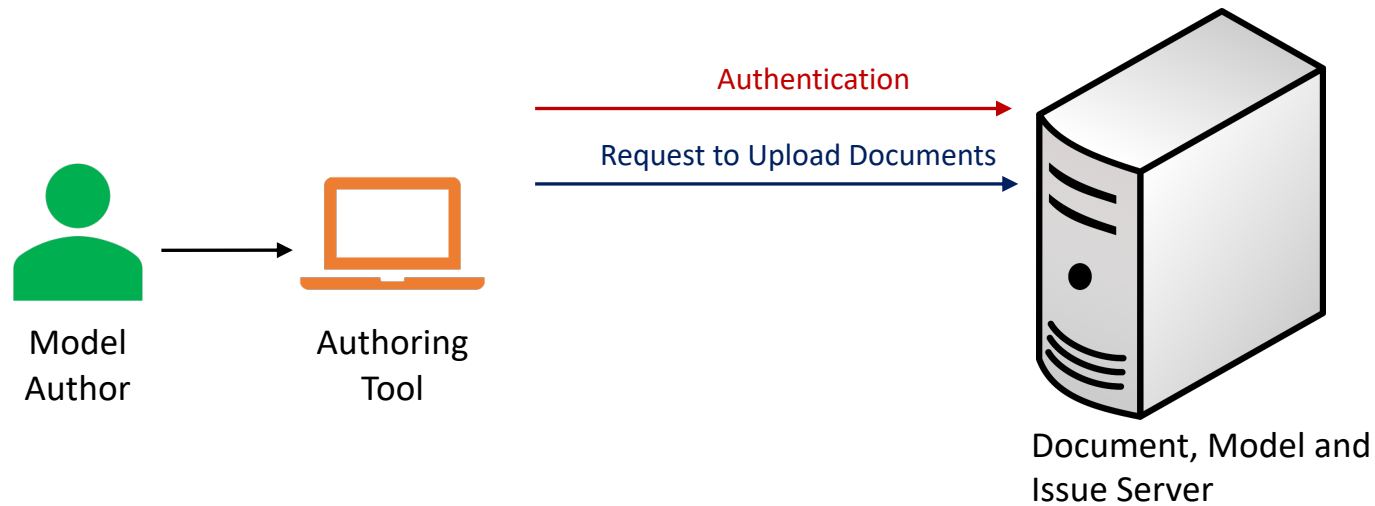
Authenticate

A screenshot of the Mozilla Firefox Start Page. The browser window has a blue title bar with 'firefox' and window controls. The address bar shows 'Mozilla Firefox Start Page' and 'Firefox | Search or enter address'. The main content area is light gray with the 'mozilla' logo in the top right. In the center is a white login form with the following elements:

- 'Login Name' label above a text input field.
- 'Password' label above a text input field with a 'show' button on the right.
- A large 'Log in' button.
- A link: 'Forgotten your Login Name / Password?'.

The bottom of the browser window features a toolbar with icons for Downloads, Bookmarks, History, Add-ons, Sync, Settings, and a 'Restore Previous Session' button.

Interactive Use Case



Interactive Use Case



Model
Author

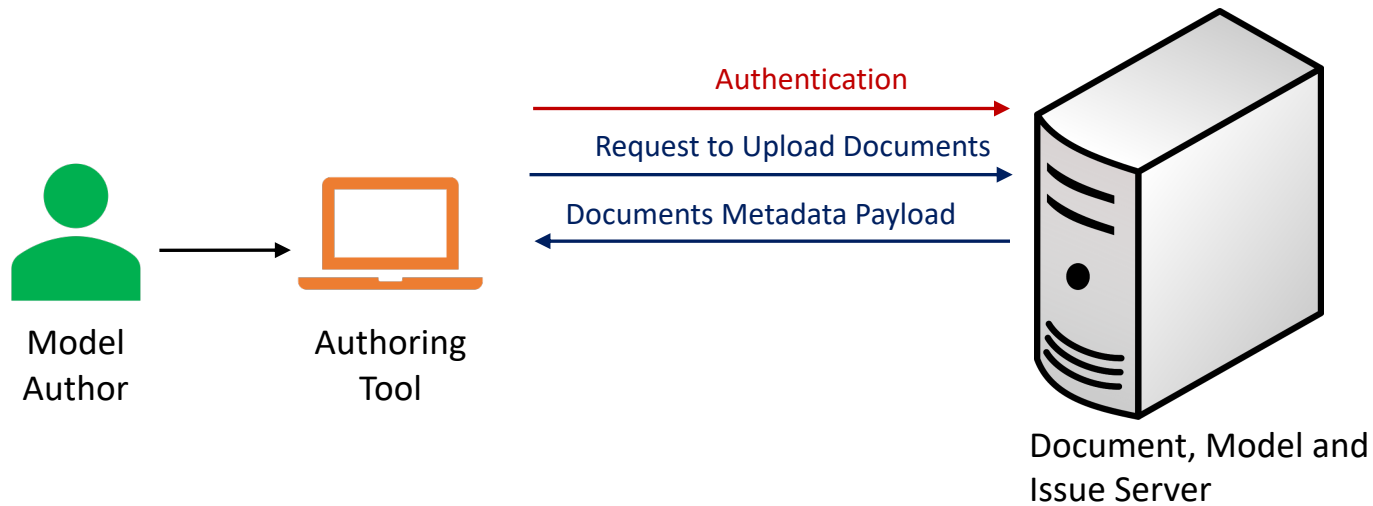
New Upload Request

The screenshot shows a Mozilla Firefox browser window with the title 'Mozilla Firefox Start Page'. The address bar contains 'Firefox Search or enter address' and a search engine dropdown set to 'Google'. The main content area displays the heading 'The user enters document metadata' in blue text. Below the heading is a form with the following fields:

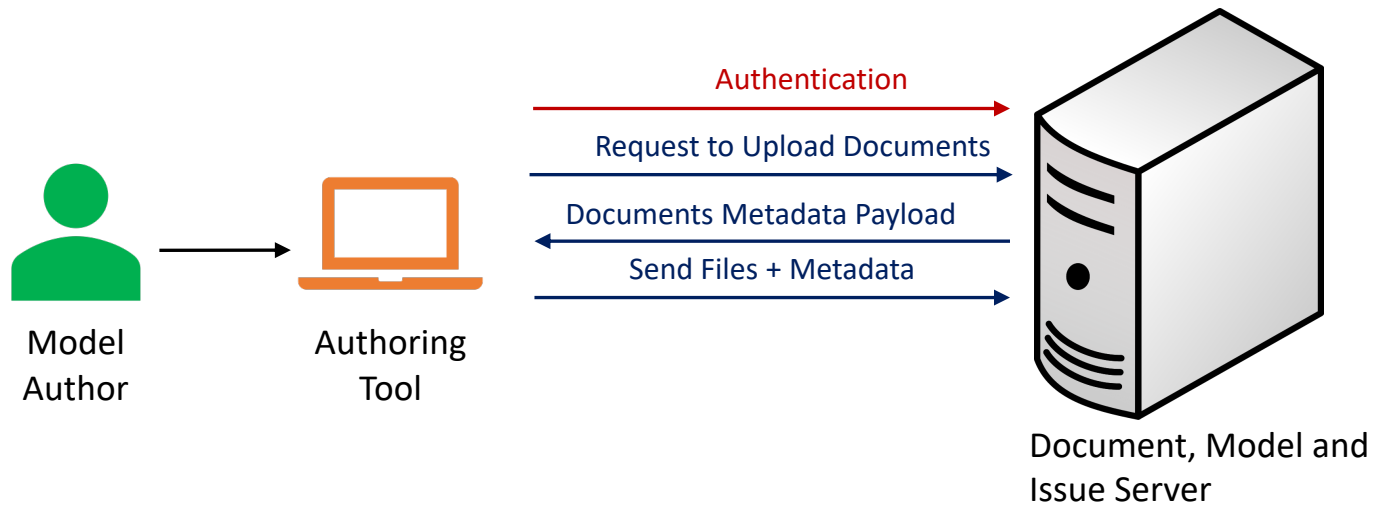
- Document No * (text input) with an ☐ Auto-number checkbox to its right.
- Revision * (text input).
- Title * (text input).
- Type * (dropdown menu showing '-- Select --').
- Status * (dropdown menu showing '-- Select --').
- Discipline * (dropdown menu showing '-- Select --').
- Confidential (checkbox).

The bottom of the browser window features a toolbar with icons for Downloads, Bookmarks, History, Add-ons, Sync, and Settings, along with a 'Restore Previous Session' button.

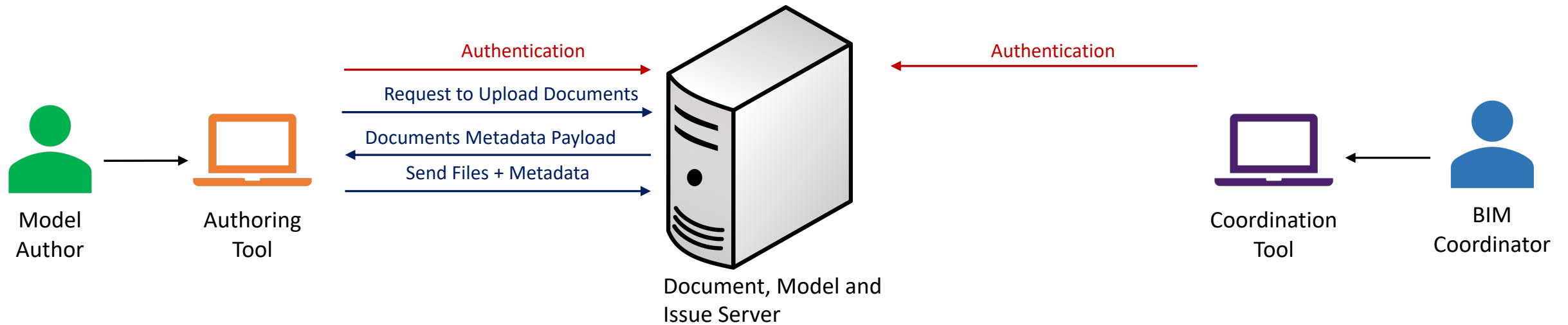
Interactive Use Case



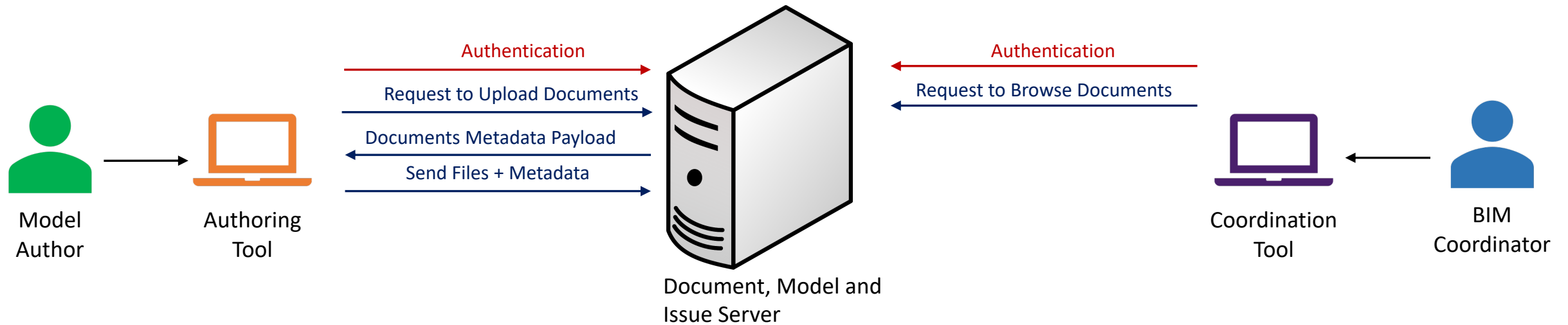
Interactive Use Case



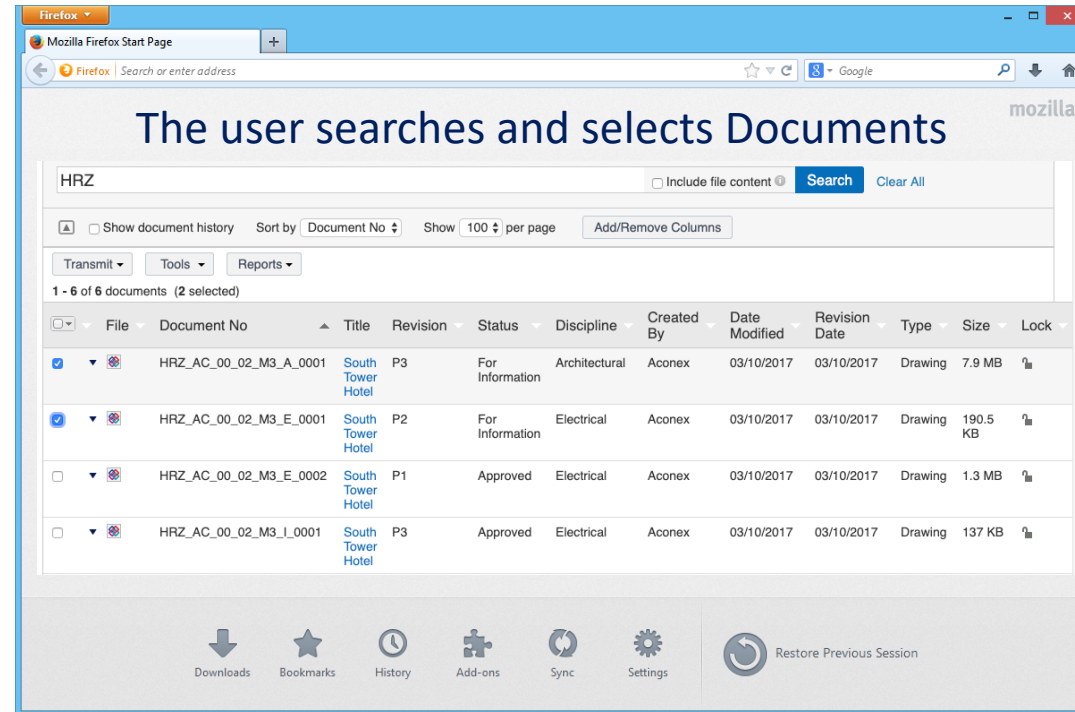
Interactive Use Case



Interactive Use Case



Interactive Use Case

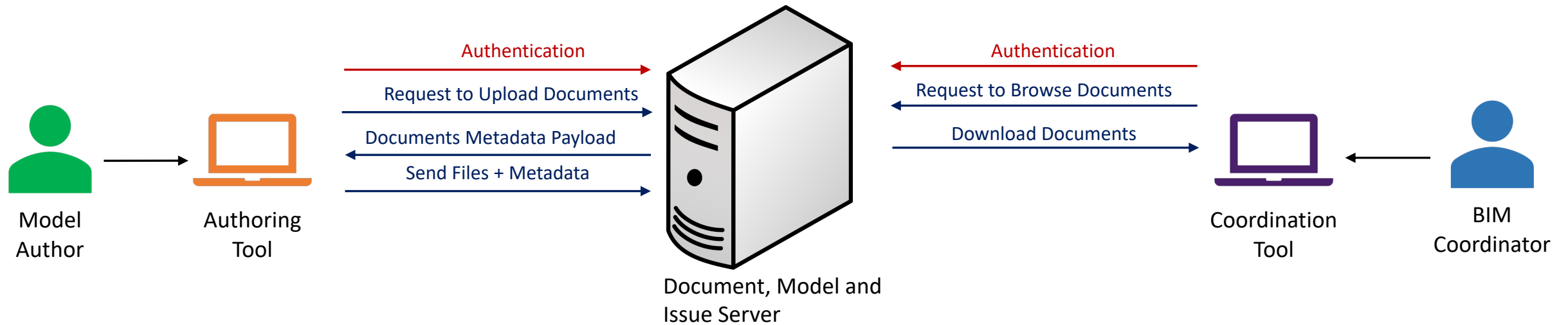


Browse and select documents

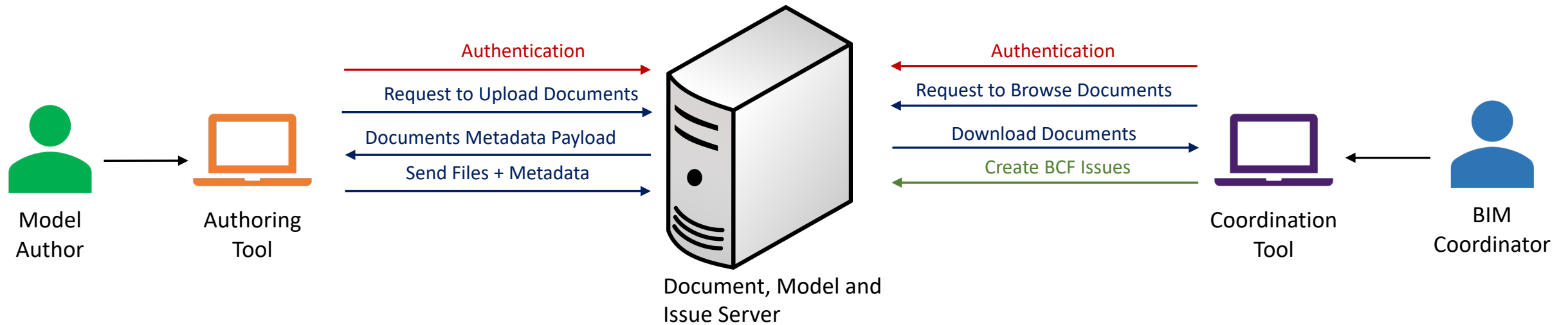


BIM
Coordinator

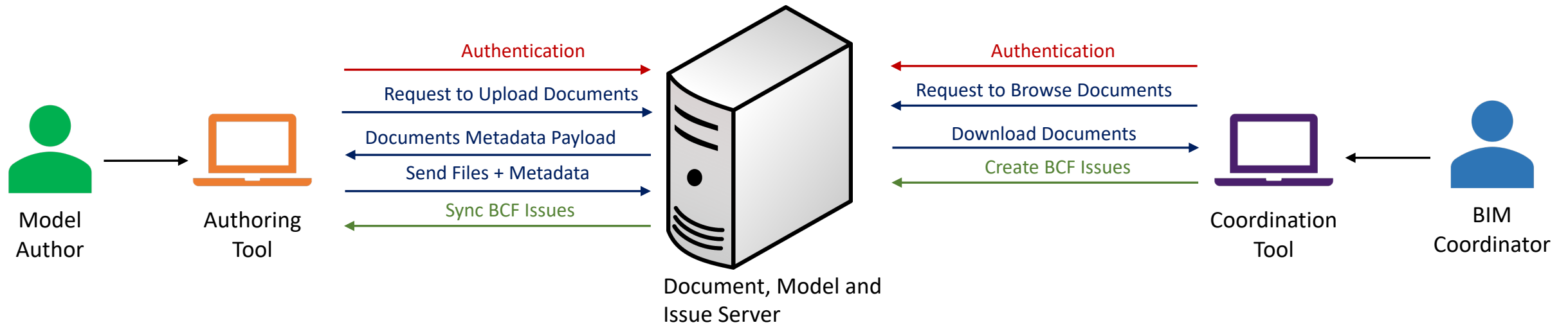
Interactive Use Case



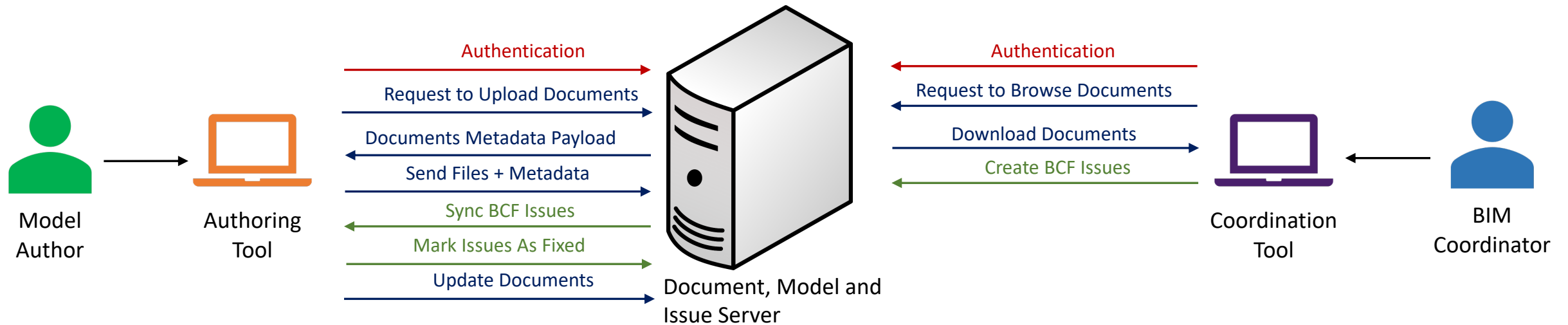
Interactive Use Case



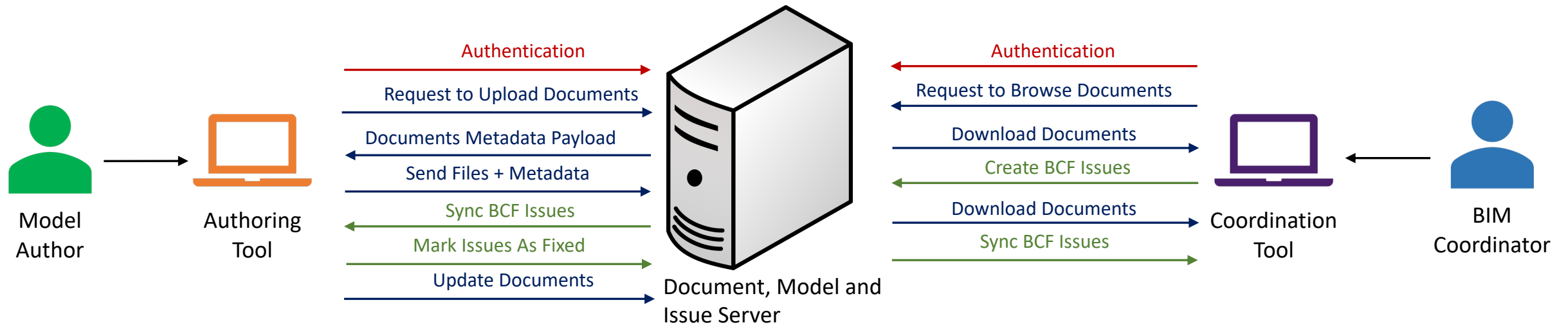
Interactive Use Case



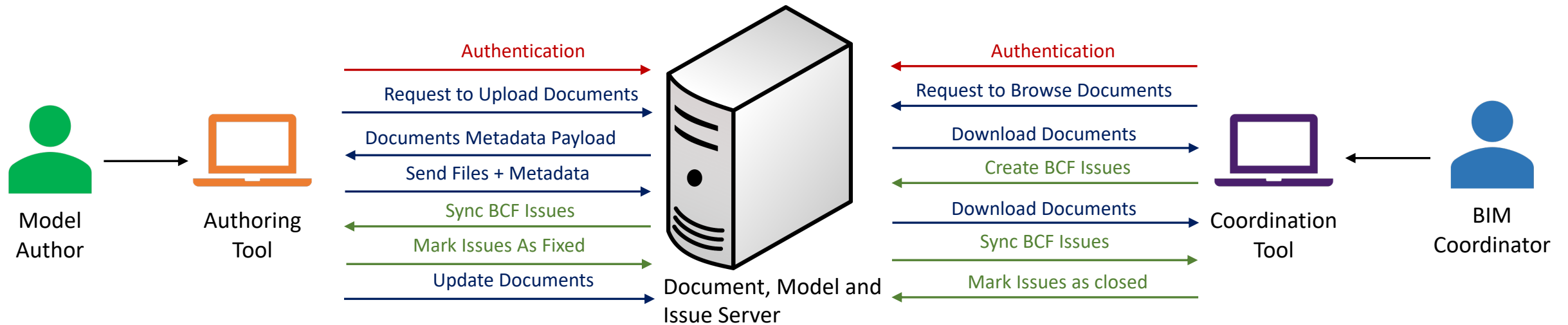
Interactive Use Case



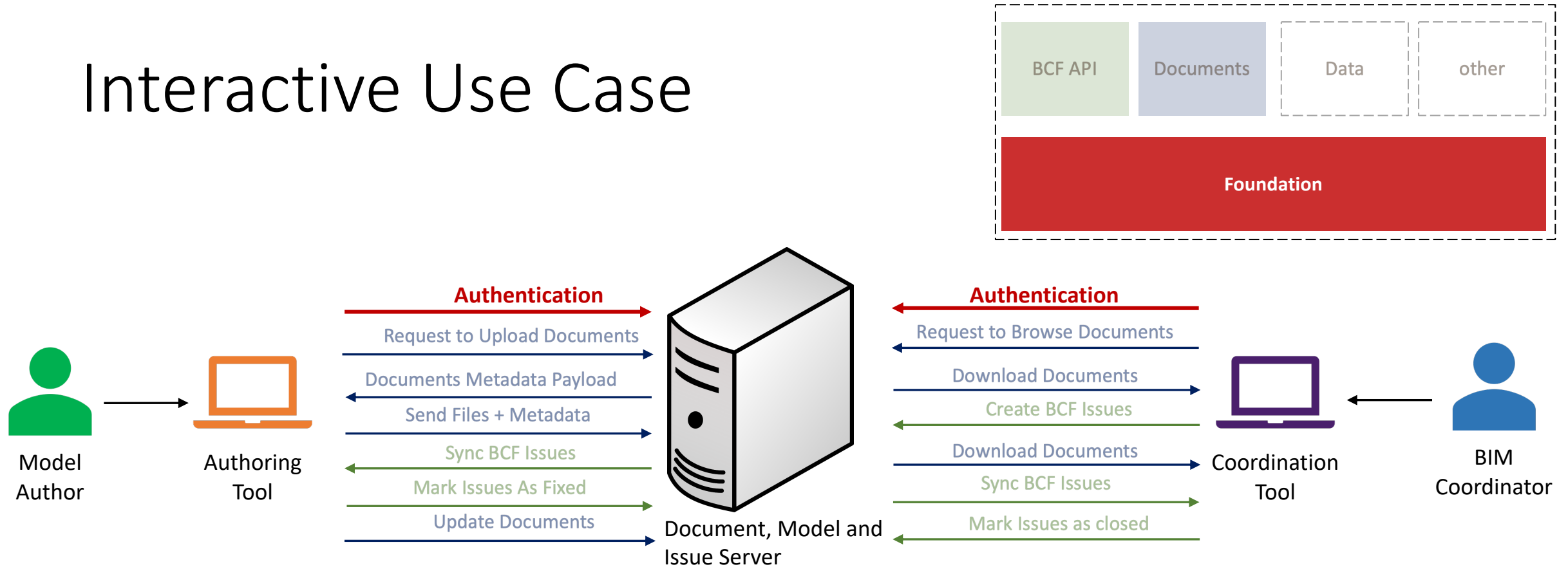
Interactive Use Case



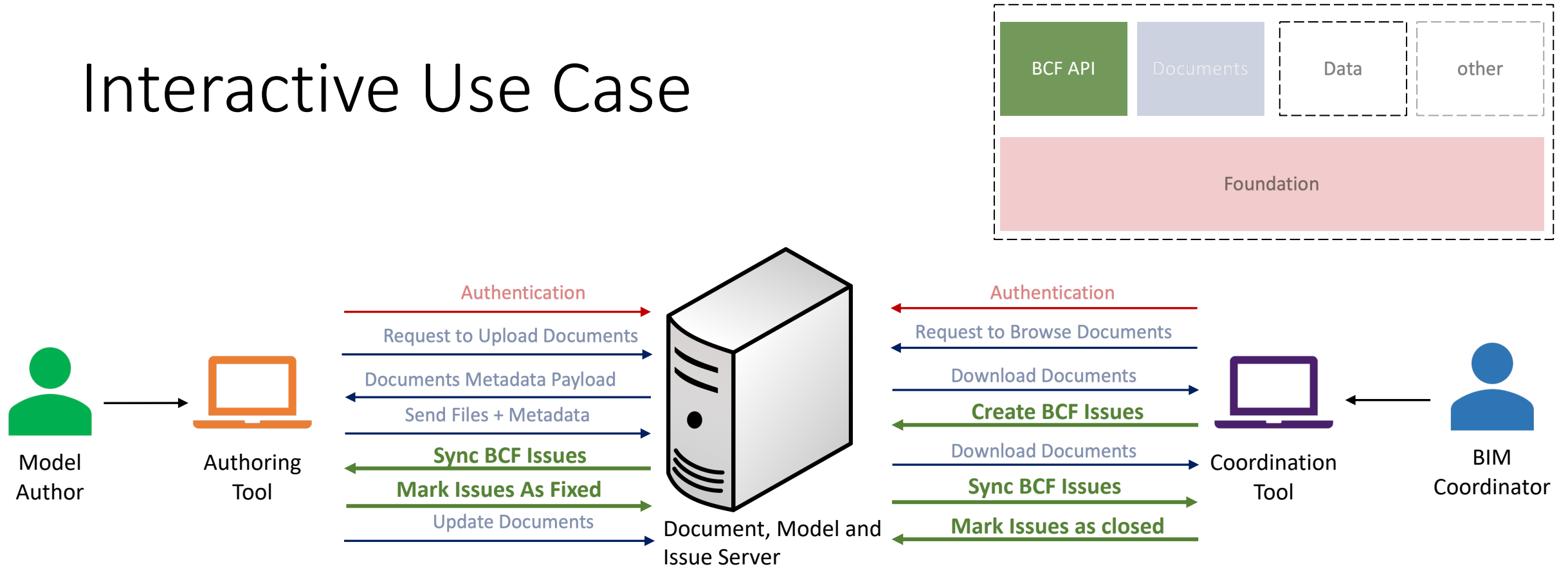
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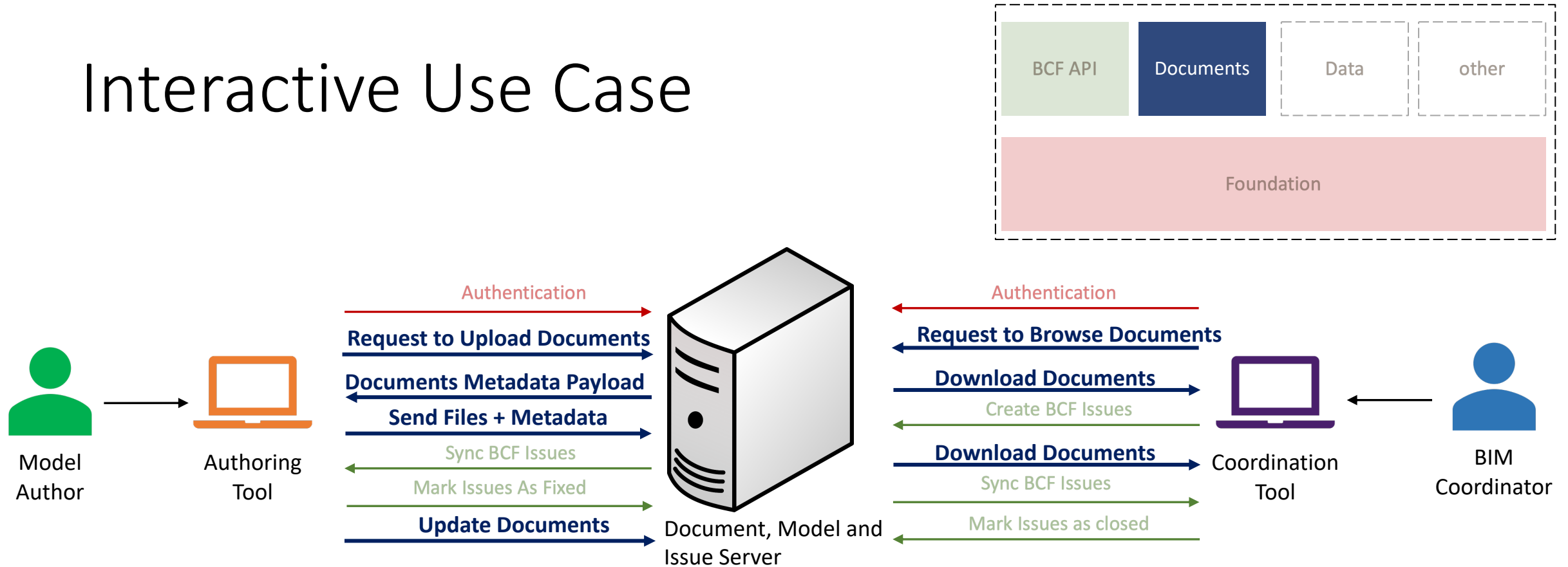
Interactive Use Case



Interactive Use Case



Interactive Use Case



Demo

Documents API scope

In Scope

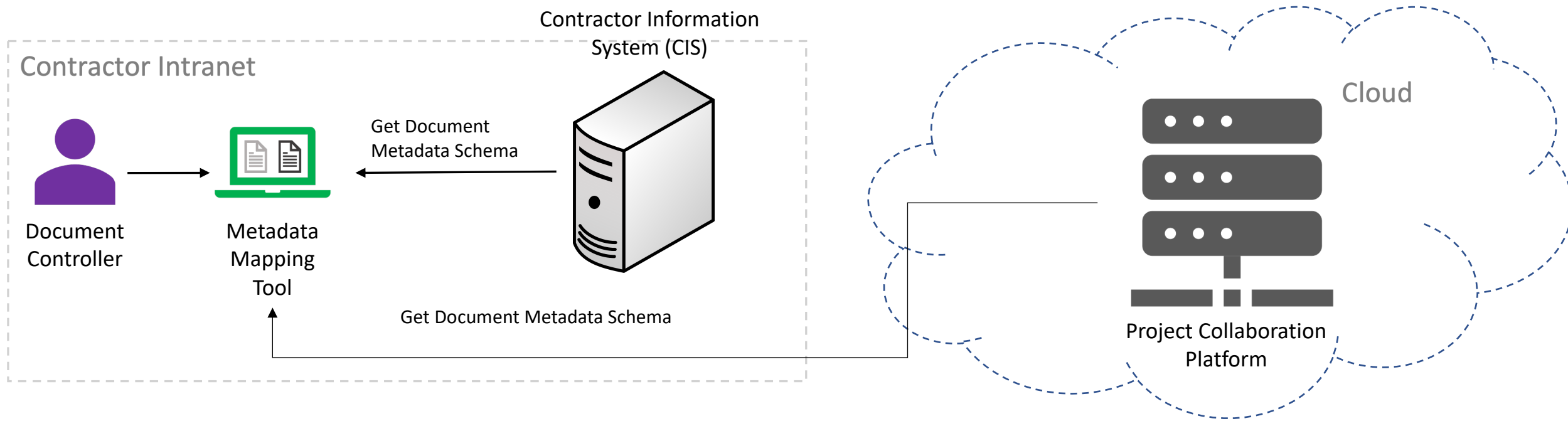
- Interactive (User to Server)
 - Document download
 - Document upload
 - Document update
 - Document distribution
- Non-interactive (Server to Server)
 - Document metadata mapping
 - Document synchronization

Not currently in scope

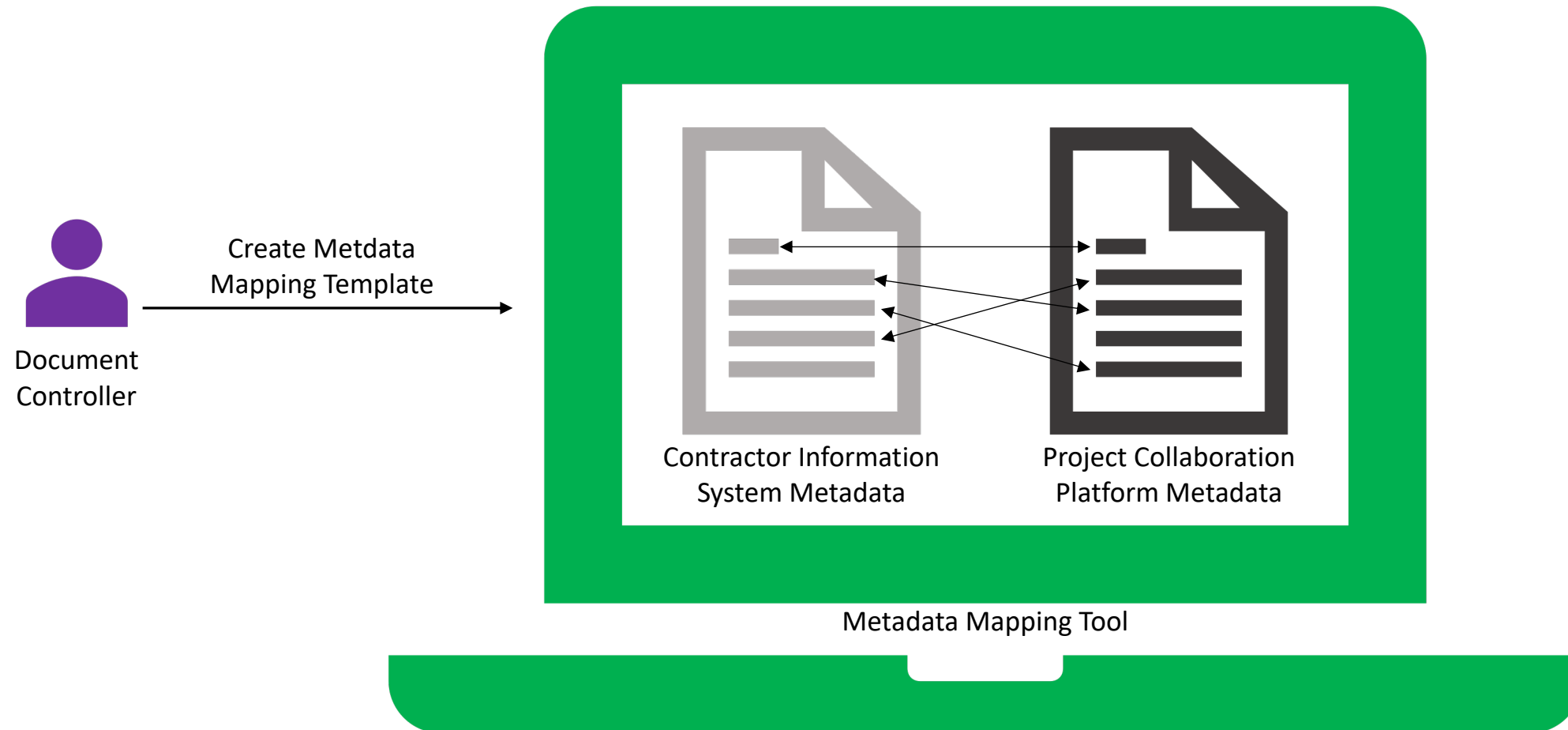
- Document Metadata Standardization
- Activity reporting

Non Interactive Use Case

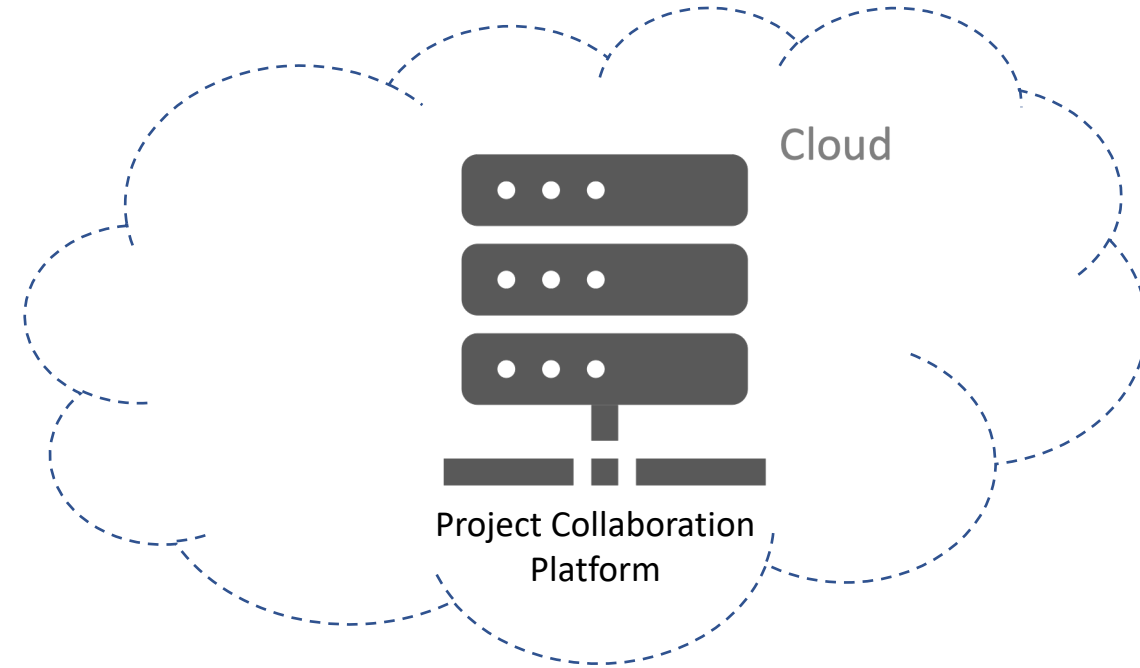
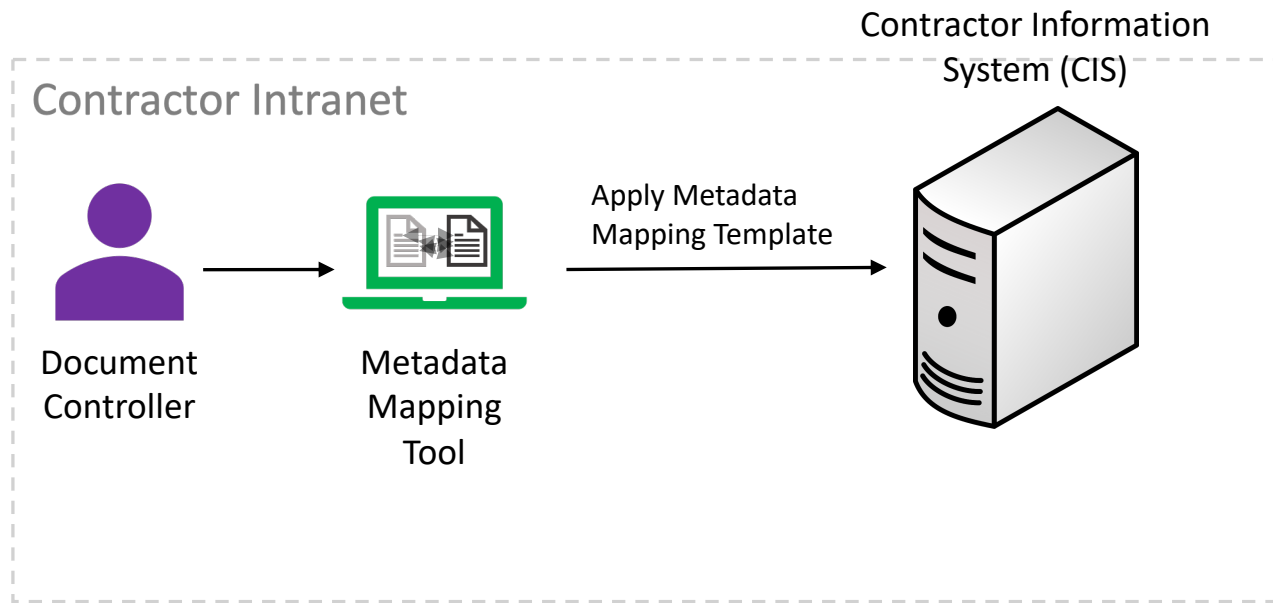
Non Interactive Use Case – Setup



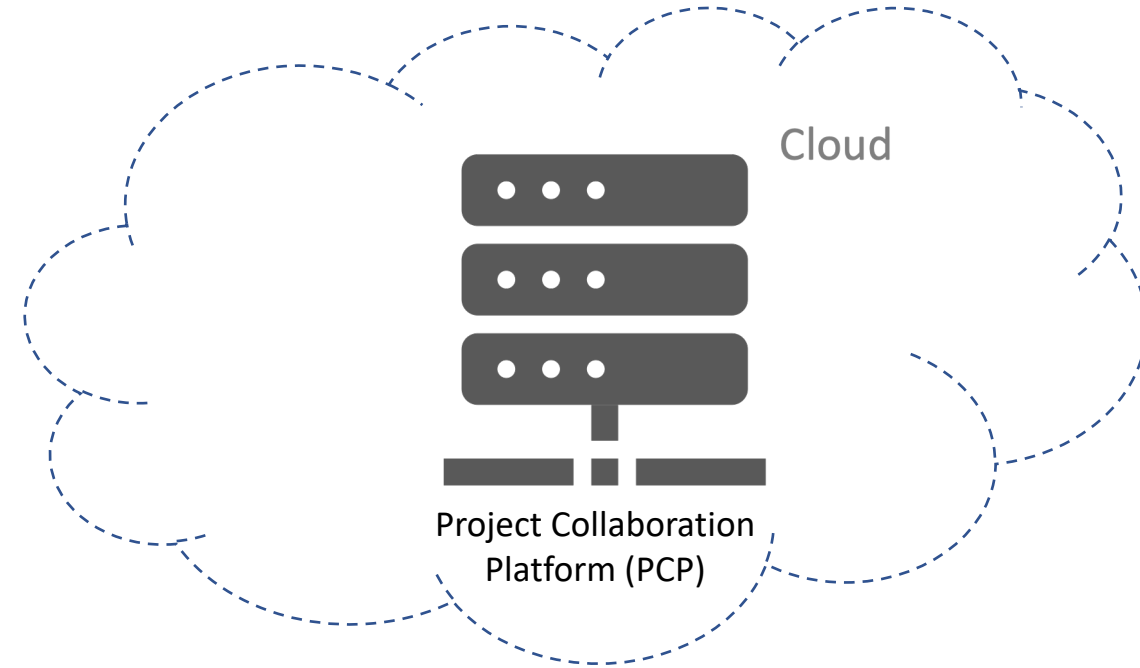
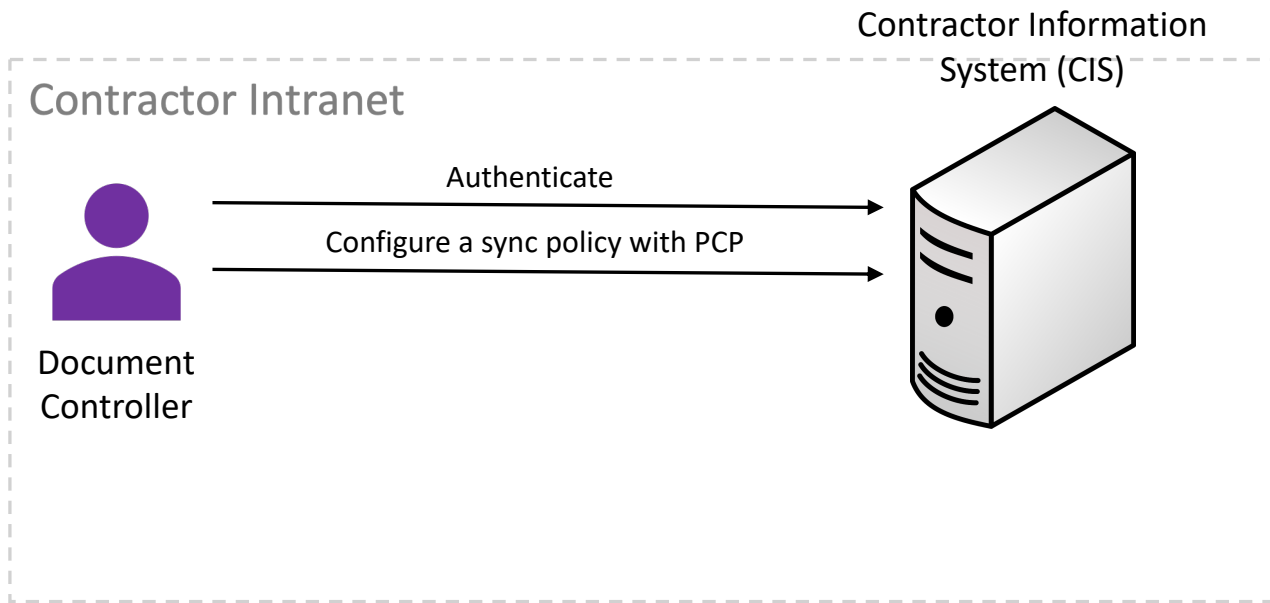
Non Interactive Use Case – Setup



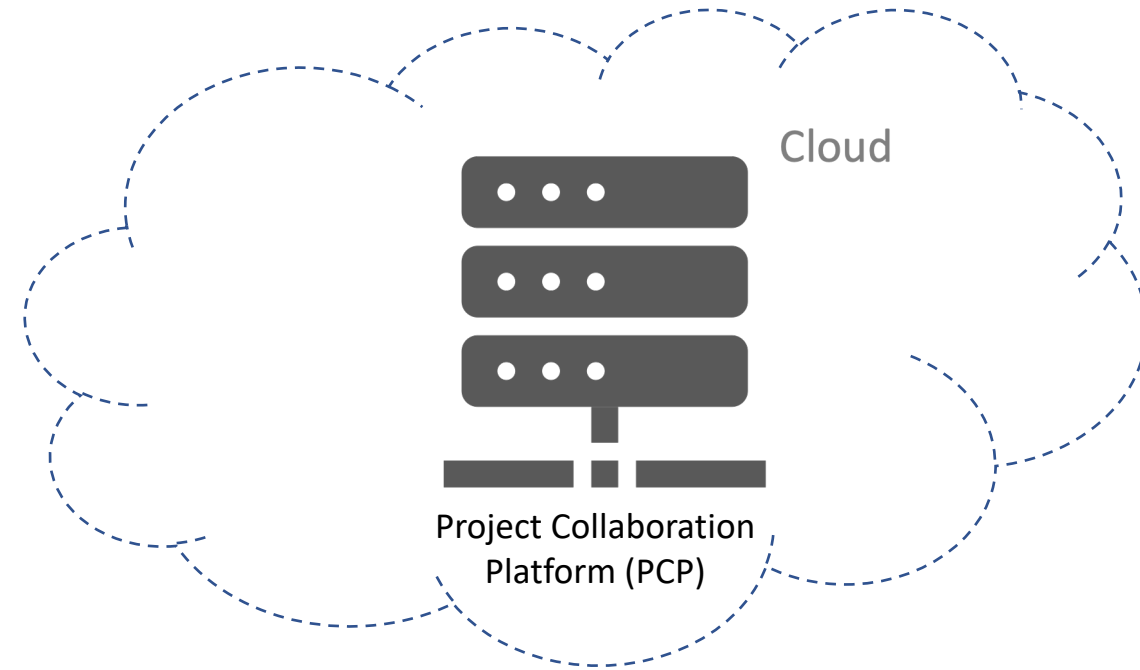
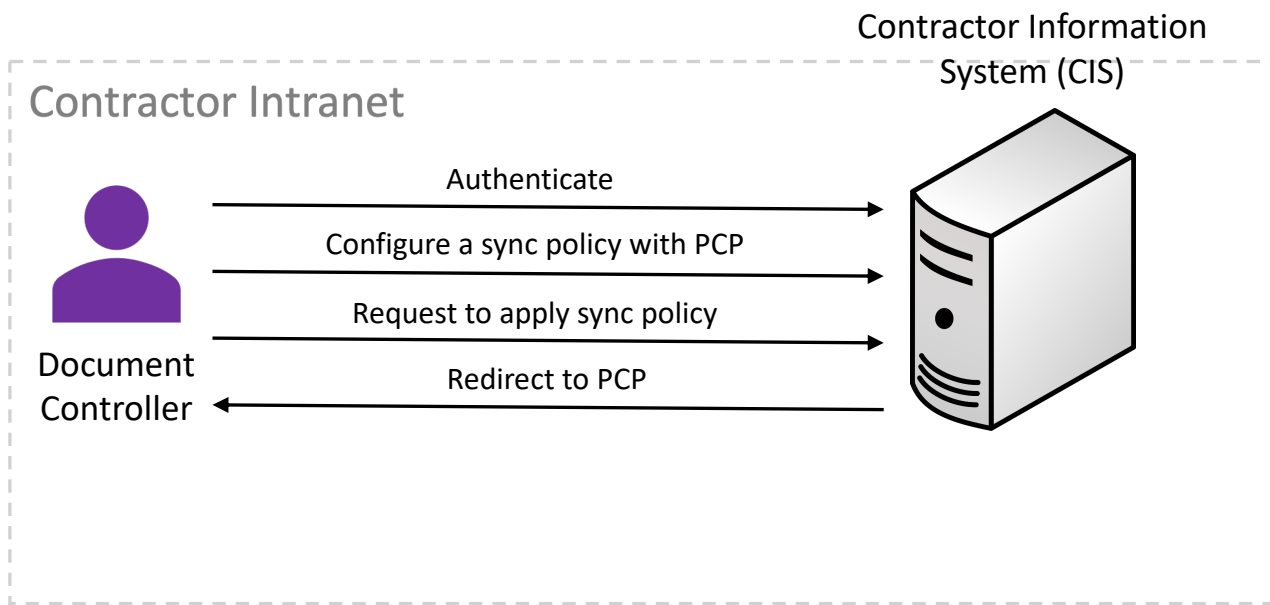
Non Interactive Use Case – Setup



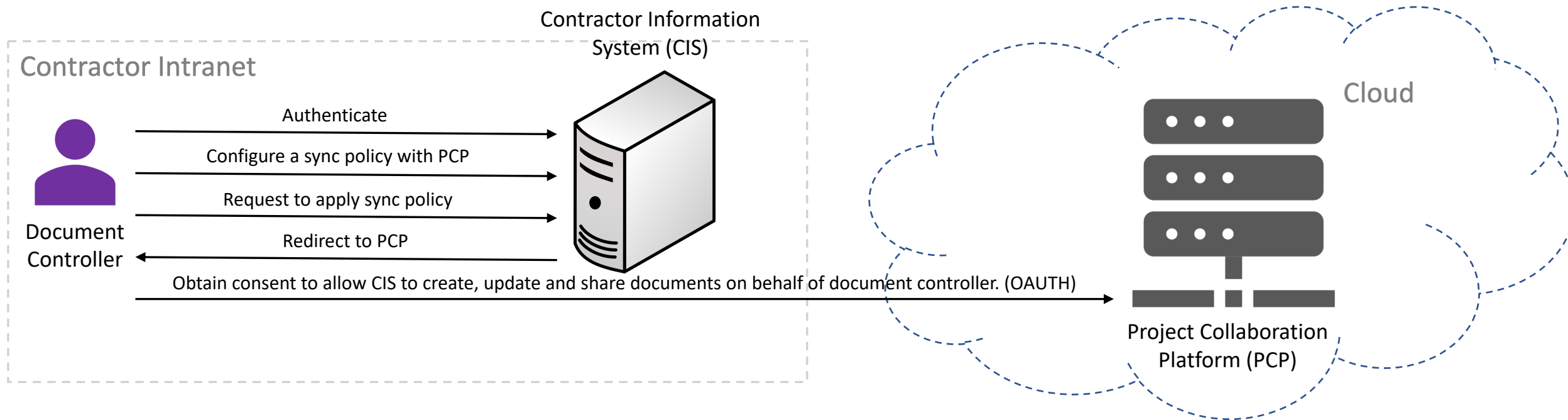
Non Interactive Use Case – Setup



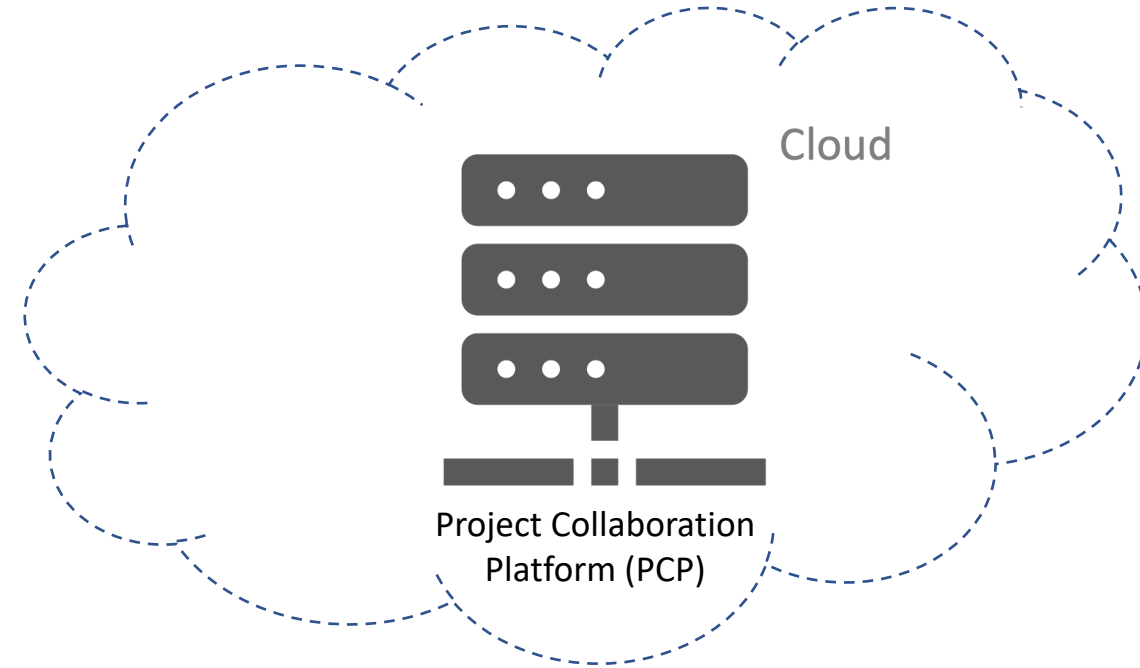
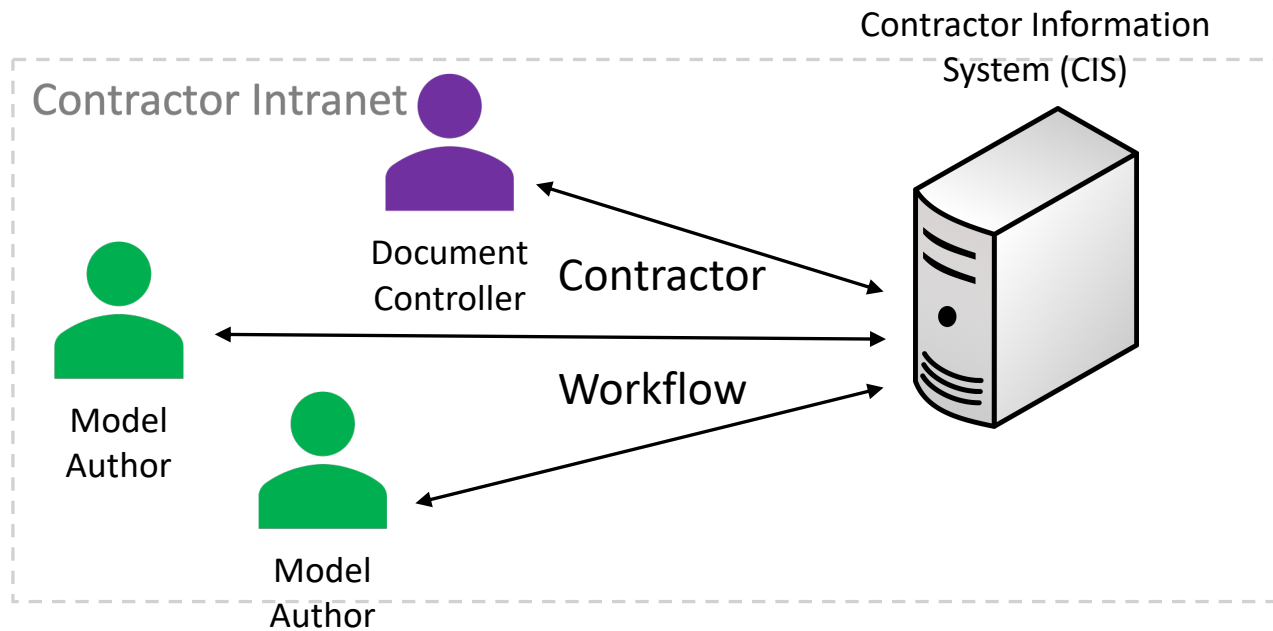
Non Interactive Use Case – Setup



Non Interactive Use Case – Setup



Non Interactive Use Case - Ongoing



Non Interactive Use Case - Ongoing

