# Adobe Architect Challenge: Integration of Firefly Services APIs with Existing AI Solutions

**Objective:**

You are tasked with creating a presentation that will outline a strategic approach for integrating a *Brand AI Chatbot* with Adobe Firefly Services to generate images, video, and an LLM to generate on brand text for various internal and external communication use cases. The customer, Luminar, wants to ensure that the generated assets are representative of their brand by leveraging prompt engineering techniques and optionally provide users with the ability to provide a reference image for the AI to emulate the style. Luminar is evaluating a few other competitors so presenting a compelling approach to integrating Adobe’s ecosystem is key such AEM & Express. An architect suggested that they’d like to utilize their own an API management layer to broker calls the chatbot to various AI capabilities that will be integrated into the future and are looking for advice if this is the right approach, any concerns, and impact that this may have on the solution.

**Instructions:**

1. Understanding the Customer’s Needs:
   1. Identify typical needs and challenges faced by enterprises in integrating new APIs into existing AI platforms.
   2. Discuss the importance of understanding the customer's current AI architecture.
2. Overview of Firefly Services APIs:
   1. Provide a brief overview of Firefly Services APIs, focusing on their features and capabilities that will be utilized in the solution.
   2. Highlight any specific APIs that are particularly beneficial for AI integrations.
3. Technical Architecture:
   1. Develop a high-level architectural diagram that shows how Firefly Services APIs can be integrated with an existing AI solution.
   2. Include considerations for scalability, security, and data privacy.
4. Implementation Strategy:
   1. Propose a step-by-step strategy for the integration process.
   2. Outline any potential challenges and your solutions for overcoming them.
5. Testing and Validation:
   1. Explain how you would ensure that the integration is successful.
   2. Discuss methods for testing and validating the integrated system to ensure it meets both functional and performance criteria.
6. Maintenance and Scaling:
   1. Address ongoing maintenance needs, potential issues, and scaling considerations.
   2. Propose how to handle updates and upgrades to both the APIs and the existing AI system.

**Presentation Details:**

* Your presentation should consist of up to 6 slides.
* Each slide must clearly address the points outlined above, with appropriate visuals and diagrams where necessary.
* You will have 30 minutes to present with active participation by the panel, followed by a 10-minute Q&A session.

**Evaluation Criteria:**

* Clarity and depth of the technical approach.
* Relevance and practicality of the integration strategy.
* Ability to address potential challenges creatively and effectively.
* Quality of the presentation in terms of content organization and visual appeal.
* Prototypes are a bonus.

**Submission:**

* Send your deliverables to [ghutchin@adobe.com](mailto:ghutchin@adobe.com) the day prior to your scheduled panel interview to give the team time to review your solution.

**Firefly Services API Keys:**

Utilize the following keys to access Firefly Services if you’re going to use this as part of your presentation.

* Client: c0aa07cd77bc4f1fafa8021f6f0d0d36
* Secret: p8e-1l1\_t\_\_pXPcQ5BSxx-ty1xf8GbRi\_tpw

Firefly Services Documentation: <https://developer.adobe.com/firefly-services/docs/guides/>

Make sure you've got the right scopes: openid, AdobeID, session, additional\_info, read\_organizations, firefly\_api, ff\_apis

NOTE: They keys are rate limited to 4 requests per minute.