# API Interface Matrix & Function Details

## 1. Interface Matrix

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| --- | --- | --- | --- |
| From | To | Protocol | Description |
| Application | API-C (On-Prem) | HTTPS | Application sends requests to API Connect. |
| API-C (On-Prem) | AWS API Gateway | HTTPS | API-C routes requests to AWS API Gateway over Direct Connect. |
| AWS API Gateway | AWS Lambda | HTTPS | API Gateway triggers the corresponding Lambda function for CRUD operations. |
| AWS Lambda | S3 | HTTPS | Lambda stores or retrieves documents in S3. |
| AWS Lambda | DynamoDB | HTTPS | Lambda stores or updates document metadata in DynamoDB. |
| AWS Lambda | API Gateway | HTTPS | Lambda returns responses to API Gateway. |
| API Gateway | API-C (On-Prem) | HTTPS | API Gateway sends responses back to API-C. |
| API-C (On-Prem) | Application | HTTPS | API-C forwards the response to the calling application. |

## 2. API Function Details

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| --- | --- | --- | --- |
| Function | Method | URI | Description |
| Create Document | POST | /documents | Uploads a new document, generates a GUID, and stores it in S3 & DynamoDB. |
| Read Document Metadata | GET | /documents/{guid} | Retrieves metadata (S3 URL, timestamp) for a given document. |
| Download Document | GET | /documents/{guid}/download | Generates a pre-signed URL to download the document from S3. |
| Update Document Metadata | PUT | /documents/{guid} | Updates the metadata of an existing document. |
| Delete Document | DELETE | /documents/{guid} | Deletes the document from S3 and removes metadata from DynamoDB. |
| List All Documents | GET | /documents | Retrieves a paginated list of all stored documents. |