

Blueprinter API Client Integration



Summary

This document provides information on how Blueprinter API allows AIM clients to access their companies' data. For more information, contact information@theaiminstitute.com.

Authentication

API uses Certificate based authentication.

To start using BP API you will need to generate a **Client Authentication Certificate**. A client authentication certificate is a certificate used to authenticate clients during an SSL handshake. It authenticates users who access a server by exchanging the client authentication certificate. Please note that it **should be a sha256 certificate**.

It could be a self-signed certificate, but we recommend certificates signed by a trusted root authority/CA. We ask that you send the necessary .cer file(s) to blueprintersupport@vaynersystems.com

Self Signed or External CA	Internal CA
Send the *.cer file of your Client Authentication Certificate	Send the *.cer file of your Client Authentication Certificate and .cer file of your CA Certificate .

Synchronization process overview

In most cases integrator will want to keep the consumer database up-to-date with data in Blueprinter datacenter. To achieve this goal efficiently, the API supports **If-Modified-Since** header:

The If-Modified-Since request HTTP header makes the request conditional: the server will send back the requested resource, with a 200 status, only if it has been last modified after the given date. If the request has not been modified since, the response will be a 304 without any body; the Last-Modified response header of a previous request will contain the date of last modification

Each entity available through API has **Last Modified** and optionally **Last Modified Child** properties which could be used to set *If-Modified-Since* header for subsequent requests.

Data

Each entity available through API has the following properties:

- **Id** - Universally unique identifier of the item.
- **Last Modified** - Date Time on which item has been updated last time.
- **Entity Type** – Describes the type of the item.

Some entities have **Last Modified Child** property in addition to aforementioned list. It allows to see if there are any child items which have been modified after last sync. Please review example scenario below for more information.

Example scenario

Let's imagine our goal is to sync all **Projects** and their **Interview Candidates** into our system. We will use the following algorithm to consume API.

- **Initial sync**

1. Load list of **Projects** by issuing a GET request to /v1/projects endpoint.
2. For each project, load list of its **Interview Candidates** by issuing a GET request to /v1/projects/{PROJECT_ID}/interviewCandidates endpoint.

- **Ongoing sync**

1. Same as above, we load list of **Projects** by issuing a GET request to /v1/projects endpoint, but this time we provide **If-Modified-Since** header with the **Last Modified** (or **Last Modified Child** if it's more recent) of the most recently updated **Project** saved previously.
 - If no changes have been made since last sync, API will respond with *304* status and without any body. If that's the case we are done - there is nothing to sync.
 - If changes have been made, API will return a list of projects modified since specified date and we can move to the step #2 below.
2. For each project:
 - If **Last Modified** date we have is older than the one we just got, we need to update project in our database.
 - If **Last Modified Child** date we have is older than the one we just got, we need to load list of its **Interview Candidates** by issuing a GET request to /v1/projects/{PROJECT_ID}/interviewCandidates endpoint and provide **If-Modified-Since** header with the **Last Modified Child**.
 - If no changes have been made since **Last Modified Child**, server responds with *304* status and without any body. If that's the case we are done - there is nothing to sync for that project.
 - If something has been changed, API will return a list just like it did during Initial Sync

Performance considerations

Per our testing **Initial sync** on 1k projects takes ~ 1.5 hours. In our implementation we processed projects in different threads to decrease time needed to sync data. Single thread (one project at a time) implementation will take more than 5 hours.

Ongoing sync takes ~1 minute if there are any changes and less than a second if there are no changes at all. Such performance gain is possible if client provides **If-Modified-Since** header.

Endpoints & Data Contracts

Swagger UI available* at <https://aim-stage.vaynersystems.com/api/index.html> .

*Please note that you need to have **Client Authentication Certificate** configured in order to make calls to the API. But you can review documentation without it.

Swagger UI allows development team to visualize and interact with the API's resources without having any of the implementation logic in place

More details at <https://swagger.io/tools/swagger-ui/>

OpenAPI specification could be downloaded at

<https://aim-stage.vaynersystems.com/api/swagger/BlueprinterOpenAPISpecificationv1.0/swagger.json> .

It could be used to generate Client Code to access **Blueprinter API** (for example at <https://editor.swagger.io/>)

The OpenAPI Specification (OAS) defines a standard, language-agnostic interface to RESTful APIs which allows both humans and computers to discover and understand the capabilities of the service without access to source code, documentation, or through network traffic inspection. When properly defined, a consumer can understand and interact with the remote service with a minimal amount of implementation logic.

More details at <https://swagger.io/specification/>

Blueprinter® Exposed Data Hierarchy Summary

*Each of Data entity has the following fields:
id, lastModified, entityType.*

- **[Project]**
 - name
 - tracked
 - includeInSearch
 - createdDate
 - lastModifiedChild
- **[Project Settings & Timeline Adjustments]**
 - projectId
 - startDate
 - practiceProject
 - status:
 - InMarketResearch
 - InDiscovery
 - InPreference
 - MarketCaseDone
 - InDevelopment
 - ProductionLaunched
 - MoreThanOneYearAfterLaunch
 - OnHold
 - Cancelled
 - marketCaseGoal
 - businessCaseGoal
 - salesPotential
 - marketPresence
 - targetRegion
 - numberOfDIPlanned
 - abilityToSecureInterviews:
 - Poor
 - Moderate
 - Good
 - responsivenessOfTeamMembers:
 - Poor
 - Moderate
 - Good
 - prefIntScheduledDuringDisc:
 - None
 - Some
 - All
 - organizationalUnitsIds
 - description
 - top3AvgMsg
- **[Team Member]**
 - projectId

- name
- email
- percentOfTime
- teamLead
- **[2.1 -> Settings]** Company Descriptors
 - CompanyDescriptorList
 - projectId
 - name
 - lastModifiedChild
 - CompanyDescriptor
 - listId
 - name
 - JobFunction
 - projectId
 - name
- **[2.2]** Interview Scripts **not included**
- **[2.3 -> Current State Questions]** CurrentStateQuestion
 - projectId
 - descriptorId
 - question
- **[2.3 -> TriggerMaps]** TriggerMap **not included**
- **[2.4]** ProcessChart **not included**
- **[2.1 -> Interview Candidates]** InterviewCandidate
 - projectId
 - name
 - location
 - isCurrentCustomer
 - descriptorIds
 - lastModifiedChild
- **[Discovery & Preference]** PrepSheet
 - interviewCandidateId
 - tourStatus
 - interviewStatus
 - interviewDate
 - tourStatus
 - companyBackground
 - meetingTimeNote
 - projectTopic
 - bonusTopic
 - openingComments
 - comments

- confidentialNotes
- conclusions
- lastModifiedChild
 - Interviewee
 - prepSheetId
 - name
 - email
 - jobFunctionId
 - title
 - phone
 - Interviewer
 - prepSheetId
 - teamMemberId
 - roleId
 - A
 - M
 - U
 - S
 - E
 - NextStep
 - prepSheetId
 - typeId:
 - InterviewEnd
 - Debriefing
 - action
 - timing
 - teamMemberId
 - done
 - **[Discovery Interview]** InterviewQuestion
 - prepSheetId
 - question
 - answer
 - **[DiscoveryNoteboard]** StickyNote
 - interviewCandidateId
 - name
 - text
 - level:
 - General
 - TopPick
 - MustHave
 - type:

- Problems
 - IdealState
 - TriggeredIdeas
 - CopiedFromCurrentState
 - CloakFromSearch
- votes
- **[PreferenceNoteboard]**
 - OutcomeRating
 - outcomeld
 - importance
 - satisfaction
 - importanceComment
 - satisfactionComment
 - MeasuringOutcome
 - outcomeld
 - testMethod
 - acceptable
 - satisfied
 - TopOutcome
 - outcomeld
 - primaryBenefit
 - needToPursue
 - importantBecause
 - BenchmarkProduct
 - interviewCandidateld
 - name
 - supplier
 - notes
- **[1.1 -> Strategic Markets]** PossibleMarket
 - projectId
 - selected
 - name
 - text
- **[1.1 -> Strategic Markets]** MarketResarchName **not included**
- **[1.1 -> Market Segments]** MarketSegment
 - projectId
 - selected
 - name
 - text
 - note
 - status
 - Undecided

- Approved
 - Rejected
- researchStatus
 - NotStarted
 - InProgress
 - Complete
 - NotNeeded
- initialMarketSize
- initialMarketSizeUnits
- lastModifiedChild
- SegmentScore
 - marketSegmentId
 - criterionId
 - selection:
 - A
 - a
 - B
 - b
 - C
 - c
- MarketEstimate
 - marketSegmentId
 - multiplier
 - newUnits
 - description
 - sources
- MarketFinding
 - marketSegmentId
 - type:
 - MarketSizeFinding
 - MarketStructureFinding
 - MarketTrendsFinding
 - MarketGrowthFinding
 - SupplierProfitabilityFinding
 - UnmetCustomerNeedsFinding
 - LikelyValuePropositionFinding
 - LikelyTechnicalFitFinding
 - CurrentMarketPresenceFinding
 - OtherInformationFinding
 - finding
 - sources
- MarketSegmentValueChain **not included**

- **[1.5 -> Target segment] not included**
- **[1.5 -> Our Scope] TargetAudience**
 - projectId
 - name
 - topic
- **[1.5 -> Team Notes] MarketNote**
 - projectId
 - text
- *DiscoveryInterview*
 - **[2.3 -> Trigger Maps] TrendsMap not included**
 - **[2.3 -> Trigger Maps] BenefitsMap not included**
 - **[2.3 -> Trigger Maps] OutcomesMap not included**
 - **[Discovery Noteboard] GlobalInterviewSetting not included**
- *PreferenceInterview*
 - **[3.1.1] MHCard not included**
 - **[3.2.1] SortingBoard not included**
 - **[3.2.1] TPCard not included**
 - **[3.6] MarketView not included**
 - **[3.1.2] MHRequirement**
 - interviewCandidateld
 - name
 - selected (this field is filling if it contains in **selectedMustHaves** list in **PreferenceNoteboard** entity)
 - **[3.2.4] Outcome**
 - interviewCandidateld
 - name
 - statement
 - lastModifiedChild
 - **[3.7] MarketCase not included**
 - **[3.7.1] ProjectScope not included**
 - **[3.7.2] StrategicFit not included**
 - **[3.7.3] MarketSegmentAttractiveness not included**
 - **[3.7.4] CustomerOverview not included**
 - **[3.7.5] CompetitiveLandscape not included**
 - **[3.7.6] ValueProposition not included**