



BUTLR LEARN

Introduction to the Butlr API

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INTRODUCTION

Unfolding possibilities at every data point.

Embark on a journey into the heart of Butlr's API, where data meets actionable insights. In this brochure, we unravel the power of our API in transforming spatial data into valuable narratives, empowering your business with flexibility, and full control over the curation of your user-driven insights. Whether you are a tech enthusiast or brand new to the world of APIs, join us as we explore the seamless integration process, unveiling a world where data becomes your most powerful ally.

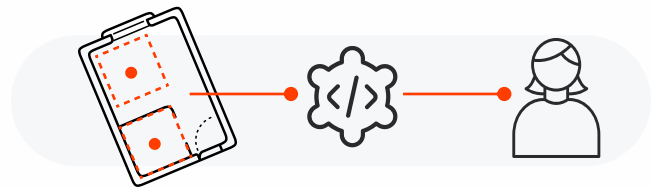
02

Starting from the basics— what is an API?



An API, or **Application Programming Interface**, is like a bridge that allows different software systems to communicate with each other. Think of it as a universal translator that enables seamless interaction between diverse technologies, or like a waiter who is tasked with bringing the dishes from the kitchen (backend) to the customer (software).

In the same manner, the Butlr API serves as the conduit that unlocks insights captured by our occupancy sensors deployed in various spaces. In essence, it acts as a gateway to near real-time occupancy and utilization data, providing a rich tapestry of information including:



Occupancy Data (Floor, Room, Zone)

Location Data

Traffic Data

Device Status

Asset Information (Building, Floor, Room)

Is an API-First approach right for you?

Occupancy data encompasses a multifaceted landscape, ranging from HVAC to budgeting, WiFi, and even employee feedback surveys. This diverse data tapestry weaves a narrative of space utilization, frequency, and energy impact within buildings. Butlr's API-first approach acknowledges that sensors are one facet in the complex ecosystem of data-generating devices that weave the complete story of a building's everyday life.

By prioritizing API accessibility, **Butlr offers full control over the solution architecture to its most important stakeholders: its users. Additionally, an API-first strategy presents seamless integration with existing software infrastructure, sidestepping the need for costly software transitions or extensive retraining.** This strategy empowers partners and prospects to harness the insights from Butlr's occupancy sensing data within their familiar software environments, maximizing efficiency and minimizing disruption.



You should opt for an occupancy sensing service that follows an API-First approach like Butlr if:

You prefer the flexibility of raw data

In a dynamic landscape where adaptability is key, Butlr stands out with its API-first approach, offering a distinct advantage over the constrained single-pane-of-glass solutions. Unlike rigid systems that force users into a closed ecosystem, **Butlr empowers businesses to maximize flexibility and adaptability**, seamlessly integrating spatial data into their existing software platforms.

You want full control over the insights you get

Our API-first strategy ensures that you're not confined to prepackaged insights. While Butlr provides a profound understanding of how spaces are utilized, we acknowledge that every team and business is unique. Instead of dictating specific insights, Butlr's data empowers you to shape the narrative, letting you decide what information matters most for your spaces.

You already have a preferred software

The Butlr API opens a world of possibilities for users who may already have robust software in place but seek to enhance their insights with spatial data. This flexibility means **you don't have to abandon your current workflow or waste your teams' time in learning new software**. Through our API, Butlr effortlessly feeds valuable occupancy and utilization data into your platform of choice, allowing you to craft meaningful insights tailored to your unique needs.

You do not want to add yet another software to your stack

The key to our API-first strategy lies in preserving an economy of means. There's no need for additional subscriptions, software changes, or cumbersome onboarding processes. The Butlr API adapts to your environment, offering a streamlined integration process that puts you in control.

What can I build with the Butlr API?



With Butlr API, you access all the necessary building blocks to model utilization, fullness, etc. By measuring utilization, one can rank assets based on popularity, optimizing space usage. This includes assessing the efficiency of various room sizes, comparing phone booths to meeting rooms, or evaluating the performance of differently sized meeting spaces.

The Butlr API allows users to gauge how well spaces align with their design intentions. For example, a meeting room designed for eight people might be underutilized if occupied for only a few hours a day by a single individual. This valuable feedback loop aids in optimizing spaces according to their original design, ensuring they fulfil their intended purposes.

Passive Sensing

Utilize Butlr API to identify peak office hours by analyzing occupancy data. Understand when your spaces are the busiest, enabling strategic resource allocation during high-demand periods.

Asset Utilization Metrics

Measure and rank assets based on utilization data. Determine the efficiency of various room sizes, compare phone booths to meeting rooms, and optimize asset usage for improved workplace efficiency.

Meeting Room Efficiency Analysis

Evaluate the performance of meeting spaces against their design intentions. Understand how well a room designed for a specific capacity is utilized, providing valuable insights for space optimization and redesign.

Customized Cleaning Schedules

Develop customized cleaning schedules based on occupancy data. With Butlr API, you can dynamically adjust cleaning routines to focus on areas with higher utilization, promoting hygiene, waste minimising and resource efficiency.

Workplace Strategy Optimization

Create a ranking of assets based on their utilization, aiding in workplace strategy optimization. Identify areas that need adjustments, whether it's reallocating resources, reconfiguring spaces, or enhancing specific features.

Peak vs. Off-Peak Day Analysis

Distinguish between peak and off-peak days in the office. By analyzing historical data through Butlr API, businesses can optimize staffing levels, energy consumption, and other resources based on daily trends.

Real-Time Heatmaps

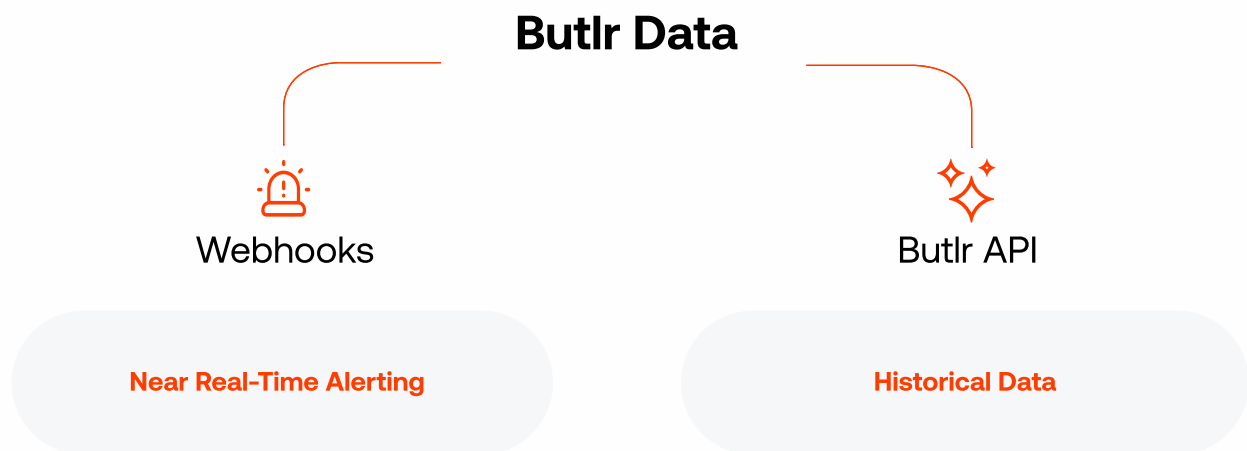
Generate real-time heatmaps using location data from Butlr API. Visualize the flow of occupants within a space, enabling informed decisions on space layout, traffic patterns, and overall user experience.

Environmental Impact Assessment

Assess the environmental impact of space usage, particularly in terms of energy consumption. Use occupancy data to optimize lighting, heating, and cooling systems for improved energy efficiency.

Understand the basics of the Butlr API

To understand the basics of the Butlr API and how it works, let's explore first the "types" of data you can get with your Butlr Platform: **Historical Data and Near Real-Time Alerts (NRT)**.



Near Real-Time Alerts are notifications that let you know in almost real-time about the change in a state you care about. With NRT you can receive push notifications with a remarkable 2 to 5 seconds latency, ensuring swift awareness of time-sensitive events. Types of such insights include:

1. Room Entrance and Exit Alerts
2. Exceeding of Occupancy Thresholds
3. Suspicious Presence in Restricted Areas

Historical Data refers to information that offers in-depth exploration of occupancy and utilization patterns over time. With our Historical Data, accessible via the Butlr API, you can query specific types of data you need for your analysis such as behavioral patterns, trend analysis and development of space performance over time. Examples of insights that you can derive from Historical Data are:

1. Peak Hour Identification
2. Asset Utilization Metrics
3. Room Efficiency Analysis

While Historical Data is accessible via the Butlr API, our Near Real-Time Alerts are integrating to your system via Webhooks. Let's take a closer look at what the Butlr API and Webhooks consist of:



It is a Public API

APIs exhibit various types categorized by their *accessibility*. For example Private APIs, also known as Internal APIs, serve to connect software components exclusively within an organization, offering seamless communication between different parts of its infrastructure. In contrast, Public APIs—the Butlr API—open up an organization's data or services (in this case, Butlr's) to external developers and users (you!), facilitating third-party integrations and enhancing features in applications.

By embracing a public API approach, we foster collaboration and creativity, empowering anyone to leverage our platform's capabilities to their fullest extent. By being public, **the Butlr API enables seamless integration with a diverse range of applications and systems**, ultimately unlocking limitless possibilities for our users and partners alike.



It follows a GraphQL Architecture

APIs can also be categorized based on their **architectural style**, with some of the most commonly used styles being REST, SOAP, GraphQL, and gRPC. For programmatic access to our historical data, **Butlr deploys GraphQL, an open-source query language that streamlines data retrieval through a single API endpoint, reducing the need for multiple requests.** By consolidating multiple requests into one, GraphQL minimizes latency and optimizes performance, providing you with fast, more efficient access to the information you need.



Butlr uses Webhooks

For its Near-Real Time Alerting system, Butlr deploys Webhooks. Webhooks facilitate event-driven architectures, automatically triggering HTTP requests in response to specific events, such as Exceeding Occupancy Levels in Butlr Workplace or a Fall Incident in the case of Butlr Care.

Integrating via the Butlr API

BEFORE YOU INTEGRATE



```
{
  "data": {
    "occupancy": {
      "sum": 26,
      "min": 1,
      "max": 3,
      "count": 12,
      "mean": 2.1666666666666665,
      "median": 3,
      "stddev": 0.7993052538854533
    }
  }
}
```



Butlr uses Postman

We encourage you to explore our API directly, even before investing valuable time and resources in manually crafting requests. We want your engineers to be able to quickly test our API endpoints, send sample requests, inspect the responses, and understand how the API behaves without having to set up any code or environment locally. To do so, we deploy Postman and provide your engineers with a ready-to-use Postman collection as a starting point for integrating the Butlr API into the application of your choice.



“This is great, I am ready to integrate! How do we start?”

Meet our dedicated teams – the backbone of successful API integration. Our API engineers, armed with extensive knowledge of the Butlr system, collaborate seamlessly with our customer success team. Together, they ensure not only the proper application of information but also timely execution, guaranteeing a seamless integration experience.

Recognizing the diversity of our clients, we understand that each integration is unique. For partners with their own API engineers and customer success teams, our dedicated counterparts collaborate directly. Whether you're an enterprise customer with an internal engineering team or a partner with your own resources, Butlr ensures a tailored approach to suit your specific needs.

Don't have a team? Don't worry we are here to help! Our priority is for you to experience the seamless operation of Butlr's API within your environment and we have the right people to work with you. Just make sure to let us know during our discovery calls!

Interested in an integration partnership?



Experience the flexibility of a truly open API

Grow your business by delivering innovation and increasing customer value with Butlr's groundbreaking technology. Whether integrating with your own solution or offering Butlr as a standard platform integration option, our API-first approach enables you to optimize and customize user experiences with flexibility and efficiency.

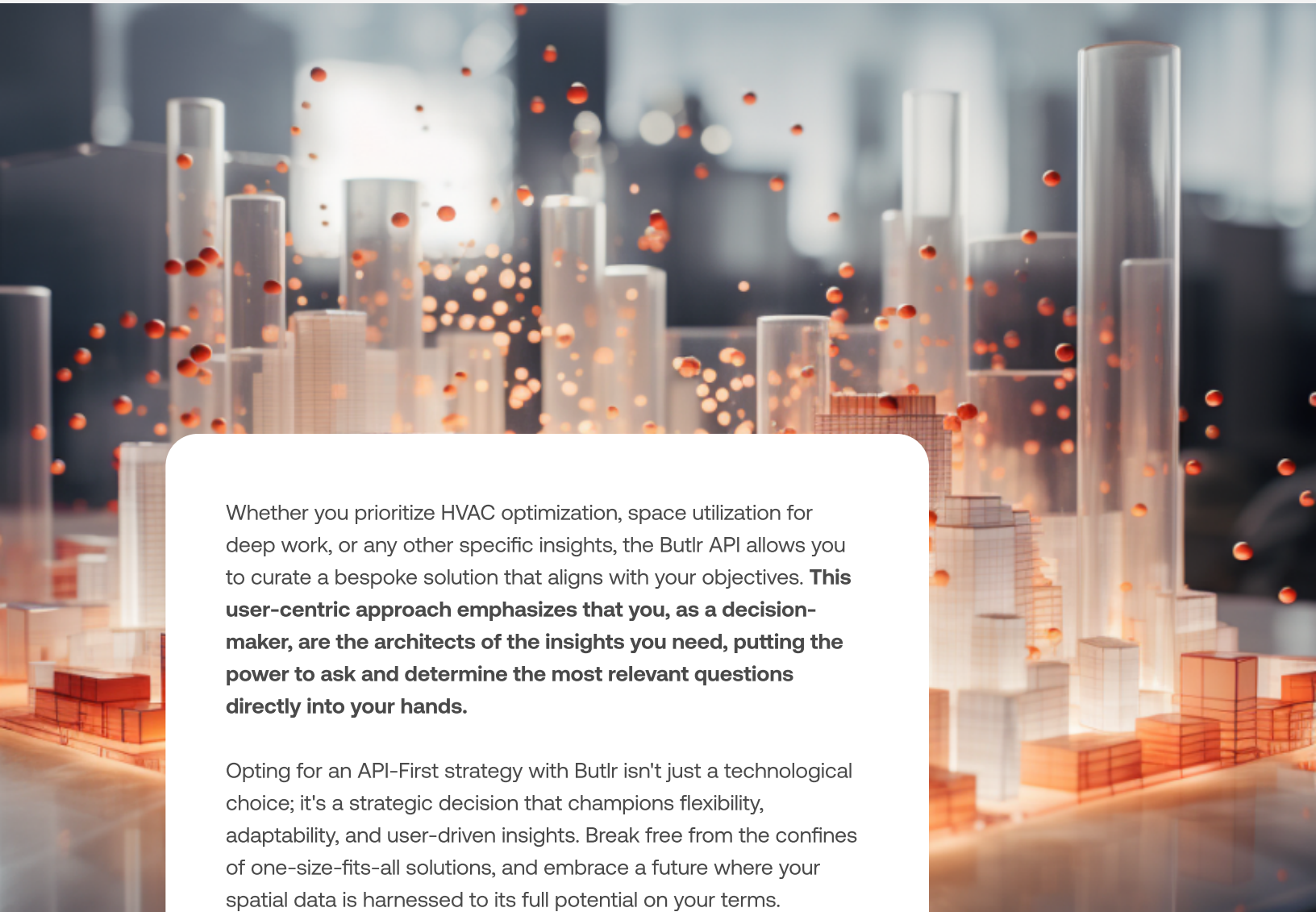
Dedicated support to make our projects a success

Our partners get assigned to a dedicated team of Field Application Engineers, Account Executives and Customer Success ninjas who ensure success in every step of the way.

Join 200 Global Enterprises
in the journey to AI driven spaces

Read more at butlr.com/partners

Curate a bespoke solution that aligns with your objectives.



Whether you prioritize HVAC optimization, space utilization for deep work, or any other specific insights, the Butlr API allows you to curate a bespoke solution that aligns with your objectives. **This user-centric approach emphasizes that you, as a decision-maker, are the architects of the insights you need, putting the power to ask and determine the most relevant questions directly into your hands.**

Opting for an API-First strategy with Butlr isn't just a technological choice; it's a strategic decision that champions flexibility, adaptability, and user-driven insights. Break free from the confines of one-size-fits-all solutions, and embrace a future where your spatial data is harnessed to its full potential on your terms.

Thank you.

Contact us

Have questions about the Butlr People Sensing Platform?

Please contact us at support@butlr.io or
submit a form via our website www.butlr.com or
visit our Learning Center at <https://support.butlr.io>

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