

## 1.5 FAQs

### Customer FAQs

#### Data security

*Can my work be tracked by InSite?*

The purpose of InSite is to reproduce data in an illustrative way. It is focused on the building's assets. It is neither intended nor possible to track or control employees.

#### Data

*How often will the data in the tool be updated? Is there any latency?*

The solution receives the data from sensors every 15 minutes. The data in the solution will have maximum of 3 seconds of latency.

*Is it possible to say something about the validity of the data?*

The service includes the reproduction of the provided data the BMS in an illustrative way. It also informs about data deviating from the nominal value. But it's not possible to say something about the validity. Therefore, you need to check the source of the data collection. Please contact the BMS provider. They can help you with data validation.

#### Accessibility

*Do I need to register or provide personal data?*

Today the developer (Technical Building Lead) will give you access. For access you need your User ID and a password. The Technical Building Lead is Steve Watson ([swatson@museumoflondon.org.uk](mailto:swatson@museumoflondon.org.uk)). A special definition of the process has to be developed in the future.

*The Wi-Fi connection is very bad. Can I use the app offline?*

A working internet connection is mandatory. LAN can be used where Wi-Fi is not available or stable enough.

*How do I get access to Insite?*

You can access the prototype by using your User ID and password at the temporary website: <https://dev.d2sfcdhn0bt5ic.amplifyapp.com>. If you don't have an account yet, or you forgot your password, please contact the Technical Building Lead. The Technical Building Lead is Steve Watson ([swatson@museumoflondon.org.uk](mailto:swatson@museumoflondon.org.uk)).

*What do I need for using this tool?*

A computer, tablet or a smartphone with access to the Internet. And one of the following web browsers in the latest version: Chrome, Firefox, Edge or Safari.

*Where do I get help?*

For help, please contact the Technical Building Lead. The Technical Building Lead is Steve Watson ([swatson@museumoflondon.org.uk](mailto:swatson@museumoflondon.org.uk)).

#### Functions

*Is it possible to zoom in and zoom out in the Floor Plan?*

It's not needed, because the floor plan only shows, where a problem is. By clicking on the problem, further information will be displayed on another webpage.

*Can I forecast upcoming issues with this tool?*

No, this tool can't do any predictions, but it provides you an overview on running devices. Based on this information you can make data-driven decisions.

*What information do I get from InSite?*

InSite shows you relevant alerts, weather data and in the floor plan where a problem occurs.

## Value

*What is this tool actually doing? / What type of support does this tool provide?*

This tool will help you to get an overview of the entire building, analyze the current status and based on this you can deduce further actions.

*What is the difference between this tool and Grafana?*

Whilst Grafana can answer questions by graphing data, this tool goes further. It alerts the user of a problem, then locates the problem on a floor plan, then is able to provide more detailed information to help understand the problem for rectification.

## Client FAQs

### Value

*What is the value of this tool?*

This tool centralizes important information and enables easy understanding of current operating parameters and conditions. It allows facility managers access to data that was previously difficult to observe, due to its siloed arrangement. The value is in enabling decision making based on data direct from the field devices.

*What are the most relevant elements of InSite?*

The purpose of InSite is the reproduction of data in an illustrative way. The webpage is central, gives a good overview, is simple to use and allows the most relevant information to be checked in one glance. The Facility Manager can check the data and problems from anywhere. The only thing they need is a mobile device with internet.

### Costs

*What kind of running costs do we have by using this product?*

Right now, Insite costs around 19 pound per month for 6 data points 19 pound per month. When Insite works on the basis of 600 implemented data points the costs are roundabout 83 pound per month.

This does not include developing and integration costs of the tool, because this can vary between software developing companies.

It is impossible to do a calculation for the final version on a serious basis, because requirements will change and it's unknown which features will be implemented in the final version.

Further information:

<https://calculator.aws/#/estimate?id=d22b91ea8be5e25b40753eec55da064640627b16>

#### *How can I save money with the tool?*

The facility manager can work more efficiently, due to visualization of building data. The monthly cost can be saved in one day. The annual cost could be saved in two weeks.

It's estimated that by working with building data and correcting the inefficiencies, there is the potential to save 30% in operating costs and also to make significant reductions in carbon emissions, by reduced energy use.

### **Website Access**

#### *Who has access to the Website?*

Only selected users with defined access credentials.

#### *Who gives access to the Website?*

The Technical Building Lead will be able to create and define new user data. The Technical Building Lead is Steve Watson (swatson@museumoflondon.org.uk)

#### *What is needed to use InSite?*

AWS developer access for maintenance of the InSite and login data for users. Also, an internet connection and one of the following web browsers in the latest version: Chrome, Firefox, Edge or Safari.

### **Data Security**

#### *How is the Data protection ensured?*

Through the Log In, only authorized people with a user account can access the data. The complete infrastructure is based on AWS. It is designed to help you create a secure, resilient and efficient high-performance infrastructure for your applications.

With AWS, you get the control and confidence you need to run your business securely with the most flexible and secure cloud computing environment available today. As an AWS customer, you benefit from AWS data centers and a network designed to protect your information, identities, applications and devices. With AWS, our comprehensive services and

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capabilities can improve your ability to meet key security and compliance requirements such as data localization, protection and confidentiality. In the end data security is always a matter of shared responsibility. The tool infrastructure is only as good as its user. So please set a suitable password. For more information, you can visit the AWS Security and Compliance website: [https://aws.amazon.com/security/?nc1=h\\_ls](https://aws.amazon.com/security/?nc1=h_ls)

## Data

### *Is it possible to say something about the validity of the data?*

The service includes the reproduction of the provided data the BMS in a visually engaging way. We also highlight data deviating from the nominal value. But it's not possible to say something about the validity. Therefore, you need to check the source of the data collection. Therefore, please contact the BMS service provider.

## Functionality

### *What equipment do my facility managers need?*

The system runs on any mobile device in any browser and is visualized best suited for the device. The only things the FM needs are a mobile device and internet for using Insite.

### *Who can maintain Insite?*

A developer with knowledge about Python and Angular with Typescript or JavaScript.

### *How can we implement Insite?*

By creating a Smart Building infrastructure, that captures the data you want to integrate. This could be BMS, Lighting control, People counting, room booking or any other data source in your organization. Insite then provides the clever interface that enables quick and easy access to this data in one place.

### *Is the solution scalable with AWS?*

Yes. The only limitation is currently the AWS EC2 instance. Instead you could choose a bigger instance type. For further information contact AWS.

### *What are limits for the actual prototype today?*

The prototype didn't meet any limits in its development. There is no upper limit on the amount of data Amazon can manage for Insite.

### *Can I make settings, so that not everybody gets all the information?*

This is not part of the prototype for now but could be implemented by a developer.

## Platform architecture

### *Which AWS tools does the application uses?*

Part of the solution are the following tools:

The **Amazon Elastic Compute Cloud web service** provides secure, scalable computing capacity in the cloud.

[https://aws.amazon.com/ec2/?nc1=h\\_ls&ec2-whats-new.sort-by=item.additionalFields.postDateTime&ec2-whats-new.sort-order=desc](https://aws.amazon.com/ec2/?nc1=h_ls&ec2-whats-new.sort-by=item.additionalFields.postDateTime&ec2-whats-new.sort-order=desc)

**Amazon Cognito** provides authentication, authorization and user management for your web and mobile apps. Important for the login process.

[https://aws.amazon.com/cognito/?nc1=h\\_ls](https://aws.amazon.com/cognito/?nc1=h_ls)

**AWS Amplify** consists of a set of tools and services to accelerate the development of mobile and web applications on AWS.

[https://aws.amazon.com/amplify/?nc1=h\\_ls](https://aws.amazon.com/amplify/?nc1=h_ls)

**Amazon API Gateway** provides the ability to connect non-AWS applications to AWS backend resources such as servers or code.

[https://aws.amazon.com/api-gateway/?nc1=h\\_ls](https://aws.amazon.com/api-gateway/?nc1=h_ls)

**AWS Lambda** is a serverless computation service that allows you to run code.

[https://aws.amazon.com/lambda/?nc1=h\\_ls](https://aws.amazon.com/lambda/?nc1=h_ls)

**Amazon Timestream** is a fast, scalable and serverless time-series database service for IoT and operational applications that enables the storage and analysis of trillions of events per day.

[https://aws.amazon.com/timestream/?nc1=h\\_ls](https://aws.amazon.com/timestream/?nc1=h_ls)

#### *How can we use our Network Attached Storage?*

The code is not written for network attached storage, so whilst this is possible, there would be rework needed with this prototype.

#### *How does InSite build up?*

There is a Front End which shows the data to the user and a Back End. Here it's possible for the developer to change data source and also code.

#### *Why do we use AWS tools and not different supplier?*

AWS offers end2end solutions. It guarantees the functionality of the used applications. AWS also offers flexibility. Different tool can be booked and canceled. You can decide as needed. The AWS environment offers a nice environment for maintenance. The developer can act intuitively and less action is needed.

### **Other Partner FAQs**

#### *Why did you choose this Solution?*

This solution reduces the time a FM department spends collating information from different systems and from different service providers. It enables Facility Managers to go straight to the most basic data and it visualizes the information in a comfortable, easy to use and read manner.

### *How is this better than solving it with Grafana?*

Insite is friendly and requires no technical ability to use – so an easy tool, quick to learn, for all Facility Managers. Grafana requires more data query skills and is useful for more in depth analysis.

### *Who developed the application?*

Students of the University of Applied Sciences Munich.

### *How much does it cost?*

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### *How much can it save us?*

Use of model-based fault detection, fault diagnosis & optimization procedures open up saving potentials of up to 30 %, regarding a project study of the Fraunhofer Institute with several other partners. It has the same framework conditions as the Museum of London. The study is based on an old building, with old sensors and a similar data infrastructure.