

# Johnson Controls Location Based Services



## Contact Tracing and risk assessment

Johnson Controls Location Based Services was created to provide strategic indoor location insights in relation to people, space, and equipment across a range of high-value industries. These industries include life sciences, technology, hospitals and medical facilities, financial institutions, data centres, and smart commercial office buildings.



With the onset of COVID-19, Location Based Services is in a position to help organizations reduce the risk and impact of this unprecedented threat on both individuals and businesses. Location Based Services tracks the movement of people and analyzes this data to understand who, where, when and for how long people have interacted.

In the unfortunate event of an individual testing positive for COVID-19, Location Based Services contact tracing reports will quickly identify:

- Individuals – within the monitoring space – who are potentially at the highest risk of contracting the virus, from a person or persons who tested positive, or who used the space in the preceding days and weeks.
- Individuals with a lower risk of being infected.
- The areas and equipment that are most likely to be contaminated with the virus and must be decontaminated.

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Reports will identify those who may not have had direct contact with their infected colleague and those who would have occupied potentially contaminated areas immediately after a colleague.

Given the importance of social distancing, indoor Location Based Service reports and real-time alerts highlight areas where the occupancy levels are too high to allow meaningful social distancing.

Scenario Planning Reports can assist and increase a Crisis Management Teams (CMTs) response-time by quickly identifying a cohort of colleagues, who may have come in contact with an individual who tested positive for a virus.



**It is important to note that Contact Tracing is applicable to any contagious virus of significance and not only COVID-19.**

## Two-week history and time duration

Location Based Services provides detailed Contact Tracing of people over a two-week period. Longer or shorter timeframes can also be selected. Individuals and locations that personnel encountered – as well as the critically important information of the duration of that encounter – is provided.

## Contact Tracing and personal contact

Contact Tracing reports show the individuals at highest risk of potentially contracting the virus from a person or persons who tested positive. The system reports all of the individuals – and the time duration of each encounter – that the infected person met over a selected timeframe. This rapidly highlights individuals who are potentially more at risk of contracting the virus. Subsequent reports can then be run in relation to at-risk individuals, to identify those potentially at highest risk of infection from that second category of individuals.

## Contact Tracing and shared spaces

In addition to direct contact, it is also possible that an individual who tested positive may pass on the virus through spaces and equipment that they unwittingly contaminated. Location Based Services Contact Tracing reports can display information on the individuals at highest risk of potentially contracting the virus from visiting spaces the infected person previously visited. Naturally, those individuals who spent the most time in these spaces could be potentially at a higher risk of contracting the virus.

## Contact Tracing and low risk contraction

While the Location Based Services Contact Tracing reports highlight the individuals potentially at highest risk of contracting the virus, through either direct contact or overlapping space sharing, they also highlight those individuals at a lower risk of contracting the virus from an individual who tested positive. This information is very reassuring for those with concerns about the wellbeing of their family and themselves. The information is also critical for the overall business as it ensures areas and people with a low risk of being affected by a positive test are not adversely affected.

Johnson Controls Location Based Services was developed using Privacy by Design and supports Privacy by Default. All the features of Johnson Controls Location Based Services are available using pseudo anonymized data. It is the responsibility of the data controller to ensure its compliance with applicable law, including any de-pseudo anonymizing of data.



## Quick and easy installation – wireless infrastructure

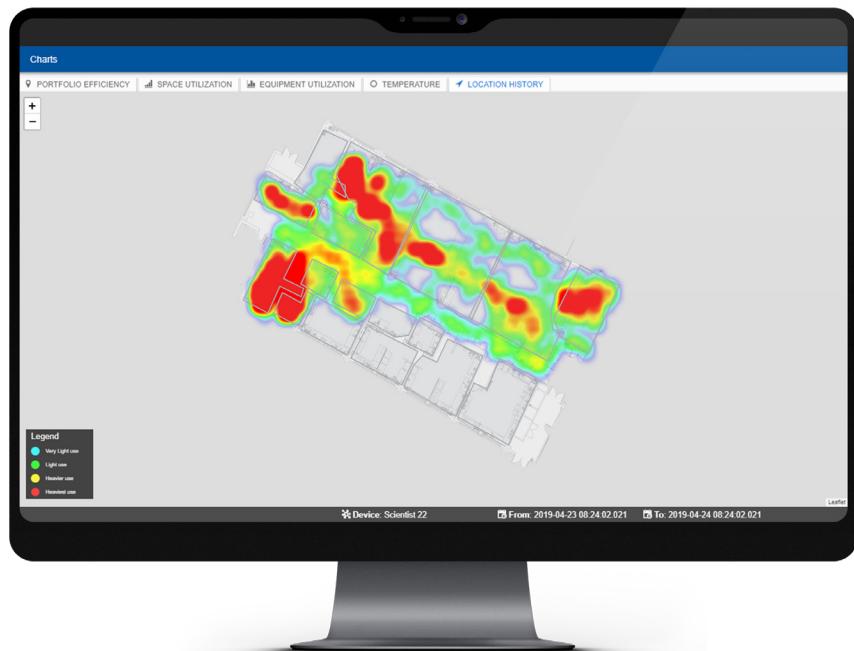
The Location Based Services solution can be rapidly deployed. If access to WiFi is difficult to obtain, 4G WiFi hotspots can be installed and used to transport badge location data to our secure cloud.

## Targeted areas for decontamination

Location Based Services Contact Tracing reports identify the locations, duration and times when an individual with a positive test visited. This information is used to ensure that all the areas that may have been unwittingly contaminated are decontaminated and safe. It also ensures that activities in areas that have been unaffected are not unnecessarily suspended.

## Social distance monitoring

Location Based Services Contact Tracing reports identify locations where the level of people in a specific area make it difficult to maintain correct social distancing guidelines. Real-time alerts can also be generated that highlight, in real time, areas where social distancing guidelines are not being followed.



## Rich suite of additional capabilities

Johnson Controls Location Based Services supports a wide range of additional business use cases:

- Space Utilization – Empirical measure of utilization of all areas within a building.
- Equipment Utilization – Empirical measure of utilization of important equipment.
- Environment Monitoring – Temperature, light, noise, humidity and air quality.
- Security – Restricted area access, visitor and insider security, panic buttons, asset tracking.
- Health & Safety – Lone worker monitoring, fire and security building evacuations.



History reporting for previous 14-day incubation period, or selecting any past period from go-live date.

Quick and easy, wire-free installation



# What is Johnson Controls Location Based Services?

Johnson Controls delivers mission-critical 'Essential Products, Services and Personnel' during the ongoing COVID-19 pandemic.

Johnson Controls Location Based Services provides space, equipment and environmental analytics and insights to help you to quickly make informed decisions that decrease infection transfer and improve efficiency and effectiveness. The application runs on a cloud based software platform that collects real-time data from a rich range of sensors: Bluetooth ID badges; asset trackers; intelligent equipment utilization monitors; temperature, humidity, noise and light sensors; and room and desk occupancy sensors. Data from third-party systems can also be ingested to enhance the analytic insights mined from the sensor data.

The solution's analytics capability delivers an unprecedented level of insight about the movement of user groups, utilization and run time of equipment, and the micro-environmental conditions in the area.

The application blends data from many different sensor types, surfacing insights and unique views to tell a complete story on a single platform. It looks beneath the surface of data that might be generated by an independent system and sees how the data combines to tell a complete story.

The Location Based Services solution is agnostic to any infrastructure or service provider, which means it can make use of sensors that are already in place, and provide insights that weren't previously possible.

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