

**SOLVEWARE AS  
RETAIL & SHOPPING**

# **INDUSTRIES & MARKETS**

# Department of Business Development

## SOLVEWARE AS

# RETAIL & SHOPPING

In Solveware AS we deliver solutions in three main areas: Augmented Reality, Tracking and Navigation, and 3D scanning, planning and modeling.

If you want to learn more about these solutions separately check also "Search by Product, Use and Solution" in "Integrated Solutions" at [solveware.no](http://solveware.no)

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FOR CLIENTS  
FOR THE DISABLED

We would like to extend an invitation to your organization to join the ranks of prestigious clients such as the Waldorf Astoria Hotel, who already enjoy our solutions.

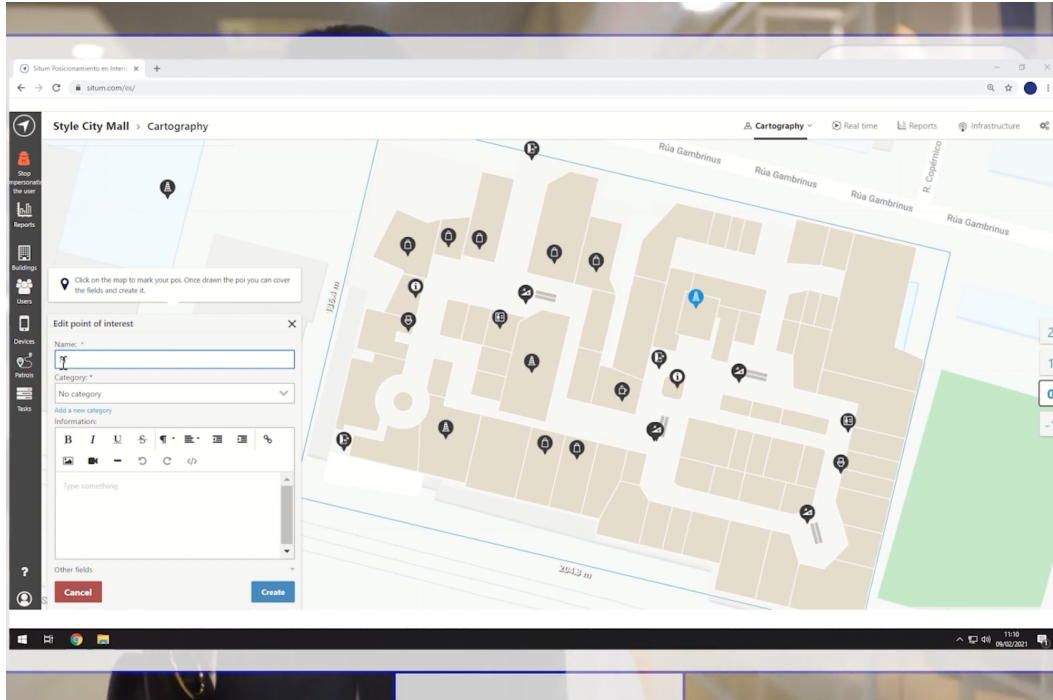
As this market becomes increasingly more dynamic and digitalized, with a growing emphasis on investors and relations with companies, on establishing a powerful online presence, and on sustainability, here in Solveware AS we want to recall the importance of AR and IT solutions and their key role in this evolving landscape.

## **Supervision, Tracking & Work Routines:**

Solveware AS is a company dedicated to providing innovative solutions for various industries, including the Retail & Shopping industry. Our experience in multi-disciplinary industrial environments has allowed us to master the integration technologies that can help improve efficiency, productivity, and safety in large work-spaces like shopping malls.

### **OUR CONCEPT OF TRACKING SOLUTIONS:**

We offer you the ability to locate on real-time any employee working on your building. Using our simple and economical tracking solutions managing routines and employees working in such a dynamic and complex workspace is almost automatic.

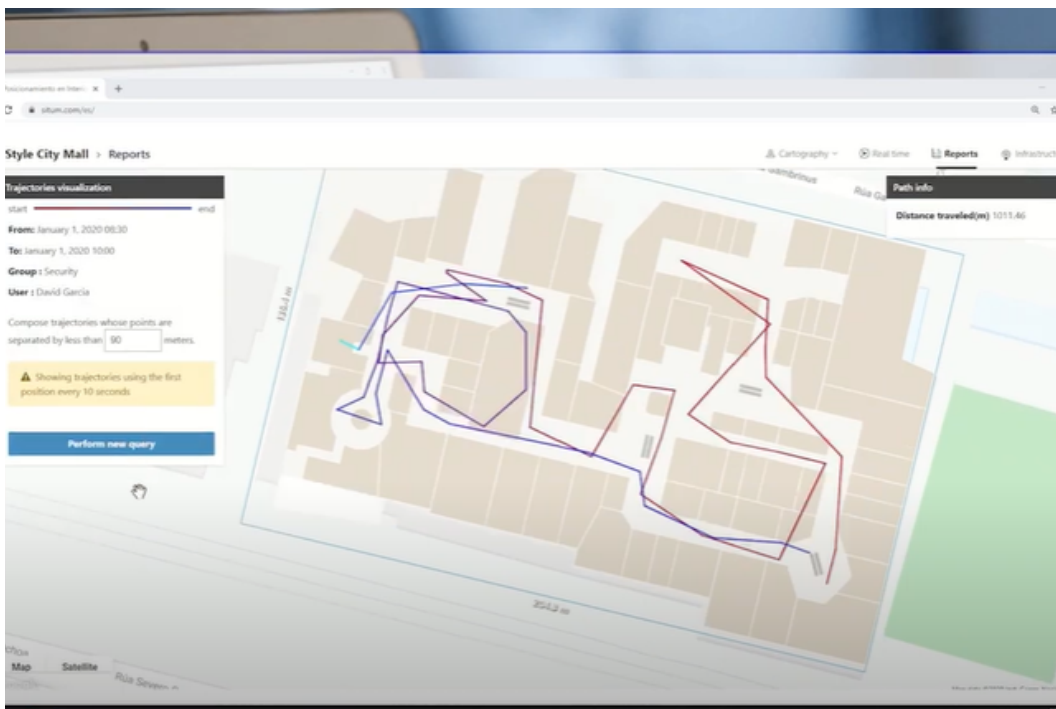


Actual view of the Platform

## MONITORING WORK ROUTINES

Shopping Malls are complex and dynamic work environments with multi-disciplinary teams working together and separately to maintain and ensure the work of enormous facilities.

This is an overwhelming task that we aim to simplify. In our Tracking Platform you can upload routes or routines for workers and compare them automatically with the actual work performed by an employee, and automatically evaluate the deviations, possible issues, and delays. Depending on the department, as well as the task and its importance, we can establish different standards and evaluate what is a normal deviation or when management should be automatically informed.



Routines followed by an employee

## AUTOMATIC CLEANING & HEALTH SUPERVISION

Monitoring employee routines has multiple implications, for example it can be automatically evaluated the involvement of the cleaning team in their task, by automatically logging into your systems the locations that were cleaned.

This is a powerful yet easy to use tool for managers to ensure that all cleaning routines are being actively followed, and that no corner in your facilities is being forgotten or left behind.

Establish trust with your clients and visitors, specially with the raising concerns of public health and cleaning measures in public areas due to the Covid-19 pandemic.

## ENERGY MANAGEMENT

Let us integrate our tracking solutions into your systems in order to have an efficient energy management. By tracking the location of employees and workers in real-time, mall managers can optimize energy usage, such as lighting and HVAC systems, based on occupancy or employee traffic patterns.

All of this data can be used to automatically switch off unnecessary lighting or electrical usage in areas that are not in use, without relying on anyone to manually switch off the light once the room is left.

This is increasingly important due to the energy crisis and the rising awareness of the Environment.

## 3 D Scanning Indoors & Outdoors

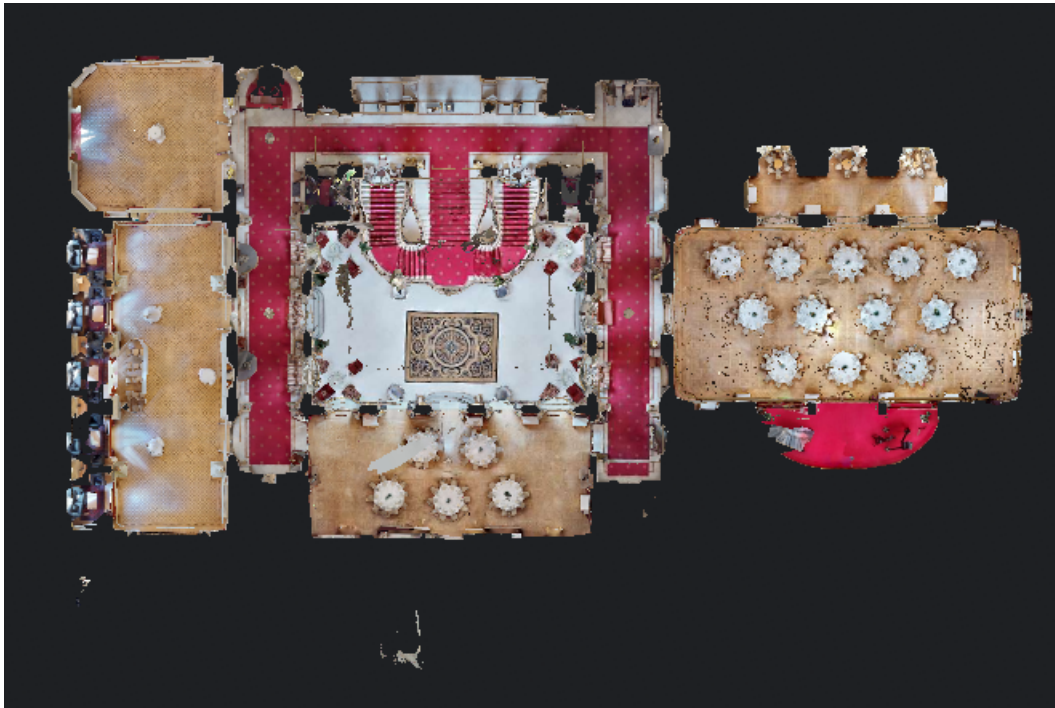
At Solveware AS, we offer advanced 3D scanning technology and devices that can generate highly accurate 3D point cloud maps of shopping malls with an astounding 99% precision rate. These maps can be quickly and easily converted into detailed 3D models or floor plans.



Actual Point Cloud Map scanned with our technology

## FACILITY PLANNING, EXPANSIONS & LAYOUTS

Our 3D scanning solution is a game-changer in the Retail & Shopping industry. It simplifies the process of updating mall layouts, including new stores, sections, parking lots, kiosks, displays, and other renovations. With our solution, most of the modeling process can be automated, enabling you to make necessary adjustments with ease and with the safety of working with an extremely accurate 3D model, and with no room for human mistakes.

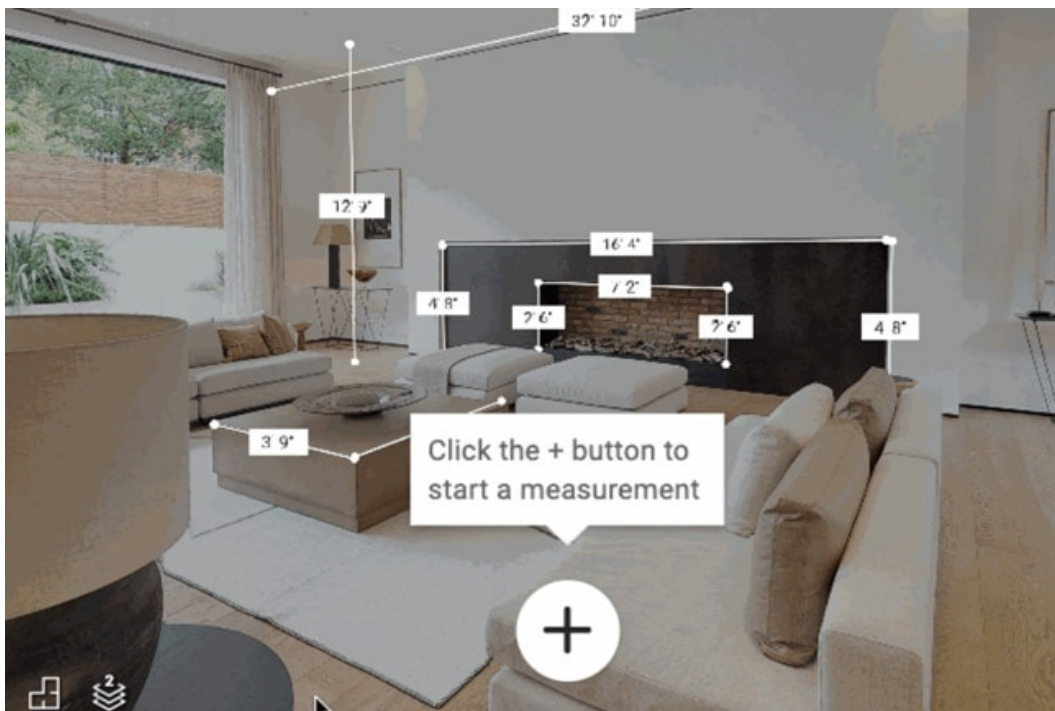


Floorplan: Royal Casino of Madrid

In addition to simplifying the design process of expansions, our 3D scanning solution is a valuable tool for Quality Control and Maintenance. With the ability to evaluate work environments, facilities, proximity and location of stores and displays, and more, this technology streamlines QC tasks like never before. By accurately measuring and visualizing the mall space, our solution helps mall managers identify areas for improvement and optimize the mall layout to enhance customer experience.

## PRECISE MEASUREMENTS

Thanks to the use of 3D point clouds and models, Retail & Shopping industry professionals can perform highly accurate measurements over the 3D point cloud maps or the 3D models, from distant or difficult areas in which performing a measurement would be a complex task of high difficulty.

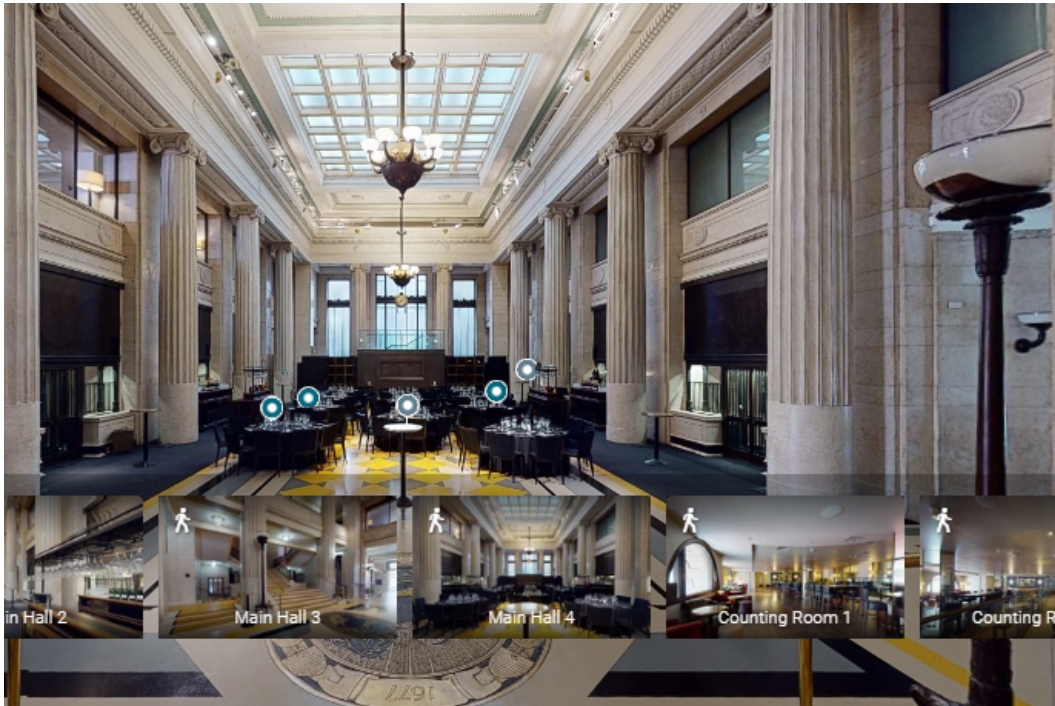


Measuring tool with different unit settings

Our solution enables users to take precise measurements of any scanned space, which is something ideal for piping, cabling, reforms, reparations and expansions in areas with very high ceilings, wide spaces and high complexity environments, all of which are common in shopping malls. This information is incredibly valuable for mall managers, chiefs of site or engineers, as it allows them to optimize the mall layout for customer experience or planned expansions and reforms, and make data-driven decisions backed by objective information.

## VIRTUAL TOURS

Virtual tours are a unique asset in the Retail & Shopping industry. With our 3D scanning solution, we can create immersive and interactive virtual tours of malls or stores, giving interested clients, contractors, and visitors an accurate and comprehensive view of the mall's layout and individual stores.



Tour with highlights

These tours can be accessed from anywhere in the world, allowing brands interested in establishing a presence in the mall to explore the space remotely before making a commitment. With the ability to take measurements and view detailed 3D models, these virtual tours make it easier than ever for businesses to plan store layouts and product displays.

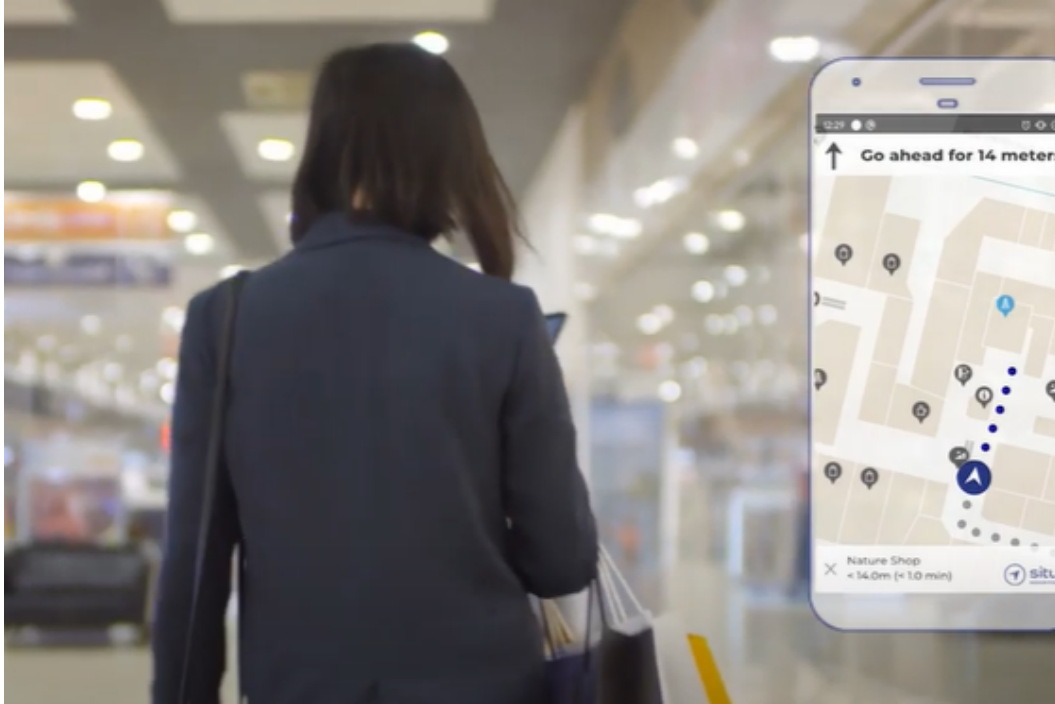
These tours can be showcased not only on internet, but also on touch screens located throughout the mall, allowing visitors to interact with and explore the mall's layout in an engaging and interactive way. This creates an immersive experience that enhances the overall shopping experience, making it more enjoyable and memorable for visitors.

Finally, virtual tours can also be used for training and orientation purposes for new employees. With a comprehensive view of the mall's layout and individual stores, employees can be familiarized with the facility before they even begin working.



## Smart Navigation & Behavior Analysis

Smart Navigation uses the tracking technology explained early, and it is a very interesting and futuristic tool that can be implemented in shopping malls to enhance the overall customer experience. We have some very interesting possibilities with this.



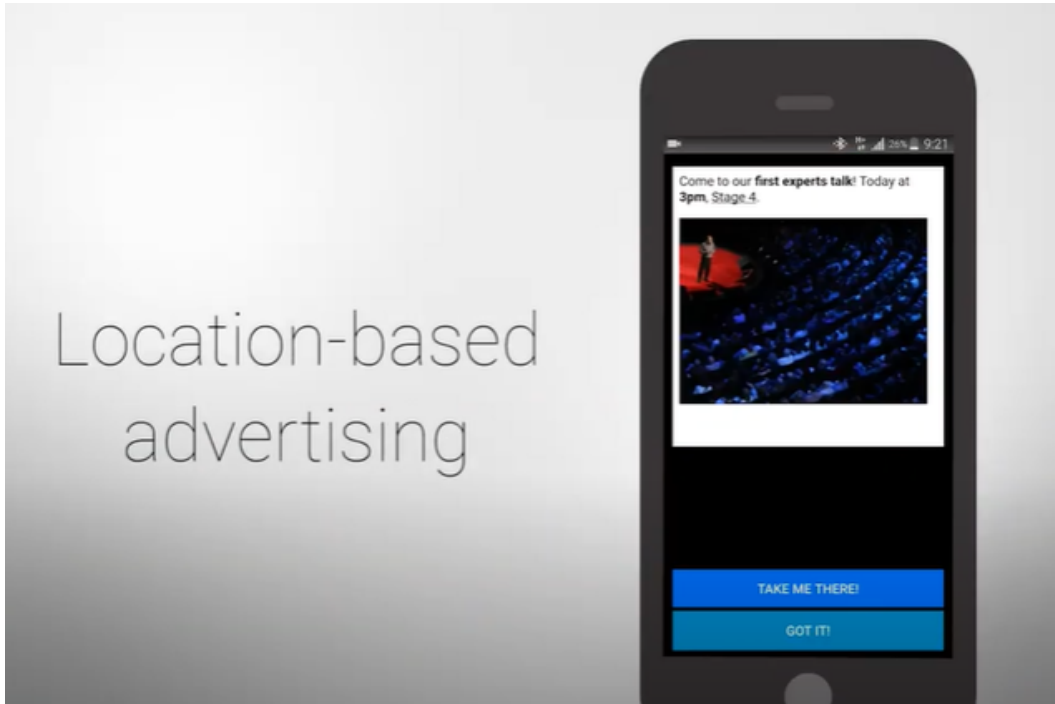
Smart Navigation in our Platform

### SMART NAVIGATION FOR CUSTOMERS

This Smart Navigation solution has several potential applications for enhancing the visitor experience at the mall. Primarily, the system can be used to guide visitors to their desired stores or locations. However, more interestingly, the system can power a recommendation algorithm with the ability of recommending locations to visitors as well as encouraging them to engage with the app by providing tailored suggestions and routes. For instance, the system could suggest a nearby restaurant for a coffee break after a prolonged shopping session or recommend a new lunch menu at a restaurant in the mall. Furthermore, the system could also suggest new products that have been introduced to a store that the visitor regularly frequents. As we take in mind that each shopping mall may have a different recommendation system or software, we will make sure to integrate our solution with the ones in use by the shopping mall.

## INDUSTRIES & MARKETS

The implementation of this system can offer valuable data analysis tools to analyze the preferences of mall visitors. With access to visitor preferences, the system could provide customized feedback to suit their interests, thereby engaging them in more economic activities within the mall. The data could also be used to provide insights into current trends, and patterns of visitor behavior, which can help mall management make informed decisions regarding store placements, promotions, and other marketing strategies.



2016 Demo of this technology

The proposed system has the potential to significantly enhance the overall visitor experience at the mall while also providing valuable insights to mall management. By providing tailored recommendations and routes, visitors are more likely to engage in economic activities within the mall, ultimately benefiting mall vendors. Additionally, the system can offer valuable data analysis tools that can be used to improve visitor satisfaction and increase profitability for the mall as a whole.

## **SMART NAVIGATION FOR THE DISABLED**

For customers with disabilities, Smart Navigation can be even more impactful. With our Smart Navigation solutions, we can provide customized routes that take into account accessibility features such as ramps, elevators, and wheelchair-accessible entrances, as well as voice commands and indications to navigate.

This solution enables customers with disabilities to navigate the mall independently, improving their overall shopping experience and making the mall more accessible and inclusive. Moreover, with the ability to provide real-time information on store and product accessibility, customers with disabilities can make informed decisions about where to shop and what products to buy, resulting in a more positive shopping experience.