

Making buildings **smarter** with **TeamViewer**

Working in partnership with HARMAN, TeamViewer is extending into the IoT marketplace to provide an integrated solution for smart building management.

INTRODUCTION

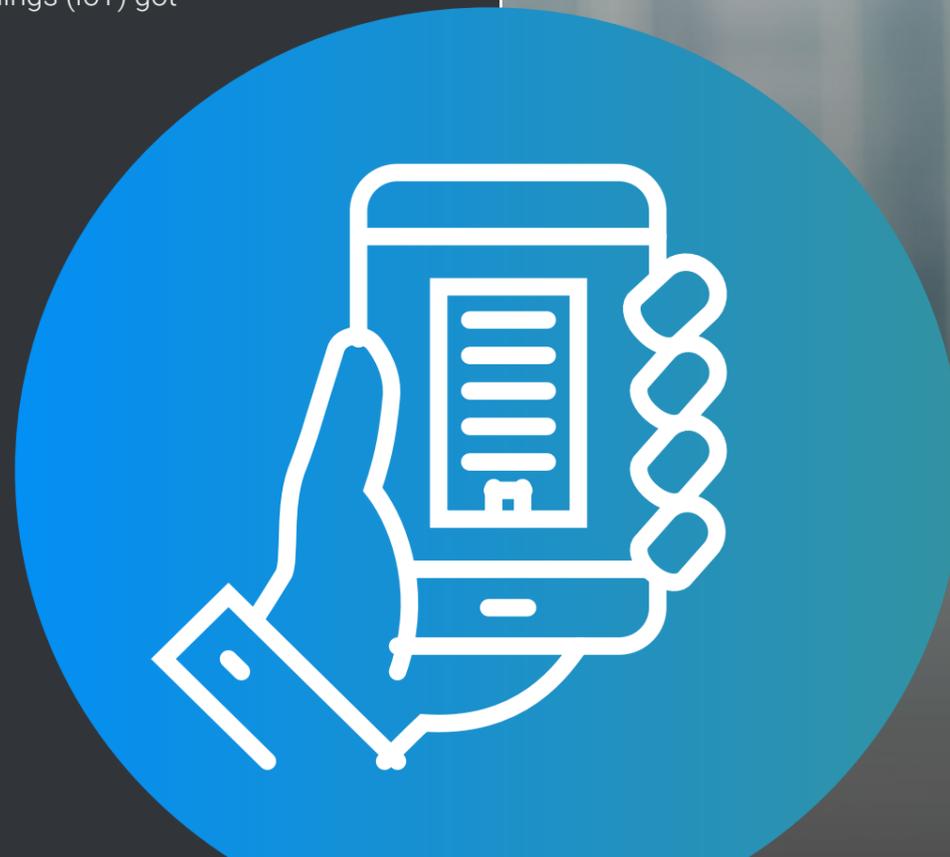
The smart building technology market is estimated to generate global revenue of

\$8.5 billion in 2020

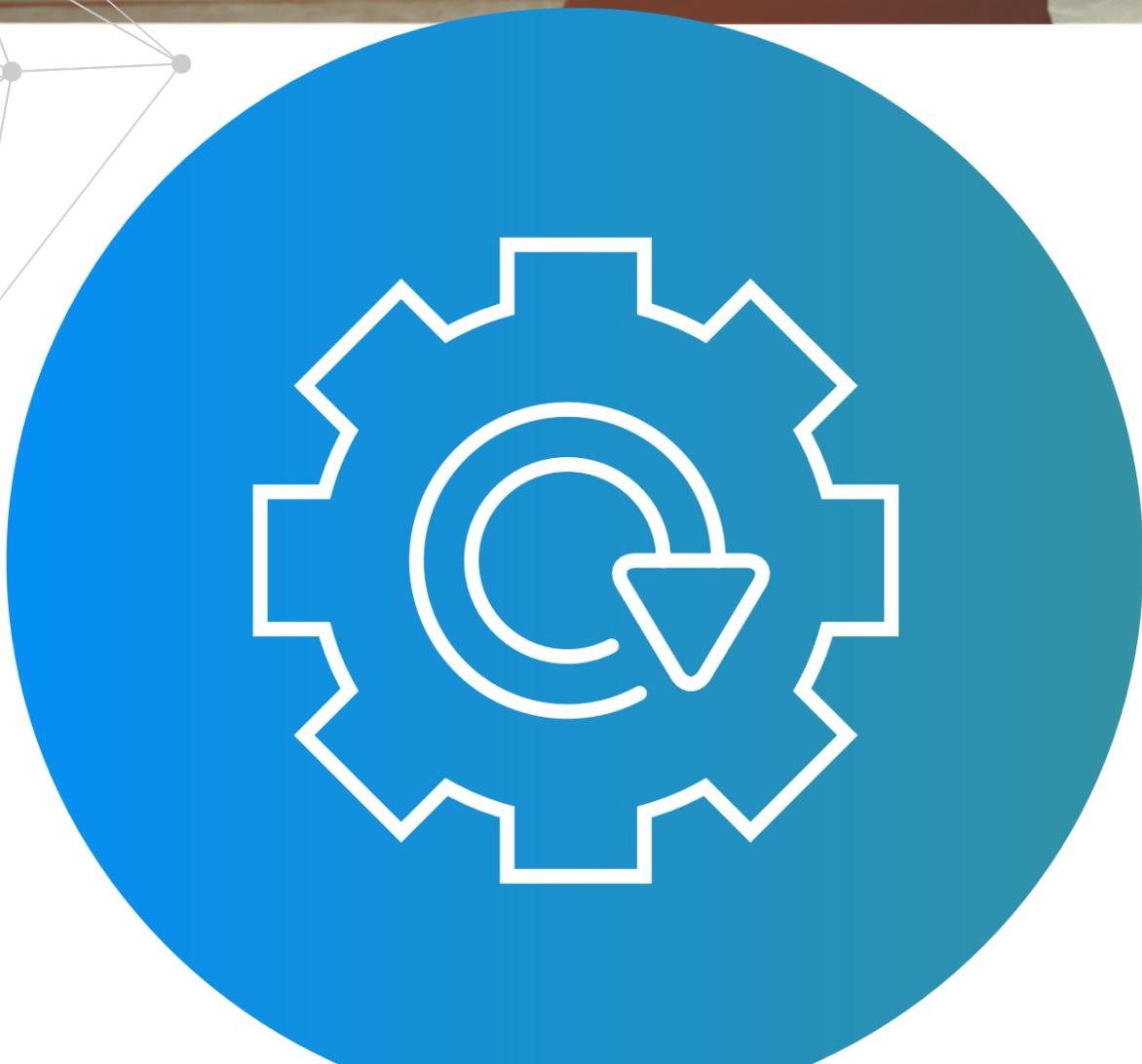
up from \$4.7 billion in 2016¹.

The devices being used in commercial buildings are becoming more intelligent so end users, occupants and operations managers need to be able to access them, monitor them and manage them – from wherever they are.

But what's driving this new trend of smart buildings and what has the Internet of Things (IoT) got to do with it?



INCREASED AUTOMATION, GREATER AGILITY



Traditionally, huge amounts of man hours are spent continuously monitoring and controlling complex ecosystems within buildings. For operations managers and service technicians still monitoring buildings in a manual way, the process is time consuming and complex. These frustrations are giving rise to smart buildings and 'connected' commercial real-estate solutions.

Using sensors and trackers to generate data about the existing infrastructure gives owners, operators and facility managers the ability to improve asset reliability and performance in a faster, seamless way. Energy, lighting and temperature are still high on the priority list as green initiatives take center stage worldwide. But businesses are also increasingly thinking about utilizing their available space to drive improvements in productivity.

The Internet of Things (IoT) extends intelligence beyond bricks-and-mortar, helping individuals to use real-time insights and actionable analytics to maintain and manage buildings effectively.

POWERFUL DATA, ACTIONABLE INSIGHTS

IoT is one of the biggest buzzwords around at the moment, but what does it really mean? Well, it encompasses any device that can connect to the internet and create an exchange of data. As more building devices such as temperature thermometers and electricity meters produce more data, the IoT world becomes larger and more complex.

IoT opens up access to any device, remotely and locally, so the exchange

of data happens all the time. With the incorporation of trackers, sensors and monitors, the amount of data becomes much greater. Simplifying and centralizing the management of data means you can harness its power and turn insights into action.

Actionable analytics from smart building solutions can help you to deliver a best-in-class strategy for your workplace and your building operations. After all, businesses are all about successful growth and staying ahead of the competition. Now, more than ever, the building itself is just as important as the workforce occupying it.

Smart building solutions, IoT and good visibility of data, can help you to:



Meet sustainability objectives, such as conserving energy.



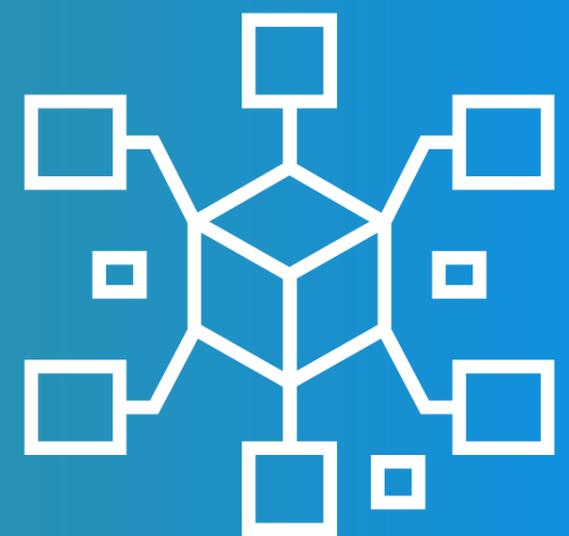
Reduce operational expenses by utilizing office space effectively.



Integrate your ecosystem and centralizing fragmented information.



Increase the productivity of staff and enhance decision making.



ONLINE CONNECTIVITY, SECURITY RISKS

Of course, as businesses become globally dispersed, the challenges with data also increase. Data can be exchanged from multiple buildings, all based in different regions with different regulations. Not to mention the amount of devices connecting to the infrastructure. To receive real-time information, all devices need to be online and working correctly.

Buildings and their equipment used to be managed in controlled and isolated environments. But as they become more integrated, connect to the internet and begin to share network connections, buildings become more vulnerable to cyber attacks and hacks.

To prevent this, devices themselves and the channels used to access, monitor and control them need to be secured. This is especially true for maintenance teams who need to manage and monitor buildings

remotely. They need to know what's happening within the building in real-time, access critical data and prevent any potential downtime for devices.

Many users are still unable to access, manage and monitor their businesses remotely. And those who can, feel that there is no secure way to do it. Incidentally, there are many end-to-end solutions and important partnerships that can change building management for the better.



HARMAN IOT CONNECTIVITY SOLUTION

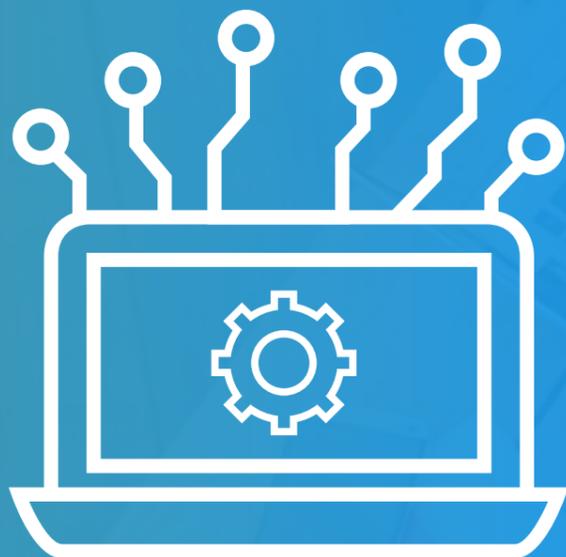
HARMAN offers an innovative IoT platform – a complete solution that combines hardware and software to offer flexibility and real integration to smart buildings. Taking data from different sensors, such as light, heat and air quality, the HARMAN solution improves tracking of assets. This data exchange gives operations managers and facilities teams the information they need to optimize the management of their building.

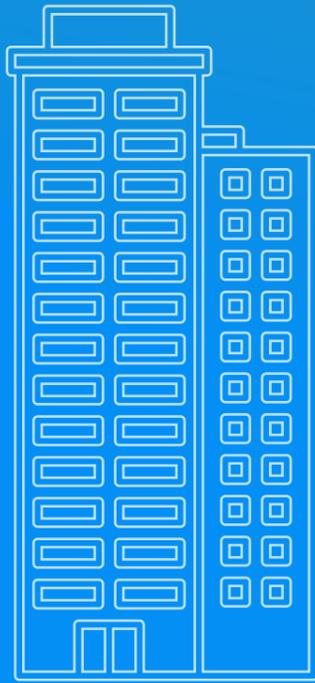
There are a number of ways that HARMAN simplifies building management for its customers, including centralized collection of data. It offers an end-to-end solution that brings all smart elements within a building together in a more convenient way and creates a more productive experience for occupants. It gives teams a greater element of agility and control over various assets, helping to improve interoperability, efficiency and return.

The building automation solution also considers the requirement for monitoring and control. That's

why it seamlessly integrates with different systems, equipment and field devices – even with legacy systems. Addressing many of its customers challenges around IoT and monitoring buildings, this solution delivers across:

- Customer service and efficiency.
- Improved return on assets.
- Reduced energy costs.
- Compliant and productive operations.

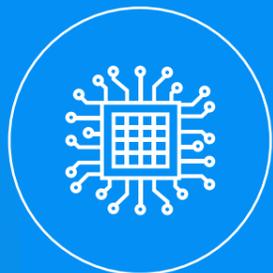
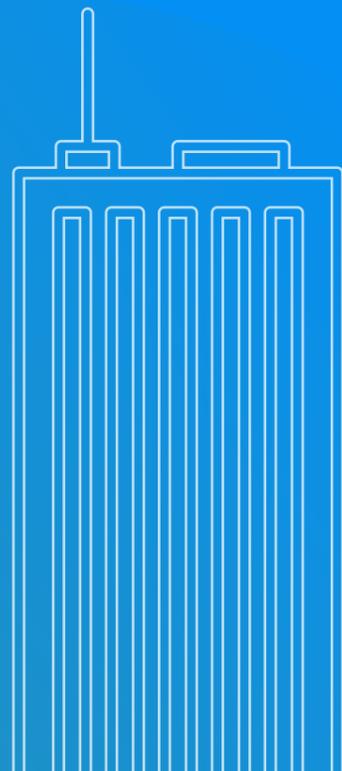




BUT WHAT ABOUT TEAMS WHO
NEED REAL-TIME MONITORING
INFORMATION, ACCESS TO
DEVICES AND THE ABILITY TO
CONTROL THEM, REMOTELY?



That's where the partnership between HARMAN and TeamViewer comes in. Putting remote monitoring, control and security at the forefront, these two solutions work together seamlessly. TeamViewer's solution, well known for its remote support and monitoring capabilities, connects with HARMAN's IoT gateways and gives gateway managers an overview of the infrastructure.



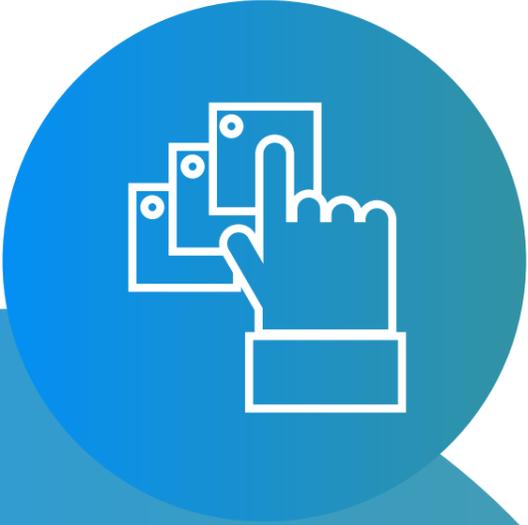
WHY TEAMVIEWER?

TeamViewer's best-in-breed solutions provides real-time information about the operational status of both the IoT gateway and the building's sensors. Meaningful information can be captured in real-time while data visualization and notifications means that a user can be alerted when there is an issue that needs rectifying within the building. Preventative action can be taken quickly to minimize the downtime and poor experience for occupants.

TeamViewer's remote support solution cuts costs on a number of levels. Gateway managers can intervene and resolve issues without dispatching a technician. The reliance on local maintenance team is also eliminated. With remote support, devices can be accessed from anywhere at any time, as long as the right permissions are set with the user management feature.

The complexity of ecosystems within a smart building are vast, but TeamViewer keeps integration and usability simple. With an intuitive interface and simple usability, managers, owners and teams require minimal training around the solution. Instead, it can be rolled out efficiently, with the same being said for updates.

Finally, and most crucially, TeamViewer leverages the very best in security, keeping your smart building and its devices protected from outside threats. Although simplicity and security are not thought of as going hand-in-hand, TeamViewer revolutionizes this thinking with four levels of fortification, including two-factor authentication and a master whitelist.



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STRONGER PARTNERSHIPS, SMARTER TEAMS

Discover how you can confidently connect, monitor and control buildings in the era of IoT.

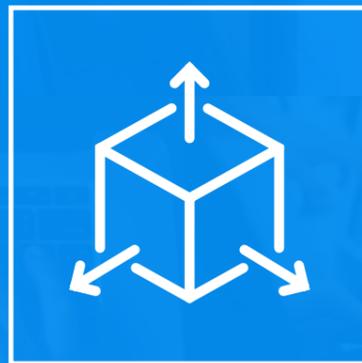
[EXPLORE TEAMVIEWER](#)

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“We chose TeamViewer and its remote support application because of the expertise on offer. By integrating TeamViewer with our own IoT gateway, we improve coordination between teams at the engineering level. They can act on data gathered from monitoring and managing the building’s devices, and they can take the correct action from wherever they are.”

Prakash Tripathi, HARMAN, Director IoT Practice at HARMAN Connected Services

TAKEAWAYS



IoT capabilities help to make more effective use of buildings by maximizing the available space.



As the world becomes more focused on green initiatives, collecting data about lighting, energy and heating can lead to substantial savings.



With a remote support solution, a building's devices can be remotely accessed, monitored and supported from any location.

SOURCES

¹ The smart building technology market is estimated to generate global revenue of \$8.5 billion in 2020, up from \$4.7 billion in 2016 - <http://enterpriseiotinsights.com/20160725/5g/smart-building-tag31-tag99>



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