

# The Smart Campus. Better for Everyone.

Improve Efficiencies While Delivering a Connected Experience



## From the Internet of Things (IoT) to the Intelligence of Things

Zyter Smart Campus enables you to better manage your campus ecosystem and unlock the full potential of your connected IoT devices so that you can:

- Improve Operational Efficiencies Simplify and automate day-to-day management tasks to achieve long-term efficiency improvements and significant cost reduction.
- Make Smarter, Faster Decisions Get actionable insights so you can make intelligent and informed decisions faster using real-time data streams, comprehensive dashboards, incident reports and prescriptive actions.
- Provide Intuitive Experiences for Stakeholders – Using our humancentered design methodology, Zyter Smart Campus delivers an intuitive and seamless experience across a full range of apps and services – regardless of devices and data sources.
- Improve Safety Identify and address potential issues quickly before they escalate using context-aware incident reporting, predictive analytics and contextual alerts.
- Secure your Enterprise Ensure the highest levels of security at all times with the platform's 256-bit AES encryption along with built-in user identification and authorization.
- Achieve Faster ROI Most organizations achieve return on investment within the first year of operation.

Whether it's a small campus, a mid-size enterprise or a large city, modern spaces are already using sensors and devices to monitor everything from lights and parking to air quality and waste management. Unfortunately, not all systems are integrated seamlessly, making it difficult to obtain a clear view of current events and conditions across the spectrum of solutions. What's more, despite access to mountains of reported data, extracting actionable intelligence and insights for more informed decision making still remains a challenge for stakeholders.

Fortunately, there's Zyter SmartSpaces™.

Trusted by Qualcomm<sup>®</sup> to be the foundation of its Smart Cities Accelerator Program, the Zyter SmartSpaces Platform breaks down silos – by integrating and consolidating data from IoT devices and applications you already have – into one seamless interface. The result: complete visibility of what is happening across your entire network of connected devices and sensors.

In addition to receiving instant alerts and notifications about issues that matter, you can drill down through the layers of data and focus on solving problems using analytics and historic trends. You'll be able to make informed and intelligent decisions that not only improve operational efficiencies, but also enhance the quality of life – for employees, workers, residents and citizens. As the platform learns and evolves, it becomes capable of taking decisions on its own, based on rules, policies and outcomes defined by stakeholders, eventually making the vision of self-managed spaces a reality.

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### **The Next Generation AI-Enabled Campus Experience**

Optimize the use of campus assets. Help make the air cleaner. Make public transportation safer. Let your car find the best parking spot. Even see through walls. Zyter Smart Campus<sup>™</sup> makes it all possible across multiple types of campus environments with its flexible and scalable AI and analytics-driven platform. Here are just a few examples of how you can make your business campus smarter and more connected:

• Command and Control Center for Communities and Businesses – In partnership with Qualcomm Technologies and by leveraging its existing Smart Cities network, Zyter SmartSpaces is being deployed as a plug and play Smart Campus as a Service (SCaaS) solution. Diverse offerings from multiple IoT device vendors are integrated into the Zyter SmartSpaces ecosystem to provide end-to-end visibility and management across cameras, street lights, parking, building energy management, asset tracking, air quality sensors, waste management and more.

The Zyter Smart Campus Command and Control Center brings all of these integrated smart systems together in one central place and provides a holistic view to help administrators manage a city or campus more efficiently. As a result, campuses, communities, and businesses can unlock the management potential and efficiencies promised by the widespread deployment of IoT devices – and improve return on investment on the assets they already have by making them smarter.



Gain a complete view of all systems from Zyter's Command and Control Center

In addition, because efficient management requires people in the field all across the campus, Zyter also provides administrators with a secure mobile app with access to all of the features, alerts, notifications, and analytics available in the Command and Control Center. Zyter also developed a mobile app for employees and other users to help them stay informed of changes in transit services, optimized travel recommendations during special events, and other information for their convenience and safety.

• **Digital Twin** – Zyter Smart Campus is the first and only SmartSpaces solution to feature a light detection and ranging (LiDAR) based 3D digital twin – with the capability to create a real digital replica of a campus, the exterior and interior of its building structures, as well as surrounding public transportation assets, lighting, and more, to make campus management more efficient. Working with its strategic partner NavVis, Zyter can create a 3D digital twin map of a 600,000 ft. area in just four hours.





Advanced digital twin technology optimizes campus management

Instead of searching through hundreds of blueprints and plans, simply click on the digital twin 3D interactive map on the Zyter Command and Control screen and view the location or asset to be managed. Digital twin technology lets you lets you virtually walk through a building and gives you step-by-step directions with highly accurate GPS and elevation coordinates to the exact area you need to view. What's more, digital twin lets you "see through walls" and zoom in to also view building assets, such as furniture, equipment, electric, plumbing, HVAC systems, and more. As a result, you'll have a 360-degree view and more comprehensive understanding of what is happening in the city or campus – complete, real-time information you need to take the right action in emergencies and daily operations alike.

 Asset Tracking – More than tracking and alerting only on the location of campus assets, the Zyter SmartSpaces AI platform provides advanced, real-time analytics on asset usage in terms of energy and resource consumption. As a result, campuses can optimize the utilization and improve the efficiency of all types of assets – anything from HVAC systems and utility trucks, to shuttle buses on a business campus, to city trash and recycling trucks and receptacles, and other specialized equipment used across cities. For example, the monitoring of city trucks can pay off in improved gas utilization and reduced gas costs, and reduced CO<sub>2</sub> emissions for better air quality – all benefits that enable cities to improve return on investment in IoT technology.

Zyter Asset Tracking also includes temperature alerts on perishable items such as medical vaccines and motion alerts whenever an asset is being moved without authorization.

• Smart Waste Management – Smart Waste Management starts with Qualcomm sensors placed on campus or city trash compactors and recycling bins to enable waste level tracking at each one. Those tracking analytics are used to determine optimized daily routes for trucks to service only those bins that are full and require pick-up. Truck drivers use the Zyter mobile app to get their schedule and optimized route for the day, while administrators can view and track the entire process on the Zyter Command and Control screen.

As a result, waste management departments can reduce gas costs by about 30%, save time and increase driver productivity, reduce CO<sub>2</sub> effect on the environment, and optimize trash pick-up schedules for the most efficient use of their equipment assets and human resources.

 Smart Transportation – Commuter safety and transportation efficiencies to better serve the needs of users are the goals of the smart transportation capabilities of Zyter Smart Campus. Qualcomm uses the Zyter solution to manage shuttle service between the 35 buildings its corporate campus. It not only tracks shuttle location, but also provides analytics on the number of people riding the shuttle, shuttle usage, and how many people are waiting at the stops and for how long. Zyter's analytics help Qualcomm to more efficiently plan shuttle usage and routes, resulting in less fuel consumption, lower CO<sub>2</sub> impact on the environment, and optimized use of the shuttle service. Employees can also use a shuttle app developed by Zyter to get directions to a shuttle stop.

Zyter also tracks and monitors shuttle driver behavior as a facet of improving commuter safely. The smart transportation capability tracks speed, occurrences of high speed turns, harsh braking, and other unsafe driving habits. A camera onboard the shuttle will send an alert to the Zyter Command and Control screen if the driver is using their cellphone or appears to be fatigued or distracted while driving. Improvements in driver behavior can result in reduced insurance costs and improved commuter safety. Other commuter safety features include an SOS emergency callbox that connects to campus security guards or police, as well as a vandalism protection system that records video and sound, and alerts security to any criminal activity.

• Smart Parking – Using automated license plate recognition, Zyter's smart parking capability lets participating employees drive up to the gate and enter the parking lot without showing an identification badge. The corresponding Zyter app gives the driver directions to the most optimal open parking spot closest to the building where the employee works. Zyter Smart Campus learns over time if an employee appears to have a favorite parking spot and will alert on whether that spot is available. In addition, the Find My Car feature always knows where the car is parked and provides walking directions to its location. Drivers can also virtually lock their car using the Zyter app, which prevents a thief from driving the car out of the gated parking lot – the gate will not open as long as the car is locked via the Zyter app. The Zyter app will also alert if an unlocked car has been moved from the parking spot, so the owner can call security or police.

Beyond the business campus, Zyter Smart Parking brings these time saving, convenience, and safety benefits to customers of city and airport parking lots, as well as privately-owned lots. Zyter Smart Parking can provide owners of private lots with historic usage analytics and real-time alerts on nearby events, such as concerts, to help them optimize parking lot usage and maximize profitability.

You'll be able to make informed and intelligent decisions that not only improve operational efficiencies, but also enhance the quality of life.



### **About Zyter**

Zyter, founded in 2017 by serial entrepreneur Sanjay Govil, provides a cloud-based, 5G-ready platform that enables better outcomes in telehealth, home health, and remote patient monitoring, while also supporting IoT/smart technology and thermal imaging solutions. The platform's open architecture, military-grade security, and compliance with multiple industry standards enables organizations in healthcare, education, entertainment, government, and transportation to easily and effectively connect, communicate, collaborate and engage. The privately-held company is based in Rockville, Md. In 2020, the company won more than 50 awards for its solutions including Best Health Care and Medical Innovation as well as Company Innovation of the Year (One Planet Awards, Silver). The privately-held company is based in Rockville, Nd. Silver).

#### **For More Information**

To learn more about Zyter's Smart Campus solutions or arrange a product demonstration, please contact +1 (301) 355 7760, sales@zyter.com or visit www.zyter.com/SmartCampus.

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