# From Buildings to Cities, Smarter is Better

Better Management, Efficiencies and Experiences with **Zyter SmartSpaces™**

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

Zyter SmartSpaces enables you to better manage your 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 human-centered design methodology, Zyter SmartSpaces 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® 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.
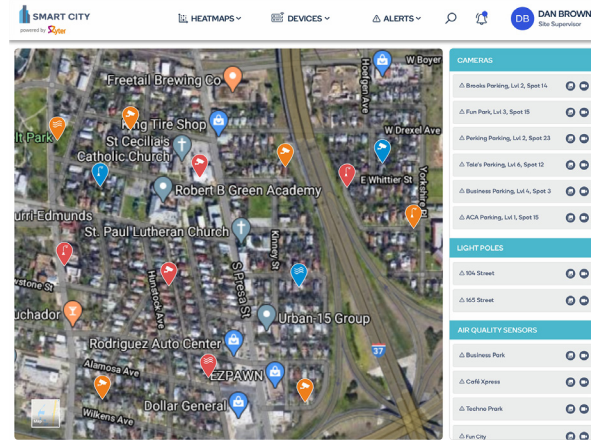
*Zyter SmartSpaces Platform breaks down silos – by integrating and consolidating data from IoT devices and applications you already have – into one seamless interface.*

## Turnkey Implementations Across Multiple Industries

Due to the flexibility and scalability of Zyter SmartSpaces, it can be used across multiple industries and for many diverse applications. Here are just a few examples:
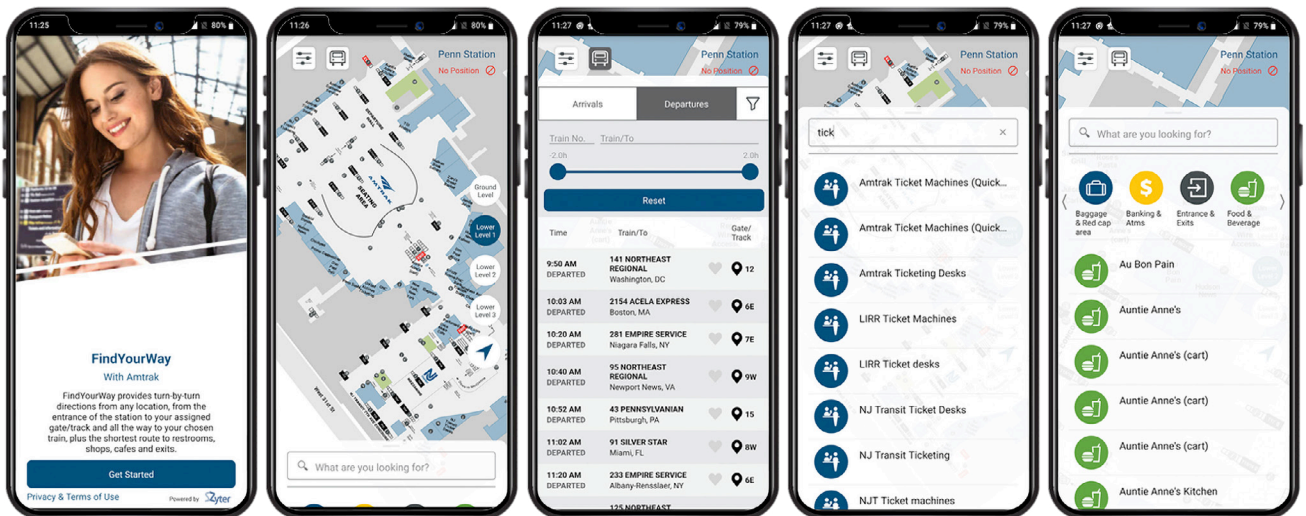
- **Command and Control Management System for Cities and Communities** –
  In partnership with Qualcomm Technologies and by leveraging its existing Smart Cities network, Zyter SmartSpaces is being deployed as a plug and play Smart City as a Service (SCaaS ) solution. Solutions from multiple different device vendors are integrated into the

*Zyter SmartSpaces is being deployed as a plug and play Smart City as a Service (SCaaS ) solution.*

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. This will enable cities and communities to unlock the management potential and efficiencies promised by the widespread deployment of IoT devices.
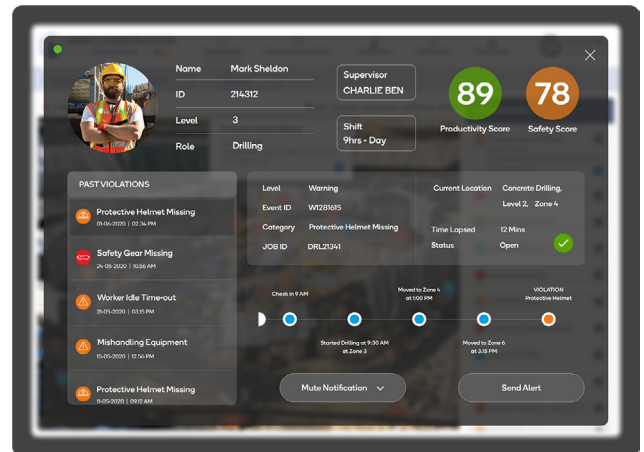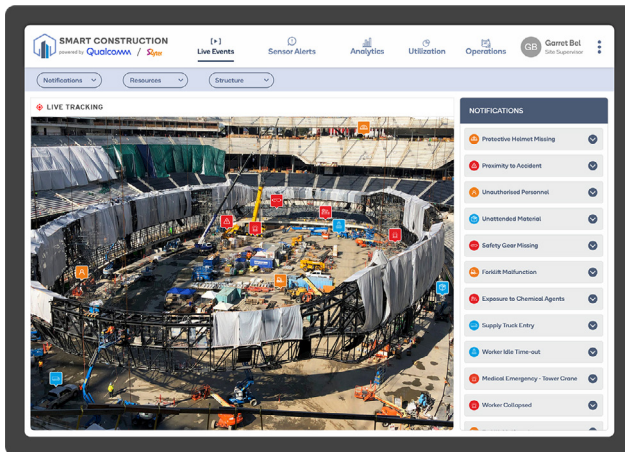
- **Rapid Transit Stations** – Zyter SmartSpaces is deployed inside New York Penn Station where it is the foundation for FindYourWay, Amtrak's real-time customer information and indoor way-finding app. Once downloaded on an Android or iOS device, FindYourWay provides the platform, train, and boarding information for commuters. It also provides relevant directions and information on points of interest (POIs) within the station based on a user's precise location, including platforms, exits, ATMs, and restaurants. Additionally, the app also enables cross-sell and upsell opportunities for businesses in Penn Station through coupons and location based advertising.
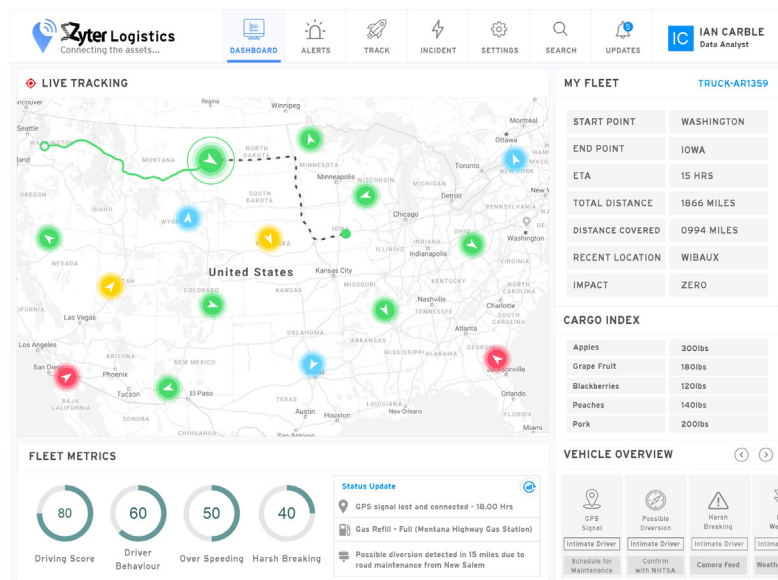
*Managers can drill down and access worker productivity and safety scores and easily track resource utilization, equipment utilization, scheduling and budget.*

- **Construction Management as a Service (CMaaS)** – Leveraging Qualcomm's 5G connectivity, the Zyter SmartSpaces Platform takes construction site productivity and safety to a new level. Using a continuous stream of real-time data from IoT devices on equipment and workers, it is possible to gain a seamless, up-to-the second view of what is happening on the construction site. Additionally, through state-of-the-art data visualization, analytics and intelligent insights, construction companies can easily monitor and address events, operational issues, and incidents. By increasing the efficiency of the construction process, the Zyter CMaaS solution saves considerable time and money for a minimal investment.



- **Zyter Logistics** – The Zyter platform can connect to any kind of device (OBD sensors, battery-powered trackers, mobile phones, and more) to monitor speed, braking, and other aspects of driver behavior. It can also utilize external data like road conditions, traffic conditions, weather, and more, to predict delivery times and delays, and issue alerts if necessary. Using these ecosystems of devices, along with the integration into inventory management, warehouse capacity, pricing and distribution center information, it is possible to provide intelligent recommendations on the best markets for goods, perishables and more, all based on AI and machine learning.



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## About Zyter

Zyter delivers a wide range of digital health products for providers, payers and patients that span telehealth, home health, remote patient monitoring, care management, as well as the insurance claims lifecycle. Zyter's products improve clinical operations and patient outcomes while reducing healthcare costs by enhancing interoperability, communication and collaboration. The company's cloud-based, 5G-ready platform also supports IoT/smart technology and thermal imaging solutions. In 2020, the company won more than 50 awards for its products including Best Health Care and Medical Innovation as well as Company Innovation of the Year. Founded in 2017, the privately-held company is based in Rockville, Md. For more information, please visit **www.zyter.com**.

## For More Information

To learn more about Zyter's SmartSpaces Platform or arrange a product demonstration, please contact **+1 (301) 355 7760**, **sales@zyter.com** or visit **www.zyter.com.**

# 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 human-centered 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.

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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.
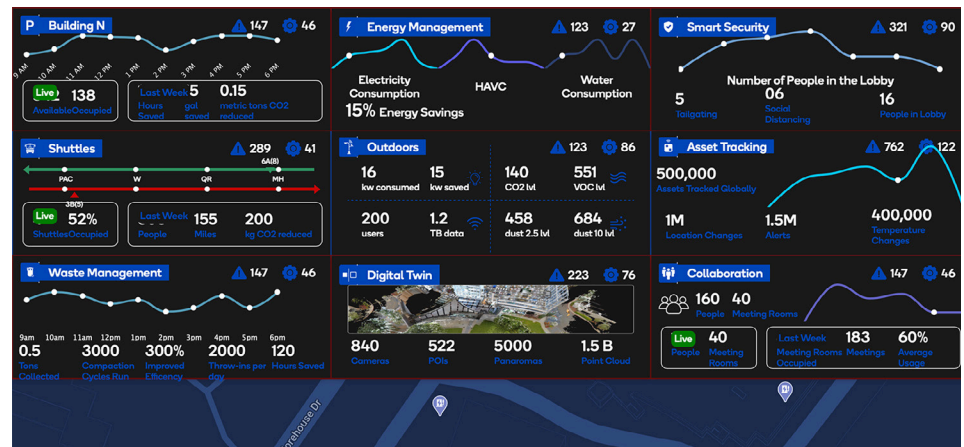
*Zyter Smart Campus enables you to better manage your campus ecosystem and unlock the full potential of your connected IoT devices.*

## 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™ 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.
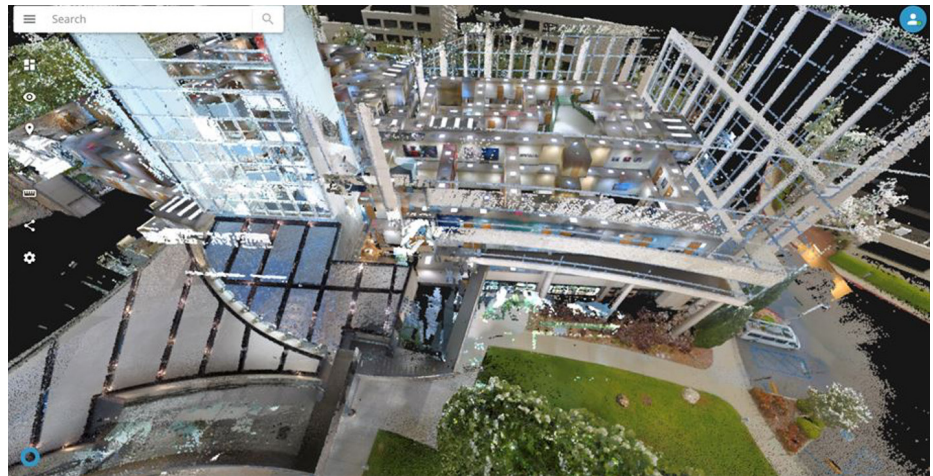
The Zyter Smart Campus Command and Control Center brings all of these integrated smart systems together in one central place and provides a holistic view to help administrators manage a city or campus more efficiently. As a result, campuses, communities, and businesses can unlock the management potential 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 $CO_2$ 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 $CO_2$ effect on the environment, and optimize trash pick-up schedules for the most efficient use of their equipment assets and human resources.

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

- **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 $CO_2$ 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.

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# A Smarter Future Awaits

Enhancing Daily Life on the Digitally Connected Campus

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

Zyter Smart Universities & Schools enables you to better manage your 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 human-centered design methodology, Zyter Smart Universities & Schools 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.

The university of the Digital Age is not your parents' alma mater. The integration of new technologies, like digital smart classrooms with interactive whiteboards, smart parking systems, navigation and wayfinding, as well as behavioral analytics is transforming campus life. What's more, staying connected via mobile digital devices to social media, global information, entertainment, educational content and more is a way of life for today's college students – and they expect the same personalized, contextual connectivity everywhere on campus. University management strategies are also changing as administrators seek better ways to harness digital technologies to make the campus run more efficiently and safely – providing the best on-campus experience for students and staff.

Zyter puts all of this is reach. And more.

Zyter Smart Universities & Schools is a highly secure, customizable and manageable solution that helps connect a university's disparate data systems, departments, and people to provide more actionable insights for improving campus operations as well as the student and faculty experience. It breaks down silos of information – by integrating and consolidating data from all segments of the campus which you may already have or are planning to build – into one seamless interface. The result: complete visibility of what is happening across your campus including stakeholders, departments, resources and your entire network of connected devices and sensors.

A three-pronged approach helps higher education institutions holistically develop their digital strategies and offerings and implement them as smart campus technologies. As a result, administrators can maximize resources, improve safety, and integrate new learning technologies across the campus. And with access to online education resources and content on any digital device, students can benefit from personalized learning to improve their educational outcomes and enjoy a more meaningful university experience.

## The Rewards of Being Digitally Connected

Zyter Smart Universities & Schools delivers three distinct ways to reap the benefits of a digitally connected campus:

- **Smart University and Connected Campus** – Enjoy a connected campus experience with embedded smart technologies for surveillance and security, facilities and utility management, campus navigation, on-campus transportation, and more. As a result, campus administrators can maximize resource utilization, minimize waste, and lower operational and labor costs. In addition, the Zyter platform delivers a single, seamless source of higher quality data from all connected technologies to drive better analytical insights and improved services.

- **Distance Learning and Online Collaboration** – Zyter smart classrooms bring collaborative remote learning to life for educators and students. Using multiple tools like interactive smart whiteboards, smart annotation, smart videos and more, students have unlimited access to educational resources, anytime, anywhere from virtually any device. From a live/recorded online classroom experience to attending virtual workshops, laboratories and training sessions, students always enjoy a seamless virtual experience. Plus you can take advantage of one of the most secure remote learning platforms for a continued learning experience. This empowers universities to boost enrollment by attracting a larger pool of remote students.

- **Seamless User Experience** – Deliver personalized attention to students and faculty by connecting with them in new ways for a more meaningful and productive campus experience. It enables personal, live engagement with students on mobile devices right from the admission and enrolment stage to smart campus navigation, private group and classroom chat, broadcast messaging, secure file transfer, and more. Faculty and staff have access to a dynamic dashboard with student data and behavioral analytics to predict student outcomes, increase student participation in campus activities, and view and respond to any student issues.

## Smart Benefits for all University Stakeholders

Zyter Smart Universities & Schools goes beyond improving the student experience by also delivering value to university administration through broad and scalable advantages of increased security, accountability and ease of management of resources such as energy, water, waste, facilities and dormitories. Benefits include:

- Reduce cost of operations
- Improve the student experience
- Reach a larger audience of remote students
- Gain intelligent insights on student performance
- Introduce digital technologies with zero disruption to current operations
- Gain greater transparency of data for better decision making

### Keep your School Safe with the Zyter COVID-19 Suite.

The Zyter COVID-19 Suite contains all the smart digital tools to help you keep your campus open and everyone safe. Solutions include:
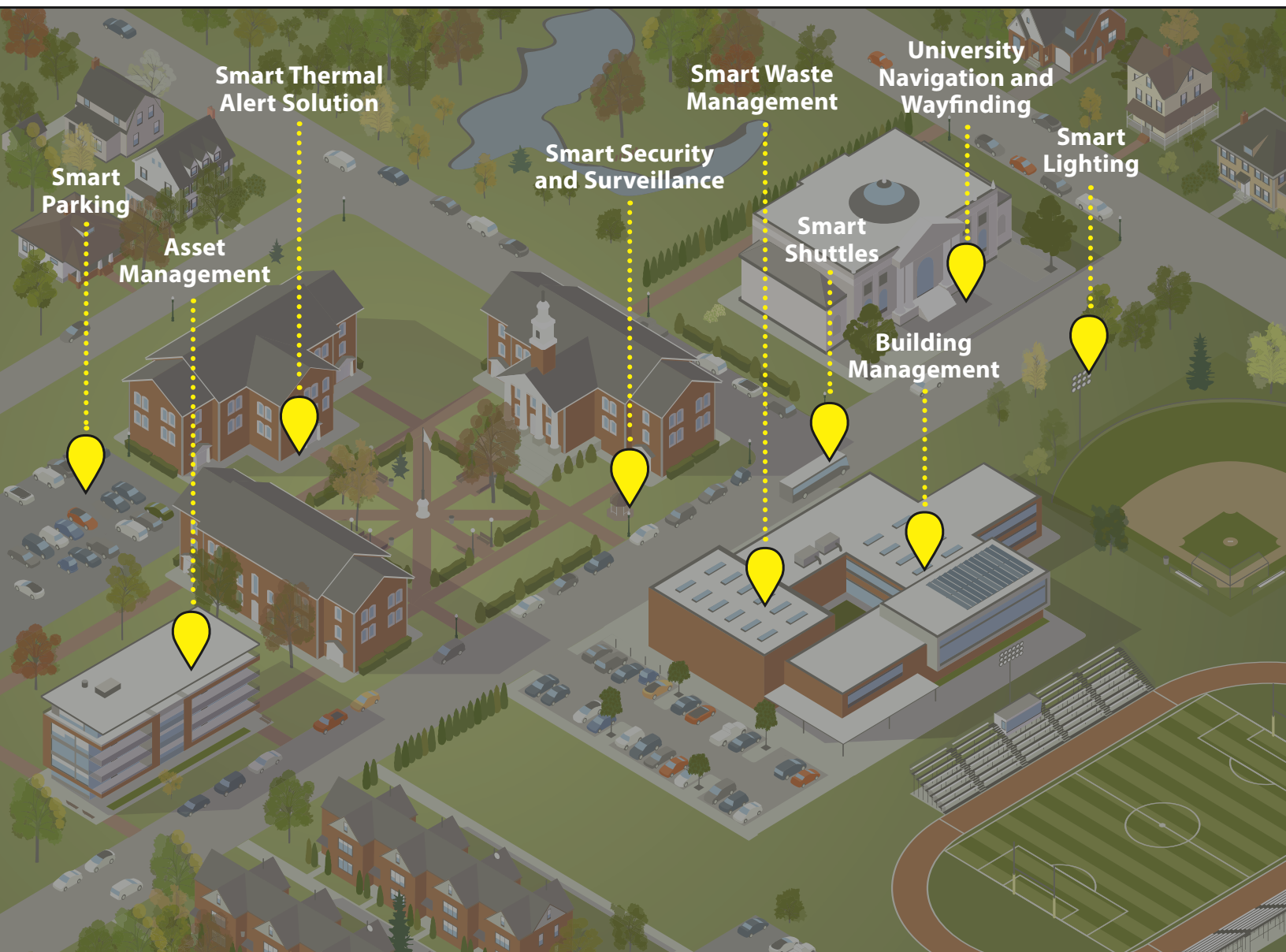
- Digital self-assessment health surveys on mobile devices

- Automated mass temperature screening and alerts with Zyter ThermalAlert™

- Bluetooth-enabled contact tracing

- Continuous real-time monitoring on a cloud-based portal

The COVID-19 Suite also supports secure collaboration among students, faculties, parents, administration and health agencies.

www.zyter.com

Smart Parking

Smart Thermal Alert Solution

Asset Management

Smart Security and Surveillance

Smart Waste Management

Smart Shuttles

University Navigation and Wayfinding

Smart Lighting

Building Management

*Zyter Smart Universities & Schools integrates multiple technologies for a student-centric, efficient, secure, digitally connected campus.*

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# Connected Logistics with Analytics for Smarter Operations

## Zyter Smart Logistics: The Intelligent Way of Tracking

Zyter Smart Logistics enables you to better manage your shipping and delivery ecosystem and unlock the full potential of logistics analytics so you can:

- **Improve Operational Efficiencies** – Simplify and automate day-to-day management of shipping logistics to achieve real-time visibility of goods in transit and more for long-term efficiency improvements, reduced insurance costs and improved driver safety.

- **Make Smarter, Faster Decisions** – Get actionable insights from real-time logistics data collected by the Zyter Smart Logistics app, so you can quickly make intelligent and informed decisions to solve any issues affecting the goods or delivery schedule.

- **Provide Intuitive Experiences for Stakeholders** – With our human-centered design methodology, Zyter Logistics delivers an intuitive and seamless experience across a full range of apps and services – regardless of devices and data sources.

- **Improve Safety on the Road** – Identify and address potential driver issues quickly before they escalate using context-aware incident reporting, predictive analytics and contextual alerts. Gather analytics to track driver behavior and score driver safety to potentially reduce the risk of accidents and delayed deliveries.

- **Secure Your Enterprise and Transported Goods** – Ensure the highest levels of security with the Zyter Platform's 256-bit AES encryption along with built-in user identification and authorization. QR scanning at origin and delivery points ensures the right driver is driving the right vehicle with the right goods.

Whether it's a small parcel for an individual or a shipment for a global organization, it is imperative for companies to know the real-time location of goods in transit – along every mile from the point of origin to the final destination. However, today's enterprise logistics teams need more advanced capabilities and richer data. They want more details, such as real-time temperature readings in trucks hauling perishable goods, and analytics of the behaviors of the drivers behind the wheel. Beyond merely tracking goods, advanced logistics solutions must draw in data from multiple sources to support improved operational efficiencies, safer driving behaviors and reduced insurance costs.

Fortunately, Zyter Smart Logistics™ does all of this. And more.

Zyter Smart Logistics is the logistics module of SmartSpaces, a proven integration platform for intelligent IoT that helps logistics companies and enterprise logistics teams connect disparate data systems, departments and people to provide more actionable insights for improving overall supply chain efficiency. Trusted by Qualcomm® to be the foundation of its Smart Cities Accelerator Program, the Zyter SmartSpaces platform breaks down silos of information by integrating and consolidating data from all existing and future segments of your supply chain into one seamless interface. The result is complete visibility of what is happening across your supply chain, including stakeholders, departments, resources and your entire network of connected devices and sensors.

## Tracking Logistics Made Smarter with Analytics

Consisting of a mobile app on drivers' smartphones and an intuitive enterprise user dashboard, Zyter Smart Logistics can connect to any kind of device (onboard diagnostics sensors, battery-powered trackers, mobile phones, and more) to provide end-to-end real-time visibility of goods in transit. What's more, the Zyter solution monitors speed, braking, and other aspects of driver behavior. It can also utilize external data like road, traffic and weather conditions to predict delivery times and delays, and issue alerts if necessary. Using this ecosystem of devices – and when integrated with inventory management, warehouse capacity, pricing and distribution center information – Zyter Smart Logistics generates analytics to provide intelligent recommendations on the best and closest markets for goods, perishables and more, all based on AI and machine learning.

Zyter Smart Logistics dashboard users receive real-time alerts and notifications of any unexpected issues along the delivery route, and they can drill down through layers of data and focus on solving those issues quickly using analytics and historical trends. As such, they can make more informed and intelligent decisions that will improve operational efficiencies, while ensuring business continuity by keeping shipments safe and on track. As the Zyter Smart Logistics solution learns and evolves, it becomes capable of taking decisions on its own based on the rules, policies and outcomes defined by stakeholders. As a result, Zyter Smart Logistics makes the vision of a self-managed supply chain a reality.

## Tracking with Intelligence

When your drivers are using the Zyter Smart Logistics mobile app, you'll always know where your goods are in transit – and be instantly alerted and notified on the Zyter enterprise user dashboard if any issues arise along the route that could cause safety issues or delay delivery.

- **Vehicle Tracking and Monitoring** – Zyter Smart Logistics makes a difference in creating a connected vehicle experience with embedded smart technologies for real-time vehicle health, vehicle tracking and monitoring. The technology can be effortlessly integrated with existing ERP systems and shipping routes making it possible to predict estimated arrival times and route delays due to construction, road closures and weather conditions. This predictive delivery capability enables the operations team to take decisions on the fly to support business continuity and customer satisfaction.

- **Driver Behavior and Driving Skills** – Monitor and analyze the driving behavior of drivers in your own fleet or contracted drivers manning third-party vehicles. Real-time data of truck speeds, acceleration points, rate of acceleration, hard braking, high speed turns, and other driving behaviors are analyzed to provide driver safety ratings. The solution is available in two modes – using an external OBD device or using the Zyter Smart Logistics app on the driver's smartphone. Helping drivers improve safety on the road can lead to reduced insurance costs for the enterprise.

- **Asset Monitoring and Provenance** – Zyter Smart Logistics enables both real-time vehicle tracking and tracking of the goods or assets being transported. Gain end-to-end visibility of the chain of custody to guard against asset loss or theft. View the real-time temperature, humidity, and vibration affecting transported goods while the truck is in motion on the route. If a temperature threshold change is detected when hauling perishable goods, the Zyter solution sends an alert to the enterprise dashboard so that the goods can be rerouted to a closer delivery point to avoid a total loss. Additionally, Zyter Smart Logistics provides a complete chain of custody for sensitive goods such as medical vaccines and blood products.

## Smart Benefits Mile by Mile

Zyter Smart Logistics delivers value to logistics organizations in the following ways:

- Improve operational efficiencies by automating daily manual processes
- Gain end-to-end visibility of the real-time location of vehicles and shipments
- Receive instant alerts and notifications of driver issues or incidents and respond quickly
- Reduce the risk of unexpected loss or theft with asset monitoring in addition to vehicle tracking
- Lower insurance costs as a result of analytics to track assets and improve driver safety
- Gain intelligent insights into performance of drivers from third-party companies
- Achieve greater transparency of logistics data to support more informed and smarter decisions
- Manage logistic costs more efficiently with Zyter's per-usage pricing model

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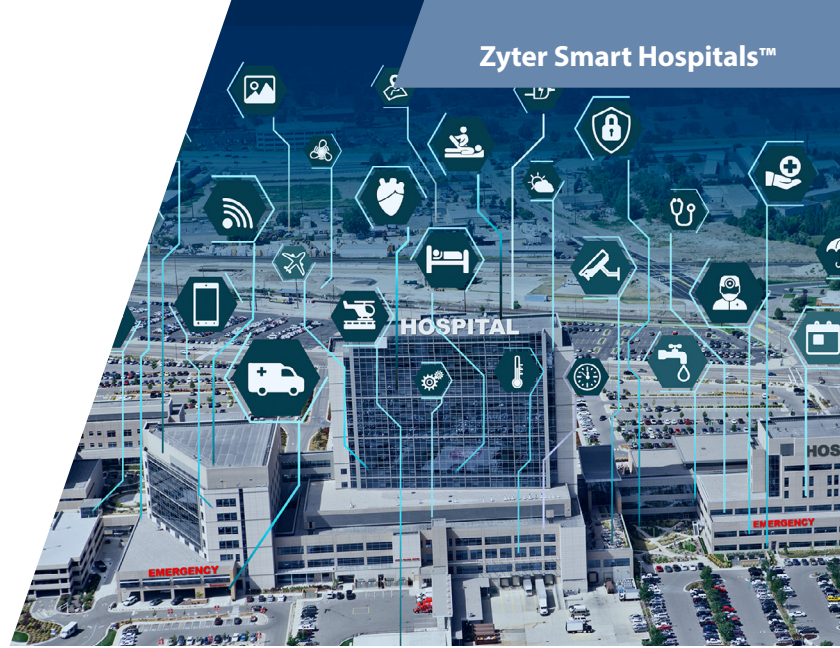
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# Zyter Smart Hospitals™

## Intelligent Integrated Solutions for Physicians, Patients, and Asset Management

### Making Hospitals More Efficient with the Internet of Things (IoT)

- **Optimize Care Communications** – Care teams communicate and collaborate with contextual patient information in real-time on the Zyter secure mobile app, so patients receive care when, where, and how they need it.

- **Function More Efficiently** – Zyter simplifies and automates day-to-day facility management tasks to realize long-term efficiency improvements and significant cost reduction.

- **Keep the Focus on Patient Care** – From monitoring vital signs, to medical supply logistics and scheduling, Zyter digitizes daily tasks so hospital care teams can regain control of their time and can spend more time on patient care.

- **Increase Building Efficiencies** – Hospitals can increase the efficiency of building operations by leveraging sensor-based data insights from Zyter's intelligent building automation and control systems.

- **Compliance with Local and Global Regulations** – Zyter Smart Hospitals is HIPAA compliant and can be easily customized to meet all regulations in the ever changing healthcare landscape.

- **Improve Patient Satisfaction** – Using our human-centered design methodology, Zyter delivers an intuitive and seamless patient experience across a full range of apps and services — regardless of devices and data sources.

Digital transformation in healthcare is evolving at a rapid pace as hospitals seek smart Internet of Things (IoT) digitized technology solutions to improve patient/physician engagement, drive more efficient care team collaboration, and make quality post-surgical patient care more accessible at home. And in today's competitive healthcare landscape, hospitals also need the operational efficiencies and cost advantages that a smart, IoT-enabled building with automated facilities monitoring can provide.

Ensuring a superior patient experience is also driving the transformation to the smart hospital. While they have readily embraced new modalities of telehealth and remote patient monitoring in the convenience of their homes, today's patients also expect that ease and convenience when they must visit a hospital as an outpatient. Hospitals that are able to provide a patient experience that is personal, safe, and easy to navigate will earn the highest satisfaction ratings.

Zyter Smart Hospitals is the end-to-end intelligent solution to help hospitals meet all of these challenges and realize the benefits of the digitally connected hospital.

## The Intelligent Way to Monitor Patient Care and Facilities

Zyter Smart Hospitals is a highly secure, customizable, and manageable solution that connects a hospital's disparate data systems, departments, and people using the latest IoT devices on Zyter's robust and reliable digital healthcare platform. Trusted by Qualcomm® to be the foundation of its Smart Cities Accelerator Program, Zyter Smart Hospitals breaks down silos of information by integrating and consolidating data into one seamless interface.

Zyter's single digital platform integrates patient device monitoring, patient tracking, medical asset monitoring and tracking, care team collaborative communication capabilities, and a patient-facing hospital navigation app, plus smart monitoring of HVAC, lighting and security for a comprehensive, intelligent solution.
The result: complete visibility of what is happening across your hospital – from the patient's room, to the operating theaters, to vaccine storage, to the location of medical equipment, to the boiler room, and more – through an entire network of connected devices and sensors.
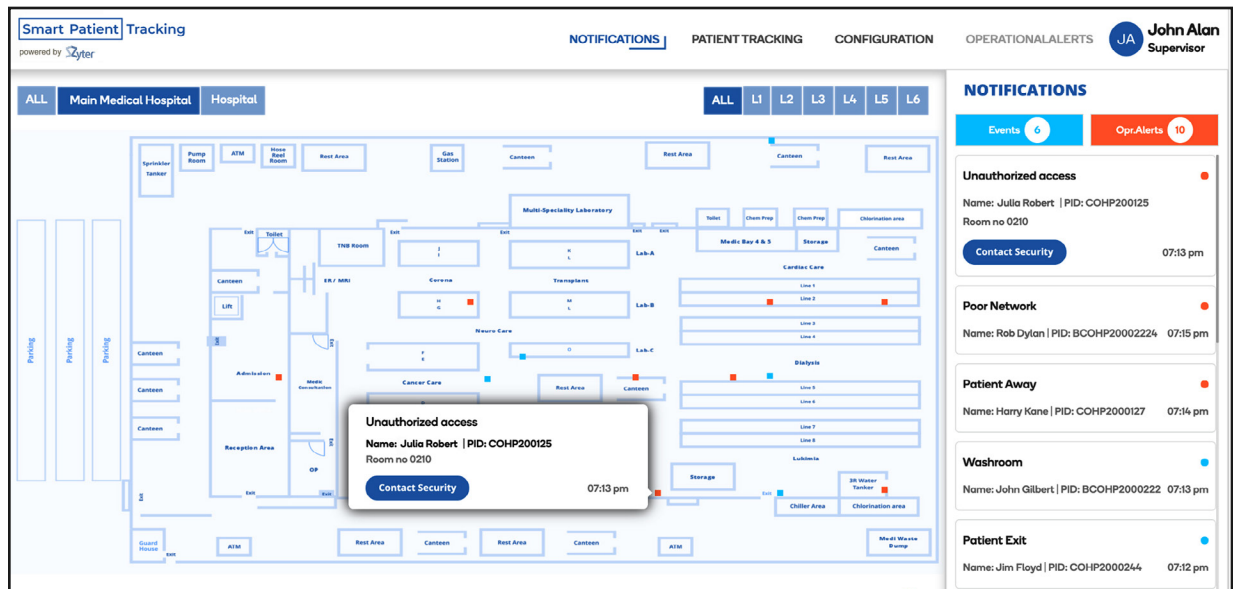
## Ready for 5G Connectivity

Zyter Smart Hospitals empowers hospitals of all sizes to easily upgrade from an older, hard-wired custom IT infrastructure and Wi-Fi to a private 5G-enabled IT or cellular network with greater bandwidth, security, connectivity, and capacity that multiple next-generation IoT devices require. Through our partnership with Qualcomm and other telecom companies, Zyter provides everything for the transformation to the smart hospital – from the innovative IoT devices themselves to the highly secure digital platform as well as access to our partners' connectivity services.

## A Healthier Ecosystem: The Smart and Digitally Connected Hospital

Zyter Smart Hospitals transforms the hospital ecosystem, from security and safety systems for patients and medical assets, to mobile care team collaboration solutions, and complete building monitoring systems.

- **Hospital Bed Device Monitoring** – Improved patient safety and outcomes are at the core of the smart hospital concept and that requires real-time patient information. Zyter Smart Hospitals collects and integrates physiologic data from all of the different medical devices that are connected to the patient in the hospital bed – such as oxygen rate, heart rate, blood pressure, glucose levels, IV drip rate, and more. Nurses receive intelligent alerts on any changes to the patient's condition so they can respond with prompt care.

- **Mobile Navigation for a Better Patient Experience** – Zyter's patient-facing mobile hospital navigation app ensures that outpatients have a minimal touch experience whenever they go for an appointment or procedure at the hospital. From the time they pull into the parking lot, the Zyter app guides them to the nearest parking lot and space. Once they enter the hospital, the app gives them step-by-step directions directly to the location of their appointment – and even alerts them on how long they will be waiting for the doctor. The result: a seamless, superior patient experience.

- **Patient Tracking** – To increase patient safety, the patient tracking capability of Zyter Smart Hospitals detects and alerts staff whenever a disoriented dementia patient, or any flight-risk patient, attempts to leave the hospital room or exit the hospital. Additionally, Zyter's seamless integration with IoT wearables can provide patient data on exercise, sleep patterns, and electrocardiograms to help physicians more quickly diagnose emergent issues and intervene sooner.

- **Asset Monitoring** – Zyter Smart Hospitals provides a single interface for better visibility, maintenance, control and safety of all medicines and vaccines, as well as the real-time location availability of critical medical assets such as wheelchairs, defibrillators, and more. Smaller than a penny, Zyter's wireless asset monitoring devices can attach to an EpiPen or small vaccine bottle to constantly monitor the temperature and alert on any changes. For example, Zyter's solution can monitor the chain of custody of a vaccine all the way from production, to the hospital, to the time it is given to the patient.

- **Smart Facilities** – Beyond the hospital room, Zyter Smart Hospitals gathers data and provides insights on smart building management. Zyter leverages transformative technologies such as 5G, artificial intelligence (AI) and IoT to ensure smart energy management, including lighting, power supply, smart meters, HVAC and wireless power. In addition, the solution's vision analytics include smart surveillance through video cameras to detect patient/staff movement, unauthorized access and unidentified object detection.

Zyter Smart Hospitals detects and alerts staff whenever a disoriented dementia patient, or any flight-risk patient, attempts to leave the hospital room or exit the hospital.

- **Remote Patient Monitoring** – Zyter brings the hospital to the patient's home. The remote patient monitoring (RPM) feature of Zyter Smart Hospitals enables physicians to monitor the condition of post-surgery patients at home, resulting in a reduction of the number of hospital readmissions. A pre-programmed 4G-enabled device is used by patients to seamlessly track and transmit their physiologic data to the physician from home medical devices, such as blood pressure cuff, digital weight scale, and glucometer. The physician receives an alert if the patient's readings are out of range and can act quickly to resolve the issue and avoid a readmission to the hospital.

## Smart Benefits Across the Entire Hospital Ecosystem

- Respond faster to patient issues while away from the hospital and improve patient outcomes with anywhere, anytime alerts on the patient's condition, and instant, contextual collaboration and communication with care teams

- Improve safety and care for dementia and Alzheimer's patients, and other flight-risk persons, with patient tracking both inside the hospital and outside its walls

- Reduce the number of post-surgical readmissions, improve patient outcomes, and reduce patient's healthcare costs with remote patient monitoring (RPM)

- Increase safety and patient satisfaction by providing a simple, minimal touch experience for outpatient hospital visits using real-time navigation on a secure mobile app

- Reduce operational costs and improve efficiencies with real-time monitoring of utilities, HVAC systems, security systems, and other facilities-related maintenance tasks

- Create a better, less stressful work environment for nurses and physicians with intelligent alerts from the IoT devices connected to the patient – ensuring that care teams know which alerts to respond to first

- Improve operational efficiencies with asset tracking to ensure the location and availability of costly medical equipment at all times – and protect the viability of vaccines, medicines, and other biologics that require a controlled temperature

## About Zyter

Zyter delivers a wide range of digital health products for providers, payers and patients that span telehealth, home health, remote patient monitoring, care management, as well as the insurance claims lifecycle. Zyter's products improve clinical operations and patient outcomes while reducing healthcare costs by enhancing interoperability, communication and collaboration. The company's cloud-based, 5G-ready platform also supports IoT/smart technology and thermal imaging solutions. In 2020, the company won more than 50 awards for its products including Best Health Care and Medical Innovation as well as Company Innovation of the Year. Founded in 2017, the privately-held company is based in Rockville, Md. For more information, please visit **www.zyter.com**.

## For More Information

To learn more about Zyter Smart Hospitals or arrange a product demonstration, please contact **+1 (301) 355 7760**, **sales@zyter.com** or visit **www.Zyter.com/IoT**.

# Improve Factory Productivity and Safety with IoT-Based Solutions

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

Zyter Smart Factories enables manufactures to better manage their factory environment and unlock the full potential of connected IoT devices so they can:

- **Improve Operational Efficiencies** – Simplify and automate day-to-day management tasks to achieve long-term efficiency improvements and significant cost reduction.

- **Improve Productivity** – Track and monitor factory equipment and material utilization to enhance productivity.

- **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.

- **Improve Worker Safety** – Identify and address potential issues quickly before they escalate using context-aware incident reporting, predictive analytics and contextual alerts.

- **Achieve Faster ROI** – Organizations could potentially achieve return on investment in a year or less.
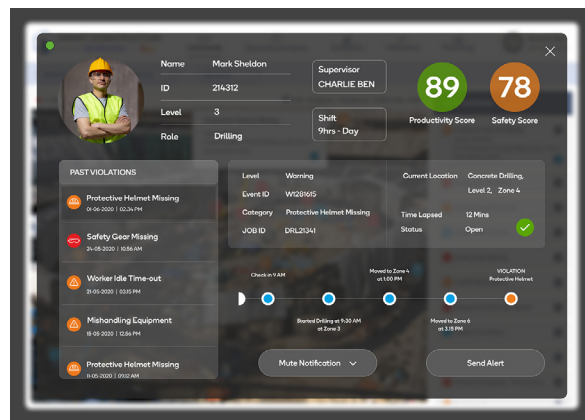
Factories are changing. And fast. Volume production, while still important, is quickly being replaced by value creation that's driven by digital transformation and dynamic, intelligent operations. In addition to predictive analytics and artificial intelligence, a key enabler of the smart factory of tomorrow is sensor technology.

Internet of Things (IoT) sensors placed on equipment, raw materials and workers provide a continuous flow of real-time data on movement, location, operating conditions, and other important parameters. The volumes of data transmitted by IoT sensors are consolidated into a single dashboard to provide a real-time view of operations on the factory floor. In addition, using AI and analytics, performance issues are identified and corrective actions taken to optimize operations and improve safety, leading to lower cost, higher quality and improved efficiency.

## Introducing Zyter Smart Factories™

The steady adoption of automated manufacturing systems and the emergence of smart IoT technologies is making today's factory floor a safer and more productive manufacturing environment regardless of sector or industry. And Zyter Smart Factories is at the forefront of this digital revolution, making it easier to connect workers, machinery, raw materials, multiple factory systems and processes for improved productivity, safety, and resource utilization.

Zyter Smart Factories is a part of the Zyter SmartSpaces™ IoT platform. Trusted by Qualcomm® to be the foundation of its Smart Cities Accelerator Program, the Zyter SmartSpaces Platform breaks down silos of information by integrating and consolidating data from IoT devices and applications you already have into one seamless interface.

*Zyter Smart Factories provides a 360-degree smart view of the factory and your workers in a single, intuitive dashboard.*

The result: Zyter Smart Factories provides complete visibility of what is happening across your entire network of connected devices and sensors on the factory floor. In addition to receiving instant alerts and notifications on worker safety issues, security breaches, machinery utilization, and more, Zyter Smart Factories translates this data to analytics to help you make informed and intelligent decisions regarding factory floor efficiency and worker productivity.

## Smarter. Safer. More Productive.

Zyter Smart Factories enables manufacturers to improve operations in many critical areas including:

*Managers can drill down and access worker productivity and safety scores as well as easily track resource and equipment utilization.*

- **Factory Floor Productivity** – Zyter Smart Factories takes factory floor productivity to a new level. Using a continuous stream of real-time data from IoT devices on machinery and workers' hard hats and gear, management gains a seamless, up-to-the second view of machine utilization and worker location across all areas of the factory. Additionally, the Zyter Smart Factory dashboard enables factory managers to easily monitor and quickly address events, operational issues, and security incidents to head off safety issues or any loss of productivity. Management can also see analytics on the incidents, how they were resolved, and how they affected productivity.

- **Worker Tracking and Safety** – The Zyter Smart Factories' Worker Safety Module alerts on worker safety incidents before they turn into an emergency. Smart, real-time location sensors, AI-enabled cameras, along with sensors on workers' hard hats, safety goggles, and other gear send alerts when workers remove any Personal Protective Equipment (PPE). Factory management can also use the sensors to send alerts if workers are too close to running equipment that could lead to an accident or if a worker is in a hazardous zone. The same real-time location sensors and AI-enabled cameras can also ensure that workers (or unauthorized people) do not enter restricted areas without authorization. Sensor data on safety violations is analyzed to create a worker "safety score" on the Zyter Smart Factories dashboard to give managers insight into which employees may need additional safety training. Zyter Smart Factories can also provide machine fault detection and immediately alert supervisors and on-site medical personnel to any malfunctions and potentially preempt worker injuries.

- **Asset Tracking and Utilization** – With IoT sensors attached to high-value manufacturing equipment, Zyter Smart Factories can provide advanced, real-time data on asset usage in terms of running times, usage efficiency, energy consumption, and more. In addition, using asset tags, Zyter Smart Factories can track raw material from the suppliers, through transportation, to the factory, and then all the way to its utilization in the assembly line. Understanding the location of the raw material and its ETA to the factory enables supervisors to more efficiently plan activities and production runs. Additionally, tracking raw material and mobile equipment using asset tags reduces theft or unauthorized movement of material and tools.

## Improve Operations and Lower Costs with Zyter Smart Factories

Optimize your factory operations with Zyter IoT-based solutions so you can:

- Reduce workplace accidents and improve worker safety

- Minimize downtime and lower insurance costs due to fewer incidents

- Improve factory efficiencies, productivity and revenue while reducing costs

- Create a safer work environment that improves employee retention and morale

## About Zyter

Zyter delivers a wide range of Internet of Things (IoT) solutions spanning buildings, stadiums, campuses, and even cities. As the foundation for the Qualcomm® Smart Cities Accelerator Program, the Zyter SmartSpaces™ platform supports solutions for multiple markets including healthcare, education, logistics, retail, travel, and construction. By integrating and consolidating data from IoT devices and applications, organizations can gain new insights to improve efficiencies while providing end-users with an engaging digital experience. In 2020, Zyter won more than 50 awards for its products. Founded in 2017, the privately-held company is based in Rockville, Md. For more information, please visit **www.zyter.com/iot**.

## For More Information

Learn how Smart Factories can transform your factory floor into a smarter manufacturing environment by requesting a demo at **www.zyter.com/smartfactories** or contact us at **+1 (301) 355 7760**, **sales@zyter.com** or visit **www.zyter.com**.

# Improve Worker Safety and Optimize Operations with the IoT-Enabled Construction Site

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

Zyter Smart Construction gives construction companies the ability to create the IoT-enabled construction site and take full advantage of all connected devices so they can:

- **Improve Worker Safety** – Reduce the number of safety breaches and construction site accidents.

- **Optimize Site Maintenance and Inspections** – Gain 3D visibility of materials behind walls with light detection and ranging (LiDAR) remote sensing technology.

- **Achieve Safety Best Practices** – Create a safer construction site environment to satisfy insurance underwriting requirements.

- **Improve Project Progression** – Minimize downtime and reduce insurance costs due to fewer safety incidents and optimized site maintenance.

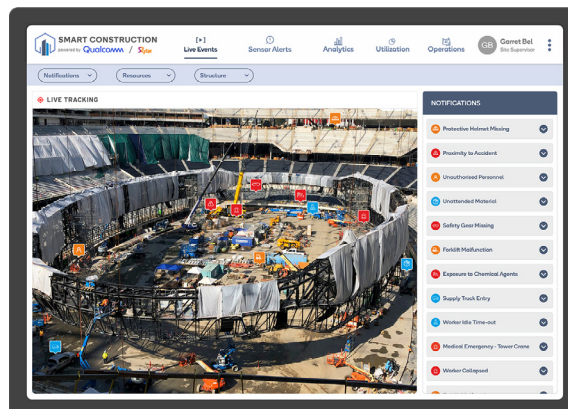- **Create a Safer Work Environment** – Improve worker retention and morale.

Despite mandatory safety training and use of personal protection equipment (PPE), construction workers are still at risk of injury from accidents, as well as from potentially harmful incidents caused by breaches of safety best practices. In addition, unexpected construction site maintenance and repair incidents can cause costly project delays.

These are just some of the reasons why construction managers need eyes on everyone and everything across all areas of the construction site to ensure safety and project progression. And Zyter can make that happen.

## Introducing Zyter Smart Construction™

Zyter Smart Construction integrates Internet of Things (IoT) sensor technology, artificial intelligence (AI) cameras, and LiDAR laser technology with the Zyter SmartSpaces™ IoT platform to give construction managers a complete 360-degree view of the construction site and real-time alerts of workers' non-compliance with safety regulations. Plus, it provides the ability to "see through walls" with LiDAR 3D modeling to quickly locate and fix internal repairs across the construction site to ensure on-schedule project progression.

Trusted by Qualcomm® to be the foundation of its Smart Cities Accelerator Program, the Zyter SmartSpaces Platform breaks down silos of information by integrating and consolidating data from IoT devices and applications you already have into one seamless interface. The result: Zyter Smart Construction provides complete visibility your entire ecosystem of connected devices and sensors throughout the construction site — including IoT wearables on workers' PPE, and LiDAR technology for 3D modeling and visibility of components behind walls. More than simply tracking safety incidents and breaches, Zyter Smart Construction applies advanced analytics to all gathered IoT data to help you make informed decisions for improving construction site safety and management, as well as identifying workers for additional safety training, and more.

Zyter Smart Construction provides a 360-degree smart view of the construction site and your workers' location in a single, intuitive dashboard.

## Smart Technology. Safer Work Site. Higher Productivity.

Zyter Smart Construction enables construction managers to improve worker safety and operational efficiencies with today's revolutionary technologies, including:

- **AI Computer Vision and RTLS Sensors for Worker Safety** – Catch safety breaches before they escalate to accidents and injuries. Artificial intelligence (AI) monitoring systems equipped with Qualcomm's top-of-the-line AI chips detect the IoT sensors on workers' PPE and alert whenever workers remove helmets, harnesses, and other gear, and also if workers enter unauthorized areas on the construction site. Workers are outfitted with real-time location system (RTLS) wearables, so you can always quickly locate a worker anywhere on the site. In addition, the RTLS wearable will emit a vibrating haptic alert to warn workers if they are entering or attempting to leave an area on the site without authorization. With greater awareness of potential safety issues, you can take more proactive measures to guard against construction site accidents.

- **Virtual Vision and Automatic Inspection with LiDAR 3D Digital Twin** – Forget searching through blueprints. Now you can "see" through walls and quickly find broken pipes or faulty wiring and get your project back on schedule. Zyter Smart Construction revolutionizes construction site management with the integration of light detection and ranging (LiDAR) based 3D Digital Twin – a remote sensing method using pulsed laser waves that scan IoT sensors to create a 3D replica of a building and its structural components, even those out of sight behind walls. Simply access the 3D LiDAR model on the Zyter dashboard to virtually locate all electrical wiring, pipes, and more behind constructed walls.

Tiny self-energized IoT sensors are attached to the components behind walls. When scanned with the LiDAR laser waves, these sensors transmit information such as part name, serial or model number, and vendor brand to the Zyter Smart Construction dashboard. You can also optimize site maintenance by using LiDAR 3D Digital Twin to perform automatic inspections throughout every phase of the construction. Identify any components out of compliance with code before they can cause project delays. In addition, LiDAR scans can be saved, quickly retrieved, and referenced for information to help resolve any structural issues that might occur in the future.

*Zyter Smart Construction provides complete visibility your entire ecosystem of connected devices and sensors throughout the construction site — including IoT wearables on workers' PPE, and LiDAR technology for 3D modeling and visibility of components behind walls.*

- **Worker Safety Analytics** – Use the data from your IoT construction site to make more informed and intelligent decisions about safety best practices. Zyter Smart Construction captures metrics from the IoT device alerts from workers' PPE and generates worker safety analytics. Create and track workforce safety scores for reporting to insurance underwriters. Plus, you can identify workers who need improvement in safety practices and provide the necessary training to raise their scores.

Besides improving worker safety and on-time project delivery, Zyter Smart Construction can also provide cost savings. A consistent safety record and a reputation for delivering projects on time and budget are major factors that insurance companies consider when underwriting construction sites of all sizes and complexities.

## Optimize Worker Safety and Site Productivity with Zyter Smart Construction

Zyter's IoT-enabled construction site delivers these benefits:

- Gain 360-degree visibility of your construction site and workers' location to respond faster to worker safety incidents and maintenance issues.

- Identify and respond to potential safety issues before they escalate using contextual alerts and context-aware incident reporting via IoT and RTLS wearables on workers' PPE.

- Keep projects on schedule and optimize site productivity using 3D LiDAR scanning to quickly locate and fix malfunctioning components behind walls.

- Gain actionable insights for better decision making with predictive analytics based on data from your IoT ecosystem.

### About Zyter

Zyter delivers a wide range of Internet of Things (IoT) solutions spanning buildings, stadiums, campuses, and even cities. As the foundation for the Qualcomm Smart Cities Accelerator Program, the Zyter SmartSpaces platform supports solutions for multiple markets including healthcare, education, logistics, retail, travel, and construction. By integrating and consolidating data from IoT devices and applications, organizations can gain new insights to improve efficiencies while providing end-users with an engaging digital experience. In 2021, Zyter won more than 37 global awards for its IoT products including Best Technology and Company Innovation of the Year. Founded in 2017, the privately-held company is based in Rockville, Md. For more information, please visit **www.zyter.com/iot**.

### For More Information

Learn how Smart Construction can transform your construction site into a smarter and safer environment by requesting a demo at **www.zyter.com/smartconstruction** or contact us at **+1 (301) 355 7760, sales@zyter.com** or visit **www.zyter.com**.

# Maximize Operational Efficiency with 3D, 360° Visibility

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

Unlock the full potential of connected IoT devices across your entire facility and beyond with Zyter Smart Warehouse – from shipment to end-customer delivery – so you can:

- **Automate Inventory Management and Tracking of Goods** – With data from IoT sensors, you will always know the real-time inventory status and location of goods, so you can avoid unfulfilled orders and lost goods. Plus, a mobile app gives your workers step-by-step directions so they can quickly locate and move goods to meet shipment deadlines.

- **Plan for More Efficient Dock Operations** – Vehicle tracking and monitoring makes it possible to predict estimated arrival times, so your workers can be ready at the dock to unload the truck and store the goods without delay, saving time and maximizing worker productivity.

- **Gain a Virtual 3D View of Your Warehouse** – Light detection and ranging remote sensing technology provides an enhanced view of all goods and other components of the warehouse – even behind walls. Now you can easily locate anything in the warehouse much faster.

What is the best way to track real-time inventory levels? How can I know the exact location of all goods in my warehouse? And how can I make operations more efficient despite a shrinking labor pool? These are a few of the questions that keep warehouse managers up at night and are driving the need for the digitally transformed smart warehouse. Typical manual processes are just not efficient enough – and most warehouse management systems do not provide the depth of real-time data to keep up with the fast pace of today's global supply chain and the demand for expedited delivery of eCommerce goods.

Fortunately, Zyter makes the smart warehouse a reality today.

Zyter Smart Warehouse™ is a pre-configured solution that runs on the Zyter SmartSpaces™ Internet of Things (IoT) platform. Trusted by Qualcomm® to be the foundation of its Smart Cities Accelerator Program, Zyter SmartSpaces breaks down silos of information by integrating and consolidating data from IoT devices and applications you already have into one seamless interface. Best of all, Zyter Smart Warehouse is an Internet of Things as a Service (IoTaaS) solution, so you can avoid significant upfront Capex investment.

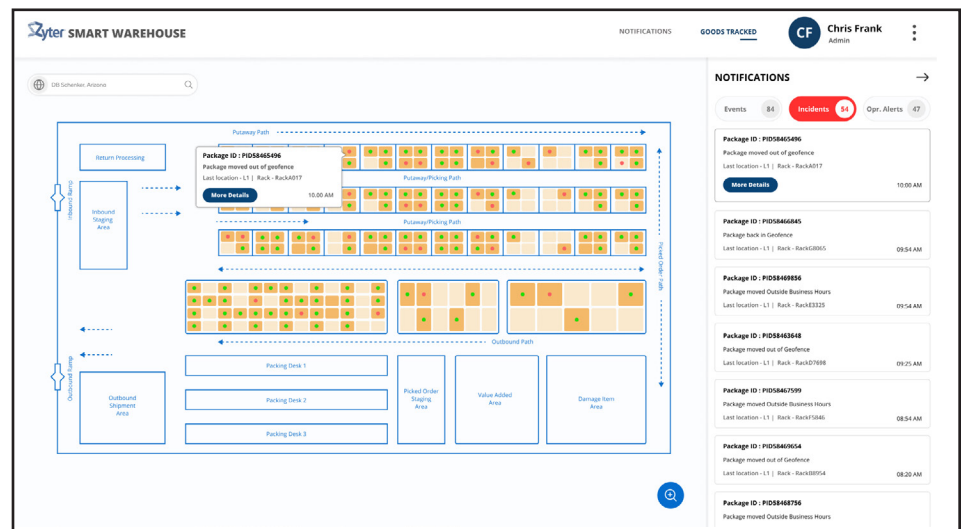## Smarter Inventory Management. More Efficient Locating, Shipping, and Tracking.

Zyter Smart Warehouse uses IoT technology sensors to provide unprecedented real-time tracking data on inventory levels, the location and movement of all goods within the warehouse – and even during transit to and from your facility. In addition to providing data and alerts from IoT sensors, the Zyter solution also provides a 360°, 3D-view of your warehouse using LiDAR 3D Digital Twin remote sensing technology. Plus, you can gain even greater efficiencies with Zyter's indoor smart navigation app, and in the future, support autonomous mobile robots (AMR) and other advanced solutions residing on Zyter's IoT platform. The result: Zyter Smart Warehouse digitally transforms your facility and logistics operations so you will always know how much inventory you really have and exactly where the goods are located – in the warehouse and every step along the supply chain.

Zyter Smart Warehouse helps businesses work smarter and more efficiently using a single, end-to-end solution:

- **Asset Tracking & Inventory Management** – Zyter Smart Warehouse takes the guesswork out of inventory status so you always know when and where goods are moved. IoT sensors placed on pallets of goods and on other surfaces across the warehouse provide a continuous stream of real-time data on the location and movement of all goods currently in the warehouse – from the time they arrive at the dock for storage to the time they are loaded back onto trucks for shipping to distributors and customers.

  Zyter Smart Warehouse receives IoT-generated data via the SmartSpaces platform and consolidates it into a single, intuitive dashboard featuring 3D LiDAR technology – so you always have an exceptional real-time, virtual view of current inventory and where specific goods are located. Zyter Smart Warehouse also alerts when inventory is low, so you can place orders at the optimum time.

- **Enhanced Dock Management** – Primarily driven by location and mobility services, Zyter Smart Warehouse makes it easy to prepare crews prior to goods arriving. Using automated number plate recognition (ANPR), video cameras can identify the make, model and license plate of each truck as it enters the facility and messages can be sent to the driver with directions to the designated dock for the most efficient loading or unloading.

- **Smart Logistics for Tracking Goods in Transit** – Track goods from the factory to your warehouse and back out for transit to end customers. Zyter Smart Warehouse can integrate with vendor data from multiple sources to give you a single source of truth in regard to monitoring the transit of goods with IoT sensors outside the warehouse. Smart logistics with precision tracking also provides alerts and predictions as to the arrival time of trucks with new shipments, so the dock and workers are ready to receive them.



Easily track every movement and location of items through the Smart Warehouse dashboard.

- **Navigation with LiDAR 3D Digital Twin and Zyter Mobile App** – Now you can "see" every area of the warehouse – even through walls – with LiDAR 3D Digital Twin remote sensing technology using pulsed laser waves that scan IoT sensors to create a 3D replica of your facility. Simply access the 3D LiDAR model on the Zyter dashboard to quickly locate goods, forklifts, pallets, and more. LiDAR on the Zyter mobile app also supports indoor navigation to give your workers step-by-step directions to the pallets they need to move. You can also incorporate a task checklist in the app, making it easier to manage an untrained labor force.

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*Zyter Smart Warehouse uses IoT technology sensors to provide unprecedented real-time tracking data on inventory levels, the location and movement of all goods within the warehouse – and even during transit to and from your facility*

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## More Capabilities. More Impact.

Zyter Smart Warehouse helps optimize operations across all operations with the following advanced capabilities:

- Gain 360°, 3D visibility of your warehouse, inventory, and location of goods

- Track goods in the warehouse and across the entire supply chain

- Receive alerts and notification on unexpected movement of goods to a new location

- Improve worker efficiency with step-by-step indoor directions via the Zyter mobile app

- Save time and improve efficiencies by automating daily manual processes

- Customizable to specific needs and integrates with different vendor systems and applications

- Scalable to multiple warehouse locations and industry domains

- Gain actionable insights for better operational planning with predictive analytics based on IoT data

- Manage operational costs more efficiently with Zyter's per-usage pricing model
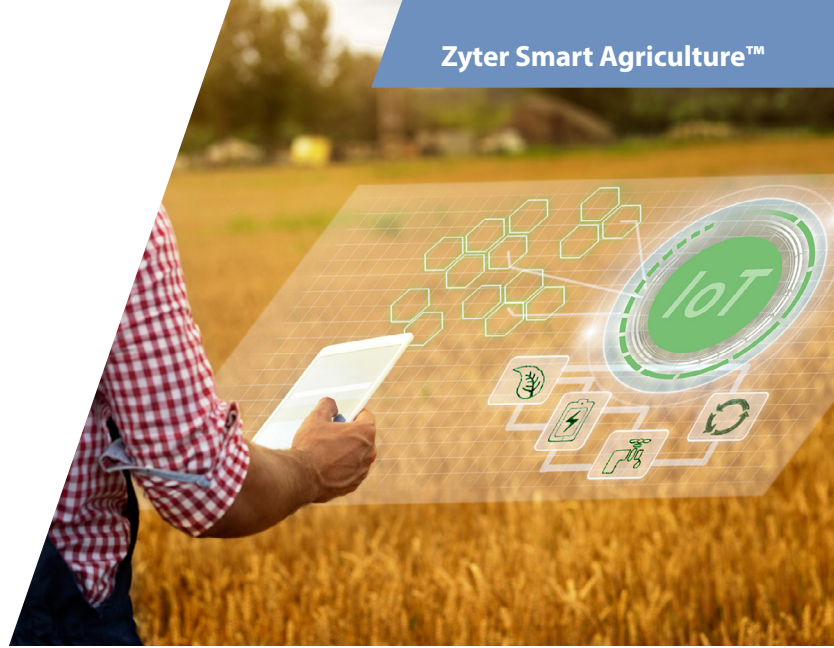
## About Zyter

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## For More Information

Learn how Zyter Smart Warehouse can automate manual processes and maximize operational efficiencies across your entire facility or warehouse network. To arrange a product demonstration, please contact +1 (301) 355 7760, **sales@zyter.com** or visit **www.zyter.com/SmartWarehouse**.

# Smarter, More Sustainable Agriculture with Zyter

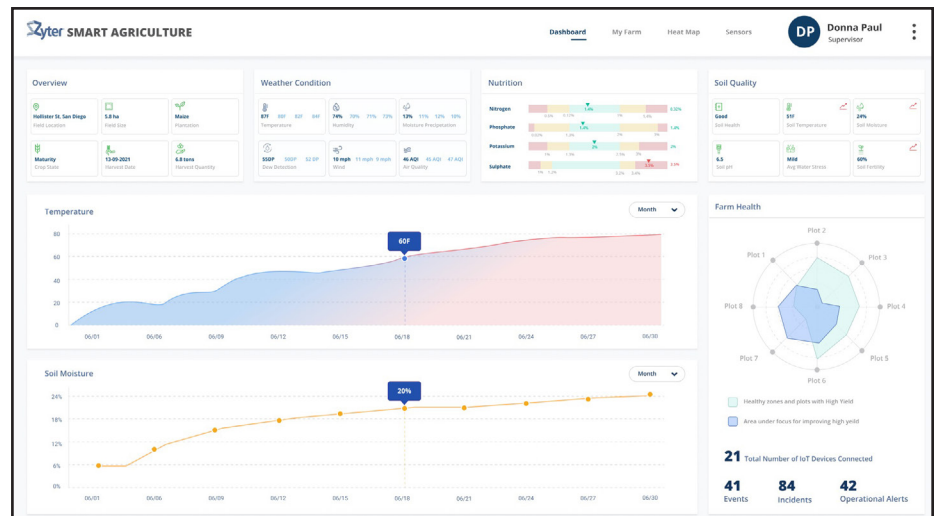## From the Internet of Things (IoT) to the Intelligence of Things

Zyter Smart Agriculture enables you to unlock the full potential of connected IoT devices across your farming ecosystem so you can:

- **Improve Crop Yield with Precision Agriculture Practices** – Simplify and automate crop field inspections for soil moisture, nutrients, solar radiation levels, precipitation, wind speed, temperature, air quality, and more. Identify unfavorable conditions and take action to correct them faster to ensure maximum crop yield.

- **Make Smarter Decisions on Crop Management** – Gain actionable insights using real-time data streams from IoT devices, comprehensive dashboards, alerts and notifications, and AI-generated prescriptive actions in Zyter Smart Agriculture to support crop management improvements.

- **Enhance Farm Efficiency** – Reduce the amount of manual work involved in soil monitoring and testing by automating standard practices for greater efficiency and data accuracy. Boost the bottom line by doing more with fewer farm labor resources.
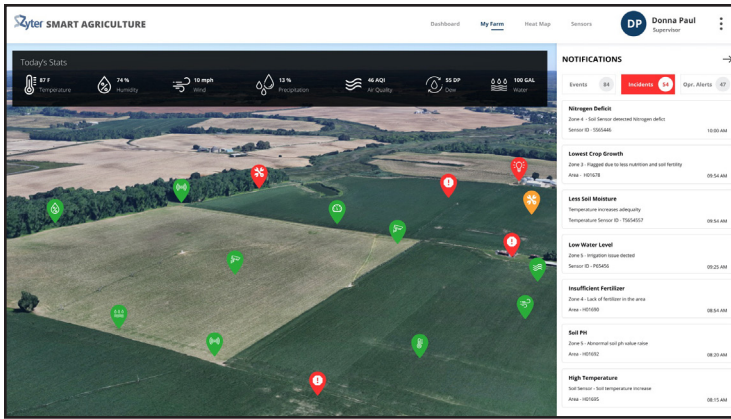
Farming is an art and science passed down from generations. Today's next-generation farmers are still challenged to grow healthy crops for maximum yield like their grandfathers did, but with a new twist. To stay profitable and viable, U.S. farmers will need to increase sustainable food production over the coming decades to alleviate food insecurity for a growing global population – and it will take a digital transformation of the farm with smart technology solutions to make them successful.

Zyter Smart Agriculture™ uses Internet of Things (IoT) technologies and artificial intelligence (AI) to provide unprecedented data volumes on the health of your crops and insights into what actions to take to ensure optimal yield. This digital-age approach to precision agriculture makes it easier for farmers to monitor and manage multiple factors affecting crops despite a shrinking labor force of available farm workers. In fact, your next new farmhand could be an AI-enabled drone with a high resolution camera inspecting your fields.

Zyter Smart Agriculture is a part of the Zyter SmartSpaces™ IoT platform. Trusted by Qualcomm® to be the foundation of its Smart Cities Accelerator Program, the Zyter SmartSpaces platform breaks down silos of information by integrating and consolidating data from IoT devices and applications you already have into one seamless interface.

Get a consolidated, real-time view of all factors that could potentially affect crop yield so you can make more informed decisions faster.

Receive instant alerts if any important parameters that are being monitored drift out of pre-set ranges.

## Take Soil Readings. Inspect the Fields. Make Decisions. Anywhere. Anytime.

Gathering data from a network of connected IoT sensors and devices placed in the ground as well as in and on other places across the farm, Zyter Smart Agriculture provides complete visibility of the status of soil moisture and nutrients, and other measurements on an intuitive dashboard. Zyter Smart Agriculture uses AI to translate this data to analytics and suggestions to help you, or agronomists working with you, make more informed and intelligent decisions regarding crop irrigation, adding or changing nutrients, crop dusting, and more. Plus, you can take the Zyter Smart Agriculture mobile app on your device with you anywhere you go to ensure that you receive instant alerts and notifications on possible adverse conditions affecting your crops.

The IoT and AI technologies in Zyter Smart Agriculture help you understand the health of your crops on a single, intuitive dashboard in the following ways:

- **Crop Yield Management with IoT Sensors** – Zyter Smart Agriculture takes the guesswork out of soil monitoring. Multiple IoT sensors and devices connected to the Zyter IoT platform pull in a complete range of soil and atmospheric data and make it available in a graphical interface that is easy to use and understand. Simply click on a crop location to get a virtual view of current conditions, plus notifications and alerts of measurements that are above or below normal so you can take corrective action. As a result, you'll be able to manage your crops for the expected yield with less manual work and more accuracy than ever before. Zyter Smart Agriculture can also provide historical data of conditions and events, so you always have the knowledge at hand to replicate the actions that maximized yield.

- **AI-based Actionable Insights** – The AI component of Zyter Smart Agriculture analyzes the streams of IoT data over time to give farmers and agronomists alike suggestions and estimations on how to best ensure optimized yield. You can use these actionable insights to make informed decisions on crop location, nutrients, irrigation and pest control, for example. Or collaborate more effectively with agronomists in analyzing what actions will work best to achieve your goals for precision agriculture.

- **Drone-based Inspections with AI** – Optimize time and resources for crop inspections with automated drones equipped with AI-driven technology. Just like walking through the field yourself, the drone inspects the crops using AI imagery that "learns" over time what the crop should look like and what conditions are ideal. This data is fed into Zyter Smart Agriculture and analyzed to provide additional actionable insights for optimal crop management.

### Zyter Deploys Smart Agriculture for Rural Cloud Initiative

Zyter Smart Agriculture has made precision agriculture a reality as a member of The Rural Cloud Initiative (RCI), a technology consortium focused on transforming rural communities with smart technologies. First deployed in a "live lab" at a working farm in North Dakota, the Zyter IoT platform supports over 250 different IoT and AI technologies to automate processes for sustainable food production and increasing yields of soybeans across 12 acres.

## About Zyter

Zyter delivers a wide range of Internet of Things (IoT) solutions spanning buildings, stadiums, campuses, and even cities. The Zyter SmartSpaces platform supports solutions for multiple markets including healthcare, education, logistics, retail, travel, and construction. By integrating and consolidating data from IoT devices and applications, organizations can gain new insights to improve efficiencies while providing end-users with an engaging digital experience. In 2021, Zyter won more than 37 global awards for its IoT products including Best Technology and Company Innovation of the Year. Founded in 2017, the privately-held company is based in Rockville, Md. For more information, please visit **www.zyter.com/iot**.

## For More Information

The next-generation smart farm is here today and Zyter makes it easy to deploy. Learn how Zyter Smart Agriculture can transform farming to sustainable, precision agriculture resulting in maximized yields. To arrange a product demonstration, please contact +1 (301) 355 7760, **sales@zyter.com** or visit **www.zyter.com/SmartAgriculture**.