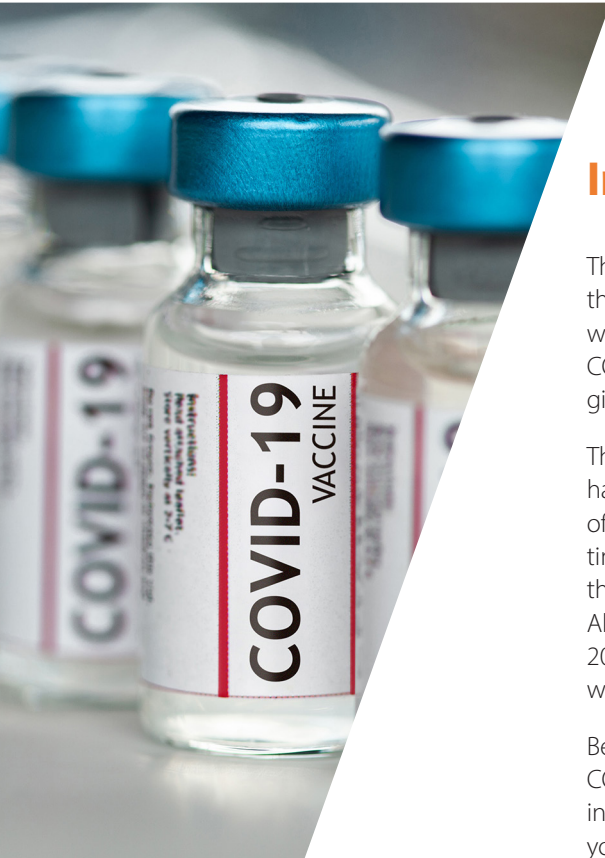




It's Not Over Yet:

Why Employers Still Need a Strong
Defense Against COVID-19



Introduction

The availability of the long-awaited COVID-19 vaccines has given the world hope that the uncontrolled spread of the coronavirus, which causes the critical illness COVID-19, will finally be eradicated. Deemed to be 95% effective in protecting against contracting COVID-19, the Pfizer-BioNTech COVID-19 vaccine and Moderna COVID-19 vaccine were given emergency authorization by the FDA for distribution in December 2020.¹

The goal of any immunization vaccine is to create herd immunity, where so many people have been vaccinated that it lessens the ability of the virus to run rampant. At the time of this writing, however, there is no herd immunity in the U.S. for COVID-19 and no clear timeline as to when the majority of the population will have been immunized to get to the point where the spread of the virus will be under control. The National Institute of Allergy and Infectious Diseases (NIAID) Director, Dr. Anthony Fauci, stated in a November 2020 interview with the American Medical Association (AMA) that the threat of COVID-19 will likely exist for at least the next year or indefinitely despite the availability of vaccines.²

Because of the lack of herd immunity, along with the recently emerging mutations of COVID-19, the U.S. Centers for Disease Control and Prevention (CDC) and the world's infectious disease scientists are warning that being vaccinated is no license to let your guard down. There are still too many unknowns as to what level of protection the vaccines will provide and for how long. For individuals, the CDC emphasizes the importance of continuing the simple, but effective, actions to slow the spread of COVID-19 – wearing a mask, staying at least six feet away from other people, avoiding enclosed crowded places, monitoring body temperature for fever, diligent hand washing, and use of hand sanitizer and disinfectant wipes.

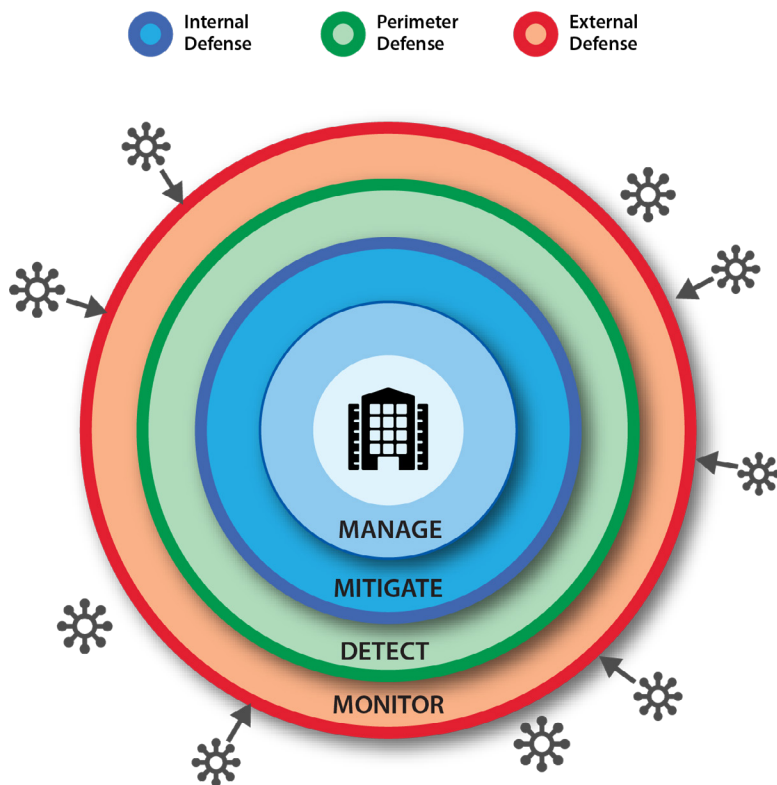
For employers across multiple industries, the same holds true for staff and employees on an individual basis. Public entities must come to terms with the fact that the added protections of new, smart technologies – such as mass body temperature thermal imaging systems and contact tracing systems, as well as the new healthcare paradigms of telehealth virtual doctor visits, and remote patient monitoring – is now the “new normal”. And it is likely to stay this way for the foreseeable future.

This white paper will discuss how to build a four-layer defensive strategy against COVID-19 spread in the workplace and some of the technology options that are available today. It will also give examples of how some businesses and healthcare facilities have deployed these new technologies to make the workplace environment safer, and as a result, have been able to stay open in the midst of the pandemic.

Build a Four-Layered Defense Against COVID-19

Just like in the cybersecurity industry, protecting information technology networks and data from attacks and malicious actors is more effective when a multi-layer strategy is used comprised of different, but coordinated components. Not only does this provide a more difficult challenge to the attacker – if they defeat one layer there is another to get past – it also takes more time, increasing the likelihood of detection. The same approach and principles can be applied by organizations trying to provide a safer workplace during the current pandemic.

A COVID-19 defense will be stronger if the tools used each support a different aspect of the defensive strategy in a coordinated way. There are four critical layers that organizations should seek to put in place to keep employees, guests and customers safer during business operations:



The four layers of an integrated COVID-19 defense.

- **Layer 1: Monitor** – The most basic of capabilities, organizations need a way to monitor the health of their workforce in an attempt to identify any COVID-19 infection in individuals outside of the workplace and before they come to their place of employment.
- **Layer 2: Detect** – Coronavirus detection is challenging because some individuals are asymptomatic. However, as noted by The Centers for Disease Control and Prevention (CDC), 83 to 99 percent of people with a coronavirus infection will have a fever³. As a result, manual or ideally automated temperature screening is a critical defense as it can potentially stop an infected individual entering the workplace.
- **Layer 3: Mitigate** – Mitigation reduces the severity and seriousness of a COVID-19 outbreak in the workplace. Hopefully, layers 1 and 2 would have identified an infected individual, but if a person is asymptomatic, organizations need a strategy to minimize an outbreak. In this mitigation phase, digital tracking can be used to determine the past movements of the infected individual in the workplace. Individuals who had come into close contact with the infected employee can then be notified, removed from the environment and placed in quarantine.
- **Layer 4: Manage** – Ideally organizations need a way to gain a holistic view of the multi-layered defense they have put in place and consolidate all the data that is generated and reported by the different tools being used. Some type of web-based portal or application, ideally residing in the cloud, is typically used.

Using Technology to Create a Safer Workplace

Let's look in more detail at some of the technologies that are available today to help organizations and businesses stay open and make it safer for staff to work.

Monitoring with a Digital Health Self-Assessment Tool

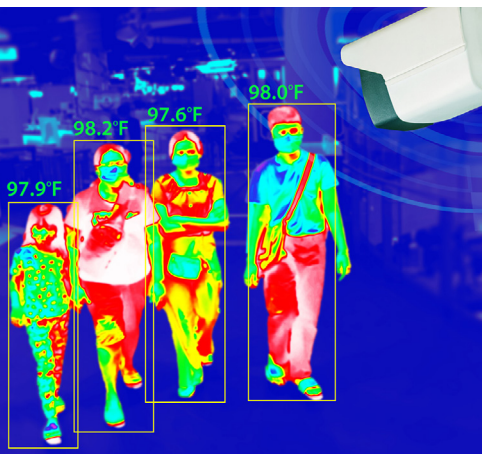
Stopping the spread of COVID-19 in the workplace can start even before employees leave their home to come to work. Employees download a secure mobile app to their phone and each day answer a series of questions in a digital health self-assessment survey about possible exposure to COVID-19. They scan the survey barcode on their phone at a kiosk before they walk through the entrance where they work. Persons answering "yes" to any of the questions will not be allowed to enter the facility.

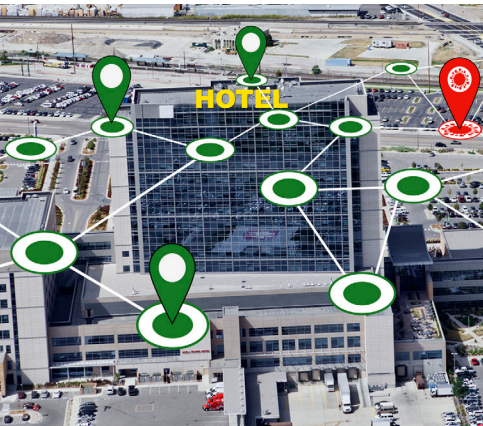
Detection with Thermal Imaging Cameras

Despite the availability of vaccines, the CDC still recommends monitoring for symptoms such as fever with a body temperature scanner to reduce the risk of creating COVID infection "hot spots" and slow the spread of the virus⁴. A higher than normal body temperature or fever is a common early symptom of COVID-19.

The use of thermal imaging cameras with a system for automated mass temperature screening is one of the most effective ways for businesses to make the work environment safer for employees, and thus avoid the economic impact of having to shut down. Thermal cameras automatically scan and identify multiple persons in a group who have the COVID-19 symptom of elevated body temperature. Security personnel monitor alerts and images sent from the cameras to a dashboard display, and can redirect those persons for additional screening. To be the most effective, automated mass temperature screening solutions should have a long detection range, split second detection time, as well as an extremely high level of accuracy.

Early on during the pandemic, a major U.S. retailer, for example, was able to keep its distribution center warehouses open and its workers safely employed to fulfill online orders by deploying thermal imaging cameras for automated mass temperature screening. Instead of requiring employees to line up in the parking lot to be manually screened, the retailer saved time and eliminated the cost of hiring extra screening personnel by automating the process.





Mitigation with Digital Contact Tracing

Digital contact tracking is yet another COVID-19 defense strategy that businesses have adopted to stop or severely limit a breakout if an asymptomatic employee on the job tests positive for COVID-19. While tracking mobile phones is an option, this approach raises a number of privacy concerns. Perhaps the most effective digital contact tracing solution features wireless wristbands worn by employees to track their real-time proximity to each other while at work. This data is critical in helping management quickly identify and inform the employees who were in close contact with the infected person over the past 14 days.

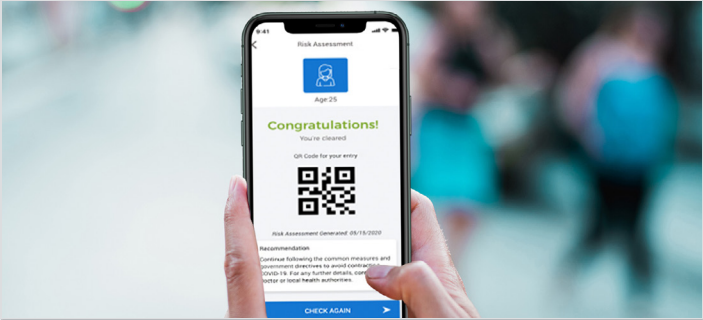

Management with an Enterprise Portal

Especially important for larger organizations where hundreds or even thousands of employees are entering and leaving daily – and potentially being scanned or tracked at work – an enterprise portal can be an invaluable. This provides a central repository for all the data being generated by any tools being used to guard against COVID-19 transmission in the workplace. With the ability to analyze data, it is possible to spot trends and implement additional policies to enhance any COVID-19 defense. By providing a comprehensive global view, a cloud-based portal also makes the management of the entire process much easier.



Introducing Zyter COVID-19 Suite™

Zyter is on the frontline of building a layered defense against the spread of COVID-19 – even as the vaccines hold promise for a safer 2021. The company's COVID-19 Suite enables organizations and businesses in any industry to build a four-layer defense against COVID-spread in the workplace.

External Defense	Perimeter Defense
MONITOR	DETECT
	
Self-Assessment App	Thermal Scanning and Imaging System
Zyter Daily Health Pass™	Zyter ThermalAlert™
<p>Monitor with Zyter Daily Pass™, an AI-driven, digital health self-assessment survey about possible exposure to COVID-19. Persons download the Zyter Daily Health Pass mobile app to their phone, answer the questions, and scan the survey barcode at a digital kiosk at the building entrance before they enter. Individuals who certify that they are not a known COVID-19 risk by answering “no” to all questions are allowed inside. Those persons who answer “yes” to any questions receive a red pass denying them entrance, and may be redirected for additional screening. Learn more.</p>	<p>Detect with Zyter ThermalAlert™, a dual spectrum, thermal imaging solution that delivers continuous, real-time, COVID-19 automated temperature screening. It is able to measure the body temperature (between 86 – 113° Fahrenheit) of up to six people simultaneously within the temperature detection zone from a distance of up to 20 feet, much farther than the 1-6 feet industry average of a typical body temperature scanner. With a detection time of less than one second and accuracy of $\leq \pm 0.5^\circ$ Fahrenheit, the Zyter thermal camera sends smart alerts instantly to handheld devices or monitors at the entrance. Persons identified by the Zyter body temperature scanner as having an elevated temperature can be redirected by security personnel or an administrator for additional screening. Learn more.</p>

Internal Defense

MITIGATE

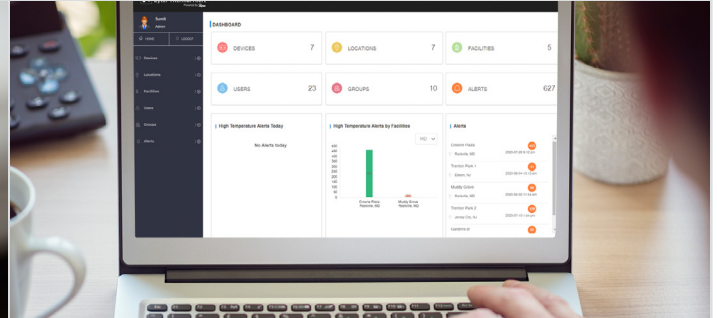


Wireless Tracking Wristbands

Zyter Digital Contact Tracing™

Mitigate with Zyter Digital Contact Tracing, an at-work tracking solution that consists of wireless wristbands worn by employees to track and record real-time data on their proximity to each other on a daily basis. In the event of a COVID-19 breakout, Digital Contact Tracing data identifies persons who may have been in close contact with the colleague who has tested positive. According to the CDC, COVID-19 can also be spread by persons who are asymptomatic and appear healthy. If an asymptomatic employee on the job, for example, tests positive for COVID-19 at any point, management can access the data within the Zyter Digital Contact Tracing app to immediately see who was in close contact with the infected person over the past 14 days. Those persons can be directed to self-quarantine for 14 days and advised to see a doctor if they develop COVID-19 symptoms. [Learn more.](#)

MANAGE



Cloud-Based Portal

Zyter Enterprise Portal™

Manage with the Zyter Enterprise Portal™, a comprehensive web-based portal that provides a holistic view of alerts from the ThermalAlert™ COVID-19 automated temperature screening solution and other data pushed to the cloud from all of the components of the Zyter COVID-19 Suite. This secure, cloud-based portal allows data to be immediately available and easily accessible by care teams, management, and administrators so that they can respond quickly to any COVID-19 events. [Learn more.](#)

CarePoint Health Improves Patient Safety with Automated Mass Temperature Screening

In the first weeks of the pandemic, CarePoint Health hospitals in northern New Jersey were overwhelmed with patients seeking treatment for the new coronavirus. However, hospital staff was unprepared for the initial screening process – namely manually taking each person's body temperature to check for the COVID-19 symptom of fever – before allowing them into the hospital.

In an October 13, 2020, interview with NPR⁵, Dr. Achintyz Moulick, CEO at CarePoint Health, described the scene: "One day I saw a big line outside the entrance to the hospital, and they [hospital staff] were manually checking everybody's temperature. The lines were all the way out to the garage." Dr. Moulick also saw that this manual process was taking his essential medical staff away from caring for patients, and was using up precious personal protective equipment (PPE) at a fast rate – not to mention the risk of spreading COVID-19 among a large gathering of people.

In August 2020, Zyter ThermalAlert™, a smart thermal scanning and imaging system for automated mass temperature screening, went live at three New Jersey hospitals operated by CarePoint Health: Bayonne Medical Center, Christ Hospital in Jersey City, and Hoboken University Medical Center. ThermalAlert was deployed in less than 48 hours at each of the three hospitals as an efficient and unobtrusive solution for screening thousands of people while minimizing staff resources and risk.

Zyter deployed 12 ThermalAlert imaging cameras in a stand-alone configuration, divided among the three facilities. Three cameras are located at main entrances while a fourth camera is positioned in an unspecified location. With a detection time of less than one second and accuracy of +/- 0.5 degrees Fahrenheit, smart alerts from the Zyter ThermalAlert imaging cameras are sent instantly to medical staff or security personnel monitors, computers or mobile devices. Those individuals with abnormal temperature readings can then be redirected to a different entrance for additional testing or care.



Conclusion

Even though multiple vaccines have now received FDA approval and are beginning to be administered nationwide, it will still take many months to achieve herd immunity in the United States. For a number of reasons, it seems probable that a significant number of individuals will refuse to be vaccinated. As a result, it is likely that COVID-19 will continue to affect how we interact and negatively impact business operations well into 2022.

To reduce the risk of COVID-19 transmission to employees and customers, organizations need to think seriously about what action they can take today to make the work environment safer and their businesses operating. Fortunately, a number of technologies are readily available that can help.

Rather than choosing just one solution, a better strategy is to build a multi-layered defense against COVID-19 in the workplace using a number of different, integrated tools. Zyter's COVID-19 Suite offers a four-layered defense against the coronavirus that is being used effectively on the front lines in many industries today, helping those companies remain open and reducing the risk of COVID-19 infection for employees and customers.

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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

For more details about Zyter's COVID-19 Suite, please visit zyter.com/covid-19 or contact us at +1 (301) 355 7760 or sales@zyter.com to request a product demonstration.