



Ashish Parikh

ashish.parikh@arrow.com

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ARROW
Five Years Out

“Corona Tech”

Understanding the landscape of technology solutions
for getting people back to work safely

Why?

Get back to “normal” safely

How?



POLICY

- WHO
- CDC
- State
- County
- City



EDUCATION

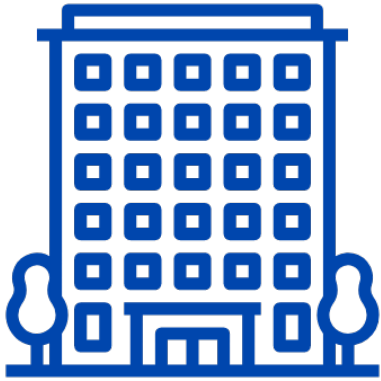
- History
- Facts
- Access



TECHNOLOGY

- Protocol Management
- Exposure Notification
- Social Distancing
- Contact Tracing

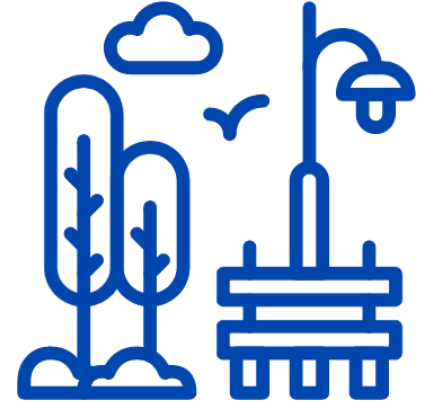
Where?



Private
Business



City & State
Offices

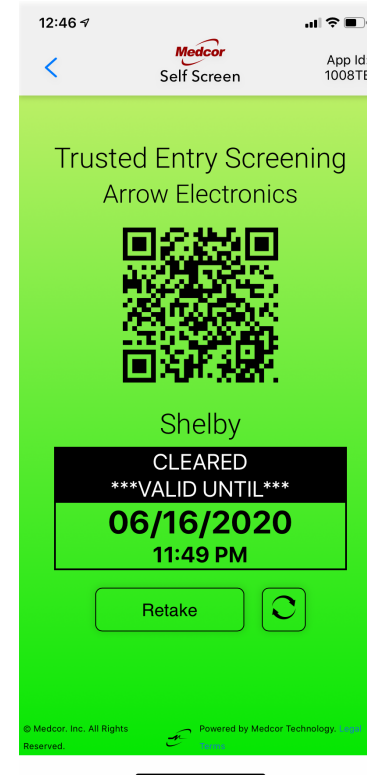
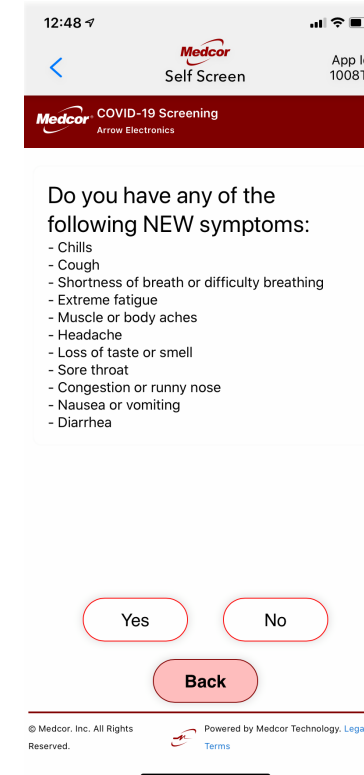
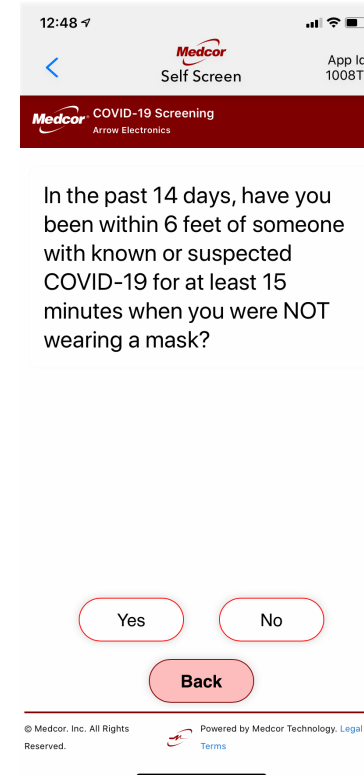


Public
Spaces

Technology

PROTOCOL MANAGEMENT

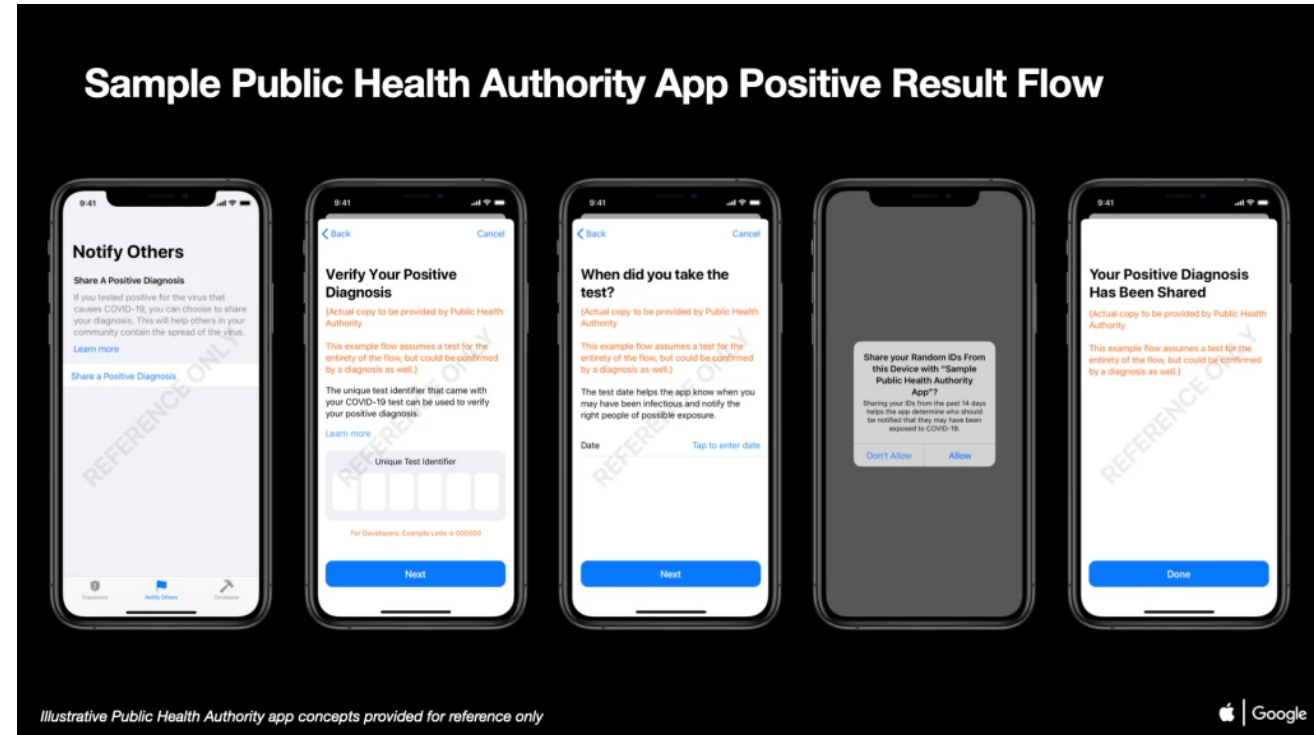
- Symptom Checker App
 - Optional – Temperature Check
- Enhanced cleaning procedures
 - Personal Protective Equipment (PPE)
- Considerations:
 - Build or buy?
 - Data privacy and security
 - Policy



Technology

EXPOSURE NOTIFICATION

- Apple/Google Collaboration
 - Broad adoption is key, cross platform
 - Speed of notification
 - Privacy – user controlled, no central database
 - Exposure Notification ≠ Contact Tracing
- Other apps available but
 - Privacy
 - Battery life
 - Adoption



Technology

SOCIAL DISTANCING & CONTACT TRACING

	WiFi	Bluetooth	Vision/Edge AI
Advantages	<ul style="list-style-type: none">• Leverage existing infrastructure with applications• Fast deployment• Cost	<ul style="list-style-type: none">• Social Distancing and Contact Tracing• Accuracy• Phone based or Device based• Audible notification	<ul style="list-style-type: none">• Flexible with multiple AI models – mask, temp, identity, queue• Can be paired with LiDAR solutions for 3D depth• Privacy – with LiDAR or edge only inferencing
Concerns	<ul style="list-style-type: none">• Accuracy• Notification• WiFi must be turned on	<ul style="list-style-type: none">• Privacy• Cost• Infrastructure• Outside the “bubble” issue	<ul style="list-style-type: none">• Cameras are 2D• Privacy – if data is streamed and processed centrally



Arrow Solutions

Case Study - CROWD Insights™

DCU Alpha Campus COVID-19 Compliant in a Matter of Days

The Challenge: DCU Alpha has an advanced cluster of campuses and research facilities in a campus environment. To assist with the general public health needs for managing crowd sizes and social distancing at the height of the COVID-19 pandemic, DCU Alpha was looking for a way to proactively and cost-effectively monitor its campus in order to manage crowds for social distancing compliance. With new ever-changing regulations limiting gatherings of more than a small number of people in open areas at any time, DCU Alpha engaged with Taoglas to deploy the new CROWD Insights analytics platform.

The Outcome: In less than 24 hours, DCU Alpha had the CROWD Insights analytics platform up and running without having to invest in any new hardware or software. To simply allow existing Wi-Fi infrastructure and working with the Taoglas team, the entire DCU Alpha campus activated the CROWD Insights platform and was immediately able to monitor and manage the level of people with real-time alerts to ensure the new COVID-19 directives for public gatherings were adhered to.

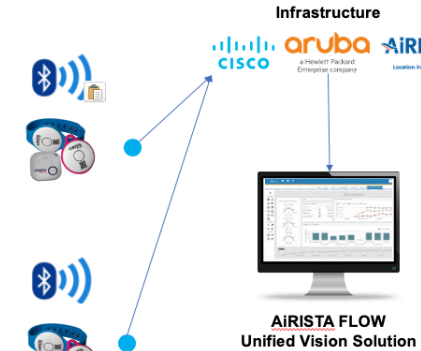
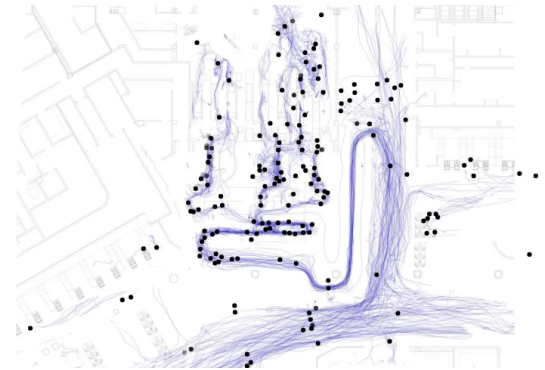
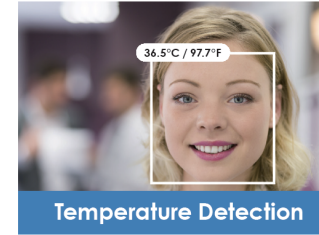
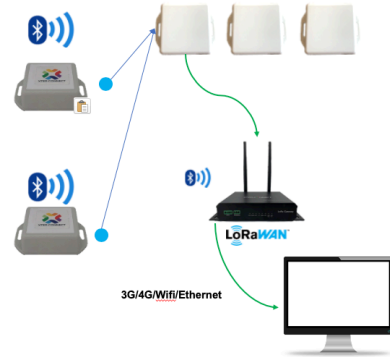
How: DCU Alpha is using Taoglas CROWD Insights to give real-time data to the campus management and security teams helping understand the volume of people in the campus and in the various buildings, notifications and alerts are used to dispatch the security teams to investigate the areas that are at or near capacity. Taoglas CROWD Insights monitors the numbers, flows and dwell times of people in defined areas and sets thresholds to alert if an intervention is necessary. The solution is fast and easy to deploy as it is based on the existing Wi-Fi and collects anonymized data via smartphones. The platform and handling of personal data are completely invisible to the end user.

"Taoglas CROWD Insights is proving invaluable in helping us ensure the Alpha Innovation campus is compliant with the new public health directives. Before this day, we were able to efficiently monitor the footfall across our buildings and deploy our scarce facilities management resources, in a way that gave peace of mind to our other clients and their employees. This technology is vital in today's new social distancing reality and critical in terms of getting our campus back up and running in a safe and secure manner!"

Recent Funding:
 Revenue Share, DCU Alpha

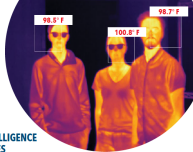
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PROTECTING FACILITIES FROM INFECTIOUS DISEASES

Wachter partners with industry leaders to bring you real-time temperature recognition measured to 1/10th of a degree.



Instantly detect elevated temperatures in employees, contractors, and visitors. Turn away those who may be contagious before they have the opportunity to contaminate your facility or meet your workforce.

TAP INTO ARTIFICIAL INTELLIGENCE & THERMAL TECHNOLOGIES

Wachter brings a body temperature monitoring system designed to identify individuals with abnormal body temperatures.

The AI face recognition algorithm can distinguish individuals in a crowd and provide their respective face temperatures.

- AI Face Identification
- Temperature Measurement via Thermal Camera
- Alerts for Facial Temperature Exceeding Threshold
- No Operator Intervention Required
- Powered by Thermal Technology
- Integrate with Access Control Systems
- Visual Annotations GoRight

What's the right solution for me?



Arrow Engineering Service Offerings



INNOVATE



Ideation/
Design Thinking



Hardware
Implementation



Software/App/Cloud
Implementation



Design & Validation



Prototype & Testing



Certification
Services



TRANSFORM



Products



Business Models



Processes



Value Engineering
(Sustenance & Reengineering)



Cloud Migration



Legacy
Modernization



SCALE



Remote Device
Management



CloudOps & DevOps



Manufacturing



Supply Chain Services



Order Management,
Fulfilment & Logistics



Support Services

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