Plan Your COVID-19 Re-Entry

Tools for Business Continuity: A Look Inside Our Solution Toolbox

COVID-19 cases have steadily decreased over Western Pennsylvania and businesses are beginning to reopen – nonetheless, life as we know it will not be the same. The possibility of a second wave of infections and our increased awareness of contagion will radically change the way we interact within our communities and our workplaces.

Looking ahead at this uncharted environment, we have been gathering solutions that can assist organizations to reopen in a safe, welcoming and successful environment. Throughout the COVID-19 pandemic, DES was classified as an essential business, and we have been fully operational throughout the months of lockdown. We have spent these months educating ourselves on federal and local health regulations,

talking with our manufacturers about innovative ways to deploy their solutions, listening to the challenges facing our customers - and putting all these into practice.

Broadly speaking, companies need to address three areas of operation:

• **Safety:** Ensuring the on-site location is fully compliant with current health guidelines.

• **Connectivity:** Managing the network access and cloud software of both onsite and remote workforces.

• **Communication:** Keeping the flow of communication moving despite social distancing.

We have applied this framework to the sectors

we serve in the education, healthcare, commerce, and manufacturing fields. Below is an overview of the solutions we provided and expect to provide during this outline of the solutions we offer. As a technology integrator, we customize solutions according to your requirements.

Using Advanced Technology to Create Safe Workplaces

Controlling who comes into your premises is at the core of your re-opening strategy. Entry point management must screen visitors and employees for COVID-19 symptoms and also limit the building occupancy to government guidelines.
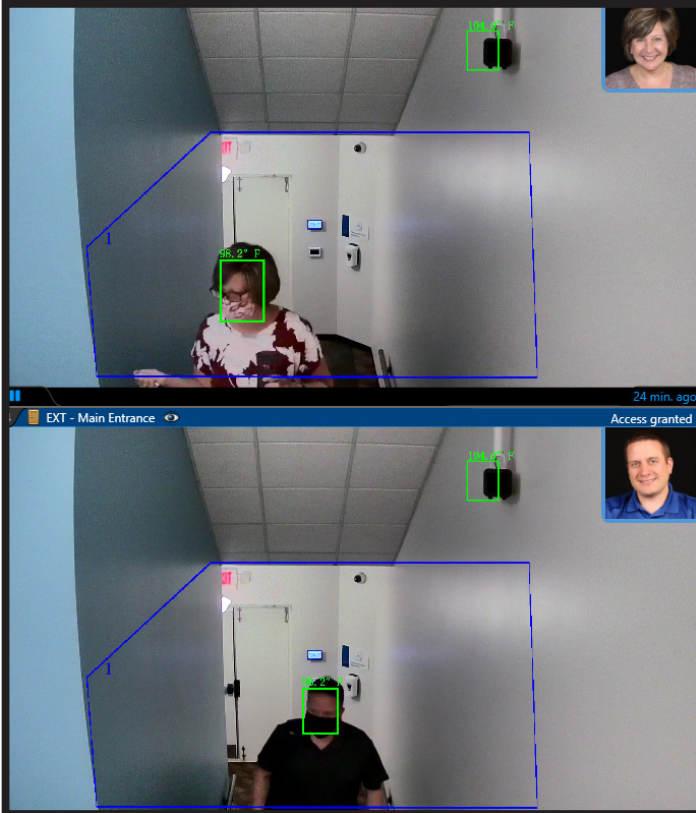
Tracking temperatures at the DES office

Thermal Camera Technology: These camera sensors can be calibrated to detect persons with temperatures reading above 100.4°F, a key symptom of COVID-19, and prevent them from entering the premises. We have investigated two systems for thermal imaging: an overhead camera that zones onto people's faces as they enter, and a self-check kiosk where visitors hover their wrist over a scanner for a temperature check. We installed the Cohu HD Costar thermal camera in our offices and integrated it with the Genetec surveillance system. The camera can handle a limited flow of people entering simultaneously and transmit temperature readings. Because it integrates with our IP system, we can program rules and triggers for when someone enters with a high reading. The self-check kiosk is a standalone system, so it is more budget friendly, but it necessitates each visitor to pause and check in. Bear in mind that whichever thermal technology you do opt for, it is not a medical-grade diagnostic tool, they do have a slight margin of error, and they cannot definitively detect occupants infected with COVID-19. Your company continuity policies should include additional layers of screening.

Occupancy Detection: Social distancing can only work when there is occupancy control. During recent weekends, while we have been out-and-about doing our errands, we have seen big box stores lined with people, with crowd management enforced by employees holding hand-held radios at entrances and exits. This system is rudimentary, prone to error, and certainly not cost effective. We have installed people counters as part of the Genetec IP surveillance system. The overhead camera uses lidar or virtual line crossings to tally people entering and exiting the location. Since it is a

networked system, not only does the unified dashboard give you an accurate occupancy count, but it can be programmed to trigger alerts and actions as occupancy reaches an unsafe threshold.

Voice-Activated Technology: Along the same lines as machine learning, in the DES offices, our multimedia engineers have programmed our Crestron system to activate using our smart virtual assistant. A request to Alexa turns on the conferencing mode and adjusts the volume and lighting. Integrating voice commands into repetitive functions, such a light switches or temperature controls, can promote a work culture that cares about safety.

Contact Tracing: Should an employee contract COVID-19, the re-entry plan must include a means of containing and mitigating the outbreak. The surest methodology is through contact tracing – mapping out the interactions the infected individual had with others in your organization and informing those people to take action to stop the spread. Our partner, Alertus, has developed a mobile app where users who have tested positive for COVID-19 can anonymously submit their tracked movements from the previous 15 days. Other users are alerted if they crossed paths. While this tracing method is elaborate, it relies on visitors and employees to participate in the app. A more controlled method is through the Genetec IP surveillance system. Their Omnicast platform can be configured with video analytics to isolate the infected individual from the surveillance footage and compile a time lapse reel of that individual's movements, thereby tracking social interactions.

Configuring the Network for Secure & Seamless Connectivity

The abrupt rupture to remote operations has highlighted the vulnerabilities in our clients' networks. Some clients handled the move fairly well while others scrambled to make their servers securely accessible to their offsite employees. Moving forward, organizations have sharply learned that their workforce must be able to work remotely in some capacity. For this to flow productively, we have honed the following solutions:

Secure Remote Access via Virtual Private Network (VPN) or Remote Access Points (RAP): Many organizations still house their critical assets on their premise servers. Needless to say, it is crucial to ensure remote access without compromising cybersecurity. VPN is the more streamlined method because it does not involve distributing dedicated equipment, however actually providing RAPs to your employees has the benefit of allowing remote workers to plug in devices that do not support VPN, such as IP phones. Furthermore, an essential component of a cybersecurity strategy will be the software that protects beyond the firewall, such as Forticlient. This safeguards company assets from bad actors infiltrating home-based devices.

Rainbow – The Web Meetup That Does More Than Zoom: Virtually overnight, Zoom became the go-to venue for cloud meetings. Yet it has little integrations when it comes to easing productivity. For customers requiring complex functionality, such as the ability to share files during online conferencing, Zoom fell short. We deployed Alcatel Lucent's Rainbow suite for a

Western Pennsylvania university. With Rainbow, the university administration was able to do reliable audio/video calls, instant messaging, and document and screen sharing on a secure, simple-to-use platform. Rainbow is developing a classroom platform with features unique to the educational experience – it should be ready mid-summer. Facing the future, organizations will need to layer a cloud-based collaboration and communication portal to allow for seamless transitions between in-person and remote work.

Promoting Communication in a Socially-Distanced World

Experiencing meaningful human interactions has been essential for organization continuity. Arguably, the difficulty in creating this connection has been most felt in the education sector. Some schools were able to set up synchronous online learning while others simply did not have the resources. Without connection to their teachers, many students have struggled to adapt to changes this semester. Moving forward, both K-12 and higher education institutions have consulted with us on how to facilitate hybrid classrooms – learning spaces that will serve an online and in-person audience.

Multimodal Classrooms: These learning spaces accommodate both onsite and online learning. A room camera livestreams the teacher's instruction to the online classroom. A Wacom tablet – a personal touch-sensitive networked screen - simultaneously connects to the physical classroom's display and to the web-based portal. For more sophisticated settings, the room camera can be calibrated to track the teacher's movements for a more natural teaching experience. We understand that many teachers are not comfortable using IT, so we design the multimedia controls of these hybrid classrooms to be easy to manage.

Live Streaming to Multiple Destinations: Whether you require a board meeting with multiple remote stakeholders or a religious service to a parking lot congregation, our multimedia team is deeply experienced in configuring unique streaming solutions. Our solutions are fully customizable and crafted with important features such as embedding modules for audience participation or archiving recorded events for later access.

Unified Digital Communication: While not exactly human interaction, a remote workforce thrives on updates and insights. We partner with Industry Weapon, a software platform that manages your digital signage. Their Remote Work tool pushes relevant content from your on-site digital signage to your remote employees' laptops.

The DES Difference: Making Connections with Advanced Technology

As technology becomes ever more complex, it is also becoming increasingly more unified. More and more systems are controlled through the network, and API integration between diverse applications is steadily growing. DES is comprised of five business units that span the network. Our ability to connect diverse systems into one integrated solution uniquely positions us to solve the challenges facing businesses today. If you are interested in talking with us about your unique needs, please reach out at sales@descomm.com.