

- 
1. HANDS WASH THEM OFTEN
 2. ELBOW COUGH INTO IT
 3. FACE DON'T TOUCH IT
 4. SPACE KEEP SAFE DISTANCE
 5. HOME STAY IF YOU CAN
- World Health Organization

COMMUNICATION IN HEALTHCARE

HOW TO INCREASE THE SPEED AND AVAILABILITY OF INFORMATION WHILE
MAINTAINING SOCIAL DISTANCING AND PREVENTING VIRUS TRANSMISSION

A guide for hospitals, regional acute centres, residential aged care facilities and allied health networks



THE DEMAND FOR NEW TECHNOLOGIES

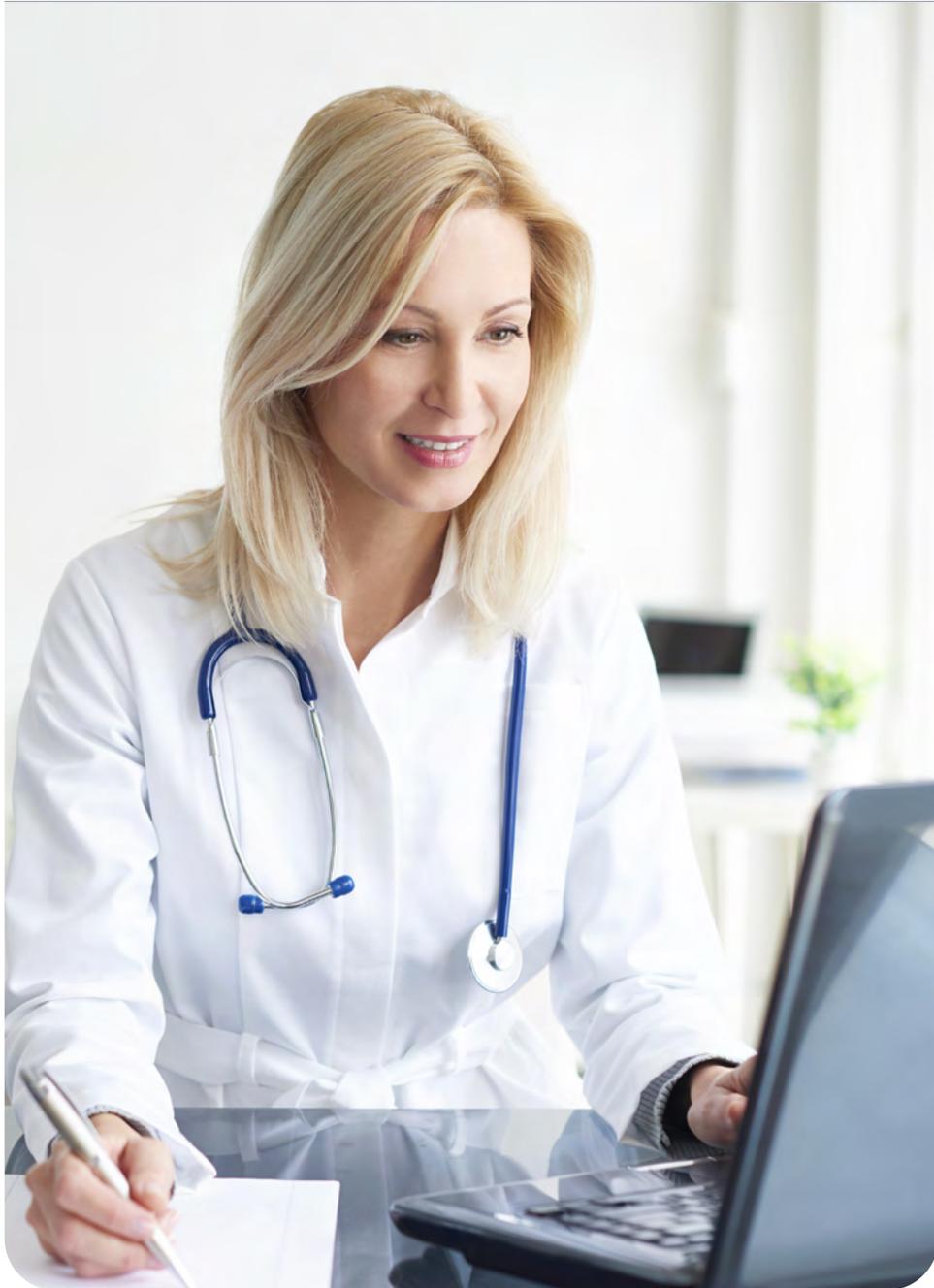
The COVID-19 pandemic has cast a stark new light on the way we interact with people both now and into the future. The invisible presence around the world of a virus that is not only highly contagious and deadly, but which can also be transmitted by asymptomatic carriers, has meant a complete overhaul of the way we communicate with, and share spaces with, other people.

Aged-care facilities, regional acute centres, hospitals and allied health networks are particularly high-risk environments, due to the constant presence of chronic and complex care patients, patients with comorbidities, or elderly patients. Isolation in these instances is challenging and stressful, and can be additionally detrimental to mental wellbeing.

Now is the time for medical facilities to look at communication solutions, such as:

- Mobile Videoconferencing Carts, which allow patients to see doctors and speak with loved ones
- Body-temperature measurement thermal cameras to identify potentially infectious people before they move through a building
- Infection-controlled meeting room technologies which provide a platform for professional communication and collaboration without the need to touch shared surfaces
- Network infrastructure to provide resilience and redundancy in order to keep communication lines open, no matter what.

From small, remote clinics to regional hospitals or large city hospitals, this guide will take a look at the different unified communications technologies to consider for a robust communications solution across the entire health network.



REMOTE DIRECT ACCESS

Doctor / Patient Remote Consultations

Getting specialist help directly to the patients who need it is a long-standing challenge for regional acute centres. Without being physically present with a patient, it can be tough to diagnose and recommend appropriate treatment. Yet with Mobile Videoconferencing Carts, bringing the specialist to the patient is now easy and effective. A choice of high-definition cameras with up to 12-times optical zoom and high-resolution screen displays, allows for close-up assessment and diagnosis by a doctor who cannot be at the bedside. Further, Mobile Videoconferencing Carts can be easily wheeled from one location to another, and can also be Wi-Fi-enabled, thereby avoiding the constraints of operating only where data points are located.

Keeping Patients Connected to Family

Staying connected with loved ones when being physically present is impossible, is close to the heart for most Australians. A Mobile Videoconferencing Cart is the perfect solution for this – not only is it designed to allow for easy cleaning and disinfecting, it can easily be moved between rooms and used by patients when not in use for specialist appointments.



Connecting with Mobile Videoconferencing Carts



What are they?

A Mobile Videoconferencing Cart is a video-conferencing system integrated with a mobile trolley to allow patients to connect with remotely-located specialists. The carts feature high-resolution DICOM compatible screens and PTZ (Pan Tilt Zoom) cameras capable of multiple-times zoom. The carts can connect to the network via Wi-Fi, and will often have their own batteries, removing the need to be plugged into power or data points.

What are the benefits?

Mobile Videoconferencing Carts are ideal to allow for assessment of patients by doctors who may not be able to be physically present. Further, they also provide a means to enable communication with loved ones by patients who may be confined to isolation.

What should be considered when purchasing?

Mobile Videoconferencing Carts can be expensive to acquire, although may be a cheaper option than equipping a facility with bedside video terminals or cockpits. Depending on the manufacturer, supply may be subject to long lead times, especially considering the current global demand. Another factor to consider is usage demand for the cart within a single facility – whilst a regional or small country hospital might find that one cart is sufficient to meet demand, larger hospitals might need to calculate one cart per ward to ensure its needs will be met.

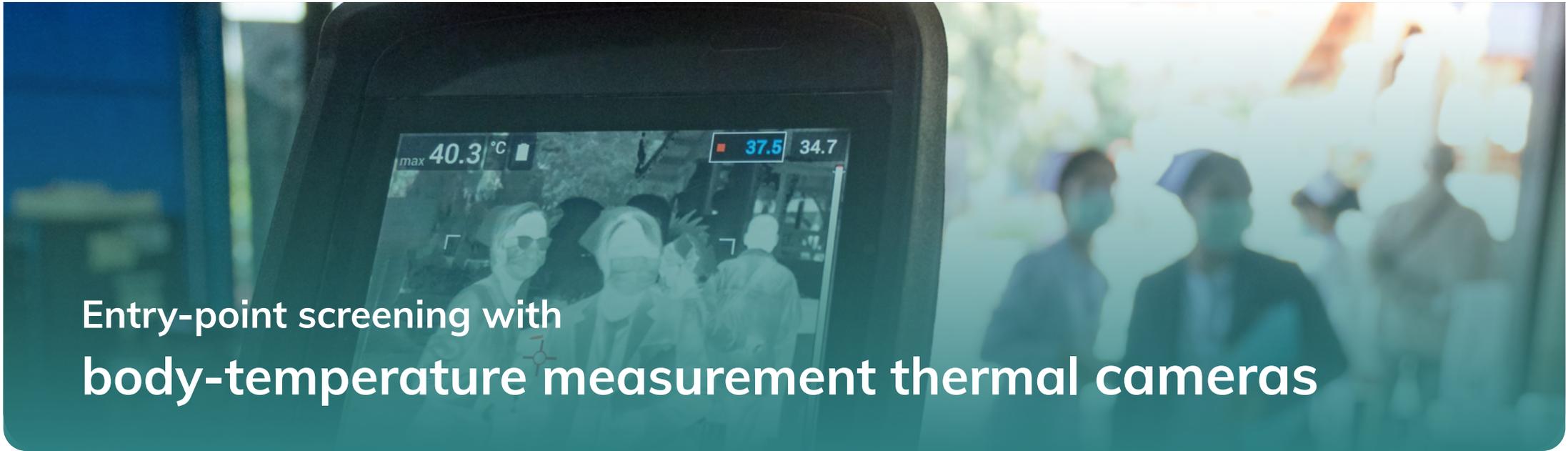


Are Mobile Videoconferencing Carts right for my facility?

Here are some important points to consider before you plan to purchase a Mobile Videoconferencing Cart:

- ✓ Do I need patients to be able to connect to specialists remotely?
- ✓ Is mobility a challenge for my patients?
- ✓ Is there a secure, fast and stable Wi-Fi connection available throughout my facility?
(Tip! See our section on Network Infrastructure for more information on this)
- ✓ Will the cart need to be connected to a power point in each new location, or is a wireless option more practical?
- ✓ What level of demand can be foreseen for the cart? Will I need to get multiple carts?
- ✓ Is local support available for maintenance and troubleshooting?
- ✓ What video-conferencing system do we wish to use (Cisco / Polycom / Teams / 8x8 / Zoom / CoviU)

TIP! Mobile Videoconferencing Carts can be a significant investment for many facilities, so making sure you choose the right support partner, as well as the right product, is an important decision.

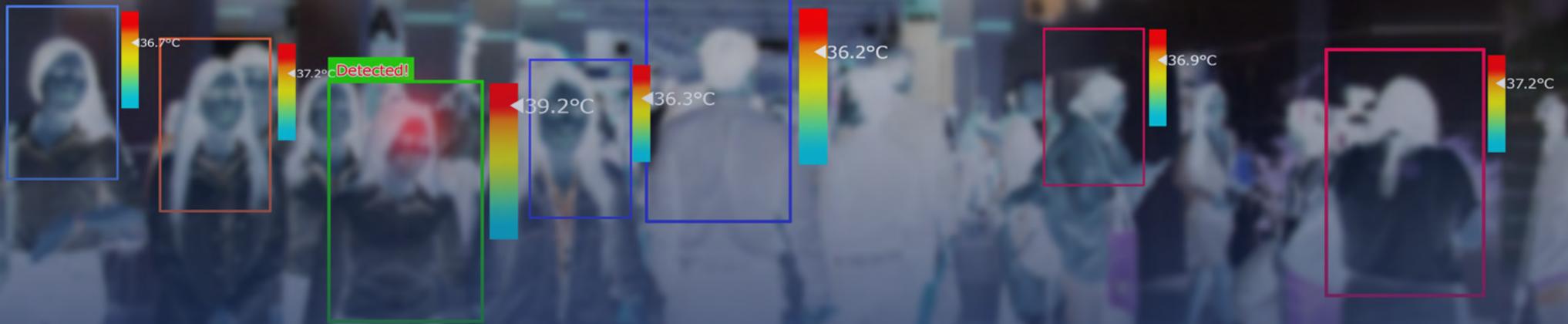


Entry-point screening with body-temperature measurement thermal cameras

Reduce the risk of infection in your facility by identifying anyone presenting with an elevated temperature and qualifying or quarantining their entry. Body-temperature measurement thermal cameras are being used as a first line of defence in countries all over the world, and are a critical weapon against infection in the workplace.

What are they?

Body-temperature measurement thermal cameras are devices that give a highly accurate (± 0.3 degrees Celsius) reading of a person's current body temperature, and therefore can identify fever and low-grade temperatures. The cameras come in a range of sizes and options, from temporary tripod-mounted systems to permanently wall-mounted cameras that check and monitor multiple persons from metres away.



Entry-point screening with body-temperature measurement thermal cameras

What are the benefits?

- Through temperature monitoring, people showing indications of a fever can be prevented entry to a facility. As well as protecting those already inside, it can be an early warning sign for a potentially sick or infected person who may not otherwise be aware they are sick.
- Wall-mounted or larger cameras offer contactless screening without the need for people to stop moving, and can measure up to 15 people at once for efficient processing.

What should be considered when purchasing?

- Although alerts are triggered when someone registers an abnormal temperature, the devices need to have a person watching a computer screen to monitor alerts and pull aside infected persons.

- Severe weather or other external conditions affecting the person's radiant temperature can alter the measured temperature by the camera. It is recommended in such cases to have people remain in the lobby for 3 minutes to obtain a more accurate body temperature reading. In normal circumstances, accuracy is maintained by the installation of a temperature reference or Blackbody unit included with the thermal camera system.
- The cost for monitoring multiple entrances to a building might be prohibitive for some organisations, not just in terms of material installation, but also the requirement for a staff member to be monitoring each location. So consider directing your staff and visitors to a main entrance where screening can take place.



Thermal Body-Temperature Measurement

Hand-held temperature scanning
or thermal body-temperature
measurement screening:

Which is right for my facility?

	Hand-held temperature scanner	Thermal body-temperature camera
Distance and Contact	Scanner typically held within 3 to 15cm away from person, therefore requires close person-to-person contact.	Can measure people up to 3 metres away, person viewing results can be positioned elsewhere (e.g. behind reception counter)
Accuracy	Can measure body temperature +/- 0.3 degrees Celsius	Can measure body temperature +/- 0.3 degrees Celsius
Speed of Measurement	Individuals entering must be scanned individually, can cause a backlog and may leave people standing for an extended period in close contact	Scans people automatically as they pass by camera – no need to stop
Multiple or Single Measurement	No, can only measure one person at a time	Can measure multiple persons simultaneously
Resource Requirements	Needs at least 1 person to operate	Monitored via a screen, can give an alert if high temperature is recorded

TIP! For small clinics where visitors are entering individually and infrequently, hand-held cameras are a great, cost-effective option. For larger facilities where visitors arrive frequently and often in clusters, thermal body-temperature measurement cameras are a more manageable option.



COVID-19 PREVENTION



WASH HANDS
AT LEAST 20 SECONDS



AVOID CONTACT
WITH SICK PEOPLE



DON'T TOUCH EYES,
NOSE OR MOUTH WITH
UNWASHED HANDS



AVOID
CROWDED PLACES



DO NOT SHARE
EATING UTENSILS
AND FOOD



AVOID TRAVELLING TO
AFFECTED AREAS
UNLESS NECESSARY



IF YOU BECOME SICK
SEEK MEDICAL CARE
IMMEDIATELY

Relay Information quickly
and clearly across multiple
destinations

In today's often chaotic healthcare environment, communicating with on-site staff, as well as visitors and guests, has never been more important. Many hospitals, acute centres and retirements homes have new or temporary employees coming through to help manage the workload or assist when permanent staff are sick or on leave. For staff members, information can change quickly and scribbled notes on whiteboards or taped notes can quickly become lost or confused. Digital Signage Displays, however, allow information to be updated immediately and controlled remotely, allowing for speedy display of information and seamless updates to existing information.

Digital Signage offers healthcare facilities a range of benefits:

- Tailor health information messaging for the different departments of the facility
- Provide real-time information updates and statistical data via live feeds
- Adopt digital signage for wayfinding and room booking or scheduling information.



Update information quickly with digital signage

Digital Signage: What is it?

Digital signage usually refers to a communication system combining software and a number of displays (that may range in size) that present digital information on demand or according to a schedule. The signage can be centrally managed and allow different groups of people varying levels of control. Information or images displayed can be across all screens at once or as different information across different screens. The display area can also be broken into multiple layers to provide more engaging content and different signage systems allow for varying degrees of customisation.

What are the benefits?

- An integrated digital signage platform allows information to be relayed and updated quickly and easily.

- Centrally and remotely managed
- Information can be updated across multiple sites, quickly.
- Digital signage can be scheduled in advanced and display time analytics recorded.

What should be considered when purchasing?

- Initial cost for digital signage may outweigh static signage, particularly for large displays. However, the ability to provide dynamic content and update information regularly increases engagement, improves communication and ROI.
- What is the nature of the licensing? Is it a fixed (upfront) cost or an ongoing subscription?
- Will the software be on-premise or cloud-based?



Infection-controlled meetings demand contactless presentation technology

Meeting rooms in organisations are often booked to capacity, which means that in a single day dozens of people are touching common equipment used for presenting. Some presentation technology involves the use of adapters or wall panels with buttons, all of which may become sites for germ transmission. To minimise the risk of infection from surfaces, a wireless presentation solution like Vivi is a cost-effective and efficient solution. Meeting attendees simply download the free Vivi app to their own device, whether phone, tablet or laptop, and present from their device to a Vivi-enabled display, without the need for touching any common equipment in the room. In seconds, presenting may switch between those present in the room, all of whom are only touching their own device.

Vivi: the breakdown. What is it?

Vivi is wireless presentation technology that allows users to mirror their device to a Vivi-enabled display. Vivi hardware is mounted to the rear of displays or onto projectors, or can be discreetly installed in cupboards or ceilings. Users present their screen wirelessly to the display using the Vivi app. The Vivi solution includes additional features such as quadrant display, annotation, whiteboard mode, screen capture, presenter lock and room code.

What are the benefits?

- Vivi is device and display screen agnostic which means it will work in all environments, provided the user can download the free Vivi client from an app store and install it on their device. This means infection-controlled meetings, since presenters are only required to touch their own device.
- As wireless presentation solutions go, Vivi is very cost-effective despite being subscription-based, particularly with the handy additional user features in mind.

- Vivi is designed for enterprise, so it is reliable, robust and customisable for complex network environments, and offers a central management portal for ease of administration and Single-Sign On for users.

What should be considered when purchasing?

- Vivi requires a user to download software to their device, which some organisation-administered devices prevent. Whilst Vivi offers free USB-loading software for these instances, it does require a pre-loaded USB to be provided to visitors.



Fortify your organisation against network disruption

With so much information now being housed in the cloud, and with communications happening across Wi-Fi, ensuring a robust network is in place is critical, particularly in healthcare where communication and network continuity may be a matter of life or death. Syndeticom offers network design and infrastructure expertise to ensure you have an alternate path to access your network equipment, enabling operations across your organisation to continue, even in the event that your primary network is down.

- Does my Wi-Fi network have built-in redundancy?
- If my internet service provider (e.g. Telstra, Optus etc) has an outage, can I still access my network equipment remotely?
- When was the last time our cable infrastructure had a health check?
- What information load and speed currently passes through my cabling infrastructure and will this cope with increased network activity?
- Does my network infrastructure have redundancies in case cables become damaged?
- Does my network infrastructure support the Power over Ethernet (PoE) requirements of all of my end devices?

TIP! An out-of-band management solution allows IT managers to access networks remotely and increases network resilience.



Summary

Investing in technology that will aid you through the current pandemic, and stand you in good stead moving forward, is something all health and aged care providers should be considering. There is no cookie-cutter solution for every facility, and individual needs and requirements should be considered in a wholistic way, from the end user experience, right through to the network infrastructure support. To get the right solutions for your facility, you need to talk to the best implementation partner.



Talk to us to learn more

At Syndeticom, we have been delivering mission-critical digital infrastructure since 1992.

Communications technologies and the infrastructure supporting it are our specialties. We have worked across both government and private sectors to deliver communications support, and are certified across all brands of network infrastructure solutions.

Get in touch with us today to learn more and discuss your requirements.

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