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APPENDIX A

Communication Hub Proposal

HUB UNIT SPECIFICATION

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Communication Hub

Redefining Public Communications



The rise in mobile phone ownership has corresponded with a decline in the use of the traditional public callbox. The callboxes that remain following the nationwide rationalisation have had to adapt to modern life and the needs of the public to stay connected when out of home. The Hub unit redefines the role and function of the traditional callbox to a multipurpose communication Hub that provides the means for people to engage with each other and public bodies.

The Hub offers a range of services that include free ultrafast Wi-Fi, free phone calls to landlines and charities, defibrillator, wayfinding, device charging, rapid connection to emergency services, public messaging capabilities, and a platform for other technologies to capture environmental data, CCTV and air quality monitoring. These innovations are implemented against the backdrop of energy savings to meet the challenge of the climate emergency, with all units powered by green electricity and lit using high-capacity batteries, powered by solar energy.

The single advertised rear of the Hub is the size of a standard 6 sheet advert built into a unit that stands at 2.6m in height and 1.3m in width and occupies an area of less than 0.50m^2. The unit has undergone rigorous testing in extreme conditions and can boast 13.5mm thick antivandal toughened safety laminated glass on all glazed surfaces. The other external elements have been treated with a nanotech surface treatment to enable easy removal of stickers and/or sprayed paint to keep the unit looking good.

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The Smart City Unit



IEMA Transforming the world to sustainability

IEMA Sustainability Impact Awards 2020

Inspiration | Innovation | Transformation

SHORTLISTED

COMMUNITY HEARTBEAT

The Community HeartBeat Trust

Communication Hub

Main Features

Colour

Metal Chain Grey

JCD 7002

An integrated touch screen designed for public phone use, and a range of other android compatible functions to enable users to access the internet and Council webpages and wayfinding around the City

The unit can also incorporate a range of sensors for the Smart City to monitor and report on environmental conditions and other key data



Front Façade
Phone and Live Touch

Rear Façade
Advertised Side

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Live Touch Pad

INTERACTIVITY

Interactive touchscreen with localised services and applications

PLACES

Location based services

LIVE FEED

Events, news, transport and weather

SOCIAL

City recommendations including cultural, retailing and on the best restaurants in the area

TRANSPORT

Information including maps of the local area and beyond, bus timetables and transport and safety updates



ENHANCING THE SMART CITY EXPERIENCE



- The LiveTouch screens connect the city with residents and visitors providing localised updated and information
- The public can access a wide range of information about their area that included real time updates on transport, the latest news items, weather forecasts and other recommendations on places to visit
- The system runs on an android operating system, LiveTouch can support an unlimited number of applications making the possibilities endless

Communication Hub

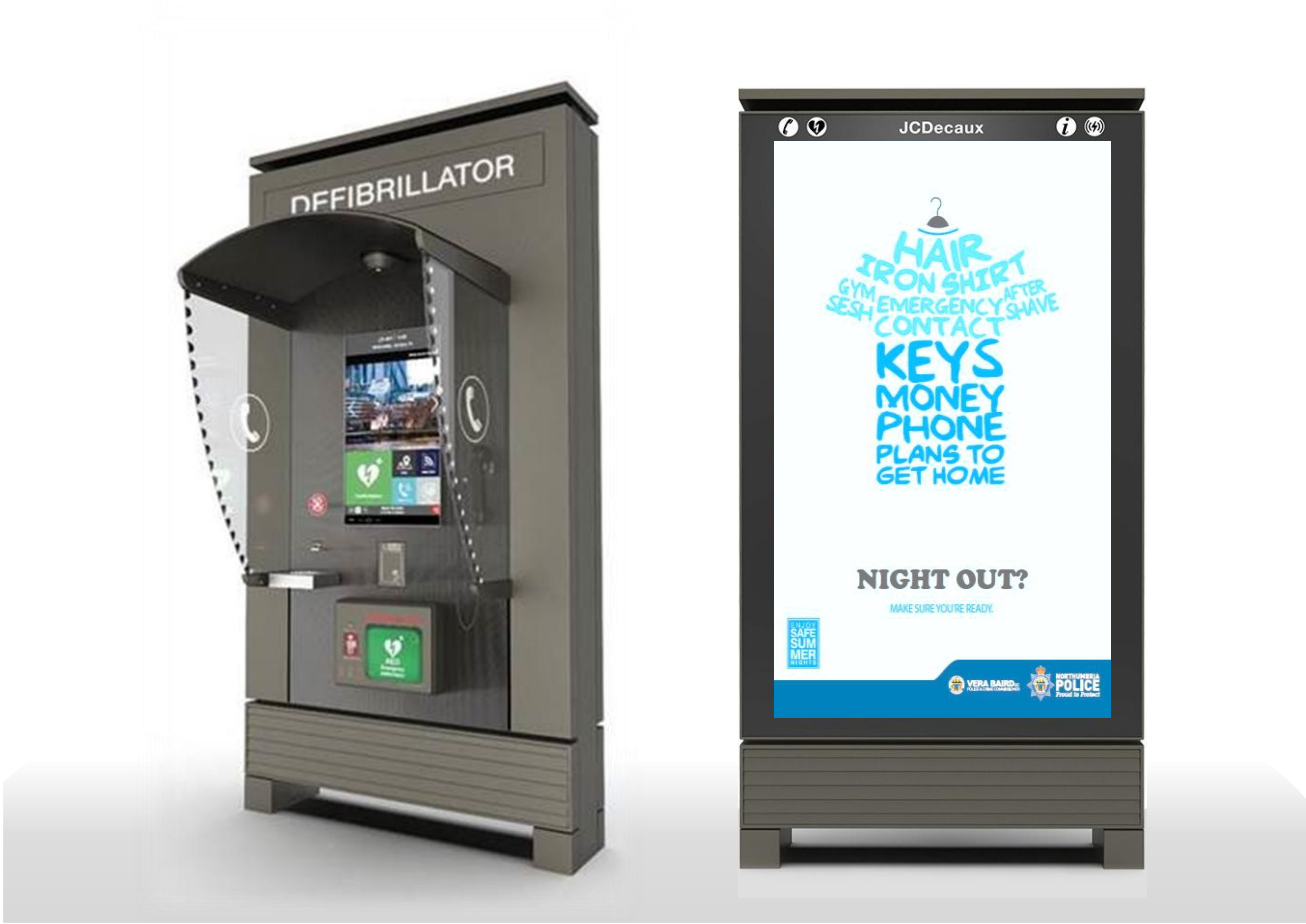
Managing the Use

The unit will feature on one side an 86” screen and on the other a 32” touchscreen. The size of the screen is uniform and will be used for commercial and community messaging. When not in use the 32” screen will default to a map of the local area to enable people to find their way around and access shortcuts to the most often used apps and links to local services

Use of the Hub Services

The Hub is intended as a free to use facility, however, in line with the advice of the Police Service, some units will have a more restricted use policy in known problem areas, whereby free calls will be prohibition other than emergency help lines. By applying more stringent controls in problem areas it is anticipated that the potential for these units to be misused will be minimalized or eliminated entirely. Further management measures are also possible and are flexible enough to adapt to changing circumstances and on the advice of local Agencies.

The Company is committed to proper management of the service the Hub units provide and will constantly review and adopt best practice to design out the potential and opportunity for crime.



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Optional Functions and Sensory Parameters

- Defibrillator
- Climate: UV / Pressure / Temperature
- Environment: Air Quality / Noise
- Pedestrian Flow and Volume
- NFC Static / Dynamic
- Beacons
- Wifi and Small Cell
- Presence Detection
- Voice Recognition *
- Collision Detection
- Security Camera

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Operational Limits

Operating conditions
Temperature: -15 to 45°C
Humidity: 10% / 90%

Digital screens

Technology :	LCD
Touch technology of the 32''	Capacitive
Aspect ratio	16:9
Orientation	Portrait

32'' specifications

Resolution	Full HD (1920x1080 pixels)
Light technology	Edge LED
Brightness	Max 2500* Cd/m² (2500nits)

86'' specifications

Resolution	Ultra HD (3840x2160 pixels)
Light technology	Direct LED matrix
Brightness	Max 2500* Cd/m² (2500nits)

*Daytime limit level 2500Cd/m² (2500 nits) and night time limit level 300Cd/m² (300nits) as per ILP recommendations. Automatically adjustable according to ambient light.

Electricity
Input Voltage: AC 240 V 50/60hz
Max Power: 3.94 kW
Average consumption : 8.91kWh/day (based on 18h operation)
Connection to the mains grid
Electric plate located in the foot
Protection
20A RCCB - 30 mA differential circuit breaker

Connections
PC included
Data: ADSL/4G/5G
A secure solution to ensure full control of the content broadcast

Certifications : CE
CE certified and RoHS compliant.
R&D and manufacturing to ISO 9001 and ISO 14001 standards.

Screen Dimensions
Visible area:
- 86'': 2,02m² (1065mm x 1895mm)
- 32'': 0.27m² (392mm x 698mm)

Unit Dimensions:
• 1338mm (W) 2600mm (H) 312mm (D) (600mm canopy)

CE

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Technical Specification

Overview

Premium product for reliability, monitoring and maintenance features the unit includes a payphone and interactive communication apparatus contained within a 32''display screen, which includes an outdoor advertising panel measuring 86" The technology used to display the images screen is designed to be visible outdoor in direct sunlight.
The unit also features an auto-dim function so adjust the screen luminance to harmonise with to surroundings.

It includes state-of-the-art features to lower TCO :

- Improved reliability and life through expert thermal and solar management design.
- Modular design.
- Replaceable external 4-4-2 (9.2mm) front glass
- Extensive monitoring capability through Digital Image verification that gives immediate feedback about display performance.

Designed and developed by JCDecaux for the In Focus Public Network

USB and wireless charger

Mobile phone charge points via USB and QI wireless charging.

Characteristics

Structural outer casing fixed to 2 structural legs clad with metal skirts.

- Touch Screen - An integrated space with metal housing set within the face of the unit.
- Display Screen - A 86 inch LCD screen housed behind a protected glazed face also forming an integral part of the unit.

Telecom equipment and Touch screen

Public phone
Customized Council home page - an Android based application with an interactive screen for dialling numbers. Secure Android applications featuring location-based services. A touch pad is available under the screen to users with mobility impairment.

Accessibility

Furniture easily acknowledged by blind and partially sighted pedestrians. Height of phone equipment from ground level enables access by wheel chair users. No sharp edges or profiles are present in the structures design.

Pad touch 5,7"

Touch screen in compliance with accessibility standards with a pad below the screen at 900mm from ground

Defibrillator

Automated External Defibrillator with theft protection, automated emergency service communication, remote monitoring and geo-locating.

Solar panel

Solar panel on canopy roof to light downlighter.

Foundation and groundwork

Furniture installed on to a concrete base with concealed fixing points. Separate underground ducting for power, data and earth protection via an earth mat. All calculated in relation to local requirements

Reliability

Internal temperature maintenance control for both hot and cold seasons : ventilation is achieved via a filtered air cooling system that manages the internal temperature of the ad case and increases the life expectancy of components.

- Waterproof (power-hose from any angle)
- Dust resistant
- Rust resistant
- Sun fading resistance

Life expectancy is 5 years with normal usage (24/7) for the touchscreen and 10 years for the 86".

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Communication Hub

Technical Specification

Environmental Considerations

Automatic adjustment of the light intensity according to the location and the ambient light to rationalize as far as possible the energy required to operate the screen
Use of a powder coating without any Volatile Organic Compounds (VOC)

Electrical and electronic equipment recycled according to WEEE regulations
Unit mainly manufactured from sustainable and recyclable materials

Digital Management Software

Web Interface

Management of the display from a specific software platform available on any computer connected to the internet with access rights

Panels are collectively or individually programmable in advance

Intuitive, efficient and easy to use programming interface

Automatic update with no need for human intervention on the computer workstations

Contents Scheduling

Creation of messages and message loops
Setting of the duration and order of messages
Instant transmission between messages being entered and being received by the panel

Consultation in real time of broadcast messages
Possibility of broadcasting a loop to all the panels, to a group of panels or to individual panels

Contents Storage

Periodic local update and storage of the contents (128Gb capacity) to feed the display loop avoiding any rupture of the broadcast in case of connection failure
Display of a neutral message in case of dysfunction

Resistance to Vandalism

Skirts with smooth surfaces for easy cleaning and removal of any illegal stickers

Protection rating against impacts > IK10 (corresponding to a 2-kg mass dropped from a height of one metre)

Front face made of a patterned stainless steel non-scratch material

Electrical circuitry inaccessible to the public
86'' screen protected by a front face in 4-4-2 (9.2mm) thick anti-vandalism hardened laminated glass

Secured casing opening for access to the PC and other equipment by a double locking system (Special keys plus Van Lock).

No exposed screws

Unit made from non-flammable materials

All painted metal surfaces are coated with a high performance paint that is highly resistant to graffiti cleaning products
Data transfers are protected by Firewall and password

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Technical Specification

Material	Treatment against corrosion	Defined	Main parts
Steel	Hot dipped galvanizing Centrifugal galvanizing		Foot structure Anchoring rods
Stainless Steel	Passivation		Screwing
Aluminum	Chromate conversion*	80µm powder paint	Casing – Door – Skirts
Tempered glass 6mm		Silk Screen Printing	32'' screen glass
Laminated glass 4-4-2 (9.2mm)		Silk Screen Printing Anti-glare treatment	86'' screen glass
Concrete			Foundation

** Environmentally friendly treatment free from hexavalent chromium*

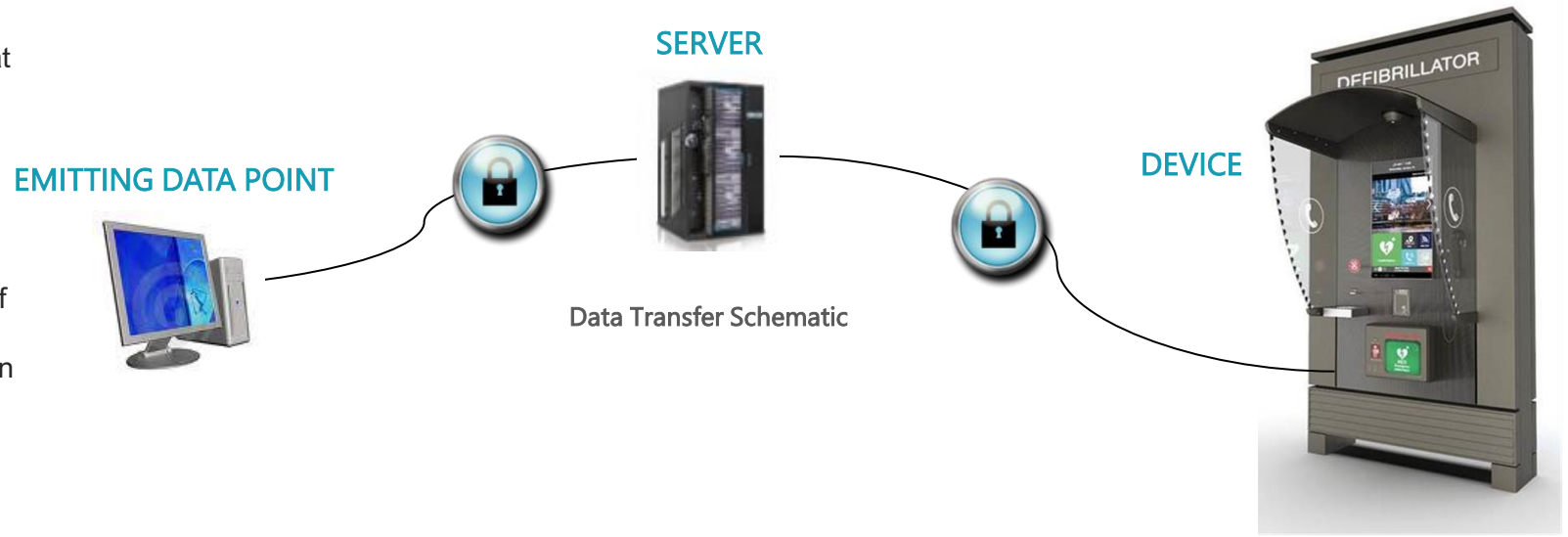
Remote monitoring

Unit fitted with sensors to check its operating status at all times. Errors are sent automatically over the network to the monitoring centre in the event of a malfunction

Data Transmission

Set of secure connections:

- from the transmitter to the data server by means of a broadband link
- from the data server to the different communication devices by an ADSL or fiber link with a 3G/4G/5G backup

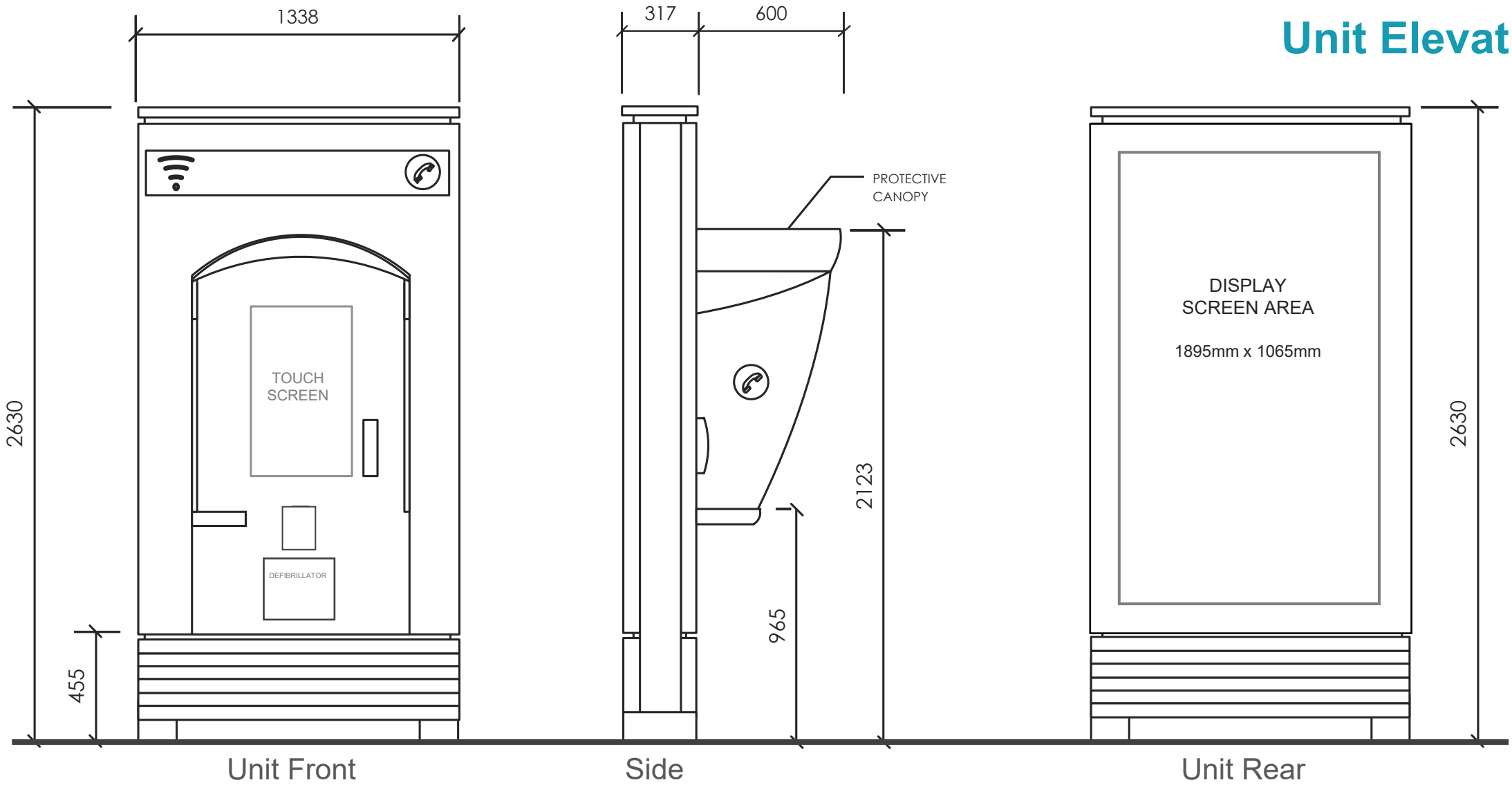


Data Transfer Schematic

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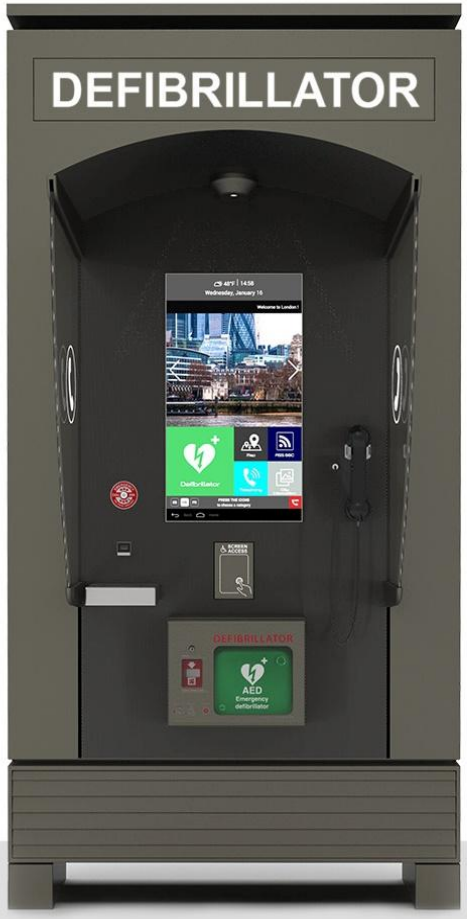
Unit Elevations

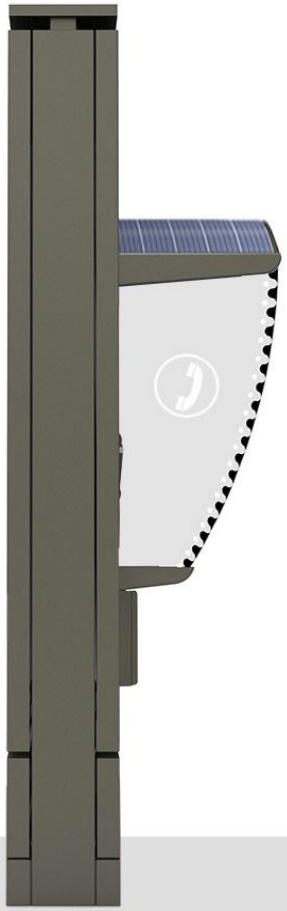


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Unit Images







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In Focus Call Box

Existing Enclosed Unit



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Unit Comparison

Space Saving



Existing Structure



Existing and Proposed Overlay

Red outline denotes the current structure baseplate



Hub Unit

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Installed Units









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Installed Units









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Installed Units









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