



# Tunstall Smart Hub

Connecting people, connected care

## What is it?

The Lifeline Smart Hub is a complete 'Connected Care' monitoring and alarm system for the home. It uses future proof, smart technology to connect service users with care professionals in real time, enabling people to live independently in their own homes.

## Who is it for?

Designed for anyone who needs an extra level of support to maintain independence at home, the Smart Hub gives reassurance that 24/7 support is on hand at the touch of a button. It offers confidence to older people living alone, individuals recuperating after a hospital stay and anybody with reduced mobility or long term health conditions.

## How does it work?

The Smart Hub uses cutting edge technology to link with a wide range of sensors around the home connected directly to monitoring centres through IP technology, offering endless possibilities for the provision of care in the home.

Bringing all services and data together via PNC and Tunstall's Device Management Platform (DMP), the Smart Hub can link up to 50 sensors (including Tunstall's full telecare sensor range) such as heat, carbon monoxide, fire and smoke, fall detection and enables the user to access help in their home 24 hours a day.

Alarm calls can be made by users pressing a button on the Smart Hub unit or using a pendant worn on the wrist or neck.

The alarms are sent over a cellular network or by an ethernet connection through the users home broadband network.

Calls are answered by specially trained monitoring centre operators, who access the user's information through PNC and respond appropriately by either contacting a family member, a neighbour or calling the emergency services.

IP technology not only allows calls to be made, it can collect monitoring data, provide vital information on the hub's status and enable over the air upgrades remotely. It also supports the introduction of future services including smartphone apps.

## Features

The Smart Hub has a range of features including:

- Complete 'Connected Care' home unit with monitoring and alarm features
- Remote configuration and device management via the Device Management Platform (DMP)
- Over the air firmware updates to enable quick and seamless introduction of new services
- Robust and reliable with regular heartbeat checks to ensure performance and functionality of the hub
- Advanced sensor integration – Compatible with current Tunstall sensors e.g. Smoke, CO, Fall detectors
- Digital IP technology for a future-proof solution with cellular and ethernet connectivity providing robust network connectivity
- Reporting and event tracking for proactively managing care
- Future expansion of features and services to meet users' evolving needs
- Reversion protocol – as backup to IP
- Controlled levels of user access
- Configuration set up templates
- Optimum cellular connectivity
- Enhanced Intruder Alert functionality
- VOIP over 4G connection
- VoLTE enabled (network dependent dedicated 4G voice service)

## Benefits

The Smart Hub is the most technically advanced and flexible telecare platform we've ever made.

### Cloud-based connected care for the future

The Lifeline Smart Hub is Tunstall's most powerful home unit, designed to operate within a Connected Care ecosystem. Using cloud-based technology, a secure Device Management Platform (DMP) and call handling (including PNC or other compatible monitoring systems) it provides advanced telecare for Connected Care services both now and in the future.

### 24/7 real time wellbeing monitoring

Round the clock intelligent connectivity and monitoring ensures that everyone involved in receiving or providing care is connected. Wellbeing tracking and monitoring alarm data can be collected in real time.

The DMP captures data on the performance of the hub and linked devices and logs events. Details are available through the DMP web platform at all times to, proactively manage the Smart Hub enabling a complete care solution.

### Robust, reliable and reassuring help at home

Whether it is for support in their own home or in group living accommodation, the flexibility offered by the Smart Hub gives people the reassurance that someone is always on hand to help, 24 hours, seven days a week.

Automated heartbeats confirm units are active and connected to mains power and a long battery life protects users in the event of an outage. This gives users, family members and carers peace of mind that a robust, reliable and safe solution is in place for monitoring and responding to alarm calls and requests for support.

### Future proof IP technology

The high degree of flexibility and the state of the art technology offered by the Smart Hub system benefits a wide variety of users. Over the air software updates mean that new services can be added remotely as user's needs change.

## The dedicated Device Management Platform (DMP)

Tunstall's Device Management Platform (DMP) is a cloud-based system developed for the efficient management of Smart Hub devices. It has been designed to enable remote management of deployed Smart Hub units and provide a platform for future services and functionality, such as Activities of Daily Living monitoring and tracking via smartphone app.



IP connectivity can provide real time data, making it possible to deliver a range of new services via DMP, such as remote monitoring, diagnostics and configuration of home units, sensors and devices.



The DMP can extract and report on relevant performance analytics from the hub unit, such as event logs and health of home units, giving service providers access to vital data, including associated sensors.



Firmware updates can take place over the air and can be scheduled to be applied to multiple units, reducing the need for on-site technician visits. Units can also be configured over the air. As well as minimising disruption for the user, this increases efficiency for the service provider.



Home units are registered, configured and status monitored remotely through the DMP. Each unit is assigned to a specific customer district within the DMP, enabling robust asset management and reduced maintenance costs.



The Tunstall+ app simplifies the installation and set-up of the Lifeline Smart Hub and telecare sensors, providing step by step guidance to configure and control connected Tunstall devices. The app simplifies installation and its intuitive interface reduces the amount of time taken to configure hubs and sensors.

### Limitless location

The Smart Hub incorporates mobile and wireless technology so can work anywhere there is a power supply and network coverage. It is not limited to the positioning of a landline. With remote management through the DMP, multiple devices can be monitored, configured and updated simultaneously.

### Reduced maintenance and device management

Smart Hub units can be checked remotely and linked to pendants and sensors within DMP, so users and carers can be assured of reliability and performance of the equipment. If a problem occurs it can potentially be diagnosed and fixed remotely, reducing the need for an engineer to be called out and minimising disruption for users.

## User features

Multiple positioning options – flat, table stand or wall mount (requires additional parts)

High quality speech – with automatic gain control

Audible status messages – providing clear and intuitive feedback to the user

Automatic audible warning alerts – the unit alerts the user to mains and communication failure/resumption with a visual and spoken message

Optional local audible warnings – non-critical warnings such as mains failure can be turned off at night to avoid disturbing the user

Away mode button – suspends inactivity monitoring. Mode clearly indicated by illuminated button

Event based configuration – all events are configurable to select the required behaviour and response to events

Basic inactivity monitoring – checks for inactivity over a 12 or 24 hour period

Event blocking during configurable time window(s)

Virtual Property Exit Sensor functionality - intelligently process a series of events within the Smart Hub to determine a course of action

Door lock release under control of the monitoring centre

## Programming and installation features

Time and Date set – automatically via IP connection to server

Advanced programming – via DMP or the Tunstall+ android app allowing Smart Hub to be programmed in the field via an internet connected browser or remotely via the monitoring centre

Telecare sensors – up to 50 including existing Tunstall telecare sensors

10 destinations and call sequences – allows routing to the most appropriate destination

Plug & Play registration – telecare sensors can be assigned quickly and easily, together with their location within a dwelling, reducing installation times

Range test and walk test features – allow the radio range of the pendant and telecare sensors to be easily tested

Remote upgrades – over the air firmware upgrades

Heartbeat – remote monitoring of Smart Hub status including; battery levels, cellular connectivity

Event log – audit trail of settings changes

Remote configuration – with customisable templates for quick and easy set up

## Safety features

Radio interference monitor – detects continuous RF blocking and provides alarm call to monitoring centre in line with EN 50134

Integral ambient temperature sensor – with adjustable high and low temperature settings

Periodic calls – an automatic test call can be set up to ensure the unit is working properly, actioned at randomised call times to avoid overloading the ARC with simultaneous calls

Backup battery – providing continuity of service during a power outage

Range test and walk test features – allow the radio range of the pendant and telecare sensors to be easily tested

Remote upgrades – over the air firmware upgrades

Heartbeat – remote monitoring of Smart Hub status including; battery levels, cellular connectivity

Event log – audit trail of settings changes

Remote configuration – with customisable templates for quick and easy set up

Backup battery monitoring – regular heartbeats report the status of its backup battery to the monitoring centre via DMP

869 MHz European Social Alarm frequency – compatible with Tunstall's full range of telecare sensors

Radio reliability – the EN300 220-2 (2010) Category 1 radio receiver ensures that signals from sensors are reliably received

Reversion mechanisms using traditional protocols if IP connectivity is not available

STMF technology – patented technology to ensure more reliable communication to a PNC monitoring centre over GSM and NGN networks

## Service support features

Intelligent speech switching – ensures the best quality of speech depending on how the alarm was generated (requires PNC4 or later monitoring centre)

Automatic British Summer Time update – removes the need to manually adjust the clock on the unit (Auto clock)

Call out and Call back operation (protocol and monitoring centre dependant)

SIM card ICCID detection and display to allow future derivation and phone number display (Tunstall supplied SIMs)

Cancel at Source alarm operation - the alarm call is repeated at intervals until cancelled with a button press at the Smart Hub

## Technical features

GSM module – 4G/3G/2G

Hardwired input – for connection from other devices

Hardwired output relay functionality – for connection to other devices

Ports – power, Ethernet, antenna

Standard protocols – TT92 (DTMF/STMF), TT21(DTMF/STMF), BS8521 (DTMF)

IP Protocols – IPACS and SCAIP protocols providing ability to send alarm data over IP to monitoring centre

Support for VoIP audio connection over ethernet

SCAIP also configured for Verklizan Umo and ENAI Facman Monitoring Centres.

Note; Based on Firmware release 5.8.9

## Specification

### Standards

**EMC:**

EN 55032:2015, EN 55024:2010 +A1:2015, EN 50130-4, EN 301 489-1:V1.9.2, EN 301 489-2:V1.6.1, EN 301 489-7:v1.3.1

**Safety:**

EN 60950

**Radio:**

EN 300 220-2 Category 1

**CE:**

Compliant

**Radio equipment directive (RED):**

Compliant

**Social Alarm:**

EN 50134-1:2002, EN 50134-2

**Design, Manufacture, Installation and Service:**

ISO9001:2008

ROHS Compliant

### Alarm Protocols

**IP:**

Tunstall IPACS, SCAIP

**Tone:**

Tunstall TT21 (STMF & DTMF), TunstallTT92 (STMF & DTMF), BS8521 (DTMF)

### Environmental

**Temperature:**

Operating temperature (to perform to full specification) 0°C to 45°C

Storage -10°C to 50°C

**Humidity:**

Operating humidity (to perform to full specification) 0 to 80% RH, non-condensing

Storage humidity 0 to 93% RH, non-condensing

### Technical

**Dimensions:**

185mm x 122mm x 41mm (WxLxD)

**Weight:**

502g (1020g Packaged)

**Mains power:**

230v ac (3 Watts, typical)

**Stand-by battery:**

1200mAh capacity (continually internally charged)

**Back-up time:**

24 hours of stand-by operation with one 30 minute alarm call

(minimum expected at date of purchase and when fully charged)

**Radio frequency:**

European 869 MHz social alarm frequency

**Radio trigger power:**

The transmitted power in this band is less than 1mW e.r.p

**External connections:**

DC power adapter with 3m cable

GSM antenna (Internal or optional external)

Ethernet Port

USB Port (Manufacturer Use Only)

**Pendant battery:**

3V Lithium (not changeable)

**Cellular:**

4G/3G/2G VoLTE enabled (network dependent)

5 band GSM/GPRS/Edge/UMTS

### Part Number

**Smart Hub, MyAmie**

57400/810

**External Antenna**

S2205017

## The Smart Hub package includes:

- The Smart Hub unit and personal pendant
- Connectivity through the Tunstall multi network SIM providing a low cost tariff fully inclusive of all data and minutes
- The ability to manage all deployed devices through access to the Device Management Platform (DMP)

## We help you provide...

- **Intelligent, unobtrusive, person centred care.**
- **Personalised, proactive and predictive services to improve quality of life.**
- **Integrated health, housing and social care.**

For more information please visit:

[tunstallsmarthub.com](http://tunstallsmarthub.com)

## Why Tunstall?

Over the last sixty years, Tunstall Healthcare has pioneered the use of technology to enable independent living, creating Connected Healthcare solutions that support more than five million people and their families across the world.

We focus on using the latest digital and mobile technology to enable people to feel safe, secure and independent, giving them the freedom to live the life they choose.

Our products are backed by advice, support and after sales services and a Customer Satisfaction Centre that is available 24 hours a day, 365 days a year.

### Declaration of Conformity

Tunstall declare that this radio equipment is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following address: [www.tunstall.co.uk/approvals](http://www.tunstall.co.uk/approvals)



Tunstall Healthcare (UK) Ltd is a member of the Tunstall Group.

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