**TAPPI Template**

**Example specification for digital transformation in specialist / supported housing.**

A digital infrastructure offers specialist/supported housing settings the opportunity to move to a modern, all-digital solution to support residents, users of services and staff.

From raising alerts to managing housing repairs, from reducing administration activities to using data to identify how to deliver support more effectively, it also enables the digital systems and supporting staff to collaborate with residents, users of services and their families to deliver greater wellbeing.

Within the second Phase of the TAPPI programme (TAPPI2), working with the six testbeds across England, Wales and Scotland, there has been a focus on positioning technology as a supporting tool, rather than taking a technology-led approach.

The key principles and building blocks of co-production, personalised support and active engagement with staff, residents, users of services and their families have helped services to engage with technology solutions and suppliers, with a vision of any solution needing to take an agile approach to:

* Seamless (solutions able to connect to each other and share data and use the intelligence, driven by supplier commitment to interoperability)
* Integration (systems pulling the data from different solutions into central point and passing and receiving data from each other, such as movement monitoring connecting to care planning software)
* Connectivity (solutions that can offer different methods of connectivity, from broadband to mobile Wi-Fi)

When commissioning a new digital system, the starting point must not be taking the existing analogue set-up and finding the closest digital version to move to; the range of systems available in the current market are increasing and the power does sit with the housing organisation as the commissioner to challenge those in the market to show how they can work together in a partnership to deliver personalised outcomes, offer solutions tailored to individual needs and demonstrate how they are working with other organisations and the results they have achieved.

The range of procurement frameworks is also increasing, allowing organisations to identify how to use a framework to test the market, but to also have the confidence that solutions have had some form of rigor applied to them to be awarded onto the framework in the first place.

Within the procurement exercise, there is increasing value in the strength of the quality questions used, and it is recommended that the value of the submissions are driven far more by quality than price (60:40 as an absolute minimum in relation to Quality:Price, but ideally closer to 80:20).

The quality questions will identify how well a supplier understands your specific requirements and their ability to showcase, with evidence, how they have delivered elsewhere and the opportunity for a supplier to make themselves stand out.

It is recommended that the quality questions make strong reference to the TAPPI principles within the questions and require suppliers to demonstrate how they believe they can work in partnership to support co-production, interoperability, personalisation and that at least one of the quality questions proposed makes it clear that residents, users of services and staff champions will be directly involved in scoring the questions.

The requirements outlined below are meant to provide the framework of a specification that can be used, with local information and additional local requirements added in, to allow an organisation to commence a procurement exercise.

The content below is designed as a supporting tool and parts could be amended, added to or removed as required:

1. **Introduction (*providing information about the setting(s))***
   1. The Organisation is a registered housing provider/local authority and provides support across x number of specialist/supported housing schemes across x geographical area.
   2. Scheme Y is an Extra Care/Sheltered/Very Sheltered/Supported or Independent Living scheme in xxx.
   3. The scheme was constructed in xxx and comprises xx units.
   4. There are X tenants that receive support from staff when and if they require it and Y tenants that are cared for in their own homes on a 24hour basis.
   5. If personal care is provided to scheme residents, this is operated by Z, the care provider.
   6. The Organisation would like to appoint an organisation to plan and deliver a digital solution for the residents and staff of the scheme.
2. **Existing Warden Call System**
   1. The existing warden call system is a XXX with door entry capability.
   2. The scheme also has some Nursecall units fixed to parts of the property which are switched off and no longer used.
   3. All calls from the existing system are handled on site by the scheme manager and the care staff using fixed handsets.
   4. If there is no on-site presence, all calls from the existing system will need to connect through to the contracted Alarm Receiving Centre (ARC), which uses xxx call monitoring platform.
   5. The current system is linked to one main door panel where visitors can contact any of the flats directly and there is also a trade and warden call button on the panel.
   6. The current set up allows any staff on site to answer the door call and remotely open the door using their handsets from anywhere in the scheme.
   7. Each of the flats has a speech unit with a pull cord connected to it as well as a door entry handset in the hallway. There are also pull cords in each bedroom, bathroom, lounge and kitchen.
   8. Fire detectors are installed in the hall and kitchen of every flat and are wired through to the main communal fire system.
   9. Each flat has LD2 smoke and heat detectors although these detectors are not linked to either the communal fire system or the warden call system.
   10. There is one lift in the scheme which has a speech unit and a pull cord connected to the warden call system.
   11. The lift also has a button that contacts the lift maintenance company.
   12. There are also call points in the bin stores, boiler room, all communal rooms and all corridors.
   13. There are several exit doors which alert the scheme managers office if opened outside of daytime hours.
   14. The exit doors to the gardens are opened using key fobs.
   15. There is limited Wi-Fi in the scheme.
3. **Mandatory System Requirements**
   1. The successful bidder will be responsible for decommissioning the existing analogue system and replacing it with digital equipment which is fully compliant with all associated regulatory and legislative standards (EN50134 series) as well as being able to fully interoperate with our contracted Alarm Receiving Centre and their xxx digital ARC platform (demonstrated with evidence and reference to an existing customer).
   2. The successful bidder will ensure that the equipment is installed, programmed and tested in accordance with the manufacturer’s guidelines and Organisation X’s specification, policies and procedures.
   3. The new units must be wall mounted in place of existing system with appropriate connectivity infrastructure and powered by a local 240v power supply.
   4. Speech units in flats must have an ‘I’m okay’ function or the ability to connect to a movement detector to free up staff time in checking on all residents every morning.
   5. The new system must have a solution for alerting from communal bathrooms in addition to standard pullcords in case residents are unable to reach the communal pull cord.
   6. All existing units including speech modules adjacent to fire panels, lift call points, key safe units and units in the communal areas must be replaced.
   7. Within the scheme, all redundant analogue equipment, cabling and pull cords should be removed and schemes must comply with resultant fire safety requirements and, where appropriate, holes should be covered with white blanking plates.
   8. All old equipment must be removed from site and be disposed of by the successful bidder according to electrical disposal regulations.
   9. The new system must be fully digital upon installation, without the need for any further adjustments following the analogue switch off.
   10. The new system must provide video door entry at the main entrance.
   11. Door control points within the scheme must have video capability.
   12. Any modules fitted in individual flats or communal areas must be able to be easily operated by wheelchair users and those with mobility issues as per the [Disability Discrimination Act 1995](https://www.legislation.gov.uk/ukpga/1995/50/contents) requirements.
   13. Pendants supplied with the new system must have falls detection capability.
   14. The new system must have the capability of raising ‘door open’ alerts for key external doors on a time-of-day basis, alerting the office as well as staff handsets.
   15. The system must have an alerting function for residents to alert the office and staff via their handsets if they are locked out in the communal gardens.
   16. A minimum of X handsets should be provided for staff.
   17. New cabling infrastructure will be required as part of the infrastructure. This must comply with scheme fire safety certification/requirements.
   18. The new system Central Control Unit must be powered by a local 240v power supply, with an in-built 24hour (minimum) battery backup.
   19. The new system should have a roaming SIM capability at its core or as a module to provide connectivity in case of primary communications network failure.
   20. The new system must have consistent high quality 2-way speech.
   21. The new system must link to LD1/LD2 fire detection systems.
   22. The new system must link to LD1/LD2 heat/smoke detectors in each flat.
   23. The successful bidder must have a clear process with timescale and cost for establishing connections to 3rd party peripherals and sensors.
   24. Staff must be provided with handsets and charging equipment for on-site communication.
   25. The new system must have fully automated alarm routing to allow for alarms to be handled by on-site staff and routing to an Alarm Receiving Centre (ARC) if unanswered or directed.
   26. The new system must allow on-site staff or the ARC to dial into residents to check on them as required (and subject to consent).
   27. The new system must have ‘over the air’ capability for the updating of software without the need for engineer/installer site visits.
   28. The new system must be capable of being monitored by any ARC platform using the BS8521-2 digital communication protocol (designed for specialist/supported living) – application guidance will be published by TSA in March 2024 - <https://www.tsa-voice.org.uk/tec-guidance/>
   29. Full wireless coverage must be provided across the entire site and gardens so that there are no areas within the building where wireless peripherals cannot connect to the new system and raise an alert.
   30. Peripherals must raise alerts to the new system for any standard issues such as low battery or mains power failure.
   31. The new system must have a web portal accessible to staff with different user levels where the health of the system will be visible, and changes to access, call routing, volume levels and peripheral settings can be made.
   32. The portal must provide a fully auditable reporting suite which will show all activity on the new system as well as standard warden call reports.
   33. Any cloud-based services linked to the portal must be supported within a fully virtual infrastructure that does not have a single point of failure.
   34. The portal and cloud-based services must all open Application Protocol Interfaces (API) to allow connection to the organisation’s electronic scheduling system.
   35. The new system will come with a minimum 2-year warranty on all hardware, including parts and labour.
   36. There are to be online user manuals / training videos / tutorials available at all times and for any new functionality released after installation.
   37. The successful bidder will provide training support throughout the duration of the contract.
4. **Desirable System Requirements (*with the ability to add any of these elements as a requirement to be implemented within the contract*)**
   1. Where appropriate, the new system will operate in both wired and wireless mode.
   2. Pendants provided should have the ability to locate individuals that have alerted using either GPS or some other function when not in their residence.
   3. Any modules fitted in individual flats or communal areas should be able to be easily adjusted to allow wheelchair users and those with mobility issues to use in the same manner as anybody.
   4. Wiring provided should be a minimum of Category 6 cabling.
   5. To aid resilience of the new system, an Uninterruptible Power Supply (UPS) should be provided.
   6. There should be no limit to calls in progress, meaning that multiple alarms can be raised from the same site without any delay in connecting to on-site staff or the off-site ARC platform.
   7. The new system should be capable of linking to non-emergency peripherals such as Internet of Things (IoT) devices and Activities of Daily Living (ADL) sensors.
   8. The new system should allow staff to use an application on any IOS or Android device to connect to residents, door panels, communal equipment.
   9. The new system should have electronic screens/digital notice boards installed in communal areas to allow staff to convey general messages to residents.
   10. The new system should allow staff to send individual messages to residents via modules installed in individual flats.
   11. Residents should have the capability to call or video call from flat to flat.
   12. Organisation X are keen to identify innovative solutions that could be developed and delivered as part of the support within our specialist/supported housing schemes and would like to understand how solution suppliers are able to deliver the following example initiatives (this will be included within the quality questions within the procurement process):

* Automated AI-driven calls – enabling messages to be sent to all tenants simultaneously or to specific groups, with the ability to identify people that require further support.
* Ability to host system functionality available on fixed tablet devices within an app to be presented on mobile devices.
* Connect to wider building management systems or smart metering that support either scheme management or enable residents to manage their home environment.

1. **Planned Maintenance**
   1. Customers will be given 5 working days’ notice for any planned maintenance

taking place on equipment or networks.

* 1. Customers will be given 5 working days’ notice for any planned software

upgrades.

* 1. The manufacturer must be able to provide a servicing and / or a battery replacement programme if required.

1. **Reactive Maintenance**
   1. The maintenance service to comprise a 24-hour repair service, 365 days per year, including a 24-hour helpdesk.
      * All issues raised should be remotely accessed within 4 hours of the initial call and repaired where technically possible.
      * Any issues raised that require an engineer visit shall be attended on site within 24 hours.
   2. Upon receipt of a fault call, the provider will respond with confirmation, and provide a reference for the allocated job.
   3. A record of all faults raised, with detailed information about each call will be maintained to allow for end-to-end management and reporting of Key Performance Indicators (KPIs).
   4. The maintenance service must provide remote and on-site support as required to support both any future digital transition with the UK telephony network as well as any future transition of the ARC platform.

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