



NHS MENTAL HEALTH TRUST – Brief and Technical Summary

Project Title:

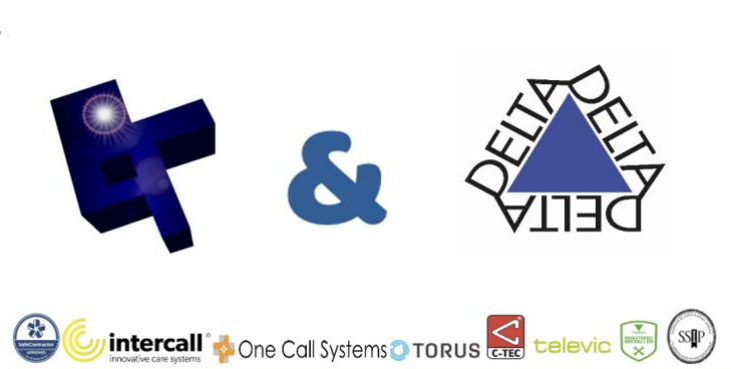
Integrated Nurse Call, Panic Alarm, Staff Attack, and Anti-Ligature Door Monitoring System

1. Executive Summary

This proposal outlines the delivery and implementation of a robust, integrated communications and safety system across multiple wards in a mental health care facility. The system will unify service user calls, staff personal alarms, anti-ligature door monitoring, and emergency medical alerts into a single platform designed to enhance response speed, situational awareness, and patient/staff safety.

2. Project Objectives

- Enable rapid and accurate communication of service user needs.
 - Provide a tiered, location-based staff safety system.
 - Monitor and alert on anti-ligature door activations in real time.
 - Ensure visibility of all events at local and central locations.
 - Log all interactions for compliance, auditing, and safety analysis.
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3. System Overview

3.1 Core Components:

- **L7721 Dual Call/Control Units (x2 per room):**
 - One controls service user call points (L7011C), the other monitors anti-ligature doors.
 - Integrated I-button technology for tracked resets and isolates.
 - **L7011C Call Buttons:**
 - Bedroom and ensuite call points with tamper detection springs.
 - **L746 Over-Door and Follow-Me Lights:**
 - Multi-pattern visual alerts indicating different call types.
 - **948 Touch Display Panels:**
 - Installed at every ward base to display calls, locations, event type, and system faults.
 - **Medical Emergency Button (L7322):**
 - Dedicated ward-based button generating high-priority alerts.
 - **Staff Triggers (STC9):**
 - Dual function with assistance (button press) and respond (pin pull) alerts.
 - Tracked via ceiling detectors (AIRX7/AIRX8) or radio detection (AIRFXIP).
 - **Reset Triggers:**
 - Simple one-button reset device (red lanyard) used to clear staff assistance/respond events.
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4. Technical Architecture

4.1 Control & Distribution:

- **L7700 Power Supply Unit:**
 - Central control unit per ward, managing all device logic and power.
- **FJB2 Fused Junction Boxes:**
 - 4-way fused outputs; allows segment isolation during faults.
- **POE Network Switches:**
 - Located in two primary IT hubs; interconnect all networked devices.
 - Includes Edison-supplied battery backup to support power loss events.



4.2 Communications & Data Logging:

- I-button fobs, and staff attack triggers are individually programmed.
- All call activations, resets, and isolate actions are logged with time, date, location, and staff ID.
- Remote retrieval of logs for compliance/audit purposes.

5. Functionality Breakdown

5.1 Event Types and Responses:

Event Type	Trigger	Display	Lighting	Sound	Reset Method
Service User Call	L7011C	Local ward 948	Standard flash	Low/Medium	I-button at L7721
Tamper	Tamper spring triggered	Local ward 948	Unique flash	Medium	I-button at L7721
Anti-Ligature	Door release	"EMERGENCY" alert on ward 948	Emergency flash	High	I-button at L7721
Medical Emergency	L7322	Ward, doctor's display, pager	Emergency flash	High	Key reset
Assistance Call	STC9 (button)	Local area 948	Assistance flash	Medium/High	Reset trigger
Respond Call	STC9 (pin)	Global 948 displays, IP480	Highest flash	Highest	Reset trigger
Outdoor Respond	STC9 (radio)	Main reception	Respond flash	Highest	RFID at reception 948



6. Implementation Strategy

6.1 Installation Phases:

- **Phase 1:** Site survey, PSU and core hardware deployment.
- **Phase 2:** Device-by-device installation across all rooms, corridors, and communal spaces.
- **Phase 3:** Network linking, display configuration, and central integration.
- **Phase 4:** Staff training, commissioning, and handover.

6.2 Training & Handover:

- Comprehensive training sessions delivered to all ward staff.
- Individual instruction on use of I-button fobs, triggers, and resets.
- Documentation packs including SOPs, event flowcharts, and escalation maps.

7. Risk & Mitigation

Risk	Mitigation
Staff unfamiliarity	Mandatory training + ongoing support
Device tampering	Anti-tamper design + isolate function
False alarms	Isolate and fault display functions
Power failure	Battery-backed POE switches
Data loss	Secure cloud/off-site log backup optional



8. Deliverables

- Full system hardware installed and tested.
 - All call/display types configured to specification.
 - Staff trained and system documentation delivered.
 - Handover of system logs, access credentials, and technical support plan.
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9. Conclusion

This integrated safety and nurse call solution is a highly adaptable, resilient, and user-focused platform that addresses the critical needs of both service users and staff in challenging environments. With modular expandability, real-time alerts, and full event logging, it establishes a new benchmark for patient and staff protection.

Prepared For: NHS
