Next generation monitoring centre software
A platform for excellence
Introducing PNC7

PNC7 represents a new benchmark in the development of monitoring centre software, providing a powerful, scalable technology platform that is easier to use, more flexible, and more efficient than ever.

The latest generation of PNC builds on our heritage of providing groundbreaking, robust software and enhances this with vital business intelligence tools and intuitive functionality to underpin the delivery of effective, sustainable services both now and in the future.

In addition to its new, innovative features, PNC7 incorporates numerous technological refreshes which as well as enabling centres to undertake core business activities more effectively by making the system easier to navigate and interrogate, will also empower them to expand their service offering.

Web-based modules such as Information Manager and Service Manager remove limitations on worker location enabling flexible staff deployment using a range of devices including tablets and smart phones.

Operating on an end-to-end Microsoft platform, PNC7 offers unparalleled integration opportunities and its new data model supports the consolidation of activities across multiple centres.

PNC7 represents a huge step forward in the development of monitoring centre technology, providing a firm base for the evolution of centres and delivering maximum value from your investment. Whether you require a stable solution for a small monitoring centre, or you need the capability to support hundreds of operators working on behalf of numerous organisations and the flexibility to manage telecare and telehealth services using the same system, PNC7 provides the ultimate platform.
**Architecture**

PNC7 has been developed on the Microsoft technology platform, from the SQL Server database, with new applications using the .NET4 framework, and supports the latest Windows 8 operating system. Employing this widely-used platform supports the consolidation of systems and telephony and is part of Tunstall’s strategic aim to standardise software development.

VoIP is supported on PNC7, enabling centres to manage voice or SMS calls from VoIP alarm units working towards universal connectivity and industry standardisation. Using a unified communications platform gives centres the ability to receive calls from any alarm raising equipment, providing them with ultimate flexibility.

Unique to PNC7 is its ability to support Tunstall’s patented STMF protocol, providing resilience against the changes in underlying telephony infrastructure, which may be problematic to DTMF units.

PNC7’s Service Manager and Information Manager modules are both delivered exclusively using web-based technologies and data warehousing, and business analytics and dashboards are available through applications that will run on Apple and Android devices, removing limitations on worker location enabling flexible staff deployment.

**Resilience**

PNC7 is tested as resilient and performant from a single PC implementation all the way up to more than 200 concurrent calls handling operators, and adheres to the strictest regulatory requirements laid down by data protection acts, the FDA and HIPAA.

**Consolidation**

PNC7 contains a fully partitioned database, which allows multiple organisations to span call traffic across a number of CTI (Computer Telephony Integration) servers. This new data model enables the integration of multiple PNC7 systems onto a single software infrastructure, making it possible to broker relationships between centres creating efficiency gains from consolidating high-cost activities such as Out of Hours Monitoring, Planned Outages and Disaster Recovery.

**Protocols**

PNC7 supports the widest range of alarms protocols of any monitoring centre solution. This covers 50 protocol families, which corresponds to hundreds of individual protocols and signalling types (including DTMF, STMF, FSK, QTC, SMS, GPRS, IP, SIP and other single and multi-tone methods) and supported device types across dozens of manufacturers. Uniquely, PNC7 also provides full support for Tunstall’s TT21 protocol, providing nearly 400 call types and enabling you to make the most of your investment in alarm unit technology.

**Device types**

PNC7 supports fail-safe, critical monitoring of the following types of devices and systems:

- Dispersed alarms including social alarms and telecare
- Hardwired schemes
- Lone worker via IVR
- Mobile locatable devices for lone workers, domestic violence, dementia
- Security Diallers

**Telephony and calls handling**

PNC7 supports 4 to 511 lines, 1 to 200+ operators and accepts calls traffic from:

- Analogue lines
- Digital lines
- IP/SIP calls
- POTS calls

**Core functionality**

**Feature overview**
Case management
The Case Manager module supports operators in managing activities such as dispatching responders, managing critical events (such as falls and ambulance call outs), managing general incidents, and monitoring equipment service tasks. This tool is of great value in monitoring the quality of service delivery and focuses directly on the specific services provided by each monitoring centre.

Core capabilities:
- **Full remote reprogramming** - for all Tunstall units as well as third party devices
- **Door entry** - including webcams, online operator assistance and case management tool
- **Scheme auto test** - automated out of hours check on scheme equipment operation
- **CLI-based calls** - Phone calls received by the centre will pull up records from different areas of the system based on the calling telephone number
- **System monitoring and auto-reporting** - engineering and management alerts are configurable by SMS, email and Net Send
- **Incident and case management**

Information manager
Exclusive to PNC7, this module uses data warehousing to provide business intelligence from both PNC7 and Service Manager elements, enabling analytics and reporting on both calls handling capability and service delivery processes. Information Manager features a new dashboard, giving easy access to statistics on referral, assessment, installation and response times to enable efficient management of services and the ability to track performance against KPIs and SLAs.

Additionally there is a bespoke report writing tool, allowing managers to easily create, save, distribute and schedule tailored reports without the need to understand database structures or query languages. It also has a new interface which overlays maps with statistical information to provide a geographical representation of activity, highlighting areas which are resource heavy and supporting predictive planning.

Service manager
The Service Manager module supports the efficient running of the service, keeping track of the delivery process from end-to-end and enabling bespoke reporting on processes such as assessment, referral, scheduling, installation, change request, asset management and decommissioning.

System enhancements

Enhanced operator support

Data navigator
PNC7 offers a powerful new search facility which enables users to quickly and easily browse the content of databases, drilling down through information subsets to find relevant content.

Operator assistive workflow
An operational workflow tool which guides operators through appropriate procedures for calls handling, enabling them to easily adapt processes for managing different customer and call types. The intuitive system provides onscreen indication of the ‘next steps’ in any scenario with regard to agreed protocol, increasing operational efficiency and improving adherence to procedures.

New features – optional, integrated systems
Benefits

**PNC7** has a wealth of new functionality and unique features designed to support the delivery of an efficient monitoring centre service, and delivers benefits for all stakeholders.

**Operator benefits**

- All calls are delivered seamlessly to the desktop regardless of provenance (analogue, digital, SIP/IP). The interface will only enable options and actions pertinent to the calling equipment, without operator intervention.
- Operator Assistance will guide the operator on relevant procedures on receipt of any call, according to type or customer, reducing the need to refer to manuals thus reducing the risk of errors and helping to meet response times.
- Case Management allows operators to keep ongoing incidents active whilst continuing with their call handling responsibilities. This allows different conversation strands and calls to be stitched together to follow any incident from initiation to completion.
- Data Navigator allows operators to quickly find the information they need and browse all the data within their scope.

**Operational management benefits**

- PNC7’s analytics functionality provides detailed near real-time views on operational compliances and KPIs through dashboards, which can be published on wall boards, through web pages or delivered to mobile devices.
- Case management and bespoke reporting capability support compliance to SLA, and ongoing management of service delivery, including for value added services such as lone worker monitoring, bogus callers, dementia care and falls management.
- Service Manager provides an environment for managing staff schedules, equipment and data onboarding, modification and decommissioning, reducing data entry duplication and providing a single point of access for all management tasks, based on operational procedures.
- Adherence to Telecare Services Association’s Code of Practice parts 1, 2 and 3 are supported.

**Strategic benefits**

- Consolidation features mean calls handling can be shared across multiple authorities using distinct PNC7 systems. Centres may be streamlined to operate during office hours only, with out-of-hours calls, planned outages and disaster recovery automatically promoted to the workstations of nominated operators when needed without the need for them to log out or move to another workstation, and no replication between servers is required.
- Analytics and business intelligence supports the overlay of publicly available data sources and geo-location options such that strategic planning and resource management can be matched to resource-heavy areas.
- Use of the Microsoft technology stack makes PNC7 more easily integrated into existing systems, reducing reliance on third parties for implementation.

**PNC offers a variety of integrations with third party systems, such as those delivering:**

- Mapping services and applications;
- Online cameras;
- Voice recorders;
- Address software;
- Operator evaluation software;
- Service management suite;
- Business intelligence, analytics;
- Data Warehouse;
- PBXs;
- Configurable 3rd party parameterised applications launcher.

- API connectivity via Service Manager provides optional linkages to social care, assessment and warehouse systems.

PNC 7 is also available as part of a fully hosted service. Ask us for more information.
## Technical details

### Workstations:
- **Processor:** Intel® Core™ i5-3350P
- **Memory:** 4GB
- **Operating System:** MS Windows 7, Windows 8, (32 or 64 bit)
- **Storage:** 250GB HDD
- **Monitor:** 20" (1024 x 768) minimum

### CTI Server/HMP Server:
- **Processor:** Intel® Xeon® E3 product family
- **Memory:** 4GB
- **Operating System:** MS Windows Server 2008 or later
- **Storage:** 250 GB HDD
- **Telephony:** Dialogic D120-JCT LSEuro 12 port analogue cards. Dialogic D300-1E1 or D600-2E1 cards supporting up to 60 digital channels. Dialogic DISI16R2 conference resource boards Dialogic D/80PCI-1S 8 Port analogue boards Dialogic HMP Server licensing
- **Chassis:** Tower or rack mountable (capable of housing 12" full length PCI boards)

### Application(s), Database Server:
- **Processor:** Intel® Xeon® E3 product family
- **Memory:** 6GB
- **Operating System:** MS Windows Server 2008 or later
- **Storage:** 250 GB RAID (various recommended)
- **Chassis:** Tower or rack mountable
- **Database Engine:** Microsoft SQL Server 2012

### PABX:
Must be capable of supplying analogue extensions to the CTI server. It must be able to connect extension-to-extension calls direct into the headset.

### Mobile Operating Systems supported include:
- Android
- Apple OS

### Standards
- **EN 50134-5**
  Alarm systems. Social alarm systems. Interconnections and communications
- **EN 50134-1**
  Alarm systems. Social alarm systems. System requirements
- **EN 50136-1-1**
  Alarm systems. Alarm transmission systems and equipment. General requirements for alarm transmission systems
- **EN 50136-2-1**
  Requirements for systems using dedicated alarm paths
- **CLC/TS 50136-4**
  Alarm systems. Alarm transmission systems and equipment. Annunciation equipment used in alarm receiving centres