Improving health and wellbeing
Delivering Scalable Telemonitoring through Partnership

The challenge

Chronic disease in Northern Ireland affects 75% of people over 75, 72% of acute bed days and 69% of health and social care spend is related to chronic disease.

The demographic and budget pressures faced in Northern Ireland has meant that the health service has to find new and better ways to ensure that high quality services continue to be provided. Remote telemonitoring is a prime example of this innovation.

Telemonitoring NI

In March 2011 the TF3 Consortium was chosen to provide a Remote Telemonitoring Service to the Northern Ireland Health & Social Care System.

The award of the 6 year contract was led by the Centre for Connected Health and Social Care (part of the NI Public Health Agency) who worked in partnership with, and on behalf of, the five Health and Social Care Trusts.

The award of the contract represents an investment of £18m by the Department of Health, Social Services and Public Safety in the management of long term conditions. The procurement of this large scale, 'end-to-end', managed service has the capacity to support over 3,500 patients a year.

TF3, a consortium of Tunstall Healthcare, Fold Telecare and S3 Group, are implementing this large scale remote telemonitoring service, for patients with heart and respiratory conditions, diabetes and those who have suffered a stroke.

Eddie Ritson, Programme Director, Centre for Connected Health and Social Care says *"The health and care system in Northern Ireland recognises that connected health solutions have an important contribution to make to the modernisation of service delivery. The delivery of this end-to-end managed service contract by TF3 has added clinical value to the care process and has helped improve patient outcomes. Research is to be commissioned to look at the current outcomes of the service focusing on patient education and self-care, service users and healthcare professional experience, service and cost effectiveness and innovation in service delivery."*

TF3 founder members:

FOLD TeleCare   Tunstall Healthcare   S3 GROUP   HSC Public Health Agency

Programme Overview – at a glance

The development of remote telemonitoring is an important element in the modernisation of the Northern Ireland health and social care delivery system. The Public Health Agency in conjunction with the five Health and Social Care Trusts, have designed a unique and comprehensive programme which will enable improved management of care leading to earlier interventions and improved quality of life for patients living with heart and respiratory conditions, diabetes and those who have suffered a stroke.

- 6 year contract awarded March 2011

- Procurement, service definition and implementation process led by ECCH – a part of Public Health Agency

- 3,500 patients per annum

- 12 condition categories

- 2 - 52 week monitoring periods

- >2.8m monitored days

- £18m investment

Anticipated benefits

More and better targeted proactive support to patients. Enabling them to:
- Have greater control
- Learn more about their condition
- Live more independent lives

A recent patient survey showed 92% are highly satisfied with the telemonitoring service.

Bringing timely information to professionals to inform patient-centred case management. Enabling:
- Improvements in the quality of care and quality of life for patients
- Reductions in inpatient admissions
- Optimised use of staffing resources

Eddie Ritson, Programme Director, CCHSC says *"A key element of the delivery of this managed service is a series of robust service level agreements. In response to our requirements TF3 has built a system that can track performance every step of the way."*

Unique elements of the service

- A Clinically led managed service supporting patients from referral to discharge

- Detailed managed service definition covering all aspects of service to be provided

- A common service definition but with built in flexibility to support the needs of 5 different health care trusts

- Designed clinically, commercially and technically for scalability

Who is TF3 – Tunstall Healthcare, Fold Telecare and S3 Group as partners

Kevin McSorley, Director, Fold Telecare said *"The combination of local knowledge of health, social care and housing services, coupled with large scale deployment experience made the TF3 consortium a perfect partner."*

TF3 designed a solution in response to a comprehensive, Authority-led specification. Formed in 2007, TF3 is a consortium of three companies with a 30 year track record in providing patient-centric telemonitoring solutions:

- Tunstall Healthcare Group - The world leading provider of telecare and telehealth solutions playing a pivotal role in supporting over 2.5 million older people and patients with long term needs, to live independently by effectively managing their health and wellbeing. Tunstall's role is the provider of all key technology, systems, ongoing support and maintenance and is the prime contractor with overall responsibly for system delivery

- Fold Telecare - An unparalleled record in care delivery in Northern Ireland, delivering telecare services to 20,000 clients and telehealth services to 500 patients in Health and Social Care Trusts in Northern Ireland. Fold's role is the point of care services including everything from the initial point of contact to installation and monitoring

- S3 Group - Specialising in telehealth service design and solution integration, S3 Group is responsible for providing an integrated solution for telemonitoring that enables TF3 to deliver on the service requirements and service level agreements
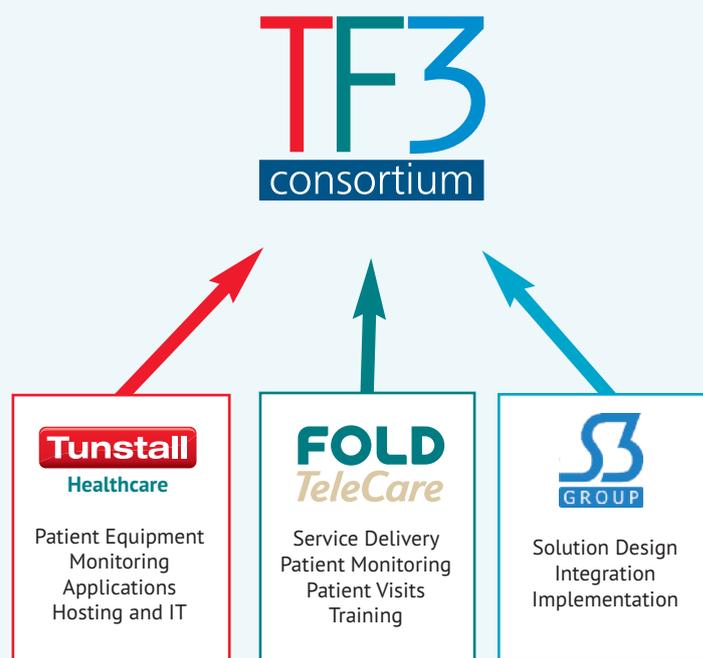
Why TF3?

"Designing and delivering the telemonitoring service required all the experience and capabilities of the three consortium partners working closely in partnership with the HSC Trusts." Jim O'Donoghue, VP Telehealth at S3 Group

TF3 was awarded the contract having submitted a detailed and fully costed solution which was subjected to a transparent and rigorous evaluation process.
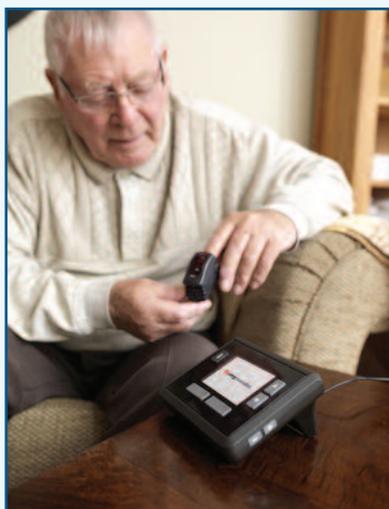
Tunstall and S3 Group are both members of the Continua Health Alliance.

TF3 founder members

Tunstall Healthcare	FOLD TeleCare	S3 GROUP
Patient Equipment Monitoring Applications Hosting and IT	Service Delivery Patient Monitoring Patient Visits Training	Solution Design Integration Implementation

Case study

Telehealth – Caring for John

John is 76 years old and has Chronic Obstructive Pulmonary Disease (COPD). He lives in a rural area with his daughter and a specialist nurse manages his condition with regular visits to his home.

John was provided with the telemonitoring service enabling his nurse to effectively case manage his condition. John can now monitor his vital signs at home every day and his results are checked by the nurse who will call him if his readings are outside of his individual preset parameters to advise on any remedial action.

John said: *"I now feel reassured that my condition is being monitored on a daily basis and if there is cause for concern a nurse will contact me. I am pleased that I can stay at home.*

I believe it has prevented me from unnecessary hospital admissions. I am more aware of my condition as I can see my readings. If my pulse oximetry is low in the morning I would usually take an additional reading later on, making sure I was OK."

Managed services being delivered by TF3

The service represents a complete end-to-end service involving people, process and technology, from referral to discharge, all delivered through stringent service level agreements.

- **Clinical led service** – ensuring the timely handling of alerts, the provision of targeted support and information to patients and the appropriate escalation and safe handover of care to health & social care professionals

- **Online forms** – set of tools accessible through a web portal which are optimised to match the service support required by healthcare professionals, eg ability to refer a patient seamlessly into the operational service

- **Service desk** – service management tool set providing a single point of contact, coordination of services, consent management, installation management and asset management

- **Triage** – a clinically led service ensuring timing handling of alerts, appropriate escalation and safe handover

- **Training** – a structured training programme for health professionals based on the train-the-trainer approach

- **Installation**

- **Patient portal** – supports agenda for self care by enabling and encouraging patients themselves to view their monitored data and learn more about their condition

- **Mobile diabetic solution** – integrated with the **my**medic patient hub, this new glucometer allows the capture of lifestyle data as well as vital signs, e.g. time of day and insulin dose

- **Telecare** – in addition to the remote monitoring of chronic conditions the telemonitoring service allows for the addition of a full range telecare services to be provided as part of the integrated managed service

What does the future hold for Telemonitoring NI?

TF3 aim to overachieve on the service commitment of supporting 3,500 patients per annum.

The logical extension of Telemonitoring NI is to open up the service to patients with a wider range of long term conditions and frailties benefiting from the platform constructed for Telemonitoring NI.

David Cockayne, Managed Services Director, Tunstall Healthcare says *"Telemonitoring NI has been a huge learning experience, enabling us to integrate various key services and technologies demonstrating new models of care at very large scale. Whilst the whole process of service definition and procurement has itself been hardwork, it has lead to a very robust understanding of large scale service levels and provides an ideal model for expansion elsewhere."*

The delivery of the largest telemonitoring service in the UK is recognised by TSA Crystal Awards - November 2012

Edwin Poots, Health Minister for Northern Ireland, said: *"I would like to congratulate TF3 and the Centre for Connected Health and Social Care on being awarded the TSA Crystal Awards. I know that those involved in this project have shown outstanding commitment, dedication and innovation and these awards are well deserved."*

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