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## **A changing picture for systems integration**

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Systems integration has always been a hot topic for NHS trusts with their long legacy of generic and specialist systems that don't easily talk to one another.

The National Programme for IT set out to replace many of these systems with large-scale common systems. But the drive in that direction now appears to be changing.

Richard Bacon and John Pugh, two MPs on the Public Accounts Committee, have called on the government to jettison high risk, standardised solutions in favour of local procurements linked by a national network and common standards as the best way to ensure the success of a revised national programme.

CfH has long recognised the need for integration solutions at both the LSP and trust level and has signed an enterprise wide agreement with SeeBeyond for some of its integration engine technology. But this still leaves trusts facing a range of challenges on integration.

John Moriarty, CEO of US-based BridgeForward Software believes that a lot of trusts are now going to have to go their own way, even if they have to pay for it themselves, because they can't afford to wait for the national programme. As latecomers, BridgeForward came upon a scene where apparently all the deals had been done and the market sewn up. However, Moriarty still anticipated business relating to systems that were not covered by Connecting for Health's enterprise wide agreement with SeeBeyond. BridgeForward's interface engine ClearSpan Server claims a presence in around 40 NHS trusts in England, as well as 156 hospitals and 860 GP offices in Scotland.

BridgeForward is also vendor of choice for the Amicus consortium in remote diagnostics. Amicus, the division of General Healthcare set up to provide services to NHS patients, was recently chosen as one of the preferred bidders for contracts worth a total of £1 billion over five years to supply more than 1.5 million diagnostic procedures.

## Opportunities for integration work

Janet Waplington, healthcare marketing manager at UK-based management consultants WCI, believes that the slowing down of the central “monolithic” approach will present opportunities for integration work as NHS trusts do not have people in house able to do the complex process mapping involved.

In April WCI, whose clients in healthcare include NHS Direct, UCLH, iSoft and GE Healthcare, announced that it had won a systems integration contract with Milton Keynes General NHS Trust to meet go-live implementation schedules for the Care Records Service (CRS).

Jerry Trenchard, manager at UK healthcare IT supplier Quicksilva, believes that LSPs are struggling to deliver. Hospitals and their system suppliers are now considering whether their existing systems might need to be kept running for another two or three years.

Once you get inside a trust, says Trenchard, it can be astonishing how complex its systems are. HL7 v2 is the messaging standard for most of trust business, but there are possibly 15 different flavours of version 2.

Trusts are now re-evaluating integration engines to get disparate systems working together in a safe and reliable way. Maintaining data quality across systems has not been given the attention it deserved by the national programme, he says, and this is the “zeppelin” which is now bearing down on us.

Trenchard expects SeeBeyond’s integration engines to be popular, though not the sole options for collating data into an HL7v3 message. Quicksilva’s own integration tool, Spinal tap, offers Spine connectivity to products outside the LSP offering and the company has recently signed an agreement with Boots for messaging electronic prescriptions.

## New agenda for joint budgeting

David Grigsby, new business development director at Leeds-based Liquidlogic, believes that the “monolithic approach”, where data from disparate systems is migrated into one central system, has not been too successful. Following the recent government policy initiatives, the agenda now is for joint budgeting in health and social care, but it is difficult to create a care plan solely within a patient administration system (PAS) because it cannot cater for all the other agencies that might be involved.

Liquidlogic provides assessment and care planning systems to serve people with complex needs and long term conditions. Islington Social Services & Primary Care Trust went live with the Liquidlogic Single Assessment Process (SAP) product last December. Liquidlogic recently presented its integration model to Accenture and CfH for linking SAP to the SystmOne Community Health System. This met with approval and is already live in Middlesbrough.

Grigsby believes that CfH and the LSPs are in a uniquely strong position to make integration work. Integration projects often stumble because a system supplier is either not interested or even actively opposed. CfH's powerful position in England gives the agency a unique advantage to dictate terms.

#### Data management, migration and integration

An integrated IT foundation approach to help NHS trusts and health authorities meet their CfH obligations has been launched by systems specialists ReStart Consulting.

Director Mike Symers and his colleagues, who are all experienced in carrying out large scale integration projects, find they need to approach NHS integration projects from the earlier stage of data cleansing and management.

They have developed the ReStart Data Foundation, which is based on the company's experience of successfully completing complex CfH projects for local service providers, strategic health authorities and over 20 NHS trusts. Comprising a set of proven system modules it addresses the data management issues of data migration, quality and collection, and data integration.

The foundation comprises two main elements: data integration and data management. The data integration solution is modular based and technology-independent It addresses such issues as message error handling, creation of web-based browsers, generic HL7 transformation engine, plus training, mentoring, project management and support.

Data management consists of re-usable constructs for data archiving, using standard procedures for data cleansing and providing the ability to build data warehouses and ensure data quality. Both are combined with ReStart's application software knowledge and project management expertise to provide a complete end-to-end working solution.

At the integration stage, Symers explains: "There are vendors that provide systems integration, but what you need to do to make them effective is have very good integration skills."

His concern is that the whole process from data management to systems integration is often not viewed as a whole, hence the ReStart Data Foundation. "The issue we have become aware of is that there's nobody tackling the data issues as an entity."

'...a de facto part of the national programme'

Phil Birchall of InterSystems reckons that the landscape has changed, such that interoperability between multiple systems is now a de facto part of the national programme. Even as the programme was originally intended, he says, a significant amount of integration would have been required and this is only increasing as the programme evolves. The GP Systems of Choice agenda means that a larger number of GP systems, not provided by the principal LSP providers, will be in play.

In their original incarnation the LSPs were to deliver a single primary care application from their principal providers, meaning that IDX and iSoft would deliver either CareCast or Lorenzo. However, they soon had to allow the choice of one alternative GP system.

By definition there will now be greater integration and interoperability needs between a variety of GP systems and other software being deployed in acute care and elsewhere. The question for Birchall is will this change in arrangements for GP practices be followed by more choice elsewhere?

In London, for example, Cerner has been chosen by BT to replace IDX only in hospitals. CSE-Servelec's RiO is the chosen system for community and mental health services and INPS for GP practices. The arrangement presents an integration challenge that is being watched carefully in the service and supplier communities alike.

InterSystems has a portfolio of more than 175,000 concurrently licensed users of its database technology in the English NHS, ranging across acute hospitals, primary care, community and mental health. Birchall's view is that the UK should look to countries such as Holland, where a more diverse inventory of systems is being incorporated. The common theme he sees across all healthcare environments is a continuing and increasing need for interoperability and more sophisticated integration.