

A Demanding Envir

It is an interesting commentary on the expanding role of computing in the health service that as the pressures on budgets increase the stronger becomes the commitment to implementing new computer projects. There is a general, and noticeable, increase in capital expenditure on computing within the health service and authorities appear to be taking a longer term view to regional computing strategies.

The North East Thames RHA was reported recently to have earmarked £75 million over a seven-year period for computerisation; and the Wessex RHA is to spend £25 million over five years in the same cause. This represented a quantum leap for both authorities and can be seen as a specific manifestation of a general drive for efficiencies within the NHS.

John Bryant, regional computer services officer for the South East Thames RHA, is in no doubt that the mood within the NHS is running not only in favour of more computers, it is also strongly behind decentralisation and getting those computers out into the districts and under the day-to-day operational control of the user departments.

Bryant, who meets his opposite numbers in other RHAs some six times a year as a committee to 'thrash out problems that affect all of us', said that his own RHA's policy was to devote three per cent of the regional budget to computing, but that the computer hardware budget had gone over £2 million in 1984, whereas previously it had been running at around £1.2 million a year. This policy is under constant review and the computer budget is expected to be substantially increased over the next few years.

"The trend now is to identify areas in the districts where local computer support is needed and to provide district-based computer systems to handle specialist applications," Bryant commented. For example, a pharmacy system provided by a specialist supplier is currently going into districts across the region along with systems for local payments and supplies.

There is a potential problem in dealing with multiple suppliers of computer systems. Bryant acknowledged, but he said that the committee structure of NHS computing, with a Regional Computing Policy Committee at the top and, below it, a number of computer users groups representing different interests such as finance, medical, nurses, administrators and so on, provided reasonable guarantees against duplication and ensured, so far as possible, the consistent and concerted application of the most needed and useful computer systems.

The committee structure can sometimes put a brake on software development, since in order to get any system developed there has to be a commitment from at least two authorities, but, as against this, all software developed within the NHS is available at no cost to any authority that wants it. The committee structure is one way of ensuring that people know what is going on in other parts of the health service.

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Bryant sees his role as regional computer services officer as essentially reactive. "We are a demand service. We're not concerned with investigative work in a research sense, but rather we look at ways of solving district problems in a practical way. We keep an eye on futures, but we are a service department," Bryant commented. "The problem," he added, "is that there is more demand than there are resources to meet it."

"The NHS is having to improve efficiency and the demand for higher quality information, which translates into a demand for computer systems, is exploding," he said.

Despite the general move to placing computer systems in the 15 districts that make up the South East Thames RHA, there is still a substantial central batch data processing load that falls on the regional computer centre hidden

away at the back of the old, and now defunct, Lambeth Hospital.

The first role of the regional computer centre – the role it was set up to perform as long ago as 1969 – is to operate as a bureau service for the districts and hospitals in the region, including three large teaching hospitals, Guy's, King's and St. Thomas's, as well as the regional headquarters which last year was moved to Bexhill from Croydon.

The centre houses an ICL 2966 computer system which looks after the major batch systems, including payroll, accounting, child health and hospital activity analysis (HAA) and departmental statistics. A DEC VAX 11/750 is also installed and connects into the files of the HAA system and the financial and manpower information system to provide an online information system for the districts.

It is a tribute to the organisation of the regional computer centre that the batch systems all run as smoothly as they do, which allows Bryant and his team to concentrate most of their current effort in the districts.

Forward planning has a lot to do with this. Roy Vinten, who as central operations manager, shoulders the main burden of making things happen at the centre, knows that batch work is coming into the computer centre against a published yearly schedule. Mary Gausden, data prep supervisor, therefore knows what type of work to expect, though not necessarily in what volumes. It is up to her to work out weekly schedules and to balance the workload for her operators, bringing in an outside bureau as necessary, in order to have data ready to meet the scheduled computer runs.

There are ten major applications handled routinely by the centre. A weekly payroll of 40,000 is turned round in the data prep department in an 8-hour cycle; a 72,000 monthly payroll in a day and a half. Altogether there are over 250 different types of input format that pass through the department.

The department's forward planning skills were put to the test towards the end of last year with a complete change of data prep equipment from four R850s to three

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ROCC 2830 Telecentres.

The changeover took place over a long weekend and, apart from some faulty boards in one of the processors, everything went like clockwork.

Software and procedures were lifted from one set of equipment to the other with few problems. "All keying, and all software control procedures, including some fairly sophisticated controls written inhouse, moved across smoothly from the old systems to the new," reported Vinten. "The new systems have settled extremely well and we've found the new operating system to be more efficient than its predecessor," Vinten added.

The South East Thames RHA is generally recognised to be one of the most proficient ROCC data prep installations, having been a user of the R850s for five years and having built a number of facilities into the ROCC software for their own use.

The centre, for example, produces very detailed operator statistics weekly and these are used for a standard bonus system in operation within their data preparation departments.

Three grades of bonus, or 'proficiency allowance', apply and they relate to key depressions, errors and lost time so, if the performance of any operator in the South East Thames installation does not come up to scratch, Vinten is insistent that they drop to another grade.

There are 32 keystations and the installation is configured such that all can be linked to any of the three processors. Two of the processors are normally used for production and the third for development, but maximum flexibility is ensured by what Mary Gausden refers to as a 'magic switch' that can bring the third system into the data entry mode if needs be to keep data throughput going for time-critical applications such as payroll.

The opportunity was also taken during the changeover to the new systems to change the layout of the installation. The back-to-back, in-line arrangement of the old R850 installation has given way to a more relaxed office environment with room to circulate around each keystation; and background music has been introduced, though it's the operators who dictate whether or not it's switched on. The pay-off is a smooth-running installation and a low level of staff turnover in an area of London where staffing of data prep installations is generally difficult. Most girls in the centre have completed many years' service, some over ten

years, Mary Gausden noted.

All the applications running at the centre are supported centrally, as are those applications that the centre has developed for the districts though the districts have operational responsibility for them.

An extensive communications network is also being developed to link the central installation and the districts together using 'Planet' rings set up by Racal Milgo. Computers connect to such a ring at the centre and local rings are currently going into some of the districts. The regional headquarters also has a Planet ring to allow terminals to gain access to regional computers although some are installed in Bexhill itself.

In due course, as the communications developments unfurl, the regional computer centre will become much more of an information centre, and less of a bureau service, in John Bryant's view. In time, even some of the major applications will gravitate, in part if not in whole, towards the districts.

For the foreseeable future, however, the centre will have its work cut out to keep the pace with a growing computing workload and a thoroughly demanding environment.

"Five years from now and regional health service computing may look quite different. But for the moment we're driven by demand and we're running to keep up," Bryant concluded.



Ten major applications are run on the three ROCC 2830 Telecentres, installed at the regional computer centre, South East Thames Regional Health Authority. Weekly payroll of 40,000 is turned round in the dp department in an 8-hour cycle; a 72,000 monthly payroll in one and a half days. Picture shows (far right) Roy Vinten – central operations manager, who is responsible for the smooth running of the centre and (left) Frank Mitchell – project leader software support and Mary Gausden dp supervisor, responsible for working out weekly schedules and balancing the workload of her operations to ensure that the data meets the scheduled computer runs.