

Using its TRIOLE methodology, Fujitsu's one-stop medical solution was deployed exceptionally quickly and it is now enabling much better healthcare management and patient care.



Customer's Challenge

Yame General Hospital is a municipal hospital principally serving a community of 140,000 people located in a city, four towns and two villages around Yame in the south part of Japan's Fukuoka prefecture. As a core regional hospital it has 19 diagnostic and treatment departments and 330 acute stage beds.

The Japanese government had proposed a policy to cut the number of acute stage hospitals and beds by computerising hospitals and improving the efficiency of healthcare management. However, there are many possible methods and different areas in which hospitals can be computerised, each with their own financial and technical obstacles. So, Yame General Hospital's newly appointed Director, Mr. Yoshida, organised a feasibility committee to investigate the options for developing a complete regional healthcare system.

Fujitsu's Solution

Following the completion of its IT systems feasibility study, Yame General Hospital chose Fujitsu to provide a one-stop medical solution incorporating all of the hardware, software and tools needed to manage medical information system and services, such as introduction, operation and maintenance.

In particular, the solution uses "HOPE/EGMAIN-FX", an electronic medical record (EMR) system developed for mid range hospital of 100 to 300 beds. The application includes all of the functions necessary to operate a paperless EMR system as standard, as well as packaged functions for ordering, nursing, medical affairs, food and clinical testing areas. Regular upgrades, based on customer feedback, ensure the systems continuing cost-effectiveness and functionality.

As well as utilising Fujitsu's PRIMERGY servers, Symfoware Server relational database management system and Interstage business collaboration middleware platform, the design of the Yame General Hospital's system infrastructure is founded on Fujitsu's TRIOLE methodology for system development, integration and continuous improvement. TRIOLE quickly and cost-effectively delivers a high quality solution using pre-configured building blocks, based upon proven templates.

For Yame General Hospital's one-stop medical solution, a special TRIOLE template was developed with functions needed for EMR system such as application and database servers. The template, including the application, was fully tested and verified before being deployed to ensure

SUMMARY OF KEY FACTS

Organisation

Yame General Hospital

Service/s delivered

Implement a one-stop medical solution to manage medical information system and services, using TRIOLE templates and products

Key metrics

- 140,000 patients
- 19 diagnostic and treatment departments
- 330 acute stage beds

Benefits

- Increased business agility with 30% faster system deployment
- Reduced operational complexity and costs
- Greater flexibility to cope with periods of high demand or evolving customer needs
- Improved availability with up to 50% greater system reliability
- Reduced risk due to extensive system pre-testing
- Long term ROI as new technical developments can be added progressively

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consistency and quality, while also reducing the cost, time and risk of the system's implementation.

While the new template was highly effective for Yame General Hospital, any modifications or requests for extra functionality that were subsequently incorporated are now available to other hospitals that employ the one-stop medical solution. As a result, Fujitsu's Medical Information Solution offers:

- Comprehensive lifecycle management, including hardware, basic software, application development and operational support
- Complete system integration of medical information, including mission-critical systems such as EMR, and ordering and department systems and regional medicine
- Consistent support anywhere in the country from proposal phase to operational services, during and after the introduction, with sales, SE and CE systems close to local levels.

Benefits to our Customer

As a ground-breaking part of Japan's move towards information-oriented medical healthcare, much was expected of the EMR system developed by Fujitsu. Mr. Hirayama, Chief of Planning, Yame General Hospital, who was involved in all phases from planning, through implementation to operation of system, explains, *"With conventional EMR systems it is common to customise the program based on the circumstances of the hospital, focusing on the core part of the packaged system. However, the technologies and tools of a cutting edge system evolve rapidly. Therefore, a very expensive system could become a legacy in a short time and, considering the running cost, it is not easy to upgrade the system when it is obsolete."*

However, thanks to Fujitsu's TRIOLE methodology, the low initial costs for introducing the one-stop medical solution and keeping it up to date with the latest technological developments proved to be the conceptual reversal of Mr. Hirayama's concerns.

In addition, the system has given Yame General Hospital a number of other significant benefits:

- **Increased agility:** No system development activity is repeated and new infrastructure requirements can be deployed 30% faster on average
- **Reduced TCO:** The use of standardised building blocks reduces operational complexity and costs
- **Greater flexibility:** temporary building blocks can be used to cope with periods of high demand and the system can be easily updated or customised in line with evolving market and customer needs
- **Improved availability:** The infrastructure has less downtime and reliability increases by up to 50%
- **Reduced risk:** All building blocks are extensively tested and proven to work effectively together, significantly cutting implementation time and risk
- **Long term ROI:** New technical developments, such as automation and virtualisation, can be added progressively.

Our Approach

By combining "lean manufacturing" techniques with Fujitsu's renowned commitment to R&D and testing and knowledge of mission-critical systems, TRIOLE is a new way of building an IT infrastructure that dramatically improves return on investment, by providing much greater reliability, efficiency and adaptability. By using pre-tested configurations and solution stacks as re-usable building blocks, TRIOLE radically increases flexibility and reduces risk - all at a lower cost.

Like all TRIOLE components, the two building blocks used in the Yame General Hospital solution are based on fully designed, built and tested TRIOLE templates. These consist of a complete infrastructure - hardware, software, networking, middleware and service management systems - and are exhaustively documented to ensure that they exactly match the intended design. The systems are then run within a proven Service Management Framework so that running and maintenance costs are as low as intended.

Our Expertise

With over 50 years experience of supporting the needs of global customers, Fujitsu has a proven track record in providing complex solutions that reduce cost, improve productivity and customer services and deliver a compelling return on investment.

More than 30 years experience and a wealth of customer feedback have already been incorporated into Fujitsu's Medical Information Solution, which is currently in use in the majority of large and mid range hospitals in Japan. However, Fujitsu's advanced technology, considerable market experience and willingness to develop the solution in line with the evolving needs of the medical profession is now available to medical customers around the world.

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