

Here, There and Everywhere

Networking and computing systems have permeated our daily lives. Yet to integrate these systems unobtrusively and seamlessly into everyday life requires sophisticated technologies and a broad understanding of the social implications of information technology. To take a step towards the realisation of a ubiquitous network society Fujitsu Limited and the Palo Alto Research Center Inc. (PARC), a subsidiary of Xerox Corporation, recently signed a multi-year joint research agreement in the field of ubiquitous computing. Working together, the companies will establish and facilitate a new vision of ubiquitous computing that goes well beyond 2010, aiming to make peoples' lives safer, simpler, more efficient, and more comfortable. PARC established their ubiquitous computing programme of research in 1988.



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What is ubiquitous computing?

This is the label applied to the third wave of computing which is just starting. In the beginning there were mainframes, each shared by many people. Then we entered the personal computing era, one person and one computer. Next comes ubiquitous computing, sometimes known as the age of calm technology, when the technology recedes into the background. Alan Kay of Apple referred to this as "Third Paradigm" computing.

Ubiquitous computing, frequently referred to by the label **ubiqomp**, or sometimes **ubiqcomp**, integrates computation into the environment, rather than having computers which are distinct objects. Another term for ubiquitous computing is **pervasive computing**. Promoters of this idea hope that embedding computation into the environment would enable people to move around and interact with computers more naturally than they currently do. One of the goals of ubiquitous computing is to enable devices to sense changes in their environment and to automatically adapt and act based on these changes and based on user needs and preferences. Some simple examples of this type of behaviour include GPS-equipped vehicles that give interactive driving directions and RFID (radio frequency identification) store checkout systems. The aim is to enhance computer use by making many computers available throughout the physical environment but making them effectively invisible to the user.

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Dates for the Diary

19/20th April 2005 Spring Conference

Watch the Events page on the AXiS web site:

<http://www.axis.org.uk>

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Editorial

The end of 2004 will mark the completion of 25 years in the life of this Newsletter which was launched as the 2900 User Group Newsletter in January 1980 under the editorship of John Basher, the then Chairman of the 2900 User Group who worked at the Defence Operational Analysis Establishment at West Byfleet. Your present editor, then at CCA (subsequently CCTA) Norwich, was persuaded by his boss Bill Beard, a former colleague of John Basher, to take on the role and allow John time to concentrate on the Chairmanship. And somehow I have not been able to escape yet from the editor's chair. But it has been fun and I hope that readers have found something of value in each issue. In the early days of VME, the 2900 User Group, and Large Systems User Group, there were so many activities on the go through many sub-groups, so many issues to be discussed and the steady roll out of new versions of both VME and its superstructure components that there was usually material for 6 issues of News each year. In the last 10 years or so with the maturity of OpenVME and vastly improved serviceability and reliability, and with far fewer Group meetings, there has been material for just four issues each year.

Another landmark reached at the end of 2004 is 10 years in the life of AXiS following our User Association's restyling and rebadging from AMSU (Association of Mainframe System Users). I was perhaps one of many who thought that AXiS might not have a very long existence but in the overall life of our Association it has now become the longest lived and there are signs that there is yet more life in it. My one concern is that we can attract a little more support for the Executive Committee. Without the dedication of this small band of activists it would not be possible to keep the group active. There will shortly be a call for additional volunteers for the Committee and further, our present Chairman, Harold Cloutt and Vice-Chairman, Ian Myatt will reach the end of their two year office at the end of March. Nominations for Chairman and Vice-Chairman will be sought within the next month.

I hope that you will take note of the back page promotion in this issue for our 30th Anniversary conference which will take place in Manchester. Thought is being given to a display of some relevant memorabilia associated with our Association, with VME, etc over the 30 years. If you have something that you could contribute please get in touch with me or any of the Committee members (See page 2).

Don Folland

Chairman's Column

As we come to the end of another year, it is time to reflect on what AXiS has been doing. The highlight of the year for most of us was the Spring conference at the Earth Centre. It really was a fascinating and interesting venue. It is a shame that they have had some financial problems since we were there.

2004 also saw the arrival of Broadband both for myself and Don Folland. It really does make a difference to the administration of AXiS – some of the email attachments are quite large and it used to take quite a long time to download and upload these with a dial-up link. I am achieving very good speeds on my 1Meg link despite being quite a long way from the exchange – being in fact the last house served by our 'local' exchange. The down side is that I have changed ISP and am now having to 'retrain' my spam filter.

The end of the year is also a time to look forward. For our 2005 conference we are going to be in Manchester, the home of VME. This is an appropriate venue for the 30th anniversary of VME and AXiS. The conference is now being held on 19th and 20th April 2005. The first day will be at West Gorton with the main conference at Manchester United's ground at Old Trafford. The facilities at this venue are excellent and I am sure that those who are not soccer fans will find something of interest. The web-site will be updated as plans are finalised.

I look forward to seeing you there.

Harold Cloutt

Brought Forward from Front Page

The penetration of information technology into different aspects of daily life creates new benefits and new business opportunities, both at the business-to-business and business-to-customer levels.

The companies plan to develop secure and simple technologies for a variety of environments including healthcare services, local disaster recovery systems, personalised customer services that tie businesses and consumers together with "ubiquitous customer relationship management", and advanced intelligent transportation systems, ie networked transportation with a focus on standardisation.

To realize these systems, Fujitsu and PARC plan to focus on the following research areas, with product results appearing as early as 2006. These topics reflect the partners' shared vision and are expected to expand.

- ❖ Simpler and more secure wireless networking
- ❖ **Obje™** software architecture for interoperability

- ❖ Ad-hoc sensor network technology
- ❖ Technologies to protect privacy and simplify security
- ❖ Advanced information visualization technologies

The **Obje™** software architecture is an interconnection technology that enables digital devices and services to easily interoperate over

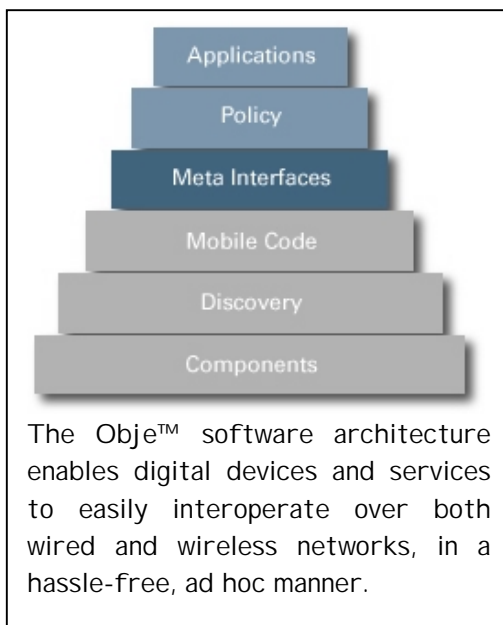
both wired and wireless networks. It provides a simple "meta standard" for interoperation that enables people to access information and services from anywhere, in a completely hassle-free, ad hoc manner.

The **Obje** Interoperability Platform builds upon other industry standards. For example, it can run on top of any mobile code mechanism, such as Jini.

The partners anticipate that other opportunities for collaboration will unfold as

computational and human-science researchers work closely with Fujitsu's research, services and solutions organizations.

For more information, please see: <http://www.parc.com>



VME Partners Club

VME Partnership Club

AXiS members may have heard about the VME Partnership Club. The objective of the Partnership Club is to strengthen the VME ecosystem for the benefit of all stakeholders in the VME business. With Fujitsu Services' support commitment on VME now extending to at least 2020 the company considers it to be important to encourage the spirit of co-operation between their partners and renew their interest in investing in the VME business for the future. VME is an integral part of many Fujitsu customers' strategies and the

partnership alliance will not only increase the communication between all of our partners, it will also positively encourage the enhancement of joint offerings for everyone's long term benefit.

Members of the Club include:

Boldon James (for messaging and host connectivity products)
<http://www.vmesupport.net/vmepartners/boldonjames.htm>

Gresham Computing plc (develops and implements software solutions for banking, integration and storage)
<http://www.vmesupport.net/vmepartners/gresham.htm>

Hopewiser (for address and data management products)

<http://www.vmesupport.net/vmepartners/hopewiser.htm>

IDS (for document and output management solutions)

<http://www.vmesupport.net/vmepartners/ids.htm>

Metascybe Systems Ltd (for product range providing connectivity to VME and UNIX environments, including Windows and browser-based 7561 and VT320 emulations, and IP-to-VME communication gateways.)

<http://www.vmesupport.net/vmepartners/metascybe.htm>

Network Designers Ltd (supplier of connectivity and integration software and service)

<http://www.vmesupport.net/vmepartners/ndl.htm>

Nviron (formerly Manor Park Systems, for the design and build of secure IT infrastructures, the integration of IT applications within an enterprise and the supply of IT professional services)

<http://www.vmesupport.net/vmepartners/nviron.htm>

QAS (for QuickAddress range of international address management software)

<http://www.vmesupport.net/vmepartners/qas.htm>

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For further detail
contact the Editor
(see page 2)

Fujitsu News

Walsall Council and Fujitsu Services to transform services for local people

Approval has been given for a joint venture between Walsall Council and Fujitsu Services worth £650 million to support a project, known as *Putting the Citizen First*, to revolutionise the quality of council services for local people and set up a regional business centre that will boost the economic prospects of the borough.

The Walsall metropolitan borough area covers 40 square miles in the West Midlands and has a population of 252,000. The Council (<http://www.walsall.gov.uk>) is recognised as one of the fastest improving in the UK and has a strong track record in private/public

partnerships, including an award-winning street lighting replacement project with Amey and the successful running of its education service with SERCO.

The aim of this latest project is to interpret the Council's vision to provide citizens with easy access to services enabling them to sort out their business wherever possible with one visit or phone call rather than several. For example, a citizen enquiring about council tax, waste collection, library or any other council service will be able to resolve all these issues with just one call.

Callers will find longer opening times for visits and telephone calls whilst email and internet queries will get 24 hour, 7-days a week access. There will be a number of district service centres across the borough.

The partnership will cover over 20 council functions and services and 1,557 council staff will transfer with full terms and conditions protection, pension rights, improved training and development and nearly £20 million investment in the latest technology.

The partnership will also involve two United Utilities businesses: **Vertex** (<http://www.vertex.co.uk>) for the provision of a range of customer management, transactional and back office services and United Utilities' asset and operations management division, who will provide facilities and property management services. Working as a subcontractor to Fujitsu Services, Vertex will manage and re-engineer a number of Walsall's business processes, ranging from administration and customer services to revenues and benefits and human resources. United Utilities Contract Solutions will provide property and facilities management services across the Councils' portfolio of buildings.



Desktop MOT - does your desktop pass the business test?

Fujitsu Services considers that a worrying number of organisations are coping with inadequate desktops. This concern was reinforced at a recent Gartner Symposium when it was announced that desktop refreshing was one of the three major priorities for IT directors. Fujitsu recommends that all IT directors should take the following desktop MOT in order to find out whether their desktop environment is business-worthy for 2005. There are five key tests.



1. Are you ready for a gear change?

With technology evolving as fast as it is, IT directors must be ready to upgrade or adapt quickly in order to retain business competitiveness. Do you know the technologies, old and emerging, that could change the way your desktops operate? And would you be ready to implement them rapidly and efficiently?

2. Are you in the driving seat?

Every good business has IT policies in place, to both boost its employees efficiency and prevent misuse of resources, but they can be hard to enforce. Do you have the right information to know when policies are being breached? Do you have the authority and ability to enforce them? A policy is only as good as its policing.

3. Are you sure you are secure?

Viruses and hackers might attract the headlines, but there are more everyday security risks to be aware of. Is your desktop set up to minimise the risks of office behaviour, which may leave business critical information vulnerable? Do passwords automatically expire? Do you take into proper account the risks of personal and mobile devices, which leave the office environment?

4. Do you know your value?

It is business reality that boards are under pressure to cut costs throughout their companies. If your Chief Executive demanded a 10% reduction in desktop costs within three months, could you meet the target while minimising any damage to productivity and efficiency? Plan for the best but prepare for the worst - calculate your total cost of ownership and know your return on investment.

5. Are you fully prepared?

In an unpredictable IT environment, problems will occur through IT failure or security breach. The critical thing is to expect the unexpected and put in place procedures that protect business critical information. Do you have automatic data back-up and sophisticated data recovery techniques in place as an insurance against the unexpected?

If the answer to just three of these questions is "no" or even "unsure", then you need to rethink and refresh your desktop environment. For many businesses what happens at desktop level is more important than what happens at boardroom level. Seek sound advice from a reputable dealer and make sure your desktop is business-worthy.

Fujitsu Services to help South West Trains to improve customer service in station ticket offices

South West Trains, part of the Stagecoach Group, has signed a contract with Fujitsu Services to install and manage Fujitsu's new STAR ticket issuing systems in 150 of its stations.

The new systems will enable South West Trains to deliver better customer service including reduced queuing times by  allowing faster and more accurate journey enquiries and ticketing. The system also has Chip and PIN capabilities to ensure that rail transactions are more secure.

South West Trains, whose network hub is London Waterloo, runs 1,635 trains every weekday, serving 207 stations and employing around 5,250 staff. Approximately 143 million passenger journeys a year are made on routes through Hampshire, Surrey, Dorset, Wiltshire, Berkshire, Devon, Somerset, Cornwall, East and West Sussex and Greater London, serving a mixture of commuters and longer-distance travellers.

300 STAR Ticket Office Machines will be deployed across South West Trains' network by the end of 2005. STAR will help front line ticket office staff, by streamlining the sales process and allowing them more time to assist passengers. South West Trains will also aim to realise savings in the back office, as STAR provides managers with better information, more quickly, than the legacy APTIS systems, developed during the 1980's, that are being replaced. Considerable paper-based administration will also be removed, allowing South West Trains staff to focus on higher value activities.

AXiS News

Following extensive trials of the competing solutions during 2003, South West Trains undertook a formal procurement under EU competition rules. At the end of the evaluation they decided that STAR was the best fit to their business requirements, and ultimately offered the best value for money.

Fujitsu Wins Multi-Million BT Contract with Skanska

Early in December BT awarded a major contract to Fujitsu Telecommunications Europe Ltd in partnership with Skanska. The equal-share partnership will be providing BT with build-out and network upgrade services during the contract, which has a total value of some £130 million, with the project forming an integral part of BT's network upgrade programme. Within Fujitsu, the company's Network Support Services (NSS) division will be managing the contract, working in partnership with Skanska, while reinforcing its long-established role in supporting BT's network.

Through its NSS division, Fujitsu has a long-established track record for building and maintaining telecommunication infrastructures, with services that encompass network planning, safety and risk assessment, statutory body co-ordination and civil engineering, as well as fibre and cable provision. Services also include the repair and installation of overhead and underground networks, in the UK and overseas.

Skanska (<http://www.skanska.com>) is an international construction services business operating under three business streams - PFI/PPP; Civil Engineering & Specialists; and Construction. The company combines design, building, civil engineering and building services with a wide range of specialist skills.

£7.5 million IT revamp for British Waterways

British Waterways (<http://www.britishwaterways.co.uk>), the not-for-profit organisation responsible for the care and maintenance of more than 2,000 miles of canals and rivers in the United Kingdom, recently announced a £7.5 million full

outsourcing arrangement with Fujitsu Services. The five-year contract will see British Waterways achieve a 35% reduction in the cost of running its IT.

These cost efficiencies will be delivered through the restructuring of British Waterway's existing IT infrastructure. Working with Fujitsu has enabled British Waterways to consolidate its server infrastructure, leading to a 60% reduction in server requirements. This new way of running the infrastructure will enable all employees, whether based in head office or working remotely, to have access to the same corporate systems. This will improve communications between head office and engineers, allowing the £400 million property portfolio to be better managed by ensuring that essential documents, even data-heavy technical drawings, can be accessed and transferred easily by all involved.

Under the new contract, Fujitsu will remotely manage British Waterways' desktops, and provide helpdesk support around the clock for British Waterways' 1,500 staff, five per cent of whom work remotely. Calls regarding technical difficulties will be handled at a helpdesk in the UK using Fujitsu's award winning management methodology, 'Sense and Respond', which reduces call volumes by tracking recurring problems and implementing a lasting solution. Also, with 24/7 IT support now provided by Fujitsu the revenue streams generated from leisure services such as the printing of boat licenses and marina space reservation will be protected at weekends.

The contract also sees the transfer of 16 British Waterways IT specialists into Fujitsu via TUPE. The service transition was completed in October 2004. Following this, the entire desktop and server infrastructure will be designed, delivered, deployed and operated by Fujitsu. This includes a technical refresh of all laptops and PCs, consolidation and migration of servers and a migration from Novell to the latest Windows operating environment and Microsoft Exchange mail services.

Fujitsu gives mid-sized retailers a platform to compete with their larger rivals

Fujitsu Services has introduced iRetail – an integrated portfolio of in-store and head office solutions that specifically addresses the needs of mid-sized retailers including sophisticated EPoS, Stock Management, Customer Relations Management, Web Management and Chip and PIN.

iRetail is available for a monthly service charge with no up-front capital investment required, starting from £100 per month per point-of-sale which includes a fully functional EPoS configuration.

Fujitsu provides a one-stop shop for iRetail and manages the IT complexity behind delivery and support is on hand seven days a week. The retailer needs no IT skills either in-store or at head office to exploit the services and no investment in IT infrastructure to run them.

With iRetail, Fujitsu brings business best practice in retail to all without the need for expensive customisation and costly software updates. Retailers using the service can automatically and instantly benefit from any enhancements made to iRetail. Once connected to iRetail, all can benefit from a growing portfolio of value-added services such as loyalty schemes and electronic gift vouchers.

iRetail is pre-accredited for Chip and PIN. There is no need for either separate bank-owned terminal or the often lengthy and complicated accreditation process required for other integrated EPOS and payments systems.

Fujitsu has brought together a number of best in class specialist companies in retail and payments systems to deliver iRetail, thus relieving the retailer. These include Cybertill, Comms XL, STS, BOX Technologies, Ingenico, Cyntergy and Iona Business Systems.

From the Archives

At the end of 1984 ICL published three Statements of Direction which for AXiS historians make interesting reading: Non-Impact printers, ME29, Office Systems and VME Networks

Non-impact Printers

Non-impact Printers using several new technologies, such as laser electrography, magnetography and ink jet are emerging as alternatives to conventional electro-mechanical impact printers. Laser printers in particular represent a sound combination of functionality, reliability and price performance and have so far proved themselves ahead of other technologies. ICL will offer a range of laser printers in association with both its mainframe and distributed office systems. It will continue to monitor the development of other technologies so as to maintain the competitiveness of its products.

Applications such as billing, direct mail, those using heat-sensitive forms, as well as line printer replacement require medium to high speed continuous stationery devices. ICL currently offers one off-line LPS14 high speed laser printer (206 pages per minute at A4 landscape) to address needs in these areas to both its own customers and those with mainframe equipment of other manufacturers. ICL intends to offer a range of off-line devices with the addition of a medium speed off-line printer, (103 pages per minute at A4 landscape), and also will provide on-line facilities to ICL mainframes.

Printing and publishing is a new application area for non-impact Printers, evolving from traditional print shop and publishing areas. At the higher speed levels there is a requirement for continuous stationery devices, also required where form sizes other than A4 are in use, and for certain applications where the specific functionality of these devices is essential or where heavy investment has been made in paper handling equipment. Customers' needs in these areas will be met by the range of continuous stationery laser printers referred to above.

There is an increasing requirement for A4 cut-sheet printers at medium and low speeds. ICL intends to offer a range of cut-sheet devices, complementary to the continuous stationery range. As well as the low speed printers on DRS, medium speed devices for attachment to mainframes and/or for network access via a print server, will be included.

ME29

The ME29 Range of systems was introduced in 1980 as a successor to the proven 2903 Range. The range has since been expanded with new models and peripherals, and the TME operating system has been developed to offer a comprehensive range of facilities, with particular strength in its Transaction Processing capability through TME-TP. The customer who moves from 2903 has his existing software investment protected by the on-going support of the MTS environment.

The ME29 Range now has some 2,000 users in 80 countries worldwide with usage in a range of applications from cartography to rent collecting. There is particular strength in the Manufacturing and Public Administration sectors.

A number of developments have been scheduled which are to be completed in a timescale beyond the general release of TME Release 9.

Office Systems And VME Networks

This Statement of Direction was issued to accompany the announcement of Executive Action, which is the first strategic VME application product introduced to support the general needs of office users to inter-communicate on a VME network.

This document specifically addresses Office Systems used by organisations who also have VME systems in place or planned, handling their Data Processing applications.

ICL recognises that many, if not most, office systems users will primarily be working with products and services on their desks which are running on office workstations. The strategy is to support the interconnection of these workstation into a VME network, so that users will then have available a combination of VME services and non-VME applications.

The various ICL office workstations will continue to have the primary functions for which they were bought, eg word processing or spread sheet applications, but will also have a VME interactive role. In this latter mode, they will be able to interchange messages, documents or data via the VME network. ICL office workstations will progressively offer an integrated capability between these two modes.

VME systems mode will provide access to non-office applications and databases. It will also provide common office applications applicable to the office user community on the network. Local workstation applications will support the individual local user needs, and will tailor the interface the user sees into the VME services.

The increased information flow and storage/retrieval requirements, arising from use of VME systems by office users and applications will be met with future VME enhancements. These will be aimed at text, graphics, voice and image information, providing integrated on-line document storage facilities. CAFS assisted text retrieval facilities are also planned for 1985.

The following classes of workstations will be supported in their office function, by use of their connection into Executive Action on VME.

8801, providing general word processing, used primarily for document preparation

DRS20/40 and 50-type systems, providing distributed data processing functions in departments

PC2, providing a range of industry standard applications and personal computing

DRS20/16 and 30 type systems, providing access direct to VME applications

The interconnection of these ranges into Executive Action will be supported during 1984, and will allow documents to be moved between 8801s or between DRS20/40 - 50 (with DTM or TED) or between PC2. A major addition of a specific Network Product Line ICL MAIL package will be introduced early in 1985.

Tailpiece

Programme Managers

A senior hardware engineer, a senior software engineer, and their programme manager are taking a walk outdoors during their lunch break when they come upon an old brass lamp. They pick it up and dust it off. Poof -- out pops a genie.

"Thank you for releasing me from my lamp-prison. I can grant you 3 wishes. Since there are 3 of you I will grant one wish to each of you."

The hardware engineer thinks a moment and says, "I'd like to be sailing a yacht across the Pacific, racing before the wind, with an all-girl crew."

"It is done", said the Genie, and poof, the hardware engineer disappears.

The software engineer thinks a moment and says, "I'd like to be riding my Harley with a gang of beautiful women throughout the American Southwest."

"It is done", said the Genie, and poof, the software engineer disappears.

The programme manager looks at where the other two had been standing and rubs his chin in thought. Then he tells the Genie, "I'd like those two back in the office after lunch."



**30th Anniversary
Spring Conference
Manchester
19 & 20th April 2005**

Reserve these dates in your diary
Or book online: www.axis.org.uk

The 30th Anniversary event and is being held in
Manchester United's Conference facility at Old Trafford

Special events include:

Keynote speech by Brian Warboys – The Father of VME
Tour round MAN05 (the home of VME) before it relocates
Manchester United Tour
Trip down memory lane – See all the old kit
VME Workshops
Technical Update
VME Roadmap Update
Competition Prizes
Plus lots more

The VME Event of 2005