

WEST YORKSHIRE
BRANCH



THE BRITISH COMPUTER SOCIETY

<http://www.bcs.org.uk/branches/westyorks>

NEWSLETTER

APRIL 2004

SPRING MEETING

Tuesday, 25th May 2004 18:30

The "New BCS" –
Leading Professionalism in IT

Speaker: David Clarke, Chief Executive of the BCS

followed by

Branch Annual General Meeting

Venue: Hotel Metropole, Leeds

Light refreshments will be available from 17:45

Chair & Computer Challenge 2004 Winners

[Photo in here]

COMMITTEE MEMBERS

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Visit our Web site for up-to-date information on all events and for directions to all venues

CHAIRMAN'S NOTES

As we approach the AGM it is time to reflect on the year that has been and look forward to the year ahead. I am impressed with the range of activities in the branch this year.

Branch Meetings. The Committee strive to bring you interesting topics and speakers. The one meeting this year, which is still talked about with excited enthusiasm, is the webcast meeting in October on Wireless Broadband. Following the meeting we received emails from all over the world from BCS Members who were able to view the meeting on-line. As one member noted, this is an excellent way forward not only for Members who work away from Yorkshire but also for disabled members.

Spring Visit. Last year it was a brewery, this year it is the York Railway Signalling Centre. These visits are a good opportunity to get out and see practical applications of technology.

Universities. This year we celebrated 20 years of the University Computer Challenge. Some of the questions may be a little dated but I am delighted that computer students still know Asimov's Three Laws of Robotics! The branch has strengthened its support to students this year by making arrangements to sponsor prizes to students of BCS exempted courses in our local universities.

Schools. This is one area I am keen to develop, to bring the concept of Computing and IT as a profession to schoolchildren. This year we have backed one school in its bid to become a specialist school in mathematics and computing and we are awarding the prize to the best implementation of the LocalBiz project, which is a pilot work-related learning programme. We also have attended careers fairs at schools in West Yorkshire to encourage young people into a career in Computing.

There has been a lot of activity this year and I commend the committee to you. It is an easy job to chair a committee, which is active and reliable. However, we are always looking for fresh ideas and willing pairs of hands. Please consider whether you can contribute to the running of the West Yorkshire branch and put your name forward for the committee.

I look forward to seeing many of you at the AGM in May. We are honoured to have as our guest speaker the Chief Executive of the BCS, David Clarke who will share with us his drive for the British Computer Society to lead professionalism in IT.

Helena Bowe MBA MBCS CITP

MEETING FOR SPRING 2004

Tuesday, 25th May 2004 18:30

The "New BCS" – Leading professionalism in IT

followed by

Branch AGM

Speaker: David Clarke, BCS Chief Executive
Venue: Hotel Metropole, Leeds

David Clarke has been the Chief Executive of the BCS since May 2002. Prior to joining the BCS, David was head of Trinity Mirror's Digital Media Division. Trinity Mirror's digital media interests included

one of the UK's leading and fastest-growing ISPs at the time, ic24, the on-line version of its national newspaper, entertainment, sport and consumer champion sites (ic Showbiz, icSport, icChoice) plus regional sites based on the Group's 161 regional newspapers.

Prior to joining the Mirror Group, David was one of the technology and Internet industry's top marketers, joining the Mirror Group from the Virgin Group in April 1999. During his time with Virgin, David reported directly to Richard Branson and headed up all of its new media and Internet activities. During this time Virgin Net made the dual achievement of winning the UK ISP of the Year award two years running.

David spent the previous eighteen years in increasingly senior marketing and sales roles in global technology companies.

Helena Bowe MBA MBCS CITP

REPORTS OF PREVIOUS MEETINGS

Monday 19th January 2004

"PRINCE2 & DSDM "

Dot Tudor, Chair of BCS Methods & Tools Specialist Group

This was our first joint event with BCS Methods and Tools Specialist Group.

Our speaker for the evening was Dot Tudor who is the current chair of the BCS Methods and Tools Group. She is a Fellow of the British Computer Society and a BCS/ISEB Certified Project Manager. She is also a Certified Practitioner and Trainer for both DSDM and PRINCE2.

Dot delivered a most interesting presentation that examined how it is possible to integrate/use these two frameworks together on the same project.

For those of us who needed a refresher, we started with a brief overview of both PRINCE2 and DSDM, highlighting the strengths of each approach throughout a project lifecycle. I was particularly impressed by the way Dot effectively showed us the similarities/differences between each methodology. Producing slides that took us through each framework, overlaying where one framework worked better in a specific area, Dot shared her insight and knowledge of implementing PRINCE2 and DSDM together. In conclusion we had to agree that together they are complementary and synergistic. However care is needed to avoid duplication, overlap and conflict.

A copy of Dot's slides used during this meeting can be found on the DSDM web site at

<http://www.dsdm.com/kss/details.asp?fileid=464>

It is our hope to continue joint events with this and other BCS specialist groups in the future. The West Yorkshire BCS branch committee would welcome topics and suggestion.

David C. Jenkinson

Wednesday 18th February 2004

"The Challenges and Benefits of Supporting

Community Wide Health Care"

Sue Rushbrook, Joint Head of IM&T, Selby & York PCT and York Health Services Trust

We had a very interesting and informative evening, the talk being delivered in a lively manner and with humour. It prompted plenty of discussion after the meeting - continuing even after Sue had left.

Sue started her talk by describing the size of the Selby and York Health Community in various ways; the area covered is from north of Easingwold to south of Selby with a population of 300,000 supported by 6,500 staff from over 90 sites. She also explained the number of diverse organisations within the community ranging in size from a large acute Trust to General Medical Practices and taking in a Strategic Health Authority, Family Health Services and WDC in between.

Building on this background Sue went on to outline the voice and data network of the past (1999-2000) and contrasted that with the requirements and aspirations (as at 2000) of the voice and data infrastructure. By describing some of the infrastructure problems that they were facing in 2000 with both the data network and the voice systems we began to understand why a converged network was considered. Amongst the problems faced were bandwidth issues, multiple vendors PBX and no room for growth on the voice side.

The next stage was the appraisal of the various options available, starting at Option 1 - the "Do nothing" option which will be familiar to some of you and ending at Option 4 - converging the voice and data networks. The first two options were not feasible; the third option (upgrading the LAN and replacing the phone systems but keeping the infrastructures separate) turned out to be more costly than option 4 and also wasn't "future proof". Consequently the fourth option was adopted as it met the objectives and allowed solutions for the future in the form of a community wide WAN.

The deployment kept Sue's team busy. On the data side they:

- created a gigabit backbone
- installed over 100 Cisco powered switches
- implemented 28 virtual local area networks which involved changing the IP addresses of over 2,000 devices

On the voice side there was a 3-month pilot with 92 phones, one of which was Sue's. The pilot did highlight some issues such as the lack of "ring back when free" functionality. Also, a word of warning - should someone invite you to choose the music to be played when a caller is on hold - decline the offer! - as you cannot please everyone.

Bringing us up to the present, Sue then told us about the community WAN as it stands. The WAN covers:

- 4 hospitals
- 10 health centres and clinics
- 35 General Medical Practices occupying 71 sites
- 4 Special Needs Units
- 5 Community Units for Elderly Mental Health
- 2 Community Rehabilitation Units for Elderly
- 9 Mental Health Facilities
- Wheelchair Centre
- Walk in Centre
- Joint Equipment Store
- Strategic Health Authority
- WDC

And that there are:

- Over 3,000 pcs and printers
- Over 2,100 IP phones
- Over 300 analogue phones
- Wireless coverage of all ward areas (40 wards)
- Over 6,200 users, 3,000 of them using clinical applications

The LAN has a core gigabit backbone using redundant fibre links and spanning tree for resilience. The WAN is predominantly LES 2 and LES 10 circuits with some LES 100 circuits, some private circuits and some wireless links (NHSIA approved). The voice set-up has 5 call managers, 1 voice mail server, 1 ICD server, 2 ARC Console servers and 4 VLANs.

Looking to the future, the existing contact centre will be extended to cover primary care and there will be a pilot in community care using unified messaging. They are also looking at XML services including an XML message to send information to primary care. They hope to use wireless technology to roll out the clinical application currently being piloted, move on to pilot softphones on iPAQs and replace "bleeps" (as seen on ER etc.) with wireless phones. The IP telephone system will shortly be rolled out to more of the sites on the WAN. (*I am eagerly awaiting mine! MM*)

Sue summed up her talk by looking at the benefits that have already been achieved and those in the near future. On the health care front there will be improved patient care as a result of improved communication within the local health community. This will happen as a result of the improved telephone system and also because of improved access to information and better sharing of information. For example, GPs will be able to access parts of the hospital patient record for their patients (with security safeguards in place). Also they are looking at sending certain referrals letters from GPs to the hospital electronically as well as getting some information from the hospital to GPs using XML messages (see above).

The business benefits include the "internal" telephone directory on each phone, increased redundancy giving better fault tolerance, quicker resolution of faults and a cost reduction in line rental, support and call charges.

It was a very stimulating talk and several people said that, whilst not directly relevant to their field, they had heard things that could be applied to their work. The discussion carried on afterwards in the hotel bar - one sign of a good presentation.

Margaret Moore

Wednesday 24th March 2004

Digital Certificates

Why? What? How? When?

Speaker: Dr David Holdsworth, Leeds University Information Systems Services

David provided an entertaining and informative talk interspersing hard facts with amusing anecdotes and ending with a method for finding your mother's age!

Why? The purpose of digital certificates is to establish an electronic identity so that you can send messages that the recipient can be certain is really from you and has not been tampered with. The beauty of a digital signature is that the secret lies with the owner and is never transmitted, unlike a password.

What? A digital certificate is a sequence of bytes that identifies its "owner". Its content includes a public key and the owner's name, and anyone can have a copy. However only the owner knows the private key. Digital certificates must be issued and "signed" by someone that we all can trust. Such a body is called a Certificate Authority and their certificates have to be self-signed. Verisign is the most well known of these authorities.

Leeds University have created LUCIE (LU Certificate Issuing Engine) to issue certificates to bona fide students using the institution's databases to check against.

As an example of use, a browser on initiating a secure session using https, say with a bank, will receive from the bank its digital certificate. The browser checks that the bank's name within the certificate is correct and then sends the bank a number for the bank to encrypt with its private key. The browser then uses the bank's public key; plucked from the certificate, to decrypt the returned encrypted number and check that it's the number it first thought of! A similar process in reverse could be used by the bank to check your authenticity.

How? Digital certificates use RSA encryption which itself is based on the 10th century Chinese Remainder Theorem and Fermat's Little Theorem. Space and the writer's understanding preclude an exposition here.

When? Digital certificates have been around for over ten years and anyone who has used a browser will have used them without knowing as they are part of SSL. The Inland Revenue use them but issuing certificates is messily bureaucratic. It needs a killer application to make them more universally adopted.

Finally what of your mother's age? Ask her to divide her age by 3 and remember the remainder (a), then, similarly by 5 (b) and 7 (c). Her age is $(a \times 70 + b \times 21 + c \times 15) \bmod 105$. Why does this work? – It's all to do with her digital certificate!

David Whiteley

THE BCS COMPUTER CHALLENGE 2004

Every year the West Yorkshire Branch of the British Computer Society invites each University in the North East of England to send a team to take part in this fun event. The teams are comprised of four undergraduate students from any year and every participant receives a book token and the winning team is given a shield. The rules are the same for the BBC University Challenge except that there is one starter question but only one follow-up question.

This year was the 20th time that the event has been held and six teams registered for the event, which was held at the University of Bradford on 17th March. The Bradford team had won the Challenge in the two previous years so the aim of every team except Bradford was to ensure that they did not make it a hat-trick. The six teams played knockout heats in pairs to produce three quarter-finalists and then the losers played eliminators to establish the final quarter-finalist. All the heats were very closely fought, many being settled in the final pair of questions. Bradford made it through to the quarter final as the highest loser, keeping their hopes of a hat-trick alive and Huddersfield, Hull and Teesside joined them.

These four teams battled on, Bradford keeping their hopes alive into the final but facing a very strong team from Teesside. The final proved rather more decisive than any of the previous games and Teesside eventually took the honours with 34 points to Bradford's 14. Whilst many of the teams were multi-cultural and some multi-national, the finalists were truly international with one member from India, one from

France, one from Germany and one from the UK. The names of the winning team were:-

Brian Bailey (UK), Dirk Budke (Hanover, Germany) Erasmus Student, James Decraène (Rheims, France) International Student, Vasanth Manickam (Mysore, India) International Student.

Dr Paul Rhodes

THANKS

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