



RedNews

The newsletter of Redwood Technologies

Spring 2006

Headlines



**REDWOOD
TECHNOLOGIES**

Welcome to the Spring 2006 edition of RedNews – a selection of Redwood's top news stories of the last quarter.

2006 has seen an ongoing surge in demand for VoIP-enabled systems. Over 90% of all DNX® infrastructure installed in the last two quarters has incorporated VoIP technology, with clients including fixed and mobile carriers, ISPs, ASPs, large enterprises and OEMs.

In addition to the company's ongoing product development, the next few months will see Redwood participating in a range of Summer activities, including its annual sponsorship of Bracknell's Half Marathon event.

For further information regarding any of the news articles, or for details of Redwood's Value Added Network Services product portfolio, please contact Sarah James on +[44] (0) 1 344 304 344 or sdj@redwoodtech.com.

Front Line Communications Upgraded at The Carphone Warehouse

Set up in 1989, The Carphone Warehouse, trading as The Phone House internationally, is the world's leading independent mobile communications retailer, with over 1,400 stores in 10 countries.



The Carphone Warehouse has upgraded its front line UK contact centre interface to Redwood's award-winning DNX-1200.

The Redwood system receives all incoming calls from customers connected to mobile networks such as O2, Orange, Vodafone and T-Mobile, with different DDI numbers set up for the range of IVR and call routing services.

The DNX-1200 allows The Carphone Warehouse to deal with customer enquiries quickly and efficiently whilst allowing huge headcount cost

The Phone House

...for a better mobile life

savings. Typical calls, such as bill balance and free minutes status checks, can be handled by the systems' IVR modules without the need for agent interaction. On average, 40% of the 40,000 callers per day are satisfied with information received from automated IVR menus alone.

As well as providing vast cost-saving benefits, the upgrade provides a redundant solution for enhanced reliability. DNX-1200 media gateways are installed at The Carphone Warehouse's two main call centre sites, with a failover capability between locations.

The award-winning DNX-1200 system stems from Redwood's powerful RTSinfonia® communications architecture, from which thousands of telecommunications and IT systems and services have been built. RTSinfonia provides the ideal solution for organisations in all sectors to service today's demands, whilst building the capabilities to satisfy the requirements of tomorrow.

Further information on The Carphone Warehouse and the company's range of products and services can be viewed at <http://www.carphonewarehouse.com>.

THE Carphone Warehouse

...for a better mobile life

KPN Boosts Systems for Media-Generated Phone Traffic



Incorporated in 1989, KPN Telecom NV is the largest telecommunications company in the Netherlands, with revenues of \$14.35bn for the fiscal year ended December 31, 2005. KPN provides telephony, mobile and data services to business and residential customers in the Netherlands, Germany (E-Plus), Belgium (BASE) and Western Europe.

KPN is a market leader in mass calling services for companies in the Netherlands, including reality television producer Endemol Nederland, the creator of the popular Big Brother reality TV show.



KPN provides the telephony network that handles the many thousands of calls made during the interactive Big Brother programme. With up to 600 calls per second, it is critical that the company's

telecommunications system is reliable and robust enough to handle enormous call volumes. Any system downtime to the mass calling service would not only potentially impact the revenue of the company, but would also have an adverse impact on its brand.

For this purpose, KPN has implemented Redwood's Next Generation Network DNX media gateway, supported by Microsoft® Windows® Server software. The result is the Netherlands' largest mass calling solution, establishing KPN as the leading provider of mass calling services in the region.

The system, which incorporates fixed-charge and time-based billing mechanisms for participants using mobile, fixed line and online communication, also allows the company to operate a range of additional converged



Dutch Big Brother Contestants.

services, such as network announcements and a Directory Enquiries facility.

Continued on page 2.

KPN Case Study
Redwood Around The World

Page 2

R U Ready 4 SMS
Market Growth?

Page 3

RedAlert for Rapid
Communication

Page 3

The Redwood Team
– an Interview with
Jim Taylor, Business
Development
Director

Page 4

Redwood Corporate
Events

Page 4

KPN Boosts Systems for Media-Generated Phone Traffic

Continued from page 1.

KPN has realised a number of immediate benefits.

Increased Revenue Opportunities

The greater speed with which KPN can handle calls has resulted in an increase in revenue. For services such as televoting, callers are commonly charged a flat rate, known as a drop charge. To maximise income, it is therefore essential that KPN can handle as many calls as possible within the shortest timeframe.

Joop van der Wijngaard, Manager, Voice, KPN, says: "As a result of the increased speed of this new system, we deal with more customers and, at the end of the day, increase revenue."

Business Consistency

The DNX provides a completely redundant and robust solution, an essential requirement for KPN.

"Our mass calling service works in tandem with a live television broadcast and must handle the voice calls and text messages that come in during a strict time period. If the platform collapses in that timeframe, we are in trouble," says Wijngaard. "For instance, if we handled the calls for televoting during a 10 minute television programme, the phone lines may only be open for that short 10

minute period to handle hundreds of calls. If we're offline for five minutes, that's potentially half our customer revenue lost. It's essential we have the infrastructure in place to support this volume of calls. Reliability is critical to our business. We had very high expectations and we haven't been disappointed."

Reduced Operational Overheads

The DNX system has enabled KPN to decommission a number of legacy systems used for running Value Added Network Services. This has assisted KPN in significantly reducing its operational expenditure.

Accelerated Service Development

Redwood's highly powered Service Creation Environment, RTComposer®, is a graphical drag and drop interface that allows KPN developers to build and develop complex services quickly and easily.

Using RTComposer, KPN is able to develop and roll out new services in minutes, rather than weeks. If a television producer requests a mass calling service to handle a high volume of calls, KPN is the only carrier in the Netherlands equipped to provide such a service on the day of request.

"It's much easier to programme applications for the new platform," says Wijngaard. "Programming on the last platform was difficult, time-consuming, and

labour intensive. The new platform makes application development quite simple, with an easy user interface. This saves us a lot of time and money. On average, depending on the sophistication, our development cycle is three times faster."

Enhanced Services

The robust and scalable infrastructure of the Redwood DNX allows KPN to add new services and additional capacity without system redesign, allowing the company to look to the future and keep pace with the fast moving telecommunications industry.

Key Benefits

- ✓ Ability to process 50% more calls; increase in revenue.
- ✓ Decrease in operating costs.
- ✓ Three times faster software development cycle; improved competitiveness.
- ✓ Boost in efficiency with improved manageability.
- ✓ Future proofing through the introduction of new next generation services.



Worldwide Big Brother Houses.

Wijngaard comments: "The most appealing aspect of the whole solution is that it is a converged services platform. The Redwood solution provides essential reliability and resilience in a way that is both seamless and invisible to us."

Further information on KPN can be viewed at <http://www.kpn.com/>.

Redwood Around the World



CeBIT in Hannover, Germany, saw the start of Redwood's 2006 calendar of events. As the world's largest ICT show that annually attracts

thousands of exhibitors and close to half a million visitors, the latest CeBIT once again proved itself as a leading event for innovative and trendsetting technologies. Redwood was delighted with the substantial interest in its industry-leading converged services product range and the show has already resulted in a number of new DNX platform sales.

With a total of 9,450 attendees, California's Spring VoN 2006 in mid-March was the biggest VoN event to date. Redwood's US office exhibited at the show, and once again took the opportunity to showcase its award-winning DNX converged services platform for Next Generation Networks.

As a major player in the booming African market,

Redwood's Martin Taylor, Sales and Marketing Director, addressed an audience of official delegates at a recent major conference in Nigeria, followed up with a programme of scheduled visits to some of Lagos and Abuja's biggest telecoms companies.

From 20 to 22 June this year, Redwood will be returning to the region to exhibit at what has been described as the 'biggest and best organised ICT show in West Africa', W.Afri.Tel. To schedule a visit with Redwood in Lagos during this event, please e-mail Sarah James at sdj@redwoodtech.com.

To view Redwood's regularly updated calendar of events, please visit <http://www.redwoodtech.com/events/events.asp>.

R U Ready 4 SMS Market Growth?

SMS (Short Message Service) has rapidly grown to become one of the world's most popular forms of communication in both consumer and business markets. Over a trillion SMS messages are already sent worldwide each year and that figure is set to double by 2009.



Now seen as discreet, reliable, high speed and cost-effective, many consumers and businesses have started to rely on SMS as a flexible and convenient communications method. In addition to personal mobile-to-mobile 'text messaging', SMS is commonly used for a whole range of services such as information and alerts (finance, horoscopes, music, news, sport broadcasts); reminders (hair, dentist,

surgery appointments); entertainment (chat, competitions, games, ringtones) and voting (national polls, televoting).

In order to cater for the huge surge in mobile messaging, leading-edge equipment is of paramount importance to carriers and Service Providers. Traditional SMS network designs that presented capacity limitations and throughput issues are no longer plausible for the vast quantity of messages now sent on a daily basis around the globe. For example, television programmes such as Big Brother and Pop Idol, where viewers control the outcome of a show by voting to evict or save contestants, have proven to be exceptionally popular and typically generate millions of votes in just minutes.

Redwood's high performance, carrier-grade SMS platform offers a flexible approach to hosting SMS services. By integrating HLR (Home Location Register) and VLR (Visitor Location Register)



functionality, the platform is able to offer termination and transmission of arbitrarily large numbers of SMS messages at SS7 signalling rates, with support for both mobile and fixed line SMS formats. The system additionally incorporates reports and announcements features that allow reliable real-time monitoring and cost control.

Redwood's SMS solution allows integration with existing databases and communications architecture and can run concurrently with additional Redwood solutions, including mass calling, contact centre solutions, call recording and VoIP.

For further details, please visit www.redwoodtech.com or contact sales@redwoodtech.com.

RedAlert™ for Rapid Communication

Rapid communication with large groups of people has become increasingly important over the past few years. As a public service, rapid message dissemination can potentially save lives and reduce disaster impact by quickly informing targeted groups about critical evacuation procedures. In a business environment, it can improve business efficiency by allowing important information to be broadcast quickly and easily.

Scenarios include life-threatening emergencies that may necessitate immediate evacuation (bomb threats, risk of disease outbreak, impending weather emergencies); unexpected events that may call for an immediate mass broadcast of vital information (plant and equipment failure, natural disasters, PR crises); alternatively, message broadcasting can simply be an important tool for companies that need to send information to large numbers of people (service disruptions, financial updates).



Whatever the scenario, Redwood's RedAlert application allows organisations to fulfil legal and service obligations with fast and effective mass outbound alerting.

Services include voice blast/voice drop solutions for large enterprises, warning systems for public

sector deployments and interactive gaming for the entertainment industry. Critical information can be quickly dispatched to contact groups by a full range of notification mediums:

- ✓ Live voice – either as a broadcast ('live feed') or a multi-party conference.
- ✓ Recorded voice – played directly or deposited in a voice or e-mail account.
- ✓ SMS – to mobile devices or fixed line telephones.
- ✓ E-mail – text, voice or fax messages.
- ✓ Fax – to fax machines or e-mail accounts.
- ✓ Pager – to alpha pagers.

Many thousands of RedAlert campaigns can run simultaneously on a single RedAlert platform. Furthermore, the service can be integrated with additional Redwood solutions for multiple, concurrent revenue-generating opportunities and enhanced RedAlert support.

RTMonitor® allows real-time monitoring of hardware and applications.

RTInstantBilling™ allows prepaid, real-time and event-based billing. A prepaid RedAlert campaign provides strict outbound communication cost control.

RedMatrix® multi-party conferencing allows large-scale live feeds from conferenced parties. Conferences can be scheduled, or created immediately in response to an emergency.

RedRecorder™ allows RedMatrix conferences and other critical information to be recorded for optional broadcasting.

RedLink® Unified Communications allows messages to be sent in a format uniquely tailored to the recipient. For example, e-mails can be accessed by telephone via Text-To-Speech, and faxes and voice mails can be sent as e-mail attachments.

Key Features

- ✓ Configurable contact groups, sub-groups and shift patterns.
- ✓ Immediate and scheduled message distribution.
- ✓ Prioritisation of important messages and key contacts.
- ✓ Remote callout activation via phone or Internet.
- ✓ Retry facility for unreachable contacts.
- ✓ Text-To-Speech function.

Please visit www.redwoodtech.com or contact sales@redwoodtech.com for further information.

The Redwood Team – An Interview with Jim Taylor, Business Development Director



Next in the series of interviews with members of the Redwood team, Jim Taylor gives an insight into his rôle within the company, and his views on technology in the telecommunications industry today.

Based in the UK Head Office, Jim Taylor joined Redwood in February 1997 as Business Development Director. Jim is responsible for developing the company's plans for product direction and new sales channels.

Jim has over 30 years experience within the field of telecommunications. Prior to joining Redwood, Jim spent nine

years as Managing Director of Rhetorex Europe Limited, establishing the European operation for Rhetorex Inc, a USA manufacturer of computer technology resource cards. The European operation led the company's growth into digital communications and ISDN and ultimately represented 30% of the company's business.

Jim, how did you get started in the telecommunications industry?

Jim: My introduction to telecommunications was as a radio technician with the Royal Air Force. From there I joined ITT (which later formed the core of Alcatel) on a graduate apprenticeship scheme. That experience allowed me to move into the design and development of telephone switches with LM Ericsson and Motorola. During the 1980s, I was Technical Director of one of the leading companies involved in mobile radio and Value Added Network Services.

What did you take away from your Rhetorex experience that has helped you at Redwood?

Jim: We are very proud of what we managed to achieve with Rhetorex, and the fact that we fundamentally changed the nature of Voice Processing. We introduced many significant innovations, including the use of Digital Signal Processors for multi-channel systems. The technical and commercial advantages of the technology attracted innovative system developers from around the world. The experience we gained supporting this diverse customer base gave us insights into better ways to design and build systems. That is how we came to evolve the Redwood system architecture.

What significant changes do you feel have taken place over the last five years?

Jim: The most significant changes have been the growth of mobiles, the incredible success of prepaid services, the arrival of VoIP, and the huge commercial pressures on the traditional network operator following deregulation.

What technological advancements do you foresee for the next five years?

Jim: Silicon is at the heart of everything we do, and the increasing power now available to us drives everything else. Basically it means we can do more for less.

What is your perspective on the evolution of end-to-end IP communications?

Jim: VoIP is a tsunami that is inevitable, however it will have to work with the huge installed base of circuit switched technology and represents an investment of many billions. That is one of the challenges of the next few years and a situation for which Redwood will be providing solutions.

What is your vision for Redwood's rôle in the future of IP communications?

Jim: For Redwood, IP is just another medium. From the start we had a multimedia architecture, and over the past three years we have been adding new capabilities to allow its seamless integration.

Redwood's greatest strength is our ability to create an infrastructure for communications services which allows clients to operate a range of profitable businesses.

Redwood Corporate Events

2006 sees Redwood continue its ongoing support for local and international corporate and community events.

The company was pleased to sponsor the 28th Bracknell AC Young Athletes Open Meeting, which took place on Saturday 25 March at the John Nike Stadium of Bracknell Leisure Centre. The Redwood-sponsored event brought together promising athletes from the local area and surrounding districts to compete in a number of track and field events. Further details of the event can be found at <http://www.bracknellac.com>.

A number of enthusiastic participants took part in the recent Redwood-sponsored golf tournament at Abuja's IBB International Golf & Country Club, Nigeria. Hosted by FWA operator Startech Connections Ltd, the Redwood-sponsored event brought together leading professionals, with special guests including Hon. Minister of Internal Affairs, Dr. Iyorchia Ayu, and Hon. Minister of Information and National Orientation, Chief Chukwuemeka Chikelu.

For the third year running, Redwood has announced its sponsorship of the

Bracknell Half Marathon, which is due to take place on Sunday 7 May, with a start time of 09:00 at South Hill Park. The online application facility and route map can be found at <http://www.bracknell-forest.gov.uk/leis-half-marathon-2006.htm>.

Further on in the year, Redwood has confirmed its sponsorship contribution towards the Birdsall Really Wild Clay Day, due to take place on 15 May. The event will bring together a number of corporate companies for a day of clay pigeon shooting and a charity auction to raise money for the NSPCC.



Nigerian Minister Teeing Off at the Redwood Golf Tournament.

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