



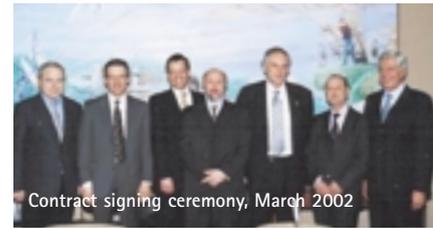
TETRA Interoperability Testing and Certification Contract awarded to ISCTI

Interoperability is perhaps the most significant determinant for a free and open market – it ensures compatibility between manufacturers' terminals so they can interoperate on any particular TETRA system. A 5-year contract to provide the official TETRA interoperability (IOP) testing and certification service has been awarded to the Istituto Superiore delle Comunicazioni e Tecnologie dell'Informazione (ISCTI), the technical body of the Italian Ministry of Communications.

The TETRA MoU has driven the review and selection process of the new test body. Ray Ginman, Chair of the TETRA MoU Association, and the Director of ISCTI, Ing Carmelo Basso, signed the contract in an official ceremony in Rome. Ray Ginman said "As part of the MoU's 'added-value' services, we devoted a lot of time and effort to ensure we found the best solution for the IOP testing and certification. We have succeeded."

Greatest TETRA community support ever

The contract is a multiparty contract. The frame contract signed between the TETRA MoU Association and ISCTI sets the stage for the interoperability work and testing. In addition, Marconi, Motorola and Nokia signed individual bilateral contracts with ISCTI as the service provider for the IOP testing of their equipment. Other equipment vendors will be signing individual contracts shortly. Never before has the entire TETRA community been so united in its support for a single issue. Brian Oliver, the outgoing Chair of ETSI Project TETRA commented, "The TETRA MoU are living up to their reputation of adding the 'practical icing' to the 'standard cake'. This IOP contract is significant news for all those potential users/operators of TETRA systems because it strengthens their confidence in adopting a multi-sourcing approach to the procurement process."



Contract signing ceremony, March 2002

First results expected during Q2/02

This contract ensures the continuity of IOP testing, a reassurance for users and manufacturers alike. The setting up of the new service is well in hand. The first IOP test sessions under the recently adopted testing process are currently planned to take place during the 2nd quarter of 2002.

Sepura Limited – the newest member of the TETRA MoU

Something borrowed, something blue, something old and something new. This English rhyme is the good luck formula for a bride at her wedding. No one here is getting married, but there is a reason to wish 'good luck' to a new name in the TETRA market - Sepura Limited. The 'old' is SDS – Simoco Digital Systems (SDS). Sepura's logo is 'blue' and the 'something borrowed' is the cash behind the financial investment for Sepura supplied by the new company's owner and backer, Kelso Place Asset Management (KPAM).

Following a short period in administration, the terminals business of Simoco Digital Systems (SDS) was bought by KPAM, a London-based private equity firm. Specialising in turning-round the fortunes of distressed businesses in technology markets, KPAM spent a considerable period of time confirming the global market potential for TETRA products in general and Simoco terminals in particular.

Sion Kearsey, one of KPAM's representatives on the Sepura management team said "The terminals business of SDS was a very solid business. We looked very, very closely into it and the TETRA market and we found much evidence for optimism and growth. That's why KPAM were so interested in this investment opportunity".

Stability and experience in a time of turbulence

Sepura is not yet two months old, but its Cambridge based workforce already

has several hundred man-years of TETRA experience and expertise as the key personnel from the old Simoco terminals team were retained. Approximately two thirds of the 76 strong workforce is focused on product support and development to ensure an innovative and competitive future. New software features are already defined and under development. For example, Transmit Inhibit was demonstrated at this year's BAPCO exhibition and conference in London.

A strong product line – a new production line

The Sepura product range consists of the first generation SRP1000 portable and SRM1000 mobile TETRA radios as well as the second generation SRP2000 portable terminal, winner of the 'Best New TETRA Product' award at last year's TETRA World Congress. Plus, of course, a range of accessory items for use with the various terminals.

Sepura has chosen Siemens to manufacture its second generation SRP2000 terminals. With a world-wide reputation of manufacturing excellence, Siemens had much to offer as Sepura looked for a production supplier. The production contract has been signed and the first order has already placed with Siemens. Pilot runs are planned for May to prove the lines at its Austrian manufacturing facility, and volume shipments to customer are scheduled for June. Siemens will act as the fulfilment arm of Sepura, supporting the product in the field in terms of warranty and repair.



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Sepura Limited – the newest member of the TETRA MoU

As far as the SRP and SRM1000 terminals are concerned, Sepura has existing stocks in the UK to support immediate customer demands. Discussions are in hand concerning the future manufacturing of these first generation products. Whilst the likely manufacturing source cannot be publicly announced at this time, the Sepura management are optimistic that new production batches will be rolling off the line around the same time as the SRP2000.

World-wide customer demand

During the process of 'due diligence' performed by KPAM, a number of interviews with key customers and distributors around the world were set up so that KPAM could make up its own mind as to the potential for the business and its products. Graham Matthews, Managing Director of Sepura, reflected on the strong messages of support and confidence from these conversations.

"At one stage, it was almost as though we had written scripts for them all because everyone was making such positive and supportive comments. I am very grateful for this loyalty and confidence in us for the future. I know that we will be able to deliver in every sense of the word against our customers' expectations." Sepura has even received genuine well-wishes from its industry competitors.

Successful start – successful future

In the UK, Sepura has had confirmation of an order for its new terminals from the Humberside and the Durham Police Forces for use on the Airwave service. Negotiations with a number of potential Distributors around the world are close to being finalised and more contracts are expected to be announced soon. Sepura's business goal, as an independent terminal manufacturer, is to focus on the supply of TETRA terminals for Public Safety markets around the world. TETRA enables choice because it is an open standard and Sepura offers choice to those responsible for the safety of the public around the world.

For more information about Sepura and its products, you can contact them by phone at **+44 (0)1223 876000** or send an e-mail to **graham.matthews@sepura.co.uk** or **roger.dowling@sepura.co.uk**

Asia – realising the potential for TETRA

China – Nokia to supply a TETRA network for Beijing

Beijing's first TETRA network, operated by the Huaxian Group, will ultimately have up to 200,000 users and may also assist the 2008 Olympics. Mr Qi Lin Lin, Director of the Beijing Radio Administration Bureau, predicted additional demand from outside of Public Safety, "Other customers will include commercial companies such as transport and insurance companies."

coverage in four major cities hosting World Cup matches. The last World Cup, held in Paris, also benefited from a Motorola TETRA system. KNP's system is designed for day-to-day law enforcement operations with extensive capacity for high traffic peaks during crisis situations or major events. Over 20,000 police officers and patrol cars are equipped with MTP700 handsets and MTM700 mobile radios from Motorola.

will provide daily telemetry data on the state of watercourses in the area sending information using TETRA's Short Data Service (SDS). During the flood season, the network will also be an invaluable tool for resource management.



network and facilitate communications from the railway's emergency control centre.

Korea – National Police prepares for World Cup 2002 with Motorola's TETRA system

Motorola is nearing the end of the installation of a TETRA system for the Korea National Police (KNP) to provide extensive communication

China – Tianjin flood control enhanced by TETRA network from Nokia

Tianjin City will soon benefit from a TETRA network to monitor and protect the area from floods. With completion imminent, the network

China – Quinshen Railway Project chooses TETRA from Marconi

The new Quinshen Railway has over 400km of track in the Liaoning province of Northeast China. Following successful trials of TETRA in Sichuan during 2001, this landmark contract is the first private mobile network for Marconi in China. The solution will provide broadband TETRA communications between mobile and fixed line users on the rail

China – Hubei Quantong approves Nokia's Chinese language network

The Ministry of Information Industry (MII) in China has awarded Nokia type approval for TETRA base stations and terminals. Nokia's TETRA system was the first to have passed MII type approval tests and is currently the world's only TETRA system offering Chinese short messaging and a Chinese-language interface.

A note from the Chair



Ray Ginman, Chair of
TETRA MoU Association

The UK National Audit Office has recently produced a thumbs-up report on the Airwave national radio project. A key conclusion was however that 'The decision of the Fire Service not to be part of the initial procurement of Airwave represents a lost opportunity for joined-up working by the emergency services and a loss of economies of scale'.

When any local and national government administrations are procuring radio networks I would suggest they need to consider, in the strongest possible terms, the opportunities presented by sharing communications facilities. These have already been demonstrated elsewhere in the world. They include the removal from the landscape of thousands of base station aerials and masts, the efficient use of scarce spectrum, simple operational inter-agency working (both on and off the network) and the financial gains that can be made through the provision of a single rather than multiple national systems. TETRA is a high capacity technology that can not only deliver these important shared benefits but can also realise other operational advantages.

Focus on Germany

Trams, harbours, combat training grounds and police cars. In Germany, they all share one thing in common – TETRA.

Cologne – KVB public transport to use TETRA

Nokia has begun the delivery of a TETRA network to Kölner Verkehrs-Betriebe AG (KVB), a public transportation company serving Cologne. Trams and other vehicles will be fitted with Nokia's THR850 TETRA handsets installed in car kits. The digital network will offer end-to-end IP data capability. Drivers will be



able to register using Fleet Specific Short Numbering (FSSN), control traffic lights whilst onboard computers will manage call requests.

Hamburg – improved efficiency and productivity for cargo handling teams

Workers in Hamburg harbour's cargo trans-loading facility and goods processing centre will soon be benefiting from TETRA's multi-faceted communications capability – voice, paging and data. The harbour covers nearly 7,500 hectares. A Compact TETRA system from Motorola, specially designed for small and medium sized businesses, will improve and streamline the handling of containers and the stocking of goods. Local trunking operator, Mobicom, will operate the system.

German Armed Forces – 'electronic duelling' with TETRA

The Letzlinger Heide combat training centre uses Rohde & Schwarz's ACCESSNET® -T communication system to monitor and control activities at this hi-tech duelling ground. Combat situations are simulated using hand and vehicle mounted weapons fitted with lasers and sensors attached to clothing and vehicles.

Information such as weapon firing, hits on personnel or vehicle movements is transferred via radio to the command and control centre using a lightweight TETRA radio. TETRA's comprehensive voice and data capabilities fulfilled the Army's needs with a single communication system instead of two independent systems as they had originally thought necessary!



Tender preparations in hand for nationwide public safety system

The ZED (the body responsible for submitting proposals to Germany's Standing Conference of the Interior Ministers – the IMK) has prepared and called for tenders from interested parties. Evaluation has started with a June milestone for the submission of concrete proposals on the business model and project funding. The extensive Aachen three-country pilot continues. It has an end-of-year goal to integrate with South Limburg (Netherlands) and Liège (Belgium) for the cross-border phase of the pilot.

TETRA in Africa

TETRA Africa 2002 Conference, Johannesburg

More than 50 participants attended this conference held in April. Key members of the TETRA MoU Association (Teltronic, Nokia and Motorola) presented a variety of TETRA Masterclasses to the delegates. A number of TETRA business case models were also presented for discussion.

The Chairman of the Southern Africa TETRA Association, Carl Schneider, made a stunning and lively presentation of the Cape Metropolitan Council's TETRA network. Applications were discussed to integrate the field work-force management. An exhibition area included equipment on display from Rohill, Teltronic, Sepura, Motorola, Mason, and Marconi.

Cape Town sees a safer future thanks to TETRA

February saw the official handover of the City of Cape Town's TETRA system. More than 5,000 safety officials currently use the digital system, supplied by Motorola. The TETRA system is also linked to the city's control centres which monitor activity in Cape Town via video cameras protecting the city and its surrounding suburbs. "Public safety is a very high priority for this city. The system will give Cape Town's emergency services the tools to fight crime and respond quickly to disasters," said Cape Town's Deputy Mayor, Belinda Walker during the handover ceremony.

Carl Schneider, Manager of Electrical Engineering for the city of Cape Town added that Cape Town selected the system primarily because it is an open standard and supports interoperability. "What this means is that it will support equipment from any hand set manufacturer."



The Australasian TETRA Forum (ATF) takes shape

The first General Assembly of the ATF was held in February 2002. Representatives from the 12 member organisations were supplemented by over 20 other participants and observers. The management structure and key priorities of the ATF were agreed. Membership categories encourage participation by the widest range of interested parties – manufacturers, potential users, network operators and regulators. Other organisations can be independent observers.

Initial activities of the ATF will concentrate on securing suitable radio spectrum and providing information on TETRA developments and applications for potential users and customers to build their business case proposals.

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New Chairman for ETSI Project TETRA (EPT)

Doug Gray will become the new chairman of EPT in May. Reflecting on the challenges ahead, Doug said, "The evolution of the TETRA standard to provide new enhanced services and facilities as part of Release 2 is indeed an opportune moment to be elected as the new Chairman. I am looking forward to my 2 years of office".



TETRA for Fire Services – it's not just a rumour

Intrinsically Safe TETRA portable coming soon

The Danish manufacturer of terminals, Niros A/S, will be launching an intrinsically safe TETRA portable terminal later this year. The Managing Director, Jørgen Lauritzen said, "The new TETRA terminal will go into production in the third quarter of this year." Niros are well known for their CENELEC i.s. approved analogue terminals for use in high risk, explosive environments. They have now successfully transferred this expertise to a TETRA terminal.

Radios are currently undergoing a series of exhaustive tests – in-house proving, type approval tests and interoperability tests with various manufacturers' products and networks.

Spanish Fire Brigades using TETRA

Introduced two years ago, the AGORA network took its first steps as the Emergency Radio Network for Public Safety and Emergency Organisations in Catalonia, operated by TRADIA. Today, there are more than 3000 TETRA users on the Nokia TETRA network. In addition to the Fire Brigade, other organisations such as Ambulance Services, Catalonian Water Agency, Transit Service, Fish Agency and Forestry Guards also share the same system.

Nokia, Simoco and Teltronic terminals are used, demonstrating the strength of TETRA as an open standard. Francesc López, Radiocommunication Technical Manager of TRADIA said, "An open market in TETRA terminals allows the end users to choose the best option that fits their requirements. IOP is not only a benefit for users, it's also a benefit for the TETRA standard." Elsewhere in Spain, Fire Brigades are just one of the Public Safety user groups on TETRA systems supplied by Nokia in the Canary Isles and for the Murcia region.

Jersey's Fire Brigade to join Police colleagues on their TETRA network

Plans are now in hand for the States of Jersey's Fire Service to use the Motorola TETRA network on the island. They have run several successful inter-service exercises previously, the last one in November 2001 simulated a passenger aircraft accident staged close to the island's airport. By the summer, it is planned that both the Fire and Ambulance services will join their Police colleagues using the TETRA network for their daily operational communications.

TETRA Events Diary

Event	Date	Information
IIR TETRA Seminars	1st – 3rd July, 2002, London	www.tetra2002.com
TETRA MoU Association Members Workshop	11th-12th July, 2002, Brussels	www.tetramou.com
5th TETRA World Congress	18th-22nd November, 2002, Nice	www.tetra2002.com

TETRA World Congress – Call for Papers

If you have any proposals for papers or topics, please send a short outline (100 words) to Andrew Thake (athake@iir-conferences.com) at IIR by June 7th.

MoU finds the key facts

In March, the MoU organised another highly successful member-driven technical workshop. Interested parties from users and industry focussed on a wide number of issues concerning Authentication Key Distribution.

Dealing with this vital element of TETRA's comprehensive encryption capabilities, the workshop has generated activities for both the Security and Fraud Prevention Group (SFPG) and the TIP specification group. A new TIP specification can be expected shortly on this subject.

MoU News & Activities

The MoU welcomes the following new members:

- **Crypto AG**
- **Electromagnetic Technologies, Inc.**
- **Logica (Radio Planning)**
- **Lockheed Martin**
- **Sectra Communications AB**
- **SecWell Networks Oy**
- **Sapura Limited**
- **SK C&C Co.,Ltd.**
- **Telenor Connect AB**
- **Zenitel Norway ASA**

Restructuring the Association

At its second meeting of 2002, the Board received the results of the recent members vote on restructuring the Association. Responding to the majority vote in favour, the Board set out its implementation plan. The outcome will be a key agenda item at the Members Workshop to be held on 11th and 12th July in Brussels.

Board Membership Changes

Doug Gray has stepped-down from the Board to concentrate on his new role as EPT Chair. Jeppe Jepsen of Motorola will temporarily replace him until formal elections in November. We thank Doug for his energy and enthusiasm towards the MoU and wish him great success in his new role.

IOP Test & Certification Body

The first quarter activity of the MoU focussed on the letting of the Framework Contract for interoperability services (IOP). The contract was signed in March 2002. See front page for full details.

More information on products and companies in this edition can be found at www.tetramou.com >signatories

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For any other information contact the TETRA MoU Association's Secretary e-mail: secretary@tetramou.com or visit the TETRA MoU's website at www.tetramou.com.

Published by:

The TETRA MoU Association Ltd. PO Box 88 St Ives PE27 6PD UK

Compiled and edited on behalf of the TETRA MoU by Bob Lovett.

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