IQPC'S 4th Annual...

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# Powerline Communications 2003

28th – 31st October 2003 • Concorde Lafavette Hotel, Paris

Delivering competitively priced, high quality and consistent PLC connectivity to drive users to choose powerline over other broadband access mediums

- Generate paying customer subscriptions to your PLC service by learning how Scottish and Southern Energy in the UK and MVV in Germany have experienced successful commercial rollouts
- Achieve customer loyalty and higher revenues per user by offering value added services such as voice and data provision, video streaming, security features and VPN
- Maximise revenue from in-house networking Peter Kempf, President of the Homeplug Alliance will share the secrets of the continuing commercial momentum of home networking in the USA
- Keep one step ahead of the competition by manipulating the optimum market conditions being lobbied for by the PUA in Europe and the FCC in the States
- Bridge the digital divide by providing community LAN projects and broadband connectivity to rural areas

### Your conference agenda at a glance:

Day One: 28th October AM: Introductory seminars PM: Site visit to SIPPEREC and EDF PLC pilot

Day Two & Three: 29th & 30th October Main conference days: Over 16 cutting edge case studies

Day Four: 31st October Full day site visit to La Manche PLC project OR interactive masterclass day Leading international case studies from:

EDF

**ENDESA** 

**TSHWANE METROPOLITAN MUNICIPALITY** 

**ENERSIS** 

SCOTTISH AND SOUTHERN ENERGY

**IBERDROLA** 

SOUTHERN TELECOM

COPEL

**SIPPEREC** 

**MVV** 

**EUROPEAN COMMISSION** 

LINZ AG

**BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS** 

**RÉGIE DU PAYS CHARTRAIN RSEIPC** 

**IRISH ADVISORY COMMITTEE ON INFORMATION & COMMUNICATIONS TECHNOLOGY** 

**EUTELSAT** 

**CONSEIL GÉNÉRAL DE LA MANCHE OPEN UNIVERSITY** 

VEOE

SCHNEIDER ELECTRIC

DS2

**HOMEPLUG ALLIANCE BMP TELECOMMUNICATIONS** WHITE BOX ASSOCIATES **EUTELIS ITALIA PLC FORUM** 





Official Associations:

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### Dear Colleague,

Companies all over the world are searching for ways to capitalise on the profit making capabilities of powerline technology. Your global peers are managing to leverage competitive advantage over other access mediums while recent price drops and the supportive legislative environment mean that you need to strike while the iron is hot.

Attend IQPC's 4th Annual event, **Powerline Communications 2003** to benefit from the truly global line-up of PLC practitioners that will be assembling in Paris in October. PLC pioneers have driven forward significant commercial deployments and their paying customers are showing high levels of satisfaction with the PLC service. In the Mannheim Region of Germany, 7-10% of households in areas which have rolled out have expressed a preference for the PLC service and MVV are actively selling to this market. Surely you ought to know how they have achieved these impressive results?

Discover through **Southern Company's** rollout experience in Atlanta, USA what **market** research you need to conduct prior to deployment, how you should set price levels and how, by adding on extra service functions, your PLC provision will be given the edge to compete with ADSL. Unearth what support infrastructure you need to have in place by developing an understanding of the UK's **Southern and Scottish Energy** case study, including their call centre for PLC customers. On a technical level, find out how you should be building up the optical fibre backbone to provide access to the last mile by discovering how Endesa (Spain) and Copel (Brazil) have done this at their PLC projects.

Don't miss the only opportunity in 2003 to realise **what your customers and business partners want from their powerline provider** and how you can ride the PLC wave of opportunity. Register now to ensure you drive up your customer numbers by offering competitive PLC services at the right market price.

I look forward to welcoming you to Paris in October.

Yours faithfully,

J.Banks

PS: Let your contacts know about the event and if they book on, will give you a free hotel night. Just make sure they mention your name when registering!

Jayne Banks, Conference Director

### This conference will give you the knowledge and tools to:

- Tackle the barriers to PLC including the interference of PLC with radio emissions in particular, hear how Hungary is overcoming this issue
- Survive in the deregulated electricity market learn from the Scottish and Southern Energy case study and how they are gaining competitive advantage through PLC
- Utilise the impact of wireless and cellular components in powerline services to create extra revenue DS2 will explain the latest features of their chip technology
- Achieve competitive advantage for your business by maximising additional PLC services

   hear how MVV benefit from offering voice and data services, security systems, multi media networking and consumer electronic connectivity
- Pioneer innovative local loop projects as the South African Tshwane Metro case study demonstrates. Hear how they have developed video streaming, telephony, internet connectivity and 802.11 – wireless in local schools

### FIND OUT HOW TO:

- Find out how Linz AG is starting to target 20,000 potential customers by preparing their business case and choosing what services to offer. Specific learning points include how Linz are capitalising on the falling cost of equipment (modems, software licenses), network building, making discreet cabinets, installation parts and transformer stations
- Southern Company (one of the most admired electric and gas utilities in America, according to Fortune magazine) are driving forward their vision for competitive PLC, and implementing voice over IP, wireless middle mile and integrated PLC and wi-fi based infrastructure
- Endesa are taking their existing 2,000 customers and building up the backbone for their imminent commercial deployment to welcome thousands more customers over the PLC service. Borja Pablos will also focus on whether they will be choosing a customer or wholesale business model

Following on from **Powerline in 2002**, you requested an event in Paris with a site visit to Electricite de France, the world's largest electricity company. So why not take this opportunity to spend a few days in this glorious European capital to see some of the sights and network with senior PLC professionals from around the world?



With the hotel located right on the Champs Elysees, there is no better

location from which to explore this astoundingly beautiful and historically rich city. On the second night of the conference, (29th October), we are organising an informal dinner in a local French restaurant. This is optional and is not included in your conference fee but is an excellent way to find out more about your fellow delegates



and experience more of Parisian nightlife, including the wine! Let us know on the day if you would like to join us.

### Who should attend?

Network Operators and Engineers Strategic, Marketing, Technology and Business Development Directors Powerline Project Directors Technical Directors Heads of Telecoms Directors of Broadband Services International Investment Managers and Research Analysts Systems Engineers Board Members and Managing Directors

### What is your vision for PLC?

"It's all about delivering services to the end user that can rise above what is being provided by competitive suppliers."

"The opportunity to capitalise on a broadband service that is up to twenty times faster than ADSL"

"To create a critical mass of customers, quickly and efficiently so as to build up PLC as a viable broadband medium for a significant majority"

### This conference will enable you to realise your vision





0800 652 2363 or +44 (0)20 7368 9300

### DAY ONE: 28TH OCTOBER 2003

Interactive Seminars followed by SIPPEREC & EDF Site Visit

### SEMINAR A 09:00 - 12:00

### The Regulatory Landscape and the **Developing Wireline Standards**

The PLC business case should include a detailed analysis of the regulatory landscape and the developing wireline standards, which will underpin future PLC technology developments and deployments.

In order to deploy PLC technologies and enable additional revenue streams to be levered off existing powerline assets, an innovative business strategy is required, which is supported by a robust and comprehensive business case, where risk issues are both quantified and adequately addressed. Today the telecommunications sector has a more conservative business culture, which aligns with that of the utility sector.

This interactive workshop aims to overview the international PLC Regulatory Landscape, particularly in the light of the European 'Broadband for All (BB4A)' initiative. You will be able to focus on and debate the key issues which impact PLC standards development in order to better understand the key areas of risk and to then consider these in the broader perspective.

The key learning points to be addressed:

- Regulatory and standards development bodies
- Electro-Magnetic Compatibility (EMC) / Radio Frequency Interference . (RFI)
- . Electricity distribution / telecommunication network architectures
- The PLC system parameters Network ingress / radiation efficiency
- .
- Predictive modelling / measurement, estimation and statistics . Optimum utilisation of spectrum, coexistence

### About your workshop leader:

Paul A Brown, Technical Director, White Box Associates Paul Brown is the Chief Executive Officer of White Box Solutions (WBS) Ltd, an independent, UK based, R&D consultancy

company, which specialises in the telecommunication and utility sectors. He is also the Technical Director of White Box Associates (WBA) Ltd, a new UK company, with a major focus on EMC and wireline systems R&D, which compliments the business activities of WBS. Prior to this he held a number of senior managerial posts with NORWEB plc. During the period from April 1998 to September 1999 he was Director of Power Systems with NOR.WEB DPL Ltd, the joint venture company set up between Nortel (Northern Telecom) and United Utilities to market Digital Power Line (DPL) communication solutions world-wide. His current research activities focus on the development of novel applications for utility assets, combined local access architectures, intellectual property portfolio management, regulation and standards development, EMC predictive modelling and the development of novel, in-situ, measurement systems for wireline networks.

### SEMINAR B 09:00 - 12:00

### Practical Steps to Deploying a Large PLC Network: Product Supply to Turn Key **Solutions**

"This workshop will rely on a panel of representative players of the PLC ecosystem. The course will provide project leaders with the different practical steps required to deploy a large PLC network".

Experience from the field and technical studies on coupling techniques are key to enabling a successful deployment of PLC modems in all environments. With certain types of project, it is possible to consider time to develop the business case and the deployment scenario. On the other hand, off the shelf solutions must be used to save time and re-use existing knowledge when size and/or type of project do not allow it. We will show different approaches for potential projects, from product supplier approach to turn key solutions.



Primary issues to be developed during this session include, global design, consulting, backbone, OSS\BSS and fostering partnerships.

You will leave the session armed with an action plan for these key areas:

- Types of business case, from wholesale to high end value added solution providers
- Entering into partnerships with ISPs and utilities
- . Implementing global design of the network: selection of backhaul technologies (radio, fibre, cable, satellite, etc.), PLC topologies, peering points
- Identifying product supply
- Subcontracting installations
- Choosing turn key solutions
- Prioritising customer services: first, second and third level support

About your workshop leader:



Philippe Raffin, VP Consulting & Customer Support, Schneider Electric

Philippe Raffin is VP Consulting & Customer Support at Schneider Electric PLC. Prior to this position, Mr. Raffin was Head of Customer Support at Ascom Powerline Communications AG. He has a good experience of large-scale worldwide PLC projects as well as a technical background used in ISPs and telecommunication businesses. He has a Communication Systems Degree from Swiss Federal Institute of Technology and a Diplome d'Etude Approfondies from the University of Nice.

### 12:00 - 12:30 Networking lunch

### 12:30 - 17:00 - Site Visit to Parisian Powerline Implementation Brought to you by SIPPEREC, EDF and Aeroports de Paris Telecoms

#### 12:30 Leave for Rosny-Sous-Bois

#### 13:15 Arrive Rosny-Sous-Bois

Rosny-Sous-Bois is a business district in the North East of Paris where EDF is working in conjunction with a local telecoms operator ADP Telecom (a subsidiary of Aeroports de Paris) to develop a pilot powerline project. This project has been running since early 2003. A small network has been deployed and about 10 transformers have been equipped in the area. Rosny-Sous-Bois has around 100 businesses and the pilot currently has 20 paying customers. During the course of the afternoon you will be able to ask extensive questions about the running of project, ask the involved partners how they have overcome particular technical and financial obstacles and quiz PLC expert engineers, local users and government officials on what their views and aspirations are for the future of powerline communications. You will also be able to benchmark your own

organisation's progress against that of one of the world's leading electricity companies.

### Your trip to Rosny-Sous-Bois includes:

- The chance to investigate a live powerline installation, including the usage of classical equipment sets - concentrators, repeaters and modems
- The opportunity to meet with paying powerline customers · quiz them on their experiences and determine what their needs are
- A visit to the PLC equipped 'Quality Hotel'
- A demonstration of successful working practices for powerline services for professional users who value high quality connectivity and levels of service
- A live demonstration of the wholesale business model
- A warm welcome from participating local government officials
- A tour round customer business sites



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### DAY TWO: 29TH OCTOBER 2003

08:30 Coffee and registration

- 09:00
- Chair's welcome and opening speech Philippe Le Grand, Telecom Manager, CONSEIL GÉNÉRAL DE LA MANCHE

### REACHING OUT TO YOUR CUSTOMERS: DEVELOPING EFFECTIVE MARKETING CAMPAIGNS AND INCREASING PAYING SUBSCRIPTIONS

Moving From Technical Trials to Commercial Deployment 09:15 This session will focus on how Scottish and Southern Energy have moved from

their technical PLC trials to taking on the first commercial customers in mid 2003. Keith will focus on the importance of establishing a substantial systems Preparing for physical deployment
 Preparing for physical deployment

- Ensuring adequate support processes for wide scale rollout
- Conducting installations and fulfilling customer appointments Launching effective marketing campaigns and building up a customer
- database
- Deciding appropriate price levels

Keith Maclean Director of Telecoms

SCOTTISH AND SOUTHERN ENERGY

(And Board Member, PLC FORUM)

### CHOOSING THE RIGHT BUSINESS CASE FOR PLC DEPLOYMENT

#### 09:55 Offering Complete PLC Systems to Build Ell (Electrical Local Loop) and Elan (Electrical LAN) Infrastructure

The world's power and control specialist will present its complete up-to-date PLC offerings to provide its traditional customers (electricity companies and building contractors), with the commercial solutions to make an effective business case:

- Assessing ready-to-deploy infrastructure and terminal equipment Coupling and net-conditioning equipment to fit various electrical topologies
- without compromising performance Standard interfaces to other broadband technologies
- Compliance to PLC norms and standards
- Roadmap to the future
- High added value content and services compatibility : QoS management to support VoIP, VoD, AMR, etc Associated services: consultancy, engineering, integration within a complex
- IT environment, training, local services, help desk, etc. Xavier Pain



Business Development Manager SCHNEIDER ELECTRIC

>> Don't miss Schneider Electric's seminar on Day 1 to find out more about complete PLC systems!

#### 10:35 Morning coffee and networking

#### Testing the Wholesale Business Case in the SIPPEREC Area 11:00

The electricity grid in France belongs to the local councils and they are currently developing a greater role in the telecommunications field in the drive to increase competition on the local loop. SIPPEREC, the syndicate of local councils around Paris for electricity, has encouraged EDF to deploy PLC on their behalf. After extensive analysis EDF has decided to go forward with PLC experimentation and believes it can be profitable. This session will outline the business case that EDF has drawn up and what the future holds for all the involved parties

- Opportunities for the local telecoms community to take advantage of PLC
- Pilot projects in Courbevoie and Rosny-sous-Bois Why EDF and SIPPEREC chose the wholesale business model



Offering transport services and backbone connectivity to operators Raphaël Treglos Djamel Chekroun Telecommunication Engineer General Manager of

EDEV.CPL Technology FD

#### Extended Q & A session, don't forget to prepare your questions!!

#### LINZ AG: from a Pilot to a Commercial Roll out. One Year and 12:00 One Thousand Customers

LINZ AG is the leading company in upper Austria for infrastructure services. The strategic order to build up a closely mashed network based on IP was the decision for PLC. After a pilot programme over 6 months, the commercial roll out is now one year old and has one thousand customers.

- Evaluating the business case of one year ago Defining the business case as it is today
- Assessing equipment and maintenance costs What services do we offer?

SIPPEREC

- The near future research and development in LINZ





There is a follow up masterclass on the 31st October to help you formulate the best business plan for PLC for your company – include this in your booking options!

12:40 Networking lunch and business card exchange

### DEVELOPING THE COMMERCIAL POTENTIAL OF IN-HOME NETWORKING

#### Proving the Business Case for In-House 13:45

Companies in the Homplug Alliance are realising that a strong business case exists for internal powerline. This session will draw on the financial models and available technology that has been used to bring in-house powerline to a wide range of endusers in the US

- Potential for implementing consumer electronics connectivity Impact of the Homeplug 1.0 standard Selling technology direct to the user Impact of wireless opportunities

- Developing multi-media networking Higher bandwidth availability and ease of use
- Peter Kempf

President

HOMEPLUG ALLIANCE

### DEFINING THE END USER'S EXPERIENCE OF PLC: KEY **RESPONSES AND AREAS TO IMPROVE**

#### 14:25 Taking PLC to the Market: Mannheim's Commercial Rollout

MVV has been operating commercially since July 1st 2001. This presentation will deliver a current status report including feedback from end users and how MVV worked to overcome the technical challenges that the project has presented.

- End users' acceptance marketing studies indicating who would want PLC access and what price customers would be willing to pay From PLC technology towards commercial roll-out - experiences from
  - Mannheim
  - What lessons can be learned from other PLC projects? Feedback from 20-30 trials and 200 end users
  - Innovative applications and enhanced products on a customised basis: voice over IP, security cameras, information display screens Michael Koch

MVV



15:20 Afternoon tea and networking

15:05

OVERCOMING TECHNICAL CHALLENGES: EMMISSION LEVELS, BUILDING UP THE BACKBONE AND SYSTEMS INTEGRATION

#### 15:45 Setting up the Right Infrastructure for the Commercial Roll-Out of PLC Services

After several trials, Spain's biggest electrical utility, Endesa is currently sitting on the edge of commercial activity. They currently have 2,000 households receiving voice and broadband Internet services over PLC technology and surveys have shown that the users are pleased with the speed of connectivity and adaptability of the plug point system. This session will show what senior management has been doing to get the right infrastructure in place for a commercial launch in the short term, aiming for several thousand paying customers.
Description of Endesa's PLC trials in Spain and in the American continent
Deciding on a customer or wholesale business model

- Preparing the infrastructure for commercial launch Update on the activities of the PUA

Borja de Pablos Network Department Engineer ENDESA

#### Overcoming the Barriers to PLC in Hungary: Noise Interference 16:25 and Equipment Capabilities

Electricity companies and technology providers in Hungary are highly interested in how PLC can be rolled out and have been conducting extensive tests to see what barriers need to be overcome before roll out can start. Gyorgy Varju will demonstrate the findings from the field trial (due for roll out in September 2003) and the experiences of the collaborating companies. He will also share his vision his for commercial deployment in Hungary.
 Why and how are we proceeding? Drivers for PLC

- Choosing equipment suppliers and developing relationships to improve service levels
- Investigating equipment immunity to disturbances caused by different household appliances (especially compact luminaries) in one-to-one scale simulating laboratory network
- Identifying PLC emissions in one-to-one scale simulating laboratory network and comparison tests in the field trial



Gyorgy Varju

Department of Electric Power Engineering THE BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS

STRATEGIC APPROACHES TO PLC ROLLOUT: WHEN TO ENTER THE MARKET AND WHO TO TARGET

### Planning and Starting the use of PLC in Mass Telecommunications Services 17:05

For the first time, the experiences of a major Brazilian utility will be presented. This session will relay the journey that COPEL has made towards PLC implementation. Planning and management stages of the optical backbone implantation of COPEL OPGW-SDH







- Developing and offering new products and services to the Brazilian market
- Feedback from recent studies on telecommunications markets upplying Paraná State with all facilities and telecommunications services Orlando Cesar de Oliveira

Telecommunications Electrical Engineer COPEL

- 17:45 Chair's closing comments
- 17:50 End of day two

### DAY THREE: 30TH OCTOBER 2003

08:30 Coffee and registration

#### 09:00 Chair's welcome and recap

John Newbury Head of Power Communications Systems Research **OPEN UNIVERSITY** 

#### Strategic Planning for PLC at Iberdrola 09:15

Miguel will present the story so far on the march towards PLC implementation in Madrid. His delivery will concentrate on the strategic approach towards the investments and trials that have been taking place. • Main concepts of PLC activity at Iberdrola

- Establishing the rationale for implementation How we are justifying the business plan
- The main results of commercial deployment
  Miguel Sanchez Fornie

Head of Telecoms IBERDROLA

#### **Emerging PLC Applications** 09:55

PLC is rapidly emerging as a flexible technology that can be used for applications well beyond broadband access and in-home networking.

- Rapid hotspot deployment using PLC
- PLC for mobile telephony micro-cells
- Energy monitoring and saving Fixed Telephony: VoIP and PLC Opportunities for in-building distribution
- Medium voltage metropolitan networks PLC as a return channel for satellite
- Richard Lynn Marketing Director

DS2

10:35 Morning coffee and networking

### LAUNCHING PLC AS A SERIOUS BROADBAND CONTENDER: WAYS TO LEVERAGE COMPETITIVE ADVANTAGE

#### 11:00 Defining a Vision for Power Line: Surpassing ADSL & Cable as a **Competitive Medium**

This insightful presentation will demonstrate how Southern Company Atlanta, USA are investing in and benefiting from PLC access technology and what Leif's vision is for future opportunities for the powerline community. Specific points to be addressed include:

- Deploying a Generation One hybrid network Wireless middle-mile with PLC & WiFi based last-mile infrastructure
- Deploying a Generation Two hybrid network fiber optics speed middle-mile and integrated PLC & WiFi last mile based infrastructure Rolling out a future proof PLC network that creates true product
- differentiation
- Utility competitive advantages
- Revenue opportunities
- Controlling and monitoring distribution assets
- Leif Ericson

Business Development Manager SOUTHERN TELECOM

### **REGULATORY AND LEGISLATIVE UPDATES**

#### Policy Developments within the European Union relating to 11:50 **Powerline Communications**

- PLC as a competitive infrastructure Electromagnetic compatibility and the standardisation process Feedback from discussions between regulators Overview of EU policies

Mark Bogers Team Leader Radio and Telecommunications Terminal Equipment, Electromagnetic Compatibility and Electrical Safety EUROPEAN COMMISSION

✤ Interested in this session? Attend Paul Brown's interactive seminar on the regulatory landscape and wireline standards on Day 1!

- Technical insight session by Schneider Networking lunch 12:30
- 12.40

#### Broadband Communications: "An update on PLC" 13:40

John is back to present the current developments from around the world though the eyes of the World's Standards Bodies. Key points he will mention and explain the impact of include:
 The current regulatory requirements for broadband Powerline telecoms

systems

- What blocks there have been to full roll out How to address these issues as PLC moves forward
- John Newbury Head of Power Communications Systems Research





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14:20 Overcoming the Digital Divide: Regulatory Round Table Discussion

In many European regions broadband infrastructure is still poorly developed, especially in rural and remote areas. To fight the threatening "digital divide", different national initiatives have been started by public authorities in various European countries. For instance, the "e-Europe 2005" initiative raised a €3.8 billion fund to support broadband development throughout Europe until 2005. The transmission of digital data via the electricity network is an enticing platform to counterbalance the "digital divide". Almost every European household is connected to the electricity infrastructure. Moreover, the existing electric cabling reaches most rooms inside any building. High and qualitative transfer rates allow fast Internet access, as well as value added differentiating services (VoIP, video etc.). However, one of the crucial issues is that a true end-to-end infrastructure (from medium voltage up to every socket) needs to be in place or to be realised in the short term. This fascinating session will debate the approaches of several countries and aim to deliver potential solutions to bridge the digital divide. Key areas of focus:

- Objectives of governmental programme against the Digital Divide
- The value of PLC as a means for the Digital Policy Enabling the delivering of PLC platforms (in combination with other
- technologies such as satellite) Practical examples of utilising PLC as a means to fight against the Digital Divide

### Round Table Leader:



Nadine Berezak-Lazarus Managing Director bmp TELECOMMUNICATIONS CONSULTANTS

Participants: Philippe Le Grand, Telecom Manager, CONSEIL GÉNÉRAL DE LA MANCHE, FRANCE

Alain Guillotin, Project Manager PLC, RÉGIE DU PAYS CHARTRAIN RSEIPC, FRANCE

Niall O'Donnchu, Principal, IRISH ADVISORY COMMITTEE ON INFORMATION & COMMUNICATIONS TECHNOLOGY, IRELAND

Mr. Jean-François Frémaux, Directeur Développement Marchés et Produits (Development Manager for Markets and Products), EUTELSAT, FRANCE Charles Kuun, Managing Engineer, TSHWANE METROPOLITAN MUNICIPALITY, SOUTH AFRICA Gerard Bartak, Diploma Engineer, VEOE, AUSTRIA

15:30 Afternoon tea and networking

### THE DEPLOYMENT OF LOCAL AND COMMUNITY PLC PROJECTS

#### 15:55 Defining New Paradigms for Powerline Communications: Implementation in South Africa

Tshwane Metropolitan Municipality, the local government authority in Pretoria, South Africa has been pioneering exciting new initiatives centring on powerline communication technology. Equipment from two manufacturers was used in the trials and comparative studies done. They aim to test equipment from three more suppliers prior to the development of specifications that will lead to the issuing of a tender for a large-scale pilot system. Progress made thus far from a governmental perspective will be reported in the paper.

- Feedback from extensive tests within local schools and universities Why it is attractive to partner with the to be licensed second fixed line
- telecommunications network operator (SNO)
- Investigating alternative developments and technologies to compliment PLC as an access technology Defining a last mile programme examining complimentary wireless
- technologies Establishing the aim at Tshwane to develop an end-to-end
  - telecommunication solution by implementing various technologies and techniques to provide connectivity to remote areas Charles Kuun



Managing Engineer Operational Systems

TSHWANE MÉTROPOLITAN MUNICIPALITY

#### 16:35 Powerline as an Effective Commercial and Technical Solution to Provide Broadband Access to Mass Markets in Emerging and **Developed Countries**

- Market background
- Alternative opportunities for access technologies in countries with low broadband penetration
- Entering into local loop projects over PLC Developing an efficient technical and commercial business plan for PLC
- over the broadband market A carriers' carrier over PLC business model approach: neutral and open access network offer to CLECs (competitive local exchange carriers), including new entrants and non telecom operators
- Products and services of interest for telecom carriers and non telecom
- operators Strategic evaluation of the high interest obtained in the carriers' carrier
- business model, from telecom and non telecom operators
- The virtual ISP over PLC approach for non-telecom operators as a value added service for their respective core businesses, based on their customer base and brand equity
- Coordination and interoperation with the utility and regulatory aspects Marco Vacarezza



- 17:15 Chair's conference summary and closing remarks
- End of day three 17:20



### DAY FOUR: 31ST OCTOBER 2003

### Interactive Masterclass Day

### SEMINAR C 09:00 – 12:30 Scalable PLC Networking for Mass Deployment

This seminar will demonstrate the fundamental aspects of PLC deployment from a practical and technological point of view and provide participants with the opportunity to brainstorm their key challenges with regard to overcoming the specific challenges of roll out.

The course will take participants through the key technical factors, which must be confronted to take a trial deployment of a few tens or hundreds of units to a fully scalable mass deployment of thousands. Chano Gomez from DS2 will examine with you the key equipment issues that you should consider when planning and implementing a PLC deployment.

### You will achieve a greater understanding of:

- Network architectures: Core networks, medium voltage and voltage networks
- Network planning for different traffic patterns

- Managing quality of service
- Network provisioning for bandwidth, latency
  Auto configuration
- Network security issues
- Network management
- Performance Issues
- · Applications and multi service networks

### About your workshop leader:

Chano Gomez, Senior Applications Engineer, DS2

Chano Gomez is a senior applications engineer in Design of Systems on Silicon (DS2). He holds a degree in telecommunications from the University of Valencia, Spain (UPV). He has been one of the key systems designers responsible for the development of the DS2 power line modem chipsets, having worked on the design of both the current 45Mbps chip-set and the 200Mbps family.

### 12:30 - 13:30 Buffet lunch



# SEMINAR D 13:30 – 17:00 Ensuring Winning Formulas for your PLC-Project: Formulating the Business Case, Developing Marketing Campaigns and Choosing Pricing Levels

This interactive, problem-solving session will focus on various approaches to introduce the PLC services to the market. Specific attention will be paid to delivering a high-quality marketing campaign to launch PLC operations. The workshop will cater for utilities and service providers who intend to or, are in the process of providing telecom services via a PLC-based local access network. While the basic business case elements are common to all PLC-services providers, the organisational/operational, market environment and technological situation differ for each company. This will be demonstrated with a generic business plan model. You will discover how a well developed and clear business case will assure management support in subsequent PLC installations. The day's discussion will include these key-learning points:

- Addressing different types of business case and choosing the most effective angle
- · Identifying the critical elements of a business case
- Defining your business case parameters and delivering to specified targets
- Developing key marketing issues including (services, services pricing, competition)

- Driving solutions for prime customer-related issues enquiries, complaints, payments
- Supplying and maintaining equipment and addressing underlying technical issues
- Projecting a vision for future telecommunication provision

### About your workshop leader:

Dieter Muernseer, Associate Partner, Eutelis Italia Dieter Muernseer is an Associate Partner of Eutelis Italia Consult & Associates Srl, Rome, Italy and Managing Director of his own management consultancy, MUERNSEER ASSOCIATES GmbH , Munich, Germany. Prior to entering the management consultant business (focus: market and strategy consultant in the T I M E industry), Mr. Muernseer was a member of the European management boards of both AT&T Microelectronics Europe and National Semiconductor Corp. Mr. Muernseer has significant experience in the development of business plans and business strategies in various industries (utility, telecommunications, semiconductor and IT). Mr. Muernseer is also leading the business plan development project for Eutelis Italia in an EU PLC project.

# OR

### Site Visit to the LA MANCHE Government Project

### 07:00 Depart Paris

- 10.00 Arrive La Manche
- 10.15 Coffee and welcome
- 10.45 Introductory presentation
- 11.00 Visit to local schools project
- 12.30 Lunch with the President of La Manche Government
- 14.00 Visit to control centre: access project in La Haye du Puits city
- 15.30 Afternoon coffee and Q & A session
- 16.00 Depart La Manche
- 19.00 Arrive Paris

Make sure the next IQPC Powerline conference ends on a high, by coming to visit the spectacularly successful projects that the local



government of La Manche has been developing. During the day long visit to this stunning region of France, you will be able to discover more about how the deployment of Powerline Communication has been built around the implementation of various pilot projects in the area. Working together, in collaboration with La Manche area General Council, the partnership has made it possible to equip 56 high schools in the La Manche area with PLC infrastructure.

The high levels of quality and service developed by Schneider Electric have enabled teachers and students alike to gain the means to keep in-line with the development of information technologies and technical training. These technologies have been made accessible to, and usable by, the widest possible number of people.

This recently undertaken pilot project proves that implementing a PLC solution is simple, fast and highly cost effective and the performance is breathtaking: 12 Mbps of bandwidth observed at the power outlet and this figure never stops increasing. Come and see for yourself how PLC is radically changing old-fashioned power outlets into established broadband data sources.

In the afternoon, visit La Haye du Puits city, where 2400 citizens can surf with high-speed access thanks to PLC technology. This trial, managed by La Manche with EDF and based on PLC modems, has not been launched only in order to experiment with PLC technology, but above all to calibrate and establish some technical and economical suitable models. La Manche government plans to extend its trial to a huge scale for autumn 2003, in the city of Cherbourg with 100,000 citizens and roughly 2,000 to 3,000 PLC points of PLC access.







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Powerline World is a global online community facilitating the development and deployment of Powerline Communications (PLC) products and services. Powerline World provides facilities for the online exchange of views and ideas via its threaded discussions. Visit the site, www.powerlineworld.com for regularly updated news, information and

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