

**INTERCAI MONDIALE IN PUBLIC POLICY AND STRATEGY FOR
TELECOMMUNICATIONS AND RELATED SECTORS**

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OVERVIEW OF INTERCAI MONDIALE AND ITS CREDENTIALS

OVERVIEW

Intercai Mondiale Ltd is an internationally regarded specialist consultancy focusing on telecommunications and related industry sectors. Our breadth and depth of knowledge provide a strong combination of business, economic and technical skills to fulfil a wide variety of work in technical, economic and regulatory areas.

Intercai Mondiale Ltd specialises in consulting services to the telecommunications, media and technology sectors with a client base that includes Governments, regulators, international bodies and public and private operating companies. Our consultants have strong industry experience that forms a powerful source of market driven solutions and independent business advice related to technological and market developments. The company has a pragmatic and flexible approach to consultancy that leads to successful customer specific solutions.

CREDENTIALS

Our work covers virtually all sectors of telecommunications and many areas of information technology. Our breadth of experience has allowed us to contribute to landmark projects involving policy, privatisation and development of new strategic directions in an increasingly volatile environment. Intercai Mondiale's public sector clients include the Kingdom of Bahrain, the Government of Jordan, the UK Regulator OFTEL and now OFCOM, the UK Radiocommunications Agency, the TCEDB of South Africa, the Netherlands TCEDB, the Tanzanian Revenue Authority and the European Commission. Private sector clients include British Telecom, KPN, Energis, MCI, BellSouth, Ameritech, Viag Interkom, Lattelkom, Hewlett Packard and Comcor.

INTERCAI EXPERTISE

Intercai's practice areas that include Policy, Regulation and Privatisation, Strategy & Planning, and Design & Integration, given here, represent the breadth and depth of experience of Intercai.

Policy, Regulation and Privatisation

Within the Commercial sector, Intercai have been involved in a wide variety of projects for number of clients, ranging from Merchant Banks and VC's, to major Fixed and Mobile Operators. In particular we have examined in detail the network infrastructures and technologies deployed by incumbent and new entrant operators in the Fixed and Mobile Telecommunications sectors, and the historical and future Capex and Opex requirements of such operators. We have further carried out due diligence on the Business Plans of Service and Technology based new entrants into the Telecoms sector, in support of major investment decisions.

In addition, our consultants have experienced the unique circumstances and factors that govern developing economies, particularly those that are facing regulatory change. We have carried out policy and strategy assignments for Government clients and market entrants in a number of African countries, the Middle East and Eastern Europe as well as in Western Europe and North America.

Our breadth of experience has allowed us to contribute to landmark projects involving market liberalisation, policy development, privatisation, and regulation of liberalised markets and has involved our consultants in operational roles in telecommunications regulators.

In the Kingdom of Bahrain, for example, we defined the strategy for liberalisation and then carried out the practical steps necessary to implement it. We carried out an economic analysis based on a series of liberalisation options, established the legal framework for liberalisation and set up the regulator, the Telecommunications Regulatory Authority (<http://www.TRA.org.bh>). We went on to provide TRA's management team, undertaking specific consultations and determinations as required.

In addition we have developed a range of skills to support Government and Local Government initiatives in improving the supply of telecommunications services within disadvantaged regions of Europe. This work includes the UK Public Sector regarding the issues and provision of broadband communications in rural areas. Intercai has been involved across the UK and in some other European countries in broadband stimulation, the improvement of supply of broadband services, and in early aggregation schemes. We have worked with local authorities and regional development agencies in developing strategy, assessing need, defining and evaluating options, and preparing budgets and action plans. We have also worked with service providers in the development of broadband network architectures and designs. We have designed national networks and provided specialist expertise to service providers in the areas of cost reduction, Quality of Service standards and Service Level Agreements for telecommunications networks.

Strategy & Planning

We combine our deep industry knowledge with strong quantitative analysis and leading-edge thinking to identify and assess new opportunities, and to assess the implications of changing business models, technologies and markets on business performance.

We anticipate and take advantage of the wealth of opportunity and challenges available to our clients by working with them to reinvent their businesses with practical, well-conceived and flexible business designs.

We promote growth and shareholder value for our clients by harnessing our relationships, extensive industry knowledge, strategic expertise, together with our implementation and operational skills.

Design & Integration

We specialise in IT and telecoms technology, mobile, wireless and fixed, within e-business and traditional environments.

We have substantial experience in the complexities of large scale distributed systems. We shape, design, integrate and implement IT & Network architectures and solutions within a 'business technology' framework. We design technology environments for mobile virtual network operators and communications networks. We also implement network management systems and portal infrastructures for voice and web services.

We have assisted a major technology organisation which is a supplier of a strategic ATM-based telecommunications network to the UK Ministry of Defence (MoD). We have reviewed the network holistically, that is including its infrastructure, the Operational Support System (OSS) and in the context of the services it needs to support and its interworking with other networks. We are continuing this work with an operational and business focus, by a detailed analysis of the operational performance of the network and how it relates to the business model in terms of commercial risks and sensitivities.



ITU/BDT Arab Regional Workshop on “Interconnection and Price Regulation”, Muscat - Oman, 03-06 April 2005

We worked with the ITU Arab Centre of Excellence to develop and deliver this workshop on interconnection and price regulation for the Arab Region as part of the ITU’s programme of capacity building in the Region. Over 140 representatives of regulators, the telecommunications sector and international organisations attended the workshop. The workshop focused on the following topics:

- Technical Aspects of Interconnection
- Economic Aspects of Interconnection
- Legal Aspects of Interconnection
- Economic Aspects of Price Regulation
- Best Regional and International Interconnection practices

Three Intercai Mondiale consultants participated in the workshop providing individual sessions on Interconnection principles, The changing face of interconnection, Issues related to interconnect, Costing models and associated theory, Costing and tariff methodologies for other services including access and wholesale services, Economic aspects of price regulation, Pricing: Competition concerns – discrimination, bundling and discounting, Retail price regulation methods, including implementation of price cap formulae, Basket composition, Value of X, and an exercise in retail price regulation.

In the evaluation of the programme, the three Intercai Mondiale consultants were rated in the top four speakers.

The presentation material provided by Intercai Mondiale may be viewed at: <http://www.ituarabic.org/coe/Interconnection-05/ListofDocs.doc>



“Thought Partner” for OFCOM

We are retained advisors to OFCOM covering a variety of telecommunications issues.



ICT and postal policy preparation

Intercai Mondiale assisted the Ministry of Information and Communications Technology (MoICT) in Jordan in the preparation of an overarching policy statement covering the postal, telecommunications and information technology sectors.

The MoICT is required to submit policy for these sectors to the Jordanian Council of Ministers. The policy statement was prepared taking account of the requirements of the World Trade Organisation (WTO), the Free Trade Agreement with the USA, other international treaties and Jordanian law. It was justified by assessing the impact of alternative policy options on economic and social development, the development of the individual sectors and the efficiency of the government machine.



ICT and postal sector national plan preparation

Following on from the preparation of Government policy for the ICT and postal sectors in Jordan, Intercai Mondiale assisted the Ministry of Information and Communications Technology (MoICT) in the preparation of the national strategic plan for posts, mobile and fixed telecommunications and for the information technology sectors.

The plan coordinated and consolidated the many initiatives that are being undertaken in Jordan by Government ministries, Government executive agencies and NGOs.



USO policy preparation

Intercai Mondiale prepared the USO policy and a proposal for a USO regime for the MoICT in Jordan. We assessed the success of the current USO and identified requirements for services that should be included in the USO through comprehensive market research covering rural and urban areas in all regions of Jordan. We assessed the law and licensing regime to determine what changes to the USO were possible, and assessed the extent and quality of network coverage. We evaluated the present cost of the USO and assessed claims made by the incumbent operator. Using international best practice as a guide, we prepared a statement of policy that included a definition of availability in terms of geography, affordability, and access for disabled people. The regime proposed a method of determining when the universal service provider should be compensated for the USO burden, and who should fund the compensation. We also made proposals for the selection of an alternative to the present universal service provider should that be required to maintain economic efficiency.



Telecommunications Regulatory Commission – Assessment of the resource requirements to complete liberalisation

Intercai Mondiale reviewed the Telecoms Law and existing fixed and mobile licenses, and subsequently prepared a comprehensive plan for liberalisation of the fixed sub-sector, and the introduction of a Unified Licensing Regime. This encompassed the many tasks required to introduce competition into the market, and detailing the Body of Regulation necessary in order to successfully implement the new regime.



Technical, Economic and Regulatory Advisor to the Kingdom of Bahrain for the liberalisation of the Telecommunications market

Intercai Mondiale was appointed by the Government of Bahrain to advise it on the strategy and approach it should adopt to liberalise its telecommunications market and support the preparation of the necessary legislative instruments. After gaining an in-depth understanding of the current market we identified a range of Market Structure Options (MSOs) that offered varying degrees of liberalisation. The economic impact on the sector and the effect on the incumbent were modelled for each MSO and a formal decision analysis process, involving the client, was undertaken to select the preferred option. We then drafted a National Plan to present the approved Government policy to the market and supported the legal team in the drafting of the necessary laws and licences.



Interim Telecommunications Regulator for Bahrain

For a period of two years, Intercai Mondiale supported the Government by fulfilling the functions of the newly created Telecommunications Regulatory Authority on an interim basis. This included the transition from our interim position to the establishment of a permanent team. As part of this role, the Intercai Team undertook consultations on defining relevant markets, determinations of dominance and Significant Market Power (SMP), local loop unbundling and universal service provision. We also undertook analysis and implementation of rate rebalancing, interconnect / wholesale pricing, and Cost of Capital. We were also responsible for undertaking the selection and issuance of a second mobile licence. Further we had responsibility for type approval, quality standards, customer complaints and the general operation of the regulatory function. We assisted in the recruitment of permanent staff and participated in a programme for skills transfer and training. Throughout this period Keith Gilbert acted as the Deputy General Director, prior to recruitment of a full time General Director.



Privatisation of Telkom, South Africa

Intercai Mondiale advised the Department of Communication (when part of the Ministry for Posts, Telecommunications and Broadcasting) in relation to the privatisation of Telkom SA, the national telephone company. Intercai advised on the technical issues associated with the drafting of the various licenses and other regulatory instruments, including interconnection and tariff regulations, which were closely modelled on European Union precedent. Intercai Mondiale also performed work in relation to the sale of part of Telkom to a strategic investor. This involved a significant contribution to the drafting of the transaction documents and the evaluation of the bids received. Intercai was also prominent in the final negotiations between the TCEDB and the strategic investor, especially in relation to the agreement of spectrum for Wireless Local Loop deployment.



Telecoms tariff policy, Latvia

Intercai Mondiale assisted Lattelekom by benchmarking their national and international telecoms tariffs with respect to comparably sized west European countries, including a view on trends in both national and international tariffs. After this, Intercai Mondiale developed a migration strategy for Lattelekom's tariffs when it became known that their national market would be liberalised on a much faster timescale than originally planned.



Modelling of interconnection costs, United Kingdom

Intercai Mondiale developed a model to allow the evaluation of different interconnect proposals from fixed operators to one of the UK mobile operators. This included the ability to vary the 'hand-off' points for each type of mobile traffic, and estimate the infrastructure costs for different interconnect architectures. This enabled the mobile operator to determine the best interconnect terms given the characteristics of its forecast subscriber base.



Comparative Access Costing, The Netherlands

For the Dutch government department (DGTP), we reviewed and assessed various access technologies (ISDN, xDSL, WLL - narrow and broadband - Cable Modems, GSM - with and without GPRS, EDGE, HSCSD - UMTS, S-UMTS and VSAT) in order to establish the foundation for future licence allocation. The government's objective was to explore the opportunities for the introduction of competition at the access layer. Our report ranked the options in terms of their ability to support competition in various markets (large business, medium business, small business, consumer) and explored bandwidth capability, technology lifetime, capital cost, running cost, etc



COMCOR (the Moscow Telecommunications Corporation)

A Strategy for Cable Telephony using Voice Over the Internet Protocol. The client, at the start of a 5-year build out of a new cable TV network in metropolitan Moscow, wished to explore the feasibility of using Voice over IP (VoIP) as the telephony bearer. The study captured basic information about the client's intentions, network architecture and timescales. It then surveyed (by contacting and visiting) leading equipment suppliers to get their views on the availability and timelines for VoIP. The suppliers in question included Cisco, Lucent, Motorola, Nortel, Philips, Siemens. The project explored many technical and other issues that needed to be considered by the client in making network plans.



Regional hubbing for the State of Guernsey

A comparison of the attractiveness of an island economy with considerable tax incentives as a location for e-businesses. The study assessed key issues such as availability of bandwidth, regulatory environment, access to markets, impact of local economy and access to necessary skill sets.



Regulatory structures worldwide

For a major international Merchant Bank located in the UK, Intercai Mondiale reviewed the structure and function of Telecommunications Regulating Authorities around the world, to provide a vehicle for comparison, and a behavioural model, for a new Telecom Regulator in a developing country. Intercai also outlined the structure of The Regulator within the legislative, commercial and regulatory framework, and defined its functions duties and responsibilities.



Regulatory strategy for UMTS, The Netherlands

The body responsible for telecommunications policy in The Netherlands, DGTP, was keen to establish the most appropriate competitive environment for the introduction of UMTS. Of particular interest was the increasing convergence between sectors, both between fixed and mobile communications and of the telecommunications industry with entertainment and computing. Intercai was asked to review the Market Structure Options available to them and recommend a route map for the decision making process.



Strategy for radio communications and modelling of spectrum demand, United Kingdom

IML provided the technology expertise in a project for the UK Radiocommunications Agency (RA), the objective of which was to develop the groundwork for a strategy for spectrum



Foundational market study for UMTS, European Commission

Intercai Mondiale conducted jointly with another UK consultancy a seminal study of UMTS, the Universal Mobile Telecommunications Service. Intercai provided a forecast of UMTS developments in marketing, technical and regulatory terms for the period to 2005



Radio Spectrum allocation in SADC countries, Southern Africa

Intercai Mondiale undertook a review, for a new manufacturing company in South Africa, of the status of the radio spectrum and its associated regulation in 12 southern African countries.



Preparation for liberalisation, Jersey

Jersey, although part of the UK, maintains a monopoly telecommunications regime. Intercai Mondiale was retained by an existing player to advise them on the potential market and prepare a business plan so as to position them to become a second carrier once liberalisation proceeded.



Market research and regulatory framework, Romania

A large global mobile satellite service provider commissioned Intercai to analyse and evaluate the general and regulatory framework of the Romanian telecommunications market. The study involved market research of the country's fixed and mobile telecommunications market and was aimed at uncovering the real potential for mobile telephony provision via satellite. Since then the operator has secured an exclusive licence for satellite-based mobile service provision in the country.

THE INTERCAI MONDIALE TEAM - BIOGRAPHIES OF KEY PERSONNEL

Brief biographies of consultants who have worked on public sector policy and strategy assignments are provided below. All consultants are qualified and highly experienced within the telecommunications sector, and bring specific set of skills that within a team environment forms a considerable force.

Keith Gilbert

Keith has over twenty-five years of experience within telecommunications. Prior to founding Intercai Mondiale in 1988, Keith held several senior management positions within the telecommunications industry. His consulting experience encompasses all aspects of telecommunications including business strategy and regulatory development. He has been involved in numerous projects involving business valuations, market entry and value exploitation, as well as privatisation, liberalisation policies, and market structure and competitive analysis.

David MacKinney

David MacKinney has spent many years at director level in the finance and commercial areas of manufacturing and service businesses. He has been involved with telecommunications since 1982, when he was part of a small team that founded Vodafone. His consulting experience encompasses business strategy, opportunity development and business valuation. Areas covered have included mobile, fixed voice and data together with cable TV and telephony, Internet Service Provision, Web development and eCommerce. He has also assisted Governments in the process of liberalisation of Communications sectors, and, advised incumbent players as to how to react to emerging competition and regulation.

Chris Pollard

Chris has worked in telecommunications and information technology consultancy for over 20 years. He has considerable experience of business planning, the development of communications services and products, the evaluation of the relevant market environment and in assessing users' requirements. Through a great variety of projects in the telecommunications sector Chris has developed a strong expertise in market forecasting, modelling the financial implications of market development and assessing service and product portfolios against user requirements and specifying, designing and managing market research projects.

Bharat Vagadia

Bharat specializes in market analysis, forecasting and business planning in telecommunications. He has a blend of experience that includes technical engineering, marketing, operations and business planning. Bharat spent considerable time in his previous employment at Nortel Networks advising new entrants on tariff pricing and minimising interconnect operational costs.

Mark Norris

Mark Norris has 25 years experience in the telecommunications industry. He is an acknowledged expert on fixed networks and a specialist in the design and management of networks and the services they support. Mark has a proven track record of technical, communication and strategic skills allied with an ability to work with and influence others. He has led and contributed to a wide variety of projects across the world and is widely recognized as the author of a range of technical books.

Viv Cheong

Viv's consulting experience has been exclusively in telecommunications, usually working at director and senior management level. He has consulted extensively on the economics of mobile telecommunications and their impact on financial and commercial positions, valuations and the maximization of shareholder value. His expertise covers financial, commercial and value analysis for incumbents and new entrants in the wire line and wireless telecommunications markets.

Jeremy Povey

Jeremy's industry experience includes telecommunications and IT service provision. Roles in these businesses have been predominantly project based and have included Financial and Commercial Management, Business Development and Marketing with exposure to Board level. A management accountant by qualification, Jeremy's experience includes a broad range of disciplines from the formation of business strategies and models, product marketing, market analysis and service development to financial modelling.

David Hughes

David has over 20 years experience in telecoms, IT and e-business. More recently David has focused on access technologies, services and regulation, including local loop unbundling and universal service obligations. He has worked with regulators and government in defining telecommunications policy and regulation in these areas and has considerable experience in broadband access technologies, demand modelling and cost considerations. He has consulted to many public authorities on initiatives to broaden the scope of broadband access to rural areas and has developed strategies to encourage both demand and supply stimulation.

Steve Hodson

Steve has over 30 years experience in real time computing and telecommunications. He brings a pragmatic, practical and business oriented approach to the application of technology, which is backed up by a series of successful implementations. Prior to joining Intercai Mondiale in 1998, he held a range of senior technical and managerial positions in GEC, ITT and, most recently, Racal Telecommunications. Steve has developed strong skills in line management, business analysis, project management, service level agreement negotiation, network architecture and optimisation, performance analysis and prediction, service development and process re-engineering. In a varied career that includes some pioneering work on the setting of service level agreements, he has led the design and implementation of some of the most successful networks in the UK. He also led the technical due diligence activities that led to the acquisition of British Rail Telecommunications by Racal.

Gareth Jones

Gareth has over 30 years experience in the telecommunications industry, most of it spent as a manager/senior manager in British Telecommunications in technical and sales disciplines. He has been a consultant to the industry for the last 12 years and in that time has undertaken a broad variety of interim management and consultancy assignments, mostly with new operators. He has been a part of or led interconnect negotiations in the UK and the Netherlands; he has advised on numbering and billing aspects and most recently he has led a technical team advising the Saudi regulator on the issuance of data and mobile licences.

Philip Marnick

Philip is currently advisor to Ofcom. He has held both senior operational and strategic roles in mobile operators in his experience in the communications industry that extends over 20 years. He was Group Strategy VP in a new FTSE100 mobile group, board director responsible for the mobile internet service in a Japanese operator, developed BT's group strategy on 3G and mobile multi-media, Head of Carrier Services & International Business in a UK operator (P&L responsibility for all aspects of interconnection including regulatory affairs) and responsible for network design in another.

Adrian Golds

Adrian has more than 15 years of experience of cellular networks gained in Europe, North America and the Middle East coupled with a technical understanding of most technologies found in telecoms and data networks today. In addition to this technical knowledge, he has gained considerable experience in project management, business planning and financial modelling. Recently, he has provided technical expertise in two successful second mobile licence awards for the TRA in Bahrain and the CITC in Saudi Arabia, and support across a broad range of other technical issues including spectrum usage and number portability.

Chris Angell

Chris has worked in telecommunications for 27 years, starting his career in the design of specialist communications equipment. His experience includes six years at the UK's leading mobile operator, covering network design and deployment in addition to various management roles. Subsequently, in the area of telecommunications consultancy, he spent a year in the US providing expert support during the design of a new digital cellular architecture and its subsequent rollout. Most recently, Chris has been applying his extensive technical expertise in support of Market Operations for the TRA in Bahrain, which included the writing of licences and papers for public consultation, meeting with potential licence applicants, and advising on a wide range of technical issues.

