

Utility Telecom Business Models



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Presented by:

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- United Telecom Council (UTC) Europe
- Utility Telcoms Services
- The Changing Utility
 - Business Separation
 - Strategic Drivers
 - Changing The Service Delivery Model
 - Delivering New Telcom Services
- Creating A Utility Telco
- Summary

UTC Europe





United Telecom Council (UTC)

- Founded in 1948 to help utilities use new telecommunications technologies.
- Initially focused on radio, expanded into all communications systems built and/or used by electric, gas and water utilities and energy companies.
- Now, UTC stands as the premier telecoms advocate for and source of information and analysis to the critical infrastructure industry.
- Membership initially comprised of companies in United States, now has members from all parts of the world.
- International Division created in 1996.

UTC International

- Initial focus of International Division information sharing and Annual International Conference.
 - Dymitr Wajsman of Brazil – Division Chairman
 - International Conferences
 - » Manchester, Recife, Madrid, Iquzau Falls, Paris, Las Vegas
- 21st Century marked greater focus on local issues
 - APTEL established in Brazil
 - UTC Canada created
 - European Conference created.

Three European Telecom Conferences have been held, Madrid 2003,
Dublin 2004 and Vienna 2005

A European Beginning

- Feedback from the European conferences indicated there was an ongoing need for industry managers and engineers to network with people with similar problems
- Little knowledge in one country as to developments elsewhere in Europe
- No forum for sharing experiences and debating issues in respect of technology or service related solutions
- Lack of understanding of the working of European Commission in the areas of Telecom Regulation and impact it will have within member countries

UTC have responded by creating a European Board

2005 - European UTC

- The European Board will consist of :
 - A Chairman
 - A number of Chartered Members, representatives of utility companies that have shown a commitment in wanting to support the organisation in Europe
- Support for the Board will be provided through:
 - A Director of European Services
 - All the staff at UTC

UTC programmes in Europe will be created for Europeans by Europeans and be led by Europeans.

2006 – UTC Europe

- UTC Europe will:
 - Represent all European critical infrastructure communications operations – regardless of ownership
 - Provide networking opportunities for all members
 - Engage with the EC on matters relating to telecom needs of member organizations
 - Provide Regulatory updates on a regular basis
 - Engage with other European entities which represent utility/energy companies and services
 - » Cigre, Eurelectric, European Water Services, CIRED, European Gas Transportation and others.....
 - Develop associate memberships for technology partners and service organisations

**And develop other services in accordance with the wishes of the
European membership**

Utility Telcom Services



Telecommunications for Utility Companies – An Internal Business



- Telecommunications are fundamental to the safe, reliable operation of utility networks providing:
 - Workforce management of field operators
 - Control and efficient operation of the supply of electricity, gas and water services
 - Disconnection of plant in the event of equipment failure
 - Communications to provide best in class customer services
 - Improvements in Quality of Services in core network
 - Corporate communications throughout national and international enterprises

Telecommunications are fundamental to the efficient operation of utility businesses

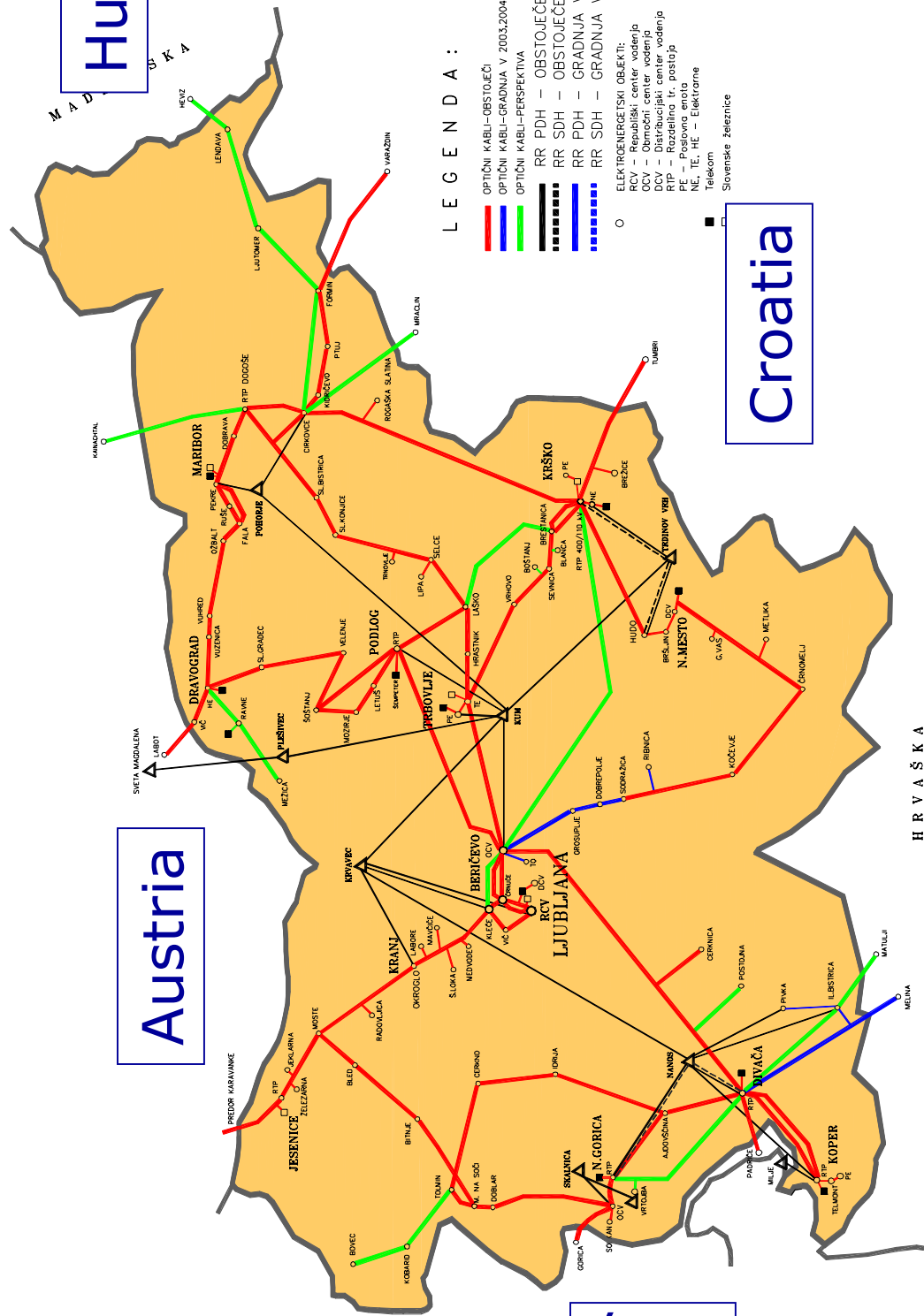
A Company Wide Telecom Network

Hungary

Austria

Italy

Croatia

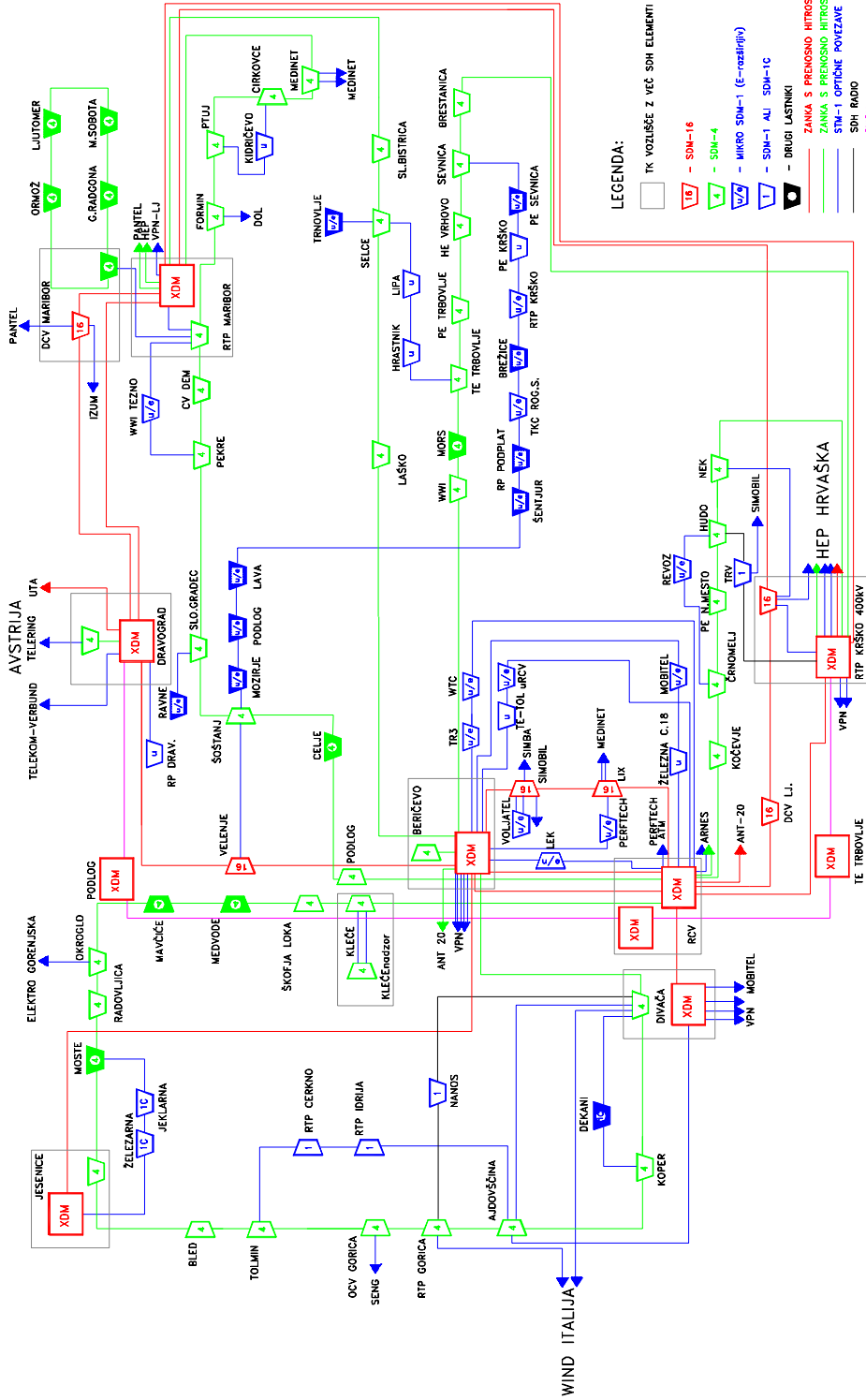


LEGENDA:

- OPTIČNI KABLI-OBSTOJEČI
- OPTIČNI KABLI-PERSPEKTIVA
- RR PDH – OBSTOJEČE
- RR SDH – OBSTOJEČE
- RR SDH – GRADNJA V 2003, 2004
- RR SDH – GRADNJA V 2003, 2004
- ELEKTROENERGETSKI OBJEKTI:
- RCV – Republiški center vodenja
- OCV – Osmočni center vodenja
- DCV – Distribucijski center vodenja
- RT – Razdelilno tr. postaja
- PE – Pomožni center
- NE, TE, HE – Elektrarne
- Telekom
- Slovenske železnice

Austria: Verbund, UTA, Telering, TA

Hungary: PanTel



Italy: Wind

Croatia: HEP, VipNet

Networks and their Characteristics

- A High Capacity Private Network Featuring:
 - Optical and SDH network built in ring topology
 - Continuous Redundancy of Power Supplies
 - Telecontrol devices with control and monitor functions
 - Protection Systems
 - High Quality Synchronisation
 - 24 hour 365 days service personnel
- Private Mobile System
- Large User of GSM Services

Services to Support a Mission Critical Business

The Changing Utility



The Changing Utility Company

- Traditionally Electricity Companies were seen as Local or Central Government organisations
 - Providing a public service
- The last 15 years has seen that concept turned upside down in two major ways
 - Ownership of the Utility Company
 - The Regulatory Environment
 - » The effective working of competitive energy markets
 - » Regulation of monopoly businesses
 - » Security of Supply
 - » Social and environment responsibilities
 - » The development of efficient (profitable) businesses

At The Same Time We Have Seen Privatisation, Competition and an Explosion of New Digital Technologies In The Telecoms Sector

In The Electricity Sector – Business Separation

Different businesses will have different fundamental priorities for communications services

- Distribution & Transmission
- Monopoly Businesses
 - Corporate Voice Services and Data Applications
 - Mission Critical Mobile Solutions
 - SCADA/Telemetry
- Energy
- Competitive Businesses
 - Voice services fixed and mobile
 - Corporate data applications
 - Large Call/Contact Centres



Strategic Business Drivers

<p>Strategic Drivers</p>	<p><i>Improve Operational Effectiveness</i></p>	<p>Operational Needs</p>
<p><i>Reduce Cost Base</i></p>	<ul style="list-style-type: none"> • Consolidation of operations and control centres • Applications designed to support Quality of Supply initiatives • Deployment of mobility tools quickly and widely after pilot trials • More effective use of equipment, people and processes • Enabling local control of power network 	<ul style="list-style-type: none"> • Empowerment of remote workers by enabling 'real time working' • Reduction of man-hour effort/ replication of operational data input/ retrieval • Reduction in property portfolio, closing local offices/depots • Asset management data gathering



Strategic Business Drivers

Strategic Drivers
<i>Competition in Energy Supply</i>
<i>Regulatory Issues</i>
<i>Asset Ownership/Investment Policy</i>



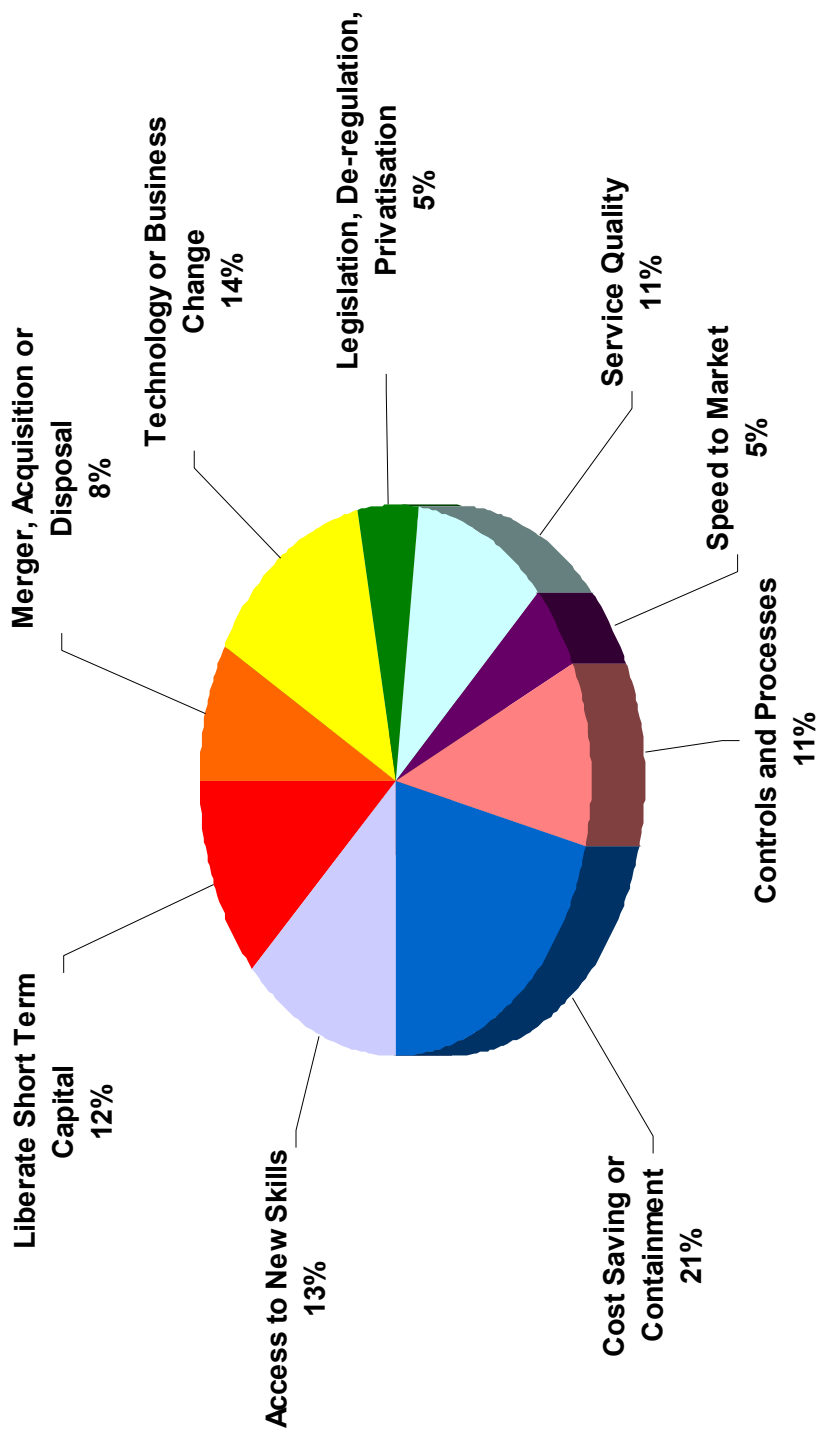
Operational Needs
<ul style="list-style-type: none"> • Workforce management in service sector • Meter Reading • Billing for Energy Usage • Billing of Services
<ul style="list-style-type: none"> • Improvements in Quality of Service Requirements • Market Pricing/Value for Money Services • Penalties imposed on monopoly businesses for poor performance
<ul style="list-style-type: none"> • Retain and leverage assets • Create vehicle for generating non-regulated revenue (can increase regulatory scrutiny) • Some businesses look to be revenue based

The Changing Utility – Changing The Service Delivery Model

- Transfer Services to Outsourcer
 - » Small Team to Manage Outsource Contract
 - » Transfer of operational staff
 - » Revenue based costing
 - » Reduction in Capital Expenditure
 - » Company focuses on core business
- Concerns
 - » Control of costs
 - » Control of Strategic Direction
 - » Realistic Service Level Agreements
 - » Real Partnership – Win/Win relationship

Why do Organisations Outsource?

Reasons for Outsourcing



Source: Computer Weekly/Morgan Chambers

Network Outsourcing Drivers

- Better cost management
- Single network supplier
- Network upgrade – IP enablement
- Guaranteed service levels
- Future proofing
- Access to skilled resource
- Ability to flex resources up and down according to demand
- Better career prospects for telecoms staff

Service Delivery Models – The Changing Market

Buying Technology

- In-house DIY ICT services
- Multiple components
- Multiple suppliers
- Multiple, non-standardise services
- High complexity
- High management overhe
- Low added value
- Technical skill base
- Technology focus
- Internal “SLA” with no guarantees

Buying Service

- Outsourced ICT services
- Services not components
- Few suppliers
- Standard service portfolio
- Lower complexity
- Low management overhead
- High added value
- Contract management skill base
- Commercial/Service focus
- Contracts backed with service level guarantees

Buying Relationships

- Outsourced whole office services
- Service and products
- Potentially fewer suppliers
- Wide range of services via Partnership
- Increased Complexity
- Shared management overhead
- Shared Equity , Adding Value based on ‘Cost+’ approach
- Mature contract management skill base
- Innovative Commercial/Service focus
- Contracts backed with revised service level guarantees

Time



The Changing Utility – Delivering New Telecom Services

- Converged Voice & Data Services
 - IP Telephony
 - » Cost Reduction
 - » Improved Network Utilisation
 - » IP Services to the Desk Top
- Rural Automation/Control schemes
 - Additional Level of Core Network Control
 - » Improve Network Outage Times
 - » Many Thousands of Control Devices
 - » Challenge to Provide Low Cost Telecom Services
 - » Integration with existing SCADA Control Systems

The Changing Utility – Delivering New Telecoms Services

- Asset Condition Monitoring:
 - Predicting Failure in Core Elements of Plant
 - Prolonging Life of Assets
 - Large Scale Implementation of Broadband Services
- RFID – An Asset Management Tool
 - Utilities have very large number of assets
 - RFID tagging can improve tracking and management of assets
 - Improved Control of Partner Organisations
 - Reduced Asset Loss and Therefore Reduction in Costs

The Changing Utility – Delivering New Telecoms Services

- Workforce Mobility:
 - Job Dispatching
 - Workforce Management
 - Remote Access Facilities to Corporate Applications
- At All Staff Levels in the Business
 - Management Team
 - Sales Force
 - Emergency Crews
 - Metering
 - Billing

Creating A Utility Telco



The Utelco Opportunity - Why Become a Utelco?

There are several reasons:

- Improve return on current investments
- Extend the economic life of existing assets/infrastructure
- Maximise value of existing channels to market to access customer base
- Access new revenue streams that are not constrained by the industry regulator
- 'Self provide' in-house service requirements at a lower price than the prevailing market.

Utelco Has to be Competitive

- They are owners of major assets, such as power lines and are able to install many thousands of KMs of optical fibre
- Knowledgeable workforce skilled in technologies and service delivery
- Must be able to undercut incumbent telco operators
- Successful Utelco companies
 - Are operating in all Western European Countries
 - Provide internal utility telecom services
 - They can compete in Business to Business and Business to Consumer markets
 - UTelcos support new and innovative technologies

Utility Telco Services Generate Revenue from Utility Assets that Support the Utility Business

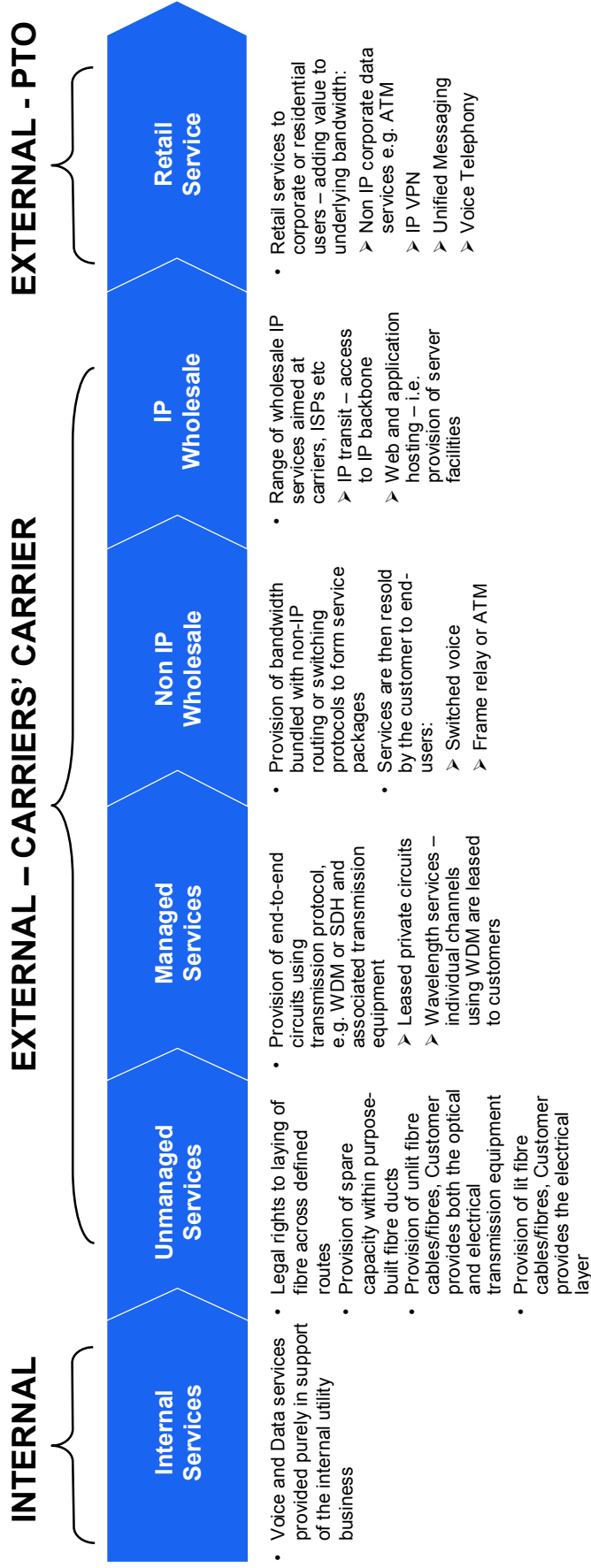
The Utelco Opportunity – Which Business Model?

There are five broad categories:

- Provider to internal customer
- Carrier's Carrier
- Niche market eg large corporates
- Mass/Retail market
- Virtual Operator

The Utelco Opportunity – Which Business Model?

There are three high-level directions in which an infrastructure-based Utelco business model may develop, within these categories there can be several sub-divisions, these are described by the model below:



New and Innovative Technologies

- PowerLine (PLC) technology allows the creation of broadband networks through the use of medium and low voltage electrical power networks
- Electricity Companies are interested because:
 - Enhances the value of their assets
 - Provides direct communications channel to end customers, especially important in the competitive telecoms environment
 - PLC is proving to be useful for power network operations and customer service improvements

Summary

- Traditional Utility Telecom Networks are large Complex Private Systems
- This Service Delivery Model is Being Challenged by Experience from the Wider Enterprise Sector
- Some Areas of Utility/Energy Businesses will Face Increasing Levels of Legislation and Regulation, Others Will Face Increasing Levels of Competition
- Delivering Value for All Stakeholders Will:
 - Drive Demands for New and Innovative Telecoms Solutions
 - Make Companies Consider Long Term Partnerships in Managed Services
 - Enable Those Companies with Suitable Telecom Assets to Deliver Added Value Through Competitive Utelco Businesses