

WHY GBCN



Telecommunications + Energy (LFTR & PGN) + H2O = Economic Independence

GBCN Team Advantages In Managing Its IP

- The GBCN Team have known each other more than ten years, besides working closely on our technology development.
- The Team has extraordinary telecommunications expertise, skill sets, and practical experience in the hands-on change management of
 - Wireless Transmission
 - Wireline Transmission
 - Powerline Communications
 - Mobile Services
- The transformation of the WBSH business relies upon the conversion of iBurst and conventional Internet access service subscribers to 'unplugged' WiMAX2 broadband Internet access services
 - Network conversion must provide seamless cutover of higher performance
 - Transforming then managing a new service subsystem with new policies and procedures
- The Power Grid Network strategic innovation relies upon a mission-critical broadband environment capable of supporting hundreds of thousands of high Quality-of-Service application sessions simultaneously
- Each of the PGN smart grid and communications sub-systems' development, implementation, testing, and certification will be the line responsibility of specialist system integrators working under Team oversight. Once they arrive from Germany to be deployed, they will require --
 - Network-centric support of application services
 - Managing unknown service subsystems with new policies and procedures
- The LFTR Power Generation Supply Chain employs manufacturing and licensing entities to deliver mass-produced plants that must be deployed underground in co-location with the power grid customers for their energy output
- A Science Advisory Committee led by the patent holder of our two-fluid LFTR design as the Chief Technology Officer will oversee the development and implementation of the prototyping, manufacturing, testing, and certification of the LFTR generators. Once they arrive to be deployed, they will require --
 - Network-centric monitoring of fuelling, molten salt processing, operations of the electricity generation turbines, and operations of the waste heat driven commercial facilities
 - Managing unknown service subsystems with new policies and procedures
- Systems experience and leadership skill sets in telecommunications have a direct correlation to the leadership challenges of the PGN and LFTR enterprises. This 'network-centric' expertise is a knowledge bridge upon which we are well equipped to develop the policies and procedures required for implementation and management of the PGN and LFTR strategies.
- Real-time communications / telemetry in a 'mission-critical environment' is the common key to mastering each of these operations processes (network, PGN, and LFTR) -- all of which embody Systems-Oriented Technologies.



Peter Carrillo – Operations and Learning Chief

- Defense Meritorious Service Medal awarded for Telecommunications Innovations in *Training/Performance* while assigned to NATO Forces Izmir, Turkey
- Designed the Fiber Optic Plant at the McDonnell Douglas Apache Helicopter Facility in Mesa, AZ – Directed the Project Manager with the implementation & acceptance (\$2M Budget)
- Managed the renovation/upgrade of the Telecommunications footprint at the McDonnell Douglas Long Beach, CA NOC/Data Center (20K SqFt +) (\$20M Budget)
- Managed the sale of legacy communications equipment to South American Brokers for \$600K + (Managed \$3M O&M Budget for 5 Years)
- Successfully designed the first two McDonnell Douglas International Networks – satellite data link to China – FE data link to Spain – in support of the MD Aircraft Program saving \$10K + per month
- Education: MBA, Doctorial Candidate (ABD) Organizational Leadership
- Educator/Trainer with course development in Basic Electronics, Various Equipment Maintenance, Operations Center Processes/Design, Network Design, Fiber Optics, Leadership, Ethics in Technology, Globalization, Project Management & Ecommerce – Courses presented in Seminars Globally, the Military, and as an *Adjunct Professor* at the *undergraduate* and *graduate levels*.
- Training Programs in Technology and Business designed for *Leadership Level* engineers and managers
- Directed the Nationwide Architectural Network System Project (CATV & Fiber) at Thrunet, Ltd. in South Korea while serving as Research & Development (R&D) VP w/1600M Won budget – wrote the successful MOU for Microsoft investment and alliance
- Experience with ISO 9000, TQMS, IEEE 802.3H Committee, ISDN Work Group (NIST)
- Successful experiences working in 24 different countries



Derek Foxwell, C.Eng, M.I.E.E – Chief Engineer

- Successfully completed, as Viatel VP for Infrastructure, on time and within budget, telecommunications infrastructure builds in the UK, Netherlands, Belgium, Germany, France, and Switzerland
- Successfully completing all activities of the FLAG Assignment, Routing & Restoration Subcommittee (as Chairman), resulting in end-to-end connectivity and restoration plan
- Adjudicating tender responses of Submarine Cable Supplier, for a UK to Spain system -- negotiating best prices and system parameters and recommending preferred Supplier
- Writing of Technical Specification and Commercial Documentation for inviting tenders for a southern & northern North Sea Submarine Cable System
- Analysing and advising on international capacity purchase for Esprit Telecom (an international UK Carrier), and providing support with submarine cable system expertise
- Negotiating terms and conditions for the acquisition of protection capacity for the restoration of failed capacity in international submarine cable systems (on behalf of FLAG)
- Motivating and leading the team responsible for establishment of the establishment of the international transmission network to protect a planned 27,000 km KU to Japan digital optical (SDH) fibre submarine cable system
- Managing a private transatlantic submarine cable system (PTAT), providing technical, operations, maintenance and commercial negotiation expertise, and the “bridge” between Owners and Operators
- For British Telecom --
 - o Exploitation of network opportunities for inception of new submarine cable systems
 - o Commercial negotiations for restoration of failed services and transit facilities
 - o Development of a ‘5-yr transmission plan’ to modernise and monitor progress of international terrestrial networks
 - o Chairman of North Sea Communications Conference, Restoration Planning Committee, developing European Mutual Air network protection
 - o Developing planning and maintenance procedures for submarine cable systems



Distinguishing Achievements

Steve Roberts – 2.1 BEng E.E. - Chief Technology Advisor

- Established and managed an international team in UK, Germany, Austria, Netherlands and Czech Republic to transform T-Mobile data service business from product / technology concept to a service-driven business.
- Responsible for quality and P&L of all T-Mobile data services across Europe (approx. EUROS 400 MM annually)
- Established and managed team focused on eliminating quality issues affecting T-Mobile customers by eliminating operational faults, driving significant improvements on the quality of service to enable growth of the embryonic data business. Main departments included:
 - o System security
 - o Processing engineering
 - o Quality
 - o Service assurance
 - o Technology assurance
 - o Technology project office
 - o PRINCE2 project management team
- Key Milestones achieved for T-Mobile:
 - o Creation of European wide continuous improvement process
 - o Created and embedded concept of end-to-end service quality measurements across Europe, with established target levels
 - o Reduction in voice service and radio network transmission outages
 - o Dramatic improvement in UK data service performance -- achieved best GPRS technical performance of all UK mobile operators
- Responsible for taking T-Mobile UK from a voice-only GSM operator to a voice and data business
- Established foundation of T-Mobile's Wireless ISP business
- Successfully managed turn-key implementation of Storm Telecom's European network spanning 8 countries, 23 cities, in 10 months -- on time and on budget.



Distinguishing Achievements



Roman Geyzer – Director of Software

- Extensive experience developing, implementing and supporting geographically distributed, mission-critical replicated databases for large enterprises including Carnival Corporation, AP Moller, NCL, Maersk and numerous others.
- Member of the GBCN senior management team for over 10 years.
- Researched, architected and designed GBCN's proprietary OS/NMS (Operations Support/Network Management System)
 - Architected to perform hands-free, automated provisioning, activation, fault, performance and billing across a multi-layer, multi-vendor broadband network.
 - Developed prototype of GBCN Pricing and Billing Database system with near-real-time simulation of data call traffic collection, organization, pricing and reporting according to GBCN pricing model.
 - Evaluation of hardware vendor and third-party element management systems to determine best-fit for GBCN OS/NMS integration.
- Experience leading software implementation projects with internationally dispersed team members.
- Successfully implemented numerous complex multi-million dollar enterprise software implementation projects as Senior Technical Lead.
 - Defined and enforced project controls, quality standards, & implementation methodology across internal and client teams in accordance with ISO 9001 compliance as subject to internal and external audit.
- Contributed to scheduling software currently in use by NATO Special Forces in Afghanistan.



Distinguishing Achievements



Don Benton, BS, MBA - Director for Network Sizing & Market Research

- At NY Telephone Co, responsible for outside plant and cable maintenance, mid-state NY and the Bronx; supervision of linemen, cable splicers and their foremen in installation of aerial, buried and underground plant
- Negotiated agreements for equal access cable landing stations and carrier-neutral hotels on behalf of private submarine cable systems and National Research and Education Networks with power companies, incumbent ISPs, and alternative carriers in India, Germany, Netherlands, Philippines, Malaysia, Indonesia, Singapore, Korea, west Africa, and the U.S.
- Established the first NYNEX Network Systems' worldwide marketing and sales group for the FLAG submarine cable system, and relocating it to Bermuda
- Expanded and maintained NYNEX wireless capabilities in support of Marubeni Trading Co.'s opportunity with TuKa Corporation, a prominent Japanese mobile network operator.
- Provided marketing strategy for Wharf / CATV proposal to Hong Kong government; established new NYNEX International business development offices in Budapest and Warsaw
- Developed position papers on new international strategies for NYNEX Chairman and the Board subsequent to the U.S. Bell System Breakup
- Developed market sizing study for NYNEX - Dutch PTT jv in E-mail / EDI World Trade Services
- Member technical study group focused on Magyar Telecom Network, Budapest
- Assisted GibTel in analysis of CAD systems to manage outside plant records for Gibraltar telecommunications network
- Member, NYNEX's Due Diligence Team for TelecomAsia Thailand -- led preparation of new 4 million fixed line network build proposal accepted by C.P. Group, executed in a joint venture with NYNEX International



Distinguishing Achievements



Bud Gibbs - Strategic Advisor

- PhB, University of Chicago; BA majoring in physics, Harvard University; LLD, Harvard Law School (w/Honors)
- Employed at the law firm of Dewey / Ballantine upon graduation
- 50-plus years practicing law
- Member of the Faculty of Columbia Law School -- special project in the field of Atomic Energy
- Advised Sesame Street Workshop on how to invest capital funds in media properties and negotiated agreements for the sale of Sesame Street products
- Structured the financing (\$12.5 million debt + equity) for Honolulu Hawaii Cable System (worth more than \$1 Billion today)
- Negotiated and structured the financing for a variety of media transactions
- Member for over 20 years and Vice Chairman for over a decade of, New York's Citizens' Budget Commission, a watchdog organization focused on the finances of New York State and New York City
- Currently structuring the financing for early stage Hi-Tech companies, e.g., Apollo Energy Systems, Inc. (Battery and fuel cell technology for electric vehicles)



Distinguishing Achievements



George Langworth - Managing Director

- Member, startup development team for Unisys Corp's SNAPnet retail brokerage support system, a pre-Windows UNIX-server-based distributed IT environment that managed 25 real-time applications for several hundred registered brokerage reps at each office where it was installed
 - Led all user, training, and technical documentation for SNAPnet systems
- Member of the six-person start-up team for the USD\$ 1.65 billion FLAG submarine cable system (U.K. to Korea).
 - Developed first PC-based cable capacity data gathering database system that supported five global Data Gathering Meetings.
 - Responsible for all Africa capacity sales.
 - Appointed Global Director for new product development for FLAG
- Developed design and implementation strategy for Marubeni Trading / Global Crossing Japan terrestrial network venture
- Recruited and collaborated with the GBCN team of seasoned world-class telecommunications professionals in the conception, design, technical engineering, and business models for --
 - The "Data Call" - a dedicated bandwidth business-to-business transport service delivering the high Quality-of-Service value of a leased private line provided at a fraction of its cost on a 'pay-only-as-used' basis
 - The 'local fulfillment facility' - a revolutionary private network solution to capture and backhaul mobile voice and broadband sessions for cellular operators on a wholesale basis at 25% of their current in-house operating costs.
 - The 'Power Grid Network' - a power-line communications and fiber optic metro area network environment that supports and markets fully-resilient mission-critical smart grid, residential, and business-to-business networked application services
 - The 'LFTR Power Generation Supply Chain' - a self-contained commercial supply chain composed of manufacturing, certification, and deployment enterprises that solves long-term low-cost renewable power generation and fresh water requirements for developing countries



Relationship Resources

James Valle – CEO, Fiber Bridge Communications (FBC)

Who We Are --

- International systems integrator and with own branded products.
- Large scale (national and international) telecommunications project experience.
- Recognized leader in Smart Grid Solutions/AMR and Broadband over Powerline.
- Project management experience in projects whose budgets aggregate more than US\$16 Billion
- Manage feasibility studies through operations
- Past and potential clients include power utilities, local, state and national governments, satellite manufacturers, aerospace companies, Internet Service Providers, telephone companies, and fiber optic network operators
- Utility applications supported:
 - o Automatic meter reading
 - o Capacitor control
 - o Cooper wire system replacement
 - o Demand prediction
 - o Detection & Diagnosis of events at capacitors and regulators
 - o Distribution transformer overload analysis
 - o Line testing and substation monitoring
 - o Outage localization and fault characterization
 - o Phase loss detection and URD outage diagnosis
 - o Power quality monitoring
 - o Distribution automation



Web: <http://www.fiberbridge.net>



Relationship Resources

Yossi Arol & Hezi Lapid – Arol & Lapid

Who We Are --

- Worked together at ECI Telecom to develop and productize SDH transmission hardware and software technology
- Introduced, sold, supported, and evolved ECI's SDH transmission products globally
- Both Arol and Lapid have started a number of successful high-tech telecommunications solution providers.
- Arol and Lapid will oversee the implementation of a specially-engineered server-based 'local fulfillment access point' management solution the GBCN Team will specify as an integral component of the 'local fulfillment facility' of the PGNs
- Arol and Lapid will work with Broadcom - Percello to supply specially re-engineered SoCs for their integration in Germany into Team GBCN's 'local fulfillment facility' access points
- Arol and Lapid will oversee the 'local fulfillment facility' hardware and management systems in conjunction with German fabricators to assure that Team GBCN's functional specifications are successfully met in all regards.



Relationship Resources

John Kutsch – Founder of Thorium Energy Alliance

Who We Are --

“The Thorium Energy Alliance is a 501(c)3 [pending] Educational advocacy organization. We are a nonprofit group composed of engineers, scientists, and concerned citizens interested in reducing the cost of energy and protecting the health of the planet and the future of the human race. Our objective is to lay the foundation for a Thorium Energy Future. To arrive at that future as quickly as possible we must educate our leaders and the public on the need to create a working Thorium powered reactor. A new approach to the old Molten Salt Reactor system is the Liquid Fluoride Thorium Reactor (Pronounced LiFTeR). It is one of T.E.A.s goals to restart a research reactor program and the infrastructure behind it. There are other approaches to using Thorium in current reactors such as a MOX type fuel rod. There are several companies developing hybrid fuel systems to be used by our existing nuclear infrastructure. Thorium Energy Alliance supports all Thorium uses as an energy source .

“**What Is Thorium?** Thorium is a naturally occurring element found on earth, the moon, mars... essentially everywhere. It is a slightly radioactive metal and is about four times more abundant on Earth than uranium. Because of its fertility, it can be used as fuel in a nuclear power plant. Why is thorium important if we already have uranium-fueled nuclear power plants? A thorium-fueled nuclear reactor generates the same power as a uranium or coal power plant but produces essentially no waste. The thorium power plant would produce *much less than 1% of the waste that a uranium plant of equal magnitude produces* and, of course, would produce no carbon dioxide. More importantly, while the waste of a uranium power plant is toxic for over 10,000 years, the little waste that is produced in a thorium plant is benign in under 200 years. The thorium power plant can be used to burn our current stockpile of nuclear waste. And yet, the benefits continue. The thorium power plant cannot "melt down", thorium cannot be used to make nuclear weapons, there is enough thorium in the United States alone to power the country at its current energy level for over 1000 years, and the thorium power plant can be designed to be a plug and play module that could tap right in at the source of a current coal or uranium plant so there would be no need for laying a new grid. Now, although it sounds like science fiction, the potential of thorium power has already been witnessed. Studies and experiments were conducted from the 1950's until the 70's and the true value of thorium was proven as a superlative energy source in the molten-salt reactor experiment (MSR) between 1964-1975. With all that said, we hear the same question from everyone who hears about thorium for the first time. "It almost sounds too good to be true, why isn't it already in use today?" Surf on if you are one of these people. You'll find that there isn't a good reason.”

Web: <http://www.thoriumenergyalliance.com/index.html>

Team GBCN has relied on TEA as a reviewer and mentor in its research and analysis of the LFTR. TEA will help us build relations with key engineers and scientists, and help us to create educational programming for the TWU/GBCN LFTR Project Business Plan.