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Headlines updated 4 times daily [here](#).

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The Palo Alto broadband proposal

In the end, the [proposal](#) by the network construction consortium led by Axia NetMedia, supported by PacketFront and 180 Connect, proved to be one the City Council of Palo Alto were unable to refuse, though the contract itself will not be signed for a few months and there is always the possibility something may still come between the two currently willing parties.

Unlike the Utah Telecommunication Open Infrastructure Agency (UTOPIA) situation, where Qwest filed a suit against UTOPIA in the first half of 2005 and has persistently tried to make the UTOPIA business case impossible, neither Comcast nor AT&T appear to be contesting the right of the Palo Alto council to commission a municipal network. Possibly this is because the Qwest litigation failed and the telco is seen as having damaged its reputation by the graceless way in which it behaved.

The reason the offer itself was so attractive was almost certainly because winning the contract was several times more important to the consortium than awarding it was to the council. The consortium clearly believes that Palo Alto, a well-known city nationally because of its high-tech connections, will have an iconic status and a successful implementation there could be a crucial reference application for opening up the whole U.S. market.

Contrariwise, a failure there would be an utter disaster. However failure seems unlikely given that the size of the city is well within the range of previous projects handled by both Axia and PacketFront. On top of that, the affluence of the city goes some way to guaranteeing a relatively high take-up of any service offered.

Besides, as the owner since August 2007 of DynamicCity, the operator of the UTOPIA network, PacketFront already has specific experience of contracting service providers in a U.S. context.

The consortium's quote comes out at around \$700 per Palo Alto citizen, which appears to be slightly cheaper than the UTOPIA project at an estimated \$800.

UTOPIA has had an uncomfortable run due to the Qwest challenges, a serious misunderstanding with the U.S. Rural Utilities Service about reimbursement policy and the unexpected withdrawal of AT&T, which signed on in December 2003 as UTOPIA's first and for a while exclusive provider of voice, video and data services but then withdrew in early 2007.

As a consequence of those events, UTOPIA has run into continuous funding problems and has even recently had to halt construction due to lack of funds.

Despite these issues, as of May 2008 UTOPIA was apparently successfully delivering service to 7,000 subscribers out of 42,780 available addresses in six communities - West Valley, Murray, Midvale, Lindon, Orem and Payson - of the 11 charter communities, while construction was partially complete and services were pending in the remaining five - Tremonton, Brigham City, Perry, Layton and Centerville.

A good range of services was reportedly available as promised at this time, and prices were significantly lower per Mbit/s of capacity than the services offered by either Qwest or Comcast.

The fact is that if UTOPIA, whose remit straddles a chain of 18 cities stretching over 325 miles and which has had to deal with all the complex pioneering negotiations with disparate communities, including four who dropped out and three who have limited their commitment, while overcoming so many financial and competitive problems, has still managed to bring its project to a relatively successful conclusion, then polishing off the Palo Alto opportunity should really be a doddle for this consortium.

2) IBM invests further \$1.5bn to boost semiconductor manufacturing and research in New York

July 15th IT systems, software, solutions and services provider [IBM](#), whose semiconductor R&D operations, among other activities, are engaged in:

- a. Accelerating the miniaturization of chip circuitry by research at the atomic level for 32 nm and 22 nm semiconductors.
- b. Developing silicon nanophotonics to speed up the transfer of data between the cores on a chip using little power.
- c. Working with universities to develop carbon nanotubes, tinier transistors able to deliver better performance.

Has announced plans to invest an additional \$1.5 billion to boost its semiconductor manufacturing and research efforts in New York State, including:

1. Updating the manufacturing plant in East Fishkill, New York.
2. Expanding operations at the University of Albany's College of Nanoscale Science and Engineering.
3. Creating a new centre for research into chip packaging at a location to be determined in Upstate New York.

As part of the program, New York State is giving IBM \$140 million in development grants in return for its business and has said it expects IBM's investments to generate 1,000 new high-tech jobs in Upstate New York.

NB: Though the headline figure is large, the timescale and distribution are not detailed. A typical \$150,000 per annum per research body (which comes to only \$150 million) suggests the money will be spread over several years and/or the majority of it will be spent on construction and equipment.

3) HP unveils container-based data centre solution for performance optimisation

July 16th [HP](#) of Palo Alto announced that in an attempt to reduce the costs and collapse the installation time for customers around the globe desiring to expand their data centre capacity, it is offering a container-based data centre product, the HP Performance Optimized Data Centre (HP POD), designed to:

1. Deliver a wide range of servers, storage and networking equipment, ready to power on at the customer's site.
2. Support a wide variety of HP and third-party technology, providing customers with more freedom to match their technology environments.
3. Provide customers with a high-density product able to support more than 3,500 compute nodes, or 12,000 large-form-factor hard drives, in a 40-foot shipping container.
4. Ship the equivalent of 4,000-plus square feet of typical data centre capacity within six weeks of the customer's order.
5. Offer flexible configurations optimized for power or density, which enables customers to quickly upgrade or extend the capacity of their physical infrastructures to meet their specific business needs.

The HP POD is supported by EYP Mission Critical Facilities, an HP company that provides infrastructure services, including assessment, preparation and deployment services, as well as data centre design and planning.

The solution is built to order and delivered through HP Factory Express, HP's customization, configuration and integration services organization.

4) Palo Alto City Council approves proposal for high-speed broadband

July 16th As foreshadowed in the newsletter of [July 9](#), the City Council of Palo Alto, California, an affluent city of more than 61,200 inhabitants, again met to discuss the \$44.2 million proposal for ultra-high-speed broadband previously put forward by a consortium consisting of:

- a. [Axia NetMedia](#): a Canada-based international constructor and operator of large, open, multi-vendor municipal and regional optical networks, which has already built the world's largest such network in Alberta, Canada and which has undertaken to invest \$30 million upfront for the network.
- b. [PacketFront](#) of Stockholm, Sweden: a supplier of integrated turnkey open systems, claiming to have implemented systems across Northern Europe and elsewhere supporting over 400,000 subscribers.
- c. 180 Connect: a U.S. IT infrastructure service organization.

The Palo Alto Council formally approved the proposal for the network, to be built over three years and funded by Axia NetMedia together with around \$14 million of assets, mainly existing dark fibre, contributed by the City.

More specifically the Council voted:

1. To direct city staff to start working on a letter of intent to nail down the general concepts of the proposal with the consortium.

2. For city staff to bring an estimated budget for consultants and attorneys to a council meeting set for August 4, with the intention that a detailed letter of intent should be ready by September 2008.
3. To pay the network operators a fee for managing the city's existing dark fibre customers after the city's fixed costs have been recovered.

NB: A number of business customers who previously leased dark fibre from the city will now, according to the Council decision, become customers of the network organization to be created by the consortium, and this appears to have understandably alarmed some customers.

While there has been some concern that the incumbent cable operator Comcast, and AT&T, which has a video license to serve the city, would attempt to block the proposal, both appear to have agreed to accept the existence of the new competitor.

5) Femto Forum adopts TR 069 CPE WAN management protocol to support large-scale femtocell deployments

July 16th The Femto Forum of London, UK, an organisation aiming to promote the wide-scale adoption of low-power wireless access points or femtocells,

- a. Whose objectives are to provide an independent voice for stakeholders in the femtocell sector, develop a policy framework, maintain a dialogue with other relevant industry bodies, promote standards-based solutions and build and maintain an eco-system.
- b. Now with 84 members, close to 40% being operators representing over 810 million subscribers, and including Alcatel-Lucent, AT&T, BT, China Telecom, Cisco, Comcast, Ericsson, Huawei, Motorola, NEC, Nortel, Samsung, Softbank, Telecom Italia, TELUS and Vodafone.

Announced that its members have agreed to implement the Broadband Forum's TR-069 "CPE WAN Management Protocol", a worldwide standard for real-time management of CPE, as the basis of the management protocol for femtocells.

Following its definition in 2004, TR-069 is now used by around 30 million devices and is used to standardise secure CPE auto-configuration practices while incorporating other CPE management functions, including diagnostics and troubleshooting, performance monitoring and software/image management, into a common framework.

TR-069 has already been adopted by some Femto Forum members into their existing solutions and will now become the femtocell industry's first de facto management standard.

The Femto Forum commented that management and provisioning of very high volumes of femtocells has been a major concern for carriers, and adopting TR-069 and being able to re-use all the proven experience of that standard would enable femtocells to be easily deployed and configured reliably, and in high volume.

Unlike traditional cellular equipment, femtocells will be deployed in high volumes and installed by the subscriber, so the provisioning and configuration needs to be completely automated and managed remotely by the mobile operator.

The TR-069 standard has a proven capability to offer simple installation and provisioning for operators while performing advanced diagnostics and conducting remote firmware and service upgrades with millions of end devices.

Most importantly, the standard eliminates the need for operators to send technical personnel on-site, a practice that would be unfeasible given the millions of units that are set to be rolled out.

The Femto Forum and Broadband Forum plan to continue working closely together to define extensions to TR-069 and add additional femtocell capability to the standard.

Simon Saunders, Chairman of the Femto Forum, was quoted as saying:

- "The remote management of consumer equipment like femtocell access points is a vital tool for operators to introduce new revenue-generating services and to consistently provide a high level of service".
- "Femtocells are sophisticated pieces of telecommunications equipment, but they are also first and foremost consumer devices and as such they have to be simple enough to be installed and used by the average consumer".
- "Many people have been concerned about the scalability of provisioning and management for femtocells - with this initiative that concern is addressed".

While Broadband Forum Chairman and president, George Dobrowski, added:

- "Femtocells represent a very different approach to mobile network architecture and therefore require a suitably different approach to network management".
- "The similarity to fixed broadband networks is obvious so TR-069, the dominant standard for the management of broadband gateways and other consumer devices, such as set-top boxes, VoIP devices and storage devices, is the natural choice".
- "With femtocells likely in many cases to be included in home gateways, this makes the use of a common protocol especially fitting".

6) Alcatel-Lucent to deploy GSM/EDGE solution for Vivatel of Bulgaria under \$51m deal

July 15th Bulgarian Telecommunications Company (BTC), the main telecommunication services operator in Bulgaria,

- a. Owned by AIG Ventures of the U.S.
- b. Providing services to around 2.5 million fixed-line subscribers.
- c. Also with a growing number of mobile customers for BTC Mobile, a GSM operator (under the Vivatel brand in the Bulgarian market), launched in November 2005.

Has awarded [Alcatel-Lucent](#) a Euro 32 million (\$51 million) contract, running through 2011, whereby Alcatel-Lucent will:

1. Replace half of Vivatel's current GSM base station subsystem network equipment.
2. Design, deploy and maintain a multi-standard radio access solution, including the BSC Evolution base station controller platform and fully flexible TWIN transceiver.
3. Provide a full range of services in conjunction with the contract, including project management, network design, integration, testing, installation and multi-vendor radio network planning and optimisation.

Alcatel-Lucent release noted that its radio access solution is able to accommodate multiple standards, such as GSM/GPRS/EDGE+ and 3G, using the same radio equipment. Service providers are able to increase the capacity of their platform as demand warrants by introducing EDGE +, HSDPA and HSUPA on the same platform through a simple software upgrade.

NB: Following is a summary of previous deployments at BTC/Vivatel as background to the multi-vendor situation:

- i. November 2005: [Huawei Technologies](#) selected to provide an end-to-end NGN and MSAN solution to upgrade BTC's fixed line network and enable the operator to offer a wide-range of broadband access services over its existing network, while evolving to a future network.
- ii. September 2006: Huawei reported as supplying 100% of the core of the BTC GSM network as well as 60% of the base stations.
- iii. September 2006: [Nokia](#) won a first network deal with Vivatel to improve GSM coverage and prepare for the launch of 3G by supplying radio network and cellular transmission equipment, base stations, IMS systems, service nodes, mobile softswitches and network management.
- iv. April 2008: BTC added additional [Cisco](#) ONS 15454 multi-service transport platforms to its existing IP NGN network in a backbone upgrade designed to enhance the existing SDH core with DWDM capabilities and support traffic rates of 10 Gbit/s.

7) QPC Lasers details breakthroughs in semiconductor laser technology

July 15th QPC Lasers of Sylmar, California, a \$17.3 million-capitalised supplier of semiconductor lasers for consumer electronics, defense, medical and industrial applications,

- a. A vertically integrated business, from epitaxy through packaging, performing all critical fabrication processes at the facility in the Los Angeles suburb of Sylmar.
- b. Operating via a direct sales force in the U.S. and via distributors in Germany, the UK, Israel, Italy, France, China, Japan and Korea.
- c. Offering a product line that includes single emitters and mounted and unmounted bars.
- d. For the first quarter ended March 31, 2008 having reported sales of \$1.6 million, up 49% year on year from sales of \$1.1 million in the first quarter of 2007.

Announced that a QPC team* has recently collaborated on a [technical paper](#) discussing breakthroughs in semiconductor laser technology leading to improved compactness, efficiency, power and beam quality in lasers, while simultaneously reducing the waste heat and complexity of the system, thus reducing cost.

The paper describes the performance and benefits of QPC's proprietary chip-based laser technology, protected by sixteen patents covering proprietary processes underlying the company's optoelectronic technologies, enabling the QPC products to offer up to a claimed 10x reduction in size, weight, power consumption and cost compared to conventional laser technology available on the market today.

* Dr. Paul Rudy, SVP of Marketing and Sales, Dr. Tom Steele, Director for medical market development, and Dr. Laurent Vaissié, Senior Product Manager.

8) BridgeWave introduces SLE100 point-to-point bridge for carrier-class LAN extensions

July 15th BridgeWave Communications of Santa Clara, California, a U.S.-based company with strong Israeli connections, supplying point-to-point gigabit wireless links using spectrum in the 60 GHz and 80 GHz regions, which:

- a. In September 2007 announced that its 256-bit AES security solution had been certified by NIST to meet government FIPS-197 requirements.
- b. In December 2007 announced that the company had now deployed more than 2,500 gigabit radios.
- c. In June 2008 announced \$10 million in Series D funding in a round co-led by Intel Capital, noting the funding would be used to extend the company's position in gigabit wireless enterprise and fixed operator networks into the next generation gigabit mobile backhaul space, helping to address the data transport challenges facing 4G WiMAX and Long Term Evolution deployments.

Has announced immediate availability of the SLE100 point-to-point bridge enabling enterprise network managers to seamlessly extend LANs and achieve carrier-class performance at what is claimed to be an unprecedented price for millimeter wave bridges, featuring:

1. Low latency, wire-speed 100 Mbit/s full-duplex, half-mile (800 metre) connectivity built around BridgeWave's "field-proven" 60 GHz radios.
2. Easy integration into the existing network infrastructure using Power-over-Ethernet and the existing CAT5 cable infrastructure.
3. Point-and-play operation with no RF configuration required.
4. Highly secure transmission using the narrow beam width of the antenna.
5. Additional security features available through a FIPS certified 256-bit AES Encryption option.

Idan Bar-Sade, SVP of Engineering and Product Management at BridgeWave, was quoted as saying:

- "BridgeWave's comprehensive product family has been successfully deployed in the most demanding networks and applications over the last several years".
- "Our customers are looking for solutions that offer carrier-class performance at affordable price points".

9) AMCC sells non-core patent portfolio to Qualcomm for \$33m under IP Monetization Program

July 15th [Applied Micro Circuits Corporation](#) (AMCC) of Sunnyvale, California, a more than \$520 million-capitalised supplier of integrated circuits and storage components used for processing, transporting and storing information, including:

- a. Integrated communications products used generally in routers, optical and digital cross-connects, voice and media gateways, ADMs, MSAPs, multi-service switches, DSLAMs, wireless base stations and access points.
- b. Storage products such as equipment used in controllers, switches, adapters, servers and RAID systems.

Has announced a recently signed agreement with Qualcomm for the sale of certain non-core patents, which would provide the company with an intellectual property revenue stream totaling \$33 million over the next three years. Of the total, \$3 million would be received and reflected in the September quarter revenues.

AMCC said that over the last three years the strategic direction of the company had changed in such a way that certain valuable patents were no longer core to its strategic direction. These patents relate to non-core products, foundry and other items that are not relevant to the company's product road maps.

Though the specific terms of the transaction are confidential, the company retains a right to continue using the claimed inventions in the transferred patents to conduct its current and future business.

AMCC Chief Financial Officer, Bob Gargus, stated:

- "As a company, we have invested a large percentage of our revenues on research and development and this is a great way to improve our overall return from these investments".
- "This is a project we started back in calendar 2006 when we broke out the non-focus revenues and began to analyse our patent portfolio in detail".
- "This contract boosts our IP Monetization Program, a program that we hope will result in a sustainable long-term IP revenue stream in the next three-to-five years".

10) Mellanox forms HPC Advisory Council to facilitate development and extend adoption of high performance computing

July 15th [Mellanox Technologies](#) of Santa Clara and Yokneam, Israel, a nine-year old, \$440 million-capitalised fabless supplier of interconnect semiconductor products based on InfiniBand, including host channel adapter and switch ICs, adapter cards and software, has announced the formation of the HPC Advisory Council.

Conceived as a high-performance computing ecosystem that includes OEMs, strategic technology suppliers, ISVs and selected end-users across the entire range of HPC market segments, the HPC Advisory Council:

1. Has been formed to accelerate HPC innovations and new technologies, optimise system performance, efficiency and scalability and provide the best total solution to the end-user.
2. Will also collaborate to extend the reach of HPC into new market segments, traditionally governed by single workstations but currently requiring the performance of HPC clustering to meet current and future end-user requirements.
3. Includes the following companies and end-user organisations: AMD, Appro, Blue Ridge Numerics, Colfax International, DataDirect Networks, Dell, Evergrid, Fermi National Accelerator Laboratory, GigaSpaces Technologies, HCL Infosystems, HP, Intel, Israeli Association of Grid Technologies (IGT), Lamprey Networks, Livermore Software Technology, LSI, Mellanox Technologies, Microsoft, Microway, NEC Corporation of America, Netweb Technologies, Oak Ridge National Laboratory, Ohio State University, RNA Networks, SGI, Scalable Graphics, ScaleMP, Schlumberger, Silicon Mechanics, SoftModule, Sun Microsystems, System Fabrics Works, Terascale, Victorian Partnership for Advanced Computing, Voltaire, VXTECH, Wipro InfoTech, Wolfram Research, Z Research and various individuals.

More Beans

(Links against the company name illustrate the entire history of the company; those against the "more" legend bring up the individual story).

PTV Telecom selects [Sonus](#) for PacketCable-compliant NGN in five Spanish cities [more](#)

Czech Republic's OptoNet deploys [Optelian](#) LightGAIN RGN-3GSF CWDM system to provide transport services for Ceske Radiokomunikace [more](#)

HomePlug Powerline Alliance notes IEEE P1901 Working Group initial vote on standard close to required 75% approval [more](#)

[Avanex](#) shareholders authorise possible reverse stock split at ratio of between 1-to-10 and 1-to-15 [more](#)

[JDSU](#) completes \$200m stock repurchase launched May '08 with purchase of 17.2m shares [more](#)

Australia's Ucomm launches VPLS with LRM provisioning / activation based on [Alcatel-Lucent](#) solutions [more](#)

Infonetics reports Ethernet service revenue up 33% yr/yr to \$12.5bn in '07, 20% growth for IP/MPLS VPN service revenue to \$13bn [more](#)

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