Qorvus Systems, Inc.

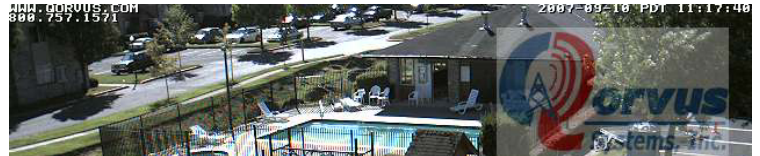Industrial Wireless Mesh Networks

Building America's Most Advanced Video Surveillance Networks

THE QORVUS NEWSLETTER
April 1, 2009 - Vancouver, WA

Qorvus Systems designs, manufactures, and configures advanced wireless data, video surveillance, & CCTV solutions for use in your most challenging settings, including

- Industrial, Commercial, and Public Safety CCTV applications
- Industrial Process Observation and Control
- Gated Residential Communities and Condo Complexes
- Municipal Wireless Projects
- Port Safety, Security, and asset tracking
- Wireless Mobility applications

and we distribute only through **qualified Value Added Resellers** like you. Qorvus lets you easily bring high-quality video surveillance, reliable wireless connectivity, custom applications, and UL-listed remote video and network monitoring services directly to your clients, even if you have little or no wireless experience.

Our products include a variety of rugged outdoor industrial wireless networking solutions featuring the **Qcode™** mesh system. These products include the **QnodeJr™** family of outdoor wireless mesh routers and the **MeshCam™** IP wireless camera systems that provide remote video internet surveillance, perimeter security and support for portable, ISM, WiFi, and cellular 3G data applications.

Qorvus also offers the **Qscan™** web-based monitoring services at attractive wholesale rates, including network status and UL listed alarm services that work in conjunction with deployed nodes and **Mobotix™** IP cameras.

Qorvus wireless nodes are equipped with dynamic routing and **automatic detection and configuration of attached IP cameras**, for quick setup during installation. Featuring a range of up to 20 miles and net data throughputs of up to 35 mb/s, our equipment is pre-configured at the factory on a per-location basis in consultation with your sales staff, and shipped with **all needed wireless accessory items for plug-and-play insta**llation at your client's facility.

Because of our unique remote-access VPN tunneling technology, **our technicians are available at any time during the installation process to help you adjust your camera focus, field-of-view, alarm zones, antenna alignment, NAS and router configuration, or whatever. You're never alone – we will help you succeed – no matter what!**

Welcome to the seventh edition of Qnews™, the Qorvus Systems newsletter. We'll do our best to make it both brief and useful. As always, your suggestions are most welcome.

Tom Sharples
President
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Let's start by thanking our loyal VAR Partners for their outstanding work!

In this ridiculously tough economy, I really want to take a minute to thank our wonderful VAR Partners and Manufacturer's Reps for their absolutely outstanding work over the last few months. Your efforts are very much appreciated, and we're beginning to see a strong up-tick in new orders. If we continue to work effectively together to promote Qorvus' unique value proposition as an important part of a well-rounded surveillance line, I am totally convinced that it will pay off for all of us, both in increased initial revenue and repeat business from happy customers.

Washington

Radius Security, Seattle, WA 541.390.5142 (Jeff Sandine)

Oregon

Alarm and Access Control Technologies, Beaverton, OR 503.277.2058 (Patty Ragan)

Utah, Nevada, Arizona, Colorado

CPU / SolarSpy division , Mesa, AZ 800.278.3480 (Barry Bryant, Jon Johnson)

New York, New Jersey

Computer Peripherals , Farmingdale, NJ 800.764.7701 (David Booth)

Texas, New Mexico, Oklahoma, Arkansas, Louisiana

ResourceCorp (Mfg. Rep.), Dallas, TX 214.431.4442 (Don Heitzman, John Harvey, Dale Richer, David Bell, Karen Davis)

Florida

State Alarm, Lutz, FL 813-376-8472 (Breck Gabler)

Hawaii

Keener Technologies, Honolulu, HI 808.792.7530 (Tom Keener, Josh Aman)

International Distributors

ResourceCorp (Federal Republic of Mexico), 044.55.3200.5343 (Luis Diaz)

ABP Technologies (Wordwide) 972.831.1600 (Robert Messer, Jim Molencupp)

Your Company Missing? Please call 800.757.1571 Ext 100

Welcome to Las Vegas!

Qorvus is again exhibiting at the **Mobotix** booth at the **ISC West** show which is taking place at the Sands Expo Center, 21 E. Sands Blvd, Las Vegas, NV, from April 1 to 3rd. This is the premier show for the security & surveillance industry, and Mobotix is the manufacturer of the best IP camera we've ever used. Our latest products and product enhancements take advantage of all of the great Mobotix features, which, combined with our high-performance, low footprint wireless mesh-based architecture, allow you to provide your customers *America's Most Advanced Wireless Surveillance Networks.*

This year, our Director of Sales for the Pacific Northwest, Mr. **Bufford Pippin,** will be representing Qorvus at the Mobotix booth. Please drop by and say Hi, or you can reach him at 800.757.1571 Ext 103 or sales@qorvus.com

New Products!

I'm excited to announce two new products that we're showing for the first time at ISC-West.

First, we are adding to our existing suite of wireless solutions for the outstanding **Mobotix** camera family by introducing a **low-cost modular wireless add-on for the Mobotix M-series cameras** called the **MeshCamJr™**. This module is specifically designed for the Mobotix M12 and M22 series, built to the usual high Qorvus standards for ruggedness and reliability, and will be priced at around half the price of our industry-leading **MeshCam** long-range wireless camera module. **MeshCamJr** is intended for indoor or short-range outdoor wireless applications of 2000 feet or less, uses a simplified version of the famous **Qcode™** 4.5 Linux mesh routing software, and offers the same installation flexibility and performance as our other products. We think it makes an outstanding add-on to our existing product mix since it will allow you to offer Qorvus wireless solutions to your more budget-conscious clients such as gated communities, condo complexes, and small commercial facilities, at very attractive price-points.

We expect to begin shipments of **MeshCamJr** in July 2009

In addition we are introducing a 3G network cellular-enabled product called the **MeshCam3G™**, which **simultaneously supports both 3G and local-area wireless**. This means that you can bring a stand-alone **MeshCam3G** into an area like a remote construction site or remote areas that have no convenient internet access, plug it in, and immediately be able to view that camera from anywhere in the world via the **Verizon** 3G cellular data network. But because the **MeshCam3G** also includes a local-area 5.8 Ghz radio and vpn router, you can even bring in additional **MeshCam**s or **MeshCamJr**s, and they will automatically associate with **MeshCam3G**, allowing you to view all of your cams via the cellular data network.

MeshCam3G will be available starting May 1, 2009

Both new products continue our philosophy of Solar Power Friendliness – drawing under 7 watts each from a 48-volt gel-cell array.

Rant of the month – "Plug and Pray" vs Plug-and-Play!

Anyone who's been in this business for a while will come across the occasional failed project from another vendor. Often we find out about these because a client contacts us at their wit's end, unable to get a system they bought sometime ago to work correctly. When you start to dig into the details, you sometimes have to say to yourself "what was that vendor thinking?!?" This has been happening to us a lot lately…

We were recently asked to provide an estimate on a multi-camera wireless IP surveillance system for a bridge crossing the river in the center of a large Midwestern city. Our first discussions with the client, revealed that the proposed installation was not going to be a new project, rather, it was to be a complete replacement of an existing wireless IP CCTV installation covering the bridge, with additional wireless backhauls spanning many miles of the downtown area – a system that had been installed, at great expense, TWO YEARS AGO and had never worked correctly!

So what were the circumstances, and who was the vendor? Well it took some research to get the answer, but the vendor is a major manufacturer of wireless mesh equipment for the video surveillance arena, well known to us, and with a good reputation. Even though I strongly prefer the Qorvus solutions :-) I knew enough about the other company's equipment to be reasonably sure that it would function properly if correctly architected and installed. So what went wrong?

After hearing most of the details from the client, I put the failure of the project down to a combination of the other manufacturer's aggressive salesmanship, very lazy system design, and

AWOL customer support. Anyone familiar with wireless mesh equipment, including ours, knows that it's capable of automatically routing data through multiple hops from a wireless camera to the main office. It will attempt to do this even in very unfavorable conditions like poor radio links or outside interference. That's what makes mesh a great choice for battlefield use where you're trying to get that text or data message from one armored vehicle to another. But RELYING ON AUTOMATED MESH ROUTING ALONE TO CARRY STREAMING VIDEO IS FOOLISH. The required throughput is far higher than text data, and you simply MUST have the best possible wireless links throughout your system to guarantee a decent frame-rate.

That's where the other wireless manufacturer's sales and service team apparently fell down. Instead of engineering the entire wireless surveillance system ahead of time, including appropriate selection of directional antennas, node locations for best quality links, etc., they just shipped all the camera wireless networking equipment to the field equipped with omni antennas (BTW omni's are an absolute no-no at 5Ghz esp. in outdoor urban areas), and apparently told the installers something like " just install these where you want the video and our wireless mesh software will automatically figure everything out."

That approach is what I call "Plug and Pray" and it's what has given some VARs and end-users a bad taste in their mouths when it comes to long-range wireless video and wireless mesh. Outdoor wireless video surveillance projects in urban areas are challenging because they already have lots of other wireless activity and interference in the commonly used ISM bands, and you can experience problems getting good line-of-sight between nodes while maintaining good, interference-resistant link quality. Especially in these types of installations, careful architecting of the entire system, including node and repeater location, antenna selection, elevation and orientation, and link capacity engineering are CRITICAL to achieve acceptable reliability and frame rates. The other company apparently didn't address these important areas. I don't want to pick on anyone, but this was clearly a big mistake, and one that proves once again the old adage that when you have a choice, *"you shouldn't try to fix a hardware problem with a software solution."*

Qorvus never does "plug and pray" installations, and you won't have to, either. We will help you design your client's entire installation based on careful consultation with your sales and technical staff and a thorough review of the proposed locations using Google Earth or other mapping data. That way each piece of equipment arrives pre-configured, ready to go in the indicated location, properly documented, and with needed accessory items like antennas and interface cables correctly selected ahead of time. This means that a Qorvus solution, if installed in accordance with the supplied instructions, will come up working properly out of the box. In case some additional field adjustments or changes are required for optimum performance, we can easily access the installed network via our secure VPN tunneling system and generally make those changes for you on-the-fly. The end result – shorter installation times, lower costs, fewer return visits, and happy clients!

Odds and ends...

Spring Cleaning

We seem to be drowning in excess radio modules, antennas, demo equipment, one-off wireless samples, etc. etc. and I just can't stand it anymore, we need the room. So we're going to sell it all off on **Ebay**, within the next several weeks. You'll be able to see the items we have for sale under Ebay seller **Qorvus Sales** and we'll keep adding more as we get to it. Bid now, bid often, our loss is your gain, etc. etc. ☺

Static and surge protection

It's always a good idea to review the need for lightning and ethernet static & surge protection in all installations. We also recommend UPS's for brown-out prone areas. In the past we've replaced several motherboards, compact flash cards, radios and POE splitters that were damaged by nearby lightning strikes or by static build-up on the antennas, and where the antenna or ethernet cables were not installed with the required in-line protection (even though we supplied the needed parts

with our installation kit). This kind of damage is not covered by the warranty.

Once again, we really appreciate your ongoing support, and wish you all the very best for a healthy and prosperous 2009.

Your Team at **Qorvus Systems**:
Clark, David, Buford, Cristel, Shirley, Tom, and our outstanding subcontractors, suppliers and affiliates.

For worldwide sales and general inquiries please contact

sales@qorvus.com or 800.757.1571 Ext. 100 (Pacific Northwest sales Ext 103)

For technical support please open a support ticket via the Customer Portal here
https://www.qorvus.com/login/index.php