



Quarter 4
2014

MiMOMax Quarterly

Warm Greetings!

Welcome to the fourth issue of the MiMOMax Quarterly for 2014!

Critical Network is first in the world to link a Tait Simulcast QS2 System with MiMOMax 900 MHz linking

This month saw great work from the Industrial Communications team in the United States. Industrial Communications completed the commissioning of the Boundary County Tait Simulcast System in Idaho

After successful trials the system is now fully operational providing increased radio coverage and operational simplicity for Fire and EMS in the county. This is the first in the world to use MiMOMax 900MHz links for QS2 Simulcast and the first Tait QS2 Simulcast system in the region.



Photo courtesy of Tom Faulkner

Accelerate Point to Multi Point Network Capacity with M-CAM

MiMOMax M-CAM is a highly intelligent adaptive modulation scheme that works to maximise system performance by ensuring that each outstation works at optimum throughput potential under any path condition. With inbuilt full duplex capabilities, up and down link throughputs are optimised individually so that at all times each and every remote radio works to their highest possible potential.

Featured Article



Tornado MDL

is a full-duplex, software flexible, long range, Point to Multipoint remote radio solution with built in network management features for critical network infrastructures. With scalable data rates and an efficient random access protocol, it can provide near real-time access to up to 1020 remote outstations with very high reliability and low latency even in the most adverse conditions.

Plug and Play interfaces for both Ethernet and legacy RS232 via integrated terminal server enables network operators to transition to IP based SCADA solutions without the use of media converters and additional cables. Tornado's remote

Most SCADA messages are only short duration TCP messages that do not really require much bandwidth, but they do however require reliable communications and rapid acknowledgement. To provide this critical reliability MiMOMax MDL systems always initiate communications with remote radios at the most reliable QPSK modulation rate and ensure these outstations are always in full duplex listening mode. If a remote radio has a more substantial data payload to transfer then the radio rapidly ramps up the modulation to the maximum rate available, this can be set dynamically by the signal conditions or by the management system.

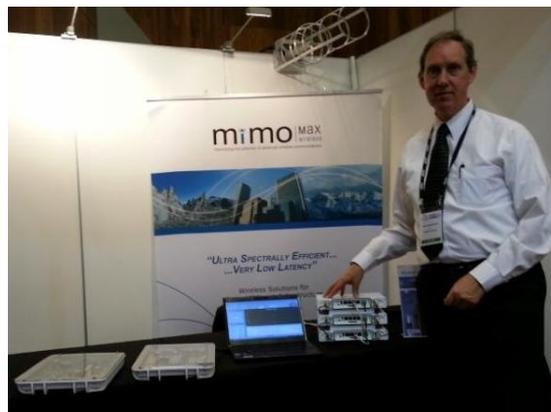
Modulation rates for both paths are independent so being full duplex enables remote radios close to the base radio unit to utilise the high performance QAM256, while distant radio units may stay at QPSK. It is therefore possible to upload and download at different modulation rates simultaneously always optimising the total system throughput under all conditions. MiMOMax radios change modulation rate without incurring error and maintain range by ensuring that the power levels do not change with the higher modulation rates. Only full duplex operation can provide 100% channel utilisation as a half-duplex or TDD system would by definition add significant overhead and delay.

Modulation Scheme 25kHz	Raw Aggregate Radio 12.5 kHz	Raw Aggregate Radio 25 kHz	Raw Aggregate Radio 50 kHz
QPSK (4QAM)	40	80	160
16QAM	80	160	320
64QAM	120	240	480
256QAM	160	320	640

Note; These are raw aggregate radio throughputs, system throughputs will vary depending on traffic types, system overhead and total system loading.

UTC Canada & Comms Connect

MiMOMax once again had the pleasure of exhibiting and speaking at both UTC Canada and Comms Connect this year. The booths at the show were well attended and Paul's presentations were well received. The event presented a great opportunity to showcase MiMOMax's new Tornado Demonstration system showing off the throughput capacity of a multi-link network.



monitoring and configuration capabilities allow users to remotely check and configure functionality of radios in the field, rather than dispatching a physical crew to the site saving valuable resources and time.

Additional features include wide range isolated power supply with low power consumption, built in band pass duplexers, Ethernet and RS232 interfaces, remote over the air network management, optional SNMP and DNP3 support and a full range of software features and remote diagnostics..

Initially operating in the licensed frequency bands between 420-470MHz, with a wide temperature operating range and optional waterproof outdoor mounting options, the Tornado enables unrivalled performance while maintaining MiMOMax's renowned reputation for very high reliability and operational efficiency.

[MDL with Tornado Data Sheet](#)

Pictured Right: Paul Daigneault speaks with Greg Borger & Scott Geldard from Australian Utility and MiMOMax customer; Ergon Energy.



Fond Farewell to Founding Partner

It is with a heavy heart that MiMOMax CEO and co-founder Paul Daigneault has announced that he is stepping down as CEO.

After a lot of careful consideration Paul Daigneault has accepted the General Manager of Products and Platforms business Role at Tait Communications. Paul's contributions to MiMOMax Wireless have been prolific, turning a great concept into world beating technology and a profitable growing business. For full details please click [here](#).

Warm Welcome to Christine Lewis

After the departure of founding partner and CEO Paul Daigneault, MiMOMax Wireless has appointed Christine Lewis as new CEO. Christine can call upon a wealth of knowledge from her previous Senior Management Experience having spent 16 years in management, 6 of which were at a CEO or General Management level.



For all of the latest stories and photos please visit our [Website](#)

Or

Click below to view the MiMOMax product catalogue & a selection of spec sheets:

[MiMOMax Product Catalogue](#)

[MiMOMax Product Overview](#)

[PMR Linking Solutions](#)

Quick Links

- If you haven't already done so, how about visiting the blog of our sister

company; Tait Communications for the latest articles and news? Be included in the loop at blog.taitradio.com

Best Regards
Kevin Smith

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Best Regards
MiMOMax Team

