



## ABOUT COHDA WIRELESS

WI-FI WIRELESS COMPUTER NETWORKING IS CHANGING THE WAY THAT WE WORK, UNSHACKLING US FROM OUR DESKS AND GIVING US GREATER FLEXIBILITY IN OUR WORKING LIVES. WIRELESS HOTSPOTS IN CAFES, HOTELS AND AIRPORTS HAVE REDUCED OUR RELIANCE ON THE OFFICE, ALLOWING US TO BE CONNECTED IN A WIDER RANGE OF SITUATIONS.

- > But Wi-Fi, which is part of a class of wireless network technologies based on Orthogonal Frequency Division Multiplexing (OFDM), was designed primarily for indoor use by fixed receivers. Hence it is unreliable under certain situations, particularly outdoors, when the receiver is outside of line-of-sight contact with the transmitter or when the receiver is moving.
- > This presents problems for designers of so-called metro-mesh outdoor networks, particularly where

connectivity is mission-critical, as it is for ambulance and rescue services, for example.

- > Solving the problem of reliable, outdoor high-speed networks is the focus of Cohda Wireless.

### RAISING THE BAR

- > “Customers today are demanding outdoor broadband,” says Cohda’s Chief Executive Officer, Martin Suter. “Some companies are trying to exploit the economics and ubiquity

of Wi-Fi by moving it outdoors. But it really is the wrong technology to do this — unless you have Cohda.”

- > Cohda’s technology, Cohda Mobile-OFDM, boosts the sensitivity of wireless receivers so they can interpret information from signals that might previously have been dismissed as noise. It addresses the worst possible situations for radio signals, even working with devices travelling in excess of 110 kilometres per hour in urban environments. Cohda can also reduce the cost

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**"I ABSOLUTELY BELIEVE THAT WHAT WE HAVE DEVELOPED CHANGES THE RULES FOR OFDM TECHNOLOGY"**  
— MARTIN SUTER, CEO

of a network's deployment and maintenance, by reducing the number of transmitter/receivers required by up to 75%.

## IN A CLASS OF ITS OWN

- > "Current metro-mesh deployments are requiring upwards of 30 or 40 devices per square mile to achieve coverage," Suter says. "That comes at a cost of something around US\$150,000 to US\$200,000 per square mile to deploy. The performance that we're seeing with the Cohda mobile technology means we can take that number down to under 10 devices per square mile."
- > Suter says Cohda technology is applicable across other existing OFDM wireless networking standards, including those based on next generation WiMax and similar future technologies.

## DREAM TEAM

- > The company was started at the University of South Australia's Institute for Telecommunications Research in 2002 by three researchers: Dr Paul Alexander, Prof Alex Grant and Prof Lars Rasmussen. Suter is the former Vice President of Business Development for Mesh Networks, a company specialising in mobile

ad hoc wireless networks. Mesh Networks was recently acquired by Motorola.

- > After being commercialised by the university through its incubator, ITEK, Cohda received funding from SciVentures Investments in 2003 and was awarded an R&D Start grant in April 2004. Epicorp became an investor in 2005. Cohda opened a US office in September 2005, through the University of Central Florida Technology Incubator in Orlando, to provide a base for its US sales and marketing efforts.
- > The company's intellectual property is well protected with patents filed covering 19 discrete inventions — the result of 12 year's research by some of the world's recognised leaders in signal processing.
- > In August 2005 Cohda launched its prototype receiver and commenced outdoor testing. The company is planning deployment of full trial networks in the first half of 2006 at its engineering facility in South Australia, and its corporate headquarters in Orlando, as a prelude to commercial sales. Cohda is also working with the communications technology services company Scientel Wireless in Chicago, and plans to deploy a network around that

company's facilities in 2006.

## EARLY DAYS

- > Suter says Cohda's first target market is metropolitan networks being deployed to support emergency services, such as police, ambulance and fire crews, and for public safety and homeland defence initiatives. Secondary opportunities will be pursued with commercial network service providers.
- > Suter says the market for Wi-Fi-mesh networking technology is currently worth US\$50 million, but he says it is projected to grow to US\$940 million by 2009.
- > "A few networks have been announced, but there are few cities that have actually completed build-outs. So it is still very early days."
- > Suter says that all sales will be made through third parties, with an emphasis on recruiting network hardware makers to embed the Cohda technology into their own devices.
- > "I absolutely believe that what we have developed changes the rules for OFDM technology," Suter says. "It's something that absolutely has the potential to provide competitive advantage to big companies."