

## Shifting Paradigms

Barely a day before this article was written, the long-anticipated version 3 of MorphOS was officially released, adding a handful of new features and applications, not the least of which is support for the late Mac G4 Powerbook models, giving a desired mobility to MorphOS (and non-emulated Amiga-compatible operating systems in general). There are a few things held back for a future revision, which would help make the laptop support more valuable, such as 3D support on the Powerbook video card, and wireless network support. Still, I'm happy to finally see (a few) Mac laptops supported, as it affords me the ability to demonstrate MorphOS and Amiga software at meetings in a way far more convenient than lugging a desktop system and monitor across town. Expect a demonstration of exactly that for July's meeting.

Previously I've written about "The Future Was Here," the book that examines the Amiga hardware and its place in the world. Like just about anything, the Amiga was a product of the time that spawned it. Some things that are advantageous for

one era or generation can become a hindrance in another. As I read though the book, one recurring thought came to mind, and that thought is "I miss the eighties." I say this because, looking back, the 1980s was kind of an "anything goes" time for home computing, with the middle of the decade having a wide bunch of eight-bit systems giving way to the sixteen-and-beyond-bit generations, descendants of which are still primary players today. By around 1985 we had the Apple Mac, IBM PC, Amiga, Atari ST, and a handful of other next-generation systems from around the world filling up the decade. Pretty much any of them at the time had an equally viable chance to become the ruling system of the future. If pure technical ability for price were the only yardstick, the Amiga might have been most likely to come out on top. Still, as early as 1990, it was becoming clear the Windows PC would be the dominating force, thanks partly to its modular and abstracted hardware and software design, especially the factors which resulted in nearly unlimited clone manufacturers competing and flooding the market with inexpensive systems. Other hardware platforms and operating systems survived through the decades, if not thrived exactly, but "the PC" was the obvious winner, to the point

where most other available choices are pretty much the same basic PC hardware with a different operating system "shell" on top.

It's only in the last handful of years that paradigms may be shifting in such a way to endanger the Win-Tel stranglehold, at least in the consumer arena. It wouldn't take that much further development for the smartphone and the tablet to take over for the majority of things the average consumer might use a computer for, and the more demanding applications of professional work might not be that far off either. I know I'd like to get into graphic work on a system I could hold like a sketch pad, for example.

Sorry for missing out on the June meeting, and hopefully an appearance by the latest MorphOS version can help make it up for next time. I'll see you then.

...by Eric Schwartz  
from the AmiTech Gazette  
June 2012

# Wi-Fi of the Future

## Scientists Create Wi-Fi That Can Transmit Seven Blu-ray Movies Per Second

If you think your home Wi-Fi connection is fast, think again. Scientists have been working on a new way to transmit data wirelessly, and they can now transfer a scorching 2.5 terabits of information per second.

Let us put that another way: that's over 8,000 times faster than Verizon's fastest wired home internet connection, FiOS, that only manages a paltry 300Mbps. Or, to put it in real terms, it's the same as transmitting seven full Blu-ray movies per second. Basically, this shit is crazy fast.

But how the hell do they do it? Well, the team of American and Israeli researchers have used a neat new concept, where the electromagnetic waves that usually carry data are twisted into vortex beams. ExtremeTech describes the concept well:

These twisted signals use orbital angular momentum (OAM) to cram much more data into a single stream. In current state-of-the-art transmission protocols (WiFi, LTE, COFDM), we only modulate the spin angular momentum (SAM) of radio waves, not the OAM. If you picture the Earth, SAM is our planet spinning on its axis, while OAM is our movement around the Sun. Basically, the breakthrough here is that researchers have created a wireless network protocol that uses both OAM and SAM.

The combination of the two provides some amazing possibilities. So far, the researchers, from University of Southern California, NASA's Jet Propulsion Laboratory, and Tel Aviv University, have twisted together eight data streams, each operating at 300 Gbps, to achieve the new record of 2.5 terabits per second. At the moment, they've only transmitted signals as far as 1 meter. That should be scaled up before long—though the researchers admit 1 kilometer is probably an upper limit.

What's perhaps most interesting is that the technique can be used to twist together an awful lot of slower data connections. The researchers, who have published their findings in *Nature*, explain that in theory it should be possible to twist together hundreds or even thousands of conventional LTE signals into a single beam. That ought to help address the impending bandwidth crisis.

Of course, all that remains is for the team to develop the technology into something robust enough to use on a commercial scale—and there's no telling how long that might take.

...<http://gizmodo.com/5921058/scientists-create-wi-fi-that-can-transmit-seven-blu-ray-movies-per-second>

## July Calendar

No July Meetings

July 27 — Newsletter Deadline — 8:00 AM

MCCC 4418 Sharpsburg Drive Grand Prairie, Texas 75052  
<http://www.amigamccc.org>