



find



Experts in Optical
Access Modules



HOME

DATA CENTER

RESEARCH

TESTING

SERVICES

STORAGE

WIRELESS



NETWORKING THE
TELECOM INDUSTRY
www.lightreading.com

TECHNOLOGY
CHANNELS
NEWS, ANALYSIS,
AND EDUCATION

- Ethernet Channel
- IP Channel
- Testing Channel

- Editorial Calendar
- Archives
- Message Boards
- Live Events
- Web Seminars
- Beginner's Guides
- Services News
- Top 10 Lists
- Industry Events
- Internet Resources
- Glossaries
- New Articles
- White Papers
- Case Studies
- Research Service
- Storage Site

- Print This Page
- Order Article Reprint
- Email This Article

- Register
- Edit User Preferences
- Spread the Word
- Send Us Feedback
- Send Press Releases

- Advertising Info
- About Us

MAY 26, 2004

PREVIOUS [NEWS ANALYSIS](#)

RGB Networks Goes Green

Three-year-old [RGB Networks Inc.](#) plans to develop a one-rack-unit box that processes video and uses other vendors's Gigabit Ethernet switches to transmit video streams at cable head ends. The company claims the product will deliver 10 times the density of a typical system at one-tenth the cost.

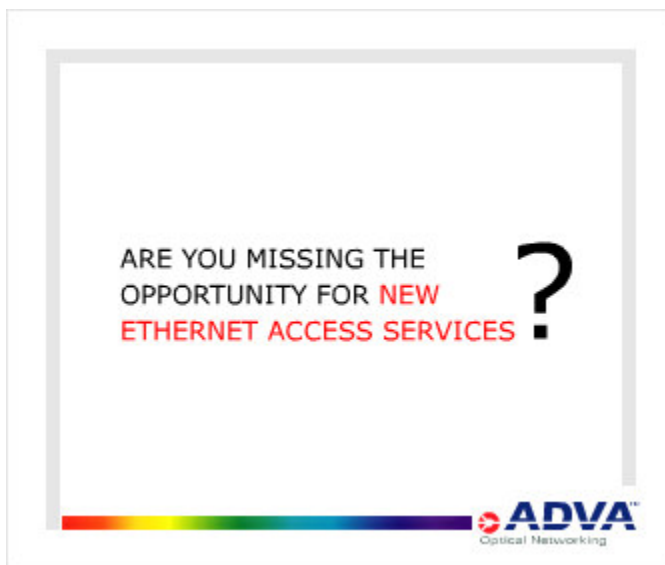
For those of you who don't *get* it, in the television world RGB stands for red, green, and blue, the three basic colors of video. But as RGB has yet to deliver a product, it may also stand for the Release that's Going to Be.

ADVERTISEMENT

The promises are big. RGB says its video system will work with an off-the-shelf Gigabit Ethernet switch and process 50 percent more digital video streams per Quadrature Amplitude Modulation (QAM) channel than existing digital-video broadcast systems.

For cable operators that provide digital TV service, the name of the game is processing as many video streams in as little space as possible. An operator's head end (the control center where incoming TV signals are processed for transmission to subscribers) has a limited amount of space and electrical power, and cable companies want to avoid building additional facilities or consuming additional power as they add equipment for new services like video-on-demand.

Today, most digital TV service providers use multiple boxes to process dozens of video streams per rack unit. RGB is promising *hundreds* of streams per rack unit by using field programmable gate arrays (FPGAs) and software to do much of the processing. "In the same number of gates that previously would process just one stream, we can now process tens of streams," says Adam Tom, co-founder and CEO at RGB. "It's through what we call our statistical digital processing technique."



- Webinars**
Register for upcoming free Web seminars
- Live Events**
Information about our seminars and roadshow:
- Case Studies**
Real-world technology deployments
- Light Pages**
Directory of vendors and technology
- White Papers**
Vendor education
- Register**
Free email newsletters

VISIT
boardwatch

SIGN UP FOR
live Webinar
A LIGHT READING EVENT



post your
WHITE PAPER
here

The patented technique uses software to analyze each stream and determine which ones need signal processing. "Not all streams need to have something done to them all the time," Tom explains.

If the system can recognize streams that don't need processing, it can then take that chip power and assign it to another video stream. This is how the box achieves its ten-fold increase in processing power, alleges Tom.

RGB's box feeds data into the Ethernet switch, a device that vendors have long promised will make distribution of video more cost effective. Companies such as [BigBand Networks Inc.](#), [SkyStream Networks Inc.](#), [Scopus Network Technologies Ltd.](#), [Harmonic Inc.](#) (Nasdaq: [HLIT](#) - [message board](#)), and [Scientific-Atlanta Inc.](#) (NYSE: [SFA](#) - [message board](#)) have sold gear for distributing video via Gigabit Ethernet for several years (see [BigBand Buys ADC's IP Cable Unit](#) and [Harmonic Intros Narrowcast Transport](#)).

"RGB is basically moving the state of the art forward by one notch," says Gerry Kaufhold, an analyst at [In-Stat/MDR](#). "The other guys will probably catch up with them, but it will take some time. RGB has time to get into the mix with some of the major operators, and from that point forward, it's how well they execute on their plan."

RGB's claims about its statistical digital processing technique have yet to be proven independently, but a company previously co-founded by Tom, iMedia Corp., used a similar technique to analyze bandwidth for digital video distribution. [Terayon Communication Systems Inc.](#) (Nasdaq: [TERN](#) - [message board](#)) acquired iMedia in 1999 for \$100 million.

RGB has been secretly developing its product for three years. Last year, the company raised an undisclosed amount of first-round funding from venture capital firms [Kleiner Perkins Caufield & Byers](#) and [Accel Partners](#). The company says it is talking to several cable operators and is aiming to deploy a beta version of its product in an operator's network in the third quarter.

— Justin Hibbard, Senior Editor, [Light Reading](#)

Discuss this story...

Copyright © 2000-2004 Light Reading, Inc. - All rights reserved.

[Privacy Policy](#)

[Terms of Use](#)

[Editorial Disclosure](#)