



Mid-Atlantic Crossroads

Advanced Regional Internetworking for
Higher Education and Research

Office: 8400 Baltimore Avenue
Suite 102
College Park, Maryland 20740
301.405.6666

March 8, 2010

Welcome

Welcome to the February 2010 edition of the MAX Newsletter. In these updates we highlight current technical activities and policy initiatives amongst our staff, our participants, the Regional Optical Network and national networking communities. Please let us know your thoughts, and especially your suggestions.

Executive Director Message

Since the fall, and as we discussed at the December All-Hands meeting, MAX continues to engage in discussions aimed at establishing a new strategic direction. We have listened to your suggestions and feedback on how we can improve upon the value of the services we provide and expand the range of our conversations and interactions. The phrase most voiced was encouragement to develop more of a sense of “community” amongst staff and participants jointly working on important activities.

During the last week of January, the MAX Board, Tessa and I spent two days in a retreat designed to create a new future for MAX. The retreat was extraordinarily productive and exceeded our expectations. A key outcome was the articulation of several declarations of new possibilities to serve as guiding principles for MAX going forward.

These declarations envision MAX as being capable of direct involvement in a number of regional initiatives of importance. The intent of these declarations is to go beyond the “default” set of activities MAX successfully plays delivering reliable, robust, and flexible multi-service network infrastructure capabilities.

In this newsletter I would like to let you know these new future declarations. As a Board and Staff we are excited about the opportunities they afford and now look to begin a dialogue with you about them. Over the next couple weeks, we will host conference calls to convey more details, allow you to ask questions, and begin to shape the full meaning of these possibilities.

We say it is possible and are willing to stand for:

1. Operating MAX from a shared vision of a common purpose that calls powerfully to our home institutions;
2. Aligning membership and governance with a clear understanding of roles and responsibilities of everyone bound to that purpose;
3. Operating a governing board composed of individuals with equal stakes in the realization of the vision;
4. Leveraging regional alignment of interests to build collaborative muscles biased toward action;
5. We say it is possible for MAX to be a catalyst for regional collaborations enabled by cutting-edge high performance networks and network services.
6. We say it is possible that MAX is an integral part of our infrastructure & services broadly conceived

- Peter O’Neil

ALL THINGS TECHNICAL

U.S. Government to Create Internet Policies

Larry Strickling, Assistant Secretary for Communications and Information at the Department of Commerce and administrator of the NTIA, gave a speech at The Media Institute in February regarding government Internet intervention. Strickling spoke about the evolution of the Internet from creation of the Web in the 90’s to the dependency on it in most households today. In the last decade there have been many useful pros like the opportunity to do private financial transactions, eCommerce, social networking, and online education but also some cons such as identity theft and piracy. Strickling believes the U.S.



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government should get involved to create policies to regulate the Internet so that it is a more trustworthy environment but does not think the regulation should be oppressive. NTIA's focus this year will be on developing policies for protection of personal data, identity, copyrighted material, children, and preparedness for cyber security threats. To read his entire speech go to:
http://www.ntia.doc.gov/presentations/2010/MediaInstitute_02242010.html

Initially the U.S. policy was to leave the Internet alone because it recognized the Internet as a First Amendment right. But the changes in the online environment today have caused policymakers to feel that governance is necessary. Some nations have already begun imposing rules on Internet use.
http://www.theregister.co.uk/2010/02/27/internet_3_dot_0_policy/

Secretary Clinton's speech on Internet freedom:
<http://www.state.gov/secretary/rm/2010/01/135519.htm>

Ethan Zuckerman's blog on Internet freedom beyond circumvention:
<http://www.ethanzuckerman.com/blog/2010/02/22/internet-freedom-beyond-circumvention/>

A study on government attempts to control the Internet:
<http://en.scientificcommons.org/51835899>

Consumers at Risk by Selecting Weak Passwords

The Imperva Application Defense Center analyzed surveys that detailed the way online users select their passwords. Studies revealed that most users continually select weak passwords and use that same password for all the websites they visit that require them to log in. Almost half of online users chose passwords that were short in length, a dictionary word, a name, or consecutive numbers or letters. This poor practice will make users more vulnerable as they continue to do personal business online while hackers utilize more advanced software to crack passwords. There are some key recommendations for selecting a strong password like choosing a password that is a combination of at least eight different characters to include letters, numbers, and symbols.
http://www.imperva.com/docs/WP_Consumer_Password_Worst_Practices.pdf

More Interesting Technical Articles...

NLR, Internet2 to Develop Unified Cisco TelePresence Service

http://www.telepresenceoptions.com/2010/02/nlr_internet_2_to_develop_unifi/

For Those Interested in Protecting Your Privacy from Google

<http://www.googlesharing.net/>
<http://www.googlesharing.net/download.html>

Hash Functions: Their Design and Use

<http://benlog.com/articles/2008/06/19/dont-hash-secrets/>

Harvard's Berkman Center Releases Broadband Report

http://cyber.law.harvard.edu/newsroom/broadband_review_final
<http://cyber.law.harvard.edu/pubrelease/broadband/>

Naive Email Users and the Reply All Feature

<http://flowingdata.com/2010/02/08/data-underload-8-unso-licited/>
<http://msexchangeteam.com/archive/2004/04/08/109626.aspx>

Cloud Computing Metaphors

<http://www.transparentuptime.com/2010/02/cloud-metaphors-weather-pattern.html>

HOW COOL!

Grateful Dead - Visionary Business Planners

In 2008 the legendary band the Grateful Dead announced that it was donating its archives to the University of California Santa Cruz. The archive will be housed in the Special Collections section at the university's new library scheduled to open later this year and will also have online



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access. The archive will document the history of the band and will include forty years worth of recordings, interviews, tv appearances, press clippings, fan letters, stage sets, business records, and more. Although the memorabilia is expected to be a treat for musicologists, historians, sociologists, and the band's loyal *Deadhead* fans, the band's business practices have been receiving recognition from business and management scholars as well. Successful business tactics were a significant part of the band's background. In the 60's and 70's when the idea of 'the customer comes first' was not yet adopted in corporate culture, the band treated their fans like loyal customers, with the most loyal receiving special perks. They incorporated early, copyrighted merchandise, and used the technology available at the time to do the first-known viral marketing. The band was ahead of its time and had a business model decades ago that is now common practice among organizations.

<http://www.theatlantic.com/magazine/archive/2010/03/management-secrets-of-the-grateful-dead/7918/>

There is still extensive cataloging to be done so many of the documents and photos can be viewed online. Click her to view the online archive so far:

<http://library.ucsc.edu/gratefuldeadarchive/gda-home>

What Really Happens When A Stone is Tossed Into Lake?

When a solid object impacts liquid, such as when a stone is thrown into a lake, a thin sheet of liquid is thrown upwards causing the sought-after splash that stone-throwers are seeking. But below the water's surface an interesting chain of events occurs that causes the air flow inside the impact cavity to reach supersonic speeds.

<http://arxiv.org/pdf/0909.3777v1>

<http://arxiv.org/abs/0909.3777>

How to Solve a Rubik's Cube in Under a Minute

The three-dimensional puzzle, Rubik's Cube, was invented over thirty-five years ago and is the world's top-selling puzzle game to date. Solving the puzzle, a combination of turns that results in each face of the cube being one solid color, stumped millions of consumers around the world. But today there are many different solution methods created by Rubik's Cube enthusiasts. Watch this video to learn one approach to solving the Cube in under

a minute.

<http://www.videojug.com/interview/how-to-solve-a-rubiks-cube-in-under-a-minute#first-layer>

Crayola Crayons: The Scaling and Evolution of Color

Columnist Stephen Von Worley writes about how he suddenly feels old and out of touch as it seems everything around him is advancing on, from the songs on the radio to the terminology used in pop culture today. Even the color of the crayons that children draw with today aren't the same as when he was a child. This inspired him to research the evolution of colors offered by Crayola since their first eight crayons were introduced in 1903.

<http://www.weathersealed.com/2010/01/15/color-me-a-dinosaur/>

To see the entire list of the 120 creative colors that are available today and the years they were introduced, visit Crayola's Crayon Chronology at:

<http://www.crayola.com/colorcensus/history/chronology.cfm>

More Interesting Articles...

The National Center for Atmospheric Research (NCAR) Turns 50

<http://www.50th.ucar.edu/index.php>

A Look Into the Oxford English Dictionary and the History of the English Language as it Relates to Typography

<http://bygonebureau.com/2010/01/20/the-secret-history-of-typography-in-the-oxford-english-dictionary/>

Physicist Discovers How to Teleport Energy

<http://www.technologyreview.com/blog/arxiv/24759/>

Energy Entanglement for Teleportation

<http://arxiv.org/abs/1002.0200>



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MAKES YOU SAY “HMMM”

Online Piracy and Book Lending Costing the Publishing Industry Billions of Dollars

The internet monitoring service Attributor tracked illegally downloaded content on the Web in the last quarter of 2009 and found an estimated 9 million copies of books on four different websites. This number is believed to be only a portion of online book piracy. Of the fourteen subjects tracked business and investment titles had the most downloads, followed by technical, science, computer, and internet books.

http://www.publishersweekly.com/article/444081-Attributor_Study_Finds_Pervasive_Online_Book_Piracy_php

Another threat to the book industry is the secret society of lending “libraries” in every city across America. It’s hard to determine the actual dollar amount that book publishers have lost due to these practices because it’s believed to have been going on for close to twenty years. Book traffickers use social networking websites to communicate the locations of their “libraries” that allow visitors to view a large variety of books, periodicals, CDs and DVDs available for loan.

<http://go-to-hellman.blogspot.com/2010/01/offline-book-lending-costs-us.html>

The Right to Read: What things might be like in the future if certain software protection practices are enacted into law.

<http://www.gnu.org/philosophy/right-to-read.html>

More Interesting Articles to Ponder...

The Arrow of Time: Why Time Only Goes in One Direction

<http://www.wired.com/wiredscience/2010/02/what-is-time/>

Familiar ‘Most Beautiful’ Works

<http://languagelog.ldc.upenn.edu/nll/?p=2142>

Music and the Expectations of Our Brains

http://scienceblogs.com/cortex/2010/01/musical_predictions.php

Our Sense of Taste and Its Role in Our Lives and Culture

<http://www.philosophypress.co.uk/?p=997>

Climate Science and the Practice of Science

<http://www.guardian.co.uk/environment/2010/feb/09/climate-emails-truth-global-warming>

Accumulation of Data: The Useful & The Useless

http://www.economist.com/specialreports/displaystory.cfm?story_id=15557421

Mesofacts and Changes in Reality

http://www.boston.com/bostonglobe/ideas/articles/2010/02/28/warning_your_reality_is_out_of_date/

MEMBER SPOTLIGHT

ISI Creates New Wireless Division

The new division will also will assist in ISI-wide development efforts, such as in manufacturing, microelectronics, and other ISI disciplines that can be leveraged to create strong programs in wireless technology

The division will support other ISI efforts, where wireless expertise can be used to strengthen existing programs, or open new opportunities for other ISI divisions. The Wireless Networking Division will have staff on both coasts, as well as collaboration with campus faculty, and other institutions.

Marshall formerly was Program Manager with the Defense Advanced Research Projects Agency (DARPA) Strategic Technology Office (STO), for many of the



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DARPA Wireless, Cognitive Radio, and networking programs. These programs include the XG Dynamic Spectrum Access development, Wireless Networking after Next (WNAN) cognitive radio program for low cost wireless networking and the Disruption and Delay Tolerant Networking Program (DTN).

These programs collectively provided the technology base for high performance and affordable infrastructure-less wireless networking.

Marshall has written many articles, book chapters and conference presentations on the subject of DSA and cognitive radio. He is Executive Chair of the IEEE DYSPAN conference. He holds a Ph.D. from Trinity College, Dublin, and a BSEE and MS Information Science from Lehigh University

http://www3.isi.edu:80/about-news_story.htm?s=225
http://www3.isi.edu/research/research-divisions/isi_east.htm



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MAX Participants

Federal Labs and Agencies:

- ATDnet - NRL, LTS, DISA
- D.C. Government
- Energy Sciences Network (ESNet)
- Laboratory for Telecommunications Sciences
- Library of Congress
- NASA / GSFC
- National Archives and Records Administration (NARA)
- National Institutes of Health (NIH)
- National Institute of Standards and Technology
- National Library of Medicine (NLM)
- National Oceanic and Atmospheric Administration (NOAA)
- National Science Foundation (NSF)
- USDA, Beltsville Agricultural Research Center
- U.S. Department of Health and Human Services
- U.S. Department of State (through GWU)
- U.S. Department of Veterans Affairs
- U.S. Holocaust Memorial Museum

Higher Education:

- American University
- Baltimore Education & Research Network
- Catholic University
- GEANT
- Georgetown University
- George Mason University
- George Washington University
- Johns Hopkins University

- Johns Hopkins University - Applied Physics Laboratory (JHU-APL)
- Montgomery College
- National Consortium for Supercomputing Applications / ACCESS
- Network Virginia
- Smithsonian Institution
- Southern Universities Research Association (SURA)
- University of California, D.C. campus
- University Consortium for Advanced Internet Development (UCAID / Internet2)
- University of Maryland, College Park
- University of Maryland, Baltimore
- University of Maryland, Baltimore Co.
- Univ. System of Maryland Network
- University of Southern California, Information Sciences Institute / East
- Washington Research Library Consortium

Corporate and Non-profit:

- Columbia Telecommunications Corporation (CTC)
- Howard Hughes Med. Institute
- Inter-American Development Bank (IADB)
- Northrop Grumman Corporation
- The Institute for Genomic Research
- Windber Professional Services, Inc.
- World Bank
- The Venter Institute