Remarks to IEEE International Conference on SmartGridComm

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“My Administration is committed to creating an unprecedented level of openness in Government...and establish a system of transparency, public participation, and collaboration.”

—President Barack Obama, Jan 21st, 2009

Source: www.healthcare.gov; www.whitehouse.gov/open
Tech Team* Formula to Close Technology Gap
Platforms + Participation Equals Ecosystems Focused on Results

Public Sector Platforms

*United States CTO, CIO
Unleashing a Mobile Broadband Revolution
Presidential Commitment to (Nearly) Double Available Spectrum

Spectrum Initiative in Brief

#1: Identify and plan for the release of 500 MHz of spectrum

#2: Provide new tools and new incentives to free up spectrum

#3: Redeploy the spectrum to high-value uses

#4: Use the auction proceeds to promote public safety and job-creating infrastructure investment

Commerce Dept report due by 10/10 on timetable for freeing up spectrum for exclusive or shared use; CTO focus on advanced sharing technologies

Innovations: Text4baby partnership serves 75,000+ moms since 02/10 launch

Source: http://www.whitehouse.gov/administration/eop/nec/speeches/technological-opportunities-job-creation-economic-growth
Ultra-High Speed Broadband to the Home

Neighborhood 1 Gb/s Incubator

• June 2010 - Case Western Reserve University brings Gb/s service to 104 low-income homes to incubate future uses
• Collaborative R&D, with 40+ partners, private sector stakeholder support
• Focus on community needs

City-Wide 1 Gb/s Market

• Sept. 2010 - Chattanooga's power company begins offering Gb/s service to up to 170,000 customers by end of 2010
• Dept of Energy Smart Grid grant contributes $118 million to business model
• Platform for entrepreneurs with services that require Gb/s to the home

Source: http://blog.case.edu/lev.gonick/2009/11/17/new_gold_standard_for_smart_connected_communities_case_western_reserve_university_announces_1000_mbps fiber_to_the_home_research_project
In Pursuit of “Game Changers” in Cybersecurity
Public Input Key to Moving “Leap-Ahead” Technologies Forward

Dept of Energy announced $30M investment (10 projects) to address cybersecurity issues facing the electric grid

National Cyber Leap Year Summit helped define game-changing concepts

Help Change the Game in Cybersecurity!

Posted by Aneesa Chopra and Howard A. Schmidt on May 19, 2010 at 12:48 PM EDT

Today marks the launch of a new web forum to discuss your research and development ideas on "Game Changing Game" in cybersecurity. To inaugurate this forum, public session will be webcast live today PDT, from the IEEE Security and Privacy Conference in Oakland, California.

Comprising the broadband and wireless networks that connect us, the smart devices that enable us to access and control digital information that informs and inspires us, cyberspace touches every part of our daily lives, providing the foundation for enabling entrepreneurship through e-commerce, enhancing health care and education through information technologies, achieving efficient energy use through smart grids, and many other applications.

The ability to use cyberspace securely and with confidence is key to society realizing its full benefits. President Obama, in his May 2009 speech, stated that "America's economic prosperity in the 21st century will depend on cyberspace and information technology" and that "those who would abuse the system often hold the advantage of time (systems change only slowly), the attacker needs to succeed only once while defenders must succeed always, and targets (a facility may be found in many locations)."

Recognizing the research and development community, the President's Cyberspace Policy Review (near goal #9) for "leap-ahead" technologies that give the advantage to the defender. This challenge complements and extends the call in the Comprehensive National Cybersecurity Initiative for "leap-ahead" technologies, strategies, and programs.

The National Cyber Leap Year responded to this challenge, gathering input from the community through concept papers and a national summit. The first three game-changing concepts to emerge from this process are:

- Moving Target - Systems that move in multiple dimensions to disadvantage the attacker and increase resiliency.
- Tailored Trustworthy Spaces - Security tailored to the needs of a particular transaction rather than the other way around.
- Cyber Economic Incentives - A landscape of incentives that reward good cybersecurity and ensure crime doesn't pay.

From R&D to Public Sector Innovation
NSF-Funded Research Commercialized, Supporting Cloud Initiative

NASA Open Gov flagship initiative – Nebula – supports USAspending.gov (5/10) as part of CIO’s Cloud Computing Initiative

USCB Prof. Wolski joins NSF-funded grid computing “VGrADS” project; proposes novel concept (Fall 2007) to link “private” and “public” clouds; commercialized in 2009 and deployed as part of NASA Nebula

Source: http://www.nasa.gov/open/plan/nebula.html; www.usaspending.gov; www.eucalyptus.com/about/story
Helping Our Children Make Healthier Choices
Prizes Policy Spurs USDA to Reward Apps Developers

“The Apps for Healthy Kids competition challenges... the most creative, talented, and kid-savvy innovators across the country to build games that inspire and empower kids to get active and eat healthy.”
—First Lady Michelle Obama, March 11th, 2010

Sample App: Smash Your Food™
lets children see foods explode - while learning how much sugar, salt and oil are in them

95 qualified apps built on data that feeds USDA site – judges include Zynga’s CEO, “Woz”, GE’s Healthymagination lead

Source: www.appsforhealthykids.com; http://www.healthgameschallenge.org; http://apps.usa.gov/myfood-apedia
Standards to “Unlock” Value of Health Exchange

Open Industry Collaboration Delivers Technical Specs in 90 Days

**NHIN Direct Project in Brief**

“A set of policies, standards and services that enable the Internet to be used for secure and meaningful exchange of health information to improve health and health care” – launched 3/10, specs posted 6/10

**Secure, Direct Communication**

- **Doctor** ➔ **Consultant**: Clinical info & summary record exchange
- **Lab** ➔ **Doctor**: Receive lab results
- **Doctor** ➔ **Hospital**: Clinical info & summary record exchange
- **Doctor** ➔ **Patient**: Provide electronic clinical summary

SMTP-based specs for all providers; reference implementation underway with 25,000+ lines of code and counting...

Source: www.nhindirect.org
The Smart Grid Opportunity
Recovery Act Leveraged to Support 100 Projects Valued at $10+BN

Source: smartgrid.gov; NSTAR, Tendril

Example: NSTAR and Tendril to deploy real-time energy apps for 3,000+ homes in MA this summer – expecting 5% peak reduction

National Science & Technology Council is developing a policy framework that articulates a vision for the Smart Grid
Building Results-Driven eGov Ecosystems
Emerging Technologies Enable Large, Small Communities to Engage

New York City fields 70,000+ 311 calls a month; FY ‘10 budget exceeds of $45M

Manor, TX – population 6,500 – deploys free “SeeClickFix” platform including voice, web, mobile options; cost ~$38/month
Putting it Altogether: Entrepreneurs are Welcome
Bob, Dave, Andrew Embody Spirit of (Near) Frictionless Participation

Team (in spare time) wins competition (Jan, ‘10) by building more accessible Federal Register after posted on data.gov

Inspires AOTUS (March, ‘10) to designate team as lead designers for modernized “daily newspaper of the federal government”

Source: www.federalregister.gov; www.innovationmovement.org; www.wested.org