



# Building a Future for Technological Innovation

August 17<sup>th</sup>, 2010

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White House Office of Science & Technology Policy

# Report Documentation Page

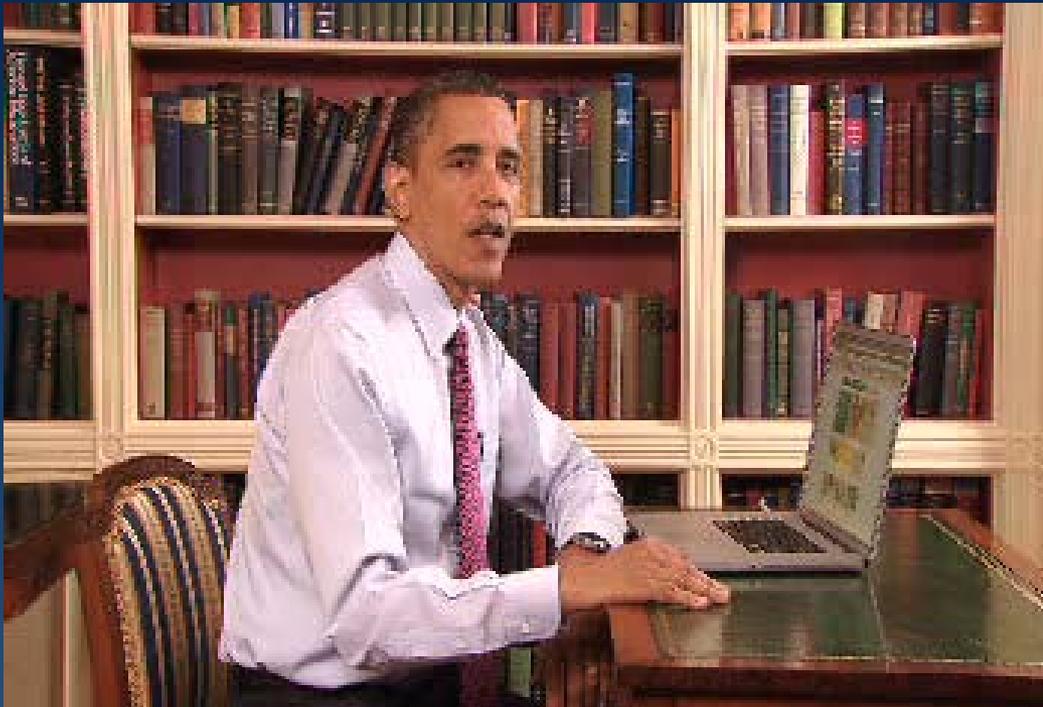
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# A Presidential Commitment to Technology

## Healthcare.gov a Model for Simplifying Access to Information

A screenshot of the Healthcare.gov website. The page features a search bar, navigation links for 'Find Insurance Options' and 'Learn About Prevention', and a section titled '7 Options for You'. A green callout box is overlaid on the right side of the page, containing text about the version 2.0 launch. Below the callout, a table lists insurance plans with columns for Plan, Services Covered & Excluded, Provider Network, Drug Coverage, More Information, and Price Estimates.

Health care is getting better. So is HealthCare.gov. Help us improve by adding your comments where you see

HealthCare.gov  
Take health care into your own hands

Newsroom | Implementation Center

Home | Email Update | Font Size

Find Insurance Options | Learn About Prevention

Find Insurance Options  
See which public, private and community

7 Options for You  
Enter Your Info > Your Options

Based on the info you provided, Change Options

1. Coverage for Young Adults Under Age 26  
[Click here for 5 quick tips for picking a plan (101).]

2. Special Enrollment in Spouse's Job-based Health Plan  
[Not sure how to decide? Read 5 Important tips for Picking Plans]

3. COBRA Coverage

4. Health Insurance Plans for Individuals & Families

Individual Health Anthem Health

Plan	Services Covered & Excluded	Provider Network	Drug Coverage	More Information	Price Estimates
Virginia Advantage	View Plan Benefits	Correct Link Not Provided	No Link Provided	1-800-304-0372 Visit Website	Price estimates available Oct. 2010 (TOOD: details_link)
Individual Basic BlueCare	View Plan	Correct Link Not	No Link	1-800-304-0372	Price estimates available Oct. 2010 (TOOD: details_link)

“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 21<sup>st</sup>, 2009



# A Focus on Strengthening Global Competitiveness

## Harnessing Technology, Data, Innovation for Growth, Empowerment

### Innovation Trend

Rank	Country	Change Score (1999-2009)
1	China	19.5
2	Singapore	19.0
3	Lithuania	14.9
4	Estonia	14.7
5	Denmark	14.6
6	Luxembourg	14.5
7	Slovenia	16.7
▶ 40	U.S.	2.7

**2010 UN Index rankings jumped from fourth (in 2008) to second**

### E-Government

Rank	Country	Percent Change (2005-2008)
1	China	21%
2	Spain	20%
3	France	16%
4	Russia	15%
5	EU-10	14%
6	S. Korea	13%
7	Japan	12%
▶ 22	U.S.	-7%

**American Graduation Initiative calls for return to #1 by 2020**

### Higher Education

Rank	Country	Percent Change (1999-2005)
1	Poland	117%
2	S. Korea	46%
3	Ireland	41%
4	Australia	31%
5	UK	30%
6	EU-25	27%
7	France	26%
▶ 15	U.S.	3%



# President's Strategy for American Innovation

## Tech Role in Innovation for Sustainable Growth and Quality Jobs

**Open Government Initiative focused on empowering everyday Americans**

### Catalyze Breakthroughs for National Priorities

- Unleash a clean energy revolution
- Support advanced vehicle technology
- Drive breakthroughs in health IT
- Address scientific "grand challenges"

**Smart Grid and Health IT Apps innovation efforts underway**

### Promote Competitive Markets that Spur Productive Entrepreneurship

- Promote American exports
- Support open capital markets that allocate resources to the most promising ideas
- Encourage high-growth and innovation-based entrepreneurship
- Improve public sector innovation and support community innovation

**Cloud Computing and Mobility as platforms for growth**

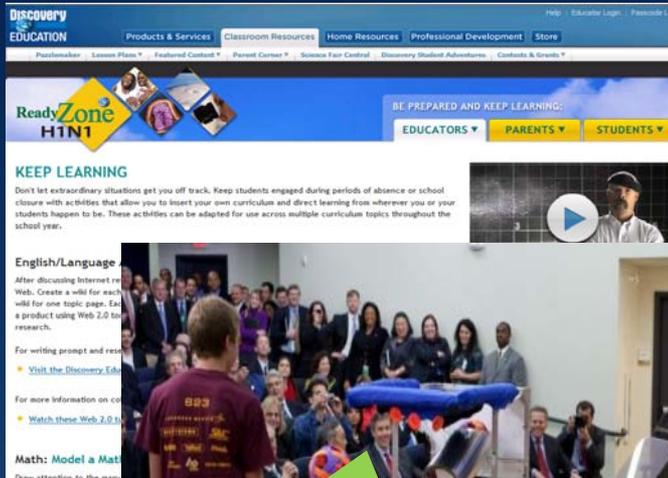
### Invest in the Building Blocks of American Innovation

- Restore American leadership in fundamental research
- Educate the next generation with 21<sup>st</sup> century knowledge and skills; create a world-class workforce
- Build a leading physical infrastructure
- Develop an advanced information technology ecosystem



# “From Compliance to Innovation”

## Delivering Platforms for Educational Innovation Every 90 Days



**STEM education a critical priority across portfolio**

**Visit 49 highest-rated finalists; consider, by September 8<sup>th</sup>, to offer help on match**

“To meet the President’s goals -- to reach the finish line -- we need transformational change. The islands of excellence that now exist in school districts have to become the norm...In a word, America’s schools need innovation.”  
- Secretary Arne Duncan, Aug 20, 2009

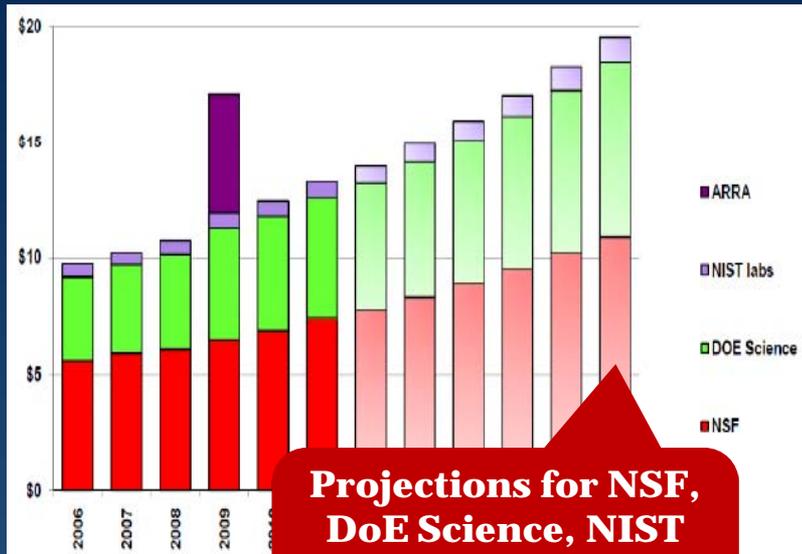


# Investments in R&D Spur Jobs of the Future

## PITAC Inaugural Meeting on Innovations in the “Golden Triangle”

### “Doubling” R&D Commitment

### PITAC Public Hearing



**Projections for NSF, DoE Science, NIST labs as noted in FY11 budget**

President's Council of Advisors on Science and Technology  
Executive Office of the President

Golden Triangle Workshop

President's Council of Advisors on Science and Technology (PITAC)  
President's Innovation Communities (PIC)  
Golden Triangle Workshop

Tuesday, June 22, 2010  
10:00am - 2:30pm

[CLICK HERE TO VIEW THE WORKSHOP](#)

SUBMIT A PUBLIC COMMENT

[Email](#) [Facebook](#)

**“What are the critical infrastructures that only government can help provide that are needed to enable creation of new bio, nano, and IT products and innovations that will lead to new jobs and greater GDP?”**

“...support R&D in advanced manufacturing to strengthen U.S. leadership in the areas of robotics, cyber-physical systems, and flexible manufacturing.”

—OMB-OSTP FY 12 Budget Memo, 7/21/10



# 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**



**She's one smart mom**  
She's got **text4baby**

**Text BABY to 511411**  
Get **FREE** messages on your cell phone to help you through your pregnancy and your baby's first year

**4baby**  
baby.org

**Innovations: Text4baby partnership serves 60,000+ moms since 02/10 launch**

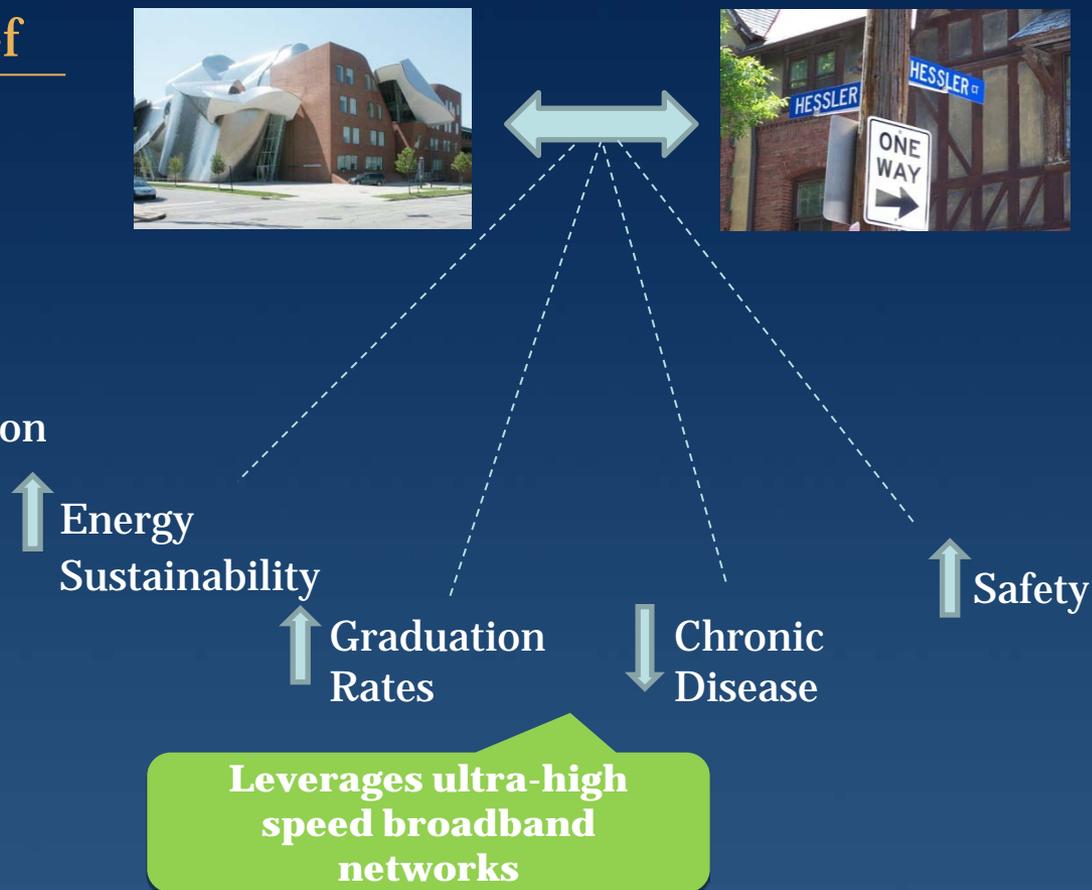


# “Beta Block” R&D Initiative to Connect Neighbors

## Internally Funded Effort to Deliver 1 Gbs to Poorest Homes

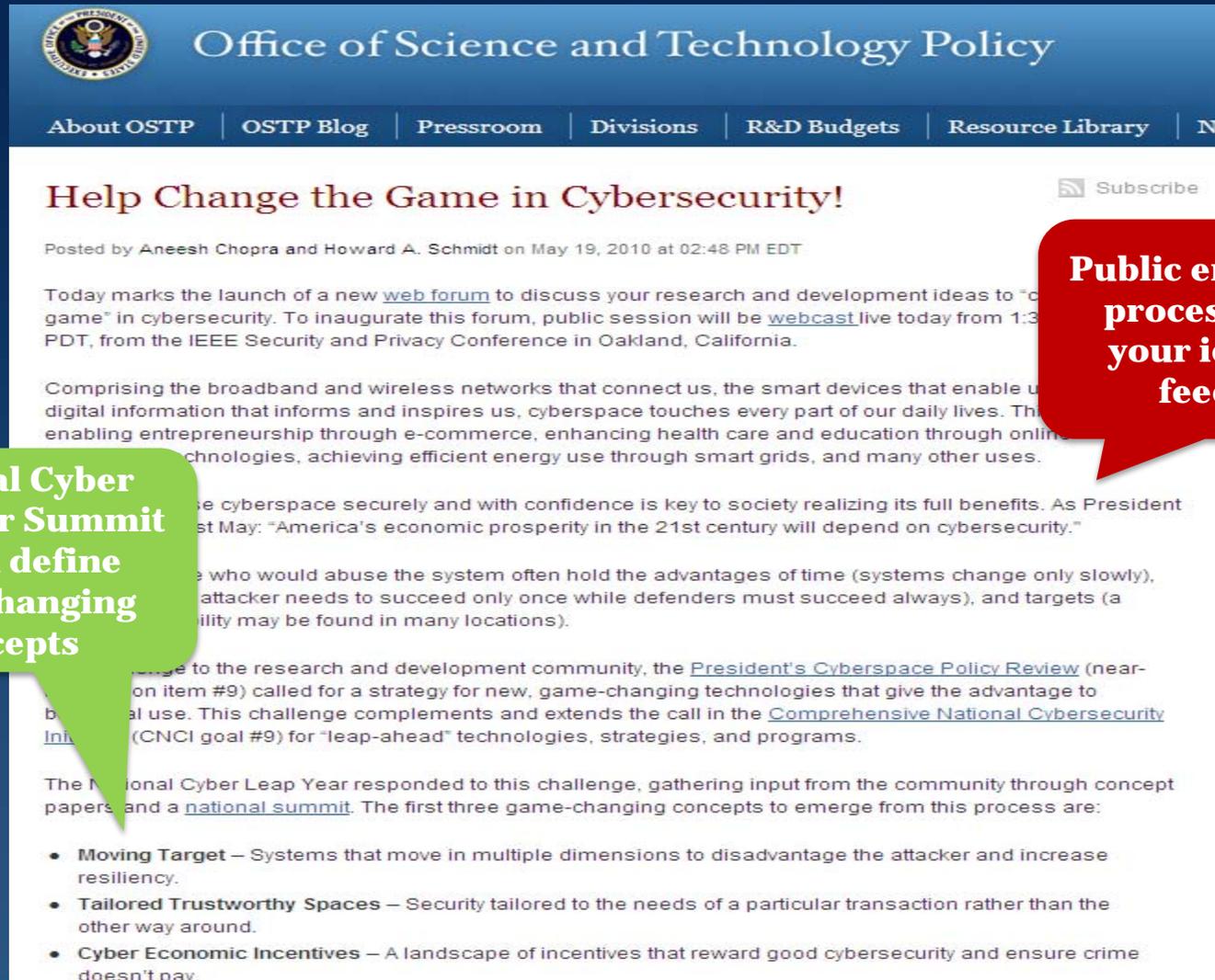
### Case Western Project in Brief

- Launched in November 2009
- Case Western Reserve University collaborative includes 40+ partners, 100+ household gigabit network
- R&D effort, with private sector stakeholder support, to spur innovation in poor communities “next door”
- Program metrics and goals set to measure changes related to:
  - Neighborhood Safety
  - Health and Wellness
  - STEM Education
  - Energy Sustainability



# In Pursuit of “Game Changers” in Cybersecurity

## Public Input Key to Moving “Leap-Ahead” Technologies Forward



 Office of Science and Technology Policy

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### Help Change the Game in Cybersecurity!

Subscribe

Posted by Aneesh Chopra and Howard A. Schmidt on May 19, 2010 at 02:48 PM EDT

Today marks the launch of a new [web forum](#) to discuss your research and development ideas to “change the game” in cybersecurity. To inaugurate this forum, public session will be [webcast](#) live today from 1:30-3:30 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 use digital information that informs and inspires us, cyberspace touches every part of our daily lives. This enabling entrepreneurship through e-commerce, enhancing health care and education through online learning, and achieving efficient energy use through smart grids, and many other uses.

Ensuring cyberspace securely and with confidence is key to society realizing its full benefits. As President Obama said last May: “America’s economic prosperity in the 21st century will depend on cybersecurity.”

Those who would abuse the system often hold the advantages of time (systems change only slowly), the attacker needs to succeed only once while defenders must succeed always), and targets (a vulnerability may be found in many locations).

In response to the research and development community, the [President’s Cyberspace Policy Review](#) (near-final report on item #9) called for a strategy for new, game-changing technologies that give the advantage to the defender for national use. This challenge complements and extends the call in the [Comprehensive National Cybersecurity Initiative](#) (CNCI goal #9) 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.

National Cyber Leap Year Summit helped define game-changing concepts

Public engagement process invited your ideas and feedback

# From R&D to Public Sector Innovation

## Cloud + Mobility an Opportunity for Economic Growth, Efficiency



**\$15+M in NSF research awards supporting cloud partnerships with Google, Microsoft, Yahoo, IBM, HP, Intel**

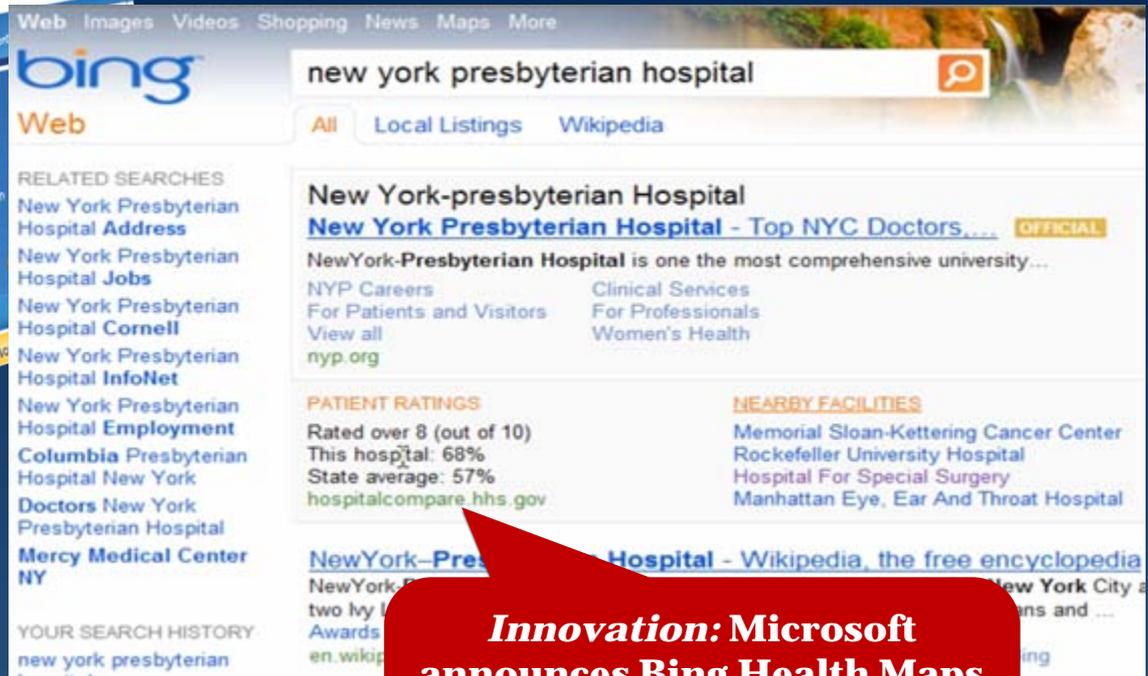
**Innovations: Dramatically lower storage costs; bandwidth; and processing power enable game-changing apps**

The screenshot shows the GSA Apps.gov website interface. At the top, there is a navigation menu with links for Home, Business Apps, Productivity Apps, Cloud IT Services, and Social Media Apps. A search bar is located on the right side. Below the navigation, there are several promotional banners. One banner titled "Coming soon to Apps.gov" features an image of a globe and several laptops, with text describing upcoming cloud services. Another banner titled "What is Cloud Computing?" includes a video player and a "Watch the video now" button. At the bottom, there are two more banners: "Business Apps" and "Cloud IT Services", each with a brief description and a "GSA Cloud [Service] has the answer!" slogan.



# Anatomy of an Open Government Ecosystem

## HHS Launches Community Health Data Initiative (CHDI)



HHS launches CHDI June 2<sup>nd</sup> - demonstrating 20+ apps recently built or improved by innovators across the country using data HHS has made public (with much more to come)

**Innovation:** Microsoft announces Bing Health Maps and the incorporation of "Hospital Compare" data in search results



# Helping Our Children Make Healthier Choices

## Prizes Policy Spurs USDA to Reward Apps Developers

APPS FOR HEALTHY KIDS

FAQ | Login | Register FOLLOW US ON twitter

LET'S MOVE! USDA

Home Application Gallery Submit Application Resources Partners

**Let's Move!** for the **Apps for Healthy Kids** competition.

\$60,000 in prizes to create innovative, fun and engaging software tools and games that encourage children directly or through their parents to make more nutritious food choices and be more physically active.

CHALLENGE SUPPORTERS  
**40,059**

31,683 ADULTS 8,376 KIDS

I support this tool!

Why Click?

Promote this challenge: Twitter Facebook MySpace

Recent Supporters:

**95 qualified apps built on data that feeds USDA site – judges include Zynga's CEO, "Woz", GE's Healthmagination lead**

SMASH YOUR FOOD

Hamburger

09 YEARS OLD  
Moderate ACTIVITY  
WANT SOME HELP?

SUGAR CUBE

SALT 1/8 TEASPOON

OIL TEASPOON

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

“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 11<sup>th</sup>, 2010

# “All Hands” - Health 2.0 Developer Challenge



**A growing number of “challenges” leading up to Health IT Innovation Week – October 3-10<sup>th</sup>, 2010**

## Featured Challenges



**WWHI catalyzes innovation - \$10K for a personalized wireless health ecosystem; sponsors “Innovation Day” – highlighting Veterans Healthcare (VAi2) – 10/12/10**



### Accelerating Wireless Health Adoption

**Challenger: West Wireless Health Institute**  
Create an application that will integrate sensor-derived data with social networks to construct a personalized wireless health ecosystem.

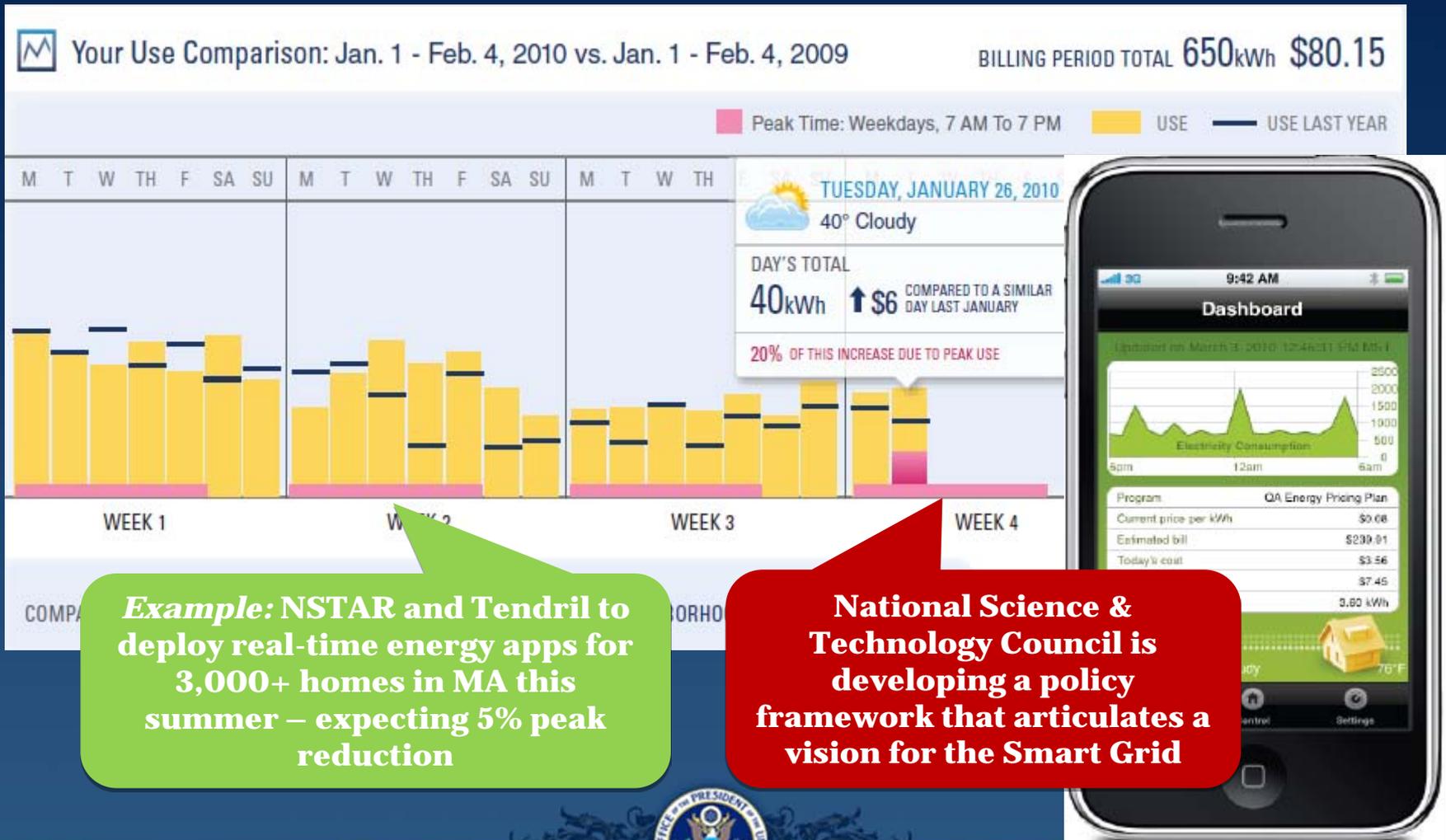
### Blue Button Challenge

**Challenger: Markle Foundation and RWJF**  
Develop a web-based tool that uses sample data from CMS or VA to help patients stay healthy and manage their care.



# The Smart Grid Opportunity

Recovery Act Leveraged to Support 100 Projects Valued at \$10+BN



# A Commitment to Drive Innovation in Health IT

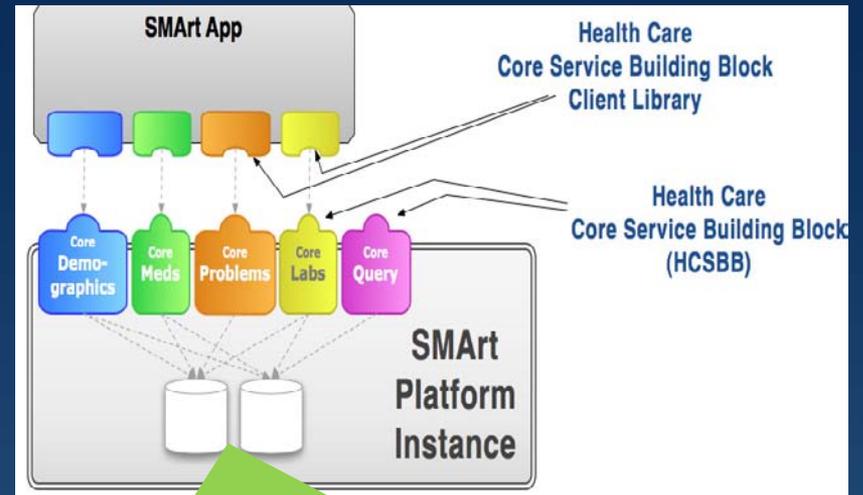
## Open Collaborations to Catalyze Breakthroughs in Apps, Exchange

### 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” – Tech Specs by June, Implementations by October, 2010**

### SHARP Grantee - SMARt Apps



**Harvard researchers focused on health platforms (like Indivo) to support substitutable apps – prototypes by 2011; aligned with “modular” certification for “meaningful use”**



# Putting it Altogether: Entrepreneurs are Welcome

## Bob, Dave, Andrew Embody Spirit of (Near) Frictionless Participation



### APPS FOR INNOVATION DEVELOPER CONTEST

The contest asked developers to build apps that demonstrate one of two categories: how innovation and entrepreneurship are impacting the U.S. economy or apps that help consumers advance policy goals that support innovation. The contest was open to apps for any type of device or any Web platform.

Jump to  
Select an App

**GOVPULSE**  
WINNER

**INNOVATION MOVEMENT NETWORK**

**ONLINE TOWNHALLS**  
3rd PLACE

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

### FEDERAL REGISTER

THE DAILY JOURNAL OF THE UNITED STATES GOVERNMENT

Monday, June 28th

Current Issue 100 Notices 9 Proposed Rules 12 Rules 1 Significant

MONETARY ENVIRONMENT WORLD SCIENCE & TECHNOLOGY BUSINESS & INDUSTRY HEALTH & PUBLIC WELFARE

**The People's Republic Review of Antidumping**  
A Notice by International Trade Administration

**32 NEW ARTICLES TODAY**

**COMMENTS REQUESTED**

**Critical Habitat for the Polar Bear**  
We, the U.S. Fish and Wildlife Service, announce the reopening of the public comment period on the proposed designation of critical habitat for the polar bear (*Ursus maritimus*) under the Endangered Species Act of 1973.

Procedure  
Small Business Size Standards: Wolverine of the Nonmanufacturer Rule  
Safety Zone: Fireworks Display, Patomac River, Charles County, MD  
New England Fishery Management Council Meeting

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

