NALIT

NATIONAL ASSOCIATION OF LEGISLATIVE INFORMATION TECHNOLOGY

National Conference of State Legislatures ♦ 7700 E. First Place ♦ Denver, CO 80230 ♦ 303.364.7700

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Chair's Corner

Be Super!

As I mentioned at the PDS in Portland last year, many of the staff sections were actively working toward a joint PDS in Madison Wisconsin for 2012. Well…we're on! Six staff sections have agreed to support our first ever "Super PDS" from Oct. 8-12. NALIT, LSS, LSSS, LINCS, NLSSA and RACSS have committed to the event. There will be overlap and a variety of beginning and ending dates for each staff section—NALIT's PDS is scheduled for Oct. 9-12.

One of the goals for the Super PDS is to foster interaction and the exchange of ideas between staff sections. PDS content and training usually are discipline-specific, and we stick to our own silos. We are making a concerted effort at the Super PDS to provide topics and content that interest all the staff sections and will foster interaction, cross-pollination and exchange of ideas.

You will not be short-changed! The NALIT PDS planning committee is working hard to provide relevant and cool content for our portion of the seminar. We are planning on topics such as Windows 8, Security Myths, Supporting BYOD Environments, Cloud Computing, Social Media Revisited and a look at Bill Drafting systems from several states.

A joint reception has been tentatively scheduled at the Wisconsin State Capitol as one of several opportunities to foster interaction between staff. We also are considering some shared plenary sessions that I think you will enjoy. As usual, count on a NALIT Dutch Treat dinner as an opportunity to shoot the breeze with your technology counterparts from other states.

This will be an awesome PDS. Hope to see you there!

Rich Beckwith
Director of Information Systems
Missouri House of Representatives

Inside this issue:

Telepresence Station - Alaska

Curtis Clothier

With the ever growing numbers of consumer electronics (such as iPads) entering our work environment comes an expectation that many of their associated apps (such as Skype or Facetime) should also work at the office.

During the past few years, we have had increasing requests to provide video conferencing services between the Capitol, and remote locations throughout our state. As you know, Alaska is very big, and some of our communities are days away by road or plane. The Alaska Legislature's Legislative Information Offices use Cisco MeetingPlace to allow our citizens to call into committee meetings from anywhere in the state to testify on bills and other meeting items. While the MeetingPlace solution has worked very well for audio, a number of legislative offices have been asking for a video solution that would provide a more collaborative experience.

In 2011, we used Microsoft's Office Communicator video chat service between several of our remote offices, which were also on the State of Alaska network. This ad-hoc solution worked well, except that it was limited to high bandwidth sites located on our state network (for security and quality of service issues).

With the recent addition of our Public Wireless network in the Capitol and the proliferation of iPads and their video chat apps, our Legislative Information Office decided to build a portable Telepresence Station, which uses a 42" plasma TV on a rolling cart with inputs for an iPad or laptop with Skype or other video chat software. To avoid conflicts with our state data network, bandwidth for the Telepresence Station would be provided "off-net" via Wi-Fi or 3G service.

Our first tests of the Telepresence Station were promising. Using Skype between devices on our public Wi-Fi (within our building) worked very well. However, using Skype in a production environment was a little different.

Here's what we've learned.

Tim Powers and Jake Carpenter, Alaska Legislative Information Office

Bandwidth: Using Wi-Fi or 3G is problematic. In the Capitol, our wireless network, as well as AT&T's 3G service, are swamped by all the devices competing for bandwidth. With no quality of service guarantee and with hundreds of visitors in the Capitol, Wi-Fi service seems to degrade when meetings are in progress.

User Error: While our staff is familiar with the system, there are no guarantees that users on the other end of the video call are proficient with their computer set-up.

Archiving: Any testimony provided over the system must be recorded for the public record. An audio feed is necessary for the committee room recording system.

Equipment: While the iPad appears to be a good device for personal chat, a standard laptop with better audio-out features make it a better choice for recording the meeting testimony.

Since our initial tests of the station, we have modified our configuration to include a laptop computer (replacing an iPad) and are now using a VPN to a cable modem (better than wireless) for communications. In order for us to use a cable modem, we had to hardwire a wall jack in our HSS committee room to our stand-alone cable modem. With these modifications, our user feedback has been very good.

Going forward, we will consider expanding this service to other committee rooms. If there is a consensus to provide this service in other rooms, we will need to run additional Ethernet in order to isolate this service from the state network and still have a dedicated wired connection.

Another issue we face is the amount of support time needed to coordinate a video chat call for a meeting. If we eventually have two or three requests for simultaneous video chat meetings, we may quickly run out of support staff. Training committee aides to use these Telepresence Stations appears to be in our future.

Linux and Open Source: Why the Raspberry Pi Is Relevant

By Jack Wallen
(www.techrepublic.com)
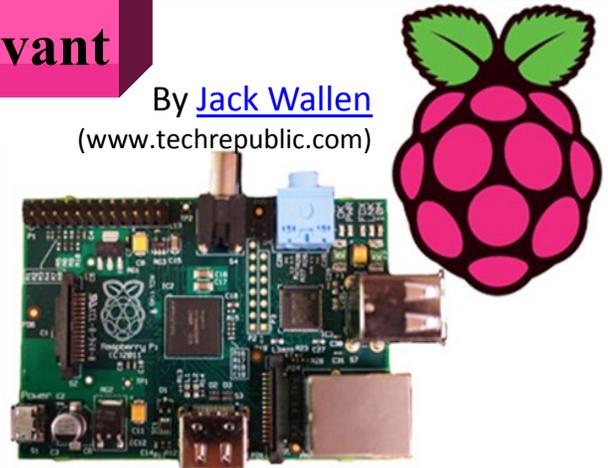
Recently, a tiny piece of hardware was released that will not re-invent the way you work, won't make you more social, won't crunch your numbers, doesn't handle multi-touch, and probably won't make you more popular or sexy. But the Raspberry Pi will serve a purpose—and it's one I hope we can all learn from.

First, what is the Raspberry Pi? Simple—it is a tiny Linux box that will set you back $25 to $35. This tiny Arm-based, Fedora-powered computer offers the following specs:

- Broadcom BCM2835 700MHz ARM1176JZFS processor with FPU and Videocore 4 GPU
- GPU provides Open GL ES 2.0, hardware-accelerated OpenVG, and 1080p3D
- H.264 high-profile decode GPU is capable of 1Gpixel/s, 1.5Gtexel/s or 24GFLOPs with texture filtering and DMA infrastructure
- 256MB RAM
- Boots from SD card, running Raspberry Pi Fedora Linux Re-mix
- 10/100-BaseT Ethernet port
- HDMI port
- USB 2.0 port
- RCA video port
- SD card slot
- Powered from microUSB port
- 3.5mm audio out jack
- Header footprint for camera connection
- Size: 85.6 x 53.98 x 17mm

So you have a tiny Linux-based computer that can be attached to a HDMI-connected monitor, offers an SD card slot for saved files, is networkable, and much more. The company even offers a version of Debian that can be loaded on an SD card for use.

This all came about, really, thanks to the mobile world. As the power of mobile hardware inversely grows in proportion to its size, it is becoming easier and easier to create smaller and more powerful systems.

But what exactly does this all mean? Why is this even remotely important? In a world where the power of home systems have far exceeded the needs of the user…

Oh wait, there's something to that. Right? Exactly. We live in a world where the consumerist market would insist the average user needs an i7 processor with 4GB of RAM and a solid state hard drive. These are the same average users who are using those systems to check Facebook, send an email or two, listen to some tunes, and maybe (just maybe) write a paper or create a slide show.

With a CPU containing 7 cores.

And yet, here we have a tiny Linux-based computer with a single core 700 MHz processor that can actually function and function well.

No, this is not going to power NASA systems, run Wall Street, or play video games. But this tiny computer should serve as a reminder that need and want are two very different things.

But that's not the only importance I place on the Raspberry Pi.

These tiny systems could effectively be used to help impoverished nations, or place PCs in locations where a standard PC isn't feasible. Although the Raspberry Pi was intended for the educational environment, the broad scope of its use is pretty incredible. Even down to the DIY hobbyist, who would like to do things such as embed a PC into a desktop or power the next new invention that could bring about world peace…the Raspberry Pi has them covered as well.

Virtual Desktop Infrastructure [VDI]
- South Carolina

Gigi Brickle

We are starting pilot projects of Virtual Desktop Infrastructure (VDI) and the implementation of a Network Access Control (NAC) System so that legislators can bring their own devices to the Capitol. We hope this will decrease the amount of desktops and laptops we have to purchase and maintain, and we feel it will be much easier for legislators to manage.

We know potential security risks exist with VDI technology, but we also recognize the importance of ease of use and convenience; therefore, we are working to balance these needs. Our design, based on Citrix, includes a Netscaler in the DMZ, a web server for pass-through authentication, Xendesktop controllers to broker connections, a license server, an SQL server for user rights and

server configurations, Xenapp servers for applications, and provisioning servers to provide and distribute operating systems to the clients. We will use VMWare for virtualization rather than Microsoft's Hyper-V.

We have purchased some Wyse Terminals to use in appropriate places and will convert PCs to dumb terminals for internal thin clients.

All these changes represent a significant financial investment. We plan to implement these changes before approaching a Network Access Control System that will complement the VDI system.

I have found that we need more skilled experts in the areas of intrusion protection, monitoring network

performance, project management and technical writing. I will be addressing these issues as well as searching for a new network manager to be our chief technical human resource for the General Assembly.

Linux and Open Source:
## Why the Raspberry Pi Is Relevant (cont.)

(continued from page 3)

I know, I'm really dreaming here. But seriously…this little device should prove a powerful reminder of both the silliness of our desperate need for bigger and faster as well as just how diverse, inspiring, flexible, and useful open source software is.

Think about it this way—if it were not for open source, projects like the Raspberry Pi probably wouldn't exist. Instead of having to not only create the hardware for their project, they'd also be building an OS from scratch.

I don't know about you, but I plan on purchasing a Pi or two—if for no other reason than to see just what I can do with them.

What about you?
Does the Pi inspire you?
If so, how?
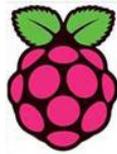
(Reprinted with permission, www.techrepublic.com)

Interested in sharing with your NALIT colleagues news about what your IT department is doing, or are you wanting to share some of your "tech" knowledge with us? If so, please submit an article for our next NALIT Newsletter.
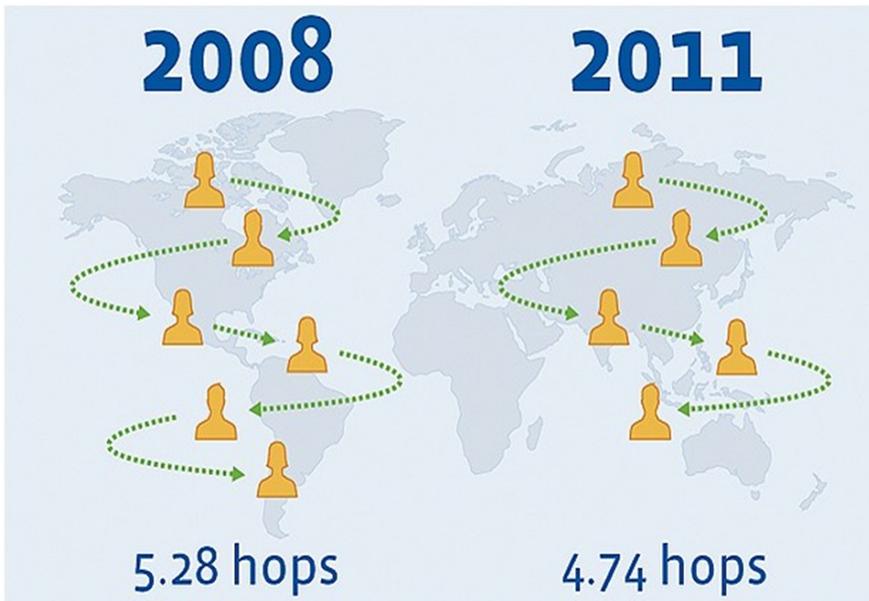
Contact *Troy Adkins*

TAdkins@house.virginia.gov

facebook
Cuts "Six Degrees of Separation" to Four

By Emma Barnett, Digital Media Editor, The Telegraph

The Facebook era and rise of social networks means that people are more closely connected than ever before, with four degrees of separation having become the norm.

Since the American social psychologist, Stanley Milgram, conducted his famous 'small world experiment' in the 1960s, it has been commonly accepted that most people have six degrees of separation between them.

However, a vast new study by Facebook's data team and the University of Milan, which assessed the relationships between 721 million active users (more than 10 percent of the global population) of the social network, has found that the average number of connections between people has dropped to four.

The huge piece of research, which took a month to conduct and analyzed

69 billion connections across the site, found that 92 per cent of Facebook users are connected by only 5 hops, or four degrees of separation.

"Using state-of-the-art algorithms… we were able to approximate the number of 'hops' [degrees of separation] between all pairs of individuals on Facebook.

"We found that six degrees actually overstates the number of links between typical pairs of users: While 99.6 percent of all pairs of users are connected by paths with 5 degrees (6 hops), 92 percent are connected by only four degrees (5 hops)," the Facebook Data team said.

Facebook has become the world's largest social network, with more than 800 million members. The team found that, as the site has grown, representing an ever larger fraction of the global population, the degrees of separation between people has been falling.

The average distance between all people on the site in 2008 was 5.28 degrees, while now it is 4.74.

The connectivity that social networks have brought means that someone on Facebook in Siberia or the Peruvian rainforest is probably no more than a friend of a friend of a friend of a friend of a friend.

Professor Richard Wiseman, a psychologist at the University of Hertfordshire, said sites such as Facebook and Twitter had provided a mechanism which allowed more people to be in touch at the same time around the world.

"I think Facebook and Twitter have allowed people a tool by which they can be in touch with far more people than ever before. These sites have also brought groups of people together with the same interests, who don't always know each other. It's like the difference between living in a city versus a rural community. People can now find each other with greater ease than ever before.

"However, people may now have more contacts, but that should not be confused with the number of actual 'friends' they have," he cautioned.

Wiseman said that it would be dangerous to conclude from the study that people had more real friends because of social networks, and therefore were actually closer to a greater number of people.

The Death of the Password

Jerry Gamblin, Missouri

Passwords have had a great 2130 year run since Polybius recorded how the Roman Military distributed their watchword of the day in around 118 BC. This should be the year we stop using passwords and move to the more realistic and reasonable passphrase.

What is a passphrase, you ask?

In its most pure form it is a phrase made up of more than three words.

For example, here are some recent passphrases I have used (and am no longer using because passwords are only good for at the most 90 days, but that's another article.)

• "Mizzou to the sec?"

• "Its almost Christmas!"

•"Do the chickens have large talons?" (We were on a serious *Napoleon Dynamite* kick in our office for a while.)

Why are these passphrases so great?

1. They meet all realistic password complexity requirements because they use upper and lower-case letters and punctuation.

2. They are easy to remember. It is MUCH easier to remember and type a sentence or funny quote than to remember what most people would consider a secure password (ex: J3ff!3rs0N).

3. Because of the length, they are more secure. Even the worst-case passphrases, such as "this is my password" is much more secure,

at least when compared to their single word equivalents (ex: password).

So, 2012 is a great time to move yourself, your staff and your legislators to adopt passphrases for security and ease of use. You also will be greatly surprised about how few sticky note passwords you see when you move to passphrases.

On a technical note, since Windows 2000 Microsoft has supported passwords of up to 127 characters, passphrases should work on every Windows network in existence.

As always, if you have questions, contact me at jerry.gamblin@house.mo.gov Until then, I will be thinking of more *Napoleon Dynamite* quotes to use as my passphrase.

Facebook - "Six Degrees…"

"I doubt the algorithms, which were used to create this research, took into account how many people out of user's list of 'friends' were actually people they knew personally. The six degrees of separation research was all about people who knew each other forming a chain. This is loosening that term."

The Facebook analysts also found that when they just looked at

people's connections in a single country, most pairs of people are only separated by three degrees.

In Milgram's original experiment, he famously tested the idea that any two people in the world are separated by only a small number of intermediate connections. By sending packages to 160 random people, asking them to forward the parcel to the friend or acquaintance that had the best chance of getting it to a set final person, he found that people in the United States

were connected via an average of 5.5 others.

This gave rise to the "six degrees of separation" theory in popular culture.

A game loosely based on the "six degrees of separation" theory and the small world experiment has also thrived online. In "Six Degrees of Kevin Bacon," players have to link any actor to Kevin Bacon in as few steps as possible.

NALIT 2011 PDS in Portland a Success

NALIT members from 21 states and Australia and Canada attended the 2011 NALIT professional development seminar, held in Portland, Oregon, last October. The seminar sessions received high ratings from attendees.

The seminar included sessions about Constituent Management Systems, Enterprise Development, Mapping and Geocoding, Applications Development for Mobile Devices and the Web and iPads in the legislature (with one session via Skype), and more. NALIT's traditional "Five Minutes of Fame" session also was very popular, highlighting the importance of the seminar as an opportunity to learn from and share experiences with IT colleagues other states.

The NALIT PDS was held concurrently with the Research and Committee Staff Section (RACSS). The two groups had separate agendas for Monday and Wednesday and shared programs for a full day at the Oregon State Capitol on Tuesday.

Shancy Saban, CIO of the Oregon Legislature, along with other Oregon legislative staff, planned an excellent day of activities for NALIT and RACSS members. In addition to tours of the Capitol, members heard from Oregon staff about systems in place at the legislature for committee agenda scheduling, constituent and email management, voting, audio and video recording, and more.

Oregon Senator Bruce Starr, NCSL President-elect, spoke at the group's luncheon at the Capitol and spoke appreciatively about the important role of staff in the legislative process. Later, Michael Adams, NCSL staff vice chair and director of strategic planning for the Virginia Senate (and former NALIT chair), spoke about how staying involved in staff organizations such as NALIT can help legislative staff keep on top of the many changes and challenges they face today.

Rich Beckwith, NALIT chair, brought energy and enthusiasm to the seminar in his role as "master of ceremonies." Many thanks to Rich and the other members of the PDS planning committee, as well as to the NALIT members who spoke at the seminar, for their contributions to a great seminar.

Special thanks also to Shancy Saban and Bill Gross, legislative media supervisor, along with other Oregon IT staff (especially Andy Markishtum, A/V specialist) who made possible the live and recorded broadcasts of sessions at the Capitol and who produced a highlights video for the seminar.

You can watch the highlights video and selected sessions from the seminar, and view seminar handouts and presentations here.

Save the Dates!

NCSL Legislative Summit, Chicago, Illinois, August 6-9, 2012

The annual NCSL Legislative Summit is the largest and most substantive meeting of its kind in the nation. Last year NALIT members joined more than 4,800 legislators, staff and others who attended informative sessions and heard from nationally renowned speakers. The NALIT Executive Committee will be planning several sessions designed specifically for NALIT members. Make plans now to join your legislative colleagues in Chicago, Ill., August 6-9, 2012.

NALIT Professional Development Seminar, Madison, Wisconsin, October 9-12, 2012

The NALIT 2012 Professional Development Seminar will be held in Madison, Wisconsin, Oct. 9-12. The NALIT meeting will be part of a "Super PDS"—several NCSL staff groups will meet concurrently in Madison that week. The other groups also meeting in Madison include:

> Leadership Staff Section (LSS)
> Legal Services Staff Section (LSSS)
> Legislative Information and Communications Staff Section (LINCS)
> National Legislative Services and Security Association (NLSSA)
> Research and Committee Staff Section (RACSS)

Although some sessions will be joint with other groups, NALIT will offer training and information designed specifically for legislative IT managers and technical staff. In addition, Wisconsin's Legislative Technology Service Bureau staff will host tours and IT briefings at the Capitol. Please send your ideas for session topics or speakers for the Legislative Summit or PDS to Rich Beckwith or Pam Greenberg.