Shielding your Home PC's from Virus Attacks  

By Bob Brydia

The story behind this article is that Bob Brydia wrote an email to a friend of his mother explaining about viruses and how to protect against them. With some editing that email turned into this article. Thank you Bob!

At work, our computers are protected by the TAMU firewall and our NIS group works to control virus attacks. They do that by scanning incoming email for known viruses and most computers have Norton Anti-Virus on them. Typically these machines are set to update themselves in the background and stay current with virus information.

But what about home? Many of us have computers at home. How do we go about protecting ourselves from virus attacks?

Well, the first step in protecting yourself is education—understanding what and where the danger is. The basic points about protecting yourself on the Internet are true for any type of connection, from a dial-up, to a constant on connection, like a cable modem or even a corporate network. In reality, there are three danger areas on the Internet.

The first danger area is a virus that typically comes in by email. It may be embedded in the email or it may be contained in an attachment. These types of viruses tend to spread quickly because they get on a machine, and then email themselves to everyone in that machine's address book. Because the email is often from someone you know, you open it and now you're infected and the cycle repeats itself.

The best protection for these types of viruses is an anti-virus program, like Norton or McAfee. They cost money, typically around $50 to start and then around $10 per year to continue updating the virus definitions (footprints of viruses that the program scans for). The problem with these programs is that they are reactive...they have already completed the review, revision and submission process and were in TxDOT's hands.

Thanks TOG for doing such a good job in such a timely manner!

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Virus Shield

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great difficulty finding and stopping a "new" virus. The manufacturers have to see it, analyze it, update the definitions, and then everyone has to download the new definitions. In the meantime, the virus has already spread around the world. Anti-virus programs certainly help reduce the spread of the virus infection, but they can't stop it alone.

The second danger area is a virus that spreads by the network. When you connect to the Internet, you're interconnecting your computer with others. That connection, say to a server at Earthlink or AOL or wherever, is how this second type of virus spreads. No email is involved, and you'll never even know you're infected until your computer starts acting flaky. This is what happened with the recent virus called MS Blaster. It didn't spread via email, but by the network connections.

The best protection for these types of viruses is a firewall. A firewall can be hardware or software and sits between your computer and the outside connection. It monitors that connection for anything "funny". If it finds it, it stops it. Because of the way this type of program works, it can stop viruses from entering your computer, even though it may be a brand new virus.

The third danger is a "virus" that lives in a web page. To date, these are quite rare, but they will increase in the future. What has been seen is a hidden "file" in a web page that tries to mine information from your PC. What is however very common with web pages is pop-ups. These typically contain ads—most ads write a file on your PC that tracks where you go. The next time you go to the site where the pop-up is, the web page reads where you've been. Right now, it's not so much a virus as it is an invasion of your privacy. It is nobody's business but yours where you go on the Internet. Unfortunately, many security experts believe that pop-ups are a precursor to the web page viruses.

The best way to prevent pop-ups (and hopefully the web page viruses in the future) is to use a pop-up stopper. These programs monitor web page activity for anything that tries to open up a new web page and kills that from happening. Be aware however that there are certain times however when pop-ups are used properly. A prime example is the CNN website. CNN often gives short summary information pertinent to the story you're reading in a pop-up window. That way, you still have the main story on screen but you can click through the sidebar information as well. Whenever you install a pop-up stopper, you need to know the override button to allow you to get a pop-up window if you need it. (Typically, the override button is holding down the left CTRL key)

Ok. That was the education part. So what do we do about it?

Well, you get a program in each of these areas and put it on your PC. In most cases, you are then as protected as possible.

Next month: So what are the good programs to get?

Australian ITE

ITE will hold their 2005 Annual meeting in Australia. Abstracts are due to ITE by January 5, 2004 (about three months from now). TTI will pay registration and per diem for a maximum of ten people to attend this conference. Airfare will be the responsibility of the attendee.

If you're interested in attending and would like to be considered for TTI registration and per diem support please send an email request to Ed Seymour (with a copy to Beth Neilson).

ITE has more information on their web site describing the conference and possible paper topics. See: ite.org/meetcon/2005CallforAbstracts.pdf
Campus Connection

Conference Calls
There are a number of different options available for making conference calls from campus. Select the option below depending upon the number of parties and who will be paying for the call. It is recommended that you make arrangements for a Meet Me Conference or 800 Conference as soon as you know the date. Some people book up to a year in advance. Other more expensive conference calls can be arranged through long distance carriers.

Three Party Conference
This is an easy method to use to add a third party.
- Call the first number, get the party on the line
- Press FLASH or TAP (depending on your phone) to get a dial tone
- Call the second number and get the party on the line
- Press FLASH/TAP to add back the other line.

Originator Controlled Conference
This type of Conference the department pays for on their Centrex bill. You are the originator and you are the one making the calls. This Conference will hold up to 6 lines, that is you and 5 others. This can be done at anytime and you do not need to book with anyone to arrange.
- Get a dial tone and dial 181 (access to six party conference).
- Listen for distinctive tone
- Dial 1st number and get the party on the line
- Press FLASH/TAP, listen for tone
- Dial 2nd number and get the party on the line
- Press FLASH/TAP to hook up everyone
- Press FLASH/TAP, listen for tone
- Dial 3rd number and get the party on the line
- Press FLASH/TAP to hook up everyone
- Continue with the steps above until everyone is added.

Note:
If any member doesn't answer or can't be on the call, another FLASH/TAP and 184 will remove that number from the Conference and allow the originator to proceed. The originator must stay on the line for the entire Conference.

Meet Me Conference
This Conference allows up to 24 parties to call into a prearranged number. Everyone pays for their own long distance charges at the rate charged by their provider. The conference call must be arranged in advance with A&M Telecommunications at 845-5171. The date, time, length of call, and number of callers must be provided. Each Conference will be issued an Access Code which is good for only that specific Conference. A work order is not required. A&M has 6 ports available for this type of call (one 8 party port, two 16 party ports, and three 24 party ports). Two numbers will be provided. One number will be used by the arranger and another number will be used by all the other parties.
- Arranger Instructions:
  - Get a dial tone and dial 182, listen for tone
  - Dial 5 digit Access Code, listen for tone
  - Dial 3 digit Port Number
  - You are in the conference after the confirmation tone

800 Conference
This method is used when you want the other parties to call in on a prearranged 800 number. The conference must be arranged ahead of time with A&M Telecommunications at 845-5171. The date, time, length of call, and number of callers must be provided. The cost is $.10 per minute and is charged to a Centrex account number. A work order must be submitted prior to the call. A&M only has 2 ports available.
Birthdays

Oct 01 Dan Walker
Oct 11 Omar Mata
Oct 11 Tim Wolff
Oct 12 Bernard Parks
Oct 14 Leslie Thomas
Oct 17 David Ibanez
Oct 19 Gene Hawkins
Oct 19 Charles Stevens
Oct 20 Seung-Jun Kim
Oct 20 Brenda Manak
Oct 27 Srinivasa Sunkari
Oct 31 Marcus Brewer

Nov 01 Ivan Lorenz
Nov 03 Brianne McEwen
Nov 08 Mark Woolridge
Nov 10 Paul Carlson
Nov 20 Grant Schultz
Nov 21 George Balarezo
Nov 24 Laura Wohlgemuth
Nov 27 Di Wu

Kudos & Congratulations

Congratulations on Kathy Tran's marriage to David Nguyen on October 4. And “goodbye” and “welcome” as Kathy moves from Houston to Dallas. She’ll be working from the Dallas TTI office but will still be reporting to the Houston program.

Short Follow-up for Short Course

We would like to remind all TTI staff planning to attend the TxDOT Short Course that registration is required. It is important to register in advance by going to http://tti.tamu.edu/conferences/tsc03/. By taking a minute or two to do this now, you will save yourself a wait in a line at the walk-on registration table and help the process of registration move more smoothly in general. Thank you for your cooperation. If you have any questions, please contact TTI conference services.

Hello’s

Robert Pina started working as a full-time Programmer/Analyst I within the System Management Division. He will help Cesar Quiroga with three TxDOT projects that started this fiscal year. Robert has a Bachelor's degree in Computer Science from St. Mary’s University and is currently pursuing a Master's degree, also in Computer Science. He lives and works in San Antonio. Welcome Robert.

Please join us in welcoming Mike Pratt to the Signal Operations Program. Mike is from California. He received his BS from the University of California at Los Angeles. Mike is pursuing a ME degree while here at TAMU.

Welcome Linda Cherrington of the System Planning, Policy, and Environment Research Group to the Houston TTI office!
Houston Homeland Security Exercise

Houston METRO played host to a terrorism emergency preparedness exercise on September 25. 1,700 participants and 20 government agencies took part in the day’s events at Houston’s Reliant Center. The scenario opened as METRO busses arrived at a large event on the Reliant grounds. Exercise facilitators created a small explosion and smoke was pumped inside one of the METRO buses - a suicide bomber had struck. While the participants were responding to the bomb situation, a second attack was initiated on the scene. The second attack simulated a biological threat of unknown type.

Leonard Ruback and Darryl Puckett have been working with METRO staff to create a Mobile Operations Center (MOC) and to fully utilize wireless communications for field emergency operations. METRO’s future MOC was demonstrated at the event (although it was not the command post for the exercise). The MOC provided working space with Internet capability and wireless computers for decision makers. Several wireless video feeds from the field were setup to cover the exercise area. TTI’s research police cruiser was used to capture images inside the exercise area and to transmit live motion video to METRO’s MOC from the scene. The cruiser also provided the ability for responders to receive video from the MOC. The cruiser is being used to test and evaluate different configurations and uses for mobile wireless for possible deployment in METRO police vehicles.

Alamo City Trailblazers

Marc Jacobson attended the 2003 San Antonio Leadership Forum on September 19th to represent the TTI-San Antonio Office. This day-long meeting was comprised of regional transportation officials and community leaders, with discussions focusing on expected funding shortfalls and the new tools available (e.g., RMAs, etc.) to fund transportation projects. Marc was also invited to speak at the Mission of Care Parent Symposium sponsored by St. Mary’s Hall (a private school in S.A.). Marc discussed teen driving risks and presented the results of the teen-to-teen awareness campaign pilot project lead by TTI’s San Antonio Office.

Marc and Russell Henk have also been working on a special homeland security effort entitled “The Declaration of Interdependence” that focuses on a “system” approach to our transportation and critical infrastructure-related challenges in this topic area. Marc is the webmaster for the internet site that supports this effort (<http://www.thedeclaration.org>). Several months of work on this initiative culminated with Russell Henk accompanying the New Mexico Transportation Commission in a trip to Washington, D.C. in a formal ceremony and presentation of “The Declaration” to Admiral Loy, Director of Transportation Security Administration (TSA), on September 11, 2003. Admiral Loy quoted John Hancock as he signed “The Declaration” and has pledged to encourage all TSA employees to sign and adopt the principles of practice that this statement suggests for the transportation community - it was a special day.

Garry Ford has been burning up the Texas roads on a combination of several RMC projects and Inter-Agency support for TxDOT in the South Texas region. Garry’s trips in September included: Abilene, Austin, Blackwell, Brownsville, College Station, Corpus Christi, and Roscoe (whew!!). Paul Barricklow’s car knows the way between San Antonio and Corpus Christi all by itself as he’s been burning a trail along I-37 to help get some key improvements implemented in Corpus….. all told, just a small sample of another typical month for the Alamo City Trailblazers!
Transportation Operations Group (TOG)

While in DC for the previous meeting, Gary Thomas also took part in a kickoff meeting at ITE headquarters to develop a new course on intersection design, operations, and safety for the Federal Highway Administration.

Cesar Quiroga gave a presentation at the National Highway Utility Conference in Orlando, FL (September 16-19). The title of his presentation was "Utilities in the Highway ROW: Inventory & Online Permitting."

On The Road Again

Gary Thomas, Robert Benz and Shawn Turner traveled to Washington, DC on 9-12 to host a focus group for an FHWA Bicycle and Pedestrian Course. TTI is updating academic graduate course material in hope to jumpstart the teaching of bicycle and pedestrian facility design to engineers and planners. Some material will be consolidated to fit into one or two lectures for undergraduate and continuing education courses.

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Roelof Engelbrecht

An update from Roelof Engelbrecht.

"Yes, we are finally home in College Station, one day less than 3 weeks after my liver transplant surgery. I'm doing great and feel better than in many months. My color is completely back to normal and I have boundless energy. I am gaining weight rapidly and are just 2 pounds away from my weight before the surgery (at one stage in the hospital I weighed 8 pounds less).

The new liver is working great and my transplant team has already started to decrease my anti-rejection medicine dosages."

Roelof still faces a challenging series of radiation and chemotherapy treatments, but his optimism and positive outlook have impressed the TTI family. We're very happy to see you doing so well at this stage in your recovery.

Goodbyes

From the Houston Office... "So long ole' timer, Dennis Smalley." He will understand that terminology.

Dennis has decided to go into full retirement life. His last day at TTI was September 30. Best wishes Dennis!

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Calendar of Events

October 13-15 — Transportation Short Course, College Station TX
October 24 — SECC Chili Cook-off, Noon, Gilchrist under the trees, by the small parking lot
November 2-5 — Highway-Rail Grade Crossing Safety Conference, San Antonio TX
November 3-6 — Fall TxDOT RMC Meetings, Austin TX
November 12-14 — The 2003 ITS Texas Annual Meeting, Austin, TX
November 27-28 — Thanksgiving Holiday
December 11 — All TTI Day, Brazos Center, Bryan TX
December 24 — January 2 – Winter Break
January 11-15 — Transportation Research Board 83rd Annual Meeting, Washington, D.C.,
January 19 — Martin Luther King Jr., Day
January 29-31 — Tex ITE Winter Meeting, San Antonio TX
March 18-19 — Spring Break
April 26-29 — ITS America Annual Meeting, San Antonio, TX
May 31 — Memorial Day

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Organ Donation

Become an Organ and Tissue Donor http://www.organdonor.gov/.

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