

Senior Net – 4 July 2014

Your computer,  
The Internet  
& Virus problems

Rein van de Vusse



**How does Internet Security work?**

# Internet Safety

## Protecting Your Computer from Internet Threats

**So if transactions on the internet are safe...  
What to watch out for?**

- Email Scams
- Infected Websites
- Telephone Scams

# Internet Safety

## Protecting Your Computer from Internet Threats

From: Inland Revenue [taxrefund @ ird.govt.nz]

Subject: You are eligible to receive a tax refund of 649.85 NZD

Dear New Zealand citizen.

After the last annual calculations of your fiscal activity, we have determined that you are eligible to receive a tax refund of 649.85 NZD

- Click **here** to submit your tax refund. Please submit the tax refund request and allow us 3-5 days in order to process it.


Please Note: A refund can be delayed for a variety of reasons, for example submitting invalid records or applying after deadline.

Inland Revenue - Te Tari Taake

# Internet Safety

## Protecting Your Computer from Internet Threats

Welcome to Inland Revenue's Online Services area [Inland Revenue home](#)

 **Inland Revenue**  
Te Tari Taake

### Refund Online Services

All mandatory fields are marked with an asterisk symbol (\*).

#### Credit Card Information

**Name as embossed on card\***

**Credit Card Number\***

**Expiry date\***

**CSC/CVV Code\***

For security reasons you'll be automatically logged off after 15 minutes of inactivity.

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For more info on government services go to [newzealand.govt.nz](http://newzealand.govt.nz)

# Internet Safety

## Protecting Your Computer from Internet Threats

**New Zealand Post** 

Dear valued Customer,

You have a new delivery which was shipped out today (18-Jun-2014). The details of your shipment are:

Tracking #: AA8189875116NZ

Weight: 8.00 lbs

Number of Packages: 1

You can [use this link](#) to track your package. Please note that tracking may not be available until 18:30 NZT or 6 hours after parcel submission for shipping.

If you have any questions about this shipment or this automated message, please contact customer service by visiting our [Contact US Page](#).

Best Regards,  
New Zealand Post.

DO NOT REPLY TO THIS E-MAIL. Replies to this e-mail will not be received. If you wish to submit an account-related question electronically, please send it securely by signing on to New Zealand Post and clicking Message Center - Send a Message

The source of this e-mail notice is New Zealand Post

# Internet Safety

## Protecting Your Computer from Internet Threats



Transaction ID:[5W45DF7R54413KR393D](#)

### You've sent a payment

Dear customer **ID** -

You've sent a payment for \$247.00 NZD to Ahmed Fahad Ali.

Please note that it may take a little while for this payment to appear in the Recent Activity list on your Account Overview.

**Note: If you haven't authorized this transaction ,click the link below to get full refund.**

[http://www.paypal.co.nz/nz/NewZealand/cqi-bin/CancelPayment\\_contact\\_us](http://www.paypal.co.nz/nz/NewZealand/cqi-bin/CancelPayment_contact_us).

Amount:\$247.00 NZD  
Currency conversion:\$211.85 AUD = \$247.00 NZD  
Exchange rate:1 NZD = 0.923825 AUD  
Sent on:15 June 2014

Yours sincerely,  
PayPal

# Internet Safety

## Protecting Your Computer from Internet Threats

### Some threats that can damage our computer systems

- **Virus** (Malicious program that replicates itself by attaching itself to a file)
- **Worm** (Malicious program that replicates itself and does not need to attaching itself to a file)
- **Trojan horse** (Malicious program inside harmless file)
- **Spyware** (Program that aids in gathering information about a person or organization without their knowledge)

**Malicious:** having or showing a desire to cause harm

# Internet Safety

## Protecting Your Computer from Internet Threats

### Multiple protections

- **Anti-virus:** Specifically protects against viruses and worms
- **Anti-spyware:** Protects against malicious software that may be gathering your information without your knowledge
- **Firewall:** Screens out threats that try to reach your computer over the Internet

# Internet Safety

## Protecting Your Computer from Internet Threats

### **Security suites**

- Security suites are generally easier to manage and offer a wide range of protection, which can be useful if you are a beginner.
- Some security suites have a tendency to slow down a computer.

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## Protecting Your Computer from Internet Threats

### Things to consider before you buy

#### **Investigate your computer:**

- Windows Vista & 7 offer free download of MS Security
- Windows Vista, 7 & 8 already have built-in firewalls
- Windows 8 has built-in security (Windows Defender)
- Most new computers come with 3<sup>rd</sup> party security software, but you have to subscribe after a trial period

#### **Free vs. paid Anti-virus software**

- Free software often doesn't include support
- Paid software is based on a yearly subscription

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## Protecting Your Computer from Internet Threats

### Scareware

- Malicious links disguised as security warnings have become a popular tactic with cybercriminals
- These official-looking notices warn you that your computer has a virus and claim that you need to click a link or download a program to fix it
- They are trying to scare you into clicking the link, but in reality the link leads to malware (**malicious software**)

Windows PC Defender - Online Protection - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media

Address http://... .cn/?p=WKminHVLcW6HjsbIo22EHV8ipnVbWeMnNah2qePglzHysd2lJOceW5arK3NapqXaG55aZhqyF%2FHVqPajtfZ1m5dpqmikpWuZr

### System Tasks

- View system information
- Add or remove programs
- Change a settings

### Other Places

- My Network Places
- My Documents
- Shared Documents
- Control Panel

### Details

My Computer  
System Folder

### System folders

- Shared Documents
- My Documents
- 2 Viruses found

### Hard drive

- Hard drive (C:)

### Security

Windows Security

71%

Checking: c:\...\Default User\Application Data\Microsoft\kerberos.dll

### Your Computer is infected

WARNING

Name	Type	Threat level
Trojan-Downloader.Win32.Tibs.tc	Virus	Medium
Trojan-PSW.Win32.LdPinch.abm	Virus	Critical
W32.Yaha.B@mm	Virus	Critical
Magic DVD Ripper	Virus	High
Trojan-Downloader.Win32.Small.dge	Virus	High

Recommend: Click "Start Protection" button to erase all threats

Start Protection

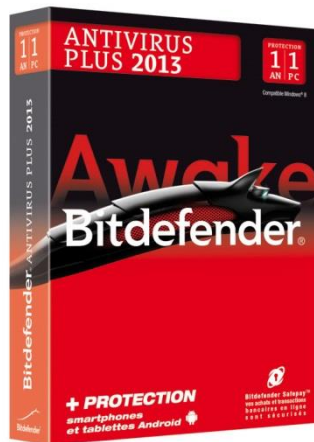
Internet Explorer Window will NEVER show an Anti-Virus Scan

Clicking This will Infect Your machine. Find the X in the Upper Right corner to close the window

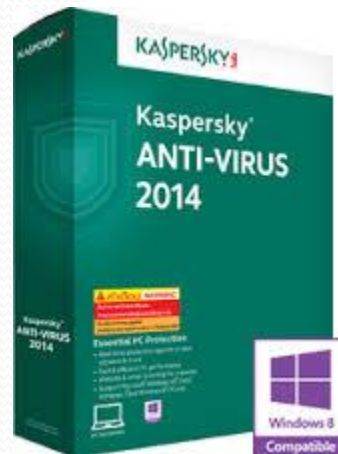
# Internet Safety

## Protecting Your Computer from Internet Threats

### Paid Security Software



**McAfee®**



# Internet Safety

## Protecting Your Computer from Internet Threats

### Free Security Software




# Internet Safety

## Protecting Your Computer from Internet Threats

### **Additional computer safety practices to consider**

#### **Install software updates**

- When your computer informs you of a software update, download and install it.
- Software updates are designed to fix security vulnerabilities and other bugs in your operating system.
- This will help protect your computer against some of the latest threats



Please do not power off or unplug your machine.  
Installing update 1 of 1..

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## Protecting Your Computer from Internet Threats

### Additional computer safety practices to consider

#### Use system restore


- If you have a download that is causing problems, try your operating system's system restore function.
- This feature allows you to restore your computer to a time and place before it started having issues

#### Restore this computer to an earlier point in time

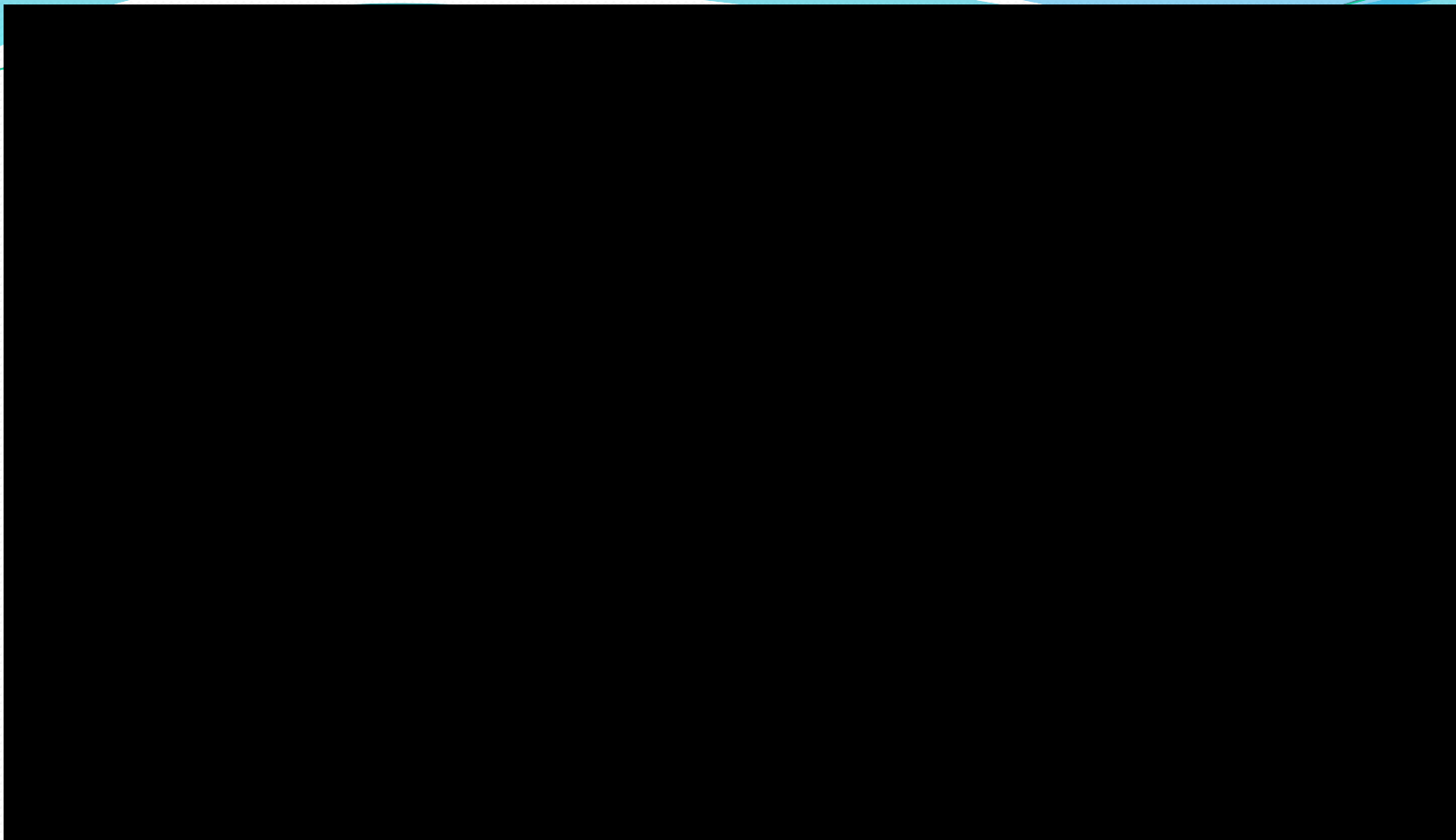
System Restore can resolve many system problems, and is the best recovery method to try first. For serious problems, use the advanced recovery methods.

#### System Restore

Undo recent system changes, but leave files such as documents, pictures, and music unchanged. This might remove recently-installed programs and drivers.

 Open System Restore

[Advanced recovery methods](#)



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### Ransomware

- Ransomware is a program that restricts access to the computer that it infects and demands a ransom paid to the creator of the malware to remove the restriction
- Some forms of ransomware encrypt files on the system's hard drive (cryptoviral extortion)
- Some ransomware may simply lock the system and display messages intended to coax the user into paying
- In June 2013 security software vendor McAfee released data showing that it had collected over 250,000 unique samples of ransomware in the first quarter of 2013

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### **CryptoLocker**

- CryptoLocker is a ransomware
- The attack comes from various sources disguised as a legitimate email attachment.
- When activated, the malware encrypts certain types of files stored on your PC and network- or USB drives
- The private key is stored on the malware's control servers
- A message offers to decrypt the data if a payment is made by a stated deadline
- It threatens to delete the private key if the deadline passes

# Internet Safety

## Protecting Your Computer from Internet Threats

The screenshot shows a web browser window displaying the Connect Smart website. The browser's address bar shows the URL <http://www.connectsmart.govt.nz/>. The website header includes the Connect Smart logo, the text "Protect yourself online", and the Department of the Prime Minister and Cabinet logo. A search bar is also present. The navigation menu includes links for "About Connect Smart", "Home Users", "Businesses", "Schools", "Connect Smart Week", and "Partners".

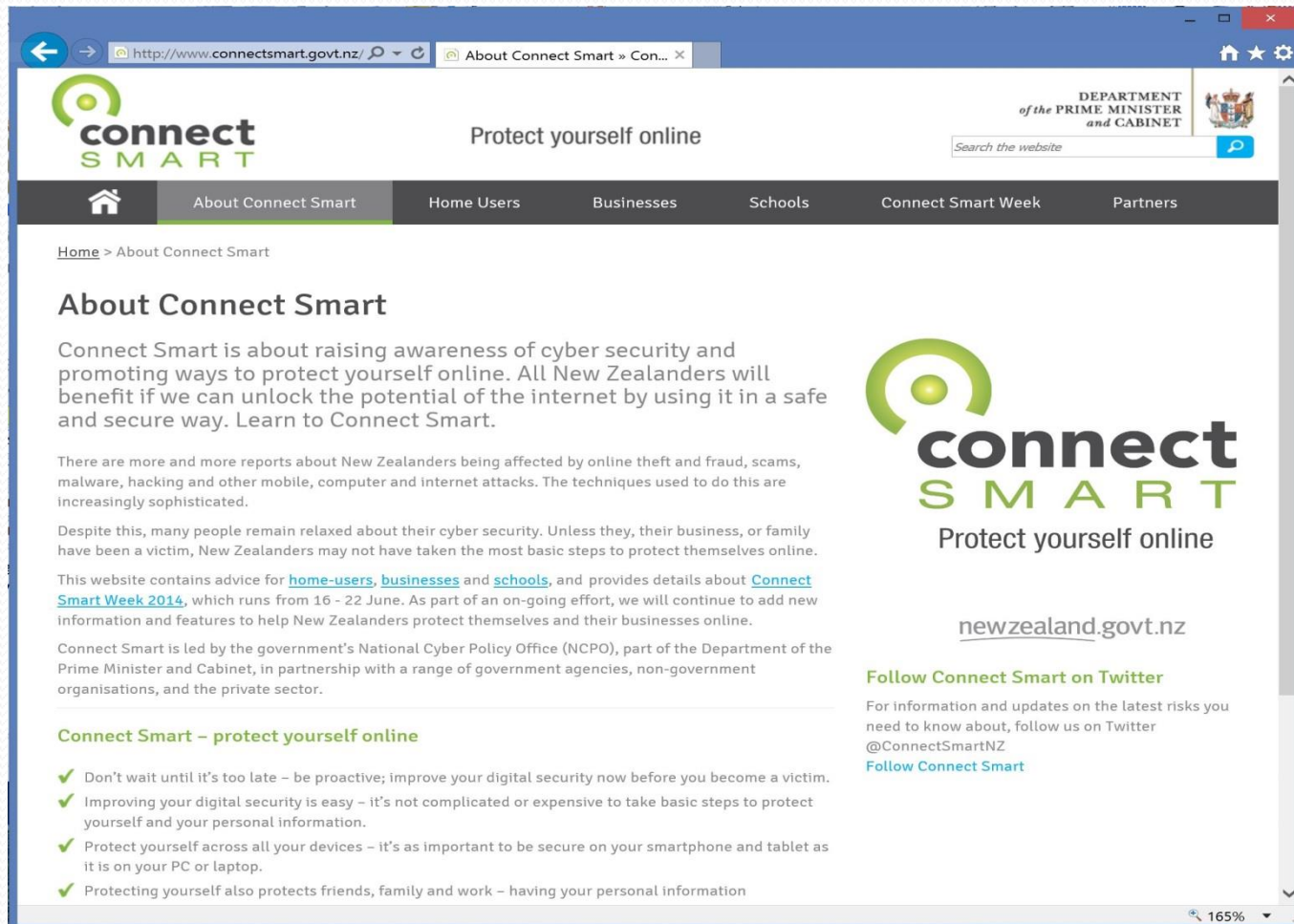
The main content area features a large green banner with the text "Connect Smart" and "Connect Smart is a central hub providing cyber security information and resources to New Zealanders...". A blue button labeled "Find out more »" is positioned at the bottom left of the banner. To the right of the banner is the Connect Smart logo and the text "Protect yourself online" and "newzealand.govt.nz".

Below the banner is a section titled "What Digital Clan are you in?" with the text "Are you a Digital Cowboy or a Cautious Connector? Learn how you can improve your online protection as well as that of your family and friends". An illustration of five diverse people is shown on the left. A blue button labeled "Take the quiz! »" is located at the bottom right of this section.

At the bottom of the page, there are three navigation links: "About Connect Smart", "Connect Smart Week", and "Businesses". The browser's status bar at the bottom right shows a zoom level of 165%.

# Internet Safety

## Protecting Your Computer from Internet Threats



The screenshot shows a web browser window displaying the 'About Connect Smart' page. The browser's address bar shows the URL 'http://www.connectsmart.govt.nz/'. The page header includes the 'connect SMART' logo, the text 'Protect yourself online', and the 'DEPARTMENT of the PRIME MINISTER and CABINET' logo. A search bar is also present. The main navigation menu includes 'Home', 'About Connect Smart', 'Home Users', 'Businesses', 'Schools', 'Connect Smart Week', and 'Partners'. The 'About Connect Smart' page content includes a heading 'About Connect Smart', a paragraph explaining the organization's mission, a paragraph about online threats, a paragraph about the website's content, a paragraph about the organization's leadership, and a list of key messages under the heading 'Connect Smart – protect yourself online'. The list includes four items: 'Don't wait until it's too late – be proactive; improve your digital security now before you become a victim.', 'Improving your digital security is easy – it's not complicated or expensive to take basic steps to protect yourself and your personal information.', 'Protect yourself across all your devices – it's as important to be secure on your smartphone and tablet as it is on your PC or laptop.', and 'Protecting yourself also protects friends, family and work – having your personal information'.

connect SMART

Protect yourself online

DEPARTMENT of the PRIME MINISTER and CABINET

Search the website

Home About Connect Smart Home Users Businesses Schools Connect Smart Week Partners

Home > About Connect Smart

### About Connect Smart

Connect Smart is about raising awareness of cyber security and promoting ways to protect yourself online. All New Zealanders will benefit if we can unlock the potential of the internet by using it in a safe and secure way. Learn to Connect Smart.

There are more and more reports about New Zealanders being affected by online theft and fraud, scams, malware, hacking and other mobile, computer and internet attacks. The techniques used to do this are increasingly sophisticated.

Despite this, many people remain relaxed about their cyber security. Unless they, their business, or family have been a victim, New Zealanders may not have taken the most basic steps to protect themselves online.

This website contains advice for [home-users](#), [businesses](#) and [schools](#), and provides details about [Connect Smart Week 2014](#), which runs from 16 - 22 June. As part of an on-going effort, we will continue to add new information and features to help New Zealanders protect themselves and their businesses online.

Connect Smart is led by the government's National Cyber Policy Office (NCPO), part of the Department of the Prime Minister and Cabinet, in partnership with a range of government agencies, non-government organisations, and the private sector.

#### Connect Smart – protect yourself online

- ✓ Don't wait until it's too late – be proactive; improve your digital security now before you become a victim.
- ✓ Improving your digital security is easy – it's not complicated or expensive to take basic steps to protect yourself and your personal information.
- ✓ Protect yourself across all your devices – it's as important to be secure on your smartphone and tablet as it is on your PC or laptop.
- ✓ Protecting yourself also protects friends, family and work – having your personal information

newzealand.govt.nz

Follow Connect Smart on Twitter

For information and updates on the latest risks you need to know about, follow us on Twitter @ConnectSmartNZ

[Follow Connect Smart](#)

165%



WELCOME FIRST  
TIME STUDENTS!

COMPUTER  
BASICS  
CLASS

DON'T WORRY, THEY'RE  
MORE AFRAID OF YOU  
THAN YOU ARE OF THEM.

EVANS  
2012