# RANSOMWARE IN ANZ

Noushin Shabab Senior Security Researcher at Global Research and Analysis Team ANZ We believe that everyone – from home computer users through to large corporations and governments – should be able to protect what matters to them most. Whether it's privacy, family, finances, customers, business success or critical infrastructure, we've made it our mission to secure it all.

Eugene Kaspersky, chairman and CEO, Kaspersky Lab



# **EXPERTISE**

1/3

of our employees are R&D specialists 325,000

new malicious files detected by Kaspersky Lab every day

40

world-leading security experts – our elite group



Our Global Research and Analysis Team of security experts constantly explore and fight the most advanced cyberthreats.

# OUR ROLE IN THE GLOBAL IT SECURITY COMMUNITY



We participate in joint operations and cyberthreat investigations with the Global IT security community, international organisations such as INTERPOL and Europol, law enforcement agencies and CERTs worldwide



We hold regular training courses for INTERPOL and Europol officers and the police forces of many countries, e.g. City of London Police



We provide expert speakers at conferences around the globe, e.g. World Economic Forum in Dayos



We host the annual Kaspersky Lab Security Analyst Summit which brings together the world's best IT security experts

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# **AGENDA**

- What is ransomware?
- History
- Classifications of ransomware
- Propagation and Acceleration
- Ransomware in ANZ
- How to prevent ransomware?
- No more ransom!

# WHAT IS RANSOMWARE?

### WHAT IS RANSOMWARE?

Ransomware is a type of malware that attempts to extort money from a user by infecting and taking control of the victim's machine or the files or documents stored on it.





Typically, ransomware will either lock the computer to prevent normal usage or encrypt the documents and files on it to prevent access to saved data

# HISTORY OF RANSOMWARE.

#### FIRST RANSOMWARE

#### Dear Customer:

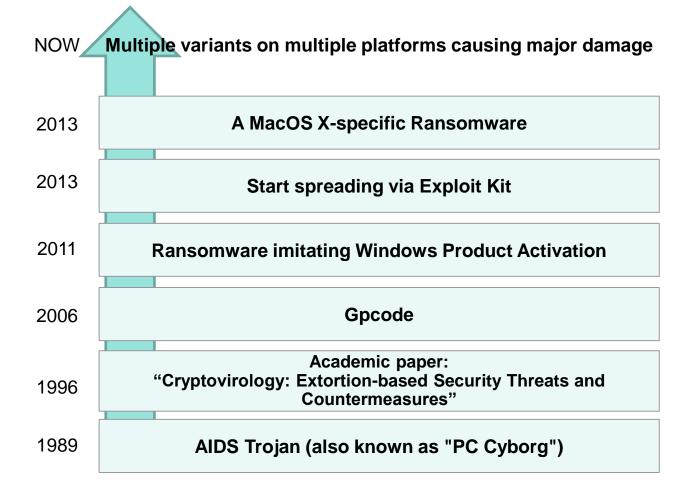
It is time to pay for your software lease from PC Cyborg Corporation. Complete the INVOICE and attach payment for the lease option of your choice. If you don't use the printed INVOICE, then be sure to refer to the important reference numbers below in all correspondence. In return you will receive:

- a renewal software package with easy-to-follow, complete instructions;
- an automatic, self-installing diskette that anyone can apply in minutes.

Important reference numbers: A5599796-2695577-

The price of 365 user applications is US\$189. The price of a lease for the lifetime of your hard disk is US\$378. You must enclose a bankers draft, cashier's check or international money order payable to PC CYBORG CORPORATION for the full amount of \$189 or \$378 with your order. Include your name, company, address, city, state, country, zip or postal code. Mail your order to PC Cyborg Corporation, P.O. Box 87-17-44, Panama 7, Panama.

Press ENTER to continue



# **TYPES OF RANSOMWARE**



Screen Locker



Mobile deviceRansomware(Android)



Ransomware encrypting web servers



**Encryption Ransomware** 

# PROPERGATION AND ACCELERATION

# **PROPERGATION METHODS**

- Infected websites
- Malvertising
- Emails
- Instant Message
- Social Networks

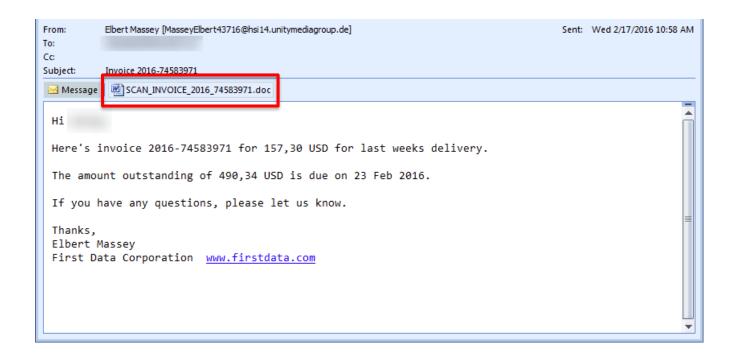




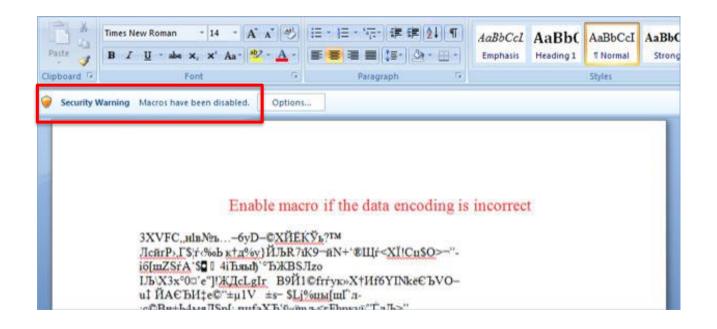




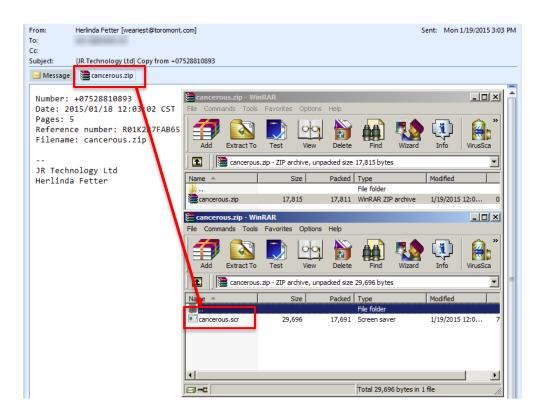
# **EMAIL WITH MS OFFICE DOCUMENT ATTACHMENT**



#### TRICKS TO MAKE USERS ENABLE DOCUMENT MACROS



# **EMAIL WITH ARCHIVED EXECUTABLE**

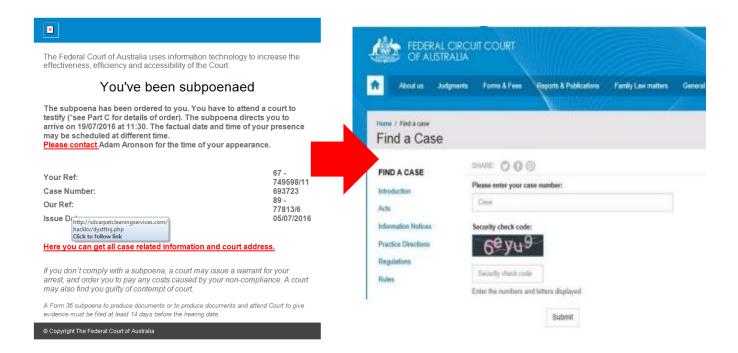


# EXAMPLES IN AUSTRALIA AND NEW ZEALAND

# **SCAM EMAIL HEADLINES IN AUSTRALIA**



### SCAM EMAILS ON THE FEDERAL COURT





# **SCAM EMAILS ON THE ANZ POST**



A courier has not deliver the item to the home address because no one was at home. Use your shipping label then go to mail office to pick up the box.

Download package info

Just in case the packet isn't picked up within 30 working days Our Company should have the right to claim commission from you for it's storing in the total 1.58 \$ through each day of storing.

We use the personal information you provide only for purposes consistent with the reason you provided it, or for a directly related purpose. We may also use your personal information where required or permitted by law. We may also use your information where you have provided us with your express or implied consent.



#### **CHECK YOUR PACKAGE**

The mailman has not bring your item to the home thus recipient was away. Print out shipping label and go to mail office to collect your package.

View label

Just in case the box isn't accepted within 30 working days NZPost may have the reason to claim reimbursement from you for it's helping to keep in the sum of 2.04 \$ through each hour of storing.



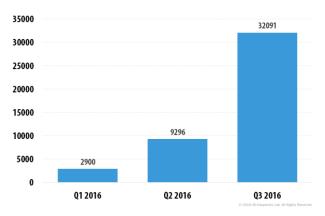
# **INFECTION VECTOR**



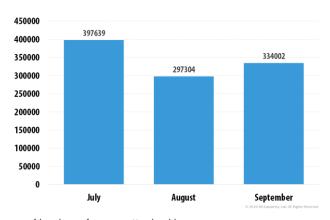
# STATISTICS ON RANSOMWARE

# **RANSOMWARE IN Q3**

- The overall number of cryptor modifications in our malware collection to-date is at least 26,000. 21 new cryptor families and 32.091 new modifications were detected in Q3 2016.
- In Q3 2016, **821,865** unique users were attacked by cryptors **2.6** times more than in the previous quarter.



Number of new cryptor samples in our collection



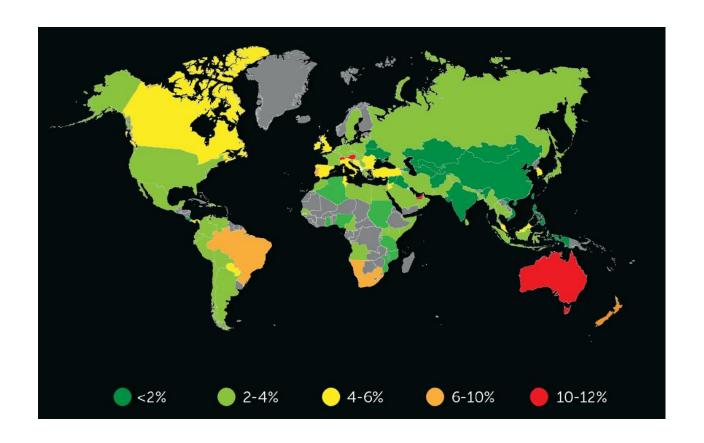
Number of users attacked by ransomware

# **TOP 10 CRYPTORS Q3**

	Name	Verdict*	% of attacked users**
1	CTB-Locker	Trojan-Ransom.Win32.Onion/ Trojan- Ransom.NSIS.Onion	28.34
2	Locky	Trojan-Ransom.Win32.Locky	9.60
3	CryptXXX	Trojan-Ransom.Win32.CryptXXX	8.95
4	TeslaCrypt	Trojan-Ransom.Win32.Bitman	1.44
5	Shade	Trojan-Ransom.Win32.Shade	1.10
6	Cryakl	Trojan-Ransom.Win32.Cryakl	0.82
7	Cryrar/ACCDFISA	Trojan-Ransom.Win32.Cryrar	0.73
8	Cerber	Trojan-Ransom.Win32.Zerber	0.59
9	CryptoWall	Trojan-Ransom.Win32.Cryptodef	0.58
10	Crysis	Trojan-Ransom.Win32.Crusis	0.51



# MAP OF AUSTRALIA AND NEW ZEALAND



# **HOW TO PREVENT RANSOMWARE?**

- Always Make Backups
- Keep all software updated
- Improve User Awareness
- Use Reliable Antivirus solution
- DON'T PAY THE RANSOM!



# NO MORE RANSOM

# NO MORE RANSOM

# GOOD NEWS

Nevertheless, it is sometimes possible to help infected users to regain access to their encrypted files or locked systems, without having to pay. We have created a repository of keys and applications that can decrypt data locked by different types of ransomware.



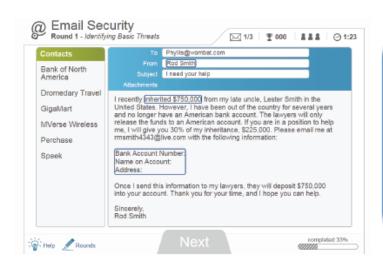
# NO MORE RANSOM MOVEMENT



# **HOW CAN WE HELP?**

#### KASPERSKY'S CYBER SECURITY TRAINING

- Work through typical scenarios and situations
- Gain greater knowledge and understanding of potential threats and how to deal with them
- Skills Assessment
- Measurable education plan

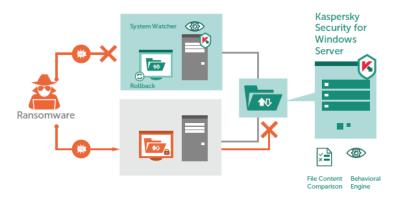


#### On Line Learning Modules:

- ✓ Anti-Phishing
- ✓ Data Protection
- ✓ Safe Social Networks
- ✓ Physical Security
- ✓ Smartphone Security
- ✓ Safer Web Browsing
- ✓ Security beyond the Office
- ✓ Social Engineering
- ✓ URL Training
- ✓ Email Security
- ✓ Passwords

#### KASPERSKY'S SYSTEM WATCHER

- If suspicious application attempts to open users personal files, it makes a local protected back up copy
- If is found to be crypto-malware, automatically rolls back unsolicited changes to system files.



### KASPERSKY'S ANTI CRYPTOR FOR FILE SERVER

- Detects encryption algorithm from endpoint to file server
- Severs connection so no further encryption can occur

# REMEMBER, DON'T PAY THE RANSOM!



# LET'S TALK?

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