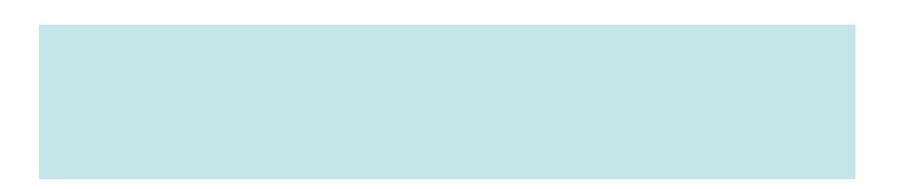


Registrar Impersonation in Phishing Attacks

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What is Registrar Impersonation?

- A phishing attack
- The attacker impersonates a registrar
- The phish emails are sent to
 - The registrar's customers (bulk)
 - A particular, targeted customer (spear phishing)
- Why impersonate a registrar?
 - Lure a customer into disclosing domain management account credentials
 - Use the credentials to impersonate the registrant

Why impersonate registrants?

- Malicious activities (attack the registrant)
 - Alter contact information to abet domain hijacking and business disruption
 - Alter or add mail exchange, IPv4 or IPv6 resource records to abet malicious redirection or flux phishing attacks
- Reconnaissance
 - Access information that is not published
- Facilitate subsequent attacks
 - Use credit or billing information associated with the account to purchase additional domains to use in attacks

One form of registrar phishing

- Host the deception (impersonate the registrar)
 - The attacker hosts a convincing duplicate of the registrar's customer portal (domain account login page)
- Acquire targets
 - Gather contact email addresses for the domain names (thank you, WHOIS...)
- Lure targets to the deception site using phish email
 - The email appears to be from the registrar and
 - Is alarming or conveys a sense of urgency
- Wait for the registrar's customers to
 - Fall prey to the lure, visit the deception site, and disclose login credentials
- **Steal** the customer's account credentials

What lures do phishers use?

- Message body is an expected correspondence from a registrar:
 - Domain name renewal notices, transfer notices, or order confirmations
 - Registration request confirmations
 - Registration and DNS information change confirmations
 - WHOIS accuracy reminders
 - Notices of domain name expiry or cancellation
- Message is often personalized to enhance the deception

Example (text ASCII)

THANK YOU FOR YOUR ORDER Wednesday, October 19, 2005 5:18:34 AM Dear customer, Thank you for ordering from <registrar>. Here are the details of your recent transaction with us. Please save this information for future reference. Personalized CUSTOMER NUMBER: 123456789 information – does **RECEIPT NUMBER: 298884-3340** not have to be ORDER TOTAL: \$19.99 accurate, only CUSTOMER SERVICE: 800-555-1234 convincing You must login to your account to complete this transaction. Please visit the following confirmation link at http://www.<registrar>.tld/login

Example (HTML, hidden tag)

Dear Valued Customer,

This is a confirmation that the password for your registrar.<tld> account, mydomainaccount, has been successfully changed.

If you feel an unauthorized party has changed the password of your account, please contact Customer Support by submitting a request online at

http://help.registrar.<TLD>/cgi-bin/php/enduser/ask.php

or contact us at +1(888) 555-1212 .

Hover over the hyperlink...

If you have any further questions about this process and wish to consult with a Customer Service Representative contact us by submitting a request online at

http://help.registrar.<tld>/cgi-bin/php/enduser/ask.php.

Thank you for choosing registrar<tld>.

Customer Support http://help.registrar.<tld>

How Registrars can reduce the risk

- 1. Only include information necessary to convey the desired message in customer correspondence.
- 2. Avoid using hyperlink references in correspondence with customers.
- 3. Warn customers against clicking on hyperlinks included in any correspondence.
- 4. Raise awareness that registrars are attractive candidates for impersonation.
- 5. Implement a form of email non-repudiation of origin for customer correspondence, such as a digital signature.
- 6. Implement multi-factor authentication for high-value, high securityminded domain registrants.
- 7. Use Extended Validation (EV) certificates for high assurance SSL connections for all sensitive transactions.
- 8. Provide ways to report suspected phishing attacks.

Customers:avoid being phished!

- 1. Do not click on hyperlinks included in email messages.
- 2. Use anti-spam and antiphishing features.
- 3. Use an email client that reveals hyperlink references.
- 4. Be suspicious of emails that claim an urgent response is required
- 5. Read email message bodies carefully.
- 6. Do not trust an email simply because it is personalized.
- 7. Verify the login form you are using is legitimate before you submit account credentials.
- 8. Make certain the page you visit is secured using SSL.
- 9. Use a unique password for your account and change it regularly.
- 10. Choose a registrar that requires a credit card CVV for purchases.
- 11. Registrants with high-value domain portfolios should consider premium services from registrars that offer additional security and monitoring measures.

More information

- SAC 028, Advisory on Registra r Impersonation Phishing Attacks (26 May 2008)
- Available in
 - English
 - Français
 - Русский
 - العربية
 - 中文

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PDFs can be downloaded fro

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