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#WCUdaipur

The Layman's Guide to Securing Your WordPress Website

→ Actionable Steps for Proactive & Reactive Security

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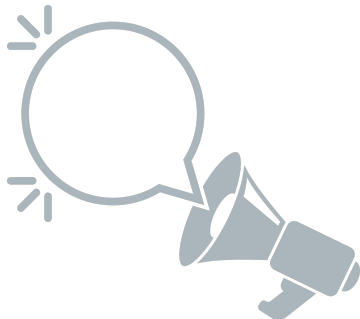
MALCURE

Agenda

1. Importance of Web-Security
2. Why & How Websites Are Hacked
3. Understanding Security Plugins and Their Functions
4. Developing a Proactive Security Framework
5. Strategies for Managing and Securing Compromised Websites
6. Summary

Business: Leveraging Importance of Web-Security

1. **Escalating Relevance *&* Necessity of Cyber-Security**
2. **Upping Your Game**
    a. Niche out: Market Competitiveness
    b. Adopt a Holistic Approach to Envision a Broader Scope for Projects.
    c. Amplify Your Value-Proposition to Clients.
3. **Mitigating Risks *&* Consequences**
    a. Immediate Effects: Downtime, Data Breaches, Negative SEO Impacts.
    b. Mid-Term Fallout: Blacklisting & Reputational Impact.
    c. Long-term Repercussions: Erosion of Brand-Trust, Financial Burdens.
    d. Legal *&* Compliance Challenges: Fines, Legal-Proceedings, Policy-Management.



Why Are Websites Hacked: Primary Motivations

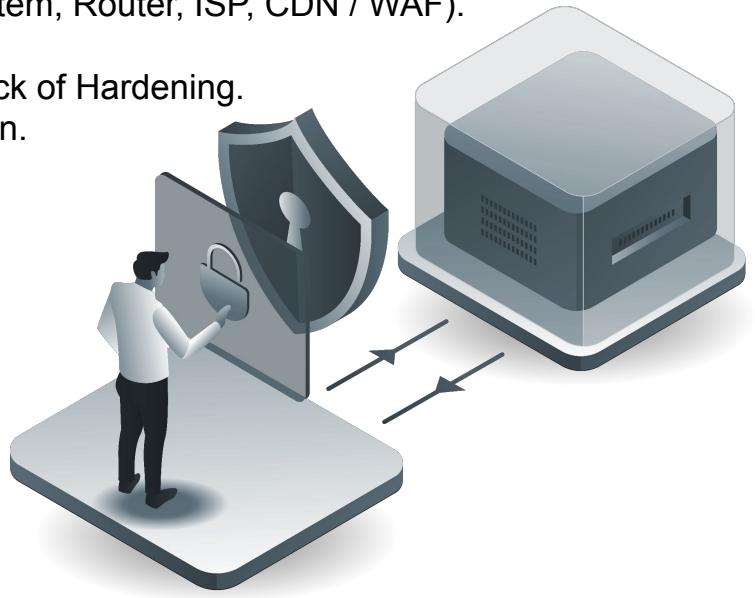
1. **SEO Manipulation**
   — Higher Traffic - Higher Reward by Redirecting traffic.
2. **Geopolitical Conflict and Cyber-Revenge**
   — Leading to Website Defacement.
3. **Cryptocurrency Mining**
   — Cryptojacking Hogs CPU, Memory and Other Resources of the Server as Well as the Client (Browser).
4. **Data-Theft**
   — Data-Theft, Ransomware, or Using Compromised Sites as Part of Larger Botnets.

Anatomy of an Attack: The Request-Response Chain

1. **Incoming Request**
   — Initiated by the Client; Travels Through the Network.
2. **Passes Through Proxies / Firewalls**
   — Transits across various network nodes and proxies.
   — Filtered Through Various Firewalls [***Allowed*** || ***Denied***] (System, Router, ISP, CDN / WAF).

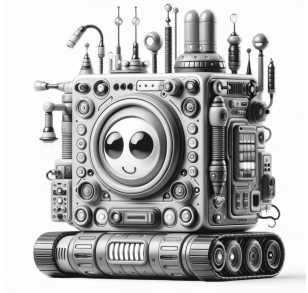
   — Vulnerabilities Due to Insufficient Firewall Measures and Lack of Hardening.
   a. **DDoS & Brute-Force Attacks** From Inadequate Protection.
   b. Software Vulnerability **Exploitation / Malware-Infection.**

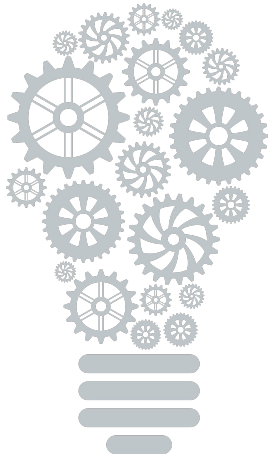
3. **Server Processes Request**
   — Renders HTML (or JSON) Etc.
4. **Server Sends a Response**
   — Contains Headers & Body.



Security Plugins Simplified

1. **Vulnerability Scanning**
   — Anticipating Threats
2. **Firewall Protection**
   — The First Line of Defense
3. **Hardening**
   — Hardening the Website Against Common Threats
4. **Malware Remediation**
   — Detect & Disinfect



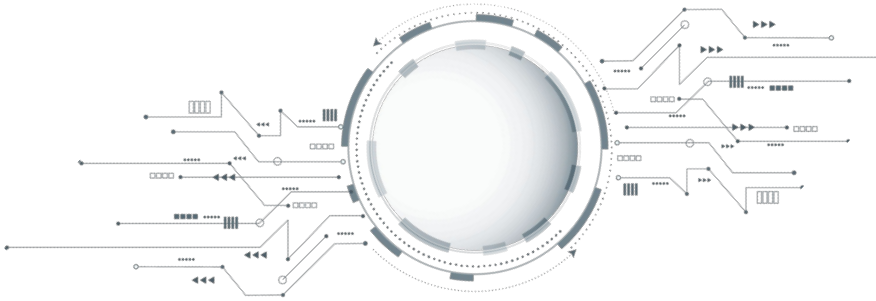


Security is not a plugin; it is a mindset.

Embrace Security as a Culture, Not Just a Code.

Blueprint for Proactive Security

1. **Access Management**
   Continuously Revise Access in Line With Role Changes and Responsibilities.
2. **Backups**
   Essential for Recovery, Regardless of Infection Status.
3. **SSL**
   Secures Data in Transit From MITM Attacks; Isn't a Comprehensive Security Solution.
4. **Website Hardening *&* Protection**
   First Level of Defense; Protects Website From Rogue Traffic, Resource hog, Pentesting, DDoS.
5. **Regular Updates** — Major, Minor vs. Patch, Maintenance & Security
   Do Not Indiscriminately Block WordPress Updates.
6. **Periodic Review *&* Audit**
   Maintain Vigilance and Proactivity in Security Measures.



Reactive Security: Symptoms of a Hacked Website

1. **Redirects**
   — Unexpected Website Redirects
2. **Performance Issues**
   — Slow Website / Frozen Browser
3. **Spam**
   — Spam Web Pages / Defaced Design
4. **SEO**
   — Sudden Drop in Search Results
   — Cryptic / Garbled Text in SERPS
5. **Blacklisting**
   — Alerts From GSC, Etc.
   — Ad-Campaign Suspension
   — Outgoing Emails Marked as Spam
6. **Access**
   — Unauthorized User Accounts

Reactive Security: Securing a Compromised Site

Triage Management — **CURE**

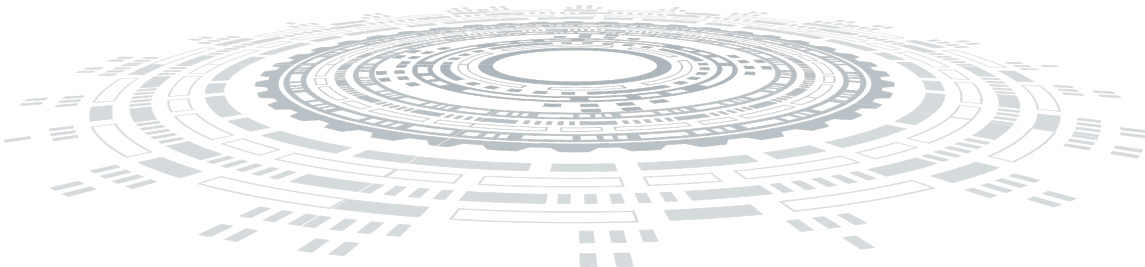
1. **Check**
   — Confirm the Breach and Assess Its Scope.
2. **Undertake**
   — Put Website Into Maintenance to Avoid Spread, Impact to Visitors & SEO.
   — Implement Immediate Protective Measures and Utilize Necessary Tools.
3. **Remediate**
   — Conduct Thorough Scans, Clean Up and Reinforce Security.
4. **Evaluate**
   — Attack-Attempts Are Frequent Immediately After a Cleanup.
   — Continuously Monitor for Any Further Anomalies or Issues.

Common Everyday Mistakes

1. **Not Verifying Your Backups**
   — Test restoring a backup to a sandbox to ensure that backups can be restored in case of any eventuality.
2. **Restoring Backups Prematurely**
   — Risk of Reintroducing Vulnerabilities or Backdoors Leading to Repeated Malware Infections.
3. **Blocking Security Updates**
   — Essential for Addressing and Patching Vulnerabilities.
4. **Installing Unverified Themes and Plugins**
   — Potential Sources of Rogue Code and Backdoor Access.
5. **Multiple Security Plugins**
   — Hit & Trial Hoping Something Would Work
6. **Starting Fresh**
   — Cleaning Websites is Simpler

Summary: Key Takeaways for Robust Web Security

1. Value-Driven **Niche Strategy**: Elevate your offerings for enhanced business prospects.
2. Universal **Vulnerability**: Every site is at risk, targeted for profit, not personal reasons.
3. **Informed Use** of Security Plugins: Understand their roles to prevent overreliance.
4. Cultivating a Security **Mindset**: Security transcends tools; it's an integral part of organizational culture.
5. Team Awareness and **Education**: Regularly update your team on security best practices and internal procedures.
6. Establish **Security Protocols**:
    a. Efficient access management.
    b. Consistent security checks.
    c. Routine audits.
    d. Effective Triage Management.



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