## [How to Create a Hidden Service Tor Site to Set Up an Anonymous Website or

**Server**](https://www.makeuseof.com/tag/create-hidden-service-tor-site-set-anonymous-website-server/#:~:text=This tutorial will focus on setting up a,to download and install Tor on your computer.)

## 1. Introduction (15 minutes)

#### **Content:**

- Internet Layers:
  - Surface Web: Publicly accessible and indexed by search engines. (~4% of the internet)
  - **Deep Web**: Not indexed, includes private databases, academic resources, and intranets. (~90% of the internet)
  - o **Dark Web**: A subset of the deep web, intentionally hidden and accessible only via specific tools like Tor. (~6% of the internet).

## **Delivery:**

- Use an infographic to explain the layers of the web.
- Highlight why the Dark Web exists (e.g., privacy needs, whistleblowing).

# **Key Points:**

- Not all activities on the Dark Web are illegal.
- Importance of responsible use and ethical behavior when discussing privacy tools.

## 2. Technologies Behind the Dark Web (30 minutes)

### **Content:**

- 1. Tor (The Onion Router):
  - o How it anonymizes traffic using relays and nodes.
  - o Tor Hidden Services: Sites with .onion domains.
  - Real-life applications: Protecting journalists, whistleblowers, and activists in oppressive regimes.
- 2. I2P (Invisible Internet Project):
  - o Peer-to-peer network for secure communication.
  - o Focused on internal communications rather than accessing external sites.
- 3. **Freenet**:
  - o Decentralized, censorship-resistant publishing platform.
  - o Content is distributed across participating devices.

## **Delivery:**

• Live demo of Tor Browser installation and basic navigation (to a legitimate .onion site).

• Visual aids showing how relays work to anonymize user activity.

## **Key Points:**

- Emphasize the legal uses of these technologies (e.g., protecting free speech).
- Discuss potential dangers of improperly configured anonymity tools.

## 3. Legal and Ethical Aspects (20 minutes)

## **Content:**

- Legal Uses of the Dark Web:
  - Anonymous communication for activists and journalists.
  - Accessing information in censored regions.
  - Secure sharing of sensitive data (e.g., health reports, research).
- Illegal Activities on the Dark Web:
  - o Marketplaces for drugs, weapons, counterfeit goods, etc.
  - o Human trafficking and exploitation.
  - o Hacking services and stolen data trade.
- Ethical Implications:
  - o Balancing privacy rights with preventing misuse.
  - o The dual nature of anonymity tools (freedom vs. criminal activity).

## **Delivery:**

- Present real-world case studies like Silk Road, AlphaBay, and their takedowns by law enforcement.
- Open the floor for discussions on the ethical dilemmas associated with privacy and anonymity.

## **Key Points:**

• Operating on the Dark Web is not inherently illegal but often intersects with legal and ethical challenges.

# 4. Real-World Applications and Risks (30 minutes)

#### **Content:**

- Legal Marketplaces:
  - Examples of safe uses: Privacy-focused email services, secure communications.
  - o Cryptocurrencies as payment mechanisms.
- Risks of the Dark Web:
  - o Exposure to scams, malware, phishing.

- o Tracing activities by law enforcement (even on the Dark Web).
- o Getting involved in criminal activities unknowingly.

## **Delivery:**

- Show screenshots (non-sensitive) of legitimate services on the Dark Web (e.g., Tor Project site).
- Share a risk assessment checklist for users considering accessing such environments.

## **Key Points:**

- The Dark Web can serve good purposes but comes with significant risks.
- Always ensure proper safety precautions are in place.

## **5.** Cybersecurity Practices (20 minutes)

#### **Content:**

- Safe Exploration Practices:
  - o Use a virtual machine (VM) for accessing the Tor network.
  - o Never share personal information on the Dark Web.
  - o Use trusted VPNs and encrypted connections.
- Recognizing Scams and Malware:
  - o Indicators of phishing attempts.
  - o Avoid downloading files or clicking unknown links.
- Ethical Research Techniques:
  - How cybersecurity professionals explore the Dark Web responsibly (e.g., law enforcement investigations).

## **Delivery:**

- Provide a hands-on demonstration of setting up a safe virtual environment.
- Share open-source tools and resources for ethical exploration.

## **Key Points:**

- Security is paramount when accessing anonymity networks.
- Ethical and legal boundaries should always guide exploration.

## 6. Interactive Session: Simulated Exploration (30 minutes)

### **Content:**

• Pre-configure a **sandbox environment** or provide participants with pre-approved .onion links for safe exploration.

- Guide participants through:
  - Accessing Tor safely.
  - o Visiting a secure .onion service (e.g., Tor Project's hidden service).

## **Delivery:**

- Ensure all activities are conducted within a controlled network or offline simulation.
- Facilitate group discussions on observations and reflections.

## **Key Points:**

- Keep participants focused on understanding the structure, not accessing random or harmful sites.
- Discuss experiences openly to dispel myths about the Dark Web.

# 7. Open Discussion and Q&A (15 minutes)

- Encourage participants to ask questions or share their takeaways.
- Suggest further learning paths:
  - o Courses on cybersecurity.
  - o Books on internet privacy and the Dark Web.
  - o Tools for ethical hacking and analysis.

## **Additional Resources:**

- Tor Project: <a href="https://www.torproject.org/">https://www.torproject.org/</a>
- Books:
  - o "The Dark Net" by Jamie Bartlett.
  - o "Exploring the Deep Web" by Paul Black.
- Tools:
  - o VirtualBox or VMware for safe exploration.
  - Kali Linux for cybersecurity tools.