**Technical Report: Capturing Instagram Session ID from iOS App**

**Executive Summary**

This report outlines methodologies for capturing the Instagram session ID from the iOS application using network traffic interception techniques. The primary focus is on using Charles Proxy, a widely used debugging proxy tool that allows for the inspection of HTTPS traffic between mobile applications and backend servers.

**Purpose**

The session ID is a critical authentication token that Instagram uses to maintain user login state. Accessing this identifier can be useful for:

- Debugging custom Instagram API integrations

- Educational understanding of authentication mechanisms

- Troubleshooting account-specific issues

**Using: Charles Proxy**

Required Tools

- Charles Proxy (desktop application)

- iOS device with Instagram app installed

- Shared WiFi network between computer and iOS device

**Configuration Steps**

*Desktop Setup*

1. Install Charles Proxy

- Download from [charlesproxy.com](https://www.charlesproxy.com)

- Complete installation on macOS, Windows, or Linux

2. Configure SSL Proxying Settings

- Navigate to Proxy → SSL Proxying Settings

- Enable SSL Proxying by checking the appropriate box

- Add the following domains to the SSL Proxying list:

`\*.instagram.com`

`instagram.com`

`i.instagram.com`

`api.instagram.com`

`graph.instagram.com`

- Specify port 443 or leave blank to cover all ports

*iOS Device Setup*

1. Configure Proxy Settings

- Connect iOS device to the same WiFi network as the computer running Charles

- Navigate to Settings → WiFi → [Network Name] → Configure Proxy → Manual

- Enter the IP address of the computer running Charles

- Set port to 8888 (default Charles port)

2. Install SSL Certificate

- On the iOS device, open Safari and navigate to: chls.pro/ssl

- Install the profile when prompted

- Trust the certificate in Settings → General → VPN & Device

Management → Charles Proxy CA

Session ID Extraction

1. Run Charles Proxy on the desktop computer

2. Launch Instagram on the iOS device and log in if needed

3. Monitor Network Traffic in Charles:

- Look for requests to instagram.com domains

- Examine HTTP headers and cookies

- Session ID is typically found as the "sessionid" cookie

- Can also be found in Authorization headers in some requests

**Technical Details of the Session ID**

The Instagram session ID is a persistent cookie that typically:

- Has the name "sessionid"

- Contains a long alphanumeric string

- Is domain-bound to .instagram.com

- Has specific expiration settings

**Legal and Ethical Considerations**

- Capturing session IDs should only be performed on accounts you own or have explicit permission to access

- Using session IDs to access accounts without permission violates:

Instagram's Terms of Service

Potentially computer fraud laws in many jurisdictions

- Best used for educational purposes or legitimate development needs

**Conclusion**

When properly configured, Charles Proxy provide effective methods for capturing the Instagram session ID from the iOS app. This information can be valuable for development, debugging, and educational purposes when used responsibly and ethically.

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*Note*: This report is provided for educational purposes only. Users should comply with Instagram's Terms of Service and applicable laws when implementing these techniques.