

# Offensive Security Certified Expert (OSCE)

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John Kennedy

Sr Cybersecurity Analyst, First National Bank

CISSP, OSCE, OSCP, GWAPT, GPEN

Twitter: @clubjk

Blog: [jkcybersecurity.org](http://jkcybersecurity.org)

Email: [jk@jkcybersecurity.com](mailto:jk@jkcybersecurity.com)

# Agenda

- OSCE Basics
- What it looks like
- JK's OSCE Experience

# OSCE Basics

## Security Certifications – Offensive Security

Redefining Ingenuity™



Certified Professional



Wireless Professional



Certified Expert



Exploitation Expert



Web Expert

# OSCE Basics

## Offensive Security Certified Expert

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### Offensive Security Certified Expert (OSCE)

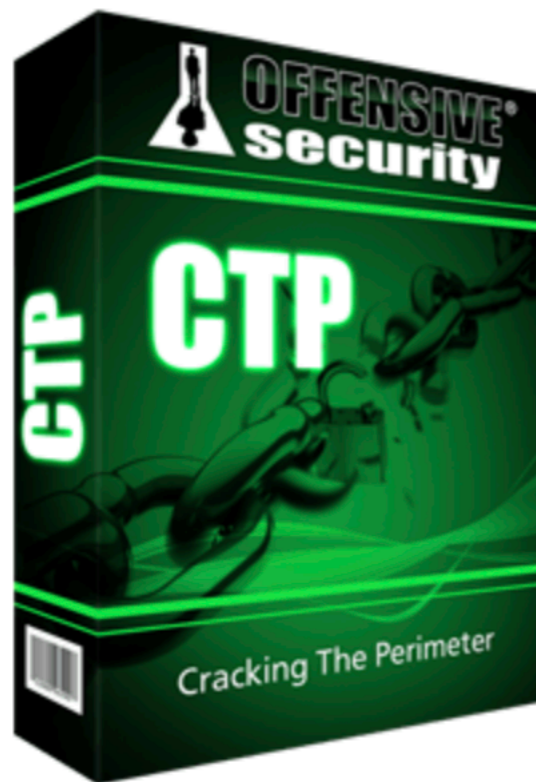
The most challenging penetration testing certification in the industry

- Earned after passing the 48-hour online exam
- Pre-Requisite Course: Cracking the Perimeter (CTP)
- Proves a practical understanding of advanced penetration testing skills
- An OSCE is able to identify hard-to-find vulnerabilities and mis-configurations in various operating systems and attack them



# OSCE Basics

- The OSCE syllabus uses the Cracking the Perimeter (CTP) online course



## Cracking the Perimeter (CTP)

Most challenging ethical hacking and penetration testing courses of its type

- Online, self-paced course with dedicated remote penetration testing labs
- Examines several advanced attack vectors based on real world scenarios
- Designed for the experienced penetration tester
- Earn the Offensive Security Certified Expert (OSCE) certification after passing the 48-hour performance-based exam
- Prove you have a practical understanding of advanced penetration testing skills by becoming an OSCE

# OSCE Basics

Cost:

Item	Price in USD
CTP v.1.0 + 60 days CTP Lab access + certification	USD 1,500.00
CTP v.1.0 + 30 days CTP Lab access + certification	USD 1,200.00
CTP Lab access - extension of 60 days	USD 600.00
CTP Lab access - extension of 30 days	USD 350.00
OSCE - Certification retake	USD 100.00

# What it looks like

- VPN - uses tap0 interface

## Connecting to the Labs

[↑]

Connection to the labs is done over VPN. Please use BackTrack for this.

In your welcome email, you should have received a lab connectivity pack (lab-connection.tar.bz2) file. Copy this file to your BackTrack machine (in /root/), extract it, and initiate the VPN connection:





```
root@bt:~# tar xjf lab-connection.tar.bz2
root@bt:~# cd lab-connection/
```

```
root@bt:~/lab-connection# openvpn lab-connection.conf
Tue Oct 11 23:59:51 2011 OpenVPN 2.1.0 i486-pc-linux-gnu [SSL] [LZO2] [EPOLL] [PKCS11] [M
H] [PF_INET6] [eurephia] built on Jul 20 2010
Enter Auth Username:OS-XXXX
Enter Auth Password:
Wed Oct 12 00:00:00 2011 WARNING: No server certificate verification method has been enab
led. See http://openvpn.net/howto.html#mitm for more info.
Wed Oct 12 00:00:00 2011 NOTE: OpenVPN 2.1 requires '--script-security 2' or higher to ca
ll user-defined scripts or executables
Wed Oct 12 00:00:00 2011 LZO compression initialized
Wed Oct 12 00:00:00 2011 UDPv4 link local: [undef]
Wed Oct 12 00:00:00 2011 UDPv4 link remote: [AF_INET]67.23.72.119:1194
Wed Oct 12 00:00:00 2011 WARNING: this configuration may cache passwords in memory -- use
the auth-nocache option to prevent this
Wed Oct 12 00:00:02 2011 [127.0.0.1] Peer Connection Initiated with [AF_INET]208.88.123.9
4:1194
Wed Oct 12 00:00:04 2011 TUN/TAP device tap0 opened
Wed Oct 12 00:00:04 2011 /sbin/ifconfig tap0 192.168.98.15 netmask 255.255.254.0 mtu 1500
broadcast 192.168.99.255
Wed Oct 12 00:00:04 2011 Initialization Sequence Completed
```

# What it looks like

- Forum

The screenshot shows the website for Offensive Security Student Forums. At the top left is the logo for OFFENSIVE Security. A dark red navigation bar contains links for Student Forum, Support, Offsec FAQ, Kali Training, Kali Tools, Metasploit Unleashed (MSFu), and IRC Guide. Below this is a secondary navigation bar with links for Forum Home, Activity Stream, New Events, Mark Forums Read, FAQ, Calendar, Forum Actions, and Quick Links. A yellow banner message states: "You have reached the Offensive Security Student Forums. Registration to this Forum is disabled. If you are an Offsec student, credentials to the forums will be sent to you by email." Below the banner, the page title is "Offensive Security Forums" with a subtitle "Welcome to the Offensive Security Forums." The main content area is titled "Offensive Security Public Forum" and features a table of forum categories. The table has columns for the category name, thread/post counts, and the last post. Two categories are visible: "Announcements" (0 threads, 0 posts, last post never) and "Book Reviews" (17 threads, 72 posts, last post "Metasploit Unleashed for..." by OS-32625 on 2018-05-28).

Offensive Security Public Forum			Last Post
 <b>Announcements</b> Offensive Security Announcements	Threads: 0 Posts: 0		Never
 <b>Book Reviews</b> Book Reviews	 Threads: 17 Posts: 72		 Metasploit Unleashed for... by OS-32625 2018-05-28



# What it looks like

Microsoft OneNote (for note keeping)

The screenshot shows the Microsoft OneNote application interface. The title bar is purple and reads "OSCE". The ribbon includes "Home", "Insert", "Draw", and "View". The "Home" ribbon is active, showing options for "Paste", "Cut", "Copy", "Format", "Calibri", "11", "Heading 1", "Heading 2", "To Do", "Remember for later", "Contact", "Important", "Definition", "Address", "Question", "Highlight", "Phone number", and "To Do".

The left sidebar shows a list of notebooks and pages. The "OSCE" notebook is selected, and the "Exercise 6 - egghunter" page is open. The page content includes:

- Admin
- OSCE Exam
- Admin1
- Cisco 192.168.99.218 Cisco
- Vista 192.168.98.148 Vista
- Remember
- Win 2003 192.168.98.178 W...
- GRE 192.168.98.148
- Exploit Practice

The main content area shows a note titled "egghunter, standard 32 byte string for windows" dated Thursday, June 29, 2017 at 11:57 AM. The note contains a screenshot of a terminal window with the following command and output:

```
C:\Users\offsec\Desktop\WORK>egghunt.exe cstyle 0x57303054
// 32 byte egg hunt shellcode (egg=0x57303054)
unsigned char egg hunt[] = "\x66\x81\xca\xff\x0f\x42\x52\x6a\x02\x58\xcd\x2e\x3c\x05\x5a\x74\xef\xb8\x54\x30\x30\x57\x8b\xfa\xaf\x75\xea\xaf\x75\xe7\xff\xe7";
C:\Users\offsec\Desktop\WORK>
```

Below the screenshot, the hex string is displayed: `\x66\x81\xca\xff\x0f\x42\x52\x6a\x02\x58\xcd\x2e\x3c\x05\x5a\x74\xef\xb8\x54\x30\x30\x57\x8b\xfa\xaf\x75\xea\xaf\x75\xe7\xff\xe7`. The note also mentions "W00T (that's two zeroes)", "so W00T is 0x57303054", and "other W00T is 0x574f4f54".

# My OSCE Experience

06 April - 22 August 2017

## **My prior experience**

OSCP

SLAE-32, SLAE-64

GWAPT

# My OSCE Experience

- 5 Apr 2017 - Registration Challenge
- 6 Apr 2017 – Bought (\$1500)

Course - Cracking the Perimeter

(videos, pdf's)

Labs - 60 days Lab access +

Exam attempt

# My OSCE Experience

**12 Apr - Began Lab Exercises**



## Exercises:

Web App XSS

Web App LFI

Backdoor an EXE

ASLR Bypass

Egghunter BOF

0-day TFTP BOF

0-day Alphanumeric Shellcode

Router exploit

(Muts' Greatest Hits of 2008)

# My OSCE Experience

8 July – Finished lab exercises



# My OSCE Experience

**The exam has four challenges:**

**Machine 1 (30 points)**

**Machine 2 (30 points)**

**Machine 3 (15 points)**

**Machine 4 (15 points)**

**For a total of 90 points; Passing is 75 points**

# My OSCE Experience

19 Aug: Passed exam

20 Aug: Sent report

25 Aug: Good news

**From:** Offensive Security Orders <[orders@offensive-security.com](mailto:orders@offensive-security.com)>  
**Date:** August 25, 2017 at 12:03:55 PM CDT  
**To:** John Kennedy <[jk@jkcybersecurity.com](mailto:jk@jkcybersecurity.com)>  
**Subject:** Cracking the Perimeter - OSCE Certification Exam Results - OS-15830  
**Reply-To:** Offensive Security Orders <[orders@offensive-security.com](mailto:orders@offensive-security.com)>

Dear John

We are happy to inform you that you have successfully completed the Cracking the Perimeter certification exam and have obtained your Offensive Security Certified Expert (OSCE) certification.

Listed below is your name as it will appear on your printed certification. If any changes are required, please let us know right away at [orders@offensive-security.com](mailto:orders@offensive-security.com).

**John Kennedy**

Your certification will be delivered via DHL courier so you must verify your



# My OSCP Experience

Host info:

MacBook Pro (2017)

VMWare Fusion (\$75)

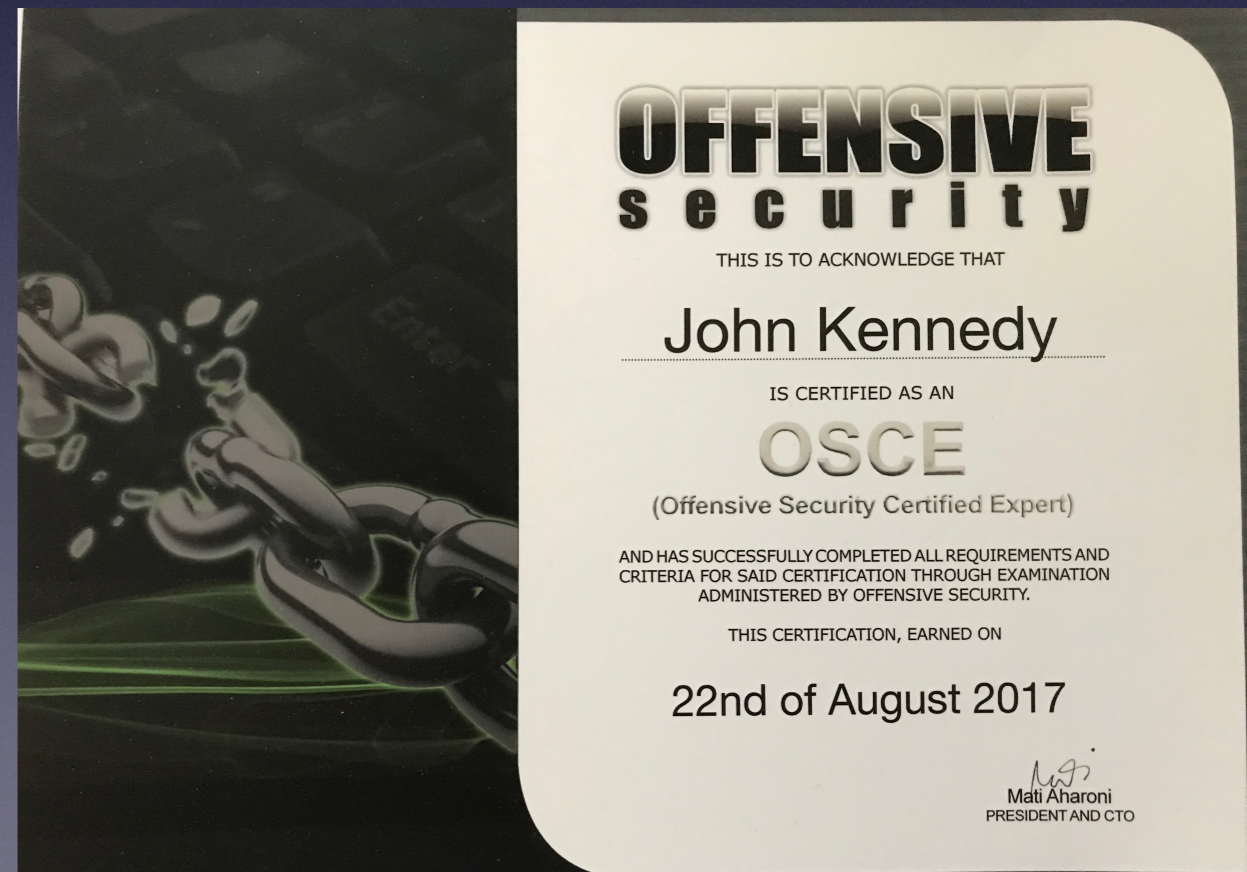
Kali Linux VM

Notes – Microsoft OneNote



# OSCE Summary

- Kind of a pain
- One area very useful; three others somewhat
- Glad it's over



Questions?