

SecurityTube Linux Assembly Expert (SLAE⁶⁴)



SecurityTube Linux Assembly Expert

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Module 2: Introduction to Shellcoding

18. Insertion Encoder GDB Analysis

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Insertion Encoder?

Original Shellcode

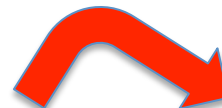
0x12	0xab	0xac	0x01
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After Insertion

0x12	0xaa	0xab	0xaa	0xac	0xaa	0x01	0xaa
------	------	------	------	------	------	------	------	-------

Insertion Decoder Stub

0x12	0xaa	0xab	0xaa	0xac	0xaa	0x01	0xaa
------	------	------	------	------	------	------	------	-------



Insertion Decoder Stub

0x12	0xab	0xac	0x01
------	------	------	------	-------

GDB Analysis

```
(gdb) disassemble
Dump of assembler code for function code:
   0x0000000000601040 <+0>:      jmp     0x601085 <code+69>
=> 0x0000000000601042 <+2>:      xor     rax,rax
   0x0000000000601045 <+5>:      push   rax
   0x0000000000601046 <+6>:      movabs rbx,0x68732f2f6e69622f
   0x0000000000601050 <+16>:     push   rbx
   0x0000000000601051 <+17>:     mov    rdi,rsp
   0x0000000000601054 <+20>:     push   rax
   0x0000000000601055 <+21>:     mov    rdx,rsp
   0x0000000000601058 <+24>:     push   rdi
   0x0000000000601059 <+25>:     mov    rsi,rsp
   0x000000000060105c <+28>:     add    rax,0x3b
   0x0000000000601060 <+32>:     syscall
   0x0000000000601062 <+34>:     mov    DWORD PTR [rdx-0x55af5519],ebp
   0x0000000000601068 <+40>:     rex.W stos BYTE PTR es:[rdi],al
   0x000000000060106a <+42>:     mov    DWORD PTR [rdx-0x55a8551e],ebp
   0x0000000000601070 <+48>:     rex.W stos BYTE PTR es:[rdi],al
   0x0000000000601072 <+50>:     mov    DWORD PTR [rdx-0x55b7551a],ebp
   0x0000000000601078 <+56>:     sub    DWORD PTR [rdx-0x55c45540],0xf
   0x000000000060107f <+63>:     stos  BYTE PTR es:[rdi],al
   0x0000000000601080 <+64>:     add    eax,0xbbbbbbbb
   0x0000000000601085 <+69>:     lea   rsi,[rip+0xffffffffffffb6]
   0x000000000060108c <+76>:     lea   rdi,[rsi+0x1]
   0x0000000000601090 <+80>:     xor    rax,rax
   0x0000000000601093 <+83>:     mov    al,0x1
   0x0000000000601095 <+85>:     xor    rbx,rbx
   0x0000000000601098 <+88>:     mov    bl,BYTE PTR [rsi+rax*1]
   0x000000000060109b <+91>:     xor    bl,0xaa
   0x000000000060109e <+94>:     jne   0x601042 <code+2>
   0x00000000006010a0 <+96>:     mov    bl,BYTE PTR [rsi+rax*1+0x1]
   0x00000000006010a4 <+100>:    mov    BYTE PTR [rdi],bl
   0x00000000006010a6 <+102>:    inc   rdi
   0x00000000006010a9 <+105>:    add   al,0x2
   0x00000000006010ab <+107>:    jmp   0x601098 <code+88>
   0x00000000006010ad <+109>:    add   BYTE PTR [rax],al
End of assembler dump.
```

Pentester Academy

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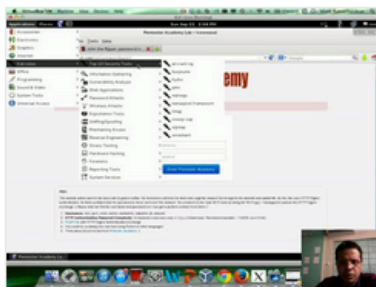
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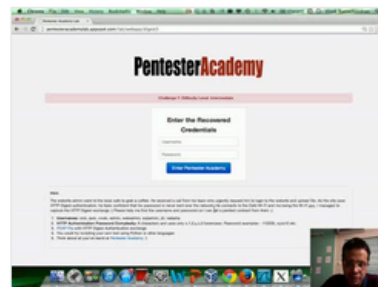
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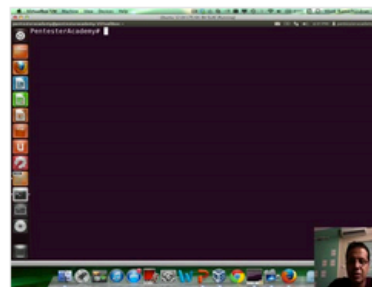
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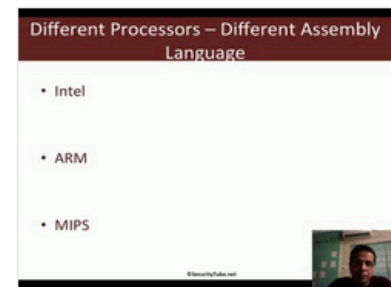
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Challenge 7: Cracking Digest Authentication in WAP Challenges



Module 1: GDB Test Solution in x86_64 Assembly Language and Shellcoding on Linux



Module 1: CPU Information in x86_64 Assembly Language and Shellcoding on Linux