

PHIP

```
[MacBook-Pro-de-Adilson:src adilsontavares$ php ntpdate.php time.apple.com  
server 17.253.18.125, stratum 1, offset -38.854ms, delay 34.093ms
```

PACKET REQUEST:

| | 0 | 8 | 16 | 24 |
|-----|-----------|-----------|-----------|-----------|
| | +-----+ | +-----+ | +-----+ | +-----+ |
| 0 | 00100011 | 000000000 | 000000000 | 000000000 |
| 32 | 000000000 | 000000000 | 000000000 | 000000000 |
| 64 | 000000000 | 000000000 | 000000000 | 000000000 |
| 96 | 000000000 | 000000000 | 000000000 | 000000000 |
| 128 | 000000000 | 000000000 | 000000000 | 000000000 |
| 160 | 000000000 | 000000000 | 000000000 | 000000000 |
| 192 | 000000000 | 000000000 | 000000000 | 000000000 |
| 224 | 000000000 | 000000000 | 000000000 | 000000000 |
| 256 | 000000000 | 000000000 | 000000000 | 000000000 |
| 288 | 000000000 | 000000000 | 000000000 | 000000000 |
| 320 | 000000000 | 000000000 | 000000000 | 000000000 |
| 352 | 000000000 | 000000000 | 000000000 | 000000000 |

PACKET RESPONSE:

| | 0 | 8 | 16 | 24 |
|-----|-----------------------------------|----------------------------|------------------------------------|------------------------------------|
| | +-----+ | +-----+ | +-----+ | +-----+ |
| 0 | 00 1 00 1 00 | 00000000 1 | 0000000 11 | 111 0 1 0 1 0 |
| 32 | 000000000 | 000000000 | 000000000 | 000000000 |
| 64 | 000000000 | 000000000 | 000000000 | 111 0000 1 |
| 96 | 0 1 000 111 | 0 1 0 1 0000 | 0 1 0 1 00 11 | 0 111 00 11 |
| 128 | 11 0 111 0 1 | 00 1111 0 1 | 1 0 1 000 11 | 11 0 1 00 11 |
| 160 | 111 00 111 | 111 0 1 000 | 0 1 0 11 0 11 | 0000 1111 |
| 192 | 000000000 | 000000000 | 000000000 | 000000000 |
| 224 | 000000000 | 000000000 | 000000000 | 000000000 |
| 256 | 11 0 111 0 1 | 00 1111 0 1 | 1 0 1 000 11 | 11 0 1 0 1 00 |
| 288 | 1 000000 1 | 111 0 11 00 | 1 0 1111 00 | 1 00000 1 0 |
| 320 | 11 0 111 0 1 | 00 1111 0 1 | 1 0 1 000 11 | 11 0 1 0 1 00 |
| 352 | 1 000000 1 | 1111 000 1 | 0000 11 00 | 1 000 111 0 |

DATA:

Domain: time.apple.com

Host: 17.253.18.253

T1: 1502815572.5067

T2: 1502815572.5075

T3: 1502815572.5076

T4: 1502815572.5483

Offset: -19.955ms

Delay: 20.777ms

Stratum: 1

Local: 15/Aug/17 16:46:12

Server: 15/Aug/17 16:46:12

CÓDIGO


```
$res = unpack("C4header/N11body", $packet->data());
```

| | |
|---|-------------|
| c | signed char |
|---|-------------|

| | |
|---|---------------|
| C | unsigned char |
|---|---------------|

| | |
|---|--|
| s | signed short (always 16 bit, machine byte order) |
|---|--|

| | |
|---|--|
| S | unsigned short (always 16 bit, machine byte order) |
|---|--|

| | |
|---|--|
| N | unsigned long (always 32 bit, big endian byte order) |
|---|--|

| | |
|---|---|
| V | unsigned long (always 32 bit, little endian byte order) |
|---|---|


```
$res = unpack("C4header/N11body", $packet->data());
```

Array

(

[header1] => 36

[header2] => 1

[header3] => 3

[header4] => 234

[body1] => 0

[body2] => 231

[body3] => 1196446579

[body4] => 3711805835

[body5] => 3890609669

[body6] => 0

[body7] => 0

[body8] => 3711805842

[body9] => 3137550139

[body10] => 3711805842

[body11] => 3137721235

)

```
$t1 = microtime(true);
```

```
echo "Domain: $domain\n";  
echo "Host:    $host\n";  
echo "\n";
```

```
echo "T1: $t1\n";  
echo "T2: $t2\n";  
echo "T3: $t3\n";  
echo "T4: $t4\n";  
echo "\n";
```

```
decbin(0x7)  
bindec('00000111')
```

```
ord('A')  
chr(65)
```

That's it!