

Tugas Keamanan Jaringan
SCANNING



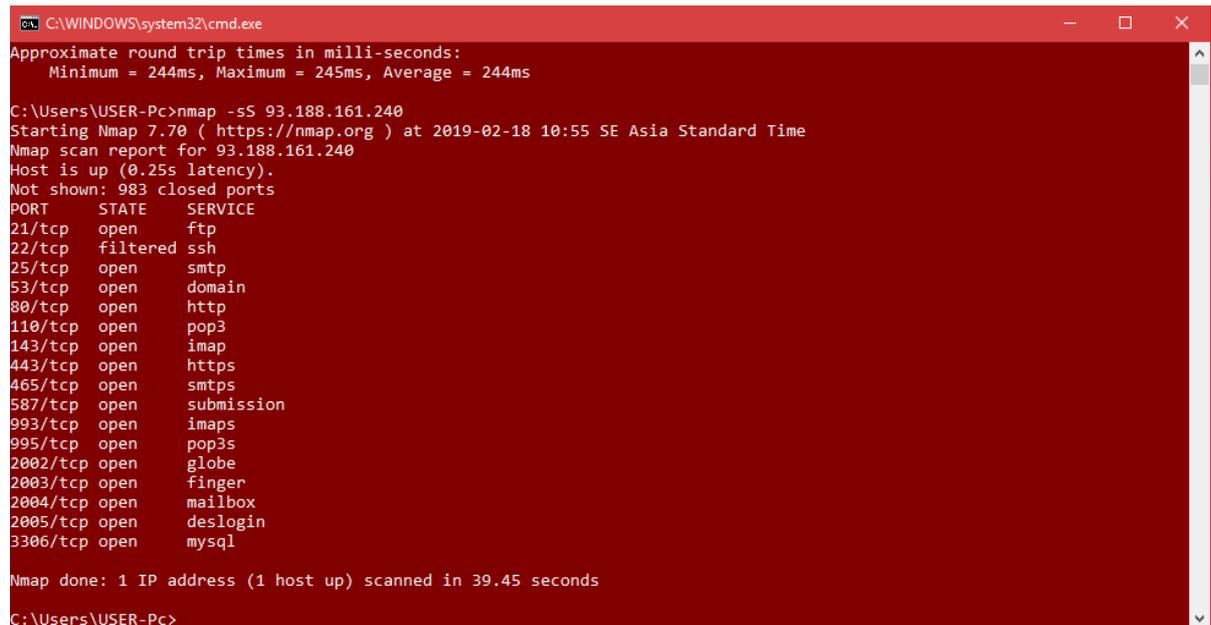
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2019

Scanning menggunakan NMAP

1. Bangka.go.id

Pertama scanning dengan command `nmap -sS ip address` bertujuan untuk mengetahui fungsi dari port tcp yang terbuka contoh pada port 21/tcp berfungsi sebagai ftp (file transfer protocol). FTP berfungsi sebagai tempat tukar menukar file suatu network yang menggunakan port TCP. Pada gambar di bawah terdapat 3 menu yaitu PORT, STATE, SERVICE. Port yaitu berfungsi menampilkan port2 yang terdeteksi pada saat scanning, State merupakan status port apakah open atau filtered.



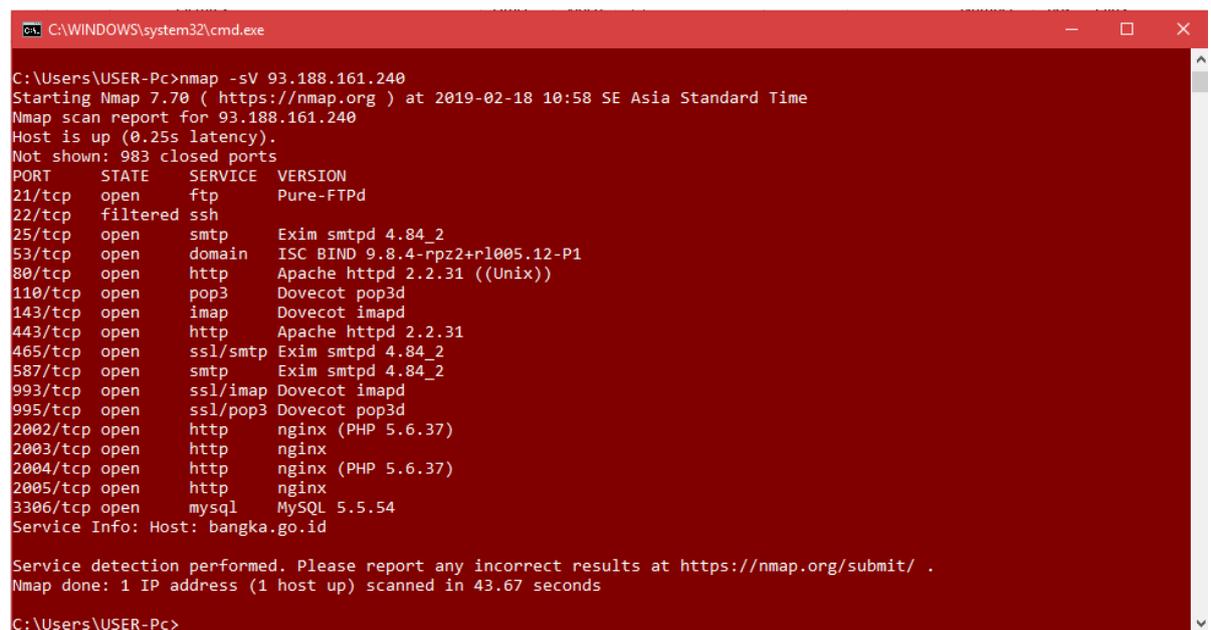
```
C:\WINDOWS\system32\cmd.exe
Approximate round trip times in milli-seconds:
  Minimum = 244ms, Maximum = 245ms, Average = 244ms

C:\Users\USER-PC>nmap -sS 93.188.161.240
Starting Nmap 7.70 ( https://nmap.org ) at 2019-02-18 10:55 SE Asia Standard Time
Nmap scan report for 93.188.161.240
Host is up (0.25s latency).
Not shown: 983 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    filtered ssh
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
110/tcp   open  pop3
143/tcp   open  imap
443/tcp   open  https
465/tcp   open  smtps
587/tcp   open  submission
993/tcp   open  imaps
995/tcp   open  pop3s
2002/tcp  open  globe
2003/tcp  open  finger
2004/tcp  open  mailbox
2005/tcp  open  deslogin
3306/tcp  open  mysql

Nmap done: 1 IP address (1 host up) scanned in 39.45 seconds

C:\Users\USER-PC>
```

Kemudian scanning menggunakan command `nmap -sV ip address`, berfungsi untuk mengetahui versi aplikasi yang digunakan pada setiap port pada suatu website.



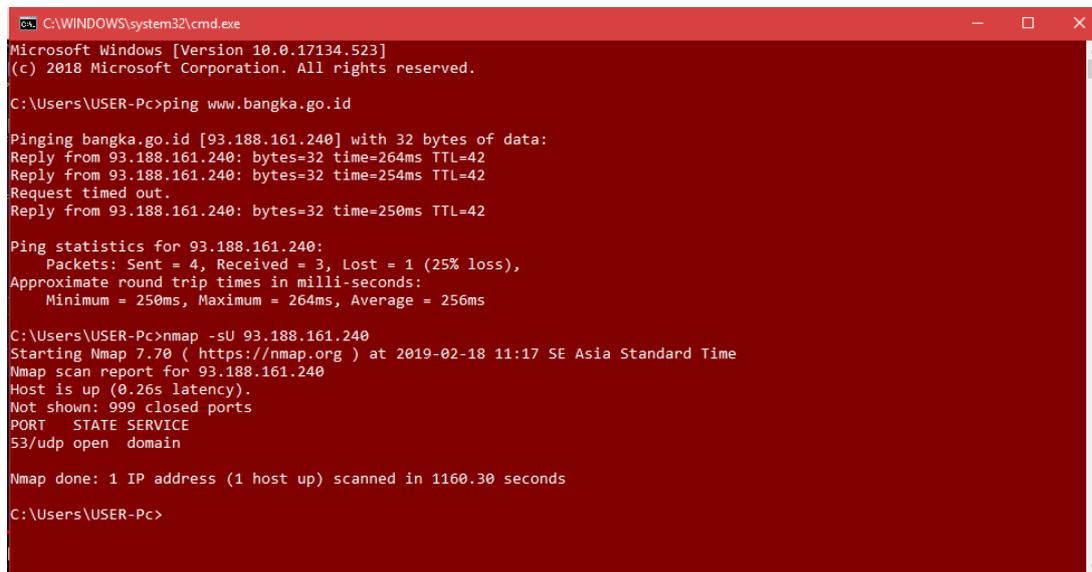
```
C:\WINDOWS\system32\cmd.exe

C:\Users\USER-PC>nmap -sV 93.188.161.240
Starting Nmap 7.70 ( https://nmap.org ) at 2019-02-18 10:58 SE Asia Standard Time
Nmap scan report for 93.188.161.240
Host is up (0.25s latency).
Not shown: 983 closed ports
PORT      STATE SERVICE VERSION
21/tcp    open  ftp      Pure-FTPd
22/tcp    filtered ssh
25/tcp    open  smtp     Exim smtpd 4.84_2
53/tcp    open  domain  ISC BIND 9.8.4-rpz2+r1005.12-P1
80/tcp    open  http     Apache httpd 2.2.31 ((Unix))
110/tcp   open  pop3     Dovecot pop3d
143/tcp   open  imap     Dovecot imapd
443/tcp   open  https    Apache httpd 2.2.31
465/tcp   open  smtps    Exim smtpd 4.84_2
587/tcp   open  submission Exim smtpd 4.84_2
993/tcp   open  imaps    Dovecot imapd
995/tcp   open  pop3s    Dovecot pop3d
2002/tcp  open  http     nginx (PHP 5.6.37)
2003/tcp  open  http     nginx
2004/tcp  open  http     nginx (PHP 5.6.37)
2005/tcp  open  http     nginx
3306/tcp  open  mysql    MySQL 5.5.54
Service Info: Host: bangka.go.id

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 43.67 seconds

C:\Users\USER-PC>
```

Ke tiga yaitu scanning menggunakan command nmap -sU ip address ,berfungsi untuk mengetahui port udp yang terbuka pada suatu website.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.17134.523]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\USER-PC>ping www.bangka.go.id

Pinging bangka.go.id [93.188.161.240] with 32 bytes of data:
Reply from 93.188.161.240: bytes=32 time=264ms TTL=42
Reply from 93.188.161.240: bytes=32 time=254ms TTL=42
Request timed out.
Reply from 93.188.161.240: bytes=32 time=250ms TTL=42

Ping statistics for 93.188.161.240:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 250ms, Maximum = 264ms, Average = 256ms

C:\Users\USER-PC>nmap -sU 93.188.161.240
Starting Nmap 7.70 ( https://nmap.org ) at 2019-02-18 11:17 SE Asia Standard Time
Nmap scan report for 93.188.161.240
Host is up (0.26s latency).
Not shown: 999 closed ports
PORT      STATE SERVICE
53/udp    open  domain

Nmap done: 1 IP address (1 host up) scanned in 1160.30 seconds

C:\Users\USER-PC>
```

2. Logitect

Pertama scanning dengan command nmap -sS ip address bertujuan untuk mengetahui fungsi dari port TCP yang terbuka. Contoh pada port 80/tcp berfungsi sebagai HTTP (Hypertext transfer protocol). HTTP merupakan protokol aplikasi untuk sistem informasi terdistribusi yang berbentuk teks. Pada gambar di bawah terdapat 3 menu yaitu PORT, STATE, SERVICE. Port yaitu berfungsi menampilkan port2 yang terdeteksi pada saat scanning, State merupakan status port apakah open atau filtered.

```
C:\Users\USER-PC>nmap -sS 54.192.151.66
Starting Nmap 7.70 ( https://nmap.org ) at 2019-02-18 12:10 SE Asia Standard Time
Nmap scan report for server-54-192-151-66.sin2.r.cloudfront.net (54.192.151.66)
Host is up (0.046s latency).
Not shown: 997 filtered ports
PORT      STATE SERVICE
53/tcp    open  domain
80/tcp    open  http
443/tcp   open  https

Nmap done: 1 IP address (1 host up) scanned in 12.65 seconds
C:\Users\USER-PC>
```

Kemudian scanning menggunakan command nmap -sV ip address, berfungsi untuk mengetahui versi aplikasi yang digunakan pada setiap port pada suatu website.

```
C:\Users\USER-PC>nmap -sV 54.192.151.66
Starting Nmap 7.70 ( https://nmap.org ) at 2019-02-18 12:11 SE Asia Standard Time
Nmap scan report for server-54-192-151-66.sin2.r.cloudfront.net (54.192.151.66)
Host is up (0.027s latency).
Not shown: 997 filtered ports
PORT      STATE SERVICE  VERSION
53/tcp    open  domain  ISC BIND 9.8.4-rpz2+r1005.12-P1
80/tcp    open  http    Amazon CloudFront httpd
443/tcp   open  ssl/https CloudFront

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 23.82 seconds
C:\Users\USER-PC>
```

Ke tiga yaitu scanning menggunakan command nmap -sU ip address, berfungsi untuk mengetahui port udp yang terbuka pada suatu website.

```
C:\Users\USER-PC>nmap -sU 54.192.151.66
Starting Nmap 7.70 ( https://nmap.org ) at 2019-02-18 12:13 SE Asia Standard Time
Nmap scan report for server-54-192-151-66.sin2.r.cloudfront.net (54.192.151.66)
Host is up (0.027s latency).
Not shown: 998 open|filtered ports
PORT      STATE SERVICE
53/udp    open  domain
33459/udp closed unknown

Nmap done: 1 IP address (1 host up) scanned in 17.16 seconds
C:\Users\USER-PC>
```

3. Persib official

Pertama scanning dengan command nmap -sS ip address bertujuan untuk mengetahui fungsi dari port TCP yang terbuka. Contoh pada port 80/tcp berfungsi sebagai HTTP (Hypertext transfer protocol). HTTP merupakan protokol aplikasi untuk sistem informasi terdistribusi yang berbentuk teks. Pada gambar di bawah terdapat 3 menu yaitu PORT, STATE, SERVICE. Port yaitu berfungsi menampilkan port2 yang terdeteksi pada saat scanning, State merupakan status port apakah open atau filtered.

```
C:\WINDOWS\system32\cmd.exe
C:\Users\USER-PC>nmap -sS 43.231.128.184
Starting Nmap 7.70 ( https://nmap.org ) at 2019-02-18 10:33 SE Asia Standard Time
Nmap scan report for 43.231.128.184
Host is up (0.013s latency).
Not shown: 866 closed ports, 132 filtered ports
PORT      STATE SERVICE
53/tcp    open  domain
80/tcp    open  http
Nmap done: 1 IP address (1 host up) scanned in 21.55 seconds
```

Kemudian scanning menggunakan command nmap -sV ip address, berfungsi untuk mengetahui versi aplikasi yang digunakan pada setiap port pada suatu website.

```
C:\Users\USER-PC>nmap -sV 43.231.128.184
Starting Nmap 7.70 ( https://nmap.org ) at 2019-02-18 10:30 SE Asia Standard Time
Nmap scan report for 43.231.128.184
Host is up (0.013s latency).
Not shown: 866 closed ports, 132 filtered ports
PORT      STATE SERVICE VERSION
53/tcp    open  domain  ISC BIND 9.8.4-rpz2+r1005.12-P1
80/tcp    open  http    nginx 1.10.3 (Ubuntu)
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
```

Ke tiga yaitu scanning menggunakan command nmap -sU ip address, berfungsi untuk mengetahui port udp yang terbuka pada suatu website.

```
C:\Users\USER-PC>nmap -sU 43.231.128.184
Starting Nmap 7.70 ( https://nmap.org ) at 2019-02-18 10:34 SE Asia Standard Time
Nmap scan report for 43.231.128.184
Host is up (0.011s latency).
Not shown: 992 open|filtered ports
PORT      STATE SERVICE
53/udp    open  domain
161/udp   closed snmp
389/udp   closed ldap
500/udp   closed isakmp
1433/udp  closed ms-sql-s
1434/udp  closed ms-sql-m
2049/udp  closed nfs
3052/udp  closed apc-3052
Nmap done: 1 IP address (1 host up) scanned in 23.22 seconds
C:\Users\USER-PC>
```

2. Nikto

www.bangka.co.id

The screenshot shows a web browser displaying a Nikto scan report for the target IP 93.188.161.240 on port 80. The report is titled 'Nikto Report' and is located at the file://home/juanda/nikto_scan_result.html. The scan details are as follows:

Target IP	93.188.161.240
Target hostname	93.188.161.240
Target Port	80
HTTP Server	Apache/2.2.31 (Unix)
Site Link (Name)	http://93.188.161.240:80
Site Link (IP)	http://93.188.161.240:80

The report lists several findings under the 'OSVDB Entries' section:

- URI:** /
- HTTP Method:** GET
- Description:** Retrieved x-powered-by header: PHP/5.5.38
- Test Links:** <http://93.188.161.240:80/>, <http://93.188.161.240:80/>
- OSVDB Entries:** OSVDB-0

- URI:** /
- HTTP Method:** GET
- Description:** Uncommon header 'x-ua-compatible' found, with contents: IE=edge,chrome=1
- Test Links:** <http://93.188.161.240:80/>, <http://93.188.161.240:80/>
- OSVDB Entries:** OSVDB-0

- URI:** /
- HTTP Method:** GET
- Description:** Uncommon header 'x-generator' found, with contents: Drupal 7 (<http://drupal.org>)
- Test Links:** <http://93.188.161.240:80/>, <http://93.188.161.240:80/>
- OSVDB Entries:** OSVDB-0

- URI:** /
- HTTP Method:** GET
- Description:** Uncommon header 'x-content-type-options' found, with contents: nosniff

Persib.co.id

The screenshot shows a web browser displaying a Nikto scan report for the target IP 43.231.128.184 on port 80. The report is titled 'Nikto Report' and is located at the file://home/juanda/nikto_scan_result.htm. The scan details are as follows:

Target IP	43.231.128.184
Target hostname	43.231.128.184
Target Port	80
HTTP Server	nginx/1.10.3 (Ubuntu)
Site Link (Name)	http://43.231.128.184:80
Site Link (IP)	http://43.231.128.184:80

The report lists one finding under the 'OSVDB Entries' section:

- URI:** /
- HTTP Method:** GET
- Description:** The anti-clickjacking X-Frame-Options header is not present.
- Test Links:** <http://43.231.128.184:80/>, <http://43.231.128.184:80/>
- OSVDB Entries:** OSVDB-0

The report also includes a 'Host Summary' section:

Start Time	2019-02-16 00:11:33
End Time	2019-02-16 00:13:34
Elapsed Time	121 seconds
Statistics	6544 items checked, 213 errors, 1 findings

Finally, the report includes a 'Scan Summary' section:

Software Details	Nikto 2.1.5
CLI Options	-Display V -o nikto_scan_result.htm -Format html -h 43.231.128.184
Hosts Tested	1
Start Time	Sat Feb 16 00:11:23 2019
End Time	Sat Feb 16 00:13:34 2019
Elapsed Time	131 seconds

about:sessionrestore x Nikto Report x

file:///home/juanda/nikto_scan_result.htm

server-54-230-211-244.mnl50.r.cloudfront.net / 54.230.211.244 port 80

Target IP	54.230.211.244
Target hostname	server-54-230-211-244.mnl50.r.cloudfront.net
Target Port	80
HTTP Server	CloudFront
Site Link (Name)	http://server-54-230-211-244.mnl50.r.cloudfront.net:80
Site Link (IP)	http://54.230.211.244:80

URI	/
HTTP Method	GET
Description	Retrieved via header: 1.1 f12f27633dd70dda259a08d4cf7eaa97.cloudfront.net (CloudFront)
Test Links	http://server-54-230-211-244.mnl50.r.cloudfront.net:80/ http://54.230.211.244:80/
OSVDB Entries	OSVDB-0

URI	/
HTTP Method	GET
Description	The anti-clickjacking X-Frame-Options header is not present.
Test Links	http://server-54-230-211-244.mnl50.r.cloudfront.net:80/ http://54.230.211.244:80/
OSVDB Entries	OSVDB-0

URI	/
HTTP Method	GET
Description	Uncommon header 'x-cache' found, with contents: Error from cloudfront
Test Links	http://server-54-230-211-244.mnl50.r.cloudfront.net:80/ http://54.230.211.244:80/
OSVDB Entries	OSVDB-0

URI	/
HTTP Method	GET

about:sessionrestore x Nikto Report x

file:///home/juanda/nikto_scan_result.htm

OSVDB Entries	OSVDB-0
----------------------	-------------------------

URI	/
HTTP Method	GET
Description	Uncommon header 'x-cache' found, with contents: Error from cloudfront
Test Links	http://server-54-230-211-244.mnl50.r.cloudfront.net:80/ http://54.230.211.244:80/
OSVDB Entries	OSVDB-0

URI	/
HTTP Method	GET
Description	Uncommon header 'x-amz-cf-id' found, with contents: vYpu6Hyq7b5O52_IIZK1J09GsK4jwOGSP5fl7YQuuuStEZcbwptH0g==
Test Links	http://server-54-230-211-244.mnl50.r.cloudfront.net:80/ http://54.230.211.244:80/
OSVDB Entries	OSVDB-0

Host Summary	
Start Time	2019-02-16 00:18:47
End Time	2019-02-16 00:25:52
Elapsed Time	425 seconds
Statistics	6544 items checked, 0 errors, 4 findings

Scan Summary	
Software Details	Nikto 2.1.5
CLI Options	-Display V -o nikto_scan_result.htm -Format html -h 54.230.211.244
Hosts Tested	1
Start Time	Sat Feb 16 00:18:46 2019
End Time	Sat Feb 16 00:25:52 2019
Elapsed Time	426 seconds

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3.Scanning menggunakan Open Visual Traceroute

1. Bangka.go.id

Open Visual Traceroute 1.7.1

Traceroute Sniffer Whois 2D/3D http://www.bangka.go.id/ Timeout 0

#	Country	Town	Lat	Lon	IP	Hostname	D...	D...
1	Indone...	Selatan	-7.05...	113.4...	103.241...	(None)	2	1... 0
2	Indone...	Selatan	-7.05...	113.4...	10.100...	(None)	5	3 0 0
3	Indone...	Selatan	-7.05...	113.4...	10.100...	(None)	1	3 0 0
4	Indone...	Selatan	-7.05...	113.4...	10.100...	(None)	4	1... 0
5	Indone...	Selatan	-7.05...	113.4...	103.241...	ip-103-241-5...	3	2 0 0
6	Indone...	Selatan	-7.05...	113.4...	103.241...	noc-idl.unsrl...	2	3 0 0
7	Indone...	(Unkno...	-6.90...	107.6...	103.23...	(None)	17	1... 6...
8	(Unkno...	(Unkno...	47.0	8.0	62.115...	sngc-b1-link.t...	17	2 1... 0
9	(Unkno...	(Unkno...	47.0	8.0	62.115...	las-b21-link.t...	49	3 0 0
...	(Unkno...	(Unkno...	47.0	8.0	62.115...	dis-b21-link.t...	64	2 0 0
...	(Unkno...	(Unkno...	47.0	8.0	80.91.2...	atb-b2-link.te...	65	2 0 0
...	(Unkno...	(Unkno...	47.0	8.0	213.155...	cha-b1-link.te...	10	3 0 0
...	(Unkno...	(Unkno...	47.0	8.0	213.248...	giglinx-ic-156...	10	3 0 0
...	United ...	(Unkno...	37.751	-97.8...	74.112...	(None)	1	1... 8...
...	United ...	(Unkno...	37.751	-97.8...	74.112...	(None)	0	1... 0
...	United ...	Greenv...	34.80...	-82.3...	208.69...	ashvt1.main-h...	3	3 1... 0
...	United ...	(Unkno...	37.751	-97.8...	93.188...	(None)	17	1... 1...

Trace route completed in 96.066s. Route length: 22.681 kms

Open Visual Traceroute 1.7.1

Traceroute Sniffer Whois 2D/3D http://www.bangka.go.id/ Timeout 0

#	Country	Town	Lat	Lon	IP	Hostname	D...	D...
1	Indone...	Selatan	-7.05...	113.4...	103.241...	(None)	2	1... 0
2	Indone...	Selatan	-7.05...	113.4...	10.100...	(None)	5	3 0 0
3	Indone...	Selatan	-7.05...	113.4...	10.100...	(None)	1	3 0 0
4	Indone...	Selatan	-7.05...	113.4...	10.100...	(None)	4	1... 0
5	Indone...	Selatan	-7.05...	113.4...	103.241...	ip-103-241-5...	3	2 0 0
6	Indone...	Selatan	-7.05...	113.4...	103.241...	noc-idl.unsrl...	2	3 0 0
7	Indone...	(Unkno...	-6.90...	107.6...	103.23...	(None)	17	1... 6...
8	(Unkno...	(Unkno...	47.0	8.0	62.115...	sngc-b1-link.t...	17	2 1... 0
9	(Unkno...	(Unkno...	47.0	8.0	62.115...	las-b21-link.t...	49	3 0 0
...	(Unkno...	(Unkno...	47.0	8.0	62.115...	dis-b21-link.t...	64	2 0 0
...	(Unkno...	(Unkno...	47.0	8.0	80.91.2...	atb-b2-link.te...	65	2 0 0
...	(Unkno...	(Unkno...	47.0	8.0	213.155...	cha-b1-link.te...	10	3 0 0
...	(Unkno...	(Unkno...	47.0	8.0	213.248...	giglinx-ic-156...	10	3 0 0
...	United ...	(Unkno...	37.751	-97.8...	74.112...	(None)	1	1... 8...
...	United ...	(Unkno...	37.751	-97.8...	74.112...	(None)	0	1... 0
...	United ...	Greenv...	34.80...	-82.3...	208.69...	ashvt1.main-h...	3	3 1... 0
...	United ...	(Unkno...	37.751	-97.8...	93.188...	(None)	17	1... 1...

Trace route completed in 96.066s. Route length: 22.681 kms

Open Visual Trace Route 1.7.1

Traceroute Sniffer Whois 2D/3D <http://www.bangka.go.id/> Timeout: 0

#	Country	Town	Lat	Lon	IP	Hostname	D...	D...
1	Indone...	Selatan	-7.05...	113.4...	103.241...	(None)	2	1... 0 @
2	Indone...	Selatan	-7.05...	113.4...	10.100...	(None)	5	3 0 @
3	Indone...	Selatan	-7.05...	113.4...	10.100...	(None)	1	3 0 @
4	Indone...	Selatan	-7.05...	113.4...	10.100...	(None)	4	1... 0 @
5	Indone...	Selatan	-7.05...	113.4...	103.241...	ig-103-241-5...	3	2 0 @
6	Indone...	Selatan	-7.05...	113.4...	103.241...	noc-idl.unsrf...	2	3 0 @
7	Indone...	(Unkno...	-6.90...	107.6...	103.23...	(None)	17	1... 6... @
8	(Unkno...	(Unkno...	47.0	8.0	62.115...	sng-e-b1-linkt...	17	2 1... @
9	(Unkno...	(Unkno...	47.0	8.0	62.115...	las-b21-linkt...	49	3 0 @
...	(Unkno...	(Unkno...	47.0	8.0	62.115...	dis-b21-linkt...	64	2 0 @
...	(Unkno...	(Unkno...	47.0	8.0	80.91.2...	atb-b22-link te...	65	2 0 @
...	(Unkno...	(Unkno...	47.0	8.0	213.155...	cha-b1-link te...	10	3 0 @
...	(Unkno...	(Unkno...	47.0	8.0	213.248...	gajims-c-156...	10	3 0 @
...	United ...	(Unkno...	37.751	-97.8...	74.112...	(None)	1	1... 8... @
...	United ...	(Unkno...	37.751	-97.8...	74.112...	(None)	0	1... 0... @
...	United ...	Greenv...	34.80...	-82.3...	208.69...	ashv1.main-h...	3	3 1... @
...	United ...	(Unkno...	37.751	-97.8...	93.188...	(None)	17	1... 1... @

Trace route completed in 96.066s. Route length: 22,891 kms

IND 12.31

2.Persib.co.id

The screenshot displays the Open Visual Trace Route 1.7.1 application. The main window shows a 3D map of Indonesia with a red line indicating the trace route. The route starts at an unknown location in Java (labeled '(Unknown)') and ends at Selatan. The map includes labels for various Indonesian cities like Tanjungkarang, Telukbetung, Jakarta, Depok, Bogor, Bandung, Semarang, Surabaya, and Situbondo. The Java Trench and Christmas Island are also visible. The application interface includes a toolbar with options like Traceroute, Sniffer, Whois, and 2D/3D. The address bar shows 'http://www.persib.co.id/'.

#	Country	Town	Lat	Lon	IP	Hostname	...	D...	D...
1	Indone...	Selatan	-7.05...	113.4...	103.241...	(None)	1	1...	0
2	Indone...	Selatan	-7.05...	113.4...	10.100...	(None)	4	5	0
3	Indone...	Selatan	-7.05...	113.4...	10.100...	(None)	2	8	0
4	Indone...	Selatan	-7.05...	113.4...	10.100...	(None)	3	1...	0
5	Indone...	Selatan	-7.05...	113.4...	103.241...	ip-103-241-5...	2	4	0
6	Indone...	Selatan	-7.05...	113.4...	103.241...	noc-idl.unsri...	3	3	0
7	Indone...	(Unkno...	-6.90...	107.6...	103.28...	(None)	17	1...	6...
8	*	*	-6.90...	107.6...	*	*	0	<1	0
9	Indone...	(Unkno...	-6.175...	106.8...	103.7.0...	(None)	16	1...	1...
...	*	*	-6.175...	106.8...	*	*	0	<1	0
...	Indone...	(Unkno...	-6.175...	106.8...	43.231...	(None)	17	1...	0

Traces route completed in 104.698s. Route length: 767 kms

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