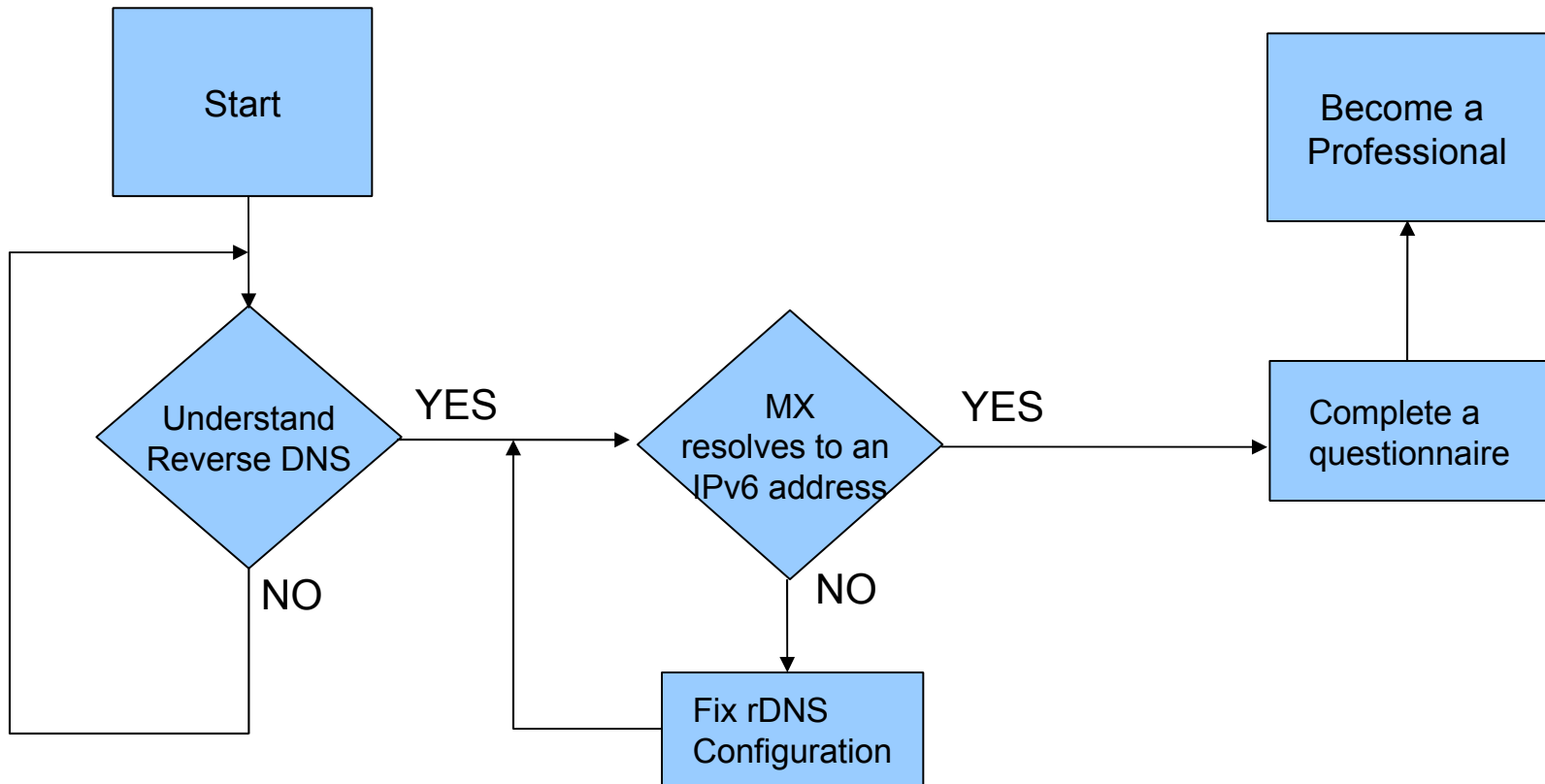

IPv6 Certification Program General Tutorial Session

Level - Professional

FLOW CHART



Key Concepts

- DNS – Domain Name System
 - a. Associates various information with domain name
 - b. distributes the responsibility of assigning domain names and mapping those names to IP addresses by designating authoritative name servers for each domain
- Forward DNS – a domain name maps to an IP address
- Reverse DNS – an IP address maps to a domain name



Test Overview

- Professional Test checks whether your IPv6 capable MTA has working reverse DNS or not.
- In order to pass the level, you must have a working reverse DNS.



BIND Example – Reference ONLY

■ named.conf

```
// Example – let's say an ipv6 address is 2001:470:1111:540::1
zone "0.4.5.0.1.1.1.1.0.7.4.0.1.0.0.2.ip6.arpa" IN {
    type master;
    file "ipv6.named.rev";
};
```

■ ipv6.named.rev

```
$TTL 86400
@      IN      SOA      ns1.yourdomain.com. your_email. ( ... )
      IN      NS       ns1.yourdomain.com.
$ORIGIN 0.4.5.0.1.1.1.1.0.7.4.0.1.0.0.2.ip6.arpa.
1.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0      IN      PTR      yourdomain.
```



Professional Test Page

Additional Tests

Enthusiast Technical Test
Administrator Technical Test

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HTML Certificate:



Add your certification to your webpage with this HTML:

```
<a href="http://ipv6.he.net/certification/scoresheet.php?pass_name=certTutor" target="_blank"></img></a>
```

Professional

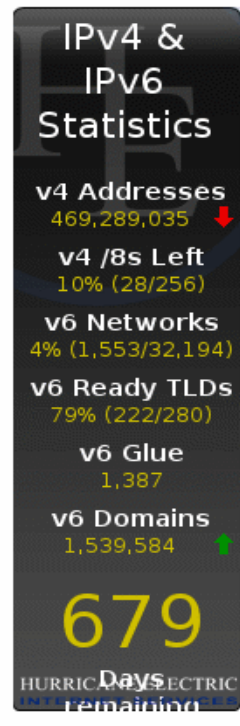
Congratulations, you are an IPv6 Administrator! The next step after getting your IPv6 Email working is to setup Reverse DNS for the mail server's IP. What you will need is:

- An IPv6 enabled mail system, with working RDNS.

Step	Description	Data
1	Check if your mail server has working rDNS	->

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v4 Exhaustion



Professional Test Page

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v4 Exhaustion

IPv4 &
IPv6
Statistics

v4 Addresses

469,288,773 ↓

v4 /8s Left

10% (28/256)

v6 Networks

4% (1,553/32,194)



Troubleshoot Method

- Use the following dig commands to see whether you have working reverse DNS or not

```
:~$ dig mx $domain +short
```

```
:~$ dig AAAA $mx +short
```

```
:~$ dig -x $mx_ipv6_addr +short
```





Contact:

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