

Module java.base
Package java.net.spi

Interface InetAddressResolver

public interface **InetAddressResolver**

This interface defines operations for looking up host names and IP addresses. `InetAddress` delegates all lookup operations to the *system-wide resolver*.

The *system-wide resolver* can be customized by deploying an implementation of `InetAddressResolverProvider`.

Since:
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Nested Class Summary

Nested Classes		
Modifier and Type	Interface	Description
static final class	<code>InetAddressResolver.LookupPolicy</code>	A LookupPolicy object describes characteristics that can be applied to a lookup operation.

Method Summary

All Methods	Instance Methods	Abstract Methods
Modifier and Type	Method	Description
<code>String</code>	<code>lookupByAddress(byte[] addr)</code>	Lookup the host name corresponding to the raw IP address provided.
<code>Stream<InetAddress></code>	<code>lookupByName(String host, InetAddressResolver.LookupPolicy lookupPoli</code>	Given the name of a host, returns a stream of IP addresses of the requested address family associated with a provided hostname.

Method Details

lookupByName

```
Stream<InetAddress> lookupByName(String host,
                                InetAddressResolver.LookupPolicy lookupPolicy)
    throws UnknownHostException
```

Given the name of a host, returns a stream of IP addresses of the requested address family associated with a provided hostname.

host should be a machine name, such as "www.example.com", not a textual representation of its IP address. No validation is performed on the given host name: if a textual representation is supplied, the name resolution is likely to fail and `UnknownHostException` may be thrown.

The address family type and addresses order are specified by the `LookupPolicy` instance. Lookup operation characteristics could be acquired with `InetAddressResolver.LookupPolicy.characteristics()`. If `InetAddressResolver.LookupPolicy.IPV4` and `InetAddressResolver.LookupPolicy.IPV6` characteristics provided then this method returns addresses of both IPV4 and IPV6 families.

Parameters:

host - the specified hostname

lookupPolicy - the address lookup policy

Returns:

a stream of IP addresses for the requested host

Throws:

`NullPointerException` - if either parameter is null

`UnknownHostException` - if no IP address for the host could be found

See Also:

`InetAddressResolver.LookupPolicy`

lookupByAddress

```
String lookupByAddress(byte[] addr)
    throws UnknownHostException
```

Lookup the host name corresponding to the raw IP address provided.

addr argument is in network byte order: the highest order byte of the address is in addr[0].

IPv4 address byte array must be 4 bytes long and IPv6 byte array must be 16 bytes long.

Parameters:

addr - byte array representing a raw IP address

Returns:

String representing the host name mapping

Throws:

[UnknownHostException](#) - if no host name is found for the specified IP address

[IllegalArgumentException](#) - if the length of the provided byte array doesn't correspond to a valid IP address length

[NullPointerException](#) - if addr is null

[Report a bug or suggest an enhancement](#)

For further API reference and developer documentation see the [Java SE Documentation](#), which contains more detailed, developer-targeted descriptions with conceptual overviews, definitions of terms, workarounds, and working code examples. [Other versions](#).

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