

## Re: InetAddress.equals() Anomaly?

**Source:** <http://www.tech-archive.net/Archive/DotNet/microsoft.public.dotnet.vjsharp/2005-01/0021.html>

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As shown in my follow-up post, this is not a matter of opinion! ALL Java API documents (including Microsoft's) state:

Compares this object against the specified object. The result is true if and only if the argument is not null and it represents the same IP address as this object.

Two instances of InetAddress represent the same IP address if the length of the byte arrays returned by getAddress is the same for both, and each of the array components is the same for the byte arrays.

This says nothing about toString(). In fact, it specifically states that ONLY the IP address is to be considered when doing the comparison, NOT the DNS name or any other mangled name that the JVM might come up with.

Pete Loveall

"Bruno Jouhier [MVP]" <[bjouhier@club-internet.fr](mailto:bjouhier@club-internet.fr)> wrote in message news:OvNeuxV9EHA.2568@TK2MSFTNGP11.phx.gbl...

>I don't agree.

>

> *Two objects are equal if they can be used interchangeably and if they produce the same results when any arbitrary method is applied to them.*

>

> *In your case:*

> *dnsaddr.toString() produces firenet.us/12.34.75.101*

> *ipaddr.toString() produces grande.rivcom.net/12.34.75.101*

>

> *So, the objects are not equal because they don't produce the same result when you apply toString() to them.*

>

> *If you consider that two InetAddress should be equal as soon as they have the same IP, you take a biased view, you consider that your equals method should take the IP part into account and completely ignore the name side of the InetAddress object. This is wrong. If you start overriding equals to give it "partially equals" semantics, you are going to run into some trouble.*

>

> *So, this is not a bug in the JDK. If you want to use the IP as a hash key,*

microsoft.public.dotnet.vjsharp: Re: InetAddress.equals() Anomoly?

- > *you should use the IP (formatted as a string, or as an integer) as key,*
- > *you should not use InetAddress because this is a richer object that*
- > *carries more information than an IP.*
- >
- > *Bruno.*