Replace definition in A.2

The "`urn:oasis:names:tc:xacml:2.0:data-type:ipV4Address`" primitive type represents an IPv4 network address range. The syntax SHALL be:

IpV4Address = initial address ["/" final address]

Each address is formatted in accordance with the syntax for a "host" in IETF RFC 2396 "Uniform Resource Identifiers (URI): Generic Syntax", section 3.2. If present, the final address value must be greater than the initial address value, when each is interpreted as a 32 bit integer value in the first argument.

The initial address value represents the inclusive start of an address range and the final address represents the inclusive end of an address range.

Replace definitions in A.3.13

- urn:oasis:names:tc:xacml:2.0:function:ipV4Address-match

    This function SHALL take two arguments of data-type "`urn:oasis:names:tc:xacml:2.0:data-type:ipV4Address`" and SHALL return an "`http://www.w3.org/2001/XMLSchema#boolean`". The first argument specifies the range of addresses that are acceptable for the match to be "True". The second argument specifies the range of addresses to be tested against the acceptable values.

    This function SHALL return "False" if the first argument does not contain a final address, and the second argument does contain a final address.

    It SHALL return "True" if, after each address has been converted to its 32-bit integer equivalent, the initial address of the first argument is less than or equal to the initial address of the second argument, and the final address of the first argument, if it is present, is greater than or equal to the final address of the second argument, if it is present, or the initial address of the second argument, if the final address of the second argument is not present.

    Otherwise, the function SHALL return "False".

- urn:oasis:names:tc:xacml:2.0:function:dnsName-match

    This function SHALL take two arguments, the first SHALL be of data-type "`http://www.w3.org/2001/XMLSchema#string`" and the second SHALL be of data-type "`urn:oasis:names:tc:xacml:2.0:data-type:dnsName`". It SHALL return an "`http://www.w3.org/2001/XMLSchema#boolean`". The first argument SHALL contain a legal reg-exp expression [RegEx]. The second argument SHALL contain a DNS name that is acceptable for the match to be "True". The second argument specifies a particular DNS name or set of sub-domain names to be tested against the acceptable value in the first argument.

    This function SHALL return "True" if the two arguments match according to the "urn:oasis:names:tc:xacml:2.0:function:regexp-string-match" match function. Otherwise, the function SHALL return "False".

- urn:oasis:names:tc:xacml:2.0:function:url-subtree-match

    This function takes two arguments of type "`http://www.w3.org/2001/XMLSchema#anyURI`" and SHALL return an "`http://www.w3.org/2001/XMLSchema#boolean`". The path part of the first argument may contain characters reserved by [RegEx]. Therefore, system components that construct URLs or URL fragments containing such characters, which may be used in this argument, SHALL "escape" those characters as described in [RFC2396].

The first argument specifies a URL that is acceptable for the match to be "True". The second argument specifies a particular URL or set of URLs to be tested against the acceptable value in the first argument.

This function SHALL return "True" if all of the following conditions hold. Otherwise, it SHALL return "False".

1.   The scheme part of both arguments SHALL be the same and SHALL be either "http", "https" or "file". The scheme parts MAY be compared using "`urn:oasis:names:tc:xacml:1.0:function:string-equal`", once both parts have been normalized to upper-case.

2.   The authority part of the first argument SHALL match the authority part of the second argument. If the first character of the authority part is a number, then the part contains an IPV4 address. Otherwise, it contains a DNS name. Both arguments MUST be of the same type. In the case of IPV4 addresses, the "`urn:oasis:names:tc:xacml:2.0:function:ipV4Address-match`" function SHALL be used. In the case of DNS names, the "`urn:oasis:names:tc:xacml:2.0:function:dnsName-match`" function SHALL be used.

3. If either path part contains no port specification, then the default value for the scheme SHALL be inserted, as follows.

http – 80,

https - 443.

For example, in the case of the "http" scheme, the path part "`/resources`" would be replaced by: "`:80/resources`"

The path part of the first argument SHALL match the path part of the second argument by "`urn:oasis:names:tc:xacml:1.0:function:regex-string-match`".

- urn:oasis:names:tc:xacml:2.0:function:urn-subtree-match

  This function SHALL take two arguments, the first SHALL be of data-type "`http://www.w3.org/2001/XMLSchema#string`" and the second SHALL be of data-type "`http://www.w3.org/2001/XMLSchema#anyURI`". It SHALL return an "`http://www.w3.org/2001/XMLSchema#boolean`". The first argument may contain characters reserved by [RegEx]. Therefore, system components that construct URNs or URN fragments containing such characters, which may be used in this argument, SHALL "escape" those characters as described in [RFC2396].

  The first argument SHALL contain a legal reg-exp expression [RegEx]. The second argument SHALL contain a URN that is acceptable for the match to be "True". The second argument specifies a particular URN or set of URNs to be tested against the acceptable value in the first argument.

  The function SHALL return "True" if the first argument matches the second argument by "`urn:oasis:names:tc:xacml:1.0:function:regex-string-match`".

  Otherwise, it SHALL return "False".