

# Expressions

## Description

“ The Expression signifies that an element that extends the ExpressionType and is a member of the Expression substitution group shall appear in its place. The Expression is not used directly in a policy.

Expressions are elements that allow to evaluate conditions within rules and policies to make access decisions.

## Related objects

- **Variables**
- **Conditions**

## Standard attributes

The attributes depend on the Expression type selected.

EXPRESSION TYPE	OTHER FIELDS	DATA TYPE
Attribute value	<b>Value:</b> alphanumeric field	<u>Available data types.</u>

EXPRESSION TYPE	OTHER FIELDS	DATA TYPE
Resource	<b>Attribute designator</b> <ul style="list-style-type: none"> <li>• URL</li> <li>• Soffid object</li> <li>• Account name</li> <li>• System name</li> <li>• Login name</li> <li>• Vault folder</li> <li>• Access level</li> </ul>	<u>Available data types.</u>
Subject	<b>Attribute designator</b> <ul style="list-style-type: none"> <li>• User</li> <li>• User attributes</li> <li>• Account</li> <li>• System</li> <li>• Role</li> <li>• Group</li> <li>• Primary Group</li> <li>• IP Address</li> </ul>	<u>Available data types.</u>
Action	<b>Attribute designator:</b> <ul style="list-style-type: none"> <li>• method</li> </ul>	<u>Available data types.</u>
Environment	<b>Attribute designator:</b> <ul style="list-style-type: none"> <li>• Country</li> <li>• Current Time</li> <li>• Current Date</li> <li>• Current DateTime</li> </ul>	<u>Available data types.</u>
Attribute selector	<b>Attribute selector:</b> alphanumeric field	<u>Available data types.</u>
Variable	<b>Variable:</b> alphanumeric field	--
Function	<b>Function type:</b> <ul style="list-style-type: none"> <li>• Comparison</li> <li>• Arithmetic</li> <li>• Conversions</li> <li>• Date conversions</li> <li>• Boolean Operators</li> <li>• String Functions</li> <li>• Set Functions</li> <li>• Bag Functions</li> <li>• HigherOrderBagFunctions</li> <li>• XPath</li> </ul>	<u>Available data types.</u>

EXPRESSION TYPE	OTHER FIELDS	DATA TYPE
Function name	<b>Function type:</b> <ul style="list-style-type: none"> <li>• Comparison</li> <li>• Arithmetic</li> <li>• Conversions</li> <li>• Date conversions</li> <li>• Boolean Operators</li> <li>• String Functions</li> <li>• Set Functions</li> <li>• Bag Functions</li> <li>• HigherOrderBagFunctions</li> <li>• XPath</li> </ul> <b>Function:</b> the value depends on the function type selected.	<u>Available data types.</u>

# Data Type

## Available data types

- String:
- Boolean
- Integer
- Double
- Date and time
- Date
- Time
- HEX-encoded binary
- URI
- Year-month duration
- Day-time duration
- Base 64 binary
- X. 500 name
- RFC822 name

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[https://docs.oasis-open.org/xacml/2.0/access\\_control-xacml-2.0-core-spec-os.pdf](https://docs.oasis-open.org/xacml/2.0/access_control-xacml-2.0-core-spec-os.pdf)

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