PolicySet ::= PolicySetId Version? (PolicySet)* PolicyCombiningAlgId Description? PolicySetDefaults? Target (Policy)* ((PolicySetIdReference)* | (PolicyIdReference)* | (CombinerParameters)* | (PolicyCombinerParameters)* | (PolicySetCombinerParameters)*) Obligations?

Version ::= **string** **→ “(\d+\.)*\d+”**

PolicySetId ::= **URI**

PolicyCombiningAlgId ::= **URI** (“deny-overrides” | “permit-overrides” | “first-applicable” | “only-one-applicable” | “ordered-deny-overrides” | “ordered-permit-overrides”)

Description ::= **string → Type info not available**

PolicySetDefaults ::= XPathVersion?

Target ::= Subjects? Resources? Actions? Environments?

Policy ::= PolicyId Version? RuleCombiningAlgId Description? PolicyDefaults? Target (CombinerParameters? | RuleCombinerParameters? | (VariableDefinition)* | (Rule)*) Obligations?

PolicySetIdReference ::= (**URI** Version)? (**URI** EarliestVersion)? (**URI** LatestVersion)?

PolicyIdReference ::= (**URI** Version)? (**URI** EarliestVersion)? (**URI** LatestVersion)?

Obligations ::= (Obligation)+

CombinerParameters ::= (CombinerParameter)*

PolicyCombinerParameters ::= CombinerParameters PolicyIdRef

PolicySetCombinerParameters ::= CombinerParameters PolicySetIdRef

XPathVersion ::= **URI**

Subjects ::= (Subject)+

Resources ::= (Resource)+

Actions ::= (Action)+

Environments ::= (Environment)+

PolicyId ::= **URI**

RuleCombiningAlgId ::= URI (“deny-overrides” | “permit-overrides” | “first-applicable” | “ordered-deny-overrides” | “ordered-permit-overrides”)

PolicyDefaults ::= XPathVersion?

RuleCombinerParameters ::= CombinerParameters RuleIdRef

VariableDefinition ::= Expression VariableId

Rule ::= RuleId Effect Description? Target? Condition?

EarliestVersion ::= **string**   **→ “((\d+|*)\.)*(\d+|*|\+)”**

LatestVersion ::= **string**   **→ “((\d+|*)\.)*(\d+|*|\+)”**

Obligation ::= ObligationId FulfillOn (AttributeAssignment)*

CombinerParameter ::= ParameterName AttributeValue

PolicyIdRef ::= PolicyId | PolicyIdReference

PolicySetIdRef ::= PolicySetId | PolicySetIdReference

Subject ::= (SubjectMatch)+

Resource ::= (ResourceMatch)+

Action ::= (ActionMatch)+

Environment ::= (EnvironmentMatch)+

RuleIdRef ::= **string**

Expression ::= Apply | AttributeSelector | AttributeValue | Function | VariableReference | ActionAttributeDesignator | ResourceAttributeDesignator | SubjectAttributeDesignator | EnvironmentAttributeDesignator

VariableId ::= **string**

RuleId ::= **string**

Effect ::= “Permit” | “Deny”

Condition ::= Expression

ObligationId ::= **URI**

FulFillOn ::= “Permit” | “Deny”

AttributeAssignment ::= AttributeId AttributeValue ??

ParameterName ::= **string**

AttributeValue ::= Expression | (**Any**)* DataType

SubjectMatch ::= MatchId AttributeValue (SubjectAttributeDesignator | AttributeSelector)

ResourceMatch ::= MatchId AttributeValue (ResourceAttributeDesignator | AttributeSelector)

ActionMatch ::= MatchId AttributeValue (ActionAttributeDesignator | AttributeSelector)

EnvironmentMatch ::= MatchIdEnv AttributeValue (EnvironmentAttributeDesignator | AttributeSelector)

DataType ::= **URI** (xs:string | xs:boolean | xs:integer | xs:double | xs:dateTime | xs:date | xs:time | xs:hexBinary | xs:base64Binary | xs:anyURI | xf:yearMonthDuration | xf:dayTimeDuration | UserDefined)

Apply ::= FunctionId (Expression)*

AttributeSelector ::= RequestContextPath DataType MustBePresent?

Function ::= **URI** FunctionId

VariableReference ::= VariableId

AttributeDesignatorType ::= AttributeId DataType Issuer? MustBePresent?

ActionAttributeDesignator ::= Expression | AttributeDesignatorType

ResourceAttributeDesignator ::= Expression | AttributeDesignatorType

SubjectAttributeDesignator ::= Expression | (AttributeDesignatorType SubjectCategory?)

EnvironmentAttributeDesignator ::= Expression | AttributeDesignatorType

AttributeId ::= **URI**

MatchId ::= **URI** “**-type**-equal**”** | “**-type**-greater-than” | “**-type**-greater-than-or-equal” | “**-type**-less-than” | “**-type**-less-than-or-equal” | “**-type**-match”

FunctionId ::= string-equal | boolean-equal | integer-equal | double-equal | date-equal | time-equal | dateTime-equal | dayTimeDuration-equal | yearMonthDuration-equal | anyURI-equal | x500Name-equal | rfc822Name-equal | hexBinary-equal | base64Binary-equal | integer-add | double-add | integer-subtract | double-subtract | integer-multiply | double-multiply | integer-divide | double-divide | integer-mod | integer-abs | double-abs | round | floor | string-normalize-space | string-normalize-to-lower-case | double-to-integer | integer-to-double | or | and | n-of | not | integer-greater-than | integer-greater-than-or-equal | integer-less-than | integer-less-than-or-equal | double-greater-than | double-greater-than-or-equal | double-less-than | double-less-than-or-equal | dateTime-add-dayTimeDuration | dateTime-add-yearMonthDuration | dateTime-subtract-dayTimeDuration | dateTime-subtract-yearMonthDuration | date-add-yearMonthDuration | date-subtract-yearMonthDuration | string-greater-than | string-greater-than-or-equal | string-less-than | string-less-than-or-equal | time-greater-than | time-greater-than-or-equal | time-less-than | time-less-than-or-equal | time-in-range | dateTime-greater-than | dateTime-greater-than-or-equal | dateTime-less-than | dateTime-less-than-or-equal | date-greater-than | date-greater-than-or-equal | date-less-than | date-less-than-or-equal | string-concatenate | url-string-concatenate | type-one-and-only | type-bag-size | type-is-in | type-bag | type-intersection | type-at-least-one-member-of | type-union | type-subset | type-set-equals | any-of | all-of | any-of-any | all-of-any | any-of-all | all-of-all | map | string-regexp-match | anyURI-regexp-match | ipAddress-regexp-match | dnsName-regexp-match | rfc822Name-regexp-match | x500Name-regexp-match | x500Name-match | rfc822Name-match | xpath-node-count | xpath-node-equal | xpath-node-match

RequestContextPath ::= **string → XPath string**

MustBePresent ::= true | false

SubjectCategory ::= **URI**

MatchIdEnv ::= FunctionId

Issuer ::= **string**

UserDefined ::= **string**