

# Policy Definitions

A policy definition defines a policy that can be associated with a TOSCA topology or top-level entity definition (e.g., group definition, node template, etc.).

## Example

The following represents a policy definition:

```
policies:  
  
- my_compute_placement_policy:  
  
  type: toasca.policies.placement  
  
  description: Apply my placement policy to my application's servers  
  
  targets: [ my_server_1, my_server_2 ]  
  
  # remainder of policy definition left off for brevity
```

## Grammar

Policy definitions have one the following grammars:

```
<policy_name>:  
  
type: <policy_type_name>  
  
description: <policy_description>  
  
metadata:  
  
  <map of string>  
  
properties:  
  
  <property_assignments>  
  
targets: [<list_of_policy_targets>]  
  
triggers:  
  
  <list_of_trigger_definitions>
```

In the above grammar, the pseudo values that appear in angle brackets have the following meaning:

- `policy_name`: represents the required symbolic name of the policy as a string.
- `policy_type_name`: represents the name of the policy the definition is based upon.
- `policy_description`: contains an optional description of the policy.
- `property_assignments`: represents the optional list of property assignments for the policy definition that provide values for properties defined in its declared Policy Type.
- `list_of_policy_targets`: represents the optional list of names of node templates or groups that the policy is to be applied to.
- `list_of_trigger_definitions`: represents the optional list of trigger definitions for the policy.

## Keynotes

The following is the list of recognized keynames for a TOSCA policy definition:

Keyname	Required	Type	Description
type	yes	string	The required name of the policy type the policy definition is based upon.
description	no	description	The optional description for the policy definition.
metadata	no	map of string	Defines a section used to declare additional metadata information.
properties	no	list of property assignments	An optional list of property value assignments for the policy definition.
targets	no	string[]	An optional list of valid Node Templates or Groups the Policy can be applied to.