# FPDL –Cross-referencing

## Definitions

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| Term/Acronym | Meaning/definition |
| FPDL | Federation Policy Definition Language |
| FPDL Policy | Release policy for a federate; classification of a federate |
| FPDL Design | Release control policy for a federation; CDS specification for a federation |
| FPDL Deploy | CDS implementation requirements |
| FPDL Pattern | Specification for a single CDS system (eg a High Threat Gateway) |
| FPDL PatternLibrary | An ordered collection of patterns |
| docReference | A unique (GUID) reference number for a FPDL document |
| policyReference | A reference to the FPDL Policy document used to derive policy for a federate; found in FPDL Design document |
| designReference | A reference to the FPDL Design document used to specify the release control policy and CDS requirements within a FPDL Deploy document |
| patternReference | A reference to the implementation pattern used as the template for a CDS system within an FPDL Deploy document |
| componentID | A reference to a component template within a FPDL Pattern document; used in FPDL Deploy component specifications to indicate the template used in construction |
| Backward reference | Refers to the relationship between FPDL documents, using the reference points described above. All backward references refer to the docReference of the referred document. |
| Forward reference | The theoretical ability to determine the dependency tree for a particular document |

## Cross-Referencing Between FPDL Document Instances

Why? To provide both forward and backward traceability between documents so that a particular chain of the CDS workflow can be audited. This mechanism extends into the actual implementation be encouraging vendors to use the reference information during provisioning.

What? All references are GUIDs.

How? Backward references in a typical CDS Workflow looks like this:

Policy 🡨 Design 🡨 Deploy

policyReference designReference

Note that a Design consumes multiple Policy documents; for each federate in Design there is a backward reference to the Policy that was used to construct the publish statements for the federate (and the subscribe statements of the other federates).

A Deploy consumes a single Design and multiple Pattern definitions. Each system in Deploy derives from a specified Pattern (patternReference). Each system in Deploy contains one or more components that are derived from the Pattern (componentID).

These backward references refer to the docReference value contained in the ConfigMgmt area of each FPDL document.

And Forward? Forward referencing requires a separate catalogue (spreadsheet or document management system) that captures the forward references (eg list of Designs based on a specific policy).