# GRASP Objectives for ANI
# draft-carpenter-anima-ani-objectives-03

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# Topics

- Purpose of this draft
- Objectives for BRSKI
- Objective for ACP
- Objective for NOC connectivity (**draft-ietf-anima-stable-connectivity**)
- Next steps

# Purpose

- This draft is intended to provide consistent definitions of several GRASP objectives needed by the autonomic infrastructure.

- WG choice: publish as separate draft, or include in the main drafts (BRSKI, ACP, stable-connectivity) ?

# Objectives for BRSKI (1)

Two objectives proposed:

1. **`"AN_join_registrar"`**
   Used by a proxy to discover a registrar (across the ACP), and then obtain connection details by synchronization.

2. **`"AN_join_proxy"`**
   Used by a proxy to announce (flood) itself to all on-link pledges (restricted to link-local instance of GRASP).

# Objectives for BRSKI (2)

Example:

```
["AN_join_registrar", 5, 6,
  [["BRSKI-TCP", [O_IPv6_LOCATOR,
  fd45:1345::6789, 6, 443]]]]
```

Syntax:

```
["AN_join_registrar",flags,loop-count,
  [*[method, locator-option]]]
method = "BRSKI-TCP" / "BRSKI-UDP" /
  "BRSKI-IPIP"
```

# Objectives for BRSKI (3)

Example:

```
["AN_join_proxy", 5, 1, "BRSKI-TCP"]
   (locator is included in the GRASP
    flood message)
```

Syntax:

```
["AN_join_proxy", objective-flags,
  loop-count, method]

loop-count = 1      ;link-local only

method = "BRSKI-TCP" / "BRSKI-UDP"
```

# Objective for ACP (1)

One objective proposed:

**`"AN_ACP"`**

    Used by an existing ACP participant to announce (flood) itself to all on-link neighbours (restricted to link-local instance of GRASP). They can then attempt to join the ACP.

    MAY be sent in the same flood message as **`"AN_join_proxy"`**

# Objective for ACP (2)

Example:

```
["AN_ACP", 5, 1, "IKEv2"]
```
  (locator is included in the GRASP
   flood message)

Syntax:

```
["AN_ACP", objective-flags,
  loop-count, method]
```
```
loop-count = 1      ;link-local only
```
```
method = "IKEv2" / "dTLS"
```

# Objective for stable connectivity (1)

One objective proposed:

**`"AN_NOC"`**

> Used by any autonomic node to discover a general agent for the NOC. This agent could inform each AN where NOC services are to be found, using GRASP synchronization.

> Assuming two-way information is needed, we suggest GRASP negotiation instead.

> This objective still needs refinement.

# Objective for stable connectivity (2)

Examples:

```
["AN_NOC", 5, 6,
  ["info about the autonomic node"]
["AN_NOC", 5, 5,
  ["info about NOC services"]
```

Syntax:

```
["AN_NOC", objective-flags,
  loop-count, [TBD]]
TBD = ;format and contents open
```

# Next steps

- Review and agree on the details
- Decide whether to include details in the respective drafts, or publish a stand-alone document

# Discussion