draft-ietf-i2nsf-terminology-03

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Main Changes

- **Further alignment with SACM**
  - E.g., added definition of attestation, added definitions of Data Confidentiality, Data Integrity, Data Provenance
- **Refined Existing Terms**
  - E.g., Capability, I2NSF Action, I2NSF Agent, I2NSF Condition, I2NSF Consumer, I2NSF Consumer-Facing Interface, I2NSF Event, I2NSF Management System, I2NSF Policy Rule, I2NSF Producer, I2NSF Registry, I2NSF Service, NSF-Facing Interface, OCL
- **Added New Terms**
  - DAA, I2NSF Directly Consumable Policy Rule, I2NSF Indirectly Consumable Policy Rule, I2NSF Registration Interface
- **Removed excess terms**
  - E.g., Action, I2NSF Action are combined into one term
- **Miscellaneous changes**
  - Removed lines with just acronyms, and expanded and defined all acronyms (e.g., B2B, B2C, DC)

Directly vs. Indirectly Consumable Policies

- **Purpose**
  - These concepts will be necessary when we discuss various abstractions of I2NSF Policy Rules, but especially, for Intent
  - Definitions at the end of this talk
- **I2NSF Directly Consumable Policy Rule**
  - An I2NSF Policy Rule is said to be directly consumable if a network device can execute it without translating its content or structure.
- **I2NSF Indirectly Consumable Policy Rule**
  - An I2NSF Policy Rule is said to be indirectly consumable if a network device can NOT execute it without first translating its content or structure.

Next Steps

- **Need to explore Attestation more**
  - There are at least two very different approaches in the IETF
- **Need to explore Metadata more**
  - Its use in netmod is not aligned with that of other SDOs
- **Need to explore Events**
  - Should we differentiate between “special” events, like alarms, and others?
  - How robust a definition of events is needed?
- **Need to explore the mismatch between info models and data models**
  - Can terminology help?

- **THEN we should be ready for last call ☺**

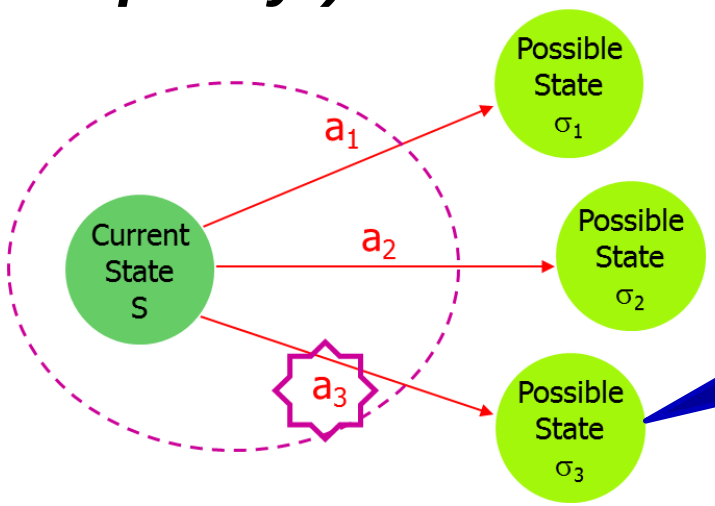
Questions?

“Create like a god. Command like a king. Work like a slave”
- Constantin Brancusi

Types of Policy Rules (1)

Imperative: Event-Condition-Action (ECA)

- IF the clause of Events evaluates to TRUE
  - IF the clause of Conditions evaluates to TRUE
    - THEN execute the clause of Actions
- ***Explicit programming of state (rationality is compiled into the policy!)***



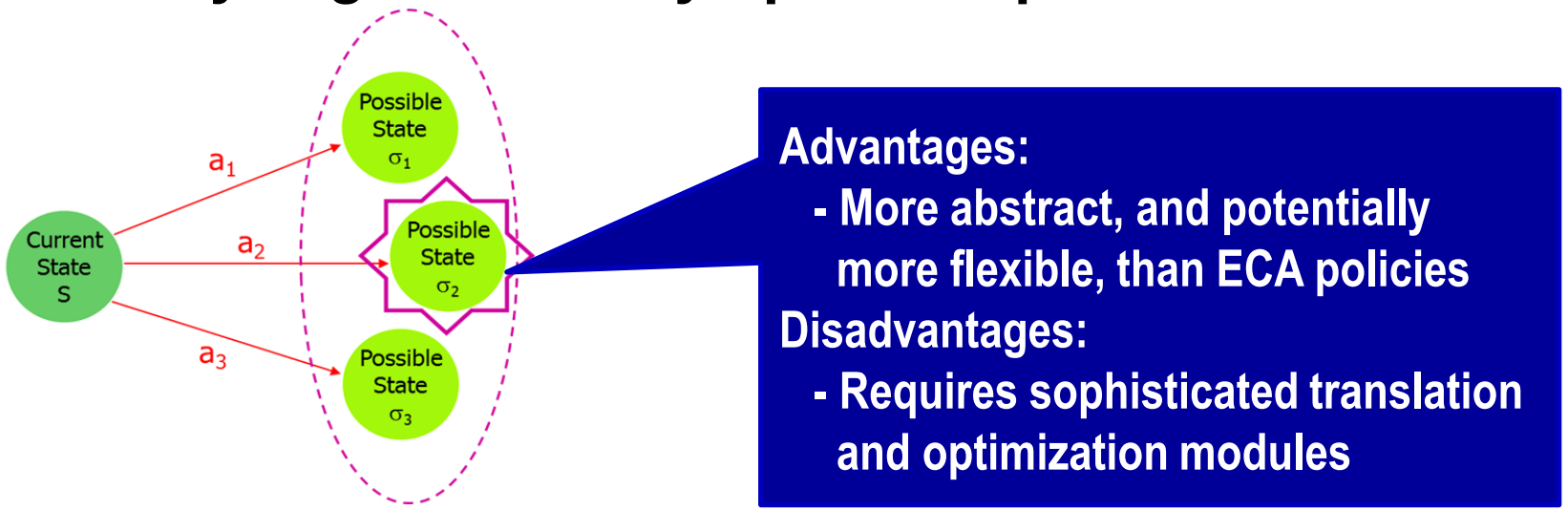
Advantages:
- **Can be simple; system knows exactly what to do**

Disadvantages:
- **Explosion of policies**
- **Conflict detection and resolution can be very difficult**

Types of Policy Rules (2)

Declarative (or Goal-based)

- **Express what should be done, not how to do it**
- **Specifies criteria for choosing a set of states, any of which is acceptable**
- **Each state has a binary value**
- **Rationality is generated by optimizer/planner**



The Reinvention of Intent

Policy Management is HARD

- People want simpler solutions

Many Different Constituencies Want Intent

- End Users who aren't technical want to define policies to control behavior
- Application Developers want to build Network Services, but existing network interfaces don't help them do this
- Operators want more abstract and powerful ways to define Network Services

Intent offers the ability to define consumer abstractions that invoke Network Services

Intent is a *Declarative Policy*, but *not necessarily logic-based*

Intent requires a Mapping