An Intent Demonstration in an Adaptive Policy Environment
Outline of the presentation

In this presentation we will cover the following points:

• Paper Contribution
• System Architecture
• Usage Scenario
  • - Intent Generation
  • - Intent Comparison
  • - Intent Resolution
• Demo
• Retrospective and Current Focus
Contributions of our Work

• The demonstration of a three step mechanism for the generation, comparison and resolution of Intent defined goals in an Adaptive Policy framework.
System Architecture

- Intent
- Intent Conflict
- APEX
  - Validation
- Policy Context
- Network Configuration

Diagram showing the flow of information from Intent to Network Configuration through APEX and Validation.
Scenario – Intent Generation

- Recursive Structure
- Who, What, When, Where and How
- Parsed by Adaptive Policy Engine

```json
{
    "Who": "NetworkAdministrator",
    "What": "KPIEnforcement",
    "When": [{
        "What": "Start Time",
        "When": "08:00"
    }, {
        "What": "End Time",
        "When": "12:00"
    }],
    "Where": {
        "What": "Bandwidth",
        "How": "<1MBs"
    },
    "How": "null"
}
```
Scenario – Intent Comparison

- Intent is fully navigated creating a path collection
- Relationships between different branches
- Comparison of different Intents

/who/NetworkAdministrator
/what/KPIEnforcement
/when/what/startTime
/when/when/08:00
/when/what/endTime
/when/when/12:00
/where/what/Bandwidth
/where/how/<1MBs
/how/null
Scenario – Intent Comparison

- Incorporation of Dictionary
- Mapping of predefined elements
- Generation of multiple Intent aligned actions

/who/NetworkAdministrator
/what/KPIEnforcement
/when/what/startTime
/when/when/08:00
/when/what/endTime
/when/when/12:00
/where/what/Bandwidth
/where/how/<1MBs
/how/null
Scenario – Intent Resolution

- Reconfiguration as intents are introduced
- Shifting of thresholds reflected in network performance
Demo

https://youtu.be/04xAW1VwOBw
Current Focus

• When does the abstract become real?
• Intent coordination for the component agnostic?
• The initialization of monitoring for the maintaining of prolonged intent goals?
Thank you