

An Intent Demonstration in an Adaptive Policy Environment

Outline of the presentation

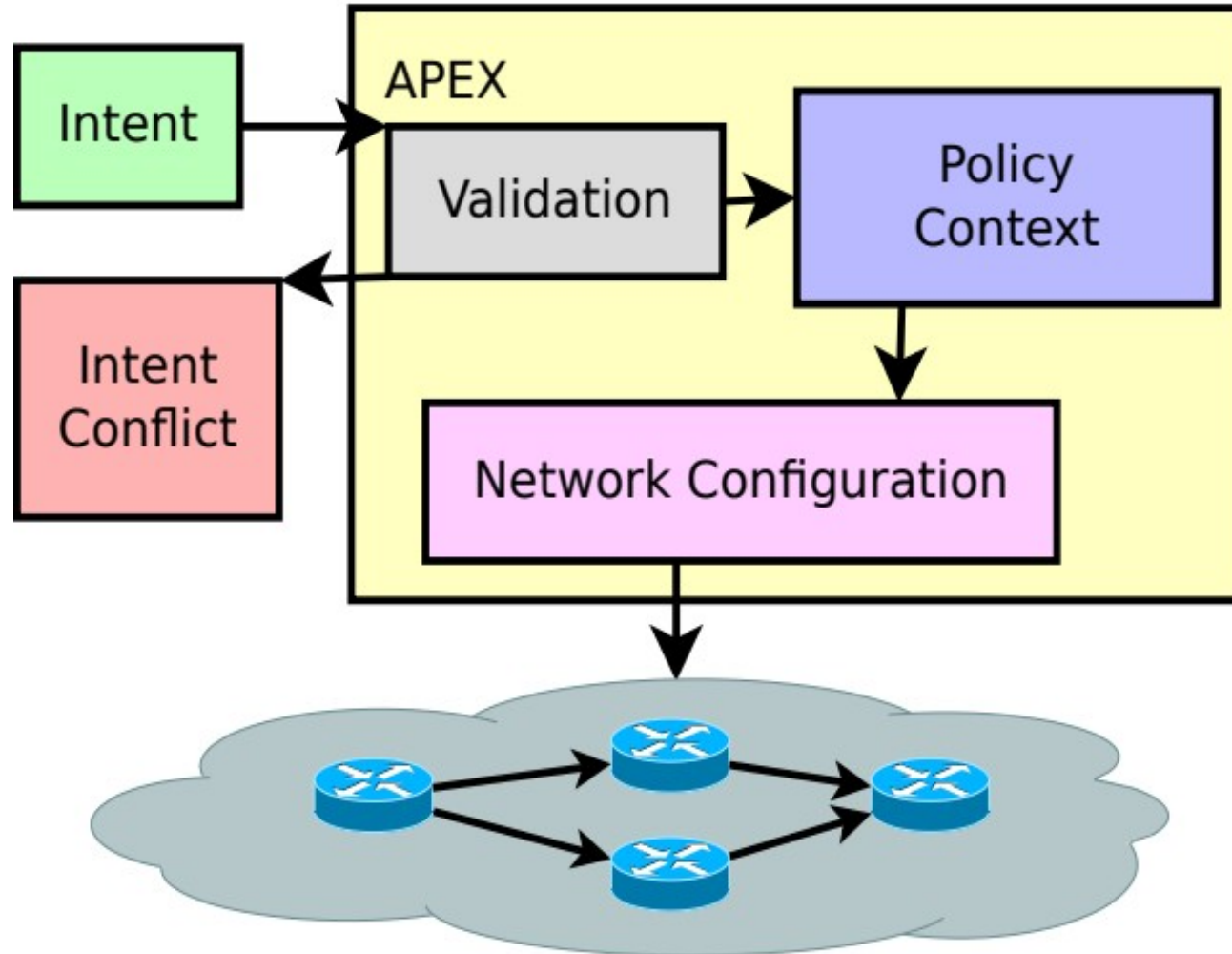
In this presentation we will cover the following points:

- 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



Scenario – Intent Generation

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

```
{  
  "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
```

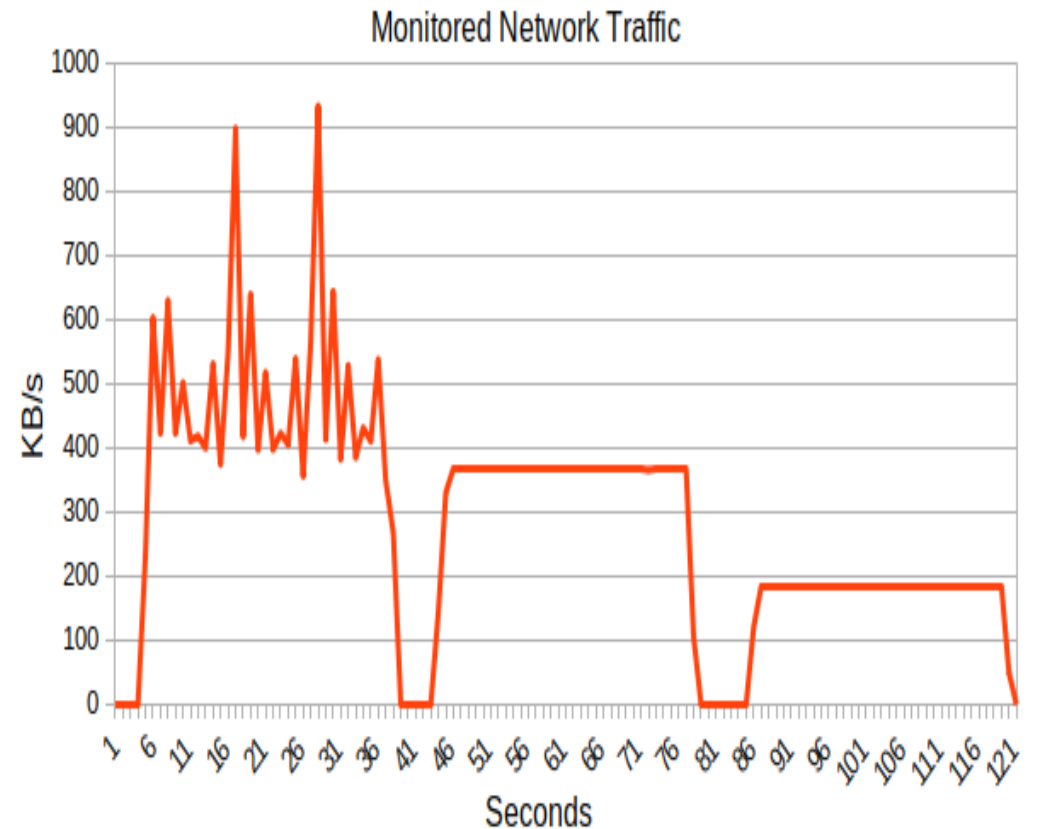
Scenario – Intent Comparison

- 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

