Policy 2007 Panel: Business Impact of Research on Policy for Distributed Systems and Networks

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Success Stories

- There are a number of commercial tools including:
  - CISCO Secure Policy/QoS Managers
  - HP Openview
  - Tivoli Identity Manager
  - Some support for specifying ECA policies for any environment e.g., IBM's TEC manager
- "Element based" management
  - Routers, SANs management
- Identification/authorization management
- Good support for:
  - Policy specification; some analysis
  - Management services support e.g., topology maintenance
- Most success within an enterprise

Success Stories

- What makes a policy-based system successful?
  - Policies are being used to specify an automatic response to a predefined condition.
  - This is translated to low-level device commands
  - Translation is automated as well as the deployment of the commands which often implies fewer errors
  - Complexity of networks won over lack of trust.
- This is great for policies such as "allow for priority use of network services for class A users".

Typical Statement From 10 Years Ago

- However, it is/was not uncommon to hear that CEOs would be able to control their systems through a GUI application that runs on their desktop machine.
    - The application would take the high-level instructions from the user and make the adjustments necessary.

- CEOs do not want to specify policies whose attributes are technical factors.

- Rather CEOs would like to focus on specifying policies or goals that focus on business objectives e.g., customer retention, profit.

- CEOs are interested in business impact.

What are we doing about this?

- Refinement of policies such as "Applications in class *gold* on server *s* should receive the best possible service". This requires:
  - All routers be configured so that network traffic from the applications in set A on server B are assigned highest priority
  - Requires that *gold* applications have highest priority on server *b*.
- Determining those sub goals is hard as seen from the work done seen in the Policy conferences?
- What if the goal is to increase customer retention to 80% or to increase profit by 10%?

Business-Driven IT Management

- Lots of great work in policy research but ......
- What about?
    - Policies are being used to implement business strategies
        - Do the policies actually achieve the goals?
    - Behaviour trust
    - Understanding the relationship between business indicators and technical indicators is needed
        - May help in developing tools for refinement
    - What is the relationship between trust, compliance with business objectives, business indicators and technical indicators?
    - Should trust be measured so that a particular set of policies is chosen
        - Need to choose a service instance to replace another service instance
        - Service provider needs to determine the best allocation of policies when demand exceeds capacity