Dynamic traffic analysis on VN

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Context

Current context

- Virtual Network Embbeding
- Recovering system
- Reservation of resources
- Substrate vision / Virtual vision

Objective

- Minimize resources reservation
- Answer to all Virtual Network Request
- Keeping efficient traffic

Approach

Dynamic Traffic

- Traffic is dynamic
- Allocation to maximun
- Resources used / Resources reserved

Approach steps

- Probabilty of maximal using
- Distribution of traffic
- Graph generator for virtual network modelisation
- Rethinking reservation method

Link

- Virtual network sharing substrate resources
- Resources limited by threshold

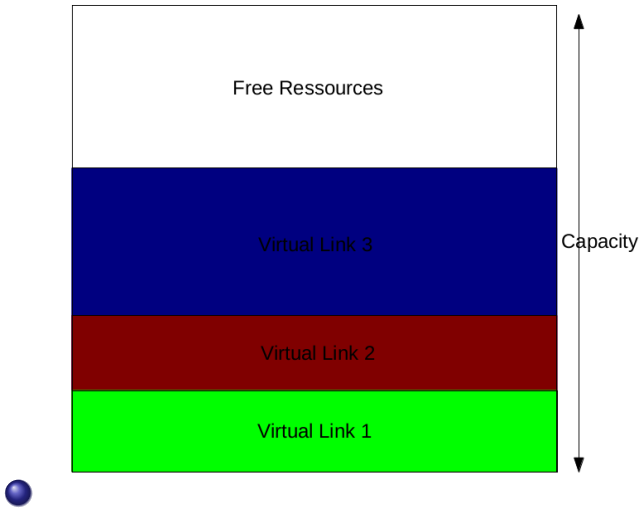

Figure: Schema a substrate link

- Completely using resources ?

Probability of maximun using

Resources

- One link substrate link -> Several virtual link
- 5 Virtuals networks
- Same resources for each virtual network

Flow update

- 20 time slices
- Direct changes
- Sliced flow capacity

Flow Graphics

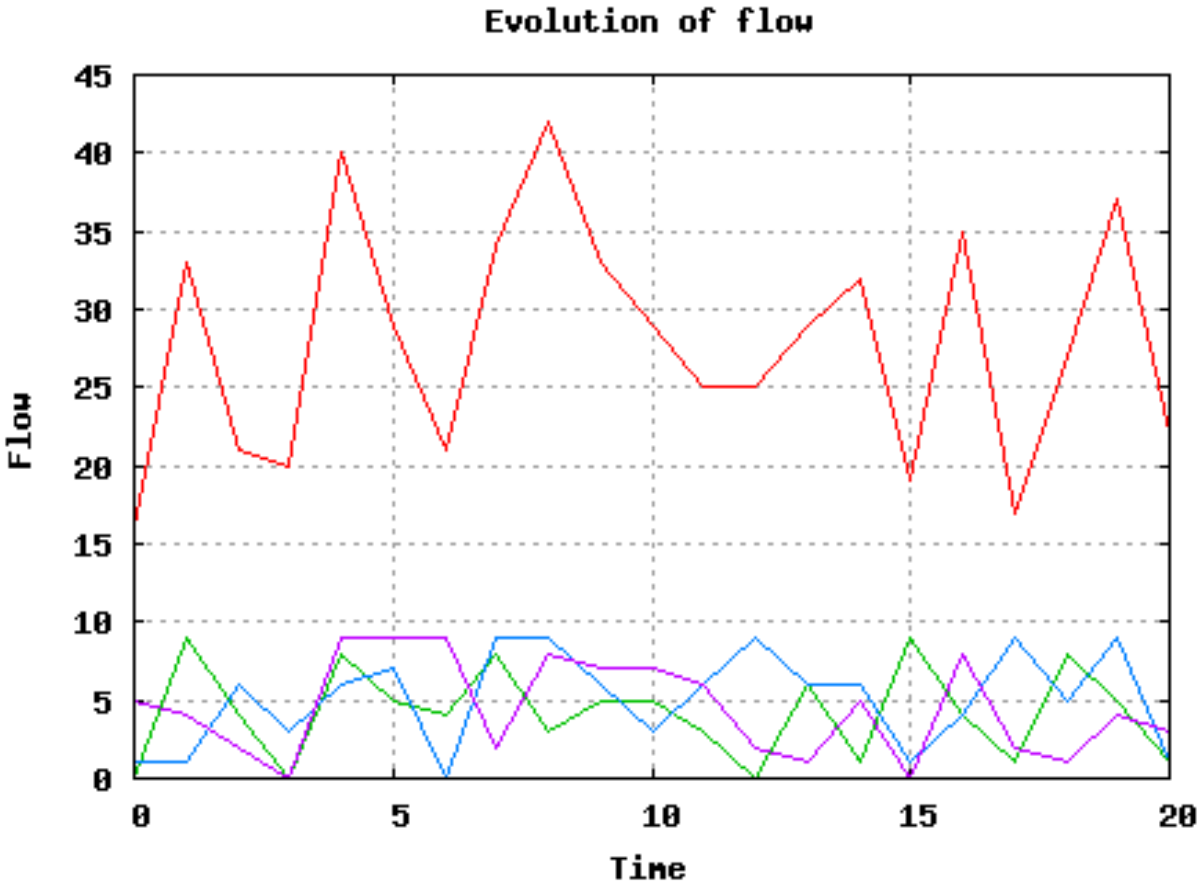

Figure: Evolution of traffic for 20 time slices

Towards step

Probabilty measurement

- Change for more realistic parameters
  - Flow capacity unique for each virtual network
  - Increase time slices numbers
  - Non simultaneous flow updates
- Analyse flow distrubution probability

Implemention

- Graph simulator to modelize virtual network
- Rethinking capacity threshold