

Learning-Capable Communication Networks (LCCN)

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IETF 80 Meeting
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Learning-based Control

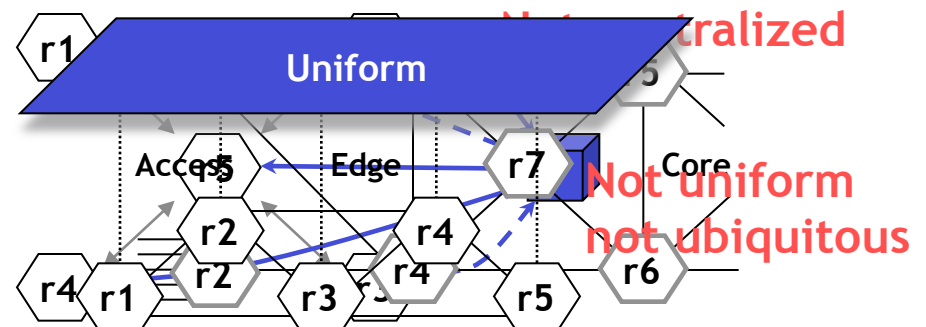
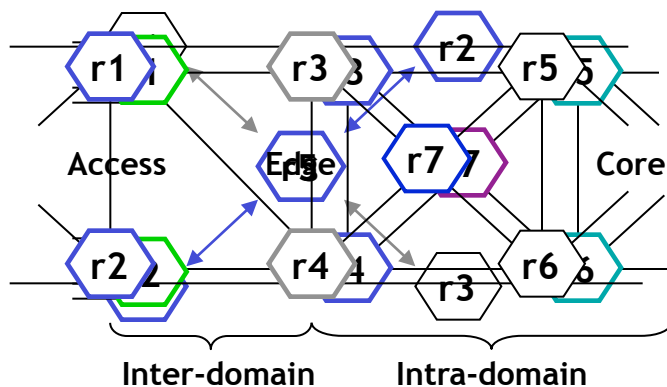
From static config and pre-determined decisions/executions to learning-based control adaptive to environment and running conditions over time

Role/challenges of learning

- **Diagnose** internal state, own activity, and network environment over time (detect -> identify -> analyze)
- **Adapt** decisions and **Tune** actions in a cost-effective and timely way
- **Determine** to operate autonomously and when to cooperate

Learning-based control

- **Local view** (no network global view): ensure scalability and robustness
- **Modular** (no monolithic or unified plane): ensure gradual development
- **Distribution** (no uniform or ubiquitous plane): ensure organic deployment



LCCN Initiative

- **Description:** <<https://sites.google.com/site/lccngroup/draft-charter>>
- **Goals (of this meeting)**
 - Community building and consensus building on problem statement and identified challenges
 - Assess level of interest to initiate research on these problems/challenges
 - Determine if IRTF is the right place to conduct research work to address (some of) them
 - Estimate readiness for **IRTF Birds-of-a-Feather (BoF) for IETF 81**
- **LCCN Events@IETF 80**
 - **Get Together:** Monday March 28th at 7:45PM (registration desk)
 - **Meeting:** Wednesday March 30th at 8:00PM (Karlin I)
- **Agenda:** <<https://sites.google.com/site/lccngroup/bof-description-and-agenda>>
- **Documents:** problem statement
 - draft-tavernier-irtf-lccn-problem-statement-01
- **Contact:** <<http://groups.google.com/group/lccn/>>