

Yearly Team Meeting

Thursday, 18th October 2013

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SnT, Université du Luxembourg

- ▶ Computer and Communication Networks Engineering in Politecnico of Torino
 - ▶ Bachelor Degree on September 20th, 2010
 - ▶ Master Degree on November 30th, 2012

- ▶ Started the PhD on May 15th, 2013
 - ▶ Dzmitry Kliazovich
 - ▶ Pascal Bouvry

1 Performance Metrics for Communication Systems

2 Network Coding

3 Application Defined Networks

- ▶ Existing metrics do not capture performances of data center communication systems
- ▶ We propose new metrics which are able to
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 - ▶ Network Power Usage Effectiveness
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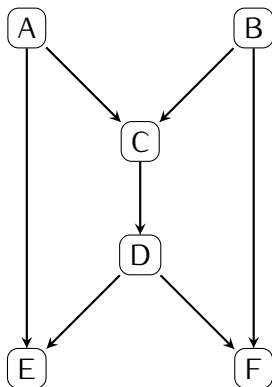
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1 Performance Metrics for Communication Systems

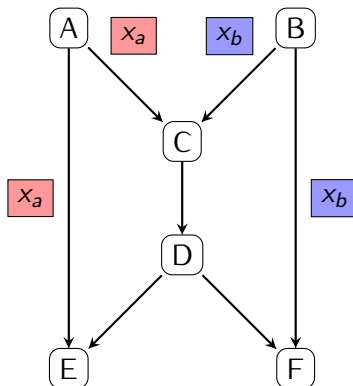
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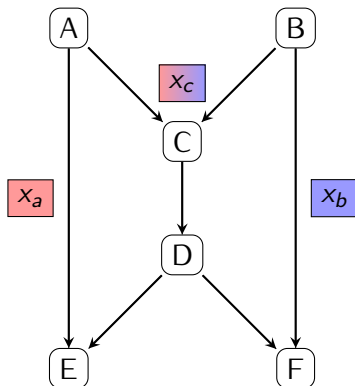
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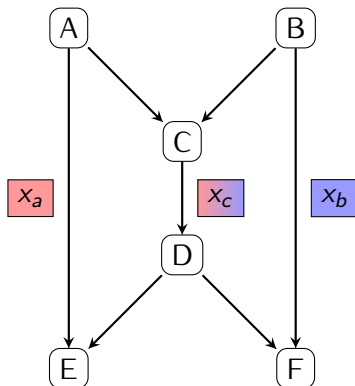


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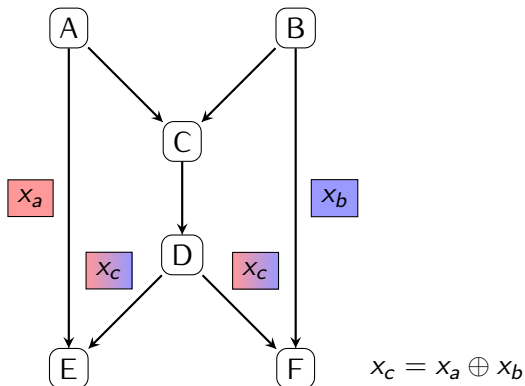
$$x_c = x_a \oplus x_b$$

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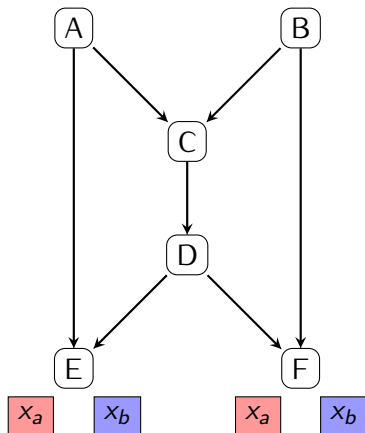


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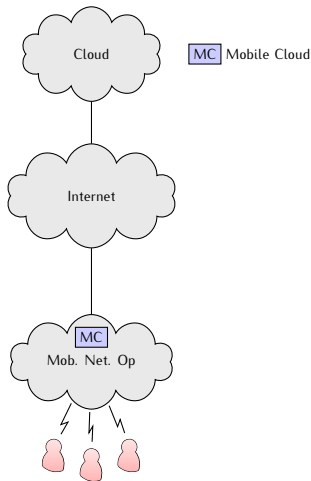


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Our approach

- ▶ Local optional traffic
- ▶ Cache
- ▶ Appropriate scheduling



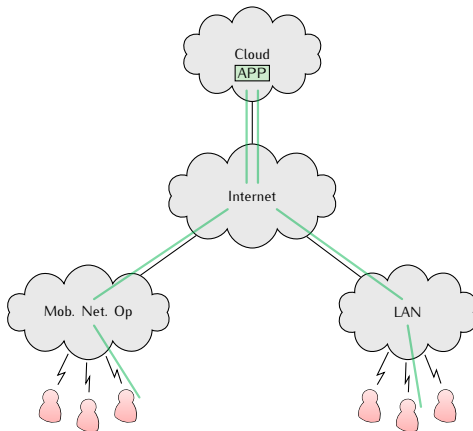
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Application Defined Networks

Introduction



Application Defined Networks

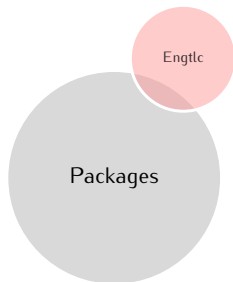
Related concepts

- ▶ Software-Defined Networks (SDN)
- ▶ Application-Aware Networks (AAN)



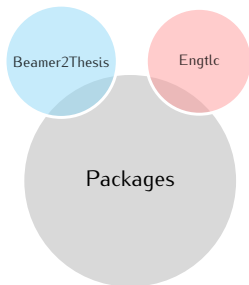
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- ▶ Originated from: [PowerPoint's "Smart Art" for TikZ?](#) in T_EX.SX



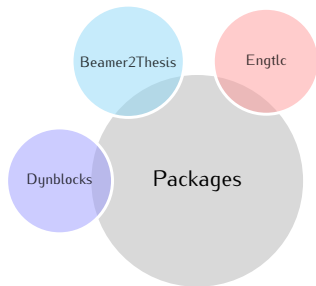
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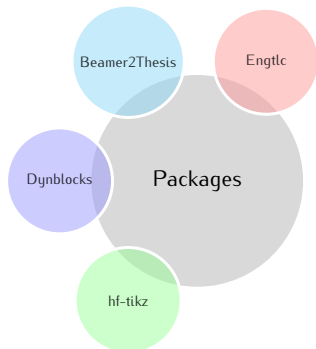
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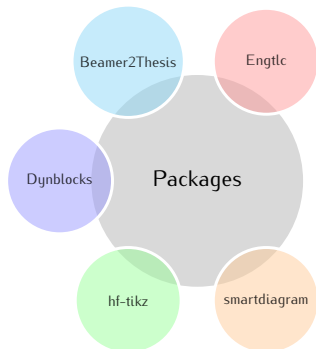
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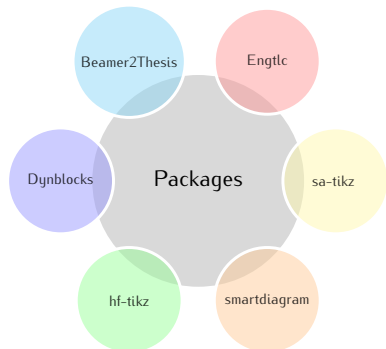
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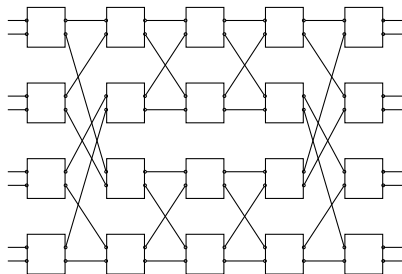
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Benes Network



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\begin{tikzpicture}
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  }
  ]{};
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- ▶ Claudio Fiandrino. Sa-TikZ: a library to draw switching architectures. *Ar_ST_EXnica*, (15):15–24, April 2013. <http://www.guitex.org/home/it/arstexnica>.

Thank You!