

ElasticTree: Saving Energy in Data Center Networks

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Introduction

- Most efforts to reduce energy consumption in Data Centers is focused on servers and cooling, which account for about 70% of a data center's total power budget.
- This paper focuses on reducing network power consumption, which consumes 10-20% of the total power.
 - 3 billion kWh in 2006

Data Center Networks

- There's potential for power savings in data center networks due to two main reasons:
 - Networks are over provisioned for worst case load
 - Newer network topologies