How does network equipment use and report energy use?

Nicolas Fevrier, Tony Li

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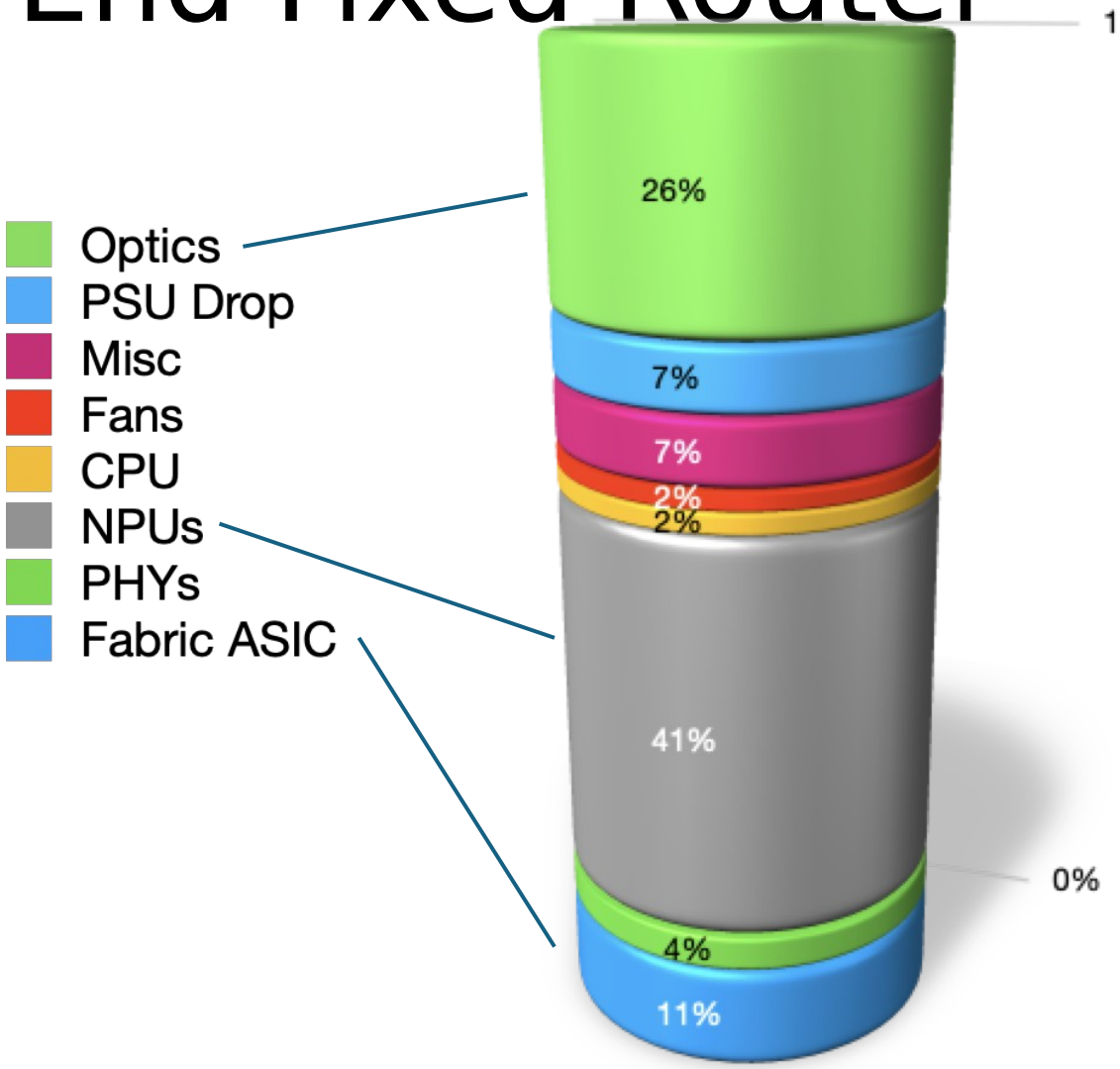
Power Utilization Breakdown: High End Fixed Router



- Low hanging fruit:
  - NPUs
  - Optics
  - Fabric ASIC

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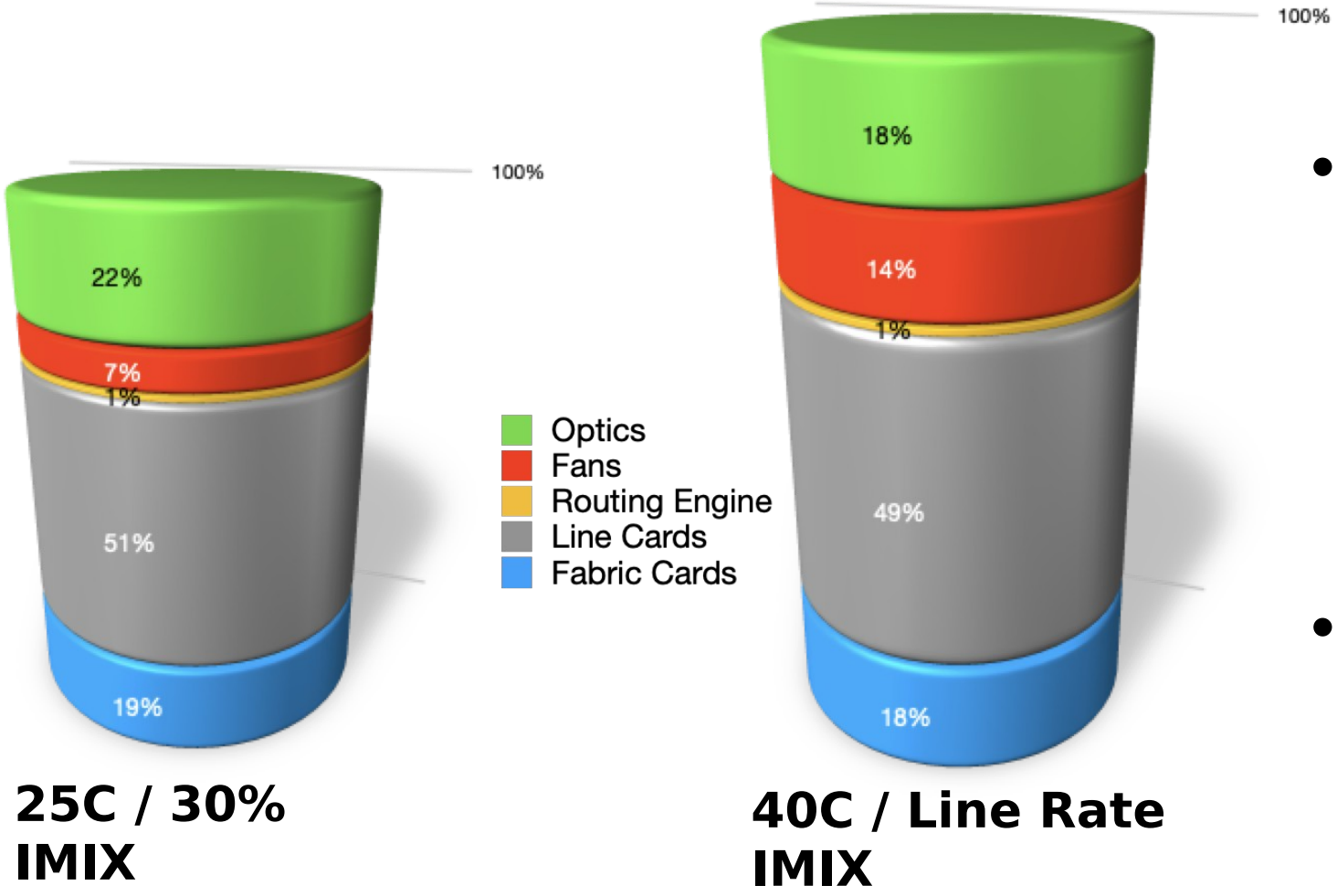
Power Utilization Breakdown: High End Modular Router



25C / 30% IMIX

40C / Line Rate IMIX

- Power utilization is a function of:
  - Traffic volume and distribution
  - Ambient temp
  - Altitude (air density)
- Comparisons require control of all variables

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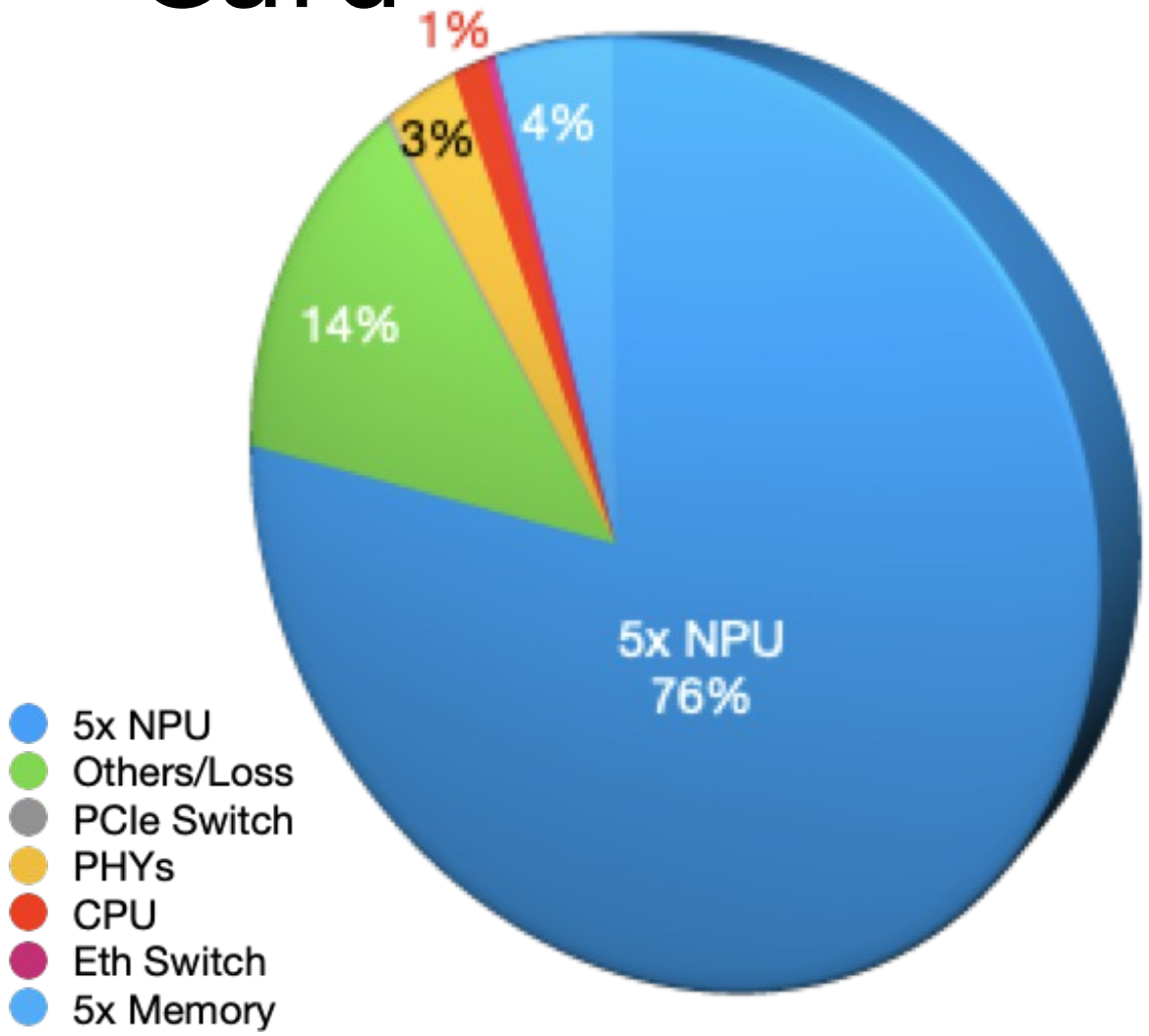
Power Utilization Breakdown: Line Card



- Low hanging fruit:
  - NPU & Memory

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Traffic Load Impact on NPUs

- Low hanging fruit: turn NPUs off (87% of max consumption)

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Reporting

- Data sheet
- Personal contact (support channels)
- EMAN not implemented or requested
- Please go to YANG, do not pass Go, do not collect $200

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