

● SRP

A Multimedia Protocol

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Multimedia Characteristics

● Loss

● Latency

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Multimedia Over TCP

- Guaranteed delivery (No loss)
- Flow Control
- Unbounded delay

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Multimedia Over UDP

- Best effort delivery (minimal latency)
- Unbounded loss

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Multimedia Over SRP

- Selective Retransmission Protocol
- Combination of TCP & UDP
- Retransmits a percentage of lost packets
- Application layer client/server protocol

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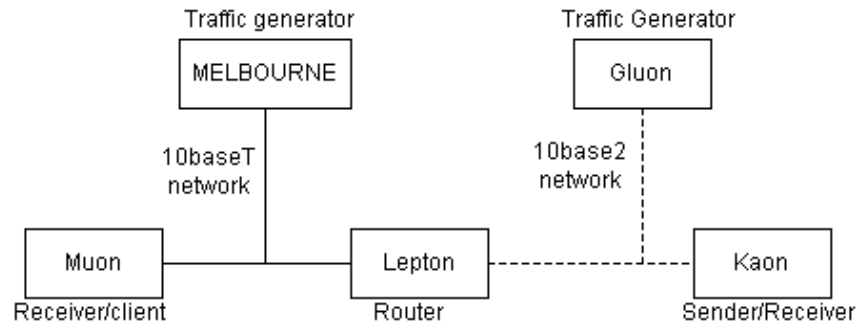
SRP Implementation

- Algorithms
- Equal Loss Latency (ELL)
- Optimum Quality (OQ)

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Testing Approach

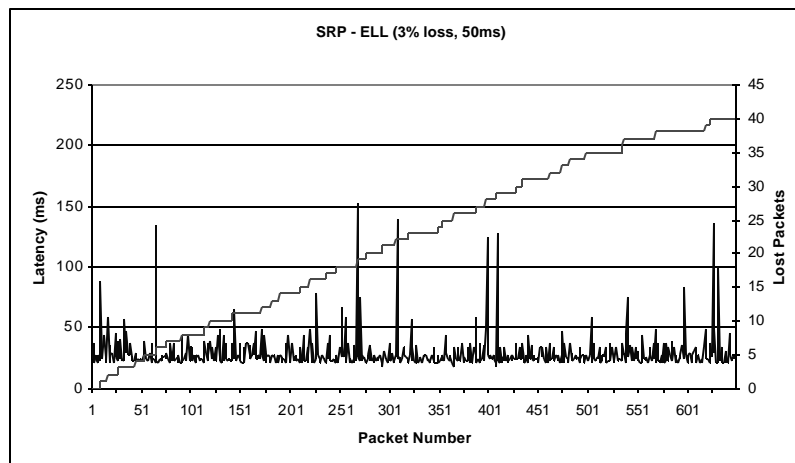


- UDP blaster
- Token bucket router

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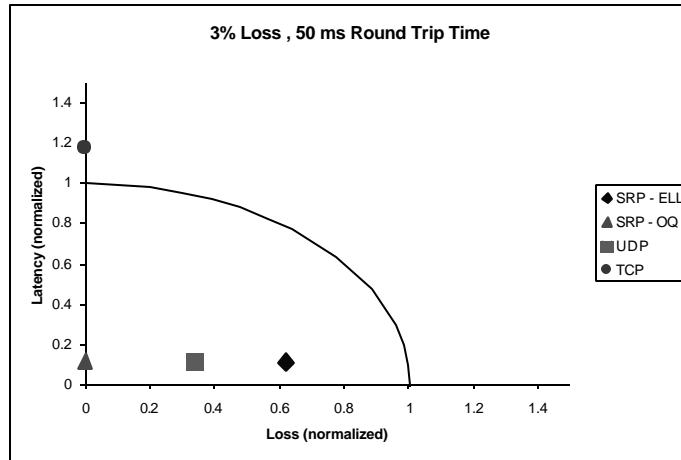
Sample Data



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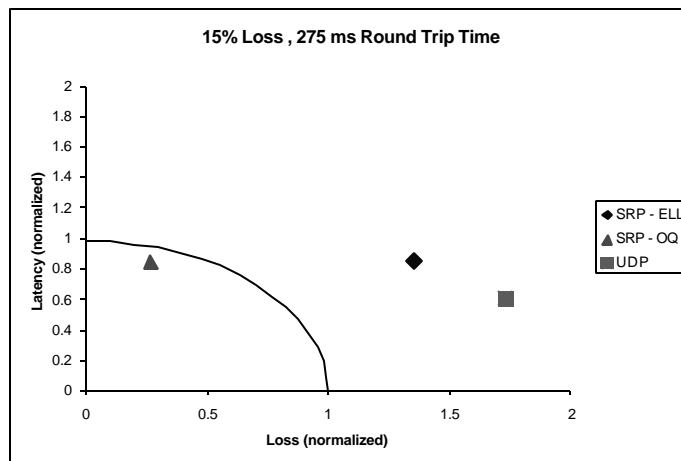
Low Loss, Low Latency



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High Loss, High Latency



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Conclusions

- SRP is a good balance
- Great potential
- Additional tuning

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Future Work

- Flow control
- Loss detection
- Additional algorithms

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