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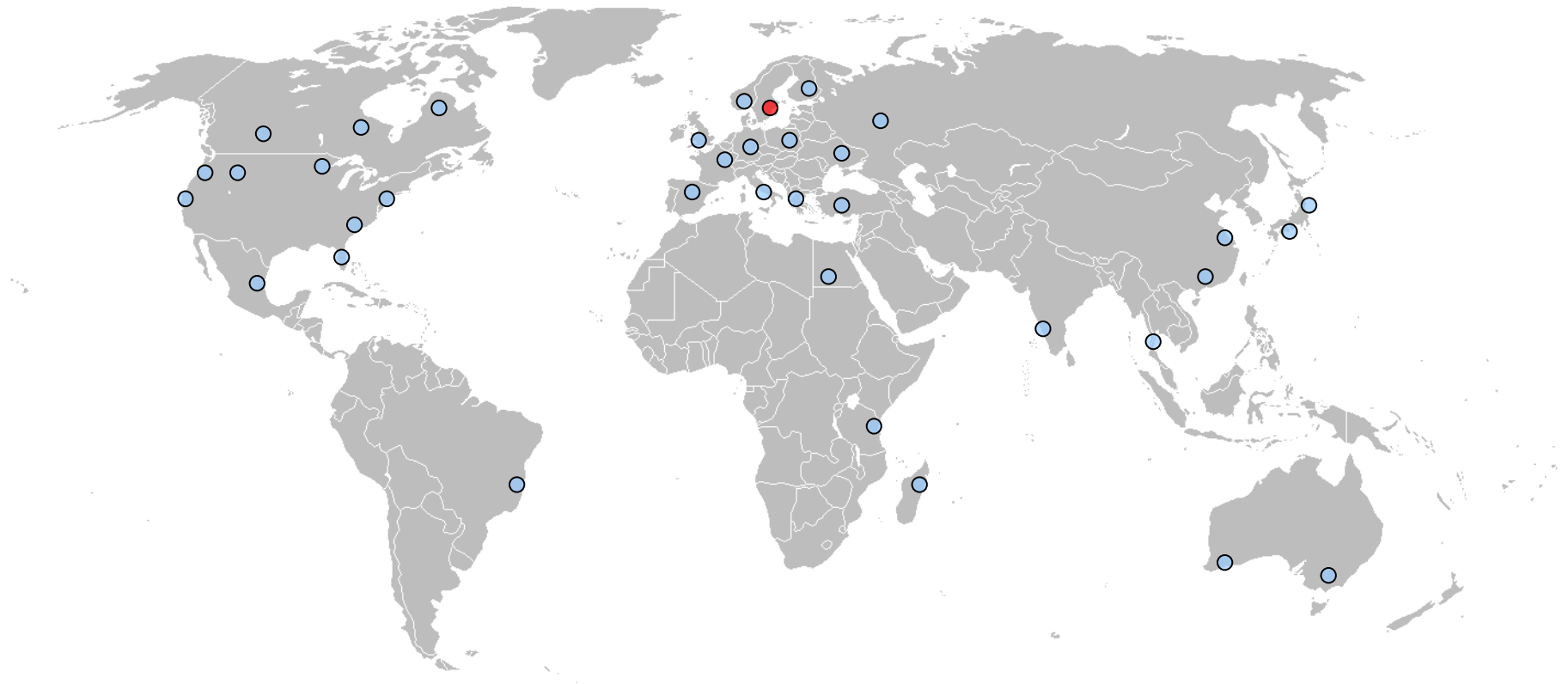
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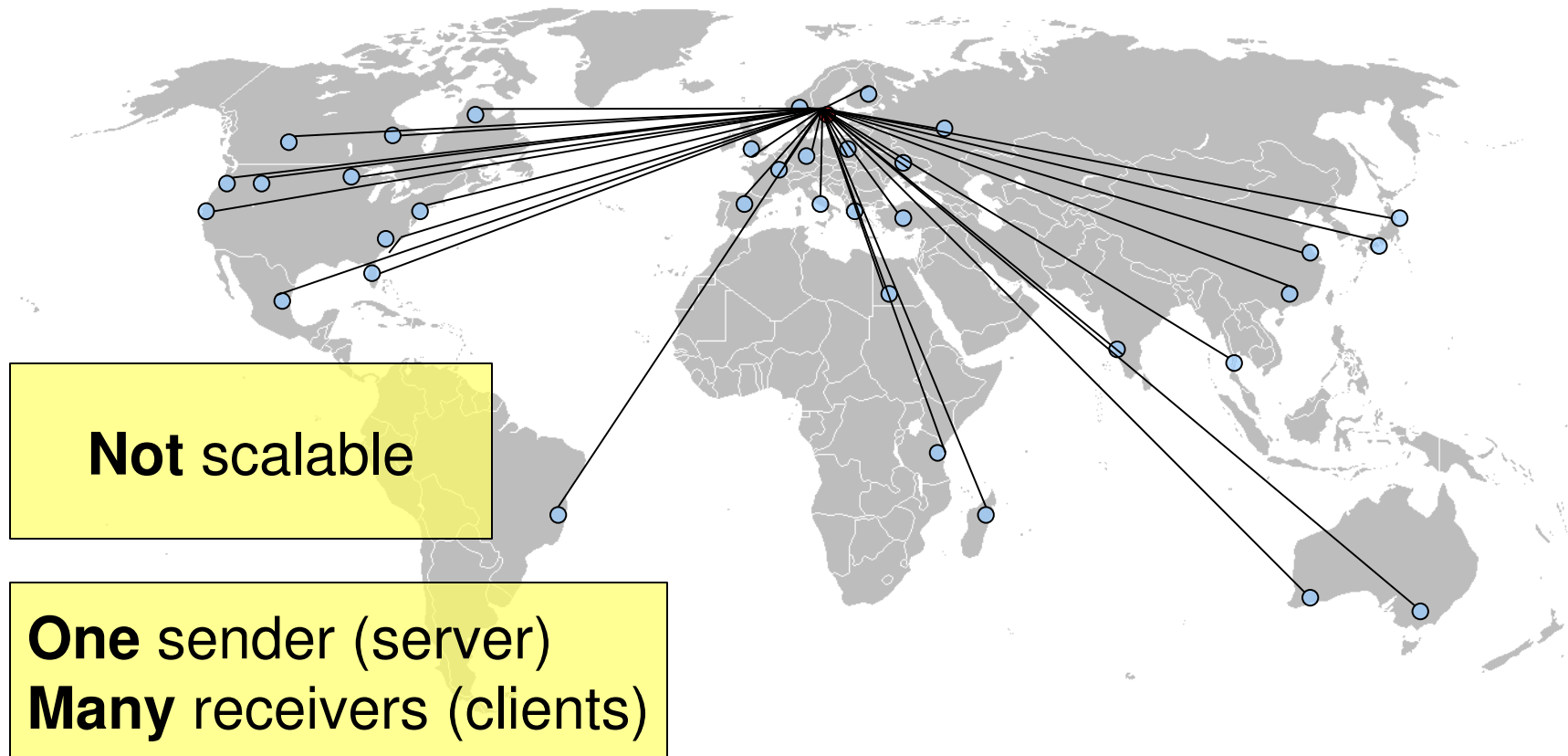
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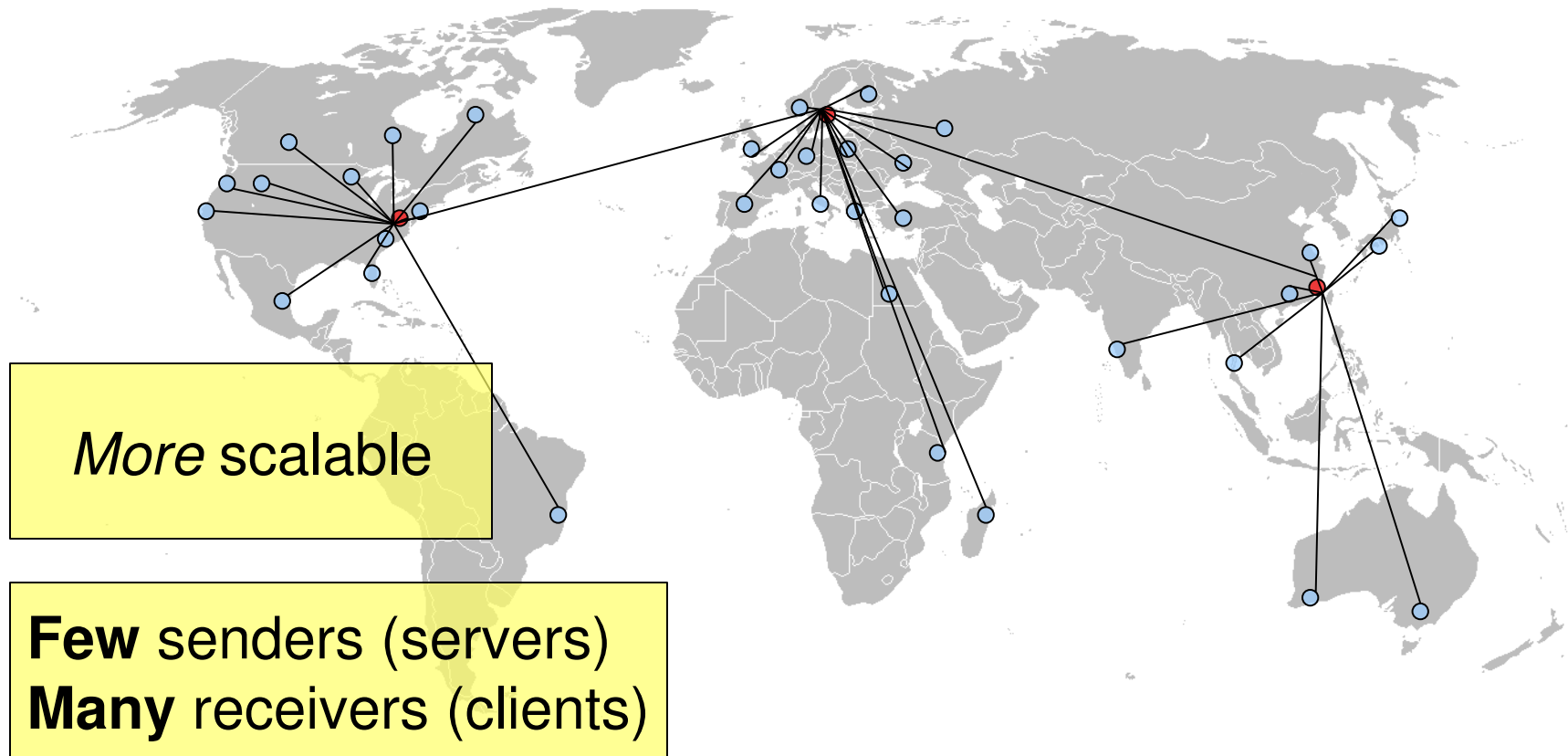
CTracker: a Distributed BitTorrent Tracker Based on Chimera

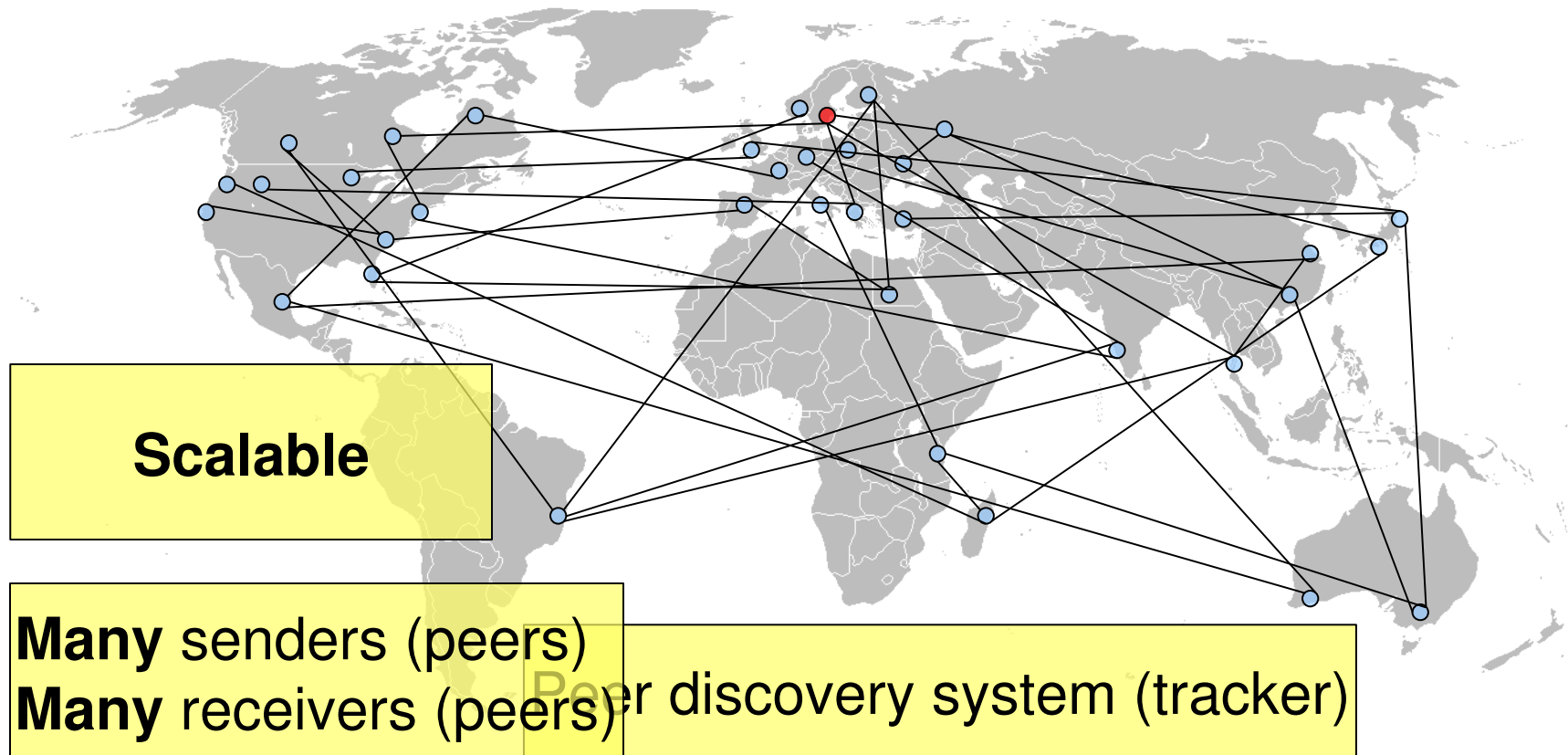
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- Online content distribution
 - BitTorrent
- Scalability
 - Limited producer's resources
 - Unlimited amount of viewers
- Locality
 - Lower delay
 - Faster download
 - Lower global cost



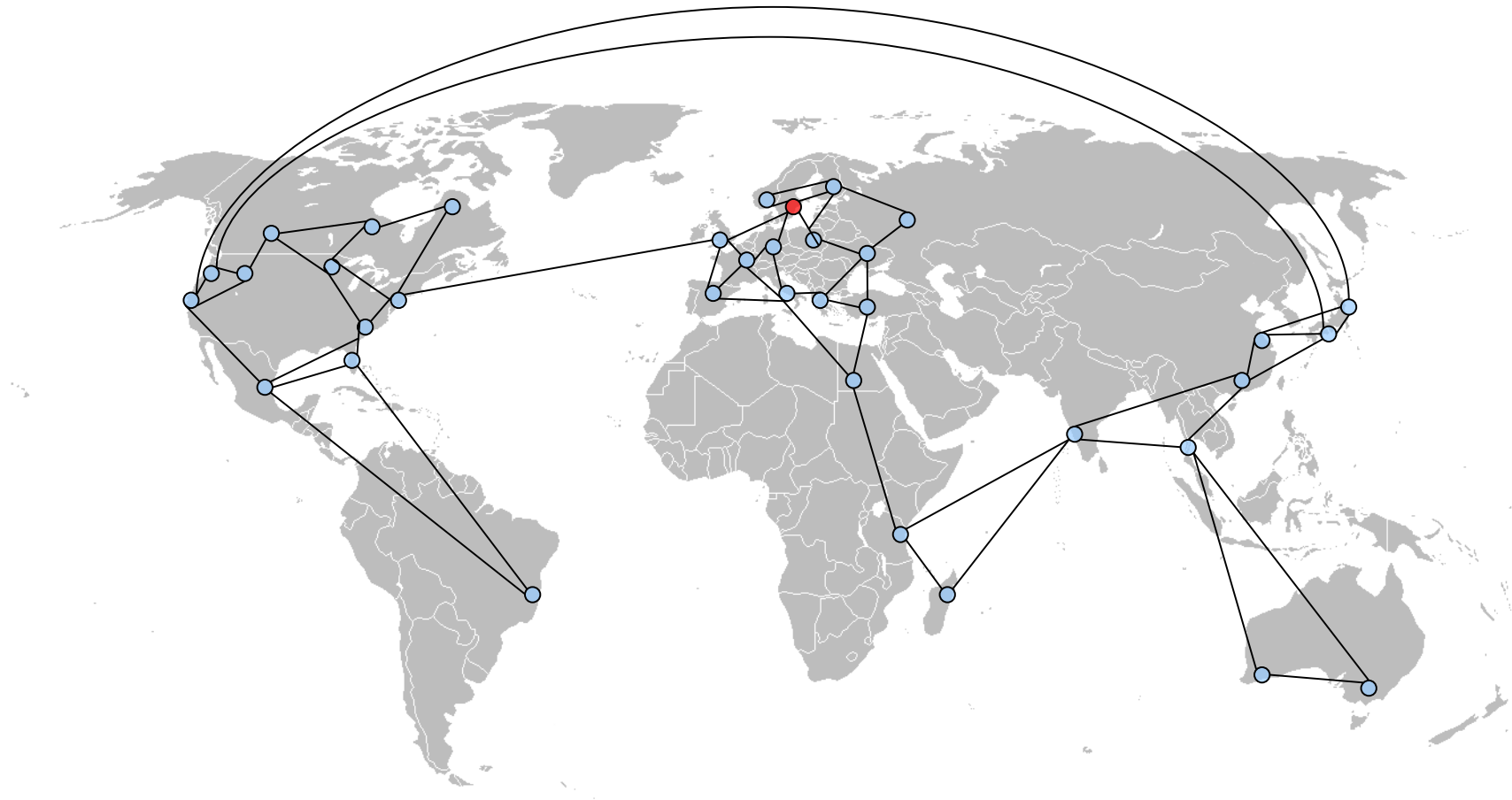


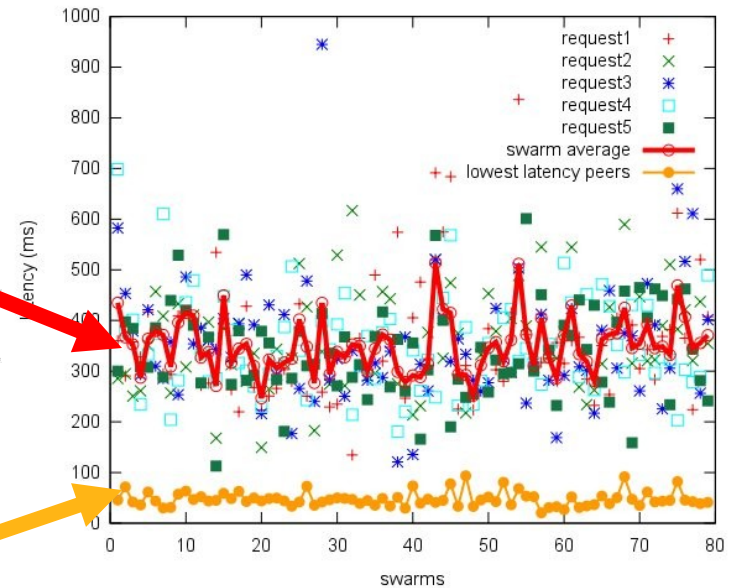
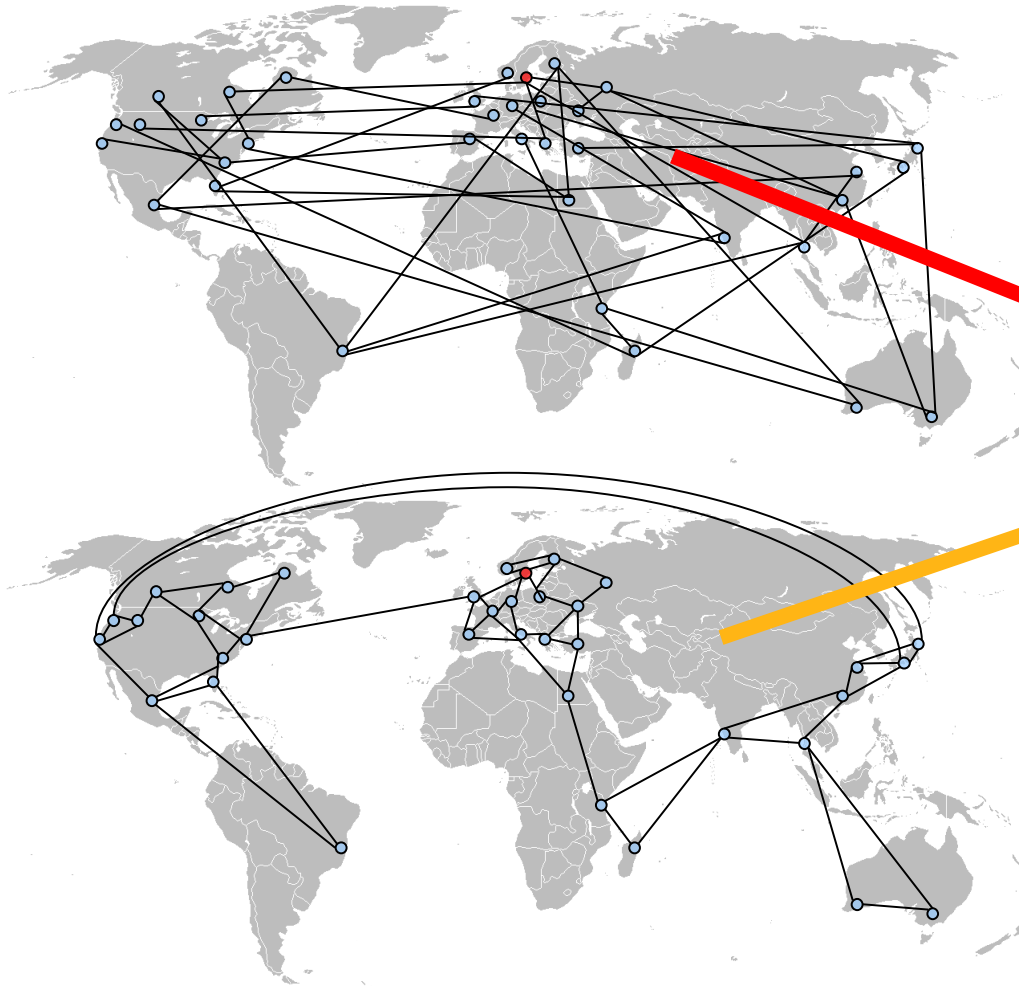




- Centralized tracker (server)
 - ✗ Single point of failure
 - ✗ Not scalable (one tracker, many peers)
 - ✗ Not locality aware (random connections)
- Decentralized tracker (peers forming a DHT)
 - ✓ No single point of failure
 - ⊖ More scalable (few trackers, many peers)
 - ✗ Not locality aware (random connections)

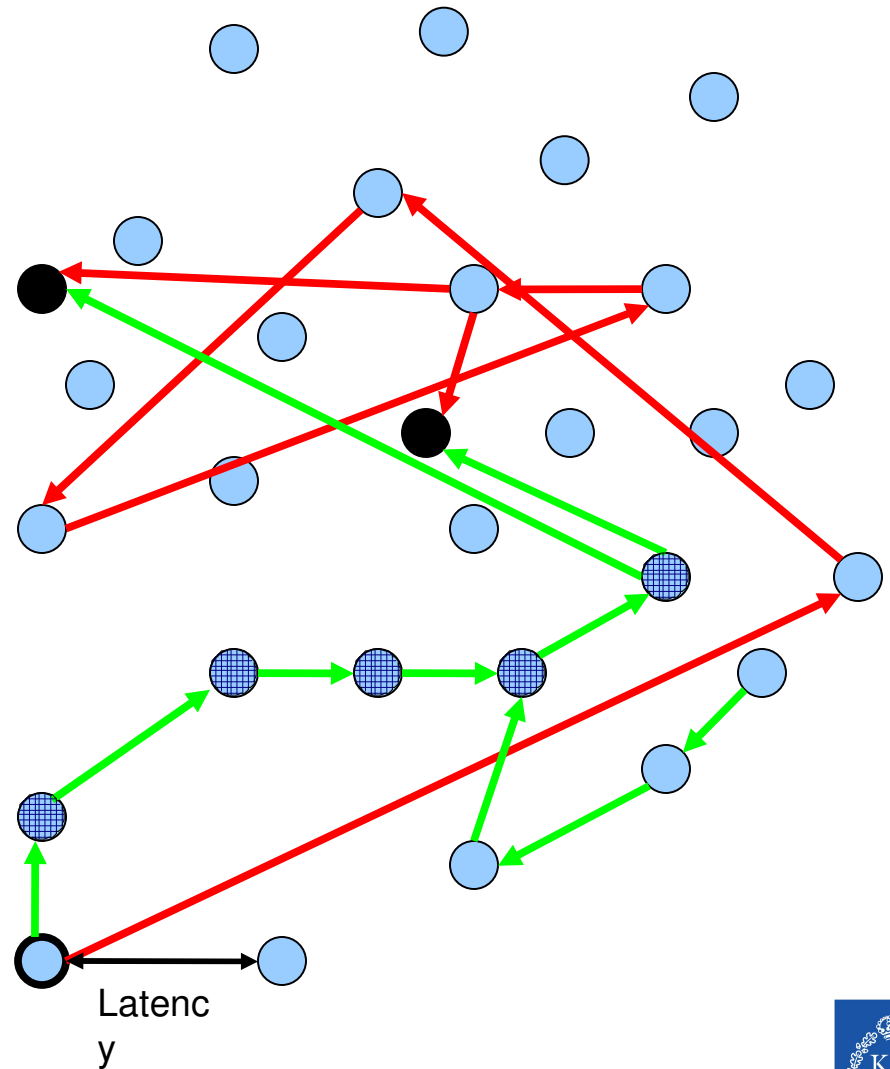
- ✓ No single point of failure
 - Distributed system (DHT)
- ✓ **Scalable**
 - Many trackers, many peers
- ✓ **Locality aware**
 - Peers connect to close peers





We can achieve
5-10 times
lower latency

- Locality awareness
 - ✗ Random latency neighbors
 - ✓ Low latency neighbors
- Scalability
 - ✗ Few trackers
 - ✓ Many “partial” trackers



- Current peer discovery systems
 - Limited scalability
 - Not locality aware
- CTracker
 - Address scalability and locality
- Future work
 - Integrate CTracker's properties into P2P-Next (BitTorrent)

Thank you!