Move data with unprecedented speed, security and assurance over the most challenged networks

Saratoga Data System's Flume™ is an advanced file transfer tool that significantly accelerates and assures data transfers across the most challenged networks including global, regional, mobile networks, and IoT infrastructure. Traditional TCP/IP based tools work well on local area networks but slow down and abort as network distances, congestion, intermittency and interference from electronic warfare increase.

SDS Flume virtually eliminates the challenge of latency and mitigates other effects that limit traditional TCP/IP transfer technologies. **SDS Flume** moves critical data across any network with more confidence than ever before.

SDS Flume features:
- Delivers significant data acceleration on high latency or degraded connections – including challenging IoT connections
- Deploys as a software only solution that runs on commodity hardware, cloud or virtual environments
- Accelerates data without the need to change any of the intermediary network
- Processes and guarantees accuracy of all data types and file formats transferred
- Delivers a suite of data efficiency and security features including configurable encryption and compression
- Accelerates new data transmitted over existing hardware network optimization solutions

Link	Acceleration
Northeast US to Nebraska	3x
Northeast US to Southern US	4x
Germany to Southern US	10.75x
Eastern Africa to Southern US	10x

SDS Flume secures and accelerates data up to 10x faster than other benchmarks, and transmits data when other methods fail all together

Technical Summary

Flume is a data transfer utility that maximizes data throughput by effectively capturing the "instantaneous bandwidth" available on a given network between two locations. **Flume** achieves increased acceleration and throughput without modifying the data or network in any way. **Flume** uses previous transmissions to serve as the foundation for incremental processing. **Flume** senses current network conditions and predicts future conditions to maximize throughput while remaining "fair" to competitive traffic as required by policy.

Frequently Asked Questions

Why are traditional internet communications so poor over long haul networks?
Network throughput using standard TCP is severely limited by several factors:

Latency
More than half the total overall transmission time of TCP-based transfers of a large file can consist of waiting for data packets to be transmitted to the receiver and acknowledgments of successful receipt to be returned. Due to this latency, increasing transmission bandwidth rapidly reaches a point of diminishing returns.

Network Congestion
File transmissions compete for available network capacity on congested networks. TCP adapts very poorly to changing traffic volumes.
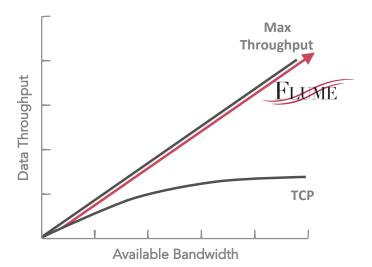
Network Quality
Lost or distorted data results in partial retransmission and often results in total transmission abort at worst.

SDS Flume overcomes network challenges and significantly outperforms TCP

What is Flume's architecture? What network investment do I need to make to use Flume?
Flume is a 100% software solution. **Flume** does not require any special network hardware. **Flume** runs on standard or virtual Windows or Linux machines with one machine required on each end of a desired connection. **Flume** also operates extensively in cloud environments.

What speeds can Flume achieve on my network?
Flume is proven to leverage all available network bandwidth - while respecting concurrent network traffic policies. A given network's characteristics (e.g., bandwidth, congestion, distance) determines the acceleration potential, and **Flume** consistently delivers acceleration benefits as data is sent outside the local area network.

Case Studies

US Military Operations – Facing up to 12 second latencies with network and hardware based interruptions, **Flume** solutions deliver where traditional data transfer technologies fail. Validation by multiple independent organizations confirms acceleration, assurance, and security delivered by **Flume**.

US Financial Services Company – A large US Financial Institution attempted to connect to remote data production facilities in Bangalore, India using a hardware based solution to optimize the link - this solution did not provide acceleration to the new data being generated. After adopting **Flume** the company saw a 10 times improvement in throughput of new data transferred from the remote offices.

Saratoga Data Systems is a software company dedicated to the efficient processing and movement of data over worldwide infrastructure, while doing so with best in breed security and data integrity.

Flume Software Overview

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