

FINANCIAL SERVICES

NY Metro Latency Guide**The Importance of an Ultra Low Latency Network**

When it comes to timely access to financial exchange data, two things are critically important: close proximity to exchange sources and an ultra low latency data network. Savvis is a leader in providing both: a broad range of hosting solutions each with geographic advantage, along with ultra low latency network connectivity.

Latency Elements

For ultra low latency networks, every microsecond counts. In deriving typical latencies between key sites on the Savvis network, the following elements are considered: Transport Latency, which combines Propagation Latency and Processing Delay; and Serialization Delay. The following is a description of how Savvis derives the one-way latency between key locations in its network. This information will continue to be updated as new data becomes available.

Transport Latency

Transport Latency is a combination of Propagation Latency and Processing Delay. Propagation Latency is the time it takes for a signal to traverse a fiber at roughly $2/3 c$ (speed of light) or 200,000 km/sec. Choosing the most direct fiber route keeps transport latency to a minimum. Processing Delay is the time it takes for a packet to be processed and forwarded in Layer 2 or Layer 3 device. This is assumed to be a worst case of 20 microseconds per device.

Serialization Delay

Serialization delay is dependent on transmission speed and packet size. In a worst case scenario, 12 microseconds of delay can be expected at the ingress and egress point of a 1 Gbps feed. Interim interfaces are assumed to be at a higher transmission speed and contribute less than 1 microsecond of latency per interface. All calculations were based on 1,500 byte packets. Smaller packets could result in lower latency at some speeds.

Key Features

- Ultra Low Latency Network Connections
- Proximity Hosting
- Solutions with Geographic Advantage

Putting It All Together with Savvis

One-way latency from NJ2 – Weehawken Data Center to the following sites:		Calculated Latency in microseconds w/data @ 1 Gbps	Measured Latency in milliseconds
SFTI / SIAC B	111 8th Ave. NYC	167	
SFTI / SIAC A	1 Evertrust, Jersey City	214	
NJ1 Data Center	34 Exchange Place	196	
NJ3 Data Center	Piscataway, NJ	848	
Exchanges within NJ2	NJ2	64	
NASDAQ	Carteret, NJ		1.7
CH3 (Chicago Node)	350 E Cermak		12.4
UK1 (London Node)	Telehouse		38.6

About Savvis

Savvis, Inc. (NASDAQ: SVVS) is a global leader in cloud infrastructure and hosted IT solutions for enterprises. More than 2,500 unique customers, including 30 of the top 100 companies in the Fortune 500, use Savvis to reduce capital expense, improve service levels and harness the latest advances in cloud computing.

For more information about Savvis, visit www.savvis.net or call 1.800.SAVVIS.1 (1.800.728.8471).

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