

# File Transfer Protocol (FTP) Aryaka's Cloud-based WAN Optimization

## PERFORMANCE BRIEF

### File Transfer Protocol (FTP)

The File Transfer Protocol (FTP) is the standard used for data and file transfer for companies with multiple branch offices across a wide area network (WAN). However, FTP is highly susceptible to the issues that arise due to unpredictable latency, packet loss, congestion and jitter. This directly leads to a loss of productivity.

### Aryaka Optimizes FTP Performance

Aryaka's cloud-based WAN Optimization-as-a-service offers significant performance improvements and productivity gains to FTP applications.

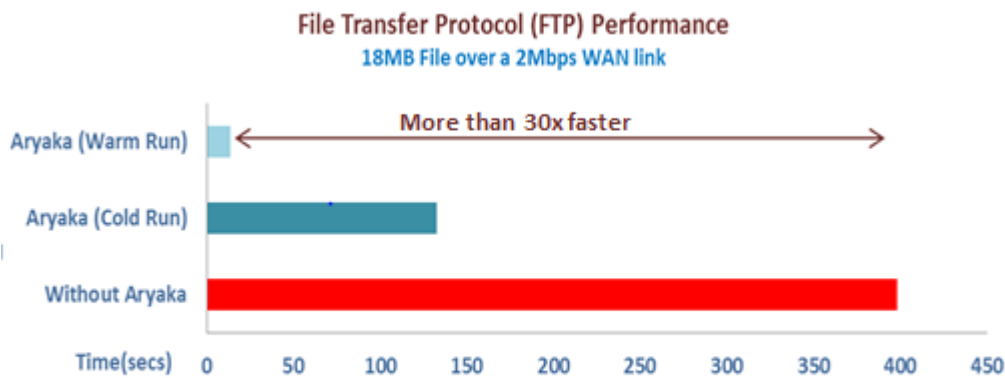
Aryaka's technology addresses bandwidth constraints through TCP optimization, compression and de-duplication (ARR™) and the combined effects of latency and protocol inefficiencies. Bandwidth utilization is reduced by 60-99% and round-trips are sharply decreased by as much as 95%. In addition, the dedicated, closed and secure Aryaka network minimizes latency variations and maximizes the use of the available bandwidth.

### Test Results

WITH ARYAKA	TIME
30x faster	13 seconds

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WITHOUT ARYAKA	TIME
Slow and unproductive	398 seconds



Cold Run: The data that has never been transferred over Aryaka.

Warm Run: The second instance of the data over Aryaka.

- ✓ An 18 MB file took about 398 seconds over a traditional WAN
- ✓ The transfer was optimized by 30x over Aryaka
- ✓ It took less than 13 seconds to complete the transfer
- ✓ FTP data transfers over Aryaka showed improvement when tested under intense packet loss conditions.
- ✓ On a network with 5% induced packet loss, the transfer over Aryaka was over 50x faster.



## Use Case

1GB files were transferred

7Mbps bandwidth utilization was reduced to 150kbps

More than 30x traffic optimization



## Key Benefits

- Better user experience
- Improved Productivity
- Superior communication and collaboration
- Optimal use of network resources
- Bandwidth & cost savings
- Real time Reporting

## Test Bed Parameters

FTP Client – Windows Vista Ultimate 64

FTP Server – Windows Server 2008r2

File type – binary, text and images

File size – 1 GB

- 2Mbps WAN link
- 30ms and 25ms latency on two edge links
- 240ms latency on the core network with 2ms jitter
- Testing was also performed under 5% packet loss

## Reference Architecture



## ABOUT ARYAKA, INC:

Aryaka is the world's first cloud-based WAN optimization company solving application and network performance issues faced by the distributed enterprise. Aryaka has been named "Cool Vendor" by a leading analyst firm and to the GigaOm Structure 50 list for companies that will shape the future of cloud computing. Aryaka eliminates the need for expensive and complex appliances as well as long-haul connectivity, and enhances collaboration across locations. It offers significant cost, ease-of-use and performance advantages, helping global companies achieve dramatic productivity gains and increased visibility into their WAN applications, locations and performance, while providing 24/7 world-class support.



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