

## CHALLENGES

- Inability to transfer unique images across the WAN using caching techniques
- Slow Internet connections make it hard to transfer large image files
- Network congestion and intermittent network outages
- Slow transfer speeds delay patient diagnoses
- Risk of HIPAA violations

## SOLUTION

### Circadence MVO<sup>™</sup> 1200 WAN Optimization suite

## BENEFIT SUMMARY

- First and only solution to increase transfer speed of unique images across the WAN
- No costly hardware purchases and easy installation
- 80-percent improvement in processing time
- Greater file transfer reliability
- Encryption layer improves data security, reduces HIPAA risk
- Physicians can rapidly diagnose conditions and patients
- Patients receive treatment more quickly

## CIRCADENCE MVO<sup>™</sup> 1200 PRODUCED AN 83-PERCENT PERFORMANCE GAIN ON MEDICAL IMAGING READS

### Profile

Imaging Associates of North Mississippi provides radiology interpretation services to 11 hospitals across northeast Mississippi and one in central Tennessee. X-ray, MRI, CAT scan and ultrasound images are sent to interpretation centers via WAN, DSL, cable T1, and a variety of other public and private Internet and network connections.

### Challenges

Imaging Associates of North Mississippi depends on reliable, high-speed transmission of imaging data to and from its central facility in Tupelo, Mississippi. The hospitals, clinics, and health care facilities that use the company's services either cannot afford a full-time radiologist to interpret medical imaging, or use the service when they are short-staffed. Unfortunately, traditional caching technology prevents unique images from being transported across the WAN, creating a challenge for radiologists.

At many locations, Internet connections are either extremely slow, intermittently unreliable, or both. This puts extreme pressure on doctors and specialists as they wait for imaging results to make diagnoses and begin patient treatment. The company realized that even the fastest network connections were susceptible to frequent congestion and intermittent outages. Both of these conditions were causing unexpectedly long file transfer times or file loss when the network attempted to reestablish a connection.

In addition, the company was running all data across virtual private network (VPN) lines to ensure patient data privacy in accordance with HIPAA regulations. Other imaging companies sometimes transfer images across public Internet connections with little encryption of medical images, in order to successfully transmit their data. This tactic, however, risks violations.

### Circadence Solution and Benefits

Imaging Associates found a solution with the Circadence MVO<sup>™</sup> 1200 WAN Optimization suite – the first and only solution to transport images across the WAN at exponentially increased speeds.

***“Circadence offered a two-week test within our network, and when this was operational, I was completely blown away by the speed increases attained. Needless to say, I ordered the product then and there.”***

**– Cavett Otis, IT Director, Imaging Associates of North Mississippi**

Unlike traditional WAN optimization solutions, Circadence provides a patented optimization protocol that does not employ caching techniques or its limitations, creating a breakthrough in the transfer of medical images. The Circadence MVO 1200 technology optimizes WAN speed and reliability without costly hardware purchases, and is easily installed on nearly any network with no major reconfigurations.

Imaging Associates participated in a unique two-week trial of the Circadence MVO 1200 WAN Optimization application over a network link from its Tupelo to Corinth locations. In the initial run, two digital X-rays just over 20MB of uncompressed data were sent by means of a cable internet VPN, consuming about two minutes in processing time. After installing the Circadence MVO 1200 technology on each end of the WAN connection, the transfer took less than 20 seconds -- an improvement of over 83-percent. This allowed six to seven X-ray images to be processed in the time it took to process one image prior to installing the Circadence MVO 1200 WAN Optimization software. “Results have remained consistent,” said Cavett Otis, IT Director for Imaging Associates of North Mississippi. “We’ll be moving forward with more Circadence installations in the future.”

Over the past few months, Imaging Associates has completed a number of performance trials on CAT scans, X-rays, and ultrasound image files, with and without the Circadence MVO 1200 WAN Optimization solution.

With the Circadence MVO 1200 WAN Optimization solution, Imaging Associates significantly cut transfer times across its network, providing the following benefits:

- Faster turnaround of medical images throughout the network
- Greater file transfer reliability, regardless of network congestion or intermittent outages
- Added encryption layer for improved data security and improved HIPPA compliance

The company’s imaging interpreters now read a reliable, steady stream of digital images so physicians can rapidly diagnose conditions and patients receive treatment quickly. In addition, patient data is better protected.

***“Jaw dropping performance with an attractive price point makes Circadence MVO 1200 a solid investment, one which fills our need for faster connections.” – Cavett Otis***

## For More Information

For more information about the Circadence MVO 1200 WAN Optimization suite, please visit [www.circadence.com/products/MVO1200](http://www.circadence.com/products/MVO1200).