



ENDURADATA

PROTECTING, DELIVERING AND LEVERAGING DATA

MEDICAL RESEARCH SUCCESS STORY

JSS Research, an international clinical research organization, uses EnduraData to mirror data centers between continents. The medical and pharmaceutical scientists now have immediate access to trial data for analysis and real time healthcare decision making.

The Challenge

The customer has branch offices in the USA, Canada, Poland, India and Columbia and conducts studies globally in 21 countries. The scientists and staff need to have immediate access to clinical trials and research data. Global networks have high latency and experience outages periodically. The previous solution, Microsoft Robocopy, was unable to synchronize critical data, unable to handle the prevalent network latency issues, was prone to failure and required restarting complex batch processes. In addition, the demand on existing systems interfered with clinical research work and impeded the researchers' ability to make timely decisions based on on-going medical trial data. Other characteristics of the operating environment are as follows:

- Exchange of confidential drug and customer information needs to be conducted in a secure way
- Regulatory, clinical development, strategic assessments, advanced biostatistics, risk management, patient reported outcomes, literature review, and rescue analyses all required timely data delivery
- Over 200 projects annually are conducted requiring collaboration and coordination between specialists located in multiple countries
- Automating the process and recovery from point of failure is critical in order to mitigate human error, eliminate data loss, leaks of confidential information and reduce labor costs
- The existing infrastructure is leveraged to avoid disrupting operations and incur unnecessary costs
- The same file structure and access controls need to be preserved on dissimilar servers, virtual machines, operating systems and storage.

The Solution

Our engineers worked with the customer to define transfer policies, mirroring configurations, resource allocation, and fine tune performance based on network characteristics, rate of change of files and system usage.

Key Benefits

Performance

- Clinical trial data generated in a given country is available in real time in other countries located on different continents
- The solution seamlessly resolves network outages and high latency issues
- Adaptive compression, parallel I/O and intelligent transfer algorithms dramatically improve performance
- Efficient resource allocation management reduces system overhead and impact on users.

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Flexibility

- Configuration policies control what data gets replicated
- Scheduled and continuous replication keeps all systems in sync and mirrored
- On demand replication syncs heterogeneous systems as needed
- Existing investments in servers and networks are leveraged without the need for new systems or the cloud.

Resilience and Operational Efficiency

- The solution is configured, managed and monitored using a browser or command line
- Data is automatically delivered in real time to scientists and medical staff as it changes
- Digital assets are automatically protected in the event of a disaster or human errors
- File systems replication resumes automatically from network and server failures
- Automation significantly reduces labor costs and operator errors.

Security and Compliance

- Data is automatically encrypted in transit to prevent intellectual property theft, to protect pharmaceutical and device manufacturers proprietary data, as well as patients' personal health information
- Multiple levels of security are used for access control
- Full audit trail with reporting, statistics, file change and replication history
- Alerts are sent in case of a failure.

Outcomes

JSS Research is able to sync critical data in real time, efficiently and reliably, between international facilities. Over 3 million files are replicated automatically back and forth daily, between continents. Scientists and Experts in their field have now timely access to clinical trials data and analyses, from any location.

Testimonials

“This is the first time that we were able to complete the synchronization of over two terabytes of data and over two and a half million files back and forth daily between the two countries. EnduraData’s support was very helpful in assisting us with configuring and in getting the project finished on time and under budget”

Mr. Titus Tucan, JSS Sr. Network Engineer