

## Candelis Case Study

June 2015

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Lead Researcher, Fortune 200  
Pharmaceutical Company

#### Location

New York, NY

#### Services

Pharmaceutical Clinical Trial Testing

#### Key Business Challenges

- Transferring large batches of data, ranging from 30 to almost 100 GB
- Seamless integration of software application and image management system
- Timely and secure sharing of medical study objects

Global Fortune 200 Pharmaceutical Company  
Selects Candelis ASTRA™ Image Exchange  
Platform for Clinical Trials Image and Data Sharing

#### The Customer

A global, multi-billion dollar fortune 200 pharmaceutical company dedicates a large percentage of its investment dollars in R&D for the discovery and development of new medicines for patients, with product pipeline solutions for diseases including rheumatoid arthritis, hepatitis B, cancer, HIV/AIDS and diabetes.

As an innovator in the pharmaceutical space, the company shares clinical trial information and data with patients, medical/research communities, the media, policy makers and the general public, consistent with the Principles for Responsible Clinical Trial Data Sharing (Principles) released by the U.S. and European pharmaceutical trade associations, PhRMA and EFPIA. These agencies support the safeguarding of patient privacy and informed consent, respecting the integrity of national regulatory systems and maintaining incentives for investment in biomedical research.

#### The Challenge

Clinical trial protocols require that studies are performed with specific imaging requirements, often resulting in a voluminous amount of data. Clinical trials involving imaging can range from simple trials with a few dozen subjects to large and complex exercises involving thousands of subjects requiring hundreds of gigabytes of storage.

- Cost-effective and efficient solution to sharing data with consultants and key opinion leaders
- Optimizing the visualization process for accurate analysis and reviews from analysis labs

#### ASTRA™ Plus Key Benefits

Lower administrative and maintenance costs for image distribution

Increased productivity from faster access to data

“Historically, we would store images on portable media and ship that media, resulting in additional time and costs,” explained the lead researcher.

The company sought an alternative solution to optimize the image exchange process. After evaluating various image sharing software options, the company discovered that all were designed from a patient's perspective, not from a research standpoint.

They were in need of a software application option that could seamlessly manage large datasets and at the same time, provide an easy to use and intuitive user-interface. Most importantly, the solution had to fit into their business operation – the clinical trial ecosystem.

At the pharmaceutical company, once a compound is ready for human trials, the test subjects are given drugs, and MRs and CTs are collected. The study results are incorporated into their image management system where the database software tracks performance and other attributes. The images are then shared with consultants for additional analysis or confirmation.

The company wanted an effective distribution channel to send the images in a batch mode so that their analysis partners could open and download large amounts of data. Software application prerequisites included elimination of the need for user IDs, firewall rules, specialized software and VPN accounts. The usual software solution, designed for referring physicians with single image distribution, was not capable of addressing their requirements.

#### The Solution

Looking to eliminate shipping costs from the traditional data sharing method of employing USB drives and/or mailings, the pharmaceutical company selected Candelis ASTRA™ Plus to achieve seamless transition into streamlining data electronically.

Integrated with an internal image management system, the company is able to send large batches of data via ASTRA™ Plus. The users can easily load ASTRA™ Plus's software onto their workstations and gain access to the shared study objects. ASTRA™ Plus's feature-rich visualization capabilities then allow for efficient and accurate time point analysis by consultants and key specialists.

ASTRA™ Plus is tailored for Clinical Trials, supporting the operational needs of the pharmaceutical company. With Group 12 DICOM field cognizance, the collation of clinical trial objects is made possible. Side-by-side visualization and policy-based anonymization are ASTRA™ Plus services heavily leveraged by the pharmaceutical company.

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ASTRA™ Plus provides robust security; shared objects are encrypted with a combination of symmetric and asymmetric keys. Only the sender and intended recipient can decrypt objects. Objects are secured both in transit and at rest.

With the anonymization facility, PHI can be obfuscated to protect patient privacy without impacting clinical trial analysis. Anonymization can be automatically applied and flexibly configured to accommodate different situations and destinations.

ASTRA™ Plus' powerful DICOM engine is capable of performing at the level of a full-featured PACS and more. In addition to the ability to route studies over the LAN and the WAN, ASTRA™ Plus allows the configuration of send and receive windows. Both the sender and recipient determine the appropriate time frames to transfer and to accept the shared data. With the pharmaceutical company looking to send 173,777 images in a single batch, this routing policy prevents bandwidth overutilization, especially during regular business hours.

Offsite consultants and specialists benefit from extensive visualization tools and the diagnostic-quality viewer. These capabilities ensure accurate and relevant analysis. Although designed to be a powerful routing engine with advanced visualization capabilities, ASTRA™ Plus remains easy to use and accessible to even non-technical users. With a clean and intuitive layout, ASTRA™ Plus users can easily navigate the application.

### The Results

The extensive capabilities from ASTRA™ Plus enabled the pharmaceutical company to integrate the software application into its clinical trial operation, achieve efficiency, and eliminate shipping expenses from the traditional image sharing method. At last count, almost 100 GB of data has been shared with an analysis lab for further review and investigation.

With the integration of ASTRA™ Plus to the company's image management system, the pharmaceutical company transitioned into the next phase of data sharing - electronic distribution of medical data.

Expensive USB drives and the incumbent risks of traditional shipping were eliminated. ASTRA™ Plus enhanced collaboration between the pharmaceutical company and its core lab partners. The pharmaceutical company's lead researcher was pleased by the personalized experience and attentive service from the Candelis staff.

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- Lead Researcher, Fortune 200 Pharmaceutical Company

When asked about the top three qualities of ASTRA™ Plus, the lead researcher noted: "Convenience, security and ease of use."

In fact, ASTRA™ Plus's robust transmission, routing engine and visualization capabilities impressed the pharmaceutical company's business partners. The company's major affiliated core lab personally reached out to Candelis to obtain more information on the product.

With the successful implementation of ASTRA™ Plus and the enthusiastic responses from the company's partners, the lead researcher looks to expand the software application to additional users. ASTRA™ Plus proves to be a positive transition into the next-generation image distribution service.

#### Note

The customer who was the subject of this case study is one of our references and can be made available to qualified prospects to provide feedback.