



CLOUD-BASED ELN STREAMLINES MED DEVICE DEVELOPMENT BIOVIA NOTEBOOK ON SCIENCECLOUD

Use Case



Challenge:

Lengthy documentation procedures, potential for erroneous or lost data

Solution:

BIOVIA Notebook on ScienceCloud

Results:

- Improved scientific collaboration regardless of physical location
- Enhanced data capture for IP protection and data accuracy
- Increased data traceability and transparency
- Increased efficiency with cloning of experiments and simplified workflows
- Reduced IT overhead with scalable, secure, commercial cloud solution

CUSTOMER: A LEADING MEDICAL DEVICE AND IN VITRO DIAGNOSTICS TECHNOLOGY COMPANY

This BIOVIA customer is a global leader in surface modification technologies for vascular medical devices and a leading provider of chemical components for in vitro diagnostic tests and microarrays. The company's expertise extends back to the development of drug-delivery technology for one of the industry's first drug-eluting stents. The customer has combined proprietary surface technologies, and device design, development and manufacturing expertise, allowing them to offer significant value to medical device customers. The organization is focused on developing highly differentiated total vascular device solutions to meet the most demanding clinical challenges.

GOAL: STREAMLINE SCIENTIFIC WORKFLOWS AND REDUCE RISKS

The customer's research & development scientists were using traditional paper notebooks to record all of their procedures, experimental results, and testing methods. It is no surprise that in the 21st century, paper-based record-keeping acts as a drag on the innovation cycle, slowing workflows as ever-increasing amounts of data is captured, recorded, and transcribed. Developing the technologies for high-performance vascular medical devices and in vitro diagnostics tests is a lengthy and complex process, and the documentation requirements to support this research are high in effort. The company was still successful, but knew that moving away from paper-based procedures would remove bottlenecks, prevent the possibility of transcription errors and ultimately put them into a more competitive position.

SOLUTION: A PROVEN CLOUD-BASED ELECTRONIC LAB NOTEBOOK FOR R&D

The customer's R&D division turned to BIOVIA Notebook a flexible electronic lab notebook (ELN) hosted on BIOVIA ScienceCloud, a scalable cloud infrastructure. With BIOVIA Notebook, the customer was able to quickly replace paperbased processes across their R&D labs, speeding up workflows and improving data accuracy.

Now while researching and testing new device and diagnostic technologies, data is captured to the ELN contemporaneously, ensuring the experimental records are always up-to-date, and saving time by capturing electronic data directly, rather than copying printouts or transcribing data from instruments. The original data is also always available and traceable in the system, ensuring its accuracy when used in future projects or for later decision-making.

The customer found it relatively easy to get the R&D division up and running with BIOVIA Notebook as it has an intuitive user interface and is completely web browser-based. Most users needed only minimal training to start using the ELN, and the solution was quickly deployed across the R&D division. Additionally, by moving to a cloud deployment on BIOVIA ScienceCloud, the solution minimizes Information Technology overhead costs, freeing up internal resources for the company by eliminating the need for internal IT staff to manage applications and servers, keep track of upgrades, maintain performance and manage cloud security. SSL encryption delivers secure access, providing system cloud security regardless of user location. With BIOVIA Notebook on ScienceCloud, scientists can easily access experimental data from anywhere in the world, without additional IT overhead to manage the solution.

"Scientific collaboration is about more than just chatting at the water cooler, it's about working on experiments and results together. With BIOVIA Notebook, our scientists are able to look at the experiments and data in the same notebook, regardless of whether or not they are in the same physical office or lab."

Senior Scientist, Global Medical Device Company

RESULT: IMPROVED COLLABORATIVE INNOVATION, IP PROTECTION AND PRODUCTIVITY

Scientific collaboration flourishes when scientists are able to not only meet with each other, but to look at data and interpret it together. In a global workforce spread across multiple geographies, virtual meetings or sharing static reports electronically can only go so far. With BIOVIA Notebook and BIOVIA ScienceCloud, the company's researchers are now able to collaborate directly within the ELN with access to shared notebooks and experiments, along with a notifications area styled after social media applications. The notifications area also links directly to experiments in the ELN, bringing the data access full circle with project discussions among peers. Scientists can invite specific users into their projects, with granular control of reading or editing access. The customer found that this struck a great balance in their research workflows, bringing scientists together for collaboration without becoming a distraction, constantly interrupting everyday work.

With BIOVIA Notebook, the customer's research data is captured immediately and stored permanently in the ELN, ensuring its accuracy for regulatory compliance and for any future use. Experiments can be locked once completed, so that changes are not possible and countersigning is not needed - one less step in each cycle which ultimately reduces the time-to-market for a new diagnostic test or medical device. With powerful search functions across many different types of searchable fields, it is easy to locate existing knowledge and re-use it, rather than starting from scratch. Additionally, experiments can be cloned when starting new work, making it easy to follow existing procedures and greatly speeding up the pace of repetitive experiments by reducing the documentation efforts. With BIOVIA Notebook on ScienceCloud, the customer's R&D division has streamlined their experimental workflows, reduced documentation efforts, and reduced the risk of errors – all while reducing IT overhead and enabling increased global scientific collaboration.

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