DC PLUS MODERNIZES MANUFACTURER'S NETWORK INFRASTRUCTURE

DCPLUS WAS A KEY PARTNER WHEN DOMTAR PAPER'S HAWESVILLE MILL NEEDED TO MODERNIZE ITS NETWORK AND CONTROL SYSTEMS

Domtar Paper's Hawesville mill in Kentucky produces upwards of 600,000 short tons of paper each year. The mill has been operating since 1967, and a critical part of its success today is Domtar's integration of automation and virtualization throughout the plant floor. When Domtar was ready to upgrade their ABB Advant Distributed Control System (DCS) to ABB's latest 800xA platform, they knew it would require significant changes to their network infrastructure.

For a project of this magnitude, Domtar assembled a team of trusted partners and an internal group of the most talented IT, engineering, and maintenance resources. Domtar utilized DC Plus for their expertise in systems integration, networking, and virtualization in a live manufacturing environment.

IT SOLUTIONS FOR MANUFACTURING MODERNIZATION

For this year-long project, DC Plus worked closely with Domtar's project team providing resources where and when they were needed. DC Plus did the following to ensure a successful upgrade to the 800xA DCS platform:

1. **Assessed the current infrastructure:** The Hawesville mill had islands of automation and legacy networks throughout the plant, which were a challenge to maintain. Each process area had its own control system, and these were loosely tied together. DC Plus assessed the infrastructure and developed solutions to better maintain the control system and provide superior visibility and uptime for Hawesville's operations.

2. **Presented customized recommendations:** DC Plus recommended virtualized server infrastructure and a converged network. The new DCS would integrate the entire plant, but to facilitate the new DCS, the mill needed to expand and upgrade their existing fiber-optic, power and UPS systems as well make improvements to the operator control rooms.

3. **Developed and built new systems:** DC Plus designed the network and virtualization platforms with special attention to the redundancies needed to ensure the plant stays up and running. They coordinated with ABB to ensure their standards were met and delivered hardware to their facilities for the application build-out and functional acceptance testing. This allowed for Hawesville to develop their infrastructure while the software was being developed, saving time on the project.

4. **Coordinated installation:** DC Plus developed a strategy with the mill to test and install the new system within a live plant environment without experiencing downtime; DC Plus was able to use system redundancies to bring the servers up one at a time, ensuring production continued on schedule. DC Plus provided critical support during the migration and startup phases.

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A VIRTUALIZED SYSTEM READY FOR THE FUTURE

Once the upgrade to 800xA was complete, the Hawesville mill began operating from a modernized, reliable network. The results of their partnership with DC Plus include:

VIRTUALIZATION

The virtualized infrastructure provides the mill with a highly reliable and flexible system that is easier for their in-house staff to maintain.

INTEGRATED SYSTEMS

DC Plus worked with the Hawesville mill to bridge the gap between process systems and business systems, ensuring an efficient operation.

A RELIABLE NETWORK

DC Plus developed and implemented a network that would meet the demands of a production environment and provide superior visibility into plant operations.

> This project has set a high standard for other Domtar Paper mills.
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> *The systems we have built with DC Plus are now standards for virtualized environments throughout our company. The expertise which they provided was a key to our success.*
>
> - Phil Hinchcliffe, Process Control Engineer, Domtar Paper

IT SOLUTIONS FOR MANUFACTURERS

DC Plus started by working closely with the Hawesville mill, determining their infrastructure needs and designing a network to meet those needs. With DC Plus' extensive experience in manufacturing, they were able to meet the short installation timeframes required to maintain plant operations.

120 BALL PARK RD, HARDINSBURG, KY 40143 | (270) 215-2626 | INFO@DCPLUS.NET | WWW.DCPLUS.NET