With four sites across the southeast US, a high-speed beverage producer found themselves struggling to consistently manage their printer fleet. They installed VideojetConnect Remote Service using the Customer Independent Cellular Network and have seen rapid improvements in fleet operations.

A high-speed beverage producer needed a way to reduce downtime. At a line speed of 1,500 cans/minute and a downtime cost of $2,000/hour, any issue with their coding and marking equipment meant a significant loss in production and revenue. Even with the Videojet technician coming in every week to support them, they found themselves constantly stopping production due to operator errors and poor daily maintenance. One estimate showed that these operator errors and poor daily maintenance routines resulted in about $40,000 per month in easily preventable downtime costs. By deploying VideojetConnect Remote Service (VRS) they are now able to understand issues and react in real-time to prevent downtime from occurring.
The Challenge

When the operations manager first came onboard to the high-speed beverage company, there were a variety of outdated printers from various vendors across four different plants. Their first order of business was standardizing all the coding equipment to Videojet printers which consisted of 3340 CO2 lasers as well as 1860, 1580, and 1620 UHS Continuous Inkjet (CIJ) printers. Their next order of business was trying to get VRS installed.

The operation manager had been introduced to VideojetConnect Remote Service at another company. They had trialed the solution with one printer using a hardwired ethernet connection. While they liked the capabilities VRS provided, running ethernet drops to every printer was cost prohibitive and their IT department didn’t have capacity to support more equipment on the plant network. Additionally, they were hesitant to allow external vendors on their internal plant network due to stringent security protocols.

VRS was needed at the high-speed beverage company because they were struggling to manage their fleet of printers simultaneously without a remote management solution. With over 50 printers across the four sites, operators would often forget to change consumables, maintenance wouldn’t clean the printheads often enough, and printer warnings would go unnoticed until they became faults. A Videojet technician would stop by first thing every Monday morning to try and resolve these issues, but the scale of the fleet and the speed they were running their lines meant fighting a losing battle, even with the extra support. Almost all their printer-related downtime was easily preventable, they just needed a way to understand when and where to focus maintenance and operator effort in an efficient manner.

The Solution

After discussing VRS with their IT department, it was determined using their own plant network to connect the printers to the cloud would not be a viable option — hardwiring was cost prohibitive and IT policy wouldn’t allow external vendors on their network. So, the operations manager worked with the Videojet Solutions Engineer to determine how to connect using the new Customer Independent Cellular Network (CICN) instead. The CICN uses cellular panels placed around the site to communicate via WiFi to each printer. The panel then transmits the collected data to the Videojet cloud using an independent cellular network, thereby circumventing most networking headaches and IT concerns.

A cell survey was done to verify good cell signal and ideal panel placement at each of the sites, and then Videojet was ready to install.
Results

The installation of VRS with CICN on 50 printers across three sites took a total of three working days, without any interruption to production. Once every printer was connected, the Videojet team trained operators, maintenance technicians, and the plant manager on how to use VRS to improve their printer operations.

Operators could use the dashboard to see when consumables needed changing at a single glance. In case they forgot to look at the dashboard, they could receive an email or a text alert letting them know ink or makeup was low. Just in case that was missed too, maintenance technicians would receive an escalated alert if nothing was done in a reasonable amount of time. This proved to be a massive improvement in routine over the previous practice of relying on operator and technician memory.

The physical warning beacons on each printer were only as effective as people being around to notice them turn yellow or red. Installing a TV screen with the VRS dashboard in the maintenance shop meant technicians could see what printers needed attention at any given moment. They have been able to reduce the time spent on the printers while seeing better uptime just because they know where to focus.

The maintenance managers at each site had been spending hours on the phone every week trying to walk their third shift teams through printer line configurations or job settings needed. Now, they could have the operator push a button at the printer and the maintenance manager could remotely adjust settings themselves. The remote access feature can prevent mistakes from untrained or inexperienced users and can save the experienced hands precious time when not onsite.

Three of the four sites are now connected to VRS. The fourth site is eager to install as well, but has a couple of older lasers that lack cloud connectivity. They are currently using the success VRS has brought the other three plants to justify upgrading to new lasers.

In addition, there are current efforts underway to open a fifth site, again using Videojet equipment. The engineering manager in charge of designing the plant intends to install cellular and deploy VRS when the printers get delivered to make sure the site is set up for coding success from day one.
Peace of mind comes as standard

Videojet Technologies is a world-leader in the product identification market, providing in-line printing, coding, and marking products, application specific fluids, and product life cycle services.

Our goal is to partner with our customers in the consumer packaged goods, pharmaceutical, and industrial goods industries to improve their productivity, to protect and grow their brands, and to stay ahead of industry trends and regulations. With our customer application experts and technology leadership in Continuous Inkjet (CIJ), Thermal Inkjet (TIJ), laser marking, Thermal transfer Overprinting (TTO), case coding and labeling, and wide array printing, Videojet has more than 400,000 printers installed worldwide.

Our customers rely on Videojet products to print on over ten billion products daily. Customer sales, application, service, and training support is provided by direct operations with over 4,000 team members in 26 countries worldwide.

In addition, Videojet’s distribution network includes more than 400 distributors and OEMs, serving 135 countries.