

Detecting diversion: track-and-trace solution powered by HP thermal inkjet technology



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—Dr. Albert Ahn, senior director of veterinary services, Summit VetPharm

HP customer case study:

Nutec creates track-and-trace solution using equipment manufactured by Alternative Printing Systems, OEM partner of HP Specialty Printing Systems

Industry:

Product identification—health care/pharmaceutical

Objective:

Summit VetPharm, a veterinary pharmaceutical firm, needed track-and-trace technology to help prevent diversion of their products into unauthorised sales channels.

Approach:

Nutec Systems, Inc., a leader in product identification and package coding, developed the Bloodhound™ system, featuring HP thermal inkjet (TIJ) printing technology as part of a complete, turnkey track-and-trace solution.

HP TIJ solution:

- HP TIJ technology enables high-resolution 2D barcodes and variable data
- HP 1918 Dye-based Black ink cartridges print at 600 dpi
- HP UV/IR Invisible ink prints undetectable 2D barcodes to prevent tampering

Business benefits:

- Product cartons can be tracked precisely, down to the lot number and expiration date
- 2D barcodes are ePedigree ready
- Turnkey system: the Bloodhound track-and-trace solution includes HP TIJ printing technology, code-reading and product-handling equipment, data-management software and computer hardware.



When pet owners buy Vectra 3D™ flea and tick treatment from their veterinarian, they know they’re getting an authentic product developed and manufactured by Summit VetPharm, a trusted name in animal health care.

But when customers see these exclusive products for sale on the Internet, how can they be sure they’re getting the real thing?

“One of the core principles upon which our company was founded is the commitment to ensure that our products are available exclusively through licensed veterinarians,” says Dr. Albert H. Ahn of Summit VetPharm.

Counterfeit veterinary pharmaceuticals not only jeopardise animal health, but undermine the price and reputation of legitimate products. When authentic products turn up in unauthorised sales channels, reputable brands can suffer.

Customer solution at a glance

Primary applications

Track-and-trace product identification

Key elements

- HP TIJ technology:
 - Fast, high-quality printing
 - HP 1918 Dye-based Black ink cartridges print high-resolution 2D barcodes at 600 dpi
 - HP UV/IR Invisible ink prints undetectable 2D barcodes
 - Self-contained cartridges clean and easy to maintain
 - Snap-in, snap-out cartridges reduce maintenance time
 - Water-based inks require no VOC fume extraction

Summit VetPharm recently faced this damaging situation when their innovative flea, tick and mosquito product was spotted for sale on a popular website targeting pet owners. But thanks to Bloodhound™ track-and-trace technology developed by Nutec Systems, Inc., Summit VetPharm was able to swiftly identify and contact the veterinarian who had diverted the product to unauthorised resellers. Vectra 3D was taken off the website just six hours after legal notification.

“The security provided by Bloodhound technology enables our supply chain to maintain the authenticity of our products,” says Ahn. The Bloodhound system makes supply-chain security possible with clean, high-quality thermal inkjet (TIJ) printing technology from HP.

A complete track-and-trace solution

After looking at several track-and-trace technologies, Summit VetPharm turned to Nutec in 2007. Nutec devised a system that covers every step of the track-and-trace process, integrating 2D barcode printing with code-reading and materials-handling equipment, data-management software and computer hardware.

“This is the first time a single company has created and installed a complete turnkey track-and-trace solution in this industry,” says Mike Shaw, vice president of sales at Nutec.

Nutec’s success creating pharmaceutical printing and inspection applications, as well as the 2D barcodes mandated by the International Federation for Animal Health (IFAH) for all animal product shipments in Europe, contributed to its ability to create a solution quickly.

“We needed a state-of-the-art system, and after looking at a range of options, including RFID, we found that Nutec’s solution was the best fit for our business,” says Ahn. “We were very interested in the fact that Nutec could not only design and install the Bloodhound system, but support it afterwards as well.”

The difference thermal inkjet printing makes

Bloodhound track-and-trace technology revolves around the advanced printing capabilities of the aabsolute VI printing system, which is distributed by Nutec and manufactured by Alternative Printing Services (aps), a specialist in industrial marking and coding using inkjet technology. The HP TIJ technology at the heart of this system enables printing at 600 dpi, making it possible to print more than 40 alphanumeric characters in a 6 mm x 6 mm area. That’s almost half the area required by competing printing technologies, such as piezo or laser, to print the same amount of identifying information.

HP TIJ technology easily handles the complex variable data printing demands of upcoming California ePedigree regulations. The ePedigree-ready Bloodhound system incorporates lot number, expiration date and global trade identification number in its 2D codes.

In addition to delivering high-resolution printing of 2D bar codes and variable data printing, HP TIJ technology can reduce maintenance costs on the printing line. Clean, self-contained HP TIJ print cartridges snap in and out easily, eliminating the need to handle inks.

High-tech inks enable high-tech identification system

The Bloodhound track-and-trace system relies on two HP inks to create unique 2D barcodes. HP 1918 Dye-based Black ink cartridges print 2D barcodes on individual boxes of Summit VetPharm’s Vectra 3D. This ink is ideally suited to crisp, smear-free printing on a variety of substrates. In addition, HP UV/IR Invisible Ink cartridges create invisible codes in a secret location on each box. Special vision equipment reads both the visible and invisible codes, enabling Summit VetPharm to detect potential tampering.

As each set of 12 individually coded boxes is packed into a master carton, the Bloodhound system creates a thirteenth 2D barcode that goes on the outside of the carton. This code becomes a pointer in the database developed by Nutec, making it easy to pinpoint—down to the lot and expiration date—where each box of Vectra 3D is shipped.



The shape of things to come

“Track-and-trace technology is beginning to figure more prominently in pharmaceutical-industry supply chains,” says Ahn. “We want to be a leader in this area, because it’s an example of good product stewardship.” With the help of Bloodhound track-and-trace technology, Summit VetPharm is leading the way toward greater product security, ensuring that customers will find Vectra 3D—and its other exclusive products—for sale only at authorised veterinary offices.

To learn more, visit www.hp.com/oeminkjet

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