

APPLICATION REPORT

## Juniper Bank Supports Mission-Critical Online Service with KRONE® TrueNet™ Structured Cabling System and NDC NetTrax™ Documentation

Installing a state-of-the-art, multimedia communications network for a high-tech company can pose interesting challenges when the site of the network is an old, historic building. This was definitely the case for Juniper Bank, a privately held online and wireless consumer financial-services company founded in October 2000.

Juniper Bank offers consumers a broad range of consumer banking services, including credit cards, checking and savings accounts, Certificates of

Deposit, electronic bill payment, loans, insurance and wireless banking. Providing convenient, “anytime, anywhere” access and superior customer service are among Juniper Bank’s top priorities.

For its new corporate headquarters in Wilmington, Del.’s newly revitalized Riverfront district, Juniper renovated a boiler production plant once owned by the Harlan Hollingsworth shipbuilding company. Originally built in 1912, the building’s historic architecture provides a dramatic counterpoint to

*Juniper Bank’s new corporate headquarters in Wilmington, Del. combines historic exterior architecture with a high-tech interior design utilizing translucent walls and an open ceiling design with overhead cable raceways.*

*Newly-launched web-based bank deploys dynamic two-tier approach to 100BASE-T network design and implementation to ensure round-the-clock performance, reliability and customer service.*





*Juniper utilized the open ceiling design with runs in overhead cable raceways. To support its 100BASE-T Ethernet network, KRONE fiber-optic backbone links all four floors of the building.*

its modern interior design, innovative use of space and eye-pleasing details, such as translucent walls and exposed brick facades.

To design and install a high-performance cabling infrastructure that would support its mission-critical communications network, Juniper turned to Network Dynamics Corp. (NDC) of West Chester, Pa. NDC is a leading provider of design, implementation and service solutions to meet the highly specialized needs of the computer network industry. Supported by KRONE®, a world-leading connectivity company, its network cabling infrastructure and a dynamic network documentation system called NetTrax™, NDC put its “Plan for today, build for tomorrow” philosophy to work for Juniper Bank.

## **Business Goals: Maximum Uptime, Total Accessibility**

According to Russ Aaronson, director of network services at Juniper Financial Corp., “We sought an exceptionally reliable, low-maintenance cabling system that would facilitate moves, adds and changes with minimal downtime. Since Juniper Bank’s operations are completely online, our network is the heartbeat of our organization — an element you may not think much about, but if it isn’t working, neither is anything else. Performance is paramount at Juniper Bank, which is why we chose KRONE’s TrueNet™ Structured Cabling System.”

NDC’s Jim Seningen, the network designer and architect of the NetTrax System, adds: “Juniper’s cabling infrastructure is truly mission-critical. It must provide a rock-solid foundation for a network that’s

always up and running, always answering calls, and always providing a high level of customer service.”

## **The TrueNet C5eT™ Optimized Ethernet Network**

Working closely with NDC, Juniper decided to install a KRONE fiber-optic backbone to link all four floors of its headquarters. In each of the building’s four telecommunications closets (TCs), and at the main distribution frame (MDF), KRONE’s rack-mounted fiber enclosures are used. Twelve strands of KRONE fiber are installed to each TC and are terminated on Duplex SC connectors.

For horizontal connectivity on each floor, Juniper selected the KRONE TrueNet C5eT System, which was specifically designed to optimize the performance of its Fast Ethernet



*On each floor, the TrueNet C5eT cabling is channeled through a central spline cable tray, wholly visible through the building’s open-ceiling design. To accommodate Juniper’s signature color scheme, the cabling was ordered in a non-standard custom color.*



*Juniper IT Manager Russ Aaronson is using NDC's NetTrax™ System, a unique component of Juniper Bank's LAN installation. NetTrax simplifies network management by providing up-to-the-minute, on-line documentation of the initial network installation, as well as downstream MACs.*

(100BASE-T) system and can also scale to meet some Gigabit Ethernet standards.

In the horizontal installations, each workstation received three or four TrueNet™ C5eT™ cables, which were terminated on K600 jacks. The jacks are housed in various receptacles, including 4-port faceplates, 4-port surface boxes, 6-port surface boxes, or 3-port modular furniture adapters.

Cables are terminated on KRONE 25-Pair Feed-Thru Blocks mounted on Universal Mounting System (UMS) hardware in each TC, where KRONE® 7-ft. EIA equipment racks house the Juniper electronics.

KRONE's TrueNet Structured Cabling System is the first physical-layer technology specifically designed to prevent bandwidth loss and provide maximum data throughput. The system consists of an integrated infrastructure of horizontal UTP cable, patch cords, terminal blocks, jacks and patch panels — all precisely matched to 100±3 ohms differential system impedance. This impedance performance characteristic protects Ethernet signals, thus preserving the efficiency, performance and reliability of the network.

Overall, Juniper Bank's cabling infrastructure required 270,000 feet of TrueNet Cabling, and 1,325 K600 jacks to connect approximately 2,400 cable nodes and 433 offices and cubicles. Installation began in January 2001 and was completed within three months.

According to Seningen, because of the building interior's design and color scheme, Juniper requested the C5eT cabling in a non-standard custom color. He explains: "On each floor, the cabling is channeled through a central spline cable tray, wholly visible through the building's open ceiling design. Having installed more TrueNet solutions than any other company, NDC was able to expedite Juniper's special-order request and create the visually attractive signature installation that NDC is known for."

#### **NetTrax: An Exclusive NDC Service for Online Documentation**

A unique component of Juniper Bank's LAN installation is NDC's NetTrax, an Internet-enabled, dynamic network inventory and


documentation system that employs a bar-code scanning and labeling protocol to record every single component of the cabling installation. Supported by NDC's exclusive software, each component — from the building, through the racks, hubs and jacks, and right to the end user devices (e.g. computer, telephone or fax) — is scanned, using Symbol Technologies' 1500 Bar Code Scanner-enabled Palm™ Pilot.

The Palm data is then "hot synched" into a Microsoft, SQL Server database with 128-bit encryption, where it is stored to allow authorized personnel to access the network infrastructure data from any location, at any time. Now help desks and network administrators can access network infrastructure assets to speed repairs, and technicians can easily scan bar-coded network devices and faceplates to capture the entire string of connectivity, relieving the age-old problem of "what terminates where."



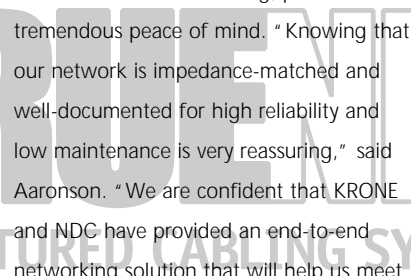
*Supported by NDC's exclusive software, each component is scanned using Symbol Technologies' 1500 Bar Code Scanner-enabled Palm Pilot.*

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NetTrax™ simplifies connectivity management by providing up-to-the-minute documentation of the initial network installation, and allows moves, adds and changes to be documented by simply scanning the new or changed devices into the cable locations. According to Seningen, "We've thought about the technician's role in the moves, adds and changes, and have worked very hard to eliminate areas for errors, such as hand-written notes, while giving the techs a tremendous tool by providing documentation that fits into their shirt pocket."

### TrueNet™ and NetTrax: A Powerful Combination



For Juniper Bank, having KRONE® TrueNet Cabling in the physical layer coupled with NDC's NetTrax for real time documentation and remote troubleshooting, provides tremendous peace of mind. "Knowing that our network is impedance-matched and well-documented for high reliability and low maintenance is very reassuring," said Aaronson. "We are confident that KRONE and NDC have provided an end-to-end networking solution that will help us meet our customer service and business goals."

### For more information

For more information about the KRONE TrueNet System, please call **1-800-775-5766** or visit our Web site at: [www.kroneamericas.com](http://www.kroneamericas.com).

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