



AN INTELLIGENT APPROACH TO THE THE DISTRIBUTED ENTERPRISE

Today's global economy requires that businesses rely on remote and branch offices to stay in close contact with customers and suppliers. And in the age of the Internet, employees can work in a wide variety of locations and yet readily collaborate, thanks to e-mail, virtual meetings and online file-sharing services. Despite its many benefits, the distributed enterprise poses several challenges for IT executives as they seek to provide corporate employees access to the applications and data they need in order to work effectively.

Remote Requirements: Security, High Availability

In remote and branch offices, a fast and highly functional server—complete with data storage, a power supply, expansion slots and cooling modules—is essential. Because of the remote location, security and high availability for the server are of the utmost importance. However, IT execs must meet these requirements while facing tight budgets and challenges in hiring skilled IT staff.

Despite these constraints, organizations must carry on, even though it may not be feasible to build a data center to house the server in the remote location. The alternative, placing the server in an office cubicle or on a desktop in the midst of employees, is also fraught with problems. It exposes the server to bumps, food and liquid spills, electrical power spikes and sags, accidental power cord disconnection, breakage and even theft.

Because it is unlikely that there will be trained IT staff in the remote location, the server must be highly reliable and require a minimum of hands-on skill to configure and operate. When management tasks are required, they must be performed remotely. It's a dilemma that calls for new thinking.

Responding to these needs, Dell and Vertiv have partnered to create a solution that enables the remote server to fulfill its role in the remote office: the Vertiv SmartCabinet™ for Dell VRTX. It is designed to house the Dell Power Edge VRTX server, which has proven to be ideally suited to remote and branch offices. Requiring little in the way of IT staff expertise to configure and run, the SmartCabinet for Dell VRTX, which is engineered to "just work", includes all the supporting infrastructure needed by the Dell VRTX:



- **Physical security.** To protect the server against damage and theft, the SmartCabinet enclosure is sturdy and lockable, with optional door sensors that notify IT if someone has opened the rack.
- **Power distribution.** To protect against electrical power fluctuations and ensure high availability, the SmartCabinet includes uninterruptible power supply (UPS) functionality with remote-controllable outlets and alerting capabilities.
- **Secure emergency access.** A remote administrator can access the VRTX Chassis Management Controller (CMC) and network equipment via WAN or 4G connections to perform diagnostics and restore the server to full operation.
- **Expandability.** The cabinet has enough capacity—including power, space and serial ports—to support equipment that may be added as the needs of the remote office change.

Remote Office Scenarios

Whether it's a network of bank branches, scattered facilities in a school district or the geographically distant stores of a retail chain, remote offices are effectively served by the SmartCabinet™ for VRTX. Here are several scenarios:

- **The remote network is down.** In the past, such an emergency would have required a site visit or hours on the phone with a nontechnical remote employee. However, with the SmartCabinet for VRTX, you can access the Dell VRTX, you can access the Dell VRTX server via a 4G connection to troubleshoot the issue and bring the branch back online.
- **VRTX is not responding to network commands.** You can avoid a trip to troubleshoot and fix the problem by remotely accessing the SmartCabinet, using network or 4G connectivity and launching a console session to access the serial port of your CMC. Using racadm commands to understand what is wrong with the network interface of your CMC, you can fix the VRTX network connection through the CMC and bring it back up.
- **Loss of utility power.** The SmartCabinet for VRTX projects against power fluctuations and provides 5 to 20 minutes of battery power in the event of a utility power outage. If power does not return, VRTX can be safely shut down automatically. Result: no data loss due to the power outage.

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Vertiv SmartCabinet™ for Branches

Conclusion

Today's distributed enterprise presents both opportunities for business agility and challenges for IT management.

To do business effectively, organizations require an IT infrastructure at remote locations that delivers applications and data with high performance and high reliability. The remote server must be physically secure, must provide high uptime with UPS protection, must enable administrators with secure remote emergency access and must be expandable to meet future remote office needs.

The Vertiv SmartCabinet for Dell VRTX meets all these requirements in a complete, integrated and proven solution.

