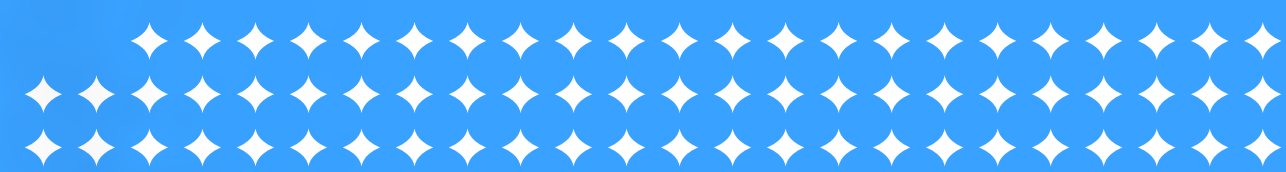




Cold Storage Operations

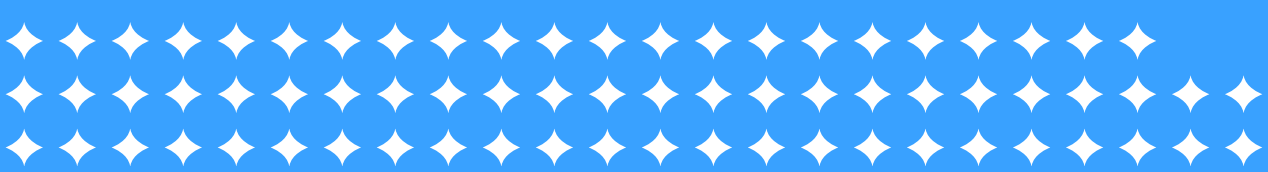
GUIDE TO OPTIMIZED NETWORK & DEVICE MANAGEMENT





Cold Reality: The Current and Future State of Cold-Storage Needs

The production and distribution of vaccines for COVID-19 put a public spotlight on cold-storage needs, but the necessity for such facilities and processes is nothing new, and was already stretched by the pandemic in other ways. Food producers and retailers struggled to keep pace with demand for online orders in the early months of the crisis. This added volume demanded additional storage space to keep pace and strained capabilities, workflows and networks in unexpected ways.



The following statistics shed further light on the current and future state of the cold-chain environment:


10% The historically low vacancy rate of US cold storage.

75-100 million sq. ft. The estimated amount of additional freezer/cooler space needed throughout the industry to meet growing direct-to-consumer demands.

34 years The average age of cold storage warehouses.

WHAT THIS MEANS FOR YOU

Taking advantage of this growing need and gaining a competitive edge for your own operation requires a comprehensive communications and IT management strategy for your existing facilities and any planned expansion.



1 Select a Unified Communications Platform

Multiple devices and platforms can wreak havoc on an organization's mobile capabilities. Without a single application and intelligence solution, businesses may face interoperability issues that hamper their ability to maintain seamless communications about critical issues, such as temperature fluctuations or equipment failures.

It's a common problem in today's workplace, where employees often rely on a mix of communication methods to stay in touch and perform collaborative tasks. This leaves internal teams with a patchwork of security and support, often creating an administrative nightmare for IT teams. Ideally, your supply chain solution will include a connected suite of platforms and services that eliminate common interoperability issues and increase cold-chain visibility.

Let's start with inter-employee communications.

Warehouse communication networks should include:

- ◆ Seamless call continuity between Wi-Fi and cellular
- ◆ Secure RTP support to encrypt video and audio media streams
- ◆ Operating system agnostic (IOS, Android, Windows)
- ◆ Platform agnostic (desktop, laptop, mobile, tablet)
- ◆ Hosted or on-premise deployments
- ◆ Full suite of communication (chat, video, VOIP, PTT)

All of this is enabled through a single app that allows for push-to-talk conversations, video calling, remote help desk support and user experience reporting – among others.



2.

Partner with Network Design Experts

Cold storage requires careful oversight of products to ensure quality and freshness. But organizations may not have the expertise in house to design networks that meet their unique needs. Cold-storage environments can be harsh. That means a robust, reliable network design is a must.



NETWORK DESIGN AND ENGINEERING

Experts work with organizations to understand the scope of the network to be implemented, including required coverage, data rates, network capacity, roaming capability and quality of service for each operation.

NETWORK MONITORING

Monitoring of networks to identify slow or failing components, notifying the network administrator in the event of outages or potential failures.

NETWORK DIAGNOSTICS

Providers who use high-tech tools and diagnostics to help restore networks quickly.

POST-INSTALLATION VALIDATION

Verification and optimization services that validate a network's design and ensures that it meets the requirements discovered in the network's detailed plan, making sure that data is moving as designed.

STRUCTURED CABLING AND INSTALLATION

Cable system design, installation and project management services that encompass optical fiber and wireless-based distribution systems.

SITE SURVEY

On-site assessment of wireless network operations by walk testing, auditing and offering detailed analysis and diagnosis of the existing wireless network.

Key benefits include:

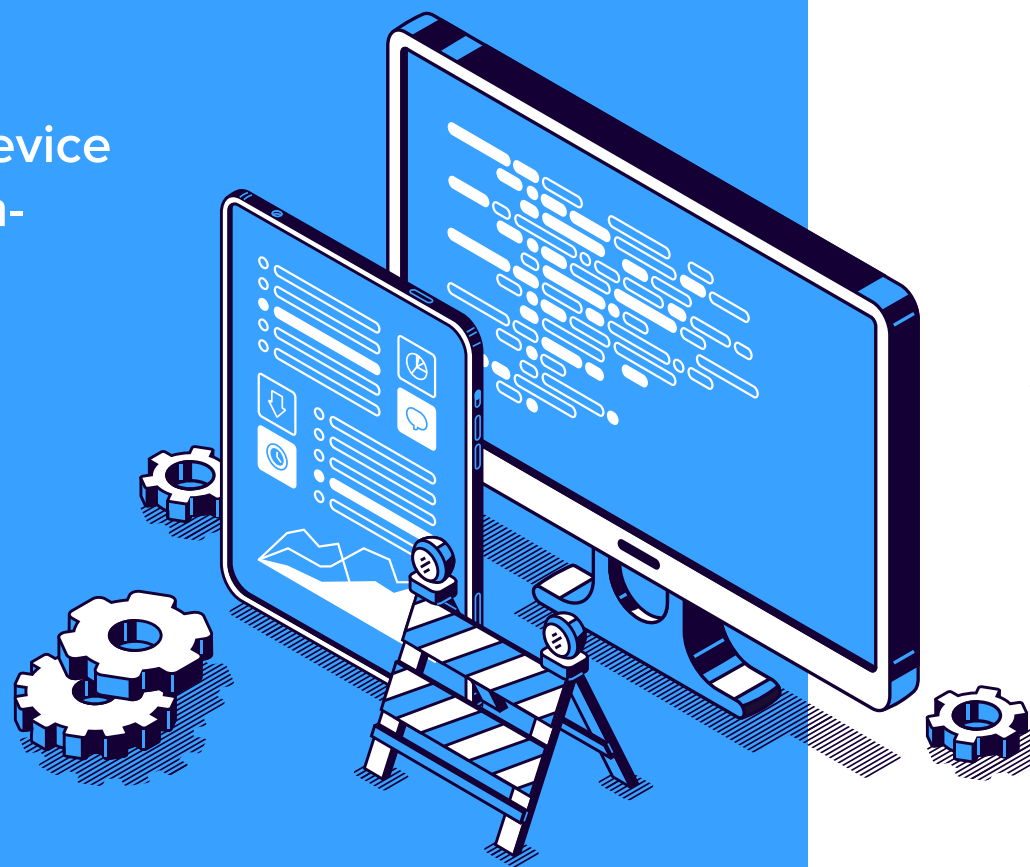
- ◆ Elimination of downtime dips
- ◆ 5% to 10% increase in productivity
- ◆ Less IT complexity
- ◆ More reliable Wi-Fi service

3. Have a Reliable Service and Maintenance Plan

The modern supply chain requires modern mobile technology to facilitate rapid communications, scanning, access to software, information and more. These devices enable real-time inventory tracking, product traceability, GPS-enabled route management and much more.

Implementing and maintaining these devices is a job unto itself, though, as any downtime, lost or damaged equipment, and uncoordinated updates or maintenance not only waste employees' time, but can also cost a business money.

A critical component of any operation is a reliable device management strategy to get the most out of mission-critical technology.



◆ **REPAIR MANAGEMENT**
Management of repairs, so organizations don't have to expend resources and time to get their networks up and running again.

◆ **SPARE POOL MANAGEMENT**
Ownership of spare devices to reduce the total number of spares on site so organizations have a device available only when and where they need it.

◆ **CONFIGURE TO PURPOSE**
Configuration of devices out of the box to ensure they're ready for use immediately.

◆ **MOBILE DEVICE MANAGEMENT SUPPORT**
Remote management of mobile devices to resolve issues faster.

◆ **INTEGRATED HELPDESK**
Certified repair engineers who can triage device issues, which reduces the number of repair incidents by up to 25% or more.

4.

Deploy Cold-Ready Devices & Networks

Cold-storage facilities create another layer of requirements and processes to protect employees, product, infrastructure and heavy equipment. The devices we use for everyday communication, information and workflow should be no different. Insulation, frost, condensation and temperate can all affect connectivity, LCD screens, circuitry and batteries.

To compensate, choose devices designed to work in any environment, at any temperature and make sure your network is up to the task.



Here's what to look for:

INTERNAL HEATERS

HEATED DISPLAYS

IP65 OR HIGHER RATING

HIGH-GRADE LITHIUM-ION BATTERIES FOR HANDHELD UNITS

ACCESS-POINTS WITHIN THE COLD STORAGE AREA



Heartland USA and Honeywell: Your Cold Storage Optimization Experts

Keeping your cold-storage facility and operations running smoothly in normal or high-volume times demands partners who work together to provide complete solutions. Heartland and Honeywell both bring their experience with mobile workforces, networks and devices to you, for a customized suite of technologies and services designed to keep your operation connected, productive and ready for whatever comes next in supply chain management.



HEARTLAND **ALWAYSON**

Comprehensive suite of managed service solutions designed to improve efficiency and reduce operating costs.

With AlwaysOn, Heartland is your one point of contact to manage every aspect of your mobile technology in a single, integrated program.



Honeywell **SMART TALK**

A unified workforce communications application that tackles the problem of fragmented communications, with enterprise-grade security for voice calling, text and media messaging, and user presence – all from one device.



HEARTLAND **ALWAYSCONNECTED**

Bring Heartland's network expertise to your enterprise, simplifying support, eliminating downtime and increasing productivity by 5-10%. From on-site diagnostic surveys to network tuning and monitoring, Heartland engineers create a custom plan to optimize your mobile network performance.



Honeywell **OPERATIONAL INTELLIGENCE**

A centralized, cloud-based platform to manage the complete lifecycle, operational visibility, and performance analysis of assets, people, and tasks. With embedded hardware sensors designed into Honeywell products, the solution continuously extracts performance data that is periodically sent to the cloud for analysis.



For more information

on how your organization can optimize its cold-storage capabilities, visit www.heartland-usa.com and www.honeywellaidc.com.

