

Connecting corrections: Statewide wireless infrastructure for expanded access and equity



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Executive summary

Before 2018, the Minnesota Department of Corrections (DOC) operated in a technology-limited environment with inconsistent or inadequate internet access across facilities. This lack of wireless infrastructure hindered facility security, disrupted operations, and limited access to modern educational and rehabilitative resources. Staff faced productivity barriers due to an over-reliance on paper-systems and the inability to access real-time data. At the same time, incarcerated individuals faced significant barriers to digital learning, telehealth, and reentry preparation services.

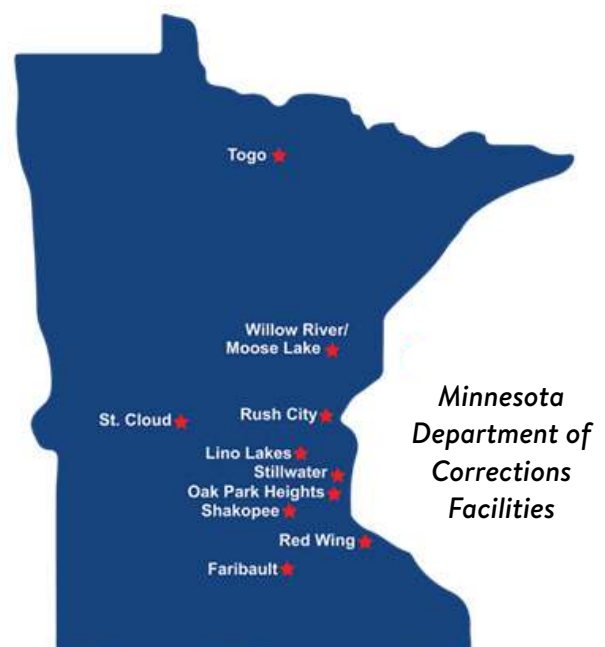
To address these issues, the DOC launched a comprehensive, system-wide approach to establish full wireless capability at every DOC site. This project aimed to fundamentally transform correctional facilities by:

- Expanding access to internet and internet-connected devices.
- Increasing educational and rehabilitative opportunities for incarcerated individuals.
- Enhancing facility safety and enabling quicker incident response times.
- Supporting real-time monitoring through connected security systems.
- Strengthening emergency communications.
- Empowering mobile, efficient operations for DOC staff.

Beyond technical upgrades, this initiative modernized how the DOC functions—enabling paperless workflows, seamless coordination across locations, and improved decision-making through timely data access. Staff can now work securely and efficiently from correctional facilities, administrative offices, or remote locations, ensuring continuity of operations and increased flexibility.

A modern wireless network isn't just a technology enhancement—it's the foundation for equitable, secure, and efficient corrections. The wireless backbone now supports telemedicine, virtual visitation, digital education, and career training programs.

Why it matters: Since implementation, the DOC has as seen a 47% increase in digital education access, tripled telehealth sessions, and achieved 100% wireless coverage across 13 sites. This transformation improves outcomes for incarcerated individuals, empowers staff, reduces recidivism, and ultimately enhances public safety for Minnesotans.



Better wireless infrastructure in Minnesota's correctional facilities

Before this project, the DOC operated in a disconnected world. Most of its 13 correctional facilities lacked consistent, secure wireless connectivity—creating barriers to staff productivity and limiting access to essential services for over 7,600 incarcerated individuals. From outdated security systems to paper-based workflows and limited access to education, the DOC was constrained by legacy infrastructure that no longer met its operational or rehabilitative goals.

The DOC operated in a tech-limited environment with inconsistent internet access across its facilities. This lack of wireless infrastructure created significant challenges for both staff and incarcerated individuals. Staff faced productivity barriers due to the inability to access real-time data and digital tools necessary for efficient operations. Incarcerated individuals had limited access to educational and rehabilitative resources, which are crucial for their personal development and successful reintegration into society.

The absence of a robust wireless infrastructure hindered security operations, as it limited the ability to implement modernized security measures such as real-time monitoring and rapid incident response. Additionally, the lack of connectivity restricted opportunities for modernized programming, including digital education, telehealth services, and virtual court appearances.

Modern correctional facilities require secure and reliable wireless connectivity to support various operations, enhance staff efficiency, and expand programming. The COVID-19 pandemic further highlighted the critical need for digital access. Remote court hearings, telemedicine, and online education were critical—but simply not possible in facilities without connectivity. It became clear that digital access wasn't optional—it was essential for operational resilience and humane, effective rehabilitation.

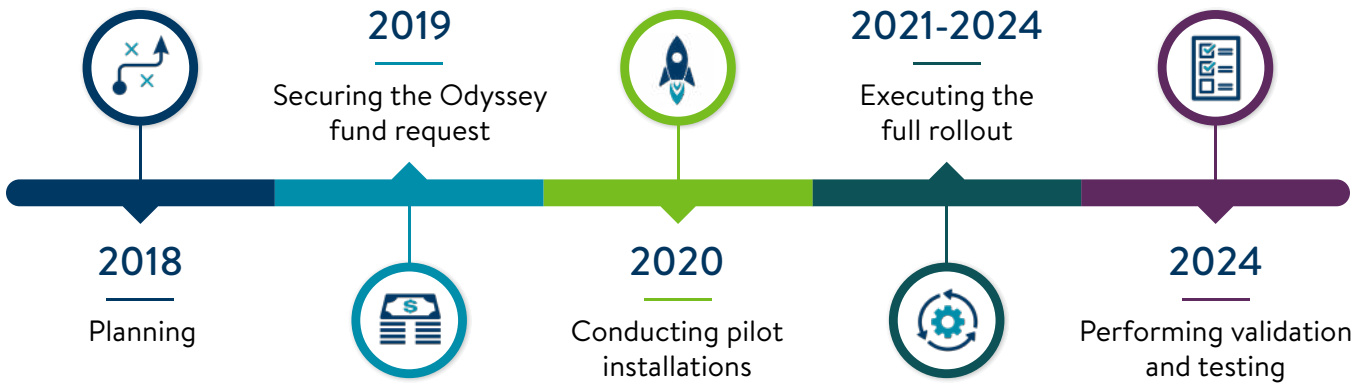
The implementation of a modern and comprehensive wireless infrastructure was essential to address these challenges. By providing secure and reliable wireless connectivity across all correctional facilities, the DOC aimed to transform its operations, enhance staff productivity, and expand access to critical educational and rehabilitative resources for incarcerated individuals. This initiative was not just a technological upgrade but a necessary step towards creating a more equitable and effective correctional system.

What makes this project distinct is its breadth, intentional equity, and future-ready design. Many states implement piecemeal upgrades—this was system-wide, built with sustainability and inclusion at its core. The scale, complexity, and successful execution distinguish this project from prior IT upgrades.

What makes it universal is that it solves a challenge shared by nearly every state: how to modernize correctional facilities in ways that improve public safety, expand access to services, and support reentry.

Implementation

The project spanned five years, from concept in early 2018 to completion in 2024. The key phases included:



The project scope covered 10 correctional facilities, the MINNCOR Industries Office, and the Central Office, with a budget of \$10 million.

To implement the project, we assembled a dedicated cross-functional project team of 12 staff members, including security, facilities, IT, and DOC agency staff. We also engaged contractors for network low voltage cabling installation, contributing to an estimated 35,000+ combined labor hours.

DOC goes “all-in” on a proactive solution

Minnesota took a comprehensive “all-in” approach, implementing full wireless capability at every DOC site, not just select high-profile locations. This strategy ensured that all facilities, regardless of their size or prominence, benefited from the upgraded infrastructure. By adopting this inclusive approach, the DOC aimed to provide equitable access to digital resources and modernized operations across the entire correctional system.

The project team used the wireless project as a catalyst to combine physical security and core infrastructure upgrades at each facility, capitalizing on cost reductions where feasible. This integrated approach allowed the DOC to address multiple needs simultaneously, resulting in a more efficient and cost-effective implementation. For example, the project team replaced aging security camera solutions with modern, high-resolution cameras that integrated into the new wireless network. This upgrade enhanced security monitoring and reduced the number of communications rooms required, leading to significant cost savings.

The project team also built a scalable architecture that allows for new services and rapid integration. This forward-thinking design ensures that the DOC can easily adopt future technological advancements and expand its capabilities without requiring extensive infrastructure overhauls. The scalable architecture supports a wide range of applications, from telemedicine and virtual visitation to digital education and reentry preparation programs.

Overcoming roadblocks

The Department of Corrections Wireless Project encountered several significant roadblocks throughout its implementation. One of the primary challenges was the COVID-19 pandemic, which imposed restrictions that limited contractor access to the facilities. These restrictions necessitated adjustments to the project timeline and required the coordination of after-hours work to ensure that progress continued without compromising safety protocols.

Security concerns also posed a challenge, as the project needed to ensure that the new wireless infrastructure did not introduce vulnerabilities. To address this, the project team developed tailored network segmentation and controls to maintain a high level of security. This included creating secure SSIDs and implementing access controls that adhered to technical and policy standards.

The architecture of the correctional facilities themselves presented another obstacle. Many of the buildings were older and had thick walls and outdated infrastructure, making it difficult to install and integrate the new wireless systems.

The project team customized solutions for these older buildings, using directional antennas to ensure adequate coverage and connectivity.

Material availability and cost increases further complicated the project. The pandemic disrupted supply chains, leading to delays in obtaining necessary materials and increased costs. To mitigate these issues, the project team adjusted timelines based on material availability and requested additional funding to cover the increased expenses.

Despite these challenges, the project team demonstrated remarkable resilience and adaptability. By proactively addressing each roadblock and implementing innovative solutions, they successfully overcame the obstacles and delivered the project ahead of expectations. This achievement highlights the team's dedication and commitment to transforming the DOC's operations and improving outcomes for both staff and incarcerated individuals.

The impact on Minnesota and our communities

Before the DOC's Statewide Wireless Infrastructure Project, operations were hindered by inconsistent internet access for staff and incarcerated individuals, limited access to digital tools, and frequent disruptions caused by outdated legacy systems.

Today, every facility in Minnesota has secure, wireless coverage. This project didn't just upgrade technology—it transformed the correctional environment, creating a platform for smarter operations, safer facilities, and more equitable access to services.

This project has significantly transformed DOC operations, enhancing both security and service delivery. The implementation of wireless infrastructure has become the backbone for telemedicine, virtual visitation, digital education, and reentry preparation, leading to improved outcomes for incarcerated individuals and increased efficiency for staff.



I was able to complete a certificate program I couldn't access before. It's opened new doors for my future.

– Incarcerated individual

Smarter operations and safer facilities

The new wireless infrastructure enables real-time data access, cloud-based systems, and mobile device connectivity—improving staff productivity and decision-making. Incident response is faster. Communication during emergencies is seamless. Network-connected monitoring tools improve visibility and enhance facility security.

Administrative tasks that once took hours now take minutes. Staff report a 92% satisfaction rate with the new tools and systems, and downtime-related disruptions have dropped by 83%. From paperless workflows to integrated communications, the shift has unlocked major gains in operational efficiency.



This infrastructure is a game-changer for education in corrections.

– DOC Education Director



Expanding access to programming and communication tools

The project has provided access abilities to educational and rehabilitative resources for incarcerated individuals.

With the new wireless infrastructure, incarcerated individuals now have broader access to digital education programs, telehealth services, and virtual visitation. This has significantly improved their opportunities for personal development and successful reintegration into society.

By providing equitable access to these resources, the project has created a more inclusive environment that supports the rehabilitation and growth of all incarcerated individuals, regardless of their location within the correctional system.

A platform for the future

In the short term, the DOC plans to expand programming using the wireless backbone, such as remote learning platforms and career training. In the long term, the DOC aims to integrate smart facility technologies, predictive analytics, and continuous improvement feedback loops.



Staff can now do 30-minute tasks in 10. That's real impact.

– Facility warden



The return on investment is clear.

This effort modernized core operations, reduced work stoppages, increased access to education, and enabled a more rehabilitative environment for Minnesota's correctional facilities. The wireless network will support DOC goals for years to come, with minimal additional investment.

