

Statewide eFORT Data Center Relocation & Tech Debt Reduction

CATEGORY

Enterprise Technology Management

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COLORADO

Governor's Office of
Information Technology

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EXECUTIVE SUMMARY

Colorado's Enterprise Facility for Operational Recovery, Readiness, Response and Transition (eFORT) Data Center, established in 2004, was initially created in response to a state agency's catastrophic event. In 2010, legislative action transferred the operational authority of eFORT and its staff to the Office of Information Technology (OIT), making it OIT's second major enterprise data center alongside the Lakewood Data Center.

Recognizing the eFORT Data Center lease represented a significant capital expense, OIT initiated a project to achieve substantial annual tax dollar savings by moving out of the facility and into the state-owned Lakewood Data Center (LDC), which is equipped with modern infrastructure and robust security. LDC was identified as the optimal facility to support the advancement of digital government services. The effort also promoted greater cloud infrastructure adoption and enhanced information security across state operations.

The project involved relocating physical and virtual equipment from eFORT, which housed assets from 26 state agencies and OIT. Over more than two years, OIT successfully transferred this equipment to the LDC or cloud platforms. The initiative was completed ahead of schedule and within budget, resulting in considerable cost savings for the state.

IDEA

For most Coloradans, the intricate technology underpinning state services remains largely unseen, particularly the vital IT infrastructure that forms its backbone. This infrastructure encompasses hardware, applications and operating system software, networking components, data storage, and the extensive cabling that connects users to the data and applications delivering state services. These solutions reside in both physical data centers and cloud environments. Maintaining the secure operation of this infrastructure is paramount, as any lapse could jeopardize essential services for Coloradans. The Office of Information Technology (OIT) is actively collaborating with agency partners to modernize and secure the state's network infrastructure to address this.

The services and applications protected by this infrastructure are critical for the well-being and safety of Colorado's communities. They include communication systems vital for Colorado State Patrol (CSP) officers, protecting sensitive information, maintaining open communication channels for first responders, enhanced cybersecurity measures, and access control for state equipment and services. Beyond safety, the IT infrastructure supports crucial and life-sustaining benefit programs such as child support services, benefit payment systems, medical and health programs, child care

services, and food and energy assistance. Many Coloradans depend on these systems during times of need and to navigate complex government processes.

OIT operated two enterprise data centers: the Lakewood Data Center and eFORT. The LDC, situated on state-owned property, supports over 90% of the State's IT operations and serves as the primary data center for numerous state agencies. Significant upgrades were implemented at the Lakewood Data Center in 2020, enhancing power and cooling redundancy, improving efficiency to meet or exceed current standards and strengthening physical security. In contrast, the eFORT Data Center was housed in a leased facility, representing one of the state's most substantial capital lease expenses.

In 2021, OIT began efforts to reduce technical debt within its infrastructure, which would lead to decreased utilization at both the Lakewood and eFORT data centers. As part of its commitment to responsible stewardship of taxpayer dollars, OIT recognized that relocating services and equipment from eFORT to the LDC could yield significant savings. This consolidation would also improve data center operational efficiency, lead to better asset management, and provide an opportunity to conduct a foundational review of existing infrastructure. The goal was to ensure adherence to industry best practices while delivering optimal service and security for the applications and systems powering Colorado. The project to exit the eFORT facility officially commenced in June 2022.

IMPLEMENTATION

The relocation of IT assets from the eFORT Data Center affected nearly every state agency. The center housed physical or virtual equipment for 26 agencies. The project's main goal was to completely remove all such assets from eFORT.

A Phased Approach to Migration

Each agency's migration followed a distinct three-phase process: **planning and discovery**, **execution and testing**, and finally, an **operational review**.

The **planning and discovery phase** typically lasted about three months for each agency. During this period, a comprehensive "**Run Book**" was developed. This crucial document meticulously lists every application, server, storage, service, network route, open firewall port, and all other critical interdependencies at the eFORT location. The Run Book was the blueprint for safely, securely, and efficiently executing the migration.

Precision During Execution and Rigorous Testing

The execution and testing phase demanded exact coordination among OIT's server, network and firewall teams. This precision ensured that events unfolded correctly, with each team completing its assigned tasks before the next began. To minimize operational impact on the agencies, each execution and testing phase took place over a weekend. The Lakewood Data Center network configurations were meticulously analyzed to ensure all necessary components were correctly set up, storage locations were replicated between sites, and server configurations were copied over.

Testing commenced with the migration team's thorough infrastructure health check, after which agency testers began specific application tests. A migration was only declared complete once all applications were successfully tested. The team developed a robust testing methodology to streamline this process, including standardized communication templates for testing requirements, comprehensive logging procedures and organizing automated responses to identify and remediate issues immediately. This rigorous testing involved:

- **450 product, server and application owners, plus subject matter expert testers** across the 26 state agencies.
- Testing over **500 applications**.
- Managing over **360 discrete file shares**.
- **Over eight hours of testing and retesting** per migration, including after-hours and weekends.

Continuous Improvement Through Review

A crucial final step was the "hot-wash" operational review. During this session, agency representatives, testers, and the migration team all presented issues and brainstormed possible solutions. These ideas were then evaluated and implemented in subsequent migrations, ensuring each following agency's transition went even more smoothly.

Rack Inventory Breakdown

During the eFORT migration, storage racks were relocated to the LDC, the cloud or various agency locations. No equipment was abandoned; some racks were simply decommissioned in place. An inventory revealed the following distribution of racks:

- **20% (29 racks)** were empty, having been pre-provisioned for a tenant but never occupied.
- **12.5% (18 racks)** were successfully migrated from eFORT to the Lakewood Data Center.
- **9% (13 racks)** were migrated to AWS.
- **15.3% (22 racks)** were moved to other agency sites.
- **43% (62 racks)** were decommissioned directly from their eFORT location.

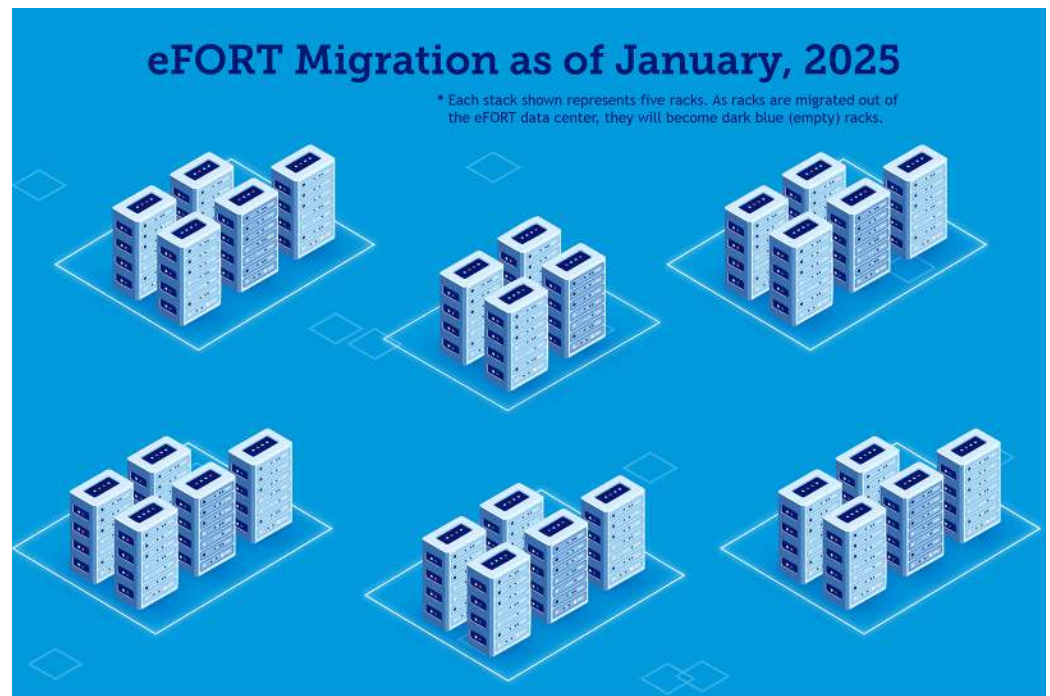
The Power of Communication and Collaboration

Beyond the intricate technical skills and precise coordination needed for this large-scale data center migration, effective communication and robust relationship-building significantly shaped the project's success. Engaging a communications manager at the outset of the planning stage ensured she was fully informed and could facilitate crucial cross-organization collaboration. Her understanding of the migration's complexity and various phases enabled strategic communication planning for internal, partner, and external stakeholders.

Building Trust Through Transparency

Significant emphasis was placed on building trust with agency partners through open dialogue, consistent engagement, and transparency. This vital aspect wouldn't have been possible without the continuous involvement of the communications and support teams throughout every project step. The team actively listened to feedback, provided opportunities for raising concerns, and created specific forms to collect and respond to this input. The communications manager worked closely with technical experts to translate complex technical information into easily understandable language for a less technical audience.

Stories, progress and value were continuously communicated to the Governor's office, employees, agency partners, Colorado General Assembly, and public stakeholders through various channels, including newsletters, [videos](#), social media and engagement with media outlets to encourage continued support for the effort. While initial hesitation and pushback were present, all parties operated as a unified team by the time the cutover occurred. This outcome is a powerful testament to how effective collaboration, communication, teamwork and strong technical execution can lead to remarkable success.



IMPACT

The project to exit the eFORT Data Center has yielded significant impacts across several key areas.

Impact by the Numbers

- **Capital Lease Savings:** Beginning in Fiscal Year 2026 (July 1, 2025), the state will realize over **\$1.8 million in annual savings** from capital lease expenses.
- **Efficiency Gains:** The project necessitated constant process realignment, as each agency presented unique subprojects detailing their equipment at eFORT and its interdependencies. This fostered a more efficient approach to understanding and managing IT assets.
- **Team Effort:** Over **300 State of Colorado employees** supported the project, contributing to its successful execution.
- **Hours Invested:** State employees dedicated over **18,329 hours** to the project, including working 34 weekends and numerous late nights.
- **Waste Reduction:** Over **2,500 lbs. of ethernet cabling**, equating to approximately 62,000 feet or just over 11 miles of cable, were removed from the eFORT Data Center.
- **Equipment Disposal:** More than **1,000 pieces of IT equipment** were properly disposed of (surplused).
- **Staff Hour Reductions:** The consolidation effort reduced the staff time spent on physical security administration by **14 monthly hours**.

Contributing to "Reimagine State Government"

The project was aligned to optimize state assets. This migration directly contributed to Governor Polis's "Reimagine State Government" initiative by consolidating resources from a leased facility into a state-owned one. It addressed one of its six pillars: reducing the state's physical footprint.

Future Outlook for IT Infrastructure

While significant progress has been made in modernizing data storage and IT infrastructure, the work continues. In the coming years, the Lakewood Data Center is slated for further improvements, including upgrades to its security protocols, infrastructure, and chiller plant. Additionally, planning for continuity and disaster recovery processes with agency partners has already begun, looking toward the future resilience of the state's IT operations.

Leadership Perspective

In an interview with [StateScoop](#) in January 2025, Dana Thorson, Director - Data Center & Mainframe Operations, lauded the monumental effort: "Exiting the costly leased eFORT Data Center was a colossal effort requiring close collaboration across multiple state agencies. From planning to completion, we migrated 26 agencies and OIT out of the leased data center in less than three years, which is not a small feat. Exiting eFORT paves the way for optimization, modernization and innovation while saving the state over \$1.8m yearly in lease expenses."

Thorson acknowledged the team's dedication: "I want to thank the many team members and our leadership. Through long nights over many weekends, our teams came together to make this a reality, and they are a testament to public service in Colorado. We look forward to a bright future for our state data center operations."

