

LEGACY TO MODERN

Transforming Business Operations to Meet the Next Mission

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The mandate to modernize is driving federal agencies to adopt new technologies, but the transformation occurring now across government means more than just migrating applications to the cloud.

Driven by evolving missions and global events, transformation means bold shifts that empower an organization to accelerate change and growth beyond typical incremental advancements. The scope is broad and strategic, such as switching to new business or operating models.

While there has been a lot of movement toward cloud-based or SaaS platforms, agencies continue to rely on legacy systems that have been in place for decades. These proprietary solutions limit access to information, are costly to maintain and operate, and keep organizations from taking advantage of new approaches and workflows.

Still, transformation is about much more than technology alone. Transformation means making fundamental changes in how an organization operates. This could impact personnel, processes, and technology, helping organizations compete more effectively, become more efficient, or make a strategic pivot towards something greater.

What Does Change Look Like?

While some legacy applications will be around for years to come—especially in the Department of Defense (DoD), where moving apps to the cloud poses technological or security challenges—modernizing many systems simply makes sense, especially for business and financial processes.

THE CLOUD OFFERS

- **Scalability and more computing power on-demand**
- **Predictable costs, continuous upgrades and (potentially) easier management across the enterprise**
- **The ability to reshape and automate processes that touch multiple systems**
- **Support for emerging technologies that can enable greater productivity and innovation (including upgraded ERP Acquisition/Financial/Business platforms that are SFIS and audit compliant)**
- **Easier access and workflows for remote and hybrid workforces**

Photo from Staff Sgt. Alexandra Longfellow, Peterson Space Force Base, Colorado

Beyond the cloud, there are a range of less-visible opportunities to rethink processes and realign resources. Robotic Process Automation (RPA), for example, can work across multiple systems to create streamlined workflows. Automation has another distinct advantage: it eliminates the human error that can occur when shifting data from system to system.

The Military Health System (MHS) has been embracing RPA for some time; since RPA bots can run 24/7 and bring together data from systems across the organization, people can focus on making use of that knowledge—instead of spending time and effort on repetitive data entry and reporting tasks.

Emerging technologies, such as artificial intelligence (AI) and machine learning (ML) can take automation many steps further, by acting on results without human intervention. This can free up more people to perform higher-level decision making.



Driving Forces

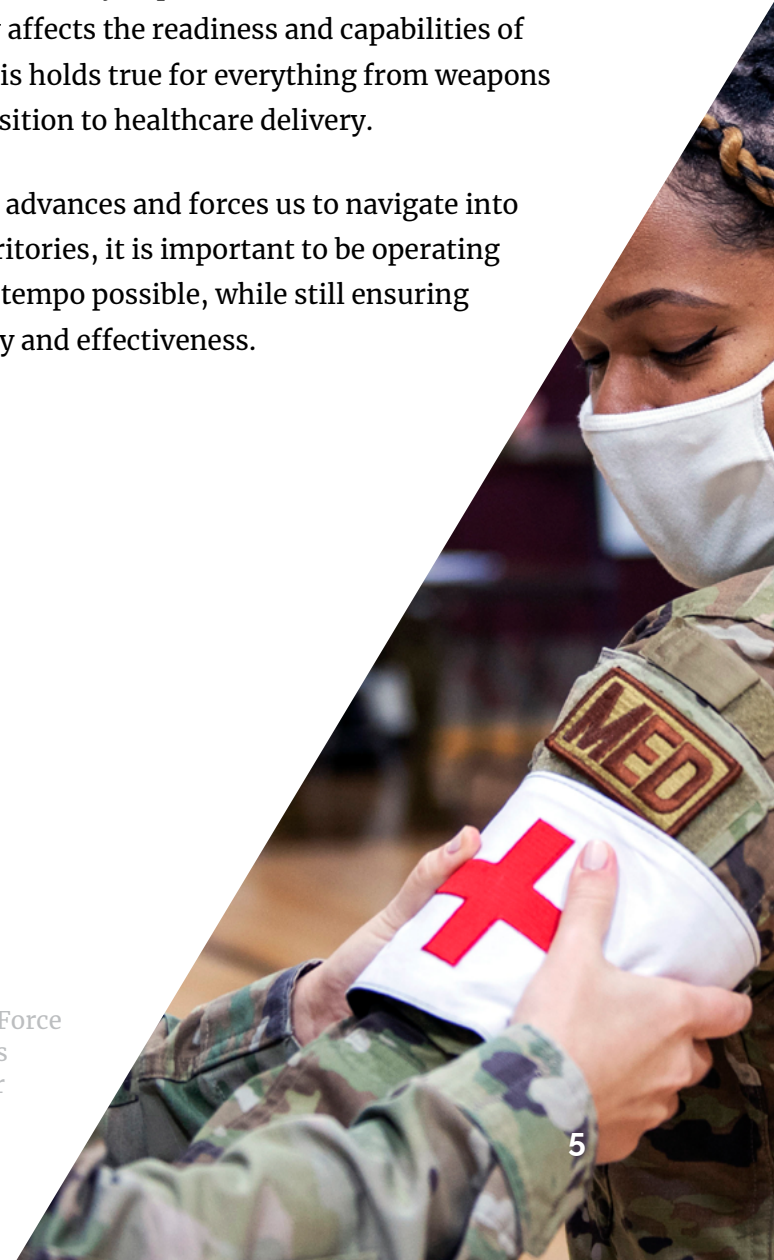
Digital transformation is a lot like any systemic change; there are multiple drivers and influences that put things in motion and keep them heading in new directions:

- The mission is, of course, primary. Evolving national and global events, new or revised regulations, budget pressures—these are just some of the factors reshaping missions and how they can be supported.
- Readiness goes hand in hand with mission support. Outdated systems and processes can directly impact the ability of agencies to respond to changing conditions, whether that's a national security threat, a natural disaster, or a newly-defined program to support the public.
- The availability of new technologies is another key motivator. When people learn what's possible, it can jumpstart efforts to introduce new tools (and retire outdated ones).
- Waste, fraud, and abuse are always fundamental drivers of change. Rooting out issues that cost taxpayer dollars unnecessarily can lead to changes in processes and policies.

For the DoD, transforming business operations is linked to the military's ability to perform its overall mission, which directly affects the readiness and capabilities of U.S. forces. This holds true for everything from weapons systems acquisition to healthcare delivery.

As technology advances and forces us to navigate into uncharted territories, it is important to be operating at the highest tempo possible, while still ensuring security, safety and effectiveness.

Photo from Air Force
Airman 1st Class
Kimberly Barrer



The Five Phases of Modernization

The process of modernizing systems doesn't start with choosing new technologies. The first question to be asked is, "Why?" as in, "Why are we making these changes and what outcomes are we expecting?"

There are five stages to the process that apply almost universally. At the same time, there are nuances to be considered by every agency based on their operations, structure and goals.

1. CREATE A MIGRATION TEAM

Put together a group of people responsible for setting goals, deciding which data needs to be transferred and how to clean it up. The data migration group is typically part of your overall ERP implementation team and will usually include representatives from different business groups who can provide insights into how data is used across the organization.

2. ANALYZE AND MAP THE DATA

Examine the data in each of the source systems, looking for redundancies and inconsistencies. The data migration team will need to decide how to resolve those issues before moving forward. Then, you'll need to map the data to the structure of the new ERP database so automated tools can import the information.

3. DECIDE WHAT NOT TO MIGRATE

You may find that older systems contain outdated information: items that have not been ordered in years, suppliers that have gone out of business, data about obsolete products. Some systems may also contain historical data about old transactions; much of that information may not be needed in the new system, so you can store it offline or in a separate system, depending upon your data retention policies.

4. MIGRATE, VALIDATE AND TEST

Your new ERP system may include tools that help automate the process of importing data from systems, although you may first have to rationalize the data and in some cases convert it to a form that the ERP system can recognize. Before going live, run tests on your migrated data for every business group and ERP application.

5. ROLLOUT AND SUPPORT

Security is fundamental, so you'll need to obtain an ATO at, "go live." On the, "people," side of the equation, a phased rollout gives users time to understand the new system and new ways of doing things. Communication is essential before, during, and long past the transition, to boost user acceptance and engagement. Of course, help desk support must be ready for an increase in requests, especially at launch.

Risks and Pitfalls

While every migration is different, there are common issues that must be avoided—one area is related to the data itself, the other to the organization. Addressing these obstacles early on can make all the difference to the success of your transformation efforts.

DATA INTEGRITY AND DATA CORRUPTION

There are numerous ways the data itself can be affected during a migration. Differences in how data is formatted between the legacy and target systems can lead to errors, as does redundant data, which is often due to multiple entries or naming conventions (such as, “type 2,” vs, “type II”).

Sometimes, the meaning of legacy column and target column is the same, but their unit of measurement is different (e.g., ounces vs milliliters); this can completely change the meaning of data. One thing to note here is that the data is neither lost nor corrupted. This means that, while the migration could be considered a success, the information is not useful to the organization.

The key is making sure semantic issues are addressed before migration begins.

CHANGE MANAGEMENT

An ERP implementation involves more than just switching to a new software system. It typically means overhauling business processes to take advantage of efficiency and productivity improvements. This requires a shift in mindset and a change in everyday work processes for many employees. It also means getting buy-in, from leadership and stakeholders across departments, very early in the process is crucial.

Resistance to change can be a formidable roadblock and uncertainty can lead to stress, delays in finishing tasks, and a decline in morale. That’s why it’s essential to engage people at every level, to give them confidence that, although their day-to-day jobs may evolve, the new system presents opportunities. Having visible and unequivocal support from the top is a critical success factor.



The Keys to Success

With these risks and the five-phase approach in mind, how can you give yourself the best chance of success?

Using deployment of GFEBS¹ as an example, there are clear steps organizations can take to assure a smoother transition, including:

1. Conducting an, “As Is,” and, “To Be,” Review Process – Documenting existing systems, environments, integrations and processes enables quicker mapping to the new tool/environments.
2. Cybersecurity requirements should continually be revisited throughout the project, to ensure compliance with all current standards. GFEBS team members recommend clarifying the cybersecurity approach early in the project and using existing authority to operate until after go-live.
3. Post deployment, have a dedicated over-the-shoulder team ready to support end users for at least 12 months, and ensure your help desk team is prepared to support users going forward.

¹General Fund Enterprise Business System, the online ERP system managed by the United States Army and employed by the Defense Health Agency for the Military Health System

4. During sustainment, it is helpful to have a consolidated ticketing system rather than multiple ticketing systems with varying numbers.

5. Test, test, test. For system interfacing, such as credit card banking transactions and payroll processing, it's important to conduct various transaction system testing. Thorough testing will best manage risk and identify what needs to be adjusted before go-live.

Number 5 on this list can't be over-emphasized: payroll has to work from the instant the switch is thrown, because the standard is: as long as everyone gets paid, we are good to go.

6. It isn't possible to collaborate or communicate too much during the migration process, especially during Go / No-Go discussions.

7. Incentivizing teammate training is important when migrating to a new system. Also useful: developing champions and super users that can assist other team members with the completion of training.

It's important to understand everything that influences your big picture strategy and your implementation plan, including:

- **Mission**—Know the, “why,” “how,” and, “what,” that will support progress toward your fundamental goals
- **Insights**—Compile data, communicate, and use information to drive decisions
- **Integration**—Establish rules, roles, and decision-making responsibility for the migration
- **Processes**—Ensure workflows are well-defined and efficiently designed to reach the desired outcomes
- **Technology**—Set clear requirements for the new capability in terms of hardware, software, tools, and services
- **Resources**—the skills and experience needed for this capability to thrive, including allocating existing staff and recruiting additional team members



Transformation—the MDC Way

Modernization projects tend to become change management projects. If there's one word to remember at every stage of a modernization project, it's, "clarity." From the moment you begin, be clear about the purpose, goals, and priorities. It's easy to get distracted along the way, especially as business demands call for your attention.

When looking at a partner to help transform your organization, it's essential, then, to work with a trusted resource—one that understands your business and your pain points.

MDC's hands-on experts bring inside knowledge of agency operations, as many come from the ranks of government as CFOs and business process professionals. That means we not only know the technology and workflows, we understand the culture. Throughout the project, we manage to the milestones, but we also plan for the unexpected. With decades of experience supporting complex technology transitions, we know what to anticipate—and how to quickly turn obstacles to your advantage.

MDC is focused on more than a technology migration or a business process evolution. For us, success means helping your organization become more agile, more productive, and better positioned to take on future challenges, whatever the mission.





Accelerate your transformation
for smarter decision-making and
measurably better outcomes.
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