

Four key levers for large-scale digital transformation success



A practical guide for airline modernization based on massive deployments of mission-critical technology and transformation programs in air cargo, airline operations and crew management, loyalty, and passenger services

The need to upgrade the airline technology landscape

New technologies continue to transform consumer expectations, and the way businesses operate. Keeping up with the pace of change is a challenge for any industry but even more so for travel and logistics. Paradoxically, the travel industry that was once at the forefront of cutting-edge advances is being held back by the monster of its own creation – a highly complex, fragmented, and layered technology landscape.

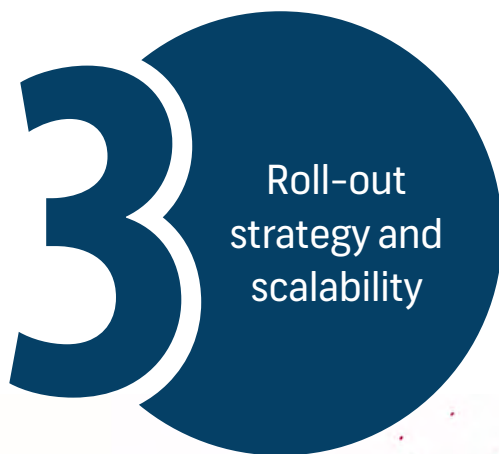
A patchwork of legacy technology, systems, messaging standards, processes, and mindsets that were once trailblazers now makes it difficult for airlines to modernize their stacks, how they operate, and the way they organize themselves. With a firm resolve to overcome the challenges that arise from these constraints, airlines continue to plow through technology deployments of varying scope and impact. But do all technology investments and implementations achieve their desired outcomes?

Deploying mission-critical systems that fundamentally transform the way a business operates is complex in itself. But having to operate in dual environments until total cut-over to the new order takes the complexity of integrating legacy and modern systems to a completely different level. Yet, the success of large-scale transformation programs doesn't just hinge on technology. Understanding the impact and required changes to business processes, operations, and organization is often more challenging.

But just because the journey is complex doesn't mean it's impossible. From decades of experience deploying large-scale implementations across air cargo, airline operations and crew management, loyalty, and passenger services, IBS Software has found that digital transformation success hinges on four key levers.

Four key levers for digital transformation success

While in-house and vendor experience is critical to the outcome of any transformation program, it's equally important to note that each organization is unique. Culture, people, and processes vary from one organization to the next; what works for one doesn't work for all. Although a set of considerations help steer large-scale transformations, their application must adapt to each specific context. Four levers that help companies successfully structure their digital transformation journeys include:



1 Organizational-wide commitment

Literature and research studies abound on the importance of organizational-wide buy-in and commitment to change management. Yet, the lack of internal buy-in still causes many transformation programs to fail.

Top-down

Senior management must provide a clear and aspirational vision of what the organization is trying to achieve and why change is a fundamental driver of that vision. The business case for change must be articulated to all affected parties. With clear objectives, milestones, KPIs, and owners, management must empower its teams and grant them autonomy and ownership so the strategic goals don't get diluted or sidelined as activities get delegated down the hierarchy. Proportional resources – human, organizational, and financial – must be allocated to the scope of the transformation being undertaken.

Bottom-up

Key and representative business and technical users of the new system must be brought in, and their feedback incorporated into the change management program. In addition to locking them into the transformation journey, their valuable hands-on inputs can help improve processes.

Horizontal

The business and IT functions need to align and collaborate from the get-go. Multifunctional teams are critical to the organization moving forward productively in lockstep. From the start, IT needs to be involved in the business discussions to ensure that the right solutions and processes will be in place to support the business strategy. Too often, IT teams come in at the back end and are dumped a list of desired requirements. The earlier IT can align with different parts of the business, the higher the chances of migration success and achieving desired outcomes.

An open mindset and organizational impact

A large-scale technology transformation shouldn't be about simply upgrading existing processes and working methods to a new platform. It's a unique opportunity to completely revisit the way the company does things, both internally and with its strategic partners. Often, technology itself isn't the driver of a transformation program's success. Instead, understanding its impact on critical business processes, operations, and organizations can be the deal-breaker. Having the right people in the right teams that will drive the transformation initiative is vital.

Integrating fresh eyes and mindsets from professionals beyond the industry helps drive organizational and operational innovation. During this process, measures must be taken to prevent the temptation and tendency to fall back on the old ways of doing things. To extract maximum value from a major technology transformation, organizational redesigns must often run in parallel. Physically separating the transformation teams from day-to-day business operations can help ensure the program stays on its course.

Training

Ensuring that system users acquire the right know-how is critical to the success of a major deployment and obtaining its full potential. Training and familiarity with the new system simply can't be underestimated nor understated for the transformation program to reach its desired outcome and maximize the new system's full potential.

2 Clear scope definition

Establishing clear parameters for any transformation initiative will define the breadth and depth of activities to which the in-house teams and vendor will be held accountable. When tackling scope definition, two main areas need to be addressed.

1. Functional

This is where the specifics of a system's required functionalities, objectives, and attributes get laid out. During the functional scoping process, several recurring challenges often arise:

Free coupons and the biggest share of the pie

When an organization announces a significant investment in a multi-year transformation project to replace a core system, people often see it as an opportunity to request an exhaustive wish list. Different business groups will fight tooth and nail to get all the items in their wish lists included in the project scope and get the upper hand over other departments. Establishing the right forums, evaluation tools, and management focus to filter critical functionalities from nice to haves with limited added value is paramount. The business case for free coupons must be scrutinized on a cost/benefit basis against the overall project milestones as guiding posts.

Gold plating

People will want perfect solutions for their decades-old issues from day one of the transformation. Again, focused interactions are critical to managing expectations and convincing teams that rolling out the foundations of a new platform is the critical success factor during a large transformation exercise. Once the platform's initial MVP is established, it is easier to improve the system progressively and gold plate area by area.

Some problems can self-heal

When people that have been in the company for a long time are involved in a large-scale transformation, they often focus on finding solutions for old problems that may not exist in the future. Understanding and managing this situation is critical for the success of any program. Many of the features teams might request often originate from the constraints of their incumbent platform, which may not even be an issue in the new technology landscape.

2. Systems integration

The second aspect to consider under scope definition is the possible impact of deploying a new system on dependent systems. Factors to keep in mind include:

Systems integration – not an afterthought

Introducing a new system into an existing landscape sends ripples across the ecosystem. This happens because it needs to communicate different business information, at various process stages, to existing systems built on different technologies. Identifying these integration points, data exchange requirements, volumes, impact on other systems, and the challenges of exchanging data based on various existing and emerging messaging standards are just some of the key considerations that the new system's roll-out strategy must address. This is often overlooked during early planning because it can be a complex and time-consuming exercise. However, any new landscape design is highly likely to fail if systems integration requirements aren't considered from the get-go.

Socialization

Systems integration challenges are compounded when the incoming system is deployed to replace the incumbent core system and various dependent systems in the landscape. A common mistake organizations make is to retire all incumbent systems at the same time as launching the new one due to commercial considerations alone. Sunsetting existing systems requires careful analysis of each system and its interactions with other systems to decide when to retire them. A socialization period where the organization has a chance to observe how the new systems integrate within the existing landscape can reduce the risks involved in a big bang pull-out.

Temporary transitional developments

Opting for a socialization strategy to reduce risk can imply having to develop temporary integration points as the new and incumbent systems coexist. Depending on the systems landscape, investing in temporary "throwaway work" so both systems can operate for a set period can outweigh the risks of a failed big bang approach, especially in highly complex migrations.

When considering a dual environment approach, it's essential to understand the domino effect of changes to one system and its impact on dependents. It could be that the volume of temporary developments is impractical or unviable. However, the decision to run two systems in parallel during the transition phase shouldn't solely be based on short-term savings from temporary throwaway work.

Also, running systems in parallel requires additional manpower, which the organization should be mindful of. Planning staff rotation and combining in-house teams with those of the implementation partner's can help operate the systems without disruption and avoid fatigue, or even rejection, during initial migration. It's also worth noting that temporary developments should be treated as such and not converted into a convenient excuse to stray from the broader transformation program.

Middleware

Integrating a new core system with dependent systems that will be retained in the landscape can sometimes be challenging. For example, the latter may have limited integration capabilities or development timelines to make necessary changes that extend beyond the overall transformation program timeline. In these cases, middleware can be the solution to overcoming these challenges.

Messaging standards and data

A common risk when replacing legacy systems is the risk of unknowns. Over decades of service, changes to interpretation logic at different layers of the legacy systems will have been required to keep up with evolving communications protocols. For outdated messaging standards still in use, workarounds will have frequently been used, but the development knowledge and documentation may simply have gotten lost in time. Beyond connectivity, understanding how reference and historical data can be extracted from legacy systems and translated into the new system is a critical success factor. Legacy systems often have poor quality data, which must be "fixed" and other third-party systems updated to consume. Data migration complexity and completion can delay the roll-out and cut-over to a new technology platform. An early project phase to analyze likely affected systems helps identify and overcome these risks to prevent integration issues, enable messaging upgrades or the dual dropping of messages, and better prepare the business for final cut-over.

3 Roll-out strategy and resource scalability

A carefully planned but flexible roll-out strategy is the next lever to transformation success or failure. Various approaches can be employed, from a phased to a big bang migration. Each organization and transformation program is unique, so the roll-out strategy must be aligned. Resource scalability must be commensurate with the different requirements across the transformation lifecycle and allocated accordingly. When planning and executing a roll-out, pointers to keep in mind include:

A phased or big bang approach?

When considering a major system implementation, most people's kneejerk reaction is to minimize transition risk through a phased migration. And this may well be the case in some situations, but it doesn't apply to all as a blanket strategy. Indeed, transformation projects have failed by attempting to de-risk the roll-out entirely by phasing it vertically or horizontally. Unfortunately, there is no golden rule, so each situation needs to be analyzed individually, considering technical, business, commercial, and environmental factors.

Disruptions are here to stay

No matter how meticulous the plan, disruptors are more than likely to appear at some point during large-scale transformations. Careful planning is no substitute for flexibility, so the program management approach needs in-built resilience and adaptability. When a hurdle appears, the teams need to adjust quickly, refocus, and be open to adopting an incremental micro delivery approach when an initial macro delivery was originally planned, for example. With the right approach and mindset, disruptions don't necessarily have to result in extending key delivery timelines.

Don't wait for perfection

Large-scale transformations involve multiple departments, functions, people, objectives, and skills. All of which are under tremendous pressure. Given the context, many ideas, opinions, and even egos will flourish, which is why establishing clear and objective decision-making mechanisms and KPIs is so critical to the transformation effort. The essential decision – go-live or no-go. While there will invariably always be a faction that wants to wait for perfection and resolve every single issue before pressing the button, the reality is that few major transformation projects have zero known or unexpected issues. What's critical is having a clear plan for managing the knowns and a well-designed supporting structure that can kick in to resolve unforeseen issues during the critical care period during and after roll-out.

Be flexible, don't stick to specific methodologies

Large transformations often involve teams working with different methodologies, including agile, waterfall, iterative, or any other. A specific methodology doesn't necessarily guarantee faster or better delivery. What truly matters is the mindset and experience, not the textbook methodology, so a successful project plan usually embraces diversity and is results-driven.

Infrastructure

A Ferrari can only (legally) reach maximum potential on a racing circuit. Often overlooked, infrastructural surroundings are important to maximize system performance and capabilities, particularly for major implementations in remote or even cluttered locations. Is there sufficient data coverage? Is the WiFi network up to spec? Are all required devices compatible? Is there a risk of outside interferences affecting network signals? The devil is in the details.

4 External stakeholder involvement

Large-scale technology transformations that fundamentally change how a business operates will also affect how it interacts with its partners, vendors, and customers. When mission-critical processes with external stakeholders risk being interrupted, it's good practice to involve them early on to preempt, as opposed to crisis manage, potential impacts.

Open communications channels

Much like the key factors under the “organizational-wide commitment” section, the business case for change must be clearly expressed to external stakeholders. Ensuring that they understand the benefits, risks, and impact on their business is fundamental to securing their buy-in. Clearly communicating expected milestones and timelines, followed by periodic progress updates, will help them organize themselves and formalize a collaborative process for when they need to intervene. Understanding potential challenges on their side and being open to suggestions for improving mutually dependent processes increases the chances of a successful migration and safeguards the partnership.

Collaborative task forces and committees

With an initial due diligence analysis complete, external stakeholders must be onboarded early to proactively and collaboratively address impacted areas. Ensuring the right mix of people from the company driving the change, its external stakeholders, and the system vendor is critical to aligning objectives and activities. Having the right leadership connections between parties and establishing the proper forums will help iron out any creases, monitor progress, and ensure compliance.

Flexibility

Solid partnerships built on trust are a key business driver. Large-scale transformations may require temporary adjustments to existing contracts during the migration phase. Short-term flexibility on Service Level Agreements, for example, will help during the transition phase until the system stabilizes and users get accustomed to the new system.

Digital transformation – an ongoing journey

The pace of change in the technology space is accelerating all the time. Within that fluid context, ensuring companies have flexible core platforms and systems that can adapt to change and unlock product, business, and process innovation is key to long-term success.

Large-scale migrations of mission-critical activities are both exciting and scary. But choosing the right partner to embark on the journey with and ensuring that the foundations for change are properly laid out ease the transition to a new world of opportunities.

It's impossible to avoid surprises, but a resilient yet flexible approach will ultimately determine a major transformation's success or failure. Technology should be a business enabler; a major transformation is an opportunity to reset how things are done and explore new and more progressive ways. Yet, significant challenges to large-scale digital transformation often lie in understanding their impact on business processes, operations, and organizational design. Hence the importance of an integrated approach to large-scale transformation that considers and cuts through technology, business, organization, people, and context.





Empowering airlines for a new world

Have you ever had to scrap a promising idea because your technology simply couldn't support it or would be too expensive and time-consuming to adapt?

Are you incurring hefty costs being handcuffed to rigid solutions and patchwork integrations that cause more headwinds than tailwinds?

If so, you're not alone. And most likely restrained by the legacy systems that are so ubiquitous across the travel industry. At IBS Software, we believe technology should drive your business forward by unleashing its full potential. Not hold it back. And that's why leading airlines worldwide partner with us, from passenger services and loyalty management to flight and crew operations and air cargo. Why throttle back when your airline should be accelerating forward?

Find out how our SaaS portfolio breaks down industry silos and drives profitable growth for airlines through increased agility, innovation, and collaboration.

Conditions change quickly – can you? >>>

