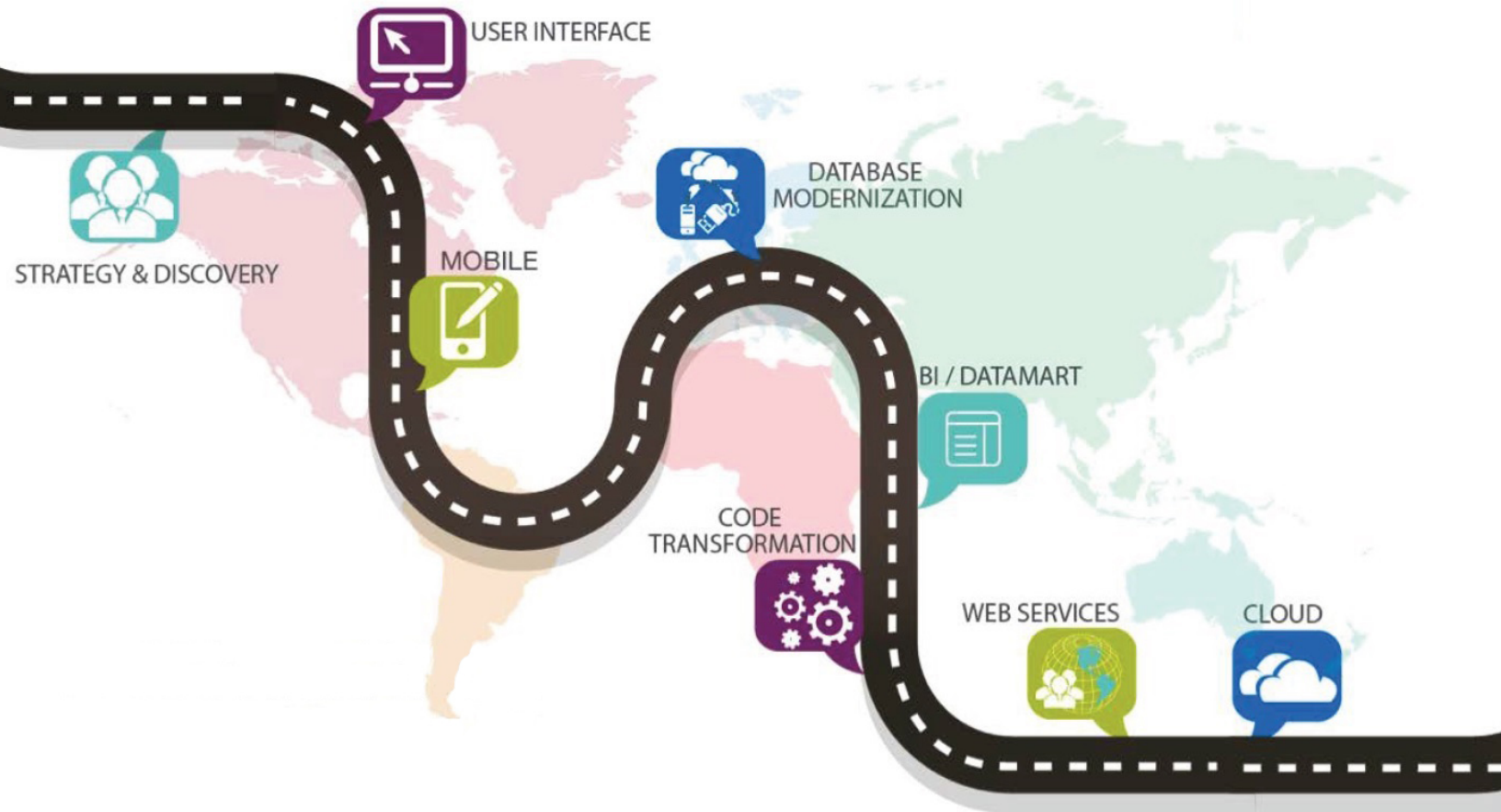


IBM i Application Modernization

Countless options, endless opportunities

FRESCHÉ



How to plan for a successful modernization

Where do you start?

How do you proceed?

This quick primer answers your questions.

Modernization Primer



IBM i modernization can enhance business results

The Challenge

Applications running on platforms such as the IBM i are still the workhorses of the modern business world. Representing a significant investment in effort and money, they contain invaluable assets that have evolved through decades of business growth, and they implement processes that give your corporation its competitive edge.

But with aging systems come challenges: high fixed costs for application support and maintenance; widening gap between business needs and IT evolution; lack of skilled resources; and an increasingly brittle application landscape that becomes untouchable because of dwindling support.

Your Biggest IT Challenges

The 2017 IBM i Marketplace Survey results tell us that these are your top concerns:

- ▶ Security: 71.3%
- ▶ High availability: 59.4%
- ▶ **Modernizing applications: 49.5%**
- ▶ IBM i skills: 44.7%
- ▶ Data growth: 35.4%
- ▶ Reduce IT spending: 29.4%

Those challenges are compounded by rapidly growing business pressures: the need for greater agility to deliver new products and services, the ability to innovate with flat or shrinking budgets, and the new customer-centric environment where a unified view of the customer permits analytics-driven service and selling across divisions, branches, call centers, internet and mobile.

The following technical and business drivers represent the current trends in IBM i modernization. The remainder of this paper discusses how you can channel these drivers into an effective modernization strategy that fuels growth and sets the business up for the future.

Modernization Technical Drivers

- ▶ Desire for new graphical / Web User Interface
- ▶ Mobile access requests
- ▶ Reporting and Data Management needs
- ▶ Big Data opportunities
- ▶ Interfaces via Web Services
- ▶ Pressure to lead innovation efforts
- ▶ Desire to leverage new technologies and approaches

Modernization Business Drivers

- ▶ Need for agility
- ▶ Desire to reducing training/ onboarding
- ▶ Pressure to lower costs
- ▶ Pressure to drive innovation beyond competitors
- ▶ Requirement to enable new channels of access
- ▶ Merger and acquisition integration
- ▶ Compliance requirements (SOX, HIPAA, etc.)

View our modernization start-up discussion on the next page

Modernization Start-Up



Plan a phased modernization with early wins

There are six main steps that lead up to a successful modernization effort.

1. Analyze your application environment – Educate yourself

In large IBM i shops, it is very likely that no one has a complete picture of the application environment. Knowing what you have and how it currently supports (or doesn't adequately support) the business is crucial in deciding how to proceed. There are many decisions involved in a well-planned modernization project, and those decisions cannot be made if you do not have accurate metrics about application and database size, quality and complexity, interdependencies, obsolete and redundant code, backup procedures, etc. Using automated tools that can perform a highly detailed analysis of your IBM i application portfolio provides you with a clear picture of what is used in your system and how. This information is crucial before planning your modernization journey.

In addition, you need to begin evaluating target technologies. Remember that one size does not fit all. Not all of your legacy technology needs to move to the same target technology, and some of it doesn't need to move at all. Hybrid solutions are the key: rarely is there one monolithic solution to a company's modernization needs.

Consulting an experienced vendor such as Fresche can help you with both aspects of this period. Through Fresche's Strategy and Discovery service, or even by purchasing X-Analysis, you can learn everything you need to know about your IBM i environment and begin reviewing recommendations for modernization.

2. Find the right strategy

There are a variety of modernization strategies, and you need to decide which ones are right to support each part of your business. Among the strategies:

Find the right strategy	
Strategy	Solution
Maintain	Application Support Services
Manage	Optimize existing applications and improve performance by improving processes, understanding business rules, and re-using design elements.
Modernize	GUI, SOA and mobile enablement Re-hosting Automated Conversion Code Transformation Re-architecting/ Re-engineering

Find the right strategy	
Strategy	Solution
Replace	Re-write applications on the IBM i Packaged Applications
Retire	Some applications can be decommissioned when newer technology on the platform has superseded the older functionality

Again, help from an experienced vendor can be invaluable in determining how to proceed. Most companies do not have an abundance of modernization skills and experience and benefit greatly from a vendor’s knowledge.

3. Align IT projects to business value creation

Our experience has shown that willingness on the part of IT and some users is not enough to sustain a thorough and ongoing modernization strategy. It is absolutely essential to link each modernization project with a business improvement that will benefit one or more parts of the business. As you are building out your strategy, keep the following points in mind:

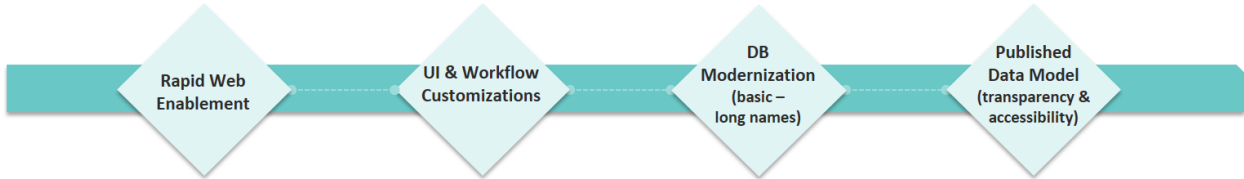
- What does the business get out of it?
- Move from an IT-centric perspective to a business-centric one
- Existing IT budgets are rarely adequate to fund mid-to-large scale modernization initiatives; the business will need to sponsor and fund the project
- A professional and strategic approach to the business is required

You must be able to show what business problems you are solving with each part of the modernization project. You must also be able to show business the return on the investment.

4. Define a phased-approach timeframe that includes quick wins

Organizations typically do not like to invest in multi-year programs where the benefits only appear at the end of an extended period, so it’s in your best interests to create a milestone-based plan where each milestone shows a specific business value. Establish one or more quick and visible wins early in the process to show business that the modernization strategy has definite and beneficial goals.

Sample Phase 1: Non-invasive quick wins that require minimal investment



Sample Phase 2: Transformation, strategic investment into improving business agility



5. Seek input from line-of-business application stakeholders

In fact, this is something that you need to do throughout your modernization journey. We have already stressed how important it is to define projects in terms of their business value. But it is also important to include business analysts and users as early in the discussion as possible to validate the direction that you are considering and to ensure buy-in. Projects that succeed are ones where business analysts fully understand – and are looking forward to – the benefits that the project will provide.

6. Seek external validation on strategy and approach

Planning and running a modernization project is very different from net new development. It requires in-depth knowledge of the existing system and an understanding of where some of the scope creep and problematic areas could potentially arise. We always recommend obtaining external validation of your approach and strategy from sources that specialize in modernization. There are a variety of vendors available who can help you.

At Fresche, modernization and efficient management of IBM i environments is what we do. It's our specialty. We provide highly tested modernization services in conjunction with tools such as the X-Analysis suite (for deep understanding of your applications, data models, code complexity, business rules, etc.) and the Newlook suite (to modernize your application UI and improve the complete user experience). Most IT departments have limited modernization experience and are not aware of all the pitfalls that can occur on a modernization journey. A seasoned vendor has already met and overcome most obstacles, including difficulties in testing, project management and integration.

Want to know more?

Do you need help updating your IT to better support the business? Or do you just need to know where your IT stands with regard to your business and its current needs? Fresche can perform an analysis of your business and IT using our own methods and proprietary deep-dive tools. To plan any type of modernization effort, you need to know exactly what you have, how it's used and how one part affects other parts. We provide a very precise mapping of business-to-application object-to-data: what you have, what's actually used, what requires modernization and how much testing would be required. We also take into account business goals, resources, costs, dependencies and competing projects.

Contact us at info@freschelegacy.com.

Do you have questions? Do you want some help building your plan? [Talk to an expert.](#)

Want more details about our offerings? [Visit our website for details.](#)

Give us a call!

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About Fresche www.freschelegacy.com | info@freschelegacy.com

We specialize in helping you achieve your business goals and outcomes by leveraging and extending your IBM i application environment. We start with a well-crafted application modernization and management strategy that exploits the power of IBM i while leveraging modern technologies such as Web, mobile, SOA and open source solutions.

You can count on Fresche for complete modernization and management solutions in all of the following areas:



GUI, Web & Mobile

Numerous options to easily replace green screen applications and develop new customer-facing Web applications that make users more productive, improve business processes and increase revenue.

- Green Screen Modernization
- Web & Mobile App. Development
- Open Source Development
- Portals
- SOA/Web Services



Analysis & Productivity

Automated tools to analyze and document your entire application and data environment, leading to faster, more accurate development with less testing and more certainty.

- Application Documentation
- Impact and Data Quality Analysis
- Business Rules Analysis
- Field Expansion & Resizing
- Test Automation & Data (IBM i & z/OS)



Reporting & Document Distribution

Solutions that provide real-time information to everyone in the organization to help them make better decisions. Digital distribution of invoices and other documents improves customer service and reduces printing.

- Web Reports & Dashboards
- Spool File Modernization
- Document Distribution
- Data Mining
- Avaya Call Center Reporting



Code & Database Modernization

Services and automated conversion tools to move to Java, DDL, etc. Includes field resizing, pre-conversion impact analysis, modern application and database architecture and much more.

- RPG & Synon to Java / .NET
- Tool-Assisted Rearchitecting/Re-write
- Unicode Conversion
- DDS to DDL / SQL
- Database Rearchitecting (without code changes)



IT Strategy & Planning

Services that help you understand what you have, what you need, and how to get started. The main goal is to evaluate options and establish a modernization roadmap that aligns IT with future business needs.

- Strategy & Planning
- Modernization Roadmap
- IT Healthcheck
- IBM i Application & System Analysis



Staff Augmentation

A highly seasoned team of IBM i experts who can take on support of your entire IT department, backfill retiring resources, or supply much-needed know-how at key moments.

- App Development, Testing & Implementation
- Web & Mobile Development
- Integration
- Application Support
- End-to-End Modernization