

# Best Practices for Migrating from PowerCenter to the Cloud for Analytics and Data Warehouse Modernization



### **About Informatica**

Digital transformation changes expectations: better service, faster delivery, with less cost. Businesses must transform to stay relevant and data holds the answers.

As the world's leader in Enterprise Cloud Data Management, we're prepared to help you intelligently lead—in any sector, category or niche. Informatica provides you with the foresight to become more agile, realize new growth opportunities or create new inventions. With 100% focus on everything data, we offer the versatility needed to succeed.

We invite you to explore all that Informatica has to offer—and unleash the power of data to drive your next intelligent disruption.

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## Preface: How to Use This White Paper

Two key components of any enterprise analytics environment are the enterprise data warehouse and/or lake and the data integration and management platform. For many years, Informatica® PowerCenter® has been a leading and trusted enterprise-grade data management platform for global enterprises. Traditionally, its number one use case has been to load data into on-premises data warehouses such as Teradata, IBM Netezza, Vertica, or Oracle Exadata.

As part of the migration of legacy databases and on-premises data warehouses to the cloud, overall data management should be designed to meet increased demands for efficiency, performance, and for lower administrative, operational, and infrastructure costs. However, as popular as PowerCenter is, it is not optimized for the cloud. It makes sense that customers planning to modernize their on-premises data warehouses to next-generation cloud data warehouse (CDW) like Snowflake, Microsoft Azure Synapse Analytics, Amazon Redshift, or Google BigQuery should also modernize their data management platform.

That's why we recommend migrating from PowerCenter to our cloud native data management platform –Informatica Intelligent Cloud Services (IICS).

This white paper is written for Informatica PowerCenter stakeholders who are in the process of—or planning on—migrating their analytics environments to the cloud. It is designed to help organizations understand the important factors to consider, and how to avoid common pitfalls, when migrating PowerCenter assets to IICS, by providing best practices and a checklist for success.

## Chapter 1: Why You Should Use Informatica Intelligent Cloud Services— not PowerCenter—for Your Modern, Cloud-Native Analytics Environment

For years, PowerCenter has been a trusted foundation for your on-premises data integration and data management initiatives, such as data warehousing and analytics.

When planning for cloud modernization, you naturally want to maximize the value you get from it. Now is the time to reevaluate your data integration and management strategy to align with your cloud-first strategy. That means migrating from on-premises PowerCenter to Informatica's cloud native platform, IICS. However, this is not simply a switch to a new platform. It is essential that you leverage all the data integration assets that you have built in PowerCenter to accelerate and lower the risk of your cloud modernization strategy.

### **Why IICS over PowerCenter?**

There are a host of reasons why you want a cloud-native data management platform like IICS.

1. In the on-premises world, major upgrades are a fact of life that are time-consuming, expensive, and risky. IICS eliminates these upgrades for customers because they are performed by Informatica as new software releases become available.
2. As a cloud native platform, IICS makes it easy for customers to explore and try new capabilities and services as Informatica introduces them, rather than requiring customers to install new software versions in their own on-premises environments.
3. It's much easier to democratize data integration tasks to a wider range of users in a cloud-native platform like IICS compared to an on-premises software environment like PowerCenter.
4. There are specific cloud data integration use cases that are much better suited to IICS. For example, you may want to stage data from an Oracle on-premises database to a landing layer in Snowflake or an Amazon S3 bucket in AWS. In PowerCenter, you would run a classical extract, transform, load (ETL) mapping from Oracle to Snowflake with an engine processing it one record at a time. However, this is very inefficient. In IICS, you would use a modern data warehouse practice of bulk ingesting data as-is into the landing layer. This extract, load, transform (ELT) pattern is also known as pushdown optimization (PDO). You would then apply transformation and curation logic afterward. IICS provides the highest performance and scalability with serverless and elastic Spark-based distributed processing and cloud data warehouse PDO. The result: a three times faster load due to mass ingestion efficiencies and faster processing with PDO, leveraging the native system commands and limiting data movement..

See Figure 1 below for a list of examples of why a cloud-native platform like IICS has distinct advantages over PowerCenter.

Integration Pattern	Cloud Requirement	PowerCenter Approach	Modern IICS Approach	IICS Benefit
Moderately complex ETL mapping	Minimize interactions and network overheads	DW is outside your network and has multiple network hops. Imagine a mapping with 2 sources, 2 targets, and 20 lookups. Here you are looking at 24 interactions with a CDW endpoint now going over network.	Use Advanced Pushdown Optimization to leverage best fit commands supported by the endpoint to transform data	Reduce connections and network traffic
Data extract to landing zone	Stage data to a landing layer in Snowflake or an S3 bucket in AWS	Run a classical ETL mapping from Oracle to Snowflake, with an engine processing it record by record. This is very inefficient.	Modern DW practice to bulk ingest data as-is into the landing layer, and then apply transformation and curation logic afterwards	Up to 3 times faster load due to mass ingestion efficiencies
ELT to target CDW	Efficiently curate/transform/process it using a compute layer that's closest to it, without having to move it in and out of that environment for transformations	Traditional way of reading data from source, transforming it and loading it back to the target	Use Advanced Pushdown Optimization to leverage best fit commands supported by the endpoint to transform data	Saves you vendor credits by avoiding data egress/ingress
Intermediate data storage and data lakes	Customers undergoing cloud modernization use the respective vendor's cloud storage layer as intermediate data storage	No connectivity to target cloud data storage and data lakes	IICS has features to support intermediate data storage and data lake use cases, such as Spark based processing, File Mass Ingestion, processing hierarchical data, advanced serverless, etc.	IICS has support for the features needed to implement this. PowerCenter does not.
Compressed file storage formats	Support for new data types and modern file formats, such as Parquet, that are more suitable for compressed cloud storage	Not available in PowerCenter. When it was all on-premises, the size of the files didn't matter as long as it was all within the storage you had already purchased. But in cloud it all adds up.	IICS supports all new data types and modern file formats such as Parquet, Avro, ORC, JSON, etc.	Save storage costs and also compute costs when you read those

Figure 1: Comparing PowerCenter to IICS

What about your assets and investments in PowerCenter? You have been a PowerCenter user for many years. You have developed thousands or even tens of thousands of mappings, sessions, workflows, commands, and more. As a mission-critical, trusted workhorse, PowerCenter runs ETL jobs for you every day to populate and update your enterprise data warehouse. The good news is that you don't need to abandon your PowerCenter assets, processes, and institutional knowledge when you move to the cloud.

Informatica has created a comprehensive Informatica [Cloud Data Warehouse Modernization Solution for PowerCenter®](#) that supports you through your entire journey from PowerCenter to IICS. It includes workshops and training to cover the transition. And all your investments in PowerCenter skills and concepts are easily transferrable to IICS.

With [Informatica's Cloud Data Warehouse Modernization solution](#), you can:

- Leverage the industry's leading cloud-native data management solution
- Reduce costs with financial incentives
- Speed the migration with automated conversion capabilities
- De-risk migration with Informatica's PowerCenter and cloud data management expertise

Informatica's Cloud Data Warehouse Modernization solution includes the following:

1. Informatica's cloud-native IICS platform
2. A patented Cloud Modernization for PowerCenter Intelligent Migration Factory® that combines tools and best practices-inspired and proven migration processes
3. Financial incentives
4. Informatica Professional Services
5. Informatica's premier customer support

Here are the different components, defined.

### Informatica Intelligent Cloud Services (IICS)

Informatica Intelligent Cloud Services delivers best-of-breed products for data ingestion, data integration, data quality, out-of-the-box connectivity, elastic and serverless capabilities, pushdown optimization, and catalog and governance to control costs, democratize data access, and accelerate speed to market driving significant competitive advantage.

- Govern your costs with Informatica’s usage-based pricing, optimization engine, and run-time tools that intelligently automate cost control. With 100% consumption-based pricing, IICS provides you with flexibility to mix and match products based on your implementation timeline, evolving requirements, or usage demands.
- Lower resource need with low/no code development tools and self-service for all users including architects, developers, citizen integrators, data engineers, data scientists, analysts, and IT operations. Our out-of-the-box templates and wizards cut down 80% of the design and development work. Our tools intelligently automate development efforts, like developing one mapping and leveraging it for multiple data sources.
- Reduce complexity with support for multi-cloud, on-premises, and everything in between with one single platform that includes data ingestion, data integration, data quality, application integration, API management, and more. No need to hand-code; no need to integrate point solutions; no need to look for solutions for your advanced integration and data management patterns.

### Intelligent Migration Factory®

The combination of tools, processes, and Informatica expertise analyzes your PowerCenter repositories to identify your mappings, sessions, and workflows. The Migration Factory is divided into two parts – Assess and Migrate (see Figure 2). It provides an estimate of the work required to migrate and modernize your mappings and builds the foundation to develop a thorough migration plan. The Migration Factory can automatically convert most of your PowerCenter assets to IICS. It also includes unit testing of converted assets.

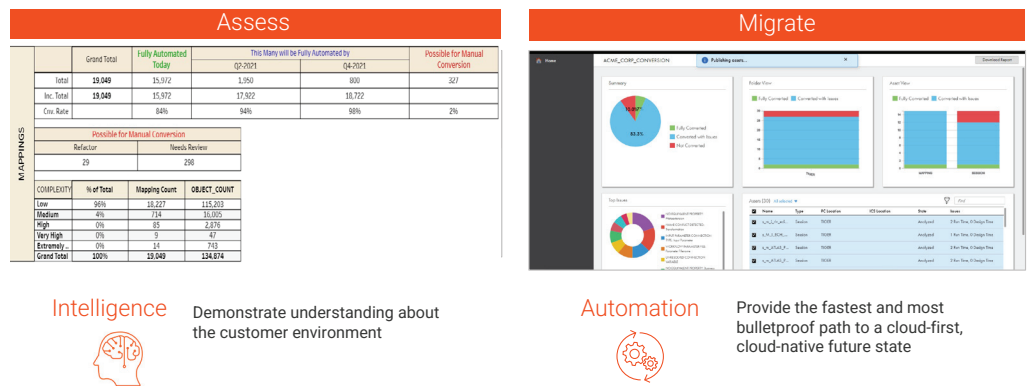


Figure 2: Informatica Intelligent Migration Factory

### Benefits of the Migration Factory approach

The Migration Factory is Informatica's patented methodology for completing large-scale migrations to the cloud. It encompasses all the people, processes, and tools that help an organization plan, execute, and support workload migrations. In other words, Migration Factory blends the technical components of a cloud migration with the business and human components. Following are the top three key benefits of a Migration Factory approach: reduced migration time, reduced migration cost, and reduced migration risk.




 <b>Reduced Migration Time</b>	 <b>Reduced Migration Cost</b>	 <b>Reduced Migration Risk</b>
Automated migration utilities	Reduced time = less cost	Code generation = less errors
Migration Factory approach	Higher quality code = less rework	Predefined scope = less scope creep
Reduced Time-To-Market	Less development resources	Shorter duration = less scheduling challenges

Figure 3: Benefits of Informatica's Migration Factory Methodology

In addition, further benefits include:

#### Financial Incentives

The Cloud Data Warehouse Modernization Solution for PowerCenter includes a credit against existing PowerCenter maintenance as well as a credit for Informatica Professional Services to reduce the cost of your migration.

#### Informatica Professional Services

The solution also includes assessing your PowerCenter repositories, developing a conversion proposal and subsequent execution plan, detailing post-conversion steps, conducting unit testing, and doing knowledge transfer.

#### Informatica's Premier Customer Support

The support that you get from Informatica for PowerCenter continues as-is through your entire migration. This includes premium success support with access to adoption services, access to a customer success manager, and critical milestone support.



## Chapter 2: Migration Methodology and Approach

It's essential to use the right approach when undertaking a PowerCenter to IICS migration. Here's the 10-step methodology Informatica uses.

1. Understand your organization
2. Assess your environment
3. Determine what's in scope for the migration
4. Understand what is covered by Migration Factory—and what is not
5. Plan to do the required amount of testing
6. Understand key roles and responsibilities
7. Define the timeline for the complete migration
8. Set priorities for data asset migration
9. Understand dependencies
10. Establish proficiencies with IICS

### **Step 1: Understand your organization**

Before you start your cloud modernization, it's important to understand your own business. Depending on the business complexity, volume, and line of business structure you may want a centralized or decentralized approach for managing the PowerCenter migration and setting up your IICS environment.

Ask yourself: How is data ownership currently distributed in the on-premises environment? Does a central team (such as an Integration Competency Center or ICC) manage the entire PowerCenter estate? Or is each individual business unit responsible for its own PowerCenter environment? Answering this question is important because most organizations typically organize the new data integration environment in the cloud in the same way as the on-premises environment. This approach speeds the deployment of the new cloud environment because it avoids the analysis and planning necessary to create a differently structured environment. Now with moving to cloud, there is an opportunity to change the architecture of your data consumption architecture. For example, with cloud you can become more decentralized.

Whether your organization structure is centralized or decentralized, IICS presents an opportunity to migrate to an easy to manage and scalable solution that supports modern and futuristic architecture patterns for your hybrid and cloud data integration requirements.

Please refer to Appendix A for more details related to centralized and decentralized organizations.

### **Step 2: Assess your environment**

You first need to assess your environment, so you can identify exactly what PowerCenter assets you possess. The process of assessing your PowerCenter environment involves taking into account all your PowerCenter assets, including mappings, workflows, sessions, etc. The Migration Factory helps you do this without disruption (see Figure 4).

Here is an example of the assessment dashboard, which includes:

1. Percentage of specific asset types that can be migrated with automated conversion and how it will improve over time with subsequent releases of the Migration Factory
2. Percentage of assets that require a manual review
3. Complexity levels (High, Medium, and Low) of assets

MAPPINGS		Grand Total	Fully Automated Today	This Many will be Fully Automated by				Possible for Manual Conversion
	Total	391	32	October, 2020	December, 2020	Q1, 2021	Q2, 2021	24
	Cnv. Rate		6% - 7%	10%	42%	55%	70% - 75%	6% - 20%
	<b>Possible for Manual Conversion</b>							
	Refactor				Needs Review			
	6				18			
	COMPLEXITY	% of Total	Mapping Count	OBJECT_COUNT				
	Low	92%	361	3506				
	Medium	5%	20	411				
	High	2%	7	271				
Very High	1%	3	167					
Grand Total	100%	391	4355					

Figure 4: Migration Factory Assessment Dashboard

### Step 3: Determine what’s in scope for the migration

A few PowerCenter assets might become obsolete, or they may become redundant depending on your cloud migration strategy and roadmap. You should take the time to determine what assets are in scope for the migration. It’s unlikely that every single asset—each PowerCenter workflow, mapping, and session—needs to be migrated. Do not waste time and resources bothering with assets that are no longer in use. These assets can be retired, and you don’t want your new cloud-based data integration platform cluttered with unnecessary assets.

### Step 4: Understand what is covered by the Migration Factory—and what is not

You should be able to migrate the vast majority of your PowerCenter assets automatically, using the Migration Factory. Customers have reported that up to 99% of their existing PowerCenter assets can be migrated automatically with the Migration Factory. However, you might have some assets that can’t be automatically converted. Although ideally these represent a very small percentage of your overall PowerCenter environment, you need to be prepared to manually redesign or rearchitect them to fit into your new cloud environment.

### Step 5: Plan to do the required amount of testing

It’s important that you realize the extent of the additional testing that must be done after data has been migrated and tested by the Migration Factory. This includes data validation testing, system integration testing, performance testing, and more. This testing is required and is best performed by the people who understand the business logic and context of the assets in question. You should build test scripts to confirm all business functions are working as expected during the test cycle.

As with assets that are converted automatically, assets that have been redesigned or rearchitected must also be fully tested by those people that understand their business logic as well as their technical aspects.

### Step 6: Understand key roles and responsibilities

In case you work with an external partner on a modernization project, it's critical to be very clear about the different roles and responsibilities.

When engaged in a PowerCenter modernization project, Informatica takes responsibility for running the Migration Factory to convert the assets. But it's important that you define precisely who is doing the related tasks for the modernization project.

Figure 5 lays out a chart of sample roles and responsibilities that you would have when working with Informatica. Figure 6 shows the collaborative relationship that we recommend.

Project Role	Responsibilities	Commitment
Executive Stakeholder	<ul style="list-style-type: none"> <li>▪Project Champion</li> <li>▪Escalation contact</li> </ul>	As needed
Project Manager	<ul style="list-style-type: none"> <li>▪Collaborates with the Informatica Delivery Manager</li> <li>▪Organizes customer's resource activities, meetings, &amp; scheduling</li> </ul>	Full-time
Conversion Technical Lead	<ul style="list-style-type: none"> <li>▪Primary technical contact</li> <li>▪Supplies technical artifacts to Informatica per project prerequisites</li> <li>▪Responsible for Organization/Secure Agent configuration, data connections and/or sample data to support MF unit testing</li> </ul>	Full-time

Figure 5: Establishing Roles and Responsibilities

	ASSESS	PREPARE	CONVERT			VALIDATE	ORGANIZE	OPERATIONALIZE	TEST	OPTIMIZE
	Scope Work	Prepare IICS Environment	Automate Conversion	Manual Conversion	Conversion Finishing	Unit Testing	Mappings, Users, & Access Control	Update Schedulers & Scripts	Data Validation & User Acceptance Testing	Performance Tuning & Best Practices
<b>Informatica Migration Factory</b>	☑		☑		☑	☑				
<b>Partner</b>		☑		☑		☑	☑	☑	☑	☑
<b>Customer</b>		☑		☑		☑	☑	☑	☑	☑

Figure 6: The Collaborative Approach with Informatica Migration Factory and a Partner

### Step 7: Define the timeline for the complete migration

To define your timeline, you need to lay out the steps to deployment. These range from establishing the all-important metrics of success (Who will do this? How long will it take?) to completing the organization’s readiness check, to actually performing the migration.

There are three phases for doing the migration (see Figure 7): prerequisite phase, conversion phase, and optimization phase.

**Prerequisite phase:** Assess, configure the IICS environment, design the architecture, and complete a pre-conversion readiness checklist.

**Migration phase:** Conversion and unit testing, data validations, and deployments.

**Optimize phase:** Integration testing and unit testing until ready for production.

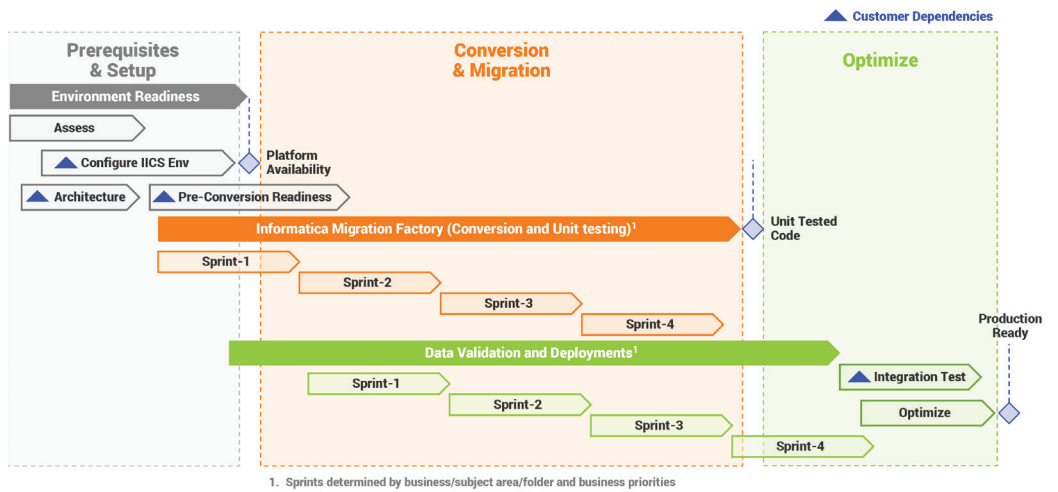


Figure 7: Sample Migration Plan

### Step 8: Set priorities for data asset migration

Organizations need to prioritize how they’re moving to cloud and in what stages. Sprints need to be determined by business, subject area, or folder, as well as by business priorities. Especially for centralized ICC implementations, aligning with the business units is critical to ensure availability of business resources so they can provide the necessary material for the Migration Factory in a timely manner.

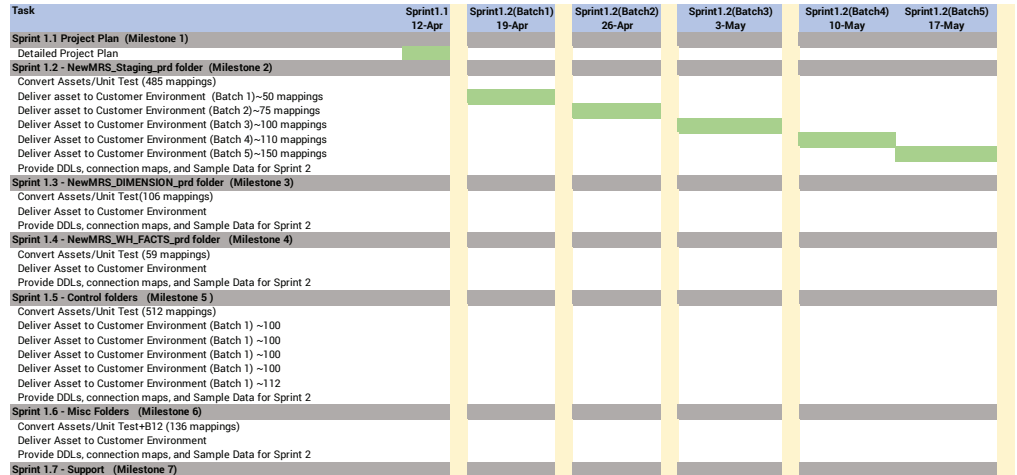


Figure 8: Sample Sprint Prioritization

Another important point to note when establishing priorities is that you must ensure that prerequisites are completed two weeks before a sprint starts. Keep in mind that:

- 90% of all delays are due to missing database structures (views, tables, store procedures)
- Nested tables and views are generally missed since they are not referenced directly in Informatica
- Generally, data conversion lags behind from on-premises enterprise data warehouses to cloud data warehouses
- Scripts, .ini, and parameter files are generally not available and cause delays

We recommend aligning your sprints with database conversions, data population for streamlined unit test, and follow-on user-acceptance testing to expedite production readiness of assets converted.

### Step 9: Understand dependencies

There will always be dependencies, with related technologies, components, and utilities—like scheduling—that will determine how you proceed with your migration plan. For example, prior to migration, it's important that you complete all training of your ICC team, that you divide work into sprint packages, and that you provide prerequisites to the conversion team. After migration, you will need to perform functional validation, user acceptance testing (UAT), and performance testing and tuning. Here is the list of dependencies for your reference during the pre- and post-conversion phases while working with the Informatica team:

#### Pre-Conversion

- Provision / Architect IICS Org
- Training
- Provide prerequisites to conversion team
- Divide work scope into sprint packages
- Provide access to all endpoint connections and Secure Agent via IICS Dev/Sandbox Org

### Post-Conversion

- Functional validation
- UAT testing
- Performance testing and tuning

### Step 10: Leverage Informatica training resources to establish proficiencies with IICS

Training is an essential part of modernization.

Plan to train both your ICC professionals and also business users who are helping with the modernization and migration. Informatica has a plethora of training and education resources to help everyone from beginners to advanced PowerCenter users. Our [IICS Primer Learning Path](#) takes you through everything from getting onboarded, to getting started with cloud, to best practices, and even certifications for those who are professionally motivated to learn as much as they can about IICS.

Additionally, our Informatica Success Portal is for anyone who wants to understand the fundamental use cases and benefits of Informatica products (see Figure 9). To develop true Informatica subject matter experts within your organization, we recommend [Informatica University](#) as a resource.

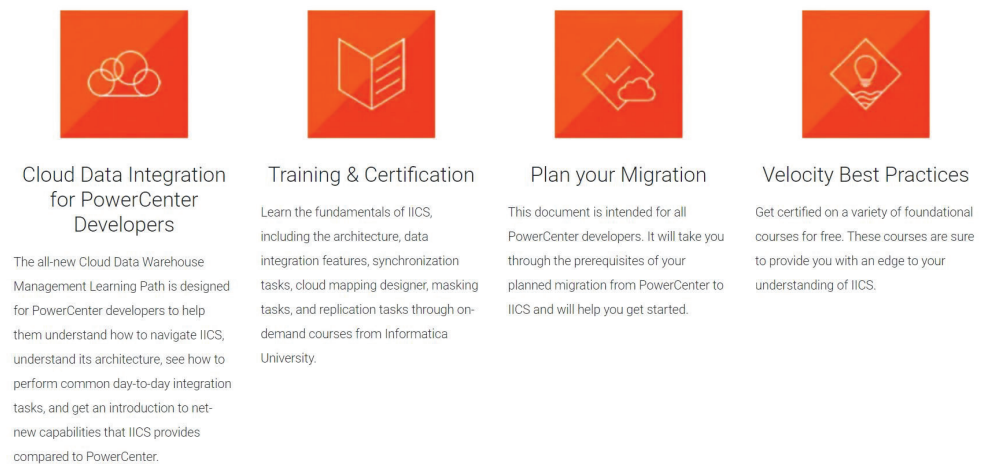


Figure 9: The Informatica Success Portal

## Chapter 3: Set Yourself Up for Success in the Cloud with Informatica

You are moving your analytics environment to the cloud to lower costs and achieve greater agility, scalability, and flexibility. A foundational component of any analytics environment is data integration and management. Choosing the right platform is essential to meet those goals.

Informatica's PowerCenter Modernization Solution is designed to jumpstart your cloud-first strategies by leveraging all of the workloads you've already built in PowerCenter. But migrating the existing footprint to the cloud is only the beginning.

By adopting cloud-native data management, you will have a broad variety of services at your disposal to achieve your ongoing and evolving business objectives.

For example, within the Informatica Success Portal is our new [Cloud Data Integration for PowerCenter Developers](#) learning path, with resources designed for PowerCenter developers to help them understand how to navigate IICS, understand its architecture, and see how to perform common day-to-day integration tasks. They are also introduced to net-new capabilities that IICS provides compared to PowerCenter. Visit the IICS Primer for training and certification opportunities, including an Informatica Badge for Cloud Data Integration for PowerCenter Developers.

Even more importantly, you'll also be able to take advantage of the new technologies and paradigms that are constantly emerging in the cloud world. Serverless computing, elastic computing, advanced pushdown optimization. And tools to ensure data quality, data governance, and data cataloging, along with artificial intelligence which can provide tremendous value both at design- and run-time. You need to be flexible enough to deploy these emerging innovations in data integration and data management services when new projects arise, or business requirements change.

For cost control reasons, any service or capability on a data integration platform should be consumed and measured using a common metric. You must have complete visibility into your usage so you can adjust as necessary. On Informatica's Intelligent Data Management Cloud (IDMC), this metric is called an Informatica Processing Unit, or IPU.

#### **Case in Point: U.S. State Government**

A U.S. state government entity needed to shift data warehouse and analytics environment from an on-premises IBM Netezza system to Amazon Redshift. It converted almost 4,000 PowerCenter assets using the Migration Factory and was able to finish the project in less than two months, one week earlier than planned.

To achieve this, it defined sprints by subject area, and followed best practices of naming conventions and minimal use of SQL overrides. By providing prerequisites two weeks before sprints and making validation data available before the sprint's conversion started, the state encountered less than 3% overhead between onshore and offshore, when the average overhead is 10% to 15% if prerequisites are missing when sprints begin.

**Reduced migration cost.** The Migration Factory reduces costs by requiring fewer human resources for hand coding, and by automating migration and testing, which reduces the potential need for costly rework. Additionally, the Migration Factory can be used to map out a clear scope of the modernization project, which reduces the financial impact of scope creep.

### Case in Point: A Supermarket Chain

A U.S. supermarket chain wanted to reduce out-of-stock products at its store by ensuring items were delivered to its warehouses by suppliers on time. By analyzing data in real time, the grocery giant hoped to:

- Ensure vendor delivery compliance
- Recover costs due to late arriving products
- Incentive vendors to deliver products on time

The company built an on-premises prototype analytics solution, but found it could take up to hours per day to execute. Using IICS to integrate the warehouse information from an on-premises operation data store into Google BigQuery, analytic execution time was driven down to minutes, resulting in a highly scalable, easy-to-use analytics solution. The supermarket chain found that converting PowerCenter to hand coding increases costs up to 16 times. By deploying IICS and Google Cloud, the company is saving millions of dollars through analytics that help avoid lost sales due to out-of-stock products. The company started off hand coding and using Google Cloud Dataflow before making the decision to modernize to IICS. Analytic execution time went from hours to minutes.

**Reduced migration risk.** By shortening the migration time, building mitigated and tested data pipelines, and including Informatica expert advice for any outstanding issues, Migration Factory substantially reduces your risk. You minimize the chance that the project will be delayed or fail and raise the probability that the project will successfully provide value, thus garnering organizational support.

### Case in Point: An Energy Firm

A Canadian integrated oil and natural gas company initially worked with a partner to convert PowerCenter to IICS manually. Using the Migration Factory approach, the firm was able to achieve cost savings of 6x. After moving from PowerCenter to IICS, the company found that development was much easier. Developers are now more productive with less risk, with a projected savings of \$200,000 in operational costs.



## Chapter 4: Checklists and Next Steps

### Pre-engagement checklist

You need to finalize the letter of engagement and sign the statement of work. The following also needs to be completed.

1. Start on-demand IICS training
2. Gather Migration Factory prerequisites
3. Finalize Sprint priority list (Sprints determined by business/subject area/folder and business priorities)
4. Identify project team including Tech Lead and Project Manager

### Architect and design phase checklist

1. Complete on-demand IICS training
2. Set up Org environments (Users, Secure Agents, Connections, etc.)
3. Attend best practices sessions for Org and Secure Agents set up and configuration
4. Divide Migration Factory work scope into Sprint packages

### Best practices checklist

To help you in your modernization journey, here are 10 best practices, listed in sequential order, that you can use as a checklist to ensure your travels to the cloud go smoothly

- Understand your organization
- Assess your environment
- Determine what's in scope for the migration
- Understand what is covered by Migration Factory—and what is not
- Plan to do the required amount of testing
- Understand key roles and responsibilities
- Define the timeline for the complete migration
- Set priorities for data asset migration
- Understand dependencies
- Establish proficiencies with IICS

## Next Steps

[Contact us](#) to get started with the Migration Factory. You can also explore resources about [Informatica's Cloud Data Warehouse Modernization Solution for PowerCenter](#).

## Appendix A: Considerations for Centralized vs. Decentralized Organizations

### Centralized organizations

In a centralized organization, business units provide their requirements to a centrally managed data integration team that owns the entire software development lifecycle (SDLC) for the business. Responsibility for applications, connections, and Informatica code lies within this team (typically called the Integration Competency Center, or ICC).

When modernizing an analytics environment in a centralized organization, the challenge is to make sure that business units are aligned and ready to sign off after user acceptance testing (UAT) so applications can be put into production. There is very little reliance on business units other than reporting and validation of applications.

### Decentralized organizations

In a decentralized organization, each business unit is responsible for its own PowerCenter environment. Business units are still governed by the ICC to make sure that best practices in security and other critical deployment aspects are followed.

To modernize a decentralized setup, your ICC team needs to align the business units early and often to ensure their involvement during migration and validation, as well as application and database readiness. Communication about the modernization effort must be a two-way street between business-unit modernization teams and the ICC to ensure the enterprise is on the right path to gain the efficiencies, agility, and ROI promised by the new cloud data integration platform.

Decentralized business-unit teams must ensure that all prerequisites are sent to the ICC in a timely fashion for the migration. In addition to migration efforts, teams have to plan for IICS enablement—since, as with all new software adoption, training is a key ingredient of success—and plan their future greenfield integration projects.

## Appendix B: IICS Product Learning & Training

Informatica's Cloud Data Integration service (CDI) supports high-performance, scalable analytics with advanced transformations; enterprise-grade asset management; and sophisticated data integration capabilities such as mass ingestion, advanced pushdown optimization, and advanced workload orchestrations. You can improve and simplify your data integration processes with comprehensive and easy-to-use capabilities and designers.

The three levels of Informatica IICS product learning include:

- **Beginner.** At the Beginner level, you get videos, webinars, and other documentation that introduce you to CDI, its architecture, Secure Agent requirements and installation, log files, tasks, connections, and more.
- **Intermediate.** The Intermediate level explores many how-to's, whitepapers, and videos along with product assets, components, architecture, mapping, administration, connectors, and more.
- **Advanced.** The Advanced level will help you develop expertise in Informatica Cloud Data Integration. It constitutes many videos, documents, and articles that will take you through pushdown optimization with cloud ecosystems, mapping parameters, advanced transformation, and advanced connectors.

