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ROI GUIDEBOOK
INFORMATICA CLOUD DATA INTEGRATION SERVICES

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EXECUTIVE SUMMARY

Organizations of all sizes continue to embrace large-scale cloud transformations to become more agile, resilient, and data-driven. The adoption of modern data integration technology has scaled in parallel, realizing the importance of data driven decision making, even at micro level.

Informatica's AI-powered data integration and management services enable clean and trusted data accessible at every corner of the organization. With its flagship data integration and management solution, Informatica Intelligent Data Management Cloud (IDMC), the vendor delivers unified capabilities for data quality, data governance, data integration, application integration, master data management, data catalog and data sharing through marketplaces.

328%
Average ROI

4.2 Months
Average payback period

$3,448,422
Average annual benefit

$1,778,547
Average annual TCO

Informatica Cloud Data Integration (CDI), a cloud-native integration service of IDMC, enables end to end designing and running of the data pipeline. It also offers high-performance and automated data processing for ETL and ELT and includes multi-cloud and serverless capabilities for data ingestion, synchronization, transformation, and replication.

To better understand the benefits and costs associated with an investment in Informatica CDI, Nucleus conducted an in-depth return on investment (ROI) assessment of several customers using the service. Interviewed by Nucleus, these customers realized an average ROI of 328 percent over a three-year period, with an average annual benefit of $3,448,422, and a payback period of 4.2 months.

SUMMARIZED BENEFITS

Up to 75%
Faster data processing

$3,850,000
In annual developer productivity savings

65%
Reduced time to procure and provision infrastructure

To support data-driven business decisions, companies need an integration backbone that has deep reach into all data sources. With heavy dependencies on real-time business insights, faster access data is critical. Companies are looking for cost and time-efficient data processing engines and techniques. With Informatica CDI, companies have gained up to 75% faster data processing.

One of the most pressing needs is to improve productivity of the developers and data engineers with automation and ease of use. This helps them to reallocate resources to more strategic work and remove dependencies on specific expertise. Informatica CDI is designed to simplify data management, improve productivity for various roles and support enterprise-level scaling. Organizations improved developer productivity by an average of 28 percent as they replaced existing integration tools with CDI, with one company saving $3.85 million annually.

With data democratization, the variety of integration use cases have exploded. Hand-coding, on- premises infrastructure and point solutions do not provide the depth and breadth of coverage needed in today's economy. However, to maximize ROI, companies look for integration services that can scale with reusable data assets and pipelines. With CDI's flexible deployment options and repeatable templates, companies have reduced time to procure and provision infrastructure by 65%.

TYPES OF BENEFITS

KEY FINDINGS

A full business value assessment is needed to understand real returns. There are certain benefits that directly translate to financial value, while there are others that require one or two additional steps to impact an organization's financial statements. These quantifiable

benefits can be categorized as direct and indirect. After performing multiple customer interviews, Nucleus found that 88% of quantifiable benefits were indirect benefits that consist of productivity improvements, performance gains, and accelerated time to market with reduced complexity. The following direct and indirect benefits represent those most commonly experienced by the companies analyzed in this report and made up the largest share of returns.

DIRECT BENEFITS

Direct benefits include cost savings, cost avoidance, and other changes that have a direct impact on a budget or profit and loss (P&L) statement:

- **Reduced or avoided technology costs.** This was a common benefit for organizations moving from on-premises systems, as they could retire various legacy solutions and hardware. Organizations interviewed by Nucleus were able to save an average of $255,000 annually, with some noting $500,000 in annual savings by retiring their physical servers and various on-premises systems.

$338,000

Average annual maintenance and administrative cost savings

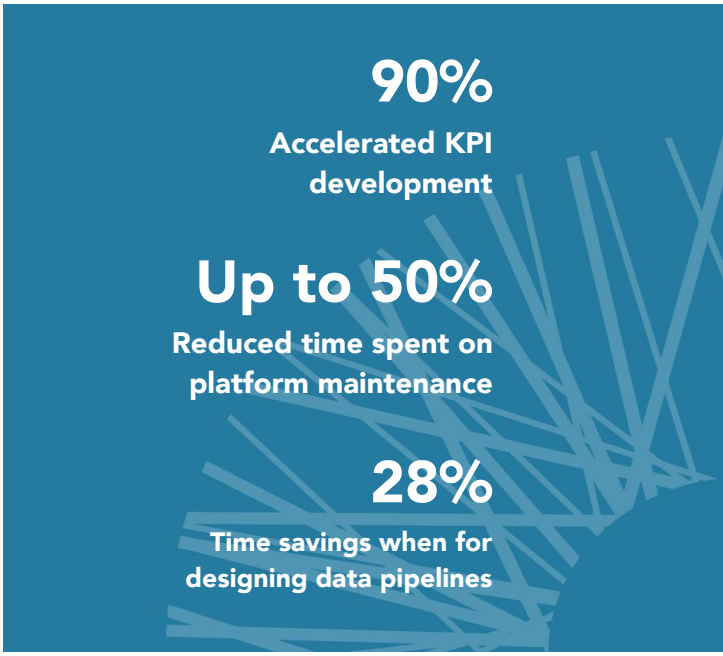
- **Eliminated maintenance and administrative costs.** Informatica customers realized an average annual direct cost saving of $338,000 by eliminating various administrative and platform maintenance tasks. One technology organization interviewed by Nucleus realized $633,000 in annual savings. This was achieved by redeploying administrative teams tasked with supporting its retired systems and homegrown engines and by eliminating support costs associated with its legacy ETL solution.

INDIRECT BENEFITS

Indirect benefits include time savings from accelerated processes that can be quantified but had an indirect impact on a budget or P&L:

- **Improved productivity.** All companies benefited from enhanced productivity of managers, IT teams, and business analysts by deploying Informatica CDI. Before adopting Informatica, one organization noted that 80 to 90 percent of business analyst time was spent on data wrangling; now, this only accounts for 10 percent of their time. These analysts also accelerated KPI development by over 90 percent. On average, developers noted 28 percent time savings when creating new mappings

and taskflows leveraging Informatica's connector library and graphical pipeline design. Administrative teams also noted up to 50 percent reduced time spent on platform maintenance, which enabled customers to support data operations at scale with fewer IT staff. Additionally, organizations that leveraged Informatica's Advanced Serverless deployment option saved 10 to 20 hours per month with automatic scaling and automatic performance tuning, allowing data engineering teams to focus on more productive tasks.



- **Reduced processing latency.** By using Informatica's Advanced Integration, which offers auto-scaling clusters, serverless deployments, and massively parallel processing, organizations were able to achieve more efficient processing at lower latency without increasing costs. One organization reduced latency by 75 percent by leveraging dynamic allocation of compute resources and elastic scalability. Additionally, with Informatica's advanced pushdown optimization to Snowflake, Redshift, and Oracle, among other cloud computing platforms, organizations avoided unnecessary data movement and further improved processing latency.
- **Avoided costs.** With Informatica's advanced pushdown optimization, organizations were able to reduce the cost and latency of processing tasks and avoid data egress charges. One organization avoided $50,000 in annual data egress fees and cut processing time in half for some larger daily tasks. Another organization saw significant processing time improvements and would have needed to spend an additional $400,000 to achieve the same latency without Informatica's advanced pushdown optimization.

UNQUANTIFIABLE BENEFITS

Organizations also acknowledged certain benefits whose financial impact could not be attributed to Informatica and are dependent on many variables that are outside the scope of this research.

- **Single vendor for all data needs.** Informatica offers various data integration and management capabilities under a single cloud, including MDM, data governance, and data cataloging. It offers faster time to market with a seamless experience and fewer handoffs. Organizations noted CDI's status as a full-featured integration tool as part of their motivation for adoption.
- **Centralized security and governance.** Visibility of end-to-end data lineage lays the foundation for streamlined data governance. Informatica CDI ensured network security and helped organizations take a centralized approach to their data models.

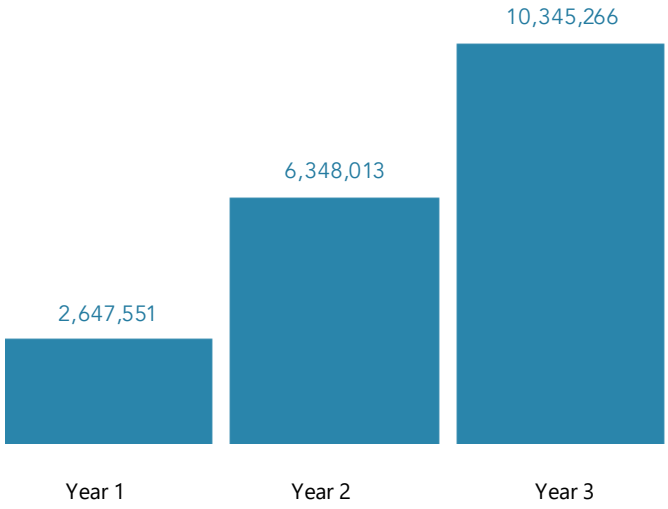
INFORMATICA CDI

Informatica CDI is a cloud-native data integration service of IDMC that enables organizations to create a unified view of customer data across multiple systems and sources. The service offers a variety of sophisticated data integration capabilities, including mass ingestion, advanced pushdown optimization, advanced transformations, a connector portfolio, advanced workload orchestration, a consumption-based pricing model, and flexible deployment options. It is designed to help organizations quickly and securely move data between on-premises and cloud-based systems while also providing the ability to transform, cleanse, and enrich data.

In addition to its standard version, it offers Advanced Integration, which enables auto scaling and auto tuning of unpredictable data jobs with massively parallel Spark processing. Informatica CDI uses CLAIRE, an AI engine that adjusts the underlying infrastructure and helps achieve optimal job performance. Organizations can also use the Advanced Serverless deployment option to leverage continuous scaling and usage-based pricing in a fully managed environment.

The service also features various pre-built connectors for popular data sources, an intuitive drag-and-drop interface, and a library of transformation templates, making it easy for users to get started with data integration in the cloud. Informatica pairs its cloud data integration with an extensive suite of data management tools, including support for cloud-native serverless computing functionalities, AI-powered intelligence, business continuity tools, and application performance management. With Informatica CDI's advanced features, companies have seen an average annual benefit of $3,448,422.

CUMULATIVE NET BENEFIT



SUMMARIZED CHALLENGES

Nucleus found multiple challenges that spurred the adoption of Informatica CDI. Some of these challenges were highly consistent, while others depended on the scale of the organization's data operations and the maturity of its data infrastructure.

- **Controlling costs as they scale.** One of the most pervasive challenges involved limitations related to legacy data infrastructure. Organizations would often spend significant time and resources maintaining and tuning hardware with costs that ballooned at scale. This led organizations to prioritize fully managed solutions with automated capabilities to keep costs in check as operations scaled.
- **Excessive complexity.** Each organization interviewed by Nucleus also noted technical complexity as a key challenge driving adoption. They needed an intuitive solution with various pre-built connectors and transformation templates to empower less technical skill sets.
- **Poor resource utilization.** Companies are constantly challenged to handle the rising data workload without adding headcount. Integrators often spend a lot of time performing administrative jobs, allocating resources, and configuring tasks. Developers also experience time sinks with custom coding and maintaining legacy systems instead of focusing on strategic work.

- **Inaccessible data.** Organizations faced challenges accessing data held within third-party applications and legacy infrastructures, generating data silos. As a result, different departments often had to build their own data models that did not communicate with each other.

ANALYSIS OF BENEFITS

Nucleus found that companies deploying Informatica CDI experienced a range of benefits across several areas, which were largely dependent on the size and complexity of their organization; their level of ETL and analytics modernization before deploying Informatica CDI; the number of Informatica modules deployed; and the rate of adoption of technology. The best business cases focus on two or three key benefits that can guide deployment and adoption efforts. To guide organizations in building their business cases, Nucleus has presented the benefits most commonly experienced by Informatica CDI customers with guidance ranges based on what customers typically experience. Secondary benefits are included as well, even though they are not experienced by all customers.

The customers interviewed by Nucleus were performing large-scale cloud modernization initiatives moving from the legacy data warehouse and ETL solutions. Customers noted pain points, including data inaccessibility as well as excessive maintenance costs or support fees. As a whole, moving to a modern solution for cloud data integration allowed users to retire a variety of legacy systems and manual processes to lower their total cost of ownership (TCO).

ACCELERATE DATA REPLICATION AND SAVE TIME WITH INGESTION

Informatica Cloud Mass Ingestion (CMI), another service of IDMC, delivers capabilities to simplify high-speed data transfer for synchronization and replication. Informatica CMI enables a faster, more efficient way to load data to cloud data warehouses. One organization interviewed in the education industry moved more than 66,000 objects and over 600 mappings to Snowflake as a part of its cloud migration journey using Informatica CMI.

90%
Of ETL effort saved

"Informatica Cloud Mass Ingestion is so easy to use that it saves us 90 percent of the ETL effort. I can just open a browser and access it anytime, anywhere"

PERFORMANCE IMPROVEMENTS AND COST SAVINGS WITH ADVANCED INTEGRATION

80%
Faster configuration of new projects

With Informatica's elastic and serverless deployment options, customers don't need to worry about tuning and scaling, runtime, resource allocation, and upgrades. Organizations were able to dynamically allocate compute resources and scale elastically to meet latency requirements. On average, organizations saved $128,000 annually by using one of these advanced capabilities and deployment options rather than scaling legacy infrastructure. Customers also experienced compounding benefits to performance, cost, and productivity when using these advanced features in parallel. Customers also accelerated the configuration of new projects by an average of 80 percent, further driving developer time savings. Furthermore, one organization saved $288,000 annually and scaled data operations with a reduced administrative headcount by using automatic scaling and automatic performance tuning capabilities.

REDUCED COSTS AND LATENCY WITH PUSHDOWN OPTIMIZATION

63%
Reduced latency with pushdown optimization

Organizations experienced 63 percent lower latency on average, using Informatica's advanced pushdown optimization, which converts complex data mappings into SQL queries and pushdown partially or fully into the target applications. One healthcare organization achieved up to 75 percent faster processing and would have needed to spend an additional $400,000 to achieve the same latency without Informatica's advanced pushdown optimization. Another organization avoided $50,000 in annual data egress fees and cut processing time in half for larger daily tasks.

IMPROVED FLEXIBILITY WITH IPU-BASED PRICING

By using Informatica's IPU-based pricing model, Nucleus found that organizations gained additional flexibility to address a variety of new use cases. Users can shift IPUs to onboard new capabilities and pay based on usage. This enabled organizations to access additional capabilities without going through procurement for each additional solution, accelerating time-to-value for new use cases.

"With Informatica's IPU pricing model, it was easy to take advantage of Informatica's other products, including data catalog and mass ingestion solutions."

IMPROVED DEVELOPER EFFICIENCY WITH A CODELESS GUI

With Informatica CDI, developer teams were able to build new mappings and pipelines in a fraction of the time. Informatica CDI's codeless GUI can be customized based on the skill level/role. Additionally, its CLAIRE-based recommendation engine guides the user to the next logical step, simplifying development. On average, organizations realized 28 percent improved developer productivity for these tasks, enabling the delivery of new mappings and taskflows with fewer personnel. This translated into an average annual saving of $1.54 million. One organization in the healthcare industry saved $3.85 million per year by empowering its team of 100 developers with intuitive tools. With the service's automation and ease of use, companies are saving multiple hours per workload.

ANALYSIS OF COSTS

Nucleus analyzed the initial and ongoing costs of software, hardware, personnel, consulting, and training over a three-year period to quantify the return on investments that Informatica CDI delivered to customers.

COST CATEGORY	COST RANGE	AVG. COST	COST FACTORS
Annual Software Subscription	$71,520–$325,000	$151,630	Consumption for IPU-based pricing, modules deployed for flat subscriptions
Consulting	$15,000–$728,000	$260,750	Complexity of the modernization initiative, number of mappings, internal team skill levels
Initial Personnel	$60,000–$1,872,000	$535,500	Internal team skill levels, number and complexity of mappings, consulting spend
Ongoing Personnel	$65,000–$1,872,000	$701,750	Internal team skill levels, number and complexity of mappings

Nucleus found that while the annual software subscription costs made up the most significant area of investment for customers, that investment was in line with other enterprise software investments supporting cloud data integration. Initial cost mostly varies based on the size of the organization and complexity of the modernization initiative.

FINANCIAL SUMMARY

Nucleus found that the average return on investment (ROI) from an Informatica CDI deployment was 328 percent, with a high of 512 percent and a low of 157 percent. ROI was calculated over a three-year time horizon, projecting costs and benefits forward on a straight-line basis for organizations that had not yet reached three years of deployment.

KEY FINANCIAL METRICS:

- The payback period for an Informatica CDI deployment ranged from 2.4 months to 7.2 months, with an average of 4.2 months.
- The annual total cost of ownership (TCO) of a deployment ranged from $216,521 to $5.6 million, with an average annual TCO of $1.78.
- The net present value (NPV) of an Informatica CDI deployment ranged from $687,578 to $5.04 million, with an average of $2.53 million.

FINANCIAL METRICS	HIGH	LOW	AVG.
ROI	512%	157%	328%
Payback (months)	2.4	7.2	4.2
Annual Benefit	$2,096,250	$9,221,795	$3,448,422
Benefit to Cost Ratio	5.0	1.6	3.4
Annual TCO	$422,000	$5,044,736	$1,778,547
Present Value	$2,405,812	$5,044,736	$2,353,190
Internal Rate of Return	567%	155%	333%

CUSTOMER PROFILES

AUDITED ORGANIZATIONS

For the development of this ROI Guidebook, Nucleus spoke to multiple Informatica CDI customers and conducted in-depth ROI assessments of four customers.

INDUSTRY	EMPLOYEES	INTERVIEWEES
Technology	1,950	VP of Data Engineering, Data Management, and Data Science
Healthcare	79,000	Analytics Tools and Platform Services Manager
Property Management	1000+	Sr. Engineering Director
Education	750+	Director of Data Architecture

SOFTWARE COMPANY

This software company delivers a variety of human capital management (HCM), human resource (HR), and payroll solutions to help businesses manage onboarding, taxes, and compliance, earning over $400 million in annual revenue. Before adopting Informatica CDI and Snowflake, the organization did not have an enterprise data warehouse and relied on legacy SQL servers. Additionally, every department had its own analyst teams independently performing API calls on the source systems. This meant that every department created its own data models that often wouldn't fit together. This made analytics tough as different users would get different results from their analyses.

To address these challenges, the software company sought a unified data model to standardize its product, service, sales, and finance analytics. The organization decided to centralize its data extraction to a SQL-based data lake on Snowflake. To enable scalable and unified data pipelines, the organization decided to buy Informatica CDI rather than invest in homegrown data pipeline capabilities. This approach enabled faster time to value for the

organization and involved less technical complexity. Additionally, Informatica's prebuilt connectors and data quality capabilities differentiated its offering relative to the competition. After deciding to adopt Informatica CDI in 2018, the organization implemented the service over the following eight months. The length of the implementation was a conscious decision for the organization and gave appropriate time to align with its database administrators and ensure network security. This implementation was performed by an internal team of two full-time employees. The software company also brought in external consulting on a six-month contract.

After adopting Informatica CDI and centralizing its data with Snowflake, the organization sunsetted Qlik sense as well as various homegrown systems, saving $235,000 in annual license and support costs. With these modern data pipelines, the software company also transitioned from monthly reporting to daily reporting and added over 50 daily KPIs across its business by simply changing the connectors from monthly to daily. The organization also noted significant time savings from leveraging a single source of truth for data access and reconciliation. Before, business analysts would spend 80 to 90 percent of their time on data wrangling. Now, this portion of their workload only takes up 10 percent of analyst time. Overall, Informatica has enabled the software vendor to reimagine its approach to data management.

BIOTECHNOLOGY COMPANY

This multinational biotechnology and pharmaceutical company operates across various business units, including consumer healthcare, inflammation & immunology, internal medicine, oncology, rare disease, and vaccines, earning over $99 billion in annual revenue. Before adopting Informatica CDI, the organization lacked a full-feature data integration tool. At the same time, the organization began realizing the limitations of its legacy Hadoop infrastructure and decided to perform a mass migration, coalescing onto Snowflake.

In 2020, the organization sought a more robust tool to fit the need for scaling modernization initiatives across its business units in parallel and considered multiple solutions, including Talend, Informatica CDI, and various custom solutions. Informatica CDI stood out largely because of the organization's prior expertise with Informatica tools and familiarity amongst its data engineering and developer teams. Additionally, the biotechnology company cited Informatica's ease of use as a differentiator, allowing the organization to scale its data operations without increasing technical headcount. After deciding to adopt Informatica CDI alongside its data warehouse modernization initiative, the pharmaceutical company spent the following year converting over 1,000 mappings, sessions, and workloads. Without Informatica, the organization noted that this conversion would have taken multiple years with millions of dollars in additional costs.

After deploying Informatica CDI, the biotechnology company was able to offload multiple cores from its prior solution, saving $100,000 annually. The organization also noted improved developer productivity with 20 percent faster time-to-live for new mappings and taskflows, saving $3.85 million annually. Using Informatica's pushdown optimization to Snowflake, Redshift, and Oracle, the organization also saw up to 75 percent faster data processing. To achieve the same latency without Informatica, the organization would have needed to add additional compute resources at a cost of over $400,000. Now the organization can deliver analytics to its business units faster with improved visibility into prescription sales, enabling faster decision-making for commercial management and manufacturing teams.

REAL ESTATE MANAGEMENT COMPANY

This American real estate management company is one of the largest providers of single-family rental homes, with over 70,000 homes across 29 metro areas, earning over $500 million in annual revenue. Prior to adopting Informatica CDI, the organization used Microsoft SQL Server Integration Service (SSIS) for ETL. The organization noted limitations with SSIS's source connectors, which made it hard to connect to third-party applications. Over time, this became unreasonably complex at scale.

To address these challenges, the organization considered multiple solutions, including Fivetran, MIOsoft, and Informatica CDI. The company liked Informatica's ability to easily connect to third-party applications, such as Snowflake, NoSQL databases, Stripe, and Plaid. After deciding to adopt Informatica CDI in 2018, the organization spent three months implementing it and went live with the first use case within a month. This implementation was carried out by a team of two internal personnel. The organization also brought in some external consulting to assist with the implementation.

Following the Informatica CDI deployment, the real estate management company reduced its spend on SSIS by 25 percent, saving $100,000 annually. The organization also noted reduced maintenance with Informatica's serverless options, saving $220,000 annually. These savings were driven in part by a 65 percent reduction in the time needed to procure and configure infrastructure for new projects, as well as $50,000 in direct hardware cost savings. With Informatica's IPU pricing model, the organization was also able to access hundreds of connectors, rather than purchasing licenses for each connector individually. Users also gained more visibility into replication tasks and transformations into the data warehouse and could easily connect to multiple databases and Snowflake. Now the organization supports 36 taskflows and over 1,300 mappings with Informatica CDI.

PUBLIC UNIVERSITY

This American public research university educates over 8,000 undergraduate and postgraduate students and employs over 700 academic staff, accruing $111 million in annual revenue. Before the organization decided to migrate to a cloud environment, it relied on physical servers that had to be regularly assessed. With this legacy infrastructure, the organization's staff would spend large portions of their time maintaining and tuning hardware. This became unreasonable as operations scaled.

After realizing the limitations of its legacy infrastructure, the university decided to move from its existing Exadata systems to Snowflake in April 2020 and adopted Informatica CDI to support this migration. This project was carried out by an internal team of three personnel over the following three months, in which the organization moved 66,000 objects and over 600 mappings to Snowflake. The organization noted that Informatica made it easy to generate mass ingestion tasks, which helped accelerate the implementation.

Following its shift to the cloud, the organization replaced various physical servers and hardware, saving $300,000 annually. This direct cost saving is expected to increase to $600,000 annually in 2024 as the university finishes moving the rest of its data off its Exadata systems. The university's IT teams also realized significant time savings. Users can set up parallel running and sequenced loading for integration mappings rather than having to manually schedule execution, saving multiple hours per workload. Administrative teams also saved $320,000 with 50 percent less time spent on platform maintenance. Now, the organization supports data operations at scale with fewer IT staff at less overall time and cost.

THE ROI GUIDEBOOK METHODOLOGY

Based on the ROI assessments developed through Nucleus's in-depth interviews with Informatica CDI customers, Nucleus has developed an ROI framework for organizations that are considering an Informatica investment. The framework can be used by potential and existing customers to understand the cost, benefit, and deployment factors that impact their potential return on investment. The Nucleus ROI Guidebook development process includes:

Technology review. Nucleus interviewed Informatica product managers and subject matter experts, participated in product demonstrations, and conducted a full review of technical documents and data sheets to gather data on Informatica CDI.

Customer interviews. Nucleus analysts conducted in-depth interviews with four organizations that were using Informatica CDI to understand their business challenges, strategy, deployment processes, costs incurred, benefits achieved, and best practices learned from their deployments.

ROI assessments. Based on the data collected from customers, Nucleus completed an ROI assessment of each customer's deployment and validated that ROI audit with each customer's project team leadership.

ROI= ((net benefit in year one + net benefit in year two + net benefit in year three) / 3) / total initial cost

Construction of aggregate ROI framework and analysis. Nucleus constructed a financial model based on its NASBA-registered ROI methodology, using the data from Nucleus's ROI business case assessments of the customers detailed. All financial metrics presented in this report are calculated based on standard NASBA accounting principles commonly used by certified finance professionals.

Benefits guidance. Based on the variability and clustering of benefits in the aggregate, Nucleus provides appropriate averages, ranges, and estimation factors to guide other customers in using the framework to develop their own ROI projections.

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Nucleus Research provides the ROI, insight, benchmarks, and facts that allow clients to understand the value of technology and make informed decisions. All research is built on an in-depth, case-study research approach that analyzes the results of actual deployments to provide technology advice built on real-world outcomes, not analyst opinions. Learn more at

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