



Introduction

What is Data Integration?



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Data Integration

The process of acquiring data from diverse sources and transforming it into a data store or business application so that it can be used more effectively



Business to Business Integration

Integrations that span across organizational boundaries so that trading partners can more efficiently execute business transactions



Application Integration

Connecting separate business applications into an integrated workflow



Database Integration

Building pipelines that move raw data from data store to another. Data warehouses and business intelligence solutions.

Integrating Software



Software-Driven Workplace

We all interact with a large number of software applications in the workplace. These applications are intended to improve business results.



Software as a Service

The Software as a Service or SaaS model involves providing web-based software applications on a subscription basis.



SaaS Sprawl

Companies often find themselves using countless niche SaaS products. Nowadays it's possible that one department uses 5 or more SaaS to complete a business process.



SaaS Apps for a Marketing Department

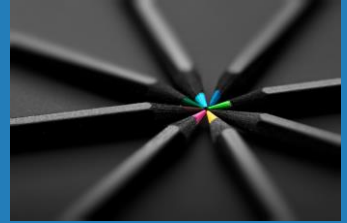
Business Requirement	Tool	Example SaaS
You need a web site and a blog	Content Management System	WordPress
You want to market your blog on social media	Social Media Marketing App	Sprout Social
You want to do paid ads to bring traffic	Online advertising platform	Facebook Ads
You maintain an email list and send them a newsletter notifying them about your blog posts	Email marketing platform	Mailchimp
You want to track traffic and ad campaigns	Web site analytics	Google Analytics
You want to capture leads from blog readers	Lead page tool	Unbounce
When a lead is created you want to send a text message to your Sales Manager	SMS API	Twilio
Your sales team manages leads in a CRM	CRM	Salesforce

Automation



Isolated Systems Consume Labor

When a company's business systems are isolated, human labor is required to key data into all these applications. Human labor is one of the most expensive resources.



Automating Business Processes

Using data integration techniques, isolated systems can be combined into integrated workflows. Outputs of each application form inputs to the next application in the flow.



Data Integration Techniques

Business process automation development usually requires sourcing, shaping, transformation, and cleansing of data.



Leveraging Data



Digitization Strategies

Digitization involves leveraging software and data to become more profitable. Data is used to operate more efficiently, make better decisions, or even to create new products and services.



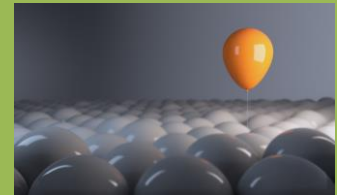
Decision Support

As opposed to relying on the gut instinct of executives, data from internal and external data sources can help decision makers evaluate options objectively



Key Competitive Advantage

Companies that excel at data integration can execute on digitization and data strategies much more effectively.



Farm Equipment Manufacturer Data Strategy



Goal: Optimize Crop Yields

Customers buy equipment to perform specific farming tasks. Their ultimate goal is to optimize crop yields while reducing operating costs.



Cultivate Data Assets

Use onboard sensors to collect soil moisture data. Push sensor readings to the cloud. Combine sensor data with weather and commodities market feeds.



Create New Value

Provide recommendations about daily irrigation requirements. Sell macro data to hedge funds to support commodities investment strategies.

