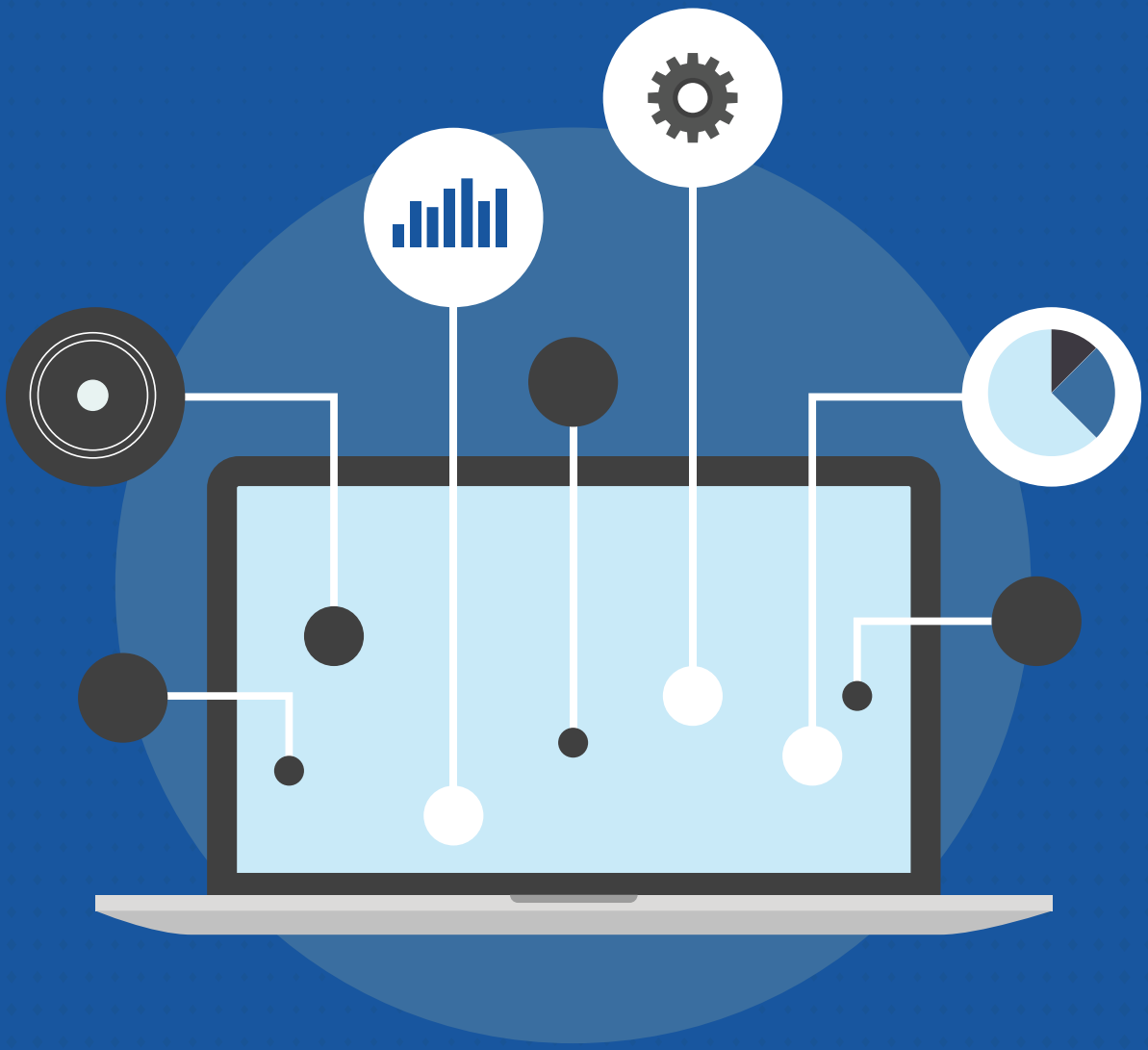
AN INTRO TO

DATA MANAGEMENT

HOW TO USE DATA TO SUCCEED AT YOUR JOB



by:

BedrockData

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CHAPTER 1

THE RISE OF GLOBAL DATA

DATA IS EVERYWHERE

The Rise of Big Data Across the Globe

It's no secret: data is everywhere – especially now-a-days. In 2013, IBM released some numbers which pointed to the fact that 90% of all the TOTAL data in the world (that is a lot of data) has been produced in the past 2 years.

This exponential growth of data can largely be attributed to the advent and maturing of social media (lots of Tweets and Facebook photos), analytics platforms and the ongoing move of mobile tech from analog to digital technologies.

This growth in data is also aided by modern database technologies like NoSQL which enable faster querying and advanced sorting and operations programming techniques (map reduce) like Hadoop.

So how much data is 90% of all the data in the world?

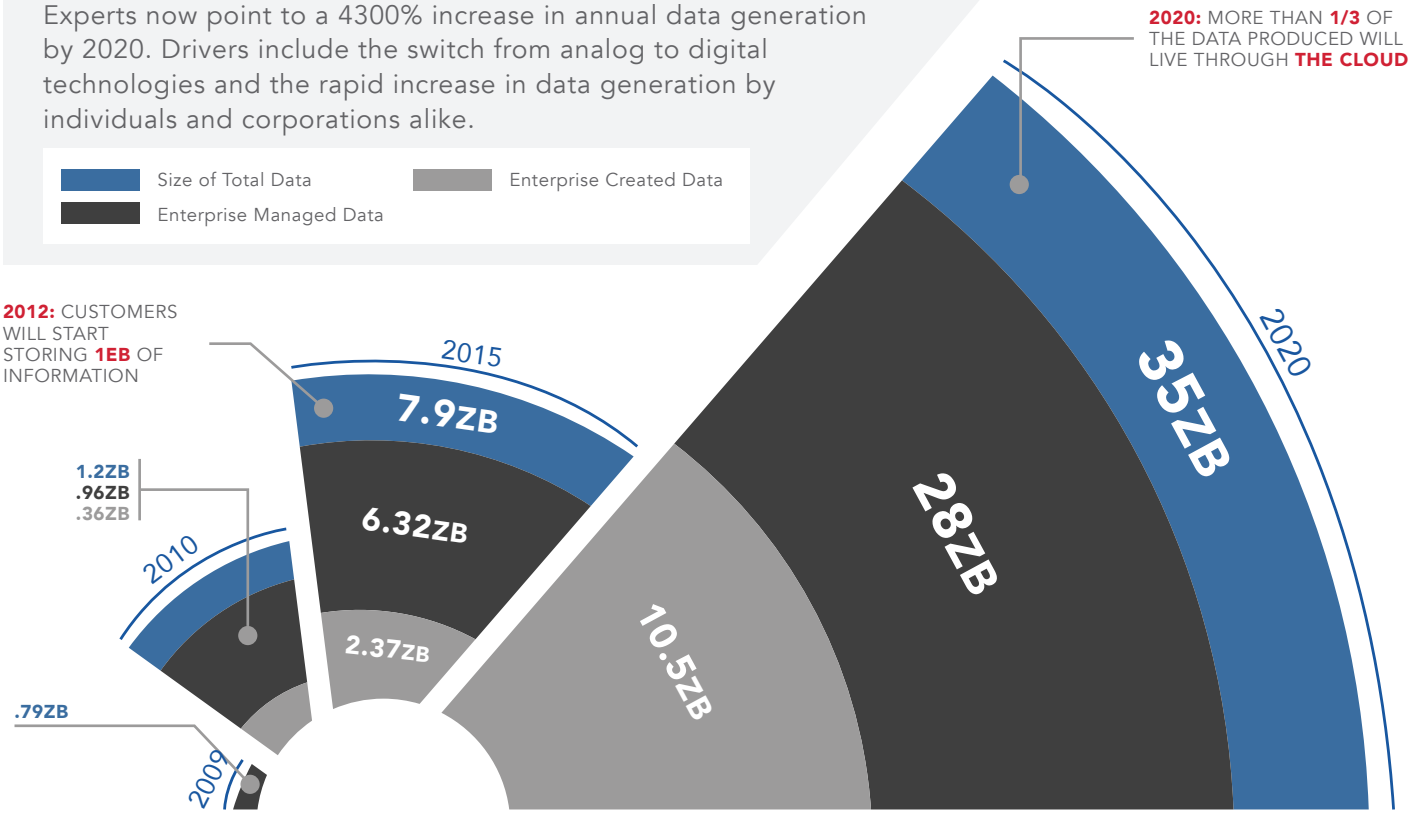
Well according to CSC, by 2015 that number will be around 7.9 Zettabytes.

ONE ZETTABYTE = ONE TRILLION GIGABYTES

(that's a lot of data)

THE RAPID GROWTH OF GLOBAL DATA

The production of data is expanding at an astonishing pace. Experts now point to a 4300% increase in annual data generation by 2020. Drivers include the switch from analog to digital technologies and the rapid increase in data generation by individuals and corporations alike.



WHAT IS A ZETTABYTE?

1,000,000,000,000	gigabyte
1,000,000,000,000	terabyte
1,000,000,000,000	petabytes
1,000,000,000,000	exabytes
1,000,000,000,000	zettabyte

1 terabyte holds the equivalent of roughly 210 single-sided DVDs.

It took roughly **1 petabyte** of data to render the 3D CGI graphics in Avatar.

In 2007 the estimated information content of all human knowledge was **295 exabytes**

DATA PRODUCTION

WILL BE 44 TIMES GREATER IN 2020 THAN IT WAS IN 2009

More than 70% of the digital universe is generated by individuals. But enterprises have responsibility for the storage, protection and management of 80% of it.*

WHAT HAS LED TO ALL OF THIS DATA?

- Social Media (lots of tweets and Facebook photos)
- Analytics Data
- How are people crunching all that data?
- Non-relational ("NoSQL") Databases
- Hadoop and Map Reduce

HOW TO MAKE SENSE OF YOUR DATA

Clearly there is a lot of data being produced out there today – but what does that mean to you and your company and how can you use this huge volume of data to your advantage?

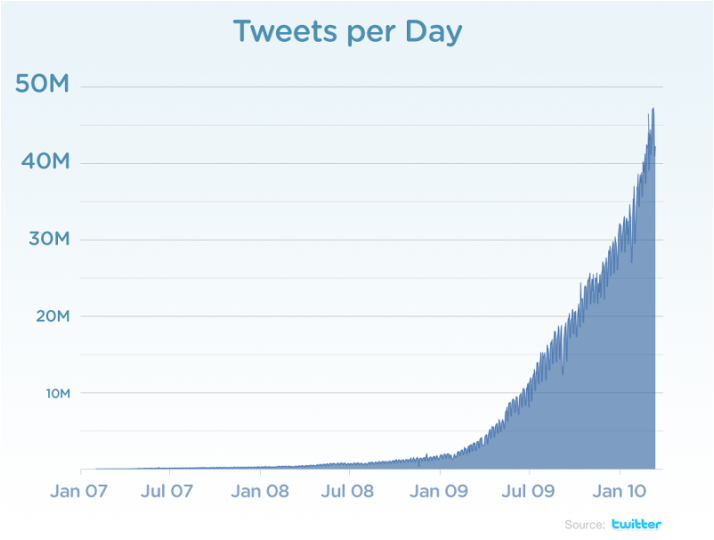
Regardless of your current position at your company, back office data that your sales, marketing and finance colleagues work with needs to be accurate, up to date and available without issue.

By 2017, CMOs will Spend more on IT than CIOs.

- Forbes.com

The reality: Many already do

Your marketing team alone can generate more data that you're used to handling! There are many ways to use the huge volume of data to your advantage.



Here are 5 Ideas:

CHAPTER 2

5 WAYS TO TAKE ADVANTAGE OF BIG DATA

WITHOUT BREAKING THE BANK

1 DATA DRIVEN INTEGRATION

Before we discuss about ways to generate new data to help your company, let's make sure that you take care of the data that your company already has and is generating.

What data is your marketing team generating that will help sales? What data does your finance team have that can help marketing? Make sure that your data is getting to the right people and is kept up to date in a reliable way.

Integration is also our bread and butter. Really was there any question that we'd list integrations first? Try a Bedrock integration today and see how we can help you achieve an awesome integration.

2 SOCIAL MEDIA MONITORING

There are a lot of tweets out there. Make sure you're not missing any. People are liking your Facebook page, respond to them and communicate with them on Facebook.

If you're not using any sort of social media monitoring, start with HootSuite or TweetDeck, the latter of which was acquired by Twitter and is widely considered a best of breed client for Twitter monitoring and management. HootSuite also allows for monitoring of Facebook, LinkedIn and other social networks.

Additionally, Marketing platforms such as HubSpot, Marketo and radian6 provide some fantastic all-in-one solutions.

3 BUSINESS INTELLIGENCE

Business Intelligence is evolving fast and the right tool can help you leverage your sales and financial data. Folks like our friends over at Insight Squared take your existing sales data out of your CRM and derive fascinating and insightful reports and other analytics and reporting that can help your sales team sell more deals more efficiently.

BI tools will require you to already have a good amount of rich sales and other business data before you implement, so make sure that you have a CRM in place before considering a BI platform.

These tools can be very expensive, so make sure that you know what you want to achieve going in.

4 WEB AND APPLICATION ANALYTICS

Web analytics have come a long way from the days when Google Analytics was the only game in town. For the smaller business, companies like Kiss Metrics and Ginza Metrics are adding a ton of value, not just around your website but also around your applications and cloud usage data.

Moving up to more of an enterprise focus around analytics, you have predictive analytics platforms that can help you to determine how much demand there will be for your products, as well as how good a lead will be when they come through the door.

Telling the future doesn't come cheap though, with top offerings from IBM, Oracle and SAS.

5 LEAD GENERATION AND ADVERTISING

Lead generation has taken a more inbound approach over the past few years, with companies tightening their online advertising budgets in favor of content marketing strategies – and there are many platforms available for Inbound Marketing (we love HubSpot)

Many companies still use the almighty PPC campaign for lead generation, and if you find yourself in that boat, then using software to help you manage efficient campaigns is something to consider.

Platforms like Kenshoo, Marin and Acquisio are major players in the space, but if you don't have budget for a platform like this, then consider checking out Wordstream.

EASILY INTEGRATE YOUR BUSINESS DATA

You can use Bedrock to sync between your cloud business systems and keep a running backup of your critical business data.

TRY BEDROCK FOR FREE

CHAPTER 3

DATA PROJECTS FROM START TO FINISH:

DON'T JUST LET DATA SIT IN A DATABASE!

USE YOUR DATA!
STAGNANT DATA IS WORTHLESS

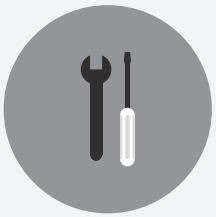
If you're doing any sort of data collection, make sure that you can accurately report on it and come to conclusions that make it worth the time and money that went into collecting it in the first place.

This begins by setting up actionable goals for the data project(s) that you're undertaking. Marketers, sales reps and managers alike can take some great instruction from agile software development here when approaching data projects like these, here's how to proceed:

DEFINE
THE PROBLEM AND SOLUTION

Write a "user story", which is something that engineers and product managers use to enable the creation of a feature from the user's perspective, which is (obviously) the most important of all.

For instance, one data project user story could be: "I can see a graph of all the marketing campaigns that we've done in 2013 and the customer ROI on each". This is a clear, actionable goal for the project that has a defined outcome and deliverable.



BUILD
THE INFRASTRUCTURE

Data infrastructure can mean many things, depending on your business: Reports, fields, layouts, systems, etc…

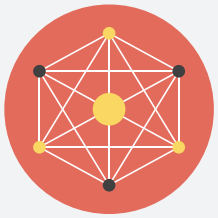
In building out your data infrastructure, you will need to build out the places where the data will reside and be consumed and even the reports for other team members to consume and base their decisions around.

Building out data infrastructure is something that you can expect to do on an ongoing basis, as the needs of your team changes.

COLLECT
YOUR DATA

Define the data that you're going to need first, write it down or make a list. Then make sure it's accessible to you at first and then to other team members in the future. Don't go into any data project without going through these motions.

You're then going to want to make sure that you have the data you need coming from places like your product's usage, marketing leads (forms) or manually entered from your sales team.



INTEGRATE

GOING FORWARD

Rinse and repeat. An integration will mean that this project will produce not only reports the first time around, but anytime thereafter as well, on demand.

Once you have your systems lined up, your required fields defined and built out and your data flowing into your systems, an integration will tie it all together and keep your data up to date and in sync going forward.

TALK TO US ABOUT THIS PIECE, WE CAN HELP!

CHAPTER 4

SETTING UP YOUR INTEGRATION LANDSCAPE IN 4 STEPS

DATA DRIVEN INTEGRATIONS

Setting up integrations and data management in your company isn't something that has to be difficult. It starts by identifying integration needs in terms of the systems that you're using and then defining the data that needs to sync between them.

> **Integration of applications into a single repository, with a data governance and quality strategy wrapped around, will give you a "single version of the truth" and will help future proof the (integration) process for coming years.**
>
> *- Infordata*

With any integration, you essentially have 2 options to choose from: engineer the integration in house with your IT or development team, or enlist a 3rd party vendor like Bedrock Data.

The benefits of the former is that you'll own the integration in house, where it may be easier to customize to suit your needs, but the downsides is that writing integration in-house will require you to pull core developers off of other projects to focus primarily on integrations, which require maintenance, support and further development.

Call us biased, but for the purposes of most integrations, using a third party will save you time and money.

> **"Stagnant Data is Worthless"**
>
> *- an Old Wiseman*

1

LIST ALL OF THE SYSTEMS YOUR COMPANY IS USING

If you're in need of an integration, it will be fairly clear that your operations or IT groups may be the best ones to handle the implementation.

At the least, talk to other groups in your company who may have an integration need as well. For instance, if you're in charge of sales or marketing and have an integration need, it probably makes sense to chat with some other groups in your company like the finance, operations and IT groups as well about what you're doing to try to kill more than one bird at a time.

2

CONSIDER PURCHASING ANY MISSING SYSTEM(S)

If you're looking for a CRM to financial system integration for instance, and are using an email marketing system like MailChimp or Constant Contact, think about taking the next step and try a marketing automation system like Marketo or HubSpot.

Our advice from first hand experience is to take a spin with a new system and consider implementing and integrating that new system as well. Otherwise you're going to face greater costs around data migration in the future.

3

MAKE A SPREADSHEET OF THE FIELDS YOU NEED TO SYNC

All systems store their data in fields, as they are commonly known. You can then add fields to layout in the systems that you're using to enable your team members to see the data on each record in the system.

With any integration, you want to make sure that the right data is syncing between the systems that you're connecting together. Keeping track of these in every integration is important to keep your team on the same page and ensure that the proper data is being synced.

4

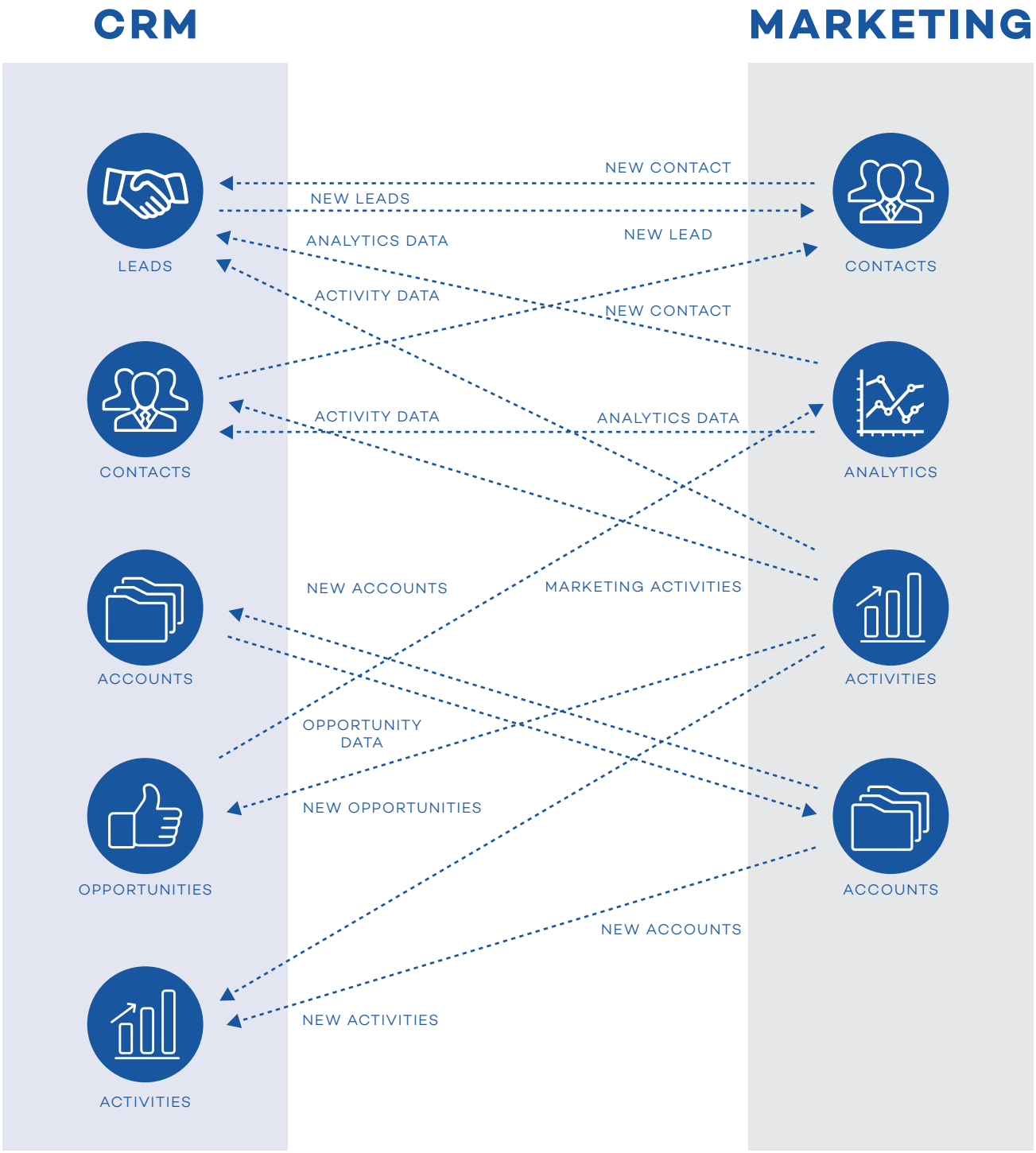
IMPLEMENT THE INTEGRATION

Integrations tend to be of 2 different types: Data Driven and Event Driven.

Event Driven integrations are point to point integrations that only integrate one system "object" at a time and typically do not incorporate updates into the integration. For instance: A new marketing lead creates a new lead in the CRM.

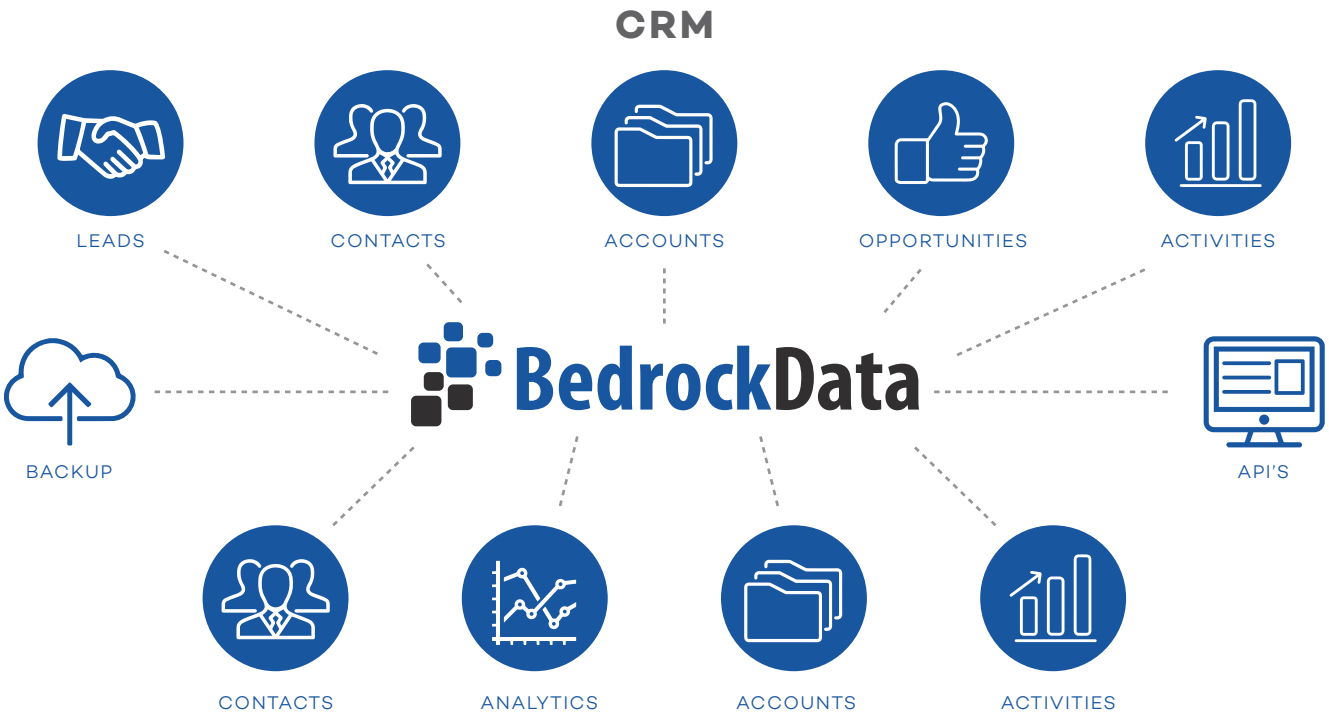
Data Driven integrations are full integrations between systems with creates and updates and the ability to sync many (or every) objects a system has.

EVENT DRIVEN INTEGRATION CRM
MARKETING AUTOMATION



- No Updating on any Object, only creating.
- Field Mappings on Each Connection (harder to manage)
- Limited APIs (Webhooks only)

DATA DRIVEN INTEGRATION
(BEDROCK DATA)



- De-Duplication on all Objects
- Automatic Updating on Existing Records
- Workflows and Integration Rules
- Custom Field Mappings

TRY OUT A DATA DRIVEN INTEGRATION

TRY A BEDROCK INTEGRATION FOR FREE AND SEE HOW WE CAN HELP YOU WITH YOUR DATA MANAGEMENT.

GET A DEMO