You might have heard the term tossed about, but you may not completely understand the concept of “big data.” In its most basic definition, the term refers to a compilation of information from various sources that is organized in such a way that it can be analyzed. However, any attempt to answer the question “What is big data?” should also explore the reasons companies find this information useful. The iron-clad methods businesses use to safeguard big data show how valuable it is to them, from capture to storage to analysis.

- **What is Big Data?**

Wikipedia defines big data as “a collection of data sets so large and complex that it becomes difficult to process using on-hand database management tools or traditional data processing applications.” The data can be any type of information, such as customer names, company addresses, birthdays, and many other identifiers. Basically, data encompasses any kind of detail that you can collect about a person, a company, government agency or other entity.

- **Big Data Management is Key to Success**

Obviously, big data can be an enormous collection of details and it must be properly managed if companies seek to take advantage of the value. The information is useless unless it can be processed or extracted to reach certain conclusions. For instance, it’s one thing to keep a list of customer purchases over the period of a month. However, tracking these transactions to develop a profile of customer behavior and preferences can help you convert more sales. It’s not just the question of “what is big data?”; it’s how you use the data that matters.

- **Methods for Managing Big Data**

The tools used by businesses to handle big data are unique to their operations, and depend upon factors such as company size, industry and customer base. You also have to take into account other software and platforms your business uses, and make sure all of these solutions integrate smoothly with each other. It’s important for you to be able to extract data collected from social media, and share it across your CRM software for marketing purposes. Likewise, you might need seamless integration between your CRM software and the platform your company uses to conduct webinars or podcasts.

When inquiring “What is big data?” it’s important that you also understand how it can be used by today’s businesses and why they go to such great lengths to store it. It’s essential that this information is accessible to all of a company’s computer platforms so that it can be processed across different systems. Bedrock Data offers solutions that integrate with the top names in marketing, customer relationship management software, and many other systems that businesses use as part of their day to day operations.
In its simplest terms, a database is a collection of information organized in some way as to make the compilation accessible and useful. Humans have been gathering data since the beginning of time, though early databases are nothing like the sophisticated platforms that we use on a daily basis today. No matter what type of information we're attempting to gather, store, organize and analyze, the evolution of databases shows that they have always been used to make sense of our world.

- **Early Databases**

You might not consider certain organizational methods to be databases, but they do qualify under the strict definition of the term. Think of heading to a library to do research on a topic or to find a recent novel released by your favorite author. Some libraries contain literally millions of titles, and you'd spend days browsing through the stacks to locate a particular book without the card catalog. You might also remember the metal recipe card files used by professional chefs and amateur cooks. Filing the cards by cuisine type, course, ingredient or holiday was common as a way to keep the database of recipes in order. Even a yellow pages phonebook is a type of database, as it's a collection of names, addresses and phone numbers organized by products and services.

- **Databases in the 20th Century**

The evolution of databases was revolutionized in the 1900s as we began to realize that gathering and storing information was just the tip of the iceberg. Data is even more valuable when it's analyzed to pick out trends, determine behaviors and identify patterns. Tracking customer purchases can help a business predict future buying behavior, both for an individual and the entire customer base. You can also collect information about where a prospect found out about your company to determine where you spend marketing resources.

- **Modern Databases**

Data collections in today's world have developed into essential tools for operating in an increasingly complicated world. The evolution of databases in recent years has shown the emergence of a new challenge. While they're still collecting and analyzing data, today's businesses need to integrate the various solutions used to process the
information. There is no one software package that manages all of a company's daily operations, including sales, marketing, website development and customer relationships. It's essential that various systems "talk" to each other so that important data can be shared and used.

The evolution of databases has come a long way since the days of recipe files and library card catalogs. The key to database management in this century relies upon the smooth transition of data across different platforms. Please contact an expert at Bedrock Data to find out more about our integration solutions.

3. Target Keyword: The History of CRM
Page Title: The History of CRM

Customer relationship management, or CRM, has been a significant component of the sales process for many companies for years, though it looked a little different decades ago when compared to today's software platforms. Once seen as a way to handle and maintain existing contacts, generate leads and streamline direct mail marketing, CRM now encompasses sales automation and robust cloud-based solutions. To see how we got where we are today, check out the history of CRM over the years.

• The Early Days: The Digital Rolodex

Recent college graduates have probably never even seen a Rolodex, so they're likely unaware that the digital version for organizing prospects and leads was the forerunner of modern CRM. By collecting information on leads and potential customers, a company’s sales team could generate direct marketing material to targeted individuals to get the most out of their advertising budget. Statistics on market trends and consumer behavior enabled the sales force to focus on certain prospects based on data patterns.

• Bring on ACT! and Other CMS

The history of CRM was forever changed when businesses began compiling the contact information for literally thousands of potential customers. Sales professionals were already inputting key information about potential and existing customers, including contact information, buying patterns and service agreements. However, it wasn’t until the release of ACT! and other contact management software that executives were able to transition this information into a meaningful marketing approach. Marketing
departments were then able to key in on certain database details to target leads at the prime time of the sales cycle.

- CRM in the New Millennium

While processing existing database information to capture prospects and convert sales was an enormous leap for CRM, many companies realized that the technology was capable of so much more. Marketing departments wanted to generate more leads without significant dedication of additional resources. Thus, the concept of automating sales through CRM was born. Previously, direct and email marketing campaigns were a manual process of selecting prospects and disseminating information. Newer automation capabilities enable the sales force to select a certain database criteria and then distribute information to those targeted contacts that qualify.

Recent trends in the history of CRM indicate that businesses are also moving toward cloud-based and hosted CRM rather than in-house solutions. This technology allows sales professionals to access customer information while out of the office, and requires less dedication of IT resources. Another market indicator shows that companies are also more interested in CRM solutions that integrate well with their existing software platforms.

If you'd like more information on CRM solutions and automating your sales process, please contact Bedrock Data. We provide database management solutions and integration services that are easy, affordable and customized for your business.

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4. Target Keyword:  What are APIs
Page Title:        What are APIs? A definition

Even if you’re not a computer programmer, you might have heard the term “API” used in connection with software implementations and database management. However, you still might be asking “What are APIs,” when your IT employees or contractors talk about seamlessly integrating the many software programs in your office. A general explanation of an application programming interface is necessary to understand the basics, and to appreciate that good APIs can make a company’s day to day operations infinitely easier.

- The Definition, In Layman’s Terms
Without going overboard with technical jargon, the definition of an "application programming interface" (API) is a technical language whereby different software platforms are able to communicate with each other. By accessing each other’s code, routine and processes and databases, they can share information and “piggyback” off of each other for operability. When you’re typing a letter in some word processing platform and the address dialog box inserts a contact’s address from your customer relationship management software, an API made that happen.

• **What are an API’s Perks?**

Once you appreciate an API’s capabilities, it’s easy to see why it is essential to enabling your company software, operating systems and database information to “talk” to each other. APIs can be instrumental to any marketing strategy, as they facilitate the operations of your sales and marketing departments. When launching lead generation efforts or staying in touch with existing customers, APIs allow you to incorporate contact information into emails, letters and other communications.

Well developed APIs enable the inter-operability of all your software systems, many times with a single log on for all programs. Productivity soars when your solutions operate as a single entity, sharing information and processes. Also, more businesses than ever are taking advantage of cloud-based technology, where they can access necessary information and databases even when out of the office.

• **What are APIs Doing for Today's Businesses?**

Successful solution implementations depend upon APIs to bring all their technology together. They're bridging the information gap that has stood as a chasm between the different departments in companies that rely on each other, including the sales team that tracks a customer's purchases, the marketing team seeking brand recognition, and the IT department that's responsible for support calls. APIs make businesses run more smoothly because they make your software work for you rather than putting obstacles in your way.

To hear a more detailed definition of APIs, please contact the Bedrock Data office. Our technicians are available to answer your questions and provide more detail about our experience and expertise. We specialize in enabling smooth electronic communication and sharing of information between and among various software platforms. We also handle database management and system integrations that are customized and affordably priced.
5. Target Keyword:  why government has problems with software development
Page Title:  Data dis-integration: How the Department of Veterans Affairs and the Department of Defense Failed to Choose the Right Medical Records Systems

If you’re not in the loop, you might not have heard about the recent problems experienced by the Department of Veterans Affairs and Department of Defense when these agencies were tasked with choosing a medical records system for their covered facilities. As government bodies, both departments are concerned with costs and go through a budgetary process to balance high functionality with minimal cost. However, these case studies show why government has problems with software development.

• Every Click Matters

A health care provider’s time is valuable, so any medical records system that requires several mouse clicks to access relevant information is counterproductive. Physicians need immediate access to their entire database of patient records, including contact information, preferred pharmacy and existing prescriptions. When considering why government has problems with software development, it’s many times due to the fact that the IT department isn’t concerned about the user’s experience. While it may seem like one more click isn’t a concern, imagine how they add up when a doctor is seeing a couple dozen patients a day. Clicks that slow the provider down when trying to pull up patient information are not cost effective from the user’s perspective.

• The Importance of Specialty

Patients covered by the Department of Veterans Affairs and the Department of Defense comprise a widely diverse cross-section of U.S. citizens, including the elderly, women, children and infants. Therefore, it’s essential that any medical records system be able to handle a database of millions of diagnoses, procedures and follow up plans for each patient. When looking at why government has problems with software development, consider the range of providers across every medical specialty who need access to health databases. A doctor analyzing treatment options for a patient suffering from Alzheimer’s will have different technology needs than the pediatrician trying to diagnose childhood birth defects.

• The Big Picture

When it comes to medical records, another key reason why government has problems with software development is their failure to appreciate the statistical data behind diagnoses and procedures. Doctors want to know how often their diagnosis has been reported during a critical time period, as well as what treatments and procedures other physicians have recommended when faced with similar symptoms. The end result is better patient care because of the ability to extract significant findings from a database of hundreds of thousands of patients.
As you can see, sometimes a low price tag isn’t worth the expenses related to software that makes a user’s job more difficult. Please contact a professional at Bedrock Data to discuss your organization’s need for database management and software integration services. We specialize in streamlining the functionality of all your company’s solutions by implementing technology that’s easy and cost effective.