Research Paper 4

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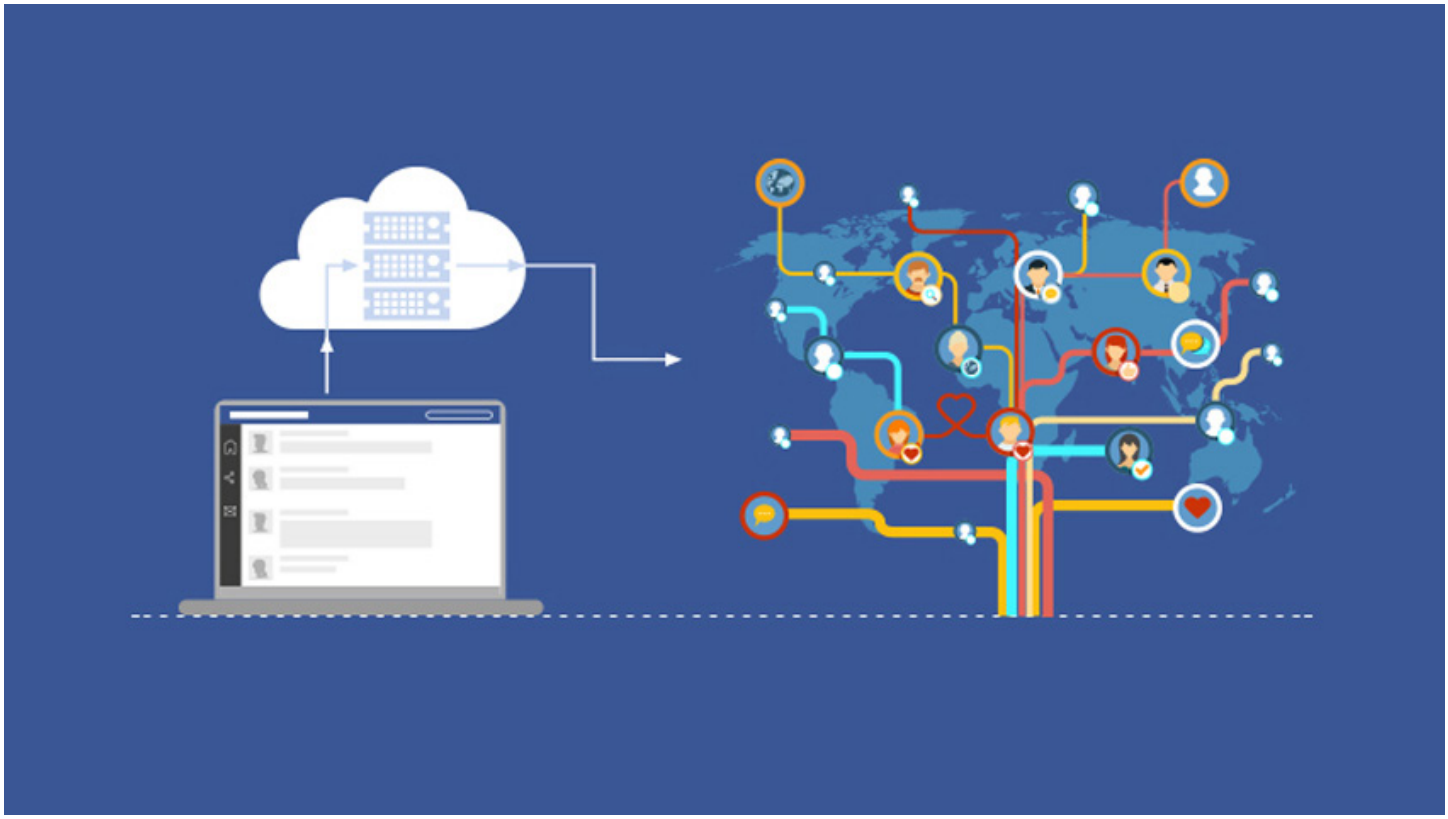
What is Remote Data?

REMOTE DATA

SECTION 1

At its most basic definition, remote data is anything piece of data not stored locally. Local data might include data on a RAM disk, information stored on a hard drive, or information any storage device that has been permanently mounted with physical connections. As the definition is, remote data is anything not stored using those methods. Remote solutions might include BaaS, cloud based resources, and databases. The physical location of the data is only one contingency on whether a piece of data is remote or not. The remote data title can also be applied to information collected off site. This might include information received from devices such as weather balloons, user inputs, and GPS data.



Three Times Re-mote Data Could be Gathered

THREE CASES FOR REMOTE DATA

Three cases for remote data

1. Weather sensor devices
2. GPS data
3. Wild Life Preservation

GATHER / USE

A good example of remote data and how it could be used is in the metrological field. Often times agencies who track weather patterns will implement numerous collection devices in weather hot spots and around the world. Depending on the device, a vast array of data could be gathered. This data could vary from the strength of seismic activity under the pacific ocean, the energy build up in cumulus clouds gathering over remote mountain ranges or hurricanes forming off the coast of Africa. This data can be passed to users to warn them of possible danger, the best time of year to visit a tourist destination or even gain a better understanding of particular weather patterns in an area.

Another instance of remote data being used can be seen in user GPS data. An application could actively collect GPS data and determine things about a user such as location, distance traveled and rate of speed. This information could be actionable in a navigation application. The application could take in these parameters and run methods to determine how long it will take the user to travel based on speed and travel conditions. In this example the application could also be taking in another forms of remote data. These other instances of remote data could include traffic patterns and weather conditions. Applications like “Waze” also take in data shared from other users such as locations of potholes or hidden police cars, further adding another element of remote data.

A third use case for remote data can be seen in the use of wild like preservation. Agencies and governments could easily track and monitor endangered species to ensure they don’t go extinct. Cameras can be placed inside dens that broadcast to live feeds, as well as GPS trackers and heart rate monitors attached. They would be able see migratory patterns, or whether they are breeding or not to ensure the wellbeing of the animal. From this data they would be able to formulate the best ways to preserve the species.

Facebook Cans and Can Nots

TWO TYPES OF DATA FACEBOOK CAN USE AND WHY.

SECTION 3

Though Facebook has been riddled with privacy concerns for years, they are able to particular data if the user allows them to. Two types such types of remote data Facebook can use are GPS location and the use of user input.

Facebook is able to bring utility to GPS data a few ways. They are able to take in a user's GPS coordinates and compares this data to users in a similar area. This is most likely cross referenced with their own databases to see if users confined to a particular area have mutual friends. If certain conditions are met Facebook recommends these users as recommended friends. Similarly, Facebook is able to use GPS data to notifying a user when friends are in a similar area. Facebook is also able to use user location as a marketing means. Seeing what stores and areas you visit allow Facebook to tailor adds specific to a user's taste. Another example of how GPS data is used is the safety check. This is a feature that allows a user to mark that they are safe if they are in a close proximity to a disaster.

Another category of remote data Facebook uses is user input. They are able to collect this data because of the privacy agreement one has to agree to when signing up for the website. This doesn't limit themselves to name, birthday and gender. Facebook stores other information such as user clicks, employment information, addresses, and anything other data a user willingly puts in. They use this information in a multitude of ways. One such way is through Topic Data. This is a Facebook service that strips down users personal information and then uses that data for marketing purposes. They also use user data to tailor more meaningful interaction on the website. Features such as flashbacks and birthday notifications are two more examples of how they use user information.

TWO TYPES OF DATA FACEBOOK CAN NOT USE AND WHY.

SECTION 4

One type of remote data Facebook cannot use are personal information such as credit card and banking information. The scope of Facebook is vast and long reaching. Users actually have the option to attach a payment method to their account. This allows users to send money to each other over Facebook messenger, and use the Facebook market place. While having access to this data, Facebook is not at liberty to take any other actions against it besides what has been disclosed in the agreement.

Another type of remote data Facebook cannot use is the ability to track cellular device data such as phone calls or text messages. Facebook currently has the capability to sync your phone contacts, add your phone number, send SMS messages off the app, and in the case of Android devices, even have access to your microphone. This allows them to see who you called, and when. As well as who you texted and when. As of August 2018, Facebook got massive negative attention for over reaching their boundaries in regards to tracking this sort of data. Facebook was not allowed to do this as they were not explicitly clear they intended to collect this type of data. Users were initially agreeing to sync their contacts with the service. Facebook took liberty from this and collected specific information.

Secuirty Issues with Remote Data

TWO SECRUITY ISSUES

SECTION 5

Though there are many risk associated with remote data, a big one to worry about is data leakage. Whether you're a single user or a big business, utilizing tools such as the cloud make life easy. This becomes an issue as it pertains to remote data as it is prone to data leaks. For instance. If a company is constantly collecting data from users, they probably don't have the resources to go through the data in real time. Because of this reason the metadata would be collected and stored in a storage solution, such as the cloud. The threat of data leakage occurs because the cloud, and tools like it, are multiuser environments where resources are shared. This means data could be vulnerable to any person or company with the knowledge of how to exploit it.

Another security issue with remote data is having little to no control over the data which may lead to data tampering. Whether its collecting data from a user that it can be falsified, or having a third party intermediate between data sites, it can't be certain the data was not tampered with or who is even looking at that data. Even physical devices such as weather sensors or mobile hot spots could be exploited. The misinformation of these devices or an exploited database could severely change the results of an experiment or derail a project.

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