Bociat Daniel-Tiberiu

Compare different cloud services that are available for IoT applications (Amazon, Google, Apache, Microsoft etc).

Which one would you use as a data storage in your project?

First, what is an IoT Cloud?

An IoT cloud is a massive network that supports IoT devices and applications. This includes the underlying infrastructure, servers and storage, needed for real-time operations and processing. An IoT cloud also includes the services and standards necessary for connecting, managing, and securing different IoT devices and applications.

(<https://www.arm.com/glossary/iot-cloud>)

1. **AWS IoT Platform**

Main features of the AWS IoT Platform are:

* Device management
* Secure gateway for devices
* Authentication and encryption
* Device shadow

### Pros

* Good integration with IaaS offering.
* Price dropped over the last six years
* Open and flexible

### Cons

* A big learning curve for AWS
* Three outages in the last 2 years
* Not secure for hosting critical enterprise applications

1. **Google Cloud’s IoT Platform**

Google Cloud’s IoT Platformprovides features, including:

* Provides huge storage
* Cuts cost for server maintenance
* Business through a fully protected, intelligent, and responsive IoT data
* Efficient and scalable
* Analyze big data

### Pros

* Fastest input/output
* Lesser access time
* Provides integration with other Google services

### Cons

* Most of the components are Google technologies
* Limited programming language choices

1. **Microsoft Azure IoT Suite**

Azure IoT Suite provides features like:

* Easy Device Registry.
* Rich Integration with [SAP](https://searchsap.techtarget.com/definition/SAP), [Salesforce](https://www.salesforce.com/in/), Oracle, WebSphere, etc
* Dashboards and visualization
* Real-time streaming

### Pros

* Offers third-party services
* Secure and scalable
* High availability

### Cons

* Requires management
* Expensive
* No support for bugs

1. **IBM Watson IoT Platform**

Main features:

* Real-time data exchange
* Secure Communication
* Cognitive systems
* Recently added data sensor and weather data service

### Pros

* Process untapped data
* Handle huge quantities of data
* Improve customer services

### Cons

* Need a lot of maintenance.
* Takes time for Watson integration
* High switching cost.

(<https://dzone.com/articles/10-cloud-platforms-for-internet-of-things-iot>)

(<https://www.devteam.space/blog/10-best-internet-of-things-iot-cloud-platforms/>)

Personally, I would choose Microsoft’s Azure because it is something that I used before also, they offer 100$ of services for free for students.