

BASIC KNOWLEDGE ABOUT CLOUD SERVICES

IBM Watson IoT Platform

It is a powerful web Dashboard Flexible, Scalable and easy to use it. It provides a clean and simple UI where we can simply and easily add and manage devices, control access to IoT services. Monitor the usage. It is fully managed cloud-hosted services that is designed to simplify and derive value from IoT devices.

Device Management:

- Using device management service we can perform device actions like Rebooting or Updating firmware, receive device diagnostics and metadata and perform bulk device addition and removal.

Responsive, Scalable Connectivity:

- It uses the industry standard MQTT Protocol to connect devices and applications.
- MQTT is designed for efficient exchange of data to and from devices in real time.

Secure Communication:

- Securely receive data from and send commands to your devices.
- Do this using MQTT with TLS to secure all communication.

between your devices and our services.

Data Lifecycle Management:

- Having access to real-time data coming from our devices you can opt to store data for a period of your choice, allowing you to have access to historical and real-time data for your devices.

NODE-RED SERVICES

Node-Red is a programming tool for wiring together hardware devices, APIs and online services in new and interesting ways. It provides a browser-based editor that makes it easy to wire together flows using a wide range of nodes in its palette that can be deployed to its runtime.

Browser Based Flow Editing:

- Node-Red provides a browser-based flow editor that makes it easy to wire together flows using a wide range of nodes in the palette.
- Javascript functions can be created within the editor using a rich text editor.
- A built-in library allows you to save useful function templates to flows for reuse.

Social Development:

- The flows created in Node-Red are stored using JSON which can be easily imported and exported for sharing with others.

- An online flow library allows you to share your best flows with the world.

IBM Cloudant

IBM Cloudant is a fully managed, distributed database optimized for heavy workloads and fast growing web and mobile apps. IBM Cloudant is available as an IBM Cloud service with a 99.99% SLA. Cloudant elastically scales throughput and storage and its API and replication protocols are compatible with Apache CouchDB for hybrid or multicloud architecture.

Serverless Web App and API:

- It'll create a serverless web application by having static website content on GitHub Pages and implementing the application back-end, using IBM Cloud application Mobile app with serverless.
- It was IBM Cloud functions along with Cognitive and data service to build a serverless back end for a mobile app.

Find Anomalies in IoT Data:

- It sets up an IoT device and gathers data in the IBM Watson IoT platform. It will create visualization and use advanced ML services to analyze historical data and detect anomalies.

Open Hybrid Multicloud:

- It shows how to pair the API and Powerful replication protocol of Cloudant

with Apache CouchDB in a hybrid cloud environment.