IBM CloudServices

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ProjectName:gasleakagemonitoringandalertingsystem	

Basicknowledgeofthefollowingcloudservices:

- IBMWatsonIoTPlatform
- Node-REDService

IBMWatsonIoTPlatform:

IBMWatsonIoTPlatformconnectsdevices,ingestsdevicedataandtransformsthat data into meaningful insights. Watson IoT Platform and its additional addonservicesenableClientstocapturedatafordevices,equipment,andmachines, to explore this data, and to discover insights on this data that drivebetterdecisionmaking.WatsonIoTPlatformprovidesapre-integratedfoundation for industry solution and Client applications built on IoT data. IBMWatsonIoTPlatformismadeupofthreefundamentalservices: ConnectionService,AnalyticsService, and Block chain Service. All threeservices have a nonproduction package for proofs of concept and pilot work, aswellasaproductionpackageforfullproductiondeployment.

IBMWatsonIoTPlatformConnectionServicecapabilitiesinclude:

- ConnectionofawidespectrumofIoTdevices
- IoTdeviceregistrationandmanagement

- UserRegistration,setup,andauthentication

- Abilitytocreatealerts

- SecuritywithTLSauthenticationsupport,accesscontrolgroupfordevices&gateways

- DataLifecycleManagement

- SolutionadministrationfordeploymentanddevicegroupingsAdditionally:

- AnalyticsServiceenabletoenrich,augmentandinteractwithrawdata

- BlockchainServiceenabletoconnectwithBlockchainenablednetworks.

Node-REDService:

Node-REDisaflowbaseddevelopmenttoolforvisualprogrammingdeveloped originally by IBM for wiring together hardware devices, APIs andonlineservices as part of the Internet of Things. Node-RED provides webbrowser - based flow editor, which can be used to create JavaScript functions.Elements of applicationscan be saved or shared for re-use. The runtime is builton Node.js. The flows created in Node-RED are stored using JSON.

Sinceversion0.14,MQTTnodescanmakeproperlyconfiguredTLSconnections.