

# IOT BASED CLUSTER FOR DATA COLLECTION AND ANALYSIS

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**Abstract:** *The main goal of this paper is to analyze an IOT based cluster infrastructure for collecting specific data sets. The idea is to create a model and IOT based device that either sends data to a specific server or a cloud based server and uses it for further analysis. This model includes a practical example that is being piloted on an airport and collects weather data relevant to the airport and its operations. An IoT ecosystem consists of web-enabled smart devices that use embedded processors, sensors and communication hardware to collect, send and act on data they acquire from their environments. IoT devices share the sensor data they collect by connecting to an IoT gateway or other edge device where data is either sent to the cloud to be analyzed or analyzed locally. Sometimes, these devices communicate with other related devices and act on the information they get from one another. Another goal of this project is to create an affordable solution that can be used in small and medium scale clusters. This paper aims to showcase an affordable cluster that can be developed for any use case scenario, as more and more services switch towards the cloud, analyzing data and making predictions based on those analysis is crucial for success.*

**Keywords:** *IOT, cluster, data collection, data analysis*