**Real-Time Analytics on unstructured data sets**

**Background**

Big Radar LLC provides its customers with timely analytics related to weather data.   
  
One of our leading solutions allows customers to query high-resolution weather forecast data provided by the UK Met Office. Our customers cannot accept any downtime as it will cause them significant financial loss. For e.g. Airport and airline operators use our solution to plan their flights or predict delays due to weather.   
  
Core capabilities of our solution are 1) high availability, 2) quick response, and 3) timely availability of new data.

**Goal**

You are tasked with transforming the netCDF data provided by UK Met Office. Your solution should ingest, transform and prepare the data for querying as soon as it arrives in the S3 bucket. This data is then made available for secure querying by our customers.

**Data**

Sample data set and information is available here: <https://aws.amazon.com/public-datasets/mogreps/>. Your solution should use ‘mogreps-uk’ and assume that the files are available in netCDF format every few minutes with 20-30 MBs of data.

**Compute**

The solution should be built using AWS services. You may use any services or frameworks keeping in mind our core capabilities, security, and cost effectiveness. The $10 AWS credit code provided in the email should cover the cost of this exercise.

**Output**

Please return IAM credentials for us to review the implementation along with a PDF document detailing your architecture, thought process and any code samples. In your architecture, please highlight how you are meeting our core capabilities, security, and cost effectiveness.