# Bat Conservation Trust

26th **August 2021**

**The Bat Conservation Trust is looking to contract an Amazon Web Services specialist**

The Bat Conservation Trust (BCT) oversees a suite of bat monitoring surveys in which participants use acoustic sensors to make sound recordings of bats. These recordings are uploaded to a sound classification system hosted on Amazon Web Services, which uses a series of machine-learning algorithms to automatically classify the recorded sounds to species. We require an AWS specialist, either an individual or organisation, to suggest and implement improvements to this system. We have a high-level design of the proposed work, but the exact improvements will be developed in discussion with the appointed contractor and our advisors. These are anticipated to include:

- Transfer of an online image-tagging tool, scripted in Python, from its current location on a local server to our AWS space.
- Move infrastructure from a containerization to EC2-based design.
- Implement project instance creation using Terraform or similar infrastructure as a code tool.
- Implement job initialization using a Lambda function or Fargate, TBC
- Implement a Simple Queue Service for job queues with event-based job creation
- Implement use of GitHub for version control
- Put in place spot bidding for resources.
- Move databases to an Aurora serverless service
- Incorporate a shared data lake using Athena for archived project data.
- Advise on a data lifetime policy

**Timescales:**

Work to be initiated as soon as possible and ideally completed by March 2022. Following the successful completion of the tasks listed above we would look to call upon your services to further improve and maintain our AWS infrastructure going forward.

**How to express an interest in this contract:**

Please supply the following information:
- Your daily rate (including VAT where applicable)
- When you could start this work
- An indication of how quickly you are typically able to turn around job requests
- A CV or similar describing your relevant experience and qualifications
- Two references from clients showing your previous work in this context

Please submit the above information by email to Dr Katherine Boughey, kboughey@bats.org.uk, with the subject 'AWS specialist_[name]'. All expressions of interest must arrive by **11:00am on 15th September 2021.**

**Quality & security assurance:**

Those expressing an interest in this work must display a good understanding of the issues involved. All work will need to adhere to BCT's policies and guidelines.

**Assessment:**

The contract will be awarded in accordance with the following criteria
- Experience and track record of success, including ability to deliver on time.
- Value for money
- Compliance with the contract specification
- Compliance with delivery timescales

Please send any queries to Katherine Boughey, kboughey@bats.org.uk

Yours sincerely,

Dr Katherine Boughey
Head of Science and Monitoring