

Cloud Computing for e-Science with CARMEN

Paul Watson

Director of the UK North East Regional e-Science Centre

Abstract

The CARMEN (www.carmen.org.uk) e-science project is designing a system to allow Neuroscientists to share, integrate and analyse data. Globally, over 100,000 neuroscientists are working on the problem of understanding how the brain works. This is a major challenge that could revolutionise biology, medicine and computer science. Solving it requires investigating how the brain encodes, transmits and processes information. In this talk we will describe the CARMEN system. This is a generic e-science platform "in the cloud" which enables data sharing, integration and analysis supported by metadata. An expandable range of services are provided to extract value from the data. CARMEN is accessed over the Web by neuroinformaticians who are populating it with content in the form of both data and services. We will describe the design of CARMEN and show how it is being used to support neuroscience.