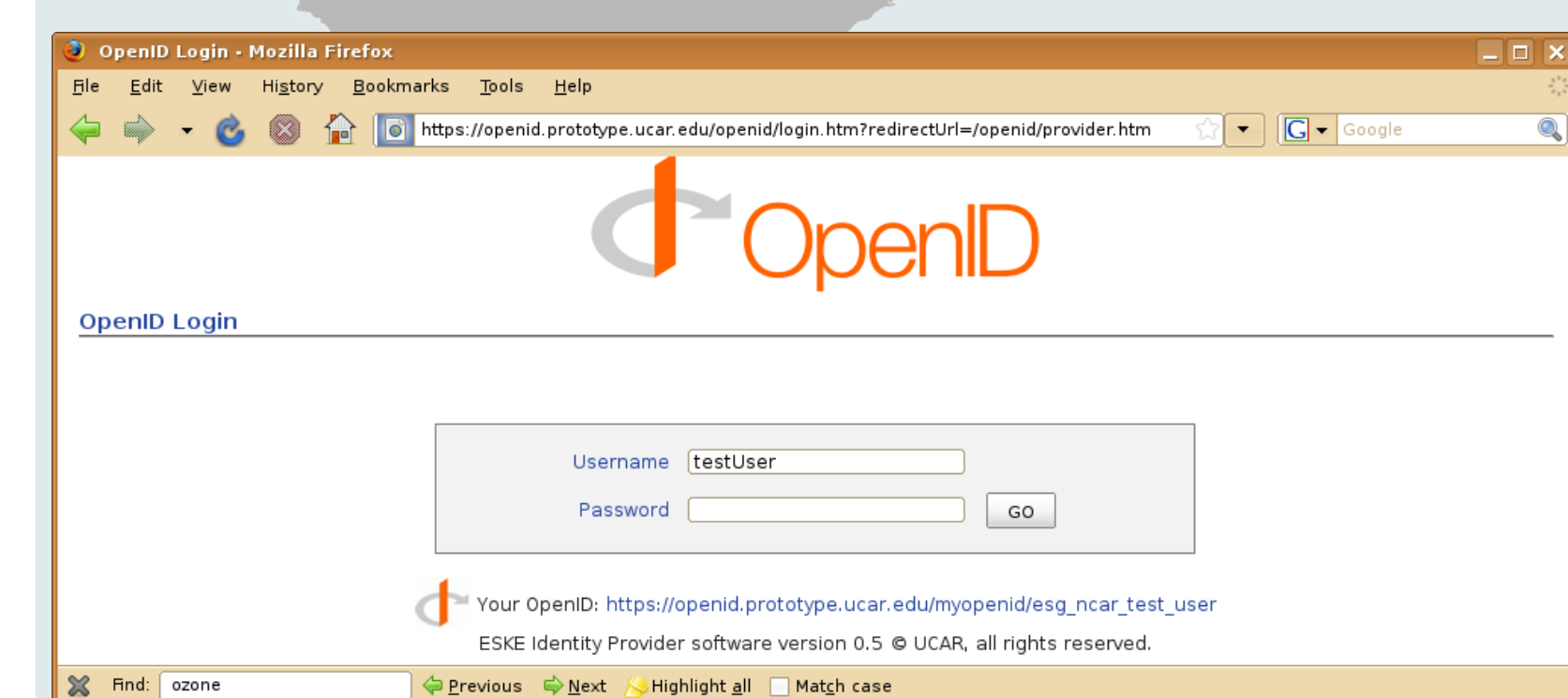## Single Sign On Access for IPCC AR5

Background and Requirements

- 1500Tb data archive is being prepared for the IPCC Fifth Assessment Report
- The archive is to be hosted across three data centres: PCMDI (US), DKRZ (Germany) and the BADC
- Provide secured access for 1000s of users accessing from multiple institutions
- For Data providers give the ability to:
  - register genuine users and track usage
  - provide feedback to sponsors on data access
  - keep users informed of changes to data or services
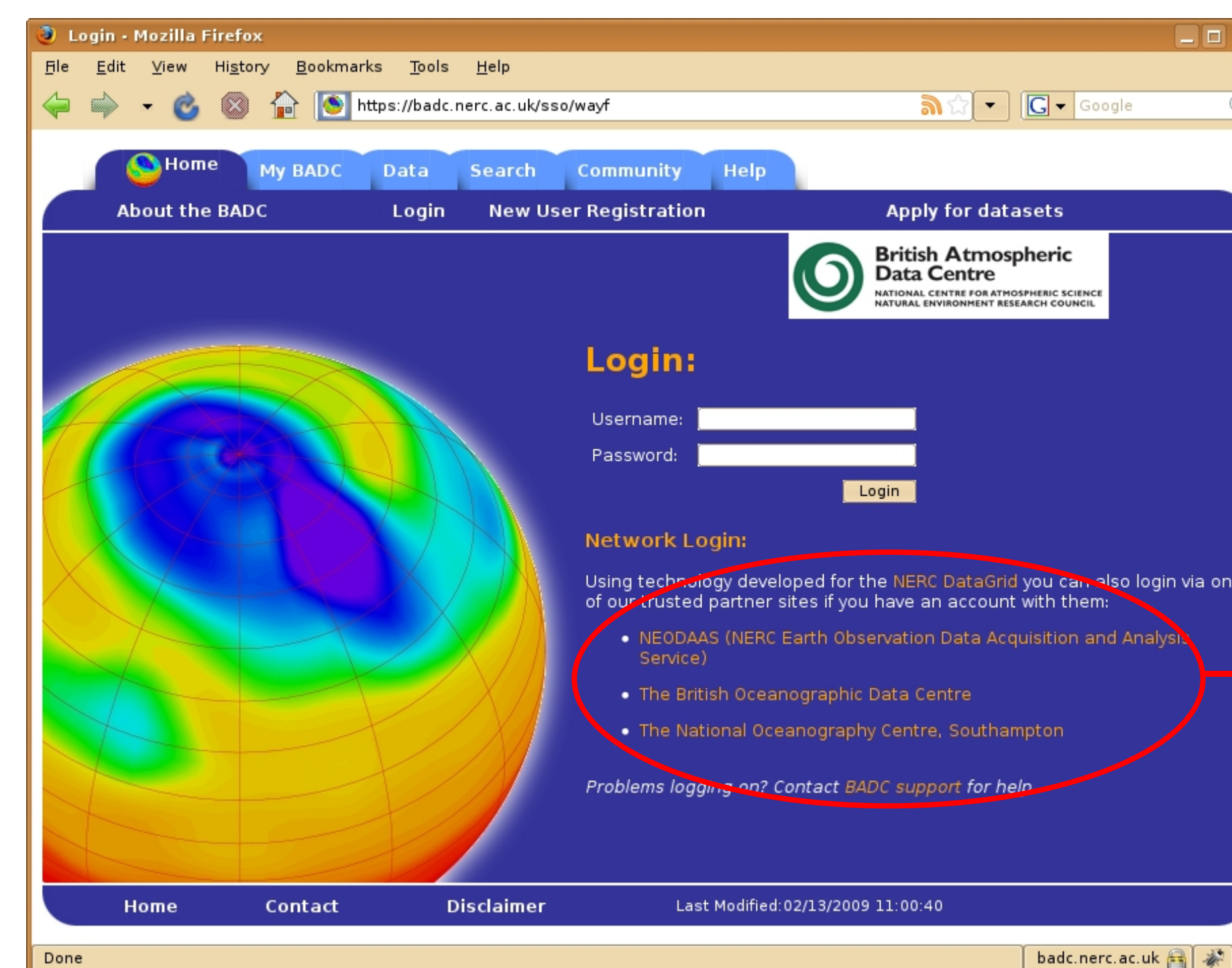
1) US based researcher browses NDG datasets

3) The NDG site enables them to use OpenID to select their home site

2) They select Login to access a secured dataset

5) They are redirected to their home site to login

4) The user enters their OpenID, a unique URL identifying them and their home institution

- Users need only one ID at their home institution
- Data providers register users to access particular datasets
- When an access request is made at a site for a particular dataset, the site checks with the Data provider that the user is registered to access it.
- The solution is an extension of the security models for the US Earth System Grid and the NERC DataGrid

6) The user is redirected back to the site now logged in at the NDG site via their home site credentials

Trust Relationships for Cross-Site Access

Bilateral trust agreements between NDG partner organisations enable Single Sign On and shared access to secured resources across sites

British Oceanographic Data Centre
NATURAL ENVIRONMENT RESEARCH COUNCIL

National Oceanography Centre, Southampton
UNIVERSITY OF SOUTHAMPTON AND
NATURAL ENVIRONMENT RESEARCH COUNCIL

NEODAAS NERC Earth Observation Data Acquisition and Analysis Service

Integrating into an Existing Site Infrastructure

Security services are modular components that integrate into existing data centre infrastructures

Requests for data or other resources are filtered through the Gatekeeper

Login

Security Services

OpenID

Access Control

Attribute Authority

Session Management

Security Services

Gatekeeper

Protects

Data Access and Visualisation Services

Interface to existing site infrastructure

User Accounts

Data Repository

British Atmospheric Data Centre
NATIONAL CENTRE FOR ATMOSPHERIC SCIENCE
NATURAL ENVIRONMENT RESEARCH COUNCIL

Philip Kershaw, BADC

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