

Exploitation of Switched Lightpaths for e-Science Applications

Call for papers for submission to Future Generation Computer Systems

Organisers: Peter Clarke (National e-Science Centre)
Colin Greenwood (National e-Science Centre)
Clive Davenhall (National e-Science Centre)

ESLEA, an EPSRC-funded project, aims to demonstrate the potential benefits of dedicated, guaranteed bandwidth/Quality of Service optical circuits (lightpaths) to the UK e-Science community. This is being achieved by running a number of "proof of benefit" pilot applications over UKLight, the UK's first national optical research network. UKLight provides a new way for researchers to obtain dedicated "lightpaths" between remote sites and to deploy and test novel networking methods and technologies. It facilitates collaboration on global projects by providing a point of access to the fast growing international optical R&D infrastructure.

A diverse range of data-intensive fields of academic endeavour are participating in ESLEA project, including particle physics, high performance computing, radio astronomy and e-health. All these groups require the integration of high-bandwidth switched lightpath circuits into their experimental and analysis infrastructure for international transport of high-volume applications data. In addition, network protocol research and development of circuit reservation mechanisms has been carried out to help the pilot applications to exploit the UKLight infrastructure effectively. Further information about ESLEA can be viewed at www.eslea.uklight.ac.uk.

TOPICS

We are now at the closing stage of the ESLEA project and are proposing to publish an overview of project results in a special section of Future Generation Computer Systems (FGCS). As such, ESLEA researchers are now invited to submit abstracts on one or more of the following topics:

- Control plane mechanisms, e.g. circuit reservation
- Network protocols research, e.g. DCCP and high speed TCP
- ATLAS particle physics application
- CDF particle physics application
- e-VLBI (Very Long Baseline Interferometry) Radio astronomy application
- High performance computing applications
- Integrative Biology e-health application.

PUBLICATION

Selected papers will be published in a special section of Future Generation Computer Systems following completion of the ESLEA project.

Papers should be submitted through the journal's editorial handling system (<http://ees.elsevier.com/fgcs>). Please register at the site if you have not yet used the system and upload editable source files for manuscript (Word, LaTeX, ...) and figures, mentioning that the paper is part of the special section "**Switched Lightpaths**". Please choose the Article Type "**SS: Switched Lightpaths**".

Formatting instructions for writing your paper are available in the FGCS 'Guidelines for Authors' at http://www.elsevier.com/wps/find/journaldescription.cws_home/505611/authorinstructions and further information can be found on the journal homepage <http://www.elsevier.com/locate/fgcs>.

Important Dates

Deadline for paper submission	01 June 2007
ESLEA Editorial Board Review	12 June 2007
Notification of ESLEA acceptance of papers	15 June 2007
Final Submission date in EES (Elsevier Electronic Submission)	29 June 2007
Notification of FGCS acceptance of papers	tbc

Enquiries

Enquiries should be made directly to:

Colin Greenwood
ESLEA Project Manager
National e-Science Centre
15 South College St.
Edinburgh
EH8 9AA

T: 07855 451 342

E: coling@nesc.ac.uk.