

# CURRICULUM VITAE

<b>Surname:</b> Traylen	<b>Forenames:</b> Stephen Matthew
<b>Address:</b> CERN	<b>Nationality:</b> British
CH-1211	<b>Telephone:</b> +41-76-487-2512
Geneva 23	<b>Date of Birth:</b> July 23, 1974
Switzerland	<b>Email:</b> <code>steve.traylen@cern.ch</code>
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## Skills:

- Seven years experience of grid deployment and production services within HEP and the wider science community.
- Fourteen years of UNIX experience, the vast majority with RedHat Linux.
- The use of various languages and software packages including:
  - Torque, MAUI, Quattor, Lemon, Globus, ETICS, Grid Middleware, YAIM,
  - Nagios, Perl, PHP, C, CVS, Subversion, Apache, RPM, bash, some Python, some Java.
- First class mathematics BSc honors degree.

## Employment:

### October 2006 - CERN, IT-GD-OPS

I have worked through out this time within the grid deployment and operations section of CERN's IT department.

- Service Manager for File Transfer Service and VO Membership Service.
  - Followed CERN best practices for software deployment and configuration.
  - Improved VOMS maintainability and reliability.
  - Wrote new Quattor NCM components for VOMRS and YAIM configuration for VOMS.
  - Simplified and improved High Availability Linux setup for VOMS.
  - Identified, reported and ensured that changes needed for a reliable VOMS service were completed by developers.
  - Pilot service created to field-test next VOMS service has allowed validation with Open Science Grid.
  - Detailed postmortems of VOMS service incidents, actions implemented.
  - Debug and log analysis for FTS transfer problems.
  - Support contact for CERN's ELFMS software for IT-GD (and IT-GS).
- Team member of the EGEE Operations Automation Team.
  - Lead integrator of OAT and public software including design and control over the release cycle.
  - YAIM configuration for the OAT Nagios software bundle.
  - Wrote software and tools for the OAT monitoring solution.

- \* voms2htpasswd, nagios-proxy-refresh and check\_ggus.
  - Tutorial given at EGEE 08 conference resulted in immediate uptake of the OAT's solution. Now 40 instances monitoring 150 sites, an exceptionally fast grid deployment. Site managers are happy to install this useful service.
  - Deployed the OAT Nagios solution in the CERN-PROD site, often the first to notice failures.
- I lead a long term project as the chair of the EGEE Worker Node Working group:
  - A design and plan was presented to the EGEE Technical Coordination Group and the WLCG Grid Deployment Board. Regular status updates given.
  - Production and testing of new YAIM configuration for sites to allow a richer and more accurate publication of their resources.
  - Proposed a replacement method and service for software tag publication. The new method is simpler to deploy and utilizes existing standard middleware.
  - Created change requests and followed up with other software providers checking and testing their changes were according to specification:
    - \* The gLite Workload Management System and its handling of batch deleted jobs.
    - \* YAIM and GlueCluster, GlueSubCluster information system support.
    - \* lcg-tags and lcg-ManageVOTags with experiment support groups.
  - I have become the focal point of all grid batch related matters within EGEE.
    - \* Co-authored the compute portion of the recent WLCG installed capacity methodology. I am responsible for its implementation and deployment.
    - \* The task is ongoing...
- Creating standards for operations in the wider grid community:
  - I liaise with members of the Open Science Grid as part of an inter-operations group.
  - Produced standards for operating system and hardware architecture publication agreed by both EGEE and OSG. Rolled out by myself within EGEE.
  - I designed and standardized the contents of the GlueSite information system object across EGEE and OSG grid infrastructures.
  - Improved MyProxy service publication and configuration. It made MyProxy usable to other services beyond the gLite WMS.
  - Represented EGEE for an EGEE/NDGF/DEISA user and operations requirements document for Universal Middleware Distribution project planning.
- I routinely offer support to my colleagues at CERN and elsewhere.
  - Pro-actively resolving GGUS tickets or any other problems I can find.
  - CERN Regional Operations Center, supported and certified sites to EGEE production status. Included new member countries.
  - Represented CERN and Grid Computing at the CERN open days.
  - Computer Center tours for visitors.
  - Ensured a visually interesting grid for LHC grid fest and similar events.

### **January 2002 - September 2006 Rutherford Lab (STFC), Didcot, OXON, UK**

At the Rutherford Appleton Lab (RAL) I worked within the tier1/a support team. The group of around 8 people were ultimately responsible to the GridPP collaboration preparing the UK's tier 1 systems for LHC startup and data taking.

- Led a grid services team of three, one of whom I line managed.
- Introduced Ganglia, Nagios.
- Operated the third grid site within the European Data Grid.
- Became the EDG integration team deputy.
- Controlled releases and operated the 20 sites in 12 countries present at the end of the EDG project.
- Wrote Pakiti to monitor package status at the Tier1, previously all the installations were diverging. Now used at many sites across Europe.
- Operated Torque batch system and introduced the MAUI scheduler. I now maintain reference versions for both across the EGEE infrastructure.
- Coordinated and supported the rollout of Grid Middleware within GridPP
- Obtained 10/10 in a GridPP staff evaluation. Top 10% of 50 members.

<http://www.gridpp.ac.uk/>, <http://www.stfc.ac.uk/>

### **March 2001 - January 2002 CCDC, Cambridge University**

The Cambridge Crystallographic Data Center maintains a large database of chemical structures. I was a systems engineer.

- Network of Debian, RedHat, Solaris, IRIX and AIX.
- Supported developers, e.g. CVS, compilers, bug tracking.
- Supported IT infrastructure, file servers, e-mail, DNS, Microsoft products.

<http://www.ccdc.cam.ac.uk/>

### **July 1999 - March 2001 NRICH, University of Cambridge**

The NRICH mathematics project aims to offer material for the mathematical enrichment of children. I was the computer officer.

- Operated the public facing web servers and provided technical solutions and support to content providers.

<http://nrich.maths.org/>

## 1998 - July 1999 Department of Mathematics, University of Sheffield

I was a half time research assistant.

- Assisted the department's system administrator for the SunOS, Solaris and IRIX network.
- Introduced myself to Linux with RedHat 5.0.

## 1996 - July 1998 Computing Services, University of Sheffield

I was managing an open access room of 100 networked PCs. I solved a wide range of computing problems here from all university disciplines.

## Education:

### 1995 - 1998 University of Sheffield

I worked towards a PhD in the Department of Applied and Computational Mathematics at Sheffield University. My thesis was titled "A Filter Design For the OSCAR HF Radar". The research consisted largely of numerical programming on SunOS and Solaris machines using C and scripting languages. While my PhD was never completed, my career started here.

### 1992 - 1995 University of Sheffield

I obtained a first class honors degree in pure and applied mathematics.

## Selected publications:

- Evolution of SAM in an enhanced model for monitoring WLCG services. CHEP 2009, Prague. (Not published yet).
- MAUI cookbook for LCG  
<http://cern.ch/grid-deployment/documentation/Maui-Cookbook.pdf>
- LCG VOBox Operations Recommendations and Questionnaire  
<https://edms.cern.ch/document/655277/>
- LCG Admin Training Course  
<http://indico.cern.ch/conferenceDisplay.py?confId=a042539>
- The GridPP Tier1 Center, Andrew Sansum *et al.* UK All Hands Conference, 2004.
- Scalability Test of R-GMA Based Grid Job Monitoring System for CMS Monte Carlo Data Production, H. Tallini *et al.*, IEEE Transactions on Nuclear Science, Vol.51, No.6 pp 3026-3029, December 2004.
- The measurement and subsequent removal of surface current variation from OSCAR radar backscatter, S Traylen and L Wyatt, Proceedings of Oceans98, Nice, France, 1998, pub. IEEE, 1714-1718.

## Referees:

Tony Cass  
IT-FIO  
CERN  
[tony.cass@cern.ch](mailto:tony.cass@cern.ch)

Ian Bird  
IT-LCG  
CERN  
[ian.bird@cern.ch](mailto:ian.bird@cern.ch)

John Gordon  
WLCG GDB Chairman  
Rutherford Appleton Lab.  
[john.gordon@stfc.ac.uk](mailto:john.gordon@stfc.ac.uk)