

PHRNI - SURE

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ABSTRACT

In 2008, the Australian Government Department of Innovation, Industry, Science and Research approved an investment plan for clinical and population health data linkage research capability under the National Collaborative Research Infrastructure Strategy (NCRIS). The investment plan set out a program for a national Population Health Research Network (PHRN) with a national office in the University of Western Australia (UWA), a national Centre for Data Linkage (CDL) in Curtin University of Western Australia, and six state and territory nodes. For one of those nodes, the PHRN NSW ACT node, the Sax Institute was appointed as the project participant, with responsibility for managing the implementation of the PHRN in NSW and the ACT.

Intersect has been working with the Sax Institute to develop the Secure Unified Research Environment (SURE) facility. This is a virtual laboratory system that provides researchers with a powerful environment to analyse approved datasets, to work collaboratively with other researchers and to do so in an environment that provides security of their data.

A fully functioning prototype of the system was presented to 60 health data linkage specialists on 26 May. This followed an earlier demonstration of SURE to the PHRN Management Council on 13 May. The production system is currently under construction and will come online in Q3 2011.

Prof Louisa Jorm, Principal Scientist of the Sax Institute said the (first) demo was “very well received by the national PHRN Management Council: summed up by the comments of the Victorian member: “it is exactly how a researcher would have designed it!””

At its heart, SURE’s virtualising technology is provided by Citrix Xen technology. Researchers have access to powerful virtual environments with significantly improved computing performance and additional storage space compared with their current solutions. This provides a more effective environment for their analytical and computational analysis. In addition, it provides an extensive system of access controls, network components and firewalls to ensure that data is securely protected.

The full production system will cost in the \$100,000s and will be hosted in a secure, commercial facility.

The aim of this presentation is to provide information about the SURE so that researchers and those working in the eResearch domain can gain information about this system.

Specifically this presentation will:

- Demonstrate a real live virtual laboratory.
- Describe the problem domain – who this is for, what problem it is solving, what issues surround the domain.
- Discuss the solution architecture, constraints and lessons learned.

ABOUT THE AUTHORS

Jared Berghold, Business Analyst

Jared Berghold has a research and development background in computer visualisation, interactivity and enterprise architecture. Jared has practiced software engineering for over eight years and prior to Intersect worked at iCinema, a research centre at UNSW, working on interdisciplinary projects with a focus on interactive and immersive narrative systems. Before this, he worked at Avolution, developers of leading enterprise architecture modelling tools, and CiSRA, the Australian research and development lab for Canon.

Jared has a BE/BA (Hons) in Computer Systems and International Studies from the University of Technology, Sydney.

Mr Rodney Harrison, Engineering Manager

Rodney has overall responsibility for the Project Management Office, including managing the day-to-day operational aspects of projects and directly supervising the software engineering teams. Rodney has worked with Avaya for the past 15 years, most recently as a Technical Manager in their Australian R&D team. He has a BSc from UNSW and he brings to Intersect 25 years of experience in growing organisations, delivering projects and developing engineering professionals.