

Cloud Stewardship Economics

Securing the New Business Infrastructure

A three-year Technology Strategy Board funded collaborative research project including HP Labs, The University of Aberdeen, The University of Bath, Sapphire, Validsoft, Marmalade Box and the Institute of Information Security Professionals (IISP). Lloyd's is acting as an external advisor and as a case study in cloud stewardship.

Our critical national infrastructure is increasingly dependent on information systems and the services they support. Cloud computing ecosystems of service providers and consumers — including individuals, chari-

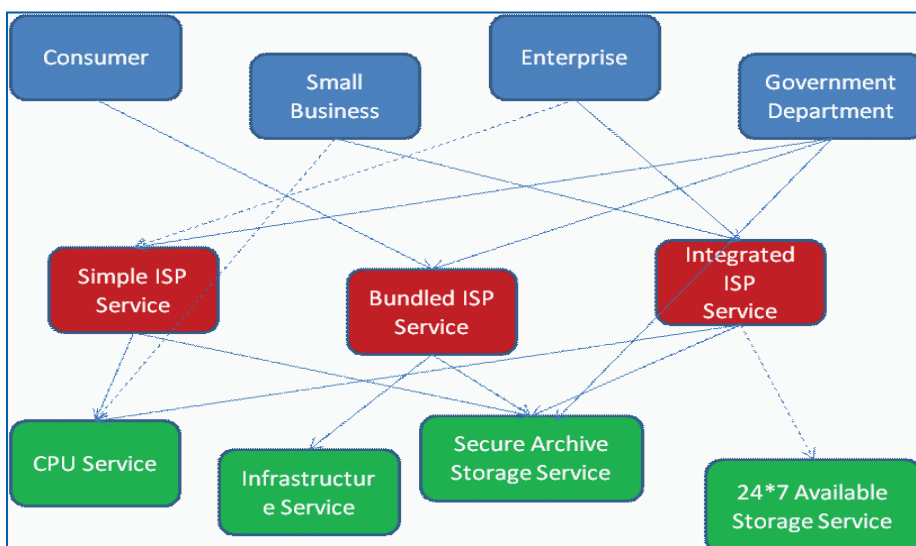
table and public bodies, SMEs, large enterprises, and governments — will become a significant part of the way these services are provided, allowing more agile coalitions, cost savings and improved service delivery.

Existing approaches to information security do not easily extend to this multi-party world and a step change in security attitudes and information stewardship will be essential. In the cloud, it will be harder to establish the risks and obligations and implement appropriate operational responses. This project aims

to establish new approaches for how to assess and manage risk for all the ecosystem participants, regulators and policy makers, and in particular understand how information about perceived attacks can be shared, interpreted and acted on in real time by other parties in the ecosystem.

We will build on and extend the work on the integration of mathematical and economic models of single organisation systems developed as part of the Technology Strategy Board 'Trust Economics' project to the multi-party cloud setting. Specifically, providing a unified modelling and simulation framework for exposures, responsibilities, threats, defences, and incentives of the cloud stakeholders that will be used to provide management tools for the prediction, communication and mitigation of risk to decision-makers within SMEs, large enterprises and government.

Cloud Stewardship Economics Diagram



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About the partners



HP Labs (www.hpl.hp.com) is the exploratory and advanced research group for Hewlett-Packard, tackling complex challenges facing HP's customers and society, while pushing the frontiers of fundamental science.



The University of Aberdeen (www.abdn.ac.uk) Business School is an internationally leading provider of excellence in undergraduate and postgraduate education.



The University of Bath (www.bath.ac.uk) Department of Economics has a strong international research reputation in mainstream economics. The Department has attracted substantial funding for its work on, for example, Environmental Economics.



Sapphire (www.sapphire.net) is one of the U.K.'s leading information security consultancies. Sapphire takes the lead in the promotion of best practice within the information assurance arena.



ValidSoft (www.validsoft.com) is a provider of telecommunications based security solutions. ValidSoft solutions provide protection against the most sophisticated

electronic fraud, yet are simple and convenient for users and provide a fast return on investment



Marmalade Box (www.marmaladebox.com) is an information security & business continuity practice minimising negative risks to cash flow and, where possible, leveraging these to drive revenue and profits.



The Institute of Information Security Professionals (www.instisp.org) is an independent not-for-profit body governed by its members, and its principal objective is to advance the professionalism of information security practitioners and thereby the professionalism of the industry.

LLOYD'S

Lloyd's (www.lloyds.com) is the world's leading specialist insurance market providing specialist insurance services to businesses in over 200 countries and territories worldwide

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Driving Innovation

The Technology Strategy Board is a national body which promotes and supports innovation for the benefit of UK business, to increase economic growth and improve the quality of life.