

# Enterprise Architecture Policy



## 1 Purpose

To provide the framework and principles for the University's Enterprise Architecture.

## 2 Scope

This policy applies to all Employees, Research Workers and University Members.

## 3 Policy Statement

The University adheres to an Enterprise Architecture framework and principles that maximise the digital capabilities of the University.

Enterprise Architecture is a business strategy which captures, documents, classifies and analyses all aspects of the enterprise in order to make the Information relevant for Decision makers, including business managers, business analysts and technology specialists.

Effective Enterprise Architecture is achieved through the application of a comprehensive and thorough process for describing a current and future structure and behaviour for the University's processes, Information, applications, technology and supporting the People Portfolio.

## 4 Principles

The Enterprise Architecture principles will guide the selection, design and implementation of business solutions for the three aspects of Information, applications and technology.

All principles are inter-related and collectively applied to:

- provide a framework within which the University makes informed and considered Decisions about Information and Communication Technology (ICT);
- establish evaluation criteria for the selection of products or product architectures;
- define the functional requirements of the Enterprise Architecture;
- assess existing ICT systems and the future strategic portfolio, for compliance with the defined architectures; and

- support governance activities related to the University's Enterprise Architecture.

## **4.1 Business Architecture Principles**

The following principles apply to Business Architecture:

1. Decisions are made with the intention of achieving maximum benefit to the University.
2. Enterprise operations are designed with sufficient resiliency to ensure a high probability of continued operations.
3. Applications are developed for use across the enterprise in preference to similar or duplicative applications which are provided to a particular section.

## **4.2 Information Architecture Principles**

The following principles apply to Information Architecture:

1. Information is a valued corporate resource and is managed accordingly.
2. Data is Accessible and shared for users to perform their functions.
3. Each data element has an Information Asset Custodian accountable for data quality.
4. Data is defined consistently across the organisation and the definitions are understandable and available to all users.
5. Information is protected from unauthorised use and disclosure.

## **4.3 Application Architecture Principles**

The following principles apply to Application Architecture:

1. Applications are independent of specific technology choices and therefore can operate on a variety of technology Platforms.
2. Applications are easy to use and the underlying technology is transparent to users so they can concentrate on tasks at hand.

## **4.4 Technology Architecture Principles**

The following principles apply to Technology Architecture:

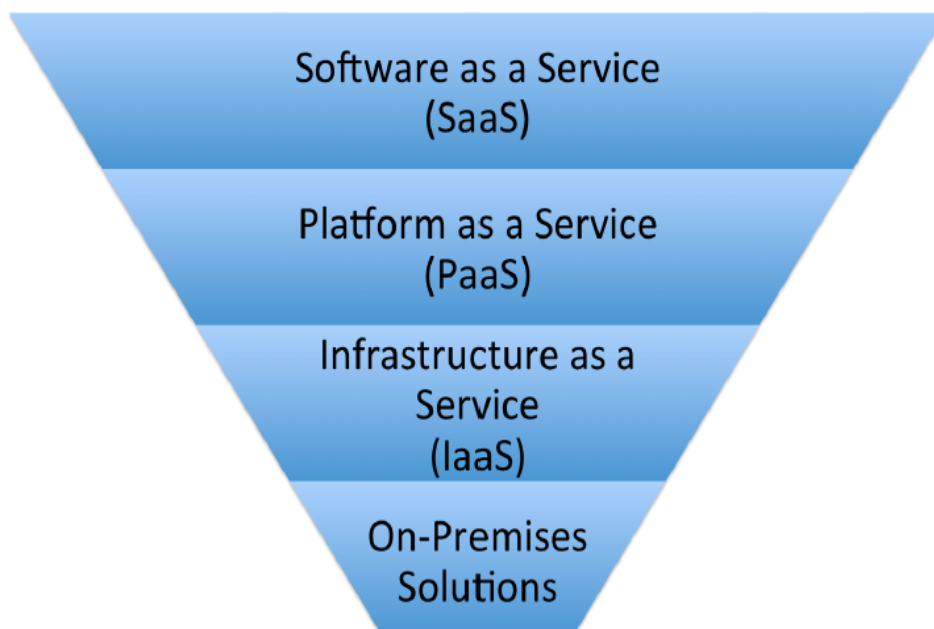
1. Changes to applications and technology are only made in response to business needs.
2. Changes to the enterprise Information environment are planned and implemented in a timely manner.
3. Technological diversity is controlled to minimise the non-trivial cost of maintaining expertise in and connectivity between multiple processing environments.
4. Software and hardware conforms to defined standards that promote interoperability for data, applications and technology.

#### 4.5 Information Security Architecture Principle

Systems integrate with the University's endorsed identity management system and Single Sign On (including multi-factor authentication) solution as appropriate.

#### 4.6 Cloud Computing Principles

The University's preferred position is to adopt and use Cloud Computing services, subject to business case and privacy considerations, and only after issues regarding security and risk have been identified and mitigated.



**Figure 1: Cloud First approach to IT service deployment**

(Reproduced from 'Cloud Strategy for Higher Education: Building a Common Solution'.

Research bulletin. Louisville, CO: ECAR, November 5, 2014. Available from <http://www.educause.edu/ecar>)

This approach focuses the value of limited ICT resources on delivering the most business value to the University. The following additional principles apply:

1. Australian-based Cloud Computing services must be the first option for any new services or when evaluating alternatives or revisions to current services.
2. When evaluating applications or Platforms, those that can run on cloud infrastructure are chosen where institutional benefit from utilising Cloud Computing services is identified and articulated during evaluation.
3. When evaluating Cloud Computing services, services are selected that run as high up the stack as possible (refer Figure 1).
4. Reasonable procedures are taken to ensure the security of University Information and compliance with all applicable Regulatory Compliance Instruments, Policy and Procedures.
5. All cloud service agreements are subject to the University's Procurement and Purchasing and Contract Management Policy and Procedure requirements irrespective of whether payment is required.
6. Integration with existing on-premises and other cloud services is considered, including identity management, networking, storage, etc. Decisions to not integrate will be made deliberately. Preference will be given to systems that have common functional integration capabilities, such as web service APIs.
7. Before contracting with a Cloud Computing provider, the University will be assured that the level of Information Security provided is at least equivalent to that which would be provided if the services were hosted internally to the University.
8. ICT Services develops and maintains a schedule of sanctioned cloud service providers and services.
9. Information System Custodians must consult with ICT Services prior to commencing any relevant applications for the use of cloud services.

## 4.7 Openness Principles

The University recognises the importance of open education, open systems, open source applications, open data and fostering support for open source communities.

To this end, the University encourages institutional practices that provide the broadest access to knowledge, Information, learning and training offered through formal education and, wherever

possible, eliminating barriers to entry through increasing Accessibility to Information.

Through open access, the University encourages accelerated discovery and assists wider dissemination of research and Information funded from public sources.

## 4.8 User Experience Architecture Principles

The University will provide an intuitive and seamless User Experience across all online systems. Systems are designed to be simple to use, effective and as automated as possible.

The University promotes collaboration and communication between Information System Custodians prior to, during and post system implementation or change. Information System Custodians must give consideration to system dependencies, the potential of one system to impact another and subsequently affect the overall User Experience.

1. The following Usability principles apply to the University online User Experience:
2. Systems are selected, designed and developed cognisant of the importance of demonstrating a User-first approach to ensure a satisfying online experience that supports user goals and task completion.
3. Systems that promote a superior User Experience will:
  - a. where feasible, enable data to be collated in a usable form for analytical purposes to support operational and/or strategic business Decisions
  - b. display successfully and be compatible with Browser technologies as guided by the University Standard Operating Environment (SOE)
  - c. be designed to provide an optimal User Experience across desktop and mobile devices
  - d. include system content that is of a high quality and Searchable
  - e. provide sufficient help resources to assist Users.
4. System Interfaces must enhance Usability and be designed to:
  - a. meet current Accessibility criteria
  - b. reflect the University's digital visual identity, as far as practicable, within the guidelines provided in the Brand Toolkit and in accordance with the System Tier Schedule of the User Experience Architecture Procedure
  - c. integrate selected common functionality, as far as practicable, and consistent with the System Tier Schedule of the User Experience Architecture Procedure.

## 5 References

Educause Centre for Analysis and Research. (2014). *Cloud Strategy for Higher Education: Building a Common Solution*. Retrieved November 6 2013, from <http://www.educause.edu/ecar>.

Queensland Government Chief Information Office (Enterprise Architecture and Strategy). (2009). *Queensland Government Enterprise Architecture Framework 2.0*. Retrieved November 6 2013, from <https://www.qgcio.qld.gov.au/products/qgea-documents/547-business/2786-queensland-government-enterprise-architecture>.

TOGAF 8.1.1 Architecture Principles. Retrieved July 4 2017, from <http://pubs.opengroup.org/architecture/togaf8-doc/arch/chap29.html>.

## 6 Schedules

This policy must be read in conjunction with its subordinate schedules as provided in the table below.

## 7 Policy Information

<b>Accountable Officer</b>	Deputy Vice-Chancellor (Enterprise Services)
<b>Responsible Officer</b>	Deputy Vice-Chancellor (Enterprise Services)
<b>Policy Type</b>	Executive Policy
<b>Policy Suite</b>	Information Asset and Security Classification Procedure Information Asset and Security Classification Schedule System Tier Schedule User Experience Architecture Procedure
<b>Subordinate Schedules</b>	
<b>Approved Date</b>	20/10/2017
<b>Effective Date</b>	20/10/2017
<b>Review Date</b>	18/7/2020
<b>Relevant Legislation</b>	<a href="#">Disability Discrimination Act 1992</a> <a href="#">Information Privacy Act 2009</a>

	<a href="#">Queensland Information Standard 18: Information Security</a> <a href="#">Right to Information Act 2009</a>
<b>Related Policies</b>	<a href="#">Acceptable use of ICT Resources Policy</a> Contract Management Policy (under development) <a href="#">ICT Information Management and Security Policy</a> <a href="#">Learning and Teaching Policy</a> <a href="#">Official Information Policy and Procedure</a> <a href="#">Privacy Policy</a> <a href="#">Procurement Policy</a> <a href="#">Records and Information Management Policy</a> <a href="#">Right to Information Policy</a> <a href="#">Student Communication Policy</a> <a href="#">Student Expectations and Responsibilities Policy</a>
<b>Related Procedures</b>	Contract Management Procedure (under development) <a href="#">Engagement of Cloud Computing Services Procedure</a> <a href="#">Information Systems Financial Management Procedure</a> <a href="#">Procurement Procedure</a> <a href="#">Records and Information Management Procedure</a> <a href="#">Right to Information Procedure</a> <a href="#">Student Communication Procedure</a>
<b>Related forms, publications and websites</b>	<a href="#">Brand Toolkit</a> (restricted access) <a href="#">Enterprise Information Management Framework (EIM Framework)</a> <a href="#">International Web Content Accessibility Guidelines</a> <a href="#">Mobile Web Best Practices</a> <a href="#">Project Management Framework</a> (restricted access)

**Definitions**

**Terms defined in the Definitions Dictionary**

[Brand Toolkit](#)

An online repository of guidelines and templates for the marketing and communication of the University by Employees, to Students and the community.

[Decision](#)

A determination made by an Employee, contractor or other authorised delegate in the course of their duties on behalf of the University.

[Employee](#)

A person employed by the University and whose conditions of employment are covered by the USQ Enterprise Agreement and includes persons employed on a continuing, fixed term or casual basis. Employees also include senior Employees whose conditions of employment are covered by a written agreement or contract with the University.

[Information](#)

Any collection of data that is processed, analysed, interpreted, organised, classified or communicated in order to serve a useful purpose, present facts or represent knowledge in any medium or form. This includes presentation in electronic (digital), print, audio, video, image, graphical, cartographic, physical sample, textual or numerical form.

[Information Asset Custodian](#)

Defines strategic uses of information and is accountable for ensuring that information assets are managed in compliance with the Information Governance Framework.

[Information System Custodian](#)

An individual or group of people who have been officially designated as accountable for specific data that is transmitted, used, and stored on a System within the University.

[Information Systems](#)



The organised collections of hardware, software, equipment, policies, procedures and people that store, process, control and provide access to information.

### [Policy](#)

A high level strategic directive that establishes a principle based approach on a subject. Policy is operationalised through Procedures that give instructions and set out processes to implement a Policy.

### [Procedure](#)

An operational instruction that sets out the process to operationalise a Policy.

### [Regulatory Compliance Instrument](#)

An external compliance instrument provided by legislation, regulation, standards, statutes or rules, including subordinate instruments.

### [Research Worker](#)

Any person/s involved in Research Activities at, or on behalf of the University. This includes, but is not limited to Employees, Students, visiting scholars, research partners, research affiliates, holders of Honorary or Adjunct positions and research ethics committee members.

### [Single Sign On \(SSO\)](#)

A property of access control of multiple related, but independent software systems. With this property a user logs in once and gains access to all systems without being prompted to log in again at each of them.

### [Student](#)

A person who is admitted to an Award Program or Non-Award Program offered by the University and is: currently enrolled in one or more Courses or study units; or not currently enrolled but is on an approved Leave of Absence or whose admission has not been cancelled.

### [Student Learning Journey](#)

A framework that is used to evaluate performance at every stage of the student life cycle. The journey commences at the first point of contact (decision to apply time) and proceeds through to graduation

and alumni. The Student Learning Journey prompts people across the organisation to think about the Student experience from a holistic perspective and not a series of unrelated events.

### University

The term 'University' or 'USQ' means the University of Southern Queensland.

### University Members

Employees of the University whose conditions of employment are covered by the USQ Enterprise Agreement whether full time or fractional, continuing, fixed-term or casual, including senior Employees whose conditions of employment are covered by a written agreement or contract with the University; Members of the University Council and University Committees; Visiting and adjunct academics; Volunteers who contribute to University activities or who act on behalf of the University; Individuals who are granted access to University facilities or who are engaged in providing services to the University, such as contractors and consultants, where applicable.

## **Definitions that relate to this policy only**

### **Accessible/ility**

Systems are designed to enable access to a wider range of people with disabilities, including blindness and low vision, deafness and hearing loss, learning disabilities, cognitive limitations, limited movement, speech disabilities, photosensitivity and combinations of these. Following current Web Content Accessibility Guidelines will also make content more usable to users in general.

### **Application Architecture**

The blueprint for the individual application systems to be deployed, the interactions between the application systems and their relationship to the core business processes of the organisation.

### **Browser**

A software program that allows the user to find and read encoded documents in a form suitable for display, especially such a program for use on the World Wide Web. Examples include, but are not limited to Internet Explorer, Mozilla Firefox, Chrome, Safari and Opera.

Source: <http://dictionary.reference.com/browse/browser>

### **Business Architecture**

The strategic governance and key business processes of the organisation.

### **Cloud Computing**

A model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

### **Enterprise Architecture**

Organising an enterprise's resources - its services, processes, Information, applications, and technology infrastructure - and establishing policy and related procedure to achieve desired business outcomes, technical standardisation and integration.

Source: Queensland Government Enterprise Architecture Framework 2.0.

### **Information Architecture**

The structure of an organisation's logical and physical Information Assets and associated Information management resources.

Source: Queensland Government Enterprise Architecture Framework 2.0.

### **Information Security Architecture**

The structure and behaviour of an organisation's security processes, Information security systems, personnel and organisational sub-units.

### **Responsive**

Refers to the ability of systems to display content across multiple devices such as, but not limited to, smartphones, tablets and desktops.

### **Platform**

The combination of device (hardware), firmware and/or operating system used to run Browser software when accessing web content.

### **Searchable**

A website, resource or application that is capable of being

computationally searched.

### **System Interface**

The visual part of an application or operating system through which a user interacts.

### **Technology Architecture**

The hardware, software and network infrastructure needed to support the deployment of supported applications.

### **Usability**

The ease of use and learnability of a system that allows users to effectively and efficiently achieve specific goals.

### **User Experience**

Encompasses all aspects of the end-user's interaction with the University's online systems (academic and non-academic), applications, tools, resources, artefacts and content. An exemplary User Experience will be seamless and meet the needs of Users through the provision of simple, effective and well-designed systems.

### **Keywords**

### **Record No**

13/797PL