



higher education
& training

Department:
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**Department of Higher Education and Training
Post-School Education and Training**

**Central Application Service
Enterprise Architecture**

**Chapter 1 – Overview of Consolidated CAS
Enterprise Architecture**

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1 Terms of Reference

The White Paper for Post-School Education and Training (2013) indicates that Career Development Services (CDS) and Central Applications Services (CAS) are integral components of the post-school education and training system. The White Paper recommends a seamless service from school level with appropriate learning pathways and assistance with career decisions including a simplified and cost-effective application process for post-school study.

The Department of Higher Education and Training (DHET) has over the past three years already undertaken a significant amount of work to establish a number of entities in support of CAS. DHET must now establish a permanent institutional mechanism to coordinate and manage these activities.

The aim of this project is to develop an Enterprise Architecture as Phase 1 for a National Post-School Education & Training Central Application Service (PSET CAS).

Learning Strategies has been appointed by DHET as the service provider to formulate and recommend an appropriate enterprise architecture. This chapter presents initial concepts relating to proposed CAS Service Model as input to the development of a comprehensive Enterprise Architecture for the CAS.

2 Purpose of this Chapter

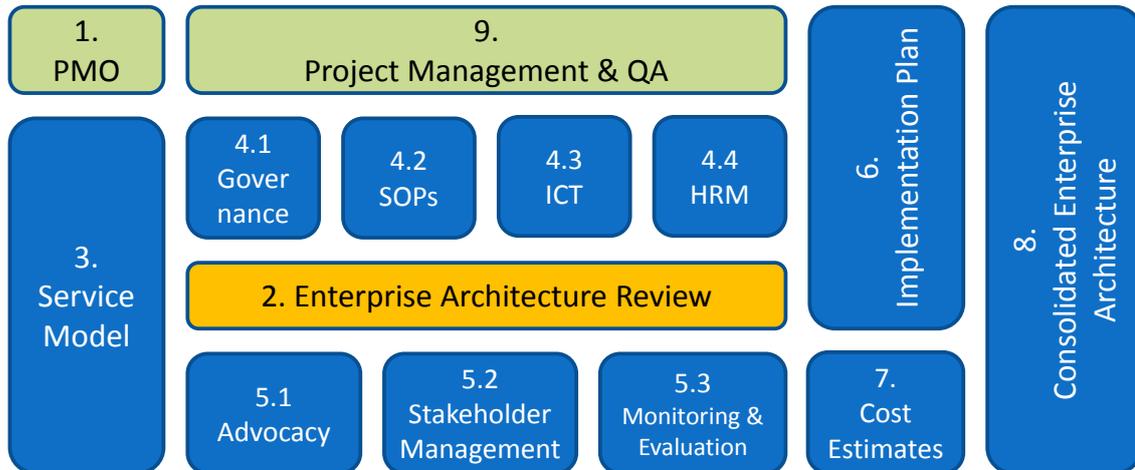
This chapter presents the structure of the deliverables from the Enterprise Architecture project. It explains the approach taken to the development of the enterprise architecture as well as how the various deliverables together present the complete consolidated CAS Enterprise Architecture and meet the requirements of the project.

This chapter also summarises the components of the enterprise architecture and explains the rationale for the various supporting documents and appendices.

The chapter furthermore explains the structure of the chapters and how these have been accumulated into the various volumes.

3 Enterprise Architecture Project Approach

The project for the development of the enterprise architecture was structured into nine steps including project management and quality assurance. The diagram below presents the initial project structure.



Throughout the project, this approach was followed rigorously and the deliverables from the project were aligned to this approach.

The approach was formulated into a definitive set of deliverables as follows:

- Deliverable 4.2 – Service Model
- Deliverable 4.3 – Governance Model
- Deliverable 4.4 – Standard Operating Procedures
- Deliverable 4.5 – ICT Architecture and Infrastructure
- Deliverable 4.6 – Human Resource Management
- Deliverable 4.7 – Advocacy and Communication Strategy
- Deliverable 4.8 – Stakeholder Engagement and Collaboration Strategy
- Deliverable 4.9 – Monitoring and Evaluation Framework and Policy
- Deliverable 4.10 – Implementation Plan
- Deliverable 4.11 – Financial Model

During the course of the project, the deliverables have been presented to the various project advisory and governance structures in the above order for review and comment. All these deliverables together present the full outcome of the project and the requirements of the enterprise architecture.

4 Presentation of Final Project Deliverables

In order to create a coherent set of final deliverables from this project which will form the basis for the development and implementation of the proposed central applications service, we have formulated the deliverables produced during the course of the project into the following document structure:

- Each major deliverable together with the appropriate appendices has been formulated into a chapter of the final document. As an example, the Service Model which was the first major deliverable has been formulated into chapter 2 – Service Model, which includes four appendices for the Analysis Report, Comparison Report, Environmental Scan and Stakeholder Reports.

While the various appendices were formulated during the course of the project as standalone documents, these have been incorporated into the individual chapters and the final result has been published as individual PDF documents for each chapter.

Two additional chapters have been added:

- Chapter 1: Document Overview** – this document which presents the structure of the final deliverables.
- Executive Summary (Chapter 0)** – which has been created so that it can be utilised as a standalone document presenting the overview of the final outcome of this project.

All of the individual chapters have also been formulated into volumes for publication purposes. Four volumes have been created as follows:

- Volume 1 – Executive Summary and Service Mode
- Volume 2 – Business Operating Model
- Volume 3 – Supporting Strategies and Structures
- Volume 4 – Implementation Plan and Financial Model

The table below presents the evolution of these documents linking the original deliverables to the chapters, PDF documents and finally into the four volumes.

Project Deliverable	Consolidated CAS Enterprise Architecture source documents (in Word or Excel)	PDF “chapter” Documents	PDF “volume” documents
	Chapter 0 – Executive Summary	Chapter 0 – Executive Summary	Volume 1 – Executive Summary and Service Model
	Chapter 1 – Document Overview	Chapter 1 – Document Overview	
Deliverable 4.2 - Service model <ul style="list-style-type: none"> App A – Analysis Report App B – Comparison Report App C – Environmental Scan App D – Stakeholder Report 	Chapter 2 - Service model <ul style="list-style-type: none"> App A – Analysis Report App B – Comparison Report App C – Environmental Scan App D – Stakeholder Report 	Chapter 2 – Service Model (incorporating App A to D into the PDF)	



Project Deliverable	Consolidated CAS Enterprise Architecture source documents (in Word or Excel)	PDF “chapter” Documents	PDF “volume” documents
Deliverable 4.3 – Governance Model <ul style="list-style-type: none"> App A – Draft Bill App B – Delegation of Authority App C – Executive Committee App D – Audit & Risk Committee App E – HR & Remuneration 	Chapter 3 – Governance Model <ul style="list-style-type: none"> App A – Policy Framework App B – Draft Policy App C – Draft Bill App D – Delegation of Authority App E – Executive Committee Terms of Reference (ToR) App F – Audit & Risk Committee ToR App G – HR & Remuneration Committee ToR App H – ICT Committee ToR 	Chapter 3 – Governance Model (incorporating App A to H into the PDF)	Volume 2 – Business Operating Model
Deliverable 4.4 – Standard Operating Procedures	Chapter 4 – Standard Operating Procedures	Chapter 4 – Standard Operating Procedures	
Deliverable 4.5 – ICT Architecture & Infrastructure	Chapter 5 – ICT Architecture & Infrastructure	Chapter 5 – ICT Architecture & Infrastructure	
Deliverable 4.6 – Human Resource Management (incl App A) <ul style="list-style-type: none"> App B – HR Job Profiles App C – Key HRM Practices 	Deliverable 4.6 – Human Resource Management (incl App A) <ul style="list-style-type: none"> App B – HR Job Profiles App C – Key HRM Practices 	Chapter 6 – Human Resource Management (incorporating App A to C in the PDF)	
Deliverable 4.7 – Advocacy and Communication Strategy	Chapter 7 – Advocacy and Communication Strategy	Chapter 7 – Advocacy and Communication Strategy	Volume 3 – Supporting Strategies and Structures
Deliverable 4.8 – Stakeholder Engagement and Collaboration Strategy	Chapter 8 – Stakeholder Engagement and Collaboration Strategy	Chapter 8 – Stakeholder Engagement and Collaboration Strategy	
Deliverable 4.9 – Monitoring & Evaluation Framework and Policy	Chapter 9 – Monitoring & Evaluation Framework and Policy	Chapter 9 – Monitoring & Evaluation Framework and Policy	
Deliverable 4.10 – Implementation Plan <ul style="list-style-type: none"> App A - C – Baseline Plan (Excel) App D – Aggressive Plan (Excel) App E – Baseline Plan with transitional arrangement (Excel) 	Chapter 10 – Implementation Plan <ul style="list-style-type: none"> App A - C – Baseline Plan (Excel) App D – Aggressive Plan (Excel) App E – Baseline Plan with transitional arrangement (Excel) 	Chapter 10 – Implementation Plan (incorporating App A to E in the PDF)	Volume 4 – Implementation Plan and Financial Model
Deliverable 4.11 – Financial Model <ul style="list-style-type: none"> App A – Baseline Model (Excel) 	Chapter 11 – Financial Model <ul style="list-style-type: none"> App A – Baseline Model (Excel) App B – Zero Fee Model (Excel) 	Chapter 11 – Financial Model (incorporating App A and B in the PDF)	

5 Structure of Individual Chapters

The individual chapters have been developed following a broad structure which has been varied depending on the unique requirements of each specific deliverable. As far as possible, the chapters have followed the following format:

- **Terms of Reference** – this section presents the context of the deliverable in terms of the requirements for the CAS as specified in the White Paper and positions the deliverable in terms of the overall structure and approach for the enterprise architecture.
- **Introduction** – this section, where required, introduces the concept being dealt with in that specific deliverable. For example, the introduction in the Service Model presents the concept of an enterprise architecture and the approach taken in this specific project. In other cases, these specific issue being addressed such as stakeholder engagement or communication, as the case may be, has been specified and defined in this section.
- **Content Sections** – the remaining sections of the deliverable present the key content broken-down into sections according to the requirements of that chapter.
- **Conclusion** – a conclusion has been formulated at the end of each chapter, summarising the context of the deliverable in terms of the overall enterprise architecture.

6 Utilising the Various Appendices

Appendices to the various chapters have been used for various purposes. In the case of the Service Model (Chapter 2), the various analysis reports which were used to formulate the service model have been presented as separate appendices.

In the case of the Governance Model (Chapter 3), the various appendices are standalone documents which would form the basis of governance documents to be utilised by the CAS prior to or after establishment. These appendices include the policy framework and draft bill for the establishment of the CAS as a public entity as well as key governance documents such as the proposed delegation of authority, terms of reference of the Executive Committee, Audit Risk Committee and HR and Remuneration Committee.

In the case of the Human Resource Management Chapter (Chapter 6), the appendices present the individual draft job profiles and the proposed human resource management practices and policies.

All of the above appendices are typically Word documents which present the content in text form. The appendices for the Implementation Plan (Chapter 10) and Financial Model (Chapter 11) have been developed in Microsoft Excel and present multi-year financial models and forecasts and detailed Gantt type implementation plans over multiple periods. Accordingly, these appendices have been created as landscape documents and have been formulated to print typically on A3 paper. This may not be possible in the case of certain printers and the presentation of the outcome of these appendices is likely to be small and potentially unreadable. Users are urged to revert back to the source documents where the appendices can be viewed appropriately and ideally printed in A3 landscape format.



7 Using the Project Deliverables

The reader of the project deliverables is urged to bear the following in mind when utilising these deliverables:

- **Enterprise Architecture as a Baseline and Living Document** – for the purposes of this project, an enterprise architecture has been defined as a documented set of principles, processes and guidelines which translate the concept or vision for the central application service into a design document that defines how the central application service should operate, be structured and be supported with technology and processes. As such, the enterprise architecture is a point-in-time view of the thinking that led up to the definition of these outcomes. As such, the enterprise architecture should be taken as the baseline for the design of the future entity.

It must, however, also be borne in mind that things change over time and that the key assumptions, which underpin the definition of the enterprise architecture, may change from time to time. In these cases, it is likely that the enterprise architecture would need to be updated to account for significant changes. The purpose of the baseline statement of the enterprise architecture is to ensure that any future changes are carefully and deliberately thought through and formulated based on clearly defined amended assumptions at the time. Accordingly, an enterprise architecture is a living document which builds on a baseline and should overtime account for the fundamental changes in business assumptions as required.

- **Developing an Enterprise Architecture is a Journey** – the process of developing an enterprise architecture commenced with defining a service model. The bulk of this work took place in May, June and July 2015, leading to the final acceptance of the service model on 31 July 2015 by the Steering Committee. This service model formed the basis for further design work during the process of developing the business model and thereafter the supporting structures and processes. As such, the development of the enterprise architecture is a journey which continually accumulates new information and insights. It is therefore possible that certain aspects defined in the service model may vary from the final definition and proposed enterprise architecture. It is hoped that these amendments have been adequately explained during the course of the process and are substantiated in the document. The user should, however, acknowledge that the process of formulating the enterprise architecture is one that results in the development of the concept over time.

8 Acknowledgements

Learning Strategies was appointed as the service provider to assist the Department of Higher Education and Training with the development of the enterprise architecture for the CAS. Learning Strategies appreciates this appointment and wishes to specifically acknowledge the significant efforts and inputs of numerous groups and individuals during this process.

The following specific individuals are noted:

- **Dr Engela van Staden** - Chief Director: University Academic Planning and Management Support at the Department of Higher Education and Training has been project leader from DHET's side and has provided extensive guidance and support during the course of this project. Dr van Staden's insight into the expectations and requirements for the CAS has been invaluable to the finalisation of this enterprise architecture.



- **Mr Chris Beukes:** CAS Project Manager – Chris has supported this project throughout and provided extensive administrative support and inputs to the finalisation of the enterprise architecture.
- **Mr Isaac Lephala:** CAS Project Team – Isaac has assisted on the project in the various workshops and sessions utilised to formulate the project deliverables.
- **DHET Advisors** – Ms Ann Braine and Mr Chris Nel – Specialists Advisors have been engaged by DHET to assist in this project and have provided significant support and constructive feedback in the review of proposals and concepts during the course of the project.
- **Project Advisory Committees and Technical Advisory Committees** – have been established at various points during the course of the project to review specific component of the project and to provide inputs to these steps. It is impossible to identify all the individuals who have been involved in each of these committees but the project team wishes to acknowledge the inputs and assistance received from these individuals.
- **Project Steering Committee** – has met on a number of occasions during the course of this project and provided direct guidance into the completion of the key deliverables.

Finally, Learning Strategies as the service provider wishes to thank the Department of Higher Education and Training and all officials and individuals who were engaged during the course of this process for the friendly and engaged assistance received during the course of this challenging project. The quality of the deliverables from this project has been significantly impacted by the assistance received from so many different parties.

9 Conclusion

This chapter sets out to present an understanding of the structure of the final deliverable for the consolidated enterprise architecture for the Central Applications Service. It is hoped that this document will assist the user in navigating through the various chapters and volumes of the deliverables.

It is further hoped that the final deliverables from this project will make a meaningful impact on the design and establishment of the Central Applications Service for the benefit of the entire PSET sector and for South Africa as a whole.