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Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

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

**Central Application Service
Enterprise Architecture**

**Chapter 11 – Financial Model for CAS
(Financial Report and Financial Feasibility
Model Memorandum)**

February 2016



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1 Terms of Reference

The cost estimations for the Central Applications Service together with this report on these estimations and explanation of the financial feasibility model have been prepared by Learning Strategies.

This report provides an explanation of the cost estimates for the CAS as well as providing an explanation of the structure and workings of the financial feasibility model.

This cost estimate report and financial model presents deliverable 4.10 of the Terms of Reference and completes step 7 of the project plan and forms chapter 11 of the consolidated CAS Enterprise Architecture.

2 Disclaimer

The financial feasibility model has been developed based on information and assumptions gathered throughout the CAS Enterprise Architecture project.

The financial feasibility model calculates a financial forecast for DHET CAS. The forecast results are calculated based on assumptions concerning future events. Actual events may differ substantially from the assumptions and the impact on the results calculated by the model may be material. Accordingly, no opinion is expressed on the output of the financial feasibility model. No audit has been conducted on the assumptions or initial financial information and no opinion is expressed on the reliability of the information.

3 Financial Feasibility Model Objectives

The enterprise architecture project as phase one of the project for establishment of the Central Applications Service (CAS) for the PSET sector in South Africa requires the development of an initial estimation of the financial implications of the establishment and operations of the Central Applications Service.

A fundamental component of the service model design is the objective that the CAS should be self-funding. This necessarily implies that the CAS will be established in a manner which enables it to charge fees for its services and to recover these fees to offset and meet all costs incurred.

The objective of the financial feasibility model is to project and estimate the costs for establishing the CAS as well as the expected operating costs for the CAS as it expands the scale and scope of its operations through various phases to cover the expected service to the entire PSET sector.

The financial feasibility model therefore sets out to provide the net result of the income and cost estimates for the establishment and ongoing operations of the CAS.

The financial feasibility model and this report read together, aim to present all the assumptions and variables which have been used to derive the revenue and cost estimations for the CAS.

The financial feasibility model is furthermore used to determine the revenue and cost impact if no application fees are charged (under a #FeesMustFall scenario).

4 Model Structure

The financial feasibility model has been developed to create a planning and management tool for the CAS in the future. The model as it is currently developed is used to predict the revenue and operating costs of the CAS as well as the capital costs and timing of cash flows during the establishment phase of the CAS.

The model is developed in Microsoft Excel and is included in **Appendix A**. It consists of a number of inter-related worksheets that are described below. The reader is urged to read the document in conjunction with the Appendix.

The model is structured so that key assumptions are presented on the initial sheets of the financial model. All assumptions that can be amended are presented in blue text. All figures in black text are the result of calculations and should not be modified. Any amendment to cells with black text could fundamentally impact on the structure and integrity of the model.

The financial feasibility model has been structured with the following worksheets:

-) **Cover** – this sheet merely presents the model details as part of the printed version of the model.
-) **Contents** – this sheet presents the components of the model together with the disclaimer regarding assumptions concerning future events.
-) **Key Assumptions** – this sheet presents key assumptions to be entered which drive the model. All the assumptions which can be entered on this sheet are in blue text. Assumptions include:
 - o Inflation rate;
 - o Application fee at outset and increased with inflation over the forecast period;
 - o Application volumes and spread;
 - o Application fee income (derived from application volume and application fee);
 - o Seed funding assumptions (not populated in this version of the model, but provided here to facilitate future inclusion);
 - o Grant funding assumptions (not populated in this version of the model, but provided here to facilitate future inclusion);
 - o Operating expenditure assumptions;
 - o Information Technology expenditure assumptions;
 - o Implementation and operational roll-out assumptions;
 - o Human resource assumptions, including salary scales and staffing phase in;
 - o Staff level benchmark assumptions (based on available comparative data); and



- Workload assessment assumptions.
-) **Financials** – this sheet presents a seven year forecast, starting with financial year ending March 2017 and ending with financial year 2022/2023 at which time it is assumed that the DHET CAS will be fully operational. Financials forecasted include:

- Income Statement;
- Cash Flow Forecast; and
- Balance Sheet

-) **Staff Cost Model** – this sheet contains the envisaged staffing levels over the forecasted period and is based on some operational baseline staffing volumes obtained from the KZN CAO and others estimated based on expected workload then increased with the growth of application volumes.

Each position in the organisation structure of the CAS has been allocated a PERSAL grade in order to link it to a remuneration value for the post. The use of the PERSAL grade scale was based on the practice that public entity remuneration offerings are determined by the Board of the entity, subject to Treasury and DPSA guidelines.

As in previous sheets, variable fields (staff levels and associated scales) are in blue text.

Operations staff were not forecasted to increase linear with the increase in volumes as a change in the ratio between online and hard copy applications are expected as well as an efficiency factor that is allowed for with the increase in volumes. These assumptions are contained in the Key Assumptions Worksheet and relates to the positions of:

- Scan Agents;
- Office Agents;
- Data Capture Agents;
- Communications Agents; and
- Call Centre Agents

-) **Capital Outlay** – this sheet contains the expected capital expenditure that will be required over the forecast period. It indicates the annual expenditure and associated depreciation for the various capital items based on assumptions contained in blue text on the worksheet. Capital expenditure categories include:

- Software development;
- Computer equipment individuals;
- Computer equipment central;
- Office furniture and fittings; and
- Call Centre equipment.



-) **Payroll supporting workings** – this sheet contains the baseline remuneration figures used for the staff cost calculation. The baseline remuneration is based on PERSAL remuneration tables per DPSA Circular 1 (Levels 13 - 16) and 2 (Levels 1 -12) of 2014, effective 1 April 2014. This was inflated by 6% per annum to get to a baseline remuneration, effective 1 April 2016. The average in each scale band were used in the projections.
-) **Project Expenditure** – this sheet contains the estimated resources and associated costs that will be required throughout the development lifecycle of the CAS systems. It covers the phases for:
 - o Requirement specification;
 - o Design;
 - o Build; and
 - o Launch Support
-) **Financials presentation** – this sheet contains a summarised version of the Financials to enable a one page view of the financial forecasts. It includes key assumptions relating to application volume, required Human Resources, a summarised Income Statement including a calculation of breakeven application volume for each year operation, and summarised Cash Flow and Balance Sheet. This summary is included in the text of this chapter.

The financial feasibility model consistently excludes VAT in all derivations, except where expressly identified in the derivation of the VAT exclusive application fee. It is important to note however, that the model assumes at this point that the CAS will be VAT registered. Due to its status an educational institution, it is possible for the CAS to apply for VAT exempt status, and we recommend that, when established as a public entity, the CAS proceeds with this.

5 Cost and Revenue Estimates

The various individual cost and revenue estimates are discussed below:

5.1 Inflation

Inflation is assumed at a constant 6% throughout the financial model.

This assumption is captured on the key assumptions tab which is page 3 of the financial feasibility model report.

5.2 Application Fees

The final application fee to be charged by the CAS is currently based on a principle of a single application fee for all applications in an annual application cycle. The basis for the fee has been the current fees charged by the Central Applications Office in Kwazulu-Natal which are expected to be R200 for the 2016/17 application process. This amount of R 200 is including VAT. The financial feasibility model provides this amount as an assumption on the key assumptions tab and then projects the income on a 6% increase per annum basis but rounds the amount inclusive of VAT to the nearest R5 and then calculates the exclusive VAT amount that is used in the financial model.

This assumption is captured on the key assumptions tab which is page 3 of the financial feasibility model report.

5.3 Application Volumes

Application volumes have been projected based on the first phase of the implementation of the CAS being similar in volume to the current application volumes handled by the KZN CAO being 100 000 applications. The expectation is that this will increase steadily over the subsequent years as application offerings are rolled out to additional regions and into further sectors within the PSET sector. The projected increase in volume is by a further 100 000 applications in the second year, a further 200 000 applications in the third year and a further 200 000 applications in the fourth year of operations bringing the total applications handled by the CAS after four years of operation to 600 000 applications.

This assumption is captured on the key assumptions tab which is page 3 of the financial feasibility model report.

5.4 Operating Expenditure

Detailed assumptions are presented in the key assumptions (page 4) for all of the operating expenditure line items. These are calculated into expected annual operating costs which are then carried forward to the income statement.

5.5 Information Technology Expenditure

Detailed assumptions are presented in the key assumptions (page 4) for all of the ongoing Information Technology expenditure line items. These are calculated into expected annual operating costs which are then carried forward to the income statement.

5.6 Operating Costs – Human Resources

The most significant operating cost for the CAS will be the cost of human resources. The cost estimates for human resources are based on a resourcing model (set out on the staff cost tab - page 9 of the financial model report) multiplied by the staff cost rates.

The staff cost rates are drawn from the current pay-scales for the public sector as published by the DPSA. These pay-scales as the initial assumptions are set out on the payroll tab presented on page 12 of the financial feasibility model report. These pay-scales are then summarised into the pay-scale level data set presented as part of the human recourse assumptions in the key assumptions on page 5 of the model. The actual resources required are a combination of a number of factors:

- Senior management, administration and other support functions are based on estimates of resource levels required based on Learning Strategies' experience regarding the structuring of similar public sector entities.
- The functional staff for the processing and handling of application are based on inputs received from the KZN CAO utilising their workload assessment model as a starting point. Comparative benchmarks of workload assessments and assumptions have been presented in the staff level benchmark assumptions section under key assumptions on page 6 of the report. These benchmarks are then utilised in the workload assessment model where resourcing for document management, payment management, data capture, e-communication and call centre activities have been presented. These workload assumptions have been adjusted by a processing efficiency factor and a call centre efficiency factor which are expected to apply as the volume of applications and interactions with applicants increase over the various phases.



- The resourcing requirements are also impacted by the expected transition of applications from hardcopy to online applications. The current experience at CAO in 2015 indicates that approximately 60% of the applications are hardcopy applications. However, other universities achieve much lower ratios of hardcopy applications, and other evidence indicates that youth have increasing access to smartphones and that networked devices are increasingly rolled out through a number of digital initiatives. Combined with the CAS strategy of providing regional points of presence, by the launch of the CAS, the ratio of online applications is estimated at 80%. This trend is expected to continue at a relatively quick pace with the number of hardcopy applications increasing marginally while the bulk of the increased applications will be online applications. In the second year of operations, it is expected that 85% of applications will be online with 90% online applications in the third year and 95% online applications in the fourth year.
- The staff cost rates set out in the key assumptions on page 5 together with the resource assumptions under key assumptions on page 6 are then applied to the staff cost model on the staff cost tab (page 9 of the report). The calculations use the resources required in each year multiplied by the expected total cost to company of each applicable resource increased by the inflationary factor of 6% per annum for each subsequent year. The total of the staff cost for the financial year is then carried forward to the income statement (financials tab – page 7 of the report).

5.7 Income Statement

The income statement presents the application fee income together with the staff and other operating cost expenditures to produce a net income/loss. The income statement is set out on the financials tab presented (on page 7 of the report).

5.8 Cash Flow

The results of the income and expenditure are carried forward into the cash flow statement producing a net cash flow per year and a cumulative cash balance.

This cumulative cash balance is currently excluding any seed funding or grant funding sources and hence accumulates to a significant sum. It is anticipated that grant funding and seed funding will be provided from various sources for the establishment of the CAS but no assumptions have yet been made as to the source or timing of this funding. The financial feasibility model therefore presents the funding requirements on a per annum basis and in the absence of assumptions of actual funding received result in accumulated cash deficit over the period of the financial model. The cash flow forecast is set out on the financials tab (on page 8 of the report).

5.9 Balance Sheet

Finally, the results of the income and expenditure together with the cash flow and capital expenditure are summarised in a balance sheet for the CAS for the forecast period. The balance sheet is set out on the financials tab (page 8 of the report).

6 Capital Outlay

The financial feasibility model makes full provision for estimates relating to the capital outlay required for the establishment of the CAS. The capital outlay is expected to be largely in the form of software development. The budgeted estimate for the software development span over four distinct phases. These are, requirement specification, design, build and launch support. For each of these phases the resource requirements, both role and number, were estimated. The cost related to this was calculated by applying an

estimated daily rate for each resource role over the estimated duration of the phase. These rates were inflated at 6% per annum.

This approach to estimating software development costs is in essence building a dedicated team of consulting resources to execute the software development. It is considered, for this case, a conservative cost estimation approach, and costs (and risks) could be limited through contracting software development service providers to deliver on defined and agreed scope. Costs could also be limited if DHET directly contracts a team of developers, but this may result in additional risks. Furthermore, the cost estimates would also be affected by decisions on leveraging the NSFAS platform and/or leveraging the KZN CAO, for which insufficient information is available at this time. The total capital expenditure on software development is estimated to be R78.3m.

Specific provision has also been made for the definition and development of the requirements that CAS has for the national programme database, but no further assumptions are made for the development of such a national programme database.

Provision was made for central computer equipment like high speed printers, scanners, network equipment, servers and a storage system. The high speed printers and scanners were phased in as the organisation grows, while the other items were forecasted to be procured as and when required. The capital expenditure on central computer equipment was estimated at R1.2m.

In addition, computer equipment requirements for individual staff members have been estimated based on the number of staff members engaged as the CAS is implemented through the various phases. The capital expenditure on staff computer equipment was estimated at R1.5m.

Expenditure on office furniture and fittings is also forecast based on the progressive implementation of the CAS, estimated at R0.8m.

Call centre equipment is expected to be procured on an as needed basis. Call centre technology can often be procured in the cloud on a per seat basis. The financial forecast assumes that this approach is utilised enabling the progressive implementation in this equipment. The capital expenditure on call centre equipment was estimated at R5.8m.

No capital expenditure has been forecast for server and storage technology with the expectation that this component will be hosted and procured on an as needs basis from a cloud provider. This converts capital expenditure into operating cost which is more in line with the establishment of the CAS and more effective due to its progressively increased requirements for these services. Effectively, the platform will be procured as a service on an as needs basis.

7 Funding the CAS

As indicated above, the cost and revenue estimates have been prepared without any assumptions as to the nature, source or timing of funding for the establishment and implementation of the CAS. The stated intention that the CAS will be self-funding implies that the CAS will be structured in such a manner that would enable it to operate at better than a break-even position once fully established. In fact, the CAS should operate at a surplus which would enable it to continually re-invest in improving its systems and services. These surpluses should also enable the recruitment of initial funding such as seed funding that may be provided. It is also anticipated that the CAS would receive a certain level of grant funding in the initial phases which may not necessarily be recouped from the future surpluses from operations.



The financial feasibility model makes provision for two forms of funding being seed funding and grant funding. In each case, provision has been made for 10 different potential sources of this funding. The current financial feasibility model includes no assumptions as to the timing or amount of this funding. Rather, the financial feasibility model calculates the total amount of funding required which will then be used as the basis for grant and seed funding applications as part of the establishment process.

8 Calculated Cost Estimates and Funding Requirements

The above assumptions have been used to calculate the cost revenue and funding implications of the implementation of the CAS, assuming the Baseline Implementation Scenario outlined in Chapter 10 of the consolidated CAS Enterprise Architecture:

8.1 Baseline Implementation Scenario

This scenario provides for the CAS to go live with 100 000 applications being received in the 2019/20 financial year. This effectively means that the first applicants through the CAS will be applications for entering study in 2020. The CAS is then progressively rolled out with an additional 100 000 students in the following year, increasing the number of applicants by 200 000 in the following year again and a further 200 000 in the 2022/2023 financial year (for year of study 2023), reaching a total number of applicants of 600 000 and an associated fee income of R150m. This scenario effectively provides a full year for detailed specifications in 2016/17, a year for building the required solution in 2017/18 and the year for testing and preparation for launch in 2018/19, in line with the Baseline Implementation Plan.

The key results of this scenario are presented below:



Baseline Implementation Scenario

(R 000's)

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
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Assumptions and Resourcing

Project Phase	Transition period	Key operations	Testing / Skeleton	Launch	1st Roll out	2nd Roll out	Fully operational
Applications Received	-	-	-	100,000	200,000	400,000	600,000
CAS Human Resources	-	6	21	72	106	163	196

Income Statement

Total Income	-	-	-	21,053	43,860	94,737	150,000
Application Fee Income	-	-	-	21,053	43,860	94,737	150,000
Grant and Seed Funding	-	-	-	-	-	-	-
Expenditure	782	9,286	37,954	62,720	78,047	107,003	127,818
Staff Cost	-	3,200	11,925	30,519	43,813	65,959	80,960
Other Operating Costs	782	6,087	26,029	32,201	34,234	41,045	46,858
Net Income/(Loss)	(782)	(9,286)	(37,954)	(41,667)	(34,187)	(12,267)	22,182
Opening Retained Income		(782)	(10,069)	(48,023)	(89,690)	(123,878)	(136,144)
Cumulative Net Income/(Loss)	(782)	(10,069)	(48,023)	(89,690)	(123,878)	(136,144)	(113,962)
Breakeven application Volumes							
Forecast Applications Volumes	-	-	-	100,000	200,000	400,000	600,000
Calculated breakeven Volumes	4,460	50,412	192,302	297,919	355,895	451,792	511,273
Application (Shortfall) / Surplus	(4,460)	(50,412)	(192,302)	(197,919)	(155,895)	(51,792)	88,727

Cashflow

Net Cash Flow	(7,303)	(40,318)	(57,449)	(38,284)	(24,516)	(5,693)	28,276
Opening Balance	-	(7,303)	(47,621)	(105,070)	(143,354)	(167,870)	(173,563)
Closing Balance	(7,303)	(47,621)	(105,070)	(143,354)	(167,870)	(173,563)	(145,286)

Balance Sheet

Fixed Assets	6,520	37,552	57,047	53,664	43,992	37,419	31,324
Current Assets - Cash	(7,303)	(47,621)	(105,070)	(143,354)	(167,870)	(173,563)	(145,286)
Total Assets	(782)	(10,069)	(48,023)	(89,690)	(123,878)	(136,144)	(113,962)
Total Equity and Liabilities	(782)	(10,069)	(48,023)	(89,690)	(123,878)	(136,144)	(113,962)

Under this scenario, the CAS requires 196 human resources when it is fully operational, with the annual growth in resources from Launch onwards largely due to growth in operations and call centre staff to handle the increased application volume. By this point, total annual expenditure is R128m, with Staff Costs accounting for almost 2/3 of the total expenditure (R81m). The largest contributors to Other Operating Costs are IT Application Support (R9.4m), Depreciation (R8m), Payment Transaction Fees (R4.5m) and Outreach Programmes (R4.2m).

A surplus of R22m is reached in the 2022/23 financial year, and is reached only then because in each of the prior years the number of applications received is below the breakeven point, and the overhead costs (i.e. costs not directly related to processing applications) result in an operating loss. This is a normal situation for a new operating entity and the surplus in 2022/2023 confirms that based on the financial model presented here, the CAS can be self-funding.

This situation of initial capital investment in software development and operating losses until breakeven is reached does mean that funding is required to sustain the CAS for the first few years. The maximum funding requirements for the CAS will be around the end of the 2021 and 2022 financial years when the cash requirements for the implementation and additional operations of the CAS will peak at R174 million. The annual funding requirements can be determined from the Net Cash Flow line on the table above.



8.2 Aggressive Implementation Plan

The Aggressive Implementation was presented in Chapter 10 and was considered to be highly risky and non-viable due to the aggressive timeline assumptions. The financial impacts of this Aggressive Implementation Plan were considered and while the cash flow of capital investment is accelerated, it does not provide a significant difference to the total funding requirements, nor the timeframe required to achieve an operating surplus. Using the Model.

8.3 Baseline Implementation Plan with Transitional Arrangements

The Baseline Implementation Plan with Transitional Arrangements was presented in Chapter 10. This approach is not expected to result in a difference to the financial situation as outlined above in the Baseline Implementation Plan. The reason for this is that the operation of the KZN CAO is self-sustaining and would not create a financial burden on the CAS.

8.4 No Application Fee Scenario

If no application fees are charged (under a #FeesMustFall scenario), the implications on the financial model are:

-) The revenue from application fees becomes zero
-) Payment Transaction Fees become zero
-) No Payment reconciliation processes are required, resulting in no requirement for Office Agents 1 (Finance/Payments) and resulting reduction in staff costs.

This scenario has been modelled in Appendix B, which is based on Appendix A with the adjustments as indicated above. The results of this scenario on the Baseline Implementation plan are considerable and are shown in the table below



No Application Fee Scenario

(R 000's)

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Assumptions and Resourcing							
Project Phase	Transition period	Key operations	Testing / Skeleton	Launch	1st Roll out	2nd Roll out	Fully operational
Applications Received	-	-	-	100,000	200,000	400,000	600,000
CAS Human Resources	-	6	20	69	101	153	183
Income Statement							
Total Income	-	-	-	-	-	-	-
Application Fee Income	-	-	-	-	-	-	-
Grant and Seed Funding	-	-	-	-	-	-	-
Expenditure	782	9,286	37,664	61,165	75,103	100,709	118,568
Staff Cost	-	3,200	11,668	29,701	42,369	62,898	76,743
Other Operating Costs	782	6,087	25,995	31,463	32,734	37,811	41,825
Net Income/(Loss)	(782)	(9,286)	(37,664)	(61,165)	(75,103)	(100,709)	(118,568)
Opening Retained Income		(782)	(10,069)	(47,732)	(108,897)	(184,000)	(284,709)
Cumulative Net Income/(Loss)	(782)	(10,069)	(47,732)	(108,897)	(184,000)	(284,709)	(403,277)
Cashflow							
Net Cash Flow	(7,303)	(40,318)	(57,149)	(57,763)	(65,415)	(94,086)	(112,457)
Opening Balance	-	(7,303)	(47,621)	(104,769)	(162,532)	(227,947)	(322,033)
Closing Balance	(7,303)	(47,621)	(104,769)	(162,532)	(227,947)	(322,033)	(434,490)
Balance Sheet							
Fixed Assets	6,520	37,552	57,037	53,635	43,947	37,324	31,213
Current Assets - Cash	(7,303)	(47,621)	(104,769)	(162,532)	(227,947)	(322,033)	(434,490)
Total Assets	(782)	(10,069)	(47,732)	(108,897)	(184,000)	(284,709)	(403,277)
Total Equity and Liabilities	(782)	(10,069)	(47,732)	(108,897)	(184,000)	(284,709)	(403,277)

At steady state in 2022/23, the Operating Expenditure and corresponding Net Loss is R119m. The accumulated Net Loss at the end of that financial year is R403m and can be expected to grow by R119m plus inflation in the following years.

Funding requirements will have reached R435m by 2022/23 and ongoing funding will follow the operating losses closely (the difference being the depreciation of software development).

9 Using The Model

The financial feasibility model consist of linked worksheets that can be updated as new information becomes available or if the need arises to test a new scenario for the implementation of the DHET CAS.

Specific cells (blue text) can be changed that will result in the update of all the worksheets using that assumption and ultimate result in an update of the financials, i.e. Income Statement, Cash Flow and Balance Sheet.

10 Printing the Report

A complete set of the model can be printed by selecting the “Entire workbook” option in the Microsoft Excel print task. Individual worksheets can be printed using the “Active Sheet(s)” option.

11 Conclusion

This report together with the supporting financial feasibility model present the cost estimates for the establishment and operations of the CAS. The model has been developed against the baseline implementation approach. In addition a number of alternative scenarios have been developed against the baseline, namely:

-) An aggressive implementation approach;
-) A baseline implementation approach with transitional arrangements; and
-) A no application fee scenario.

The implications of the baseline scenario indicates that the CAS can achieve its self-funding objective, probably in at least the fourth year of rollout of operations and once it reaches in the order of 600 000 applications.

The scenario also indicate the seed and grant funding requirements spread over the first five to six years of the establishment of the CAS. Under the baseline scenario, the CAS will require a maximum grant funding of approximately R172 million spread relatively evenly over the period. A budgeted seed funding of R60 million per annum for the four financial years from 2016/2017 to 2019/2020 would provide for the funding and cash flow requirements of the CAS under this scenario.

The aggressive implementation scenario does not have a material difference to the end state financial feasibility of the CAS, other than accelerating the funding requirements.

The baseline implementation scenario with transitional arrangements does not have a material difference to the baseline scenario.

The no application fee indicates a significantly higher requirement for funding that continues beyond the timeframe of the financial model presented here.



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Central Application Service
Enterprise Architecture
Chapter 11 – Financial Model
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APPENDICES



A. Baseline Financial Feasibility Model

The Baseline Financial Feasibility Model is contained in a separate Excel spreadsheet document and is appended at the end of this chapter.



B. No Application Fees Financial Feasibility Model

The No Application Fees Financial Feasibility Model is contained in a separate Excel spreadsheet document and is appended at the end of this chapter.



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Department of Higher Education and Training - CAS

Financial Feasibility Model

Version - Final Draft V8

Baseline Implementation Scenario

(Appendix A to Chapter 11 of the Consolidated CAS Enterprise Architecture)

February 2016

Department of Higher Education and Training - CAS

Financial Feasibility Model

Appendix A to Chapter 11 of the consolidated CAS Enterprise Architecture
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Notes

Disclaimer :The results calculated by the model are based on assumptions concerning future events. Actual events may differ substantially from the assumptions and the impact on the results calculated by the model may be material. Accordingly, no opinion is expressed on the output of the financial model. No Audit has been conducted and no opinion is expressed on the reliability of the information provided

Department of Higher Education and Training - CAS Key Assumptions

Baseline Implementation Scenario

Inflation rate per annum

6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
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Application Assumptions

Application Fee (R')

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Application Fee	R 200	212	225	238	252	268	284
Application Fee (Rounded)	R 200	210	225	240	250	270	285
Exl VAT value	R 175.44	R 184.21	R 197.37	R 210.53	R 219.30	R 236.84	R 250.00

Application Volumes

Phase 1	-	-	-	100,000	100,000	100,000	150,000
Phase 2	-	-	-	-	100,000	100,000	150,000
Phase 3	-	-	-	-	-	100,000	150,000
Phase 4	-	-	-	-	-	100,000	150,000
Phase 5	-	-	-	-	-	-	-
Phase 6	-	-	-	-	-	-	-
Phase 7	-	-	-	-	-	-	-
Phase 8	-	-	-	-	-	-	-
Phase 9	-	-	-	-	-	-	-
Total Application Volumes	-	-	-	100,000	200,000	400,000	600,000

Application Pfee Income

Phase 1	-	-	-	21,052,632	21,929,825	23,684,211	37,500,000
Phase 2	-	-	-	-	21,929,825	23,684,211	37,500,000
Phase 3	-	-	-	-	-	23,684,211	37,500,000
Phase 4	-	-	-	-	-	23,684,211	37,500,000
Phase 5	-	-	-	-	-	-	-
Phase 6	-	-	-	-	-	-	-
Phase 7	-	-	-	-	-	-	-
Phase 8	-	-	-	-	-	-	-
Phase 9	-	-	-	-	-	-	-
Total income for year	-	-	-	21,052,632	43,859,649	94,736,842	150,000,000

Seed Funding Assumptions

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Seed Funding Source 1	-	-	-	-	-	-	-
Seed Funding Source 2	-	-	-	-	-	-	-
Seed Funding Source 3	-	-	-	-	-	-	-
Seed Funding Source 4	-	-	-	-	-	-	-
Seed Funding Source 5	-	-	-	-	-	-	-
Seed Funding Source 6	-	-	-	-	-	-	-
Seed Funding Source 7	-	-	-	-	-	-	-
Seed Funding Source 8	-	-	-	-	-	-	-
Seed Funding Source 9	-	-	-	-	-	-	-
Seed Funding Source 10	-	-	-	-	-	-	-

Grant Funding Assumptions

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Grant Funding Source 1	-	-	-	-	-	-	-
Grant Funding Source 2	-	-	-	-	-	-	-
Grant Funding Source 3	-	-	-	-	-	-	-
Grant Funding Source 4	-	-	-	-	-	-	-
Grant Funding Source 5	-	-	-	-	-	-	-
Grant Funding Source 6	-	-	-	-	-	-	-
Grant Funding Source 7	-	-	-	-	-	-	-
Grant Funding Source 8	-	-	-	-	-	-	-
Grant Funding Source 9	-	-	-	-	-	-	-
Grant Funding Source 10	-	-	-	-	-	-	-

Department of Higher Education and Training - CAS

Key Assumptions

Baseline Implementation Scenario

Operating Expenditure Assumptions

		2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Advertising campaigns	Per 100,000 apps							
Call Centre communications	% Call Centre staff cost	20%	20%	20%	20%	20%	20%	20%
Call Centre accommodation & other	% Call Centre staff cost	20%	20%	20%	20%	20%	20%	20%
Call Centre peak time staff	Dble perm staff for 2 mths	17%	17%	17%	17%	17%	17%	17%
Computer services	% Total staff cost	2.5%	3%	3%	3%	3%	3%	3%
Communication campaigns	No of campaigns p.a	24	24	24	24	24	24	24
Consultants/Contractors	Fixed budget p.a							
Internal Audit (as a service)	Fixed budget p.a							
IT Hosting fee	Per IT expenditure table							
IT Network communications	Per IT expenditure table							
IT Application support	% development cost	12.0%	12%	12%	12%	12%	12%	12%
Office space (incl. shared space)	Sqm per non CC staff							
Office communications	Fixed est per non CC staff							
Consumables	% total staff cost	1.0%	1%	1%	1%	1%	1%	1%
Travelling & Accommodation	Fixed est per Exec + M&O	1.0%	1%	1%	1%	1%	1%	1%
Outreach programmes	Per 100,000 apps							
Handbook production & distribution	Fixed ratio to Outreach exp	10.0%	10%	10%	10%	10%	10%	10%
Sundry office expenses	% total staff cost	5.0%	5%	5%	5%	5%	5%	5%
Payment Transaction Fees	% of application fees	3.0%	3%	3%	3%	3%	3%	3%

	Base Values	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Advertising campaigns	R 100,000	-	-	-	119,102	252,495	535,290	851,111
Call Centre communications		-	-	-	678,740	1,127,549	1,999,129	2,633,835
Call Centre accommodation & other		-	-	-	678,740	1,127,549	1,999,129	2,633,835
Call Centre peak time staff		-	-	-	565,616	939,624	1,665,941	2,194,862
Computer services		-	79,994	298,127	762,964	1,095,320	1,648,963	2,024,010
Communication campaigns	R 25,000	-	636,000	674,160	714,610	757,486	802,935	851,111
Consultants/Contractors	R 500,000	-	530,000	561,800	595,508	631,238	669,113	709,260
Internal Audit (as a service)	R 500,000	-	-	-	595,508	631,238	669,113	709,260
IT Hosting fee	See below	-	-	768,542	814,655	863,534	915,346	970,267
IT Network communications	See below	-	-	566,294	600,272	636,288	674,466	714,934
IT Application support		782,448	4,459,317	8,452,400	9,401,044	9,401,044	9,401,044	9,401,044
Office space (incl. shared space)	R 5,760	-	36,634	135,911	404,755	618,109	978,939	1,233,771
Office communications	R 1,800	-	11,448	42,472	126,486	193,159	305,918	385,553
Consumables		-	31,998	119,251	305,186	438,128	659,585	809,604
Travelling & Accommodation		-	10,624	60,474	126,411	186,988	254,378	299,412
Outreach programmes	R 500,000	-	-	-	595,508	1,262,477	2,676,451	4,255,557
Handbook production & distribution		-	-	-	59,551	126,248	267,645	425,556
Sundry office expenses		-	159,989	596,254	1,525,928	2,190,641	3,297,927	4,048,020
Payment Transaction Fees		-	-	-	631,579	1,315,789	2,842,105	4,500,000
Total Operational Cost per Financial Year		782,448	5,956,003	12,275,684	19,302,162	23,794,906	32,263,418	39,651,002

Information Technology Expenditure

	Base Values	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Hosting Fees								
Virtual servers, 12 TB storage & OS mngmnt X 6	R 288,000	-	-	323,597	343,013	363,593	385,409	408,534
DB Management	R 24,000	-	-	26,966	28,584	30,299	32,117	34,044
Middleware management	R 24,000	-	-	26,966	28,584	30,299	32,117	34,044
Active directory management	R 60,000	-	-	67,416	71,461	75,749	80,294	85,111
Firewall	R 60,000	-	-	67,416	71,461	75,749	80,294	85,111
Data recovery	25%	-	-	512,362	543,103	575,689	610,231	646,845
Contingency	20%	-	-	128,090	135,776	143,922	152,558	161,711
		-	-	640,452	678,879	719,612	762,789	808,556
		-	-	128,090	135,776	143,922	152,558	161,711
		-	-	768,542	814,655	863,534	915,346	970,267
Network Communications								
Fibre VPN to DC	R 120,000	-	-	134,832	142,922	151,497	160,587	170,222
Fibre VPN to DR DC	R 60,000	-	-	67,416	71,461	75,749	80,294	85,111
Fibre to internet	R 60,000	-	-	67,416	71,461	75,749	80,294	85,111

Department of Higher Education and Training - CAS

Key Assumptions

Baseline Implementation Scenario

Regional fibre to internet x 5	R	180,000		202,248	214,383	227,246	240,881	255,333
			-	471,912	500,227	530,240	562,055	595,778
Contingency		20%		94,382	100,045	106,048	112,411	119,156
			-	566,294	600,272	636,288	674,466	714,934

Department of Higher Education and Training - CAS

Key Assumptions

Baseline Implementation Scenario

Human Resource Assumptions

Phase in planning	Fin Year	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Transition period	2016/2017	Transition period						
Key operations	2017/2018		Key operations					
Testing / Skeleton	2018/2019			Testing / Skeleton				
Launch	2019/2020				Launch			
1st Roll out	2020/2021					1st Roll out		
2nd Roll out	2021/2022						2nd Roll out	
Fully operational	2022/2023							Fully operational

Key Notes:

- The baseline remuneration is based on PERSAL remuneration tables per DPSA Circular 1 (Levels 13 - 16) and 2 (Levels 1 -12) of 2014, effective 1 April 2014. This was inflated by 6% per annum to get to a baseline remuneration, effective 1 April 2016. The average in each scale band were used in the projections.
- The average remuneration inflation over the projected period is estimated at 6%. This is a variable field.
- Each position in the Organisation Structure of the CAS has been allocated a PERSAL grade in order to link it to a remuneration value for the post. This is done in column B on the Staff Cost worksheet. It is a variable field that can be changed to result in an update of the Remuneration Table. (Note: A public entity remuneration offerings are determined by the Board of the entity, subject to Treasury and DPSA guidelines).
- The latest Draft Project Plan is used to estimate when staff will be required to be on board over the first 7 years. These are indicated in the "Ave FTE" column in the Staff Cost worksheet for each financial year. This is a variable field that can be changed to result in an update of the Remuneration Table.
- The staffing levels were estimated using the Full Time Equivalent (FTE) concept that allows for the phase in of staff members without building multiple period intervals in a year. A 0.5 FTE indicates that that position should be filled in the middle of a financial year, while a 2.00 FTE indicate that the equivalent of two staff members will fill that position over the full financial year.

Pay Scale Level	PERSAL	Total CTC	Cash	Housing	Pension	13th Cheque	Medical Aid
Top management	16	1,875,933	1,875,933				
	15	1,435,649	1,435,649				
Senior management	14	1,218,893	1,218,893				
	13	1,002,267	1,002,267				
Professionally qualified, experienced specialists & mid-management	12	770,292	770,292				
	11	649,964	649,964				
	10	532,263	412,722	16,200	31,748	34,393	37,200
	9	440,352	333,505	16,200	25,654	27,792	37,200
Skilled technical & academically qualified workers, junior management, supervisors, foreman & superintendents	8	376,148	278,170	16,200	21,398	23,181	37,200
	7	313,292	223,995	16,200	17,230	18,666	37,200
	6	263,913	181,436	16,200	13,957	15,120	37,200
Semi-skilled & discretionary decision-making	5	228,710	151,096	16,200	11,623	12,591	37,200
	4	198,214	126,376	16,200	9,721	10,531	35,385
	3	169,791	106,642	16,200	8,203	8,887	29,860
Unskilled & defined decision making	2	144,664	89,195	16,200	6,861	7,433	24,975
	1	129,265	78,503	16,200	6,039	6,542	21,981

Benefits for Grade 1 - 10:

- Housing - R1,200 pm in 2014 = R16,200 in 2016
- Pension (Salary/13)
- 13th cheque (Salary/12)
- Medical aid = 28% with maximum of R2,760 pm in 2014 = R37,200 in 2016

Department of Higher Education and Training - CAS

Key Assumptions

Baseline Implementation Scenario

Staff Level Benchmark Assumptions

Staffing Levels	CAO	UCAS	Ireland	DHET CAS	DHET CAS	DHET CAS	DHET CAS
Application Volumes	100,000			100,000	200,000	400,000	600,000
Online	40,000			80,000	170,000	360,000	570,000
Hardcopy	60,000			20,000	30,000	40,000	30,000
% online				80%	85%	90%	95%
Executive Structure	-	-	-	-	-	-	-
Operations	-	-	-	-	-	-	-
Call Centre	-	-	-	-	-	-	-
Human Resources	-	-	-	-	-	-	-
Finance	-	-	-	-	-	-	-
Supply Chain	-	-	-	-	-	-	-
IT & Business Intelligence	-	-	-	-	-	-	-
Marketing and Outreach	-	-	-	-	-	-	-
Admin Support	-	-	-	-	-	-	-
Total Staff	-	-	-	-	-	-	-
Staff per 100,000 applications							

Workload Assessment Assumptions

Staff levels:	KZN CAO	Finding	Required	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Processing Efficiency Factor						90%	90%	90%
Call Centre Efficiency Factor						85%	85%	85%
Document management	6	Adequate	6		2.0	3.0	3.0	2.0
Payment checking and logging	3	Adequate	3		3.0	5.0	10.0	13.0
Data capture	11	Adequate	11		4.0	5.0	6.0	4.0
E-Communication	7	Not adequate	8		8.0	14.0	26.0	35.0
Call Centre	10	Not adequate	12		12.0	20.0	35.0	44.0

Note on staff forecast:

The Scan And Data Capture Agents are not forecasted linear to the increase in volumes from 2021/2022 as it is assumed that improved efficiencies and an increase in electronic submissions will reduce the need for these positions
Staff volumes using KZN CAO volumes of just under 100,000 applications in 2013 and Workload Assessment exercise done

Department of Higher Education and Training - CAS

Financials

Baseline Implementation Scenario

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Income Statement							
Total Income	-	-	-	21,052,632	43,859,649	94,736,842	150,000,000
Application Fee Income	-	-	-	21,052,632	43,859,649	94,736,842	150,000,000
Seed Funding	-	-	-	-	-	-	-
Grant Funding	-	-	-	-	-	-	-
Expenditure	782,448	9,286,407	37,954,315	62,719,699	78,047,073	107,003,432	127,818,188
Staff Cost	-	3,199,770	11,925,072	30,518,558	43,812,815	65,958,538	80,960,395
Advertising campaigns	-	-	-	119,102	252,495	535,290	851,111
Call Centre communications	-	-	-	678,740	1,127,549	1,999,129	2,633,835
Call Centre accommodation & other	-	-	-	678,740	1,127,549	1,999,129	2,633,835
Call Centre peak time staff	-	-	-	565,616	939,624	1,665,941	2,194,862
Computer services	-	79,994	298,127	762,964	1,095,320	1,648,963	2,024,010
Communication campaigns	-	636,000	674,160	714,610	757,486	802,935	851,111
Consultants/Contractors	-	530,000	561,800	595,508	631,238	669,113	709,260
Internal Audit (as a service)	-	-	-	595,508	631,238	669,113	709,260
IT Hosting fee	-	-	768,542	814,655	863,534	915,346	970,267
IT Application support	782,448	4,459,317	8,452,400	9,401,044	9,401,044	9,401,044	9,401,044
Office space (incl. shared space)	-	36,634	135,911	404,755	618,109	978,939	1,233,771
Office communications	-	11,448	42,472	126,486	193,159	305,918	385,553
Consumables	-	31,998	119,251	305,186	438,128	659,585	809,604
Travelling & Accommodation	-	10,624	60,474	126,411	186,988	254,378	299,412
Outreach programmes	-	-	-	595,508	1,262,477	2,676,451	4,255,557
Handbook production & distribution	-	-	-	59,551	126,248	267,645	425,556
Sundry office expenses	-	159,989	596,254	1,525,928	2,190,641	3,297,927	4,048,020
Payment Transaction Fees	-	-	-	631,579	1,315,789	2,842,105	4,500,000
Depreciation	-	130,634	14,319,854	13,499,252	11,075,640	9,455,942	7,921,725
Net Income/(Loss)	(782,448)	(9,286,407)	(37,954,315)	(41,667,068)	(34,187,424)	(12,266,590)	22,181,812
Opening Retained Income		(782,448)	(10,068,855)	(48,023,171)	(89,690,238)	(123,877,662)	(136,144,252)
Cumulative Net Income/(Loss)	(782,448)	(10,068,855)	(48,023,171)	(89,690,238)	(123,877,662)	(136,144,252)	(113,962,440)
Breakeven application Volumes							
Forecast Applications Volumes	-	-	-	100,000	200,000	400,000	600,000
Calculated breakeven Volumes	4,460	50,412	192,302	297,919	355,895	451,792	511,273
Net Application volumes (Shortfall) / Surplus	(4,460)	(50,412)	(192,302)	(197,919)	(155,895)	(51,792)	88,727

Department of Higher Education and Training - CAS

Baseline Implementation Scenario

Financials

Cash Flow Forecasts

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Cash Inflows	-	-	-	21,052,632	43,859,649	94,736,842	150,000,000
Application Fee Income	-	-	-	21,052,632	43,859,649	94,736,842	150,000,000
Seed Funding	-	-	-	-	-	-	-
Grant Funding	-	-	-	-	-	-	-
Cash Outflows	7,302,848	40,317,865	57,449,485	59,336,342	68,375,308	100,430,028	121,723,516
Staff cost	-	3,199,770	11,925,072	30,518,558	43,812,815	65,958,538	80,960,395
Operational Expenditure	782,448	5,956,003	11,709,390	18,701,889	23,158,618	31,588,953	38,936,068
Capital Expenditure	6,520,400	31,162,092	33,815,023	10,115,894	1,403,874	2,882,538	1,827,053
Net Cash Flow	(7,302,848)	(40,317,865)	(57,449,485)	(38,283,711)	(24,515,658)	(5,693,186)	28,276,484
Opening Balance	-	(7,302,848)	(47,620,713)	(105,070,197)	(143,353,908)	(167,869,566)	(173,562,753)
Closing Balance	(7,302,848)	(47,620,713)	(105,070,197)	(143,353,908)	(167,869,566)	(173,562,753)	(145,286,269)

Balance Sheet

Fixed Assets	6,520,400	37,551,858	57,047,027	53,663,670	43,991,904	37,418,501	31,323,829
Software Development	6,520,400	37,160,972	56,349,334	51,403,762	41,123,009	32,898,408	26,318,726
Computer Equipment individuals	-	34,090	113,177	318,415	389,277	562,077	559,070
Computer Equipment central	-	333,900	503,235	466,752	350,064	413,099	416,213
Office Furniture & Fittings	-	22,896	81,281	236,084	330,643	499,919	572,487
Call Centre Equipment	-	-	-	1,238,657	1,798,911	3,044,999	3,457,333
Current Assets	(7,302,848)	(47,620,713)	(105,070,197)	(143,353,908)	(167,869,566)	(173,562,753)	(145,286,269)
Cash	(7,302,848)	(47,620,713)	(105,070,197)	(143,353,908)	(167,869,566)	(173,562,753)	(145,286,269)
Total Assets	(782,448)	(10,068,855)	(48,023,171)	(89,690,238)	(123,877,662)	(136,144,252)	(113,962,440)
Equity	(782,448)	(10,068,855)	(48,023,171)	(89,690,238)	(123,877,662)	(136,144,252)	(113,962,440)
Retained Earnings	(782,448)	(10,068,855)	(48,023,171)	(89,690,238)	(123,877,662)	(136,144,252)	(113,962,440)
Current Liabilities	-	-	-	-	-	-	-
Non-Current Liabilities	-	-	-	-	-	-	-
Total Equity and Liabilities	(782,448)	(10,068,855)	(48,023,171)	(89,690,238)	(123,877,662)	(136,144,252)	(113,962,440)

**Department of Higher Education and Training - CAS
Staff Cost**

Baseline Implementation Scenario

Est remuneration inflation	6.0%	2016		Transition FY 2016/2017		Key operations FY 2017/2018		Testing/Skeleton FY 2018/2019		Launch FY 2019/2020		1st Roll out FY 2020/2021		2nd Roll out FY 2021/2022		Fully operational FY 2022/2023		
	Scale	Baseline	Ave FTE's	Total Cost	Ave FTE's	Total Cost	Ave FTE's	Total Cost	Ave FTE's	Total Cost	Ave FTE's	Total Cost	Ave FTE's	Total Cost	Ave FTE's	Total Cost	Ave FTE's	Total Cost
DHET CAS Positions:																		
Executive Structure																		
Chief Executive Officer	15	1,435,649	-	-	-	-	1.0	1,613,095	1.0	1,709,881	1.0	1,812,474	1.0	1,921,222	1.0	2,036,496		
Chief Operating Officer	14	1,218,893	-	-	-	-	1.0	1,369,548	1.0	1,451,721	1.0	1,538,824	1.0	1,631,154	1.0	1,729,023		
Chief Financial Officer	14	1,218,893	-	-	-	-	1.0	1,369,548	1.0	1,451,721	1.0	1,538,824	1.0	1,631,154	1.0	1,729,023		
IT Executive	13	1,002,267	-	1.0	1,062,403	1.0	1,126,147	1.0	1,193,716	1.0	1,265,339	1.0	1,341,259	1.0	1,421,735			
Marketing & Outreach Executive	12	770,292	-	-	-	-	1.0	865,500	1.0	917,430	1.0	972,476	1.0	1,030,824	1.0	1,092,674		
PPM Executive	12	770,292	-	-	-	-	1.0	865,500	1.0	917,430	1.0	972,476	1.0	1,030,824	1.0	1,092,674		
		6,416,286	-	-	1	1,062,403	4.0	4,974,291	6.0	7,641,899	6.0	8,100,413	6.0	8,586,438	6.0	9,101,624		
Operations																		
Applications Handling Manager	10	532,263	-	1.0	564,199	1.0	598,051	1.0	633,934	1.0	671,970	1.0	712,288	1.0	755,026			
Communications Manager	10	532,263	-	-	-	-	-	-	1.0	671,970	1.0	712,288	1.0	755,026				
Referrals/CH Manager	10	532,263	-	-	-	-	-	-	1.0	671,970	1.0	712,288	1.0	755,026				
Office Agents 1 (Finance/Payments)	5	228,710	-	-	-	-	1.0	256,978	3.0	817,190	5.0	1,443,703	10.0	3,060,650	13.0	4,217,576		
Office Agents 2 (Advice)	4	198,214	-	-	-	-	-	-	1.0	236,076	2.0	500,481	4.0	1,061,020	8.0	2,249,362		
Scan Capture	4	198,214	-	-	-	-	1.0	222,713	2.0	472,152	3.0	750,722	3.0	795,765	2.0	562,341		
Data Capture Agents	4	198,214	-	-	-	-	1.0	222,713	4.0	944,304	5.0	1,251,203	6.0	1,591,530	4.0	1,124,681		
Validations Agents (Inc Call Centre)	4	198,214	-	-	-	-	-	-	-	-	-	-	-	-	-			
Communications Agents	4	198,214	-	-	-	-	-	-	8.0	1,888,608	14.0	3,503,367	26.0	6,896,629	35.0	9,840,959		
Referrals/CH Agents	5	228,710	-	-	-	-	1.0	272,397	2.0	577,481	2.0	577,481	4.0	1,224,260	6.0	1,946,573		
		3,045,278	-	-	1	564,199	4.0	1,300,455	21.0	5,898,595	34.0	10,042,867	56.0	16,766,718	71.0	22,206,569		
Call Centre																		
Call Centre Manager	9	440,352	-	-	-	-	-	-	1.0	524,466	1.0	555,934	1.0	589,290	1.0	624,647		
Call Centre Agents 1	5	228,710	-	-	-	-	-	-	1.0	272,397	2.0	577,481	3.0	918,195	4.0	1,297,716		
Call Centre Agents 2	4	198,214	-	-	-	-	-	-	11.0	2,596,836	18.0	4,504,330	32.0	8,488,159	40.0	11,246,811		
		867,275	-	-	-	-	-	-	13.0	3,393,699	21.0	5,637,745	36.0	9,995,644	45.0	13,169,174		
Human Resources																		
HR Manager	10	532,263	-	-	-	-	-	-	1.0	633,934	1.0	671,970	1.0	712,288	1.0	755,026		
HR Administrator	7	313,292	-	-	-	-	1.0	352,015	2.0	746,271	2.0	791,048	3.0	1,257,766	3.0	1,333,232		
		845,555	-	-	-	-	1.0	352,015	3.0	1,380,205	3.0	1,463,018	4.0	1,970,054	4.0	2,088,257		
Finance																		
Finance Manager	11	649,964	-	-	-	-	1.0	730,300	1.0	774,118	1.0	820,565	1.0	869,799	1.0	921,987		
Financial Accountant	10	532,263	-	-	-	-	-	-	1.0	633,934	1.0	671,970	1.0	712,288	1.0	755,026		
Accountant GL & FA	9	440,352	-	1.0	466,773	1.0	494,779	1.0	524,466	1.0	555,934	2.0	1,178,580	2.0	1,249,295			
AR & Cashbook Clerk	8	376,148	-	-	-	-	-	-	1.0	447,998	1.0	474,878	2.0	1,006,742	2.0	1,067,147		
Senior Clerk Payroll	8	376,148	-	-	-	-	-	-	1.0	447,998	1.0	474,878	1.0	503,371	1.0	533,573		
		2,374,875	-	-	1	466,773	2.0	1,225,079	5.0	2,828,515	5.0	2,998,225	7.0	4,270,780	7.0	4,527,027		
Supply Chain																		
Supply Chain Manager	10	532,263	-	-	-	-	-	-	1.0	633,934	1.0	671,970	1.0	712,288	1.0	755,026		
Procurement Officer	8	376,148	-	-	-	-	1.0	422,640	1.0	447,998	1.0	474,878	1.0	503,371	1.0	533,573		
		908,411	-	-	-	-	1.0	422,640	2.0	1,081,932	2.0	1,146,848	2.0	1,215,659	2.0	1,288,599		
IT & Business Intelligence																		
CAS Systems Administrator	10	532,263	-	1.0	564,199	1.0	598,051	1.0	633,934	1.0	671,970	2.0	1,424,576	2.0	1,510,051			
CAS BI Analyst/M&E Specialist	9	440,352	-	-	-	-	1.0	494,779	1.0	524,466	1.0	555,934	2.0	1,178,580	2.0	1,249,295		
IT Support Technician	7	313,292	-	1.0	332,089	1.0	352,015	1.0	373,136	1.0	395,524	2.0	838,511	3.0	1,333,232			
System Training Lead	8	376,148	-	-	-	-	1.0	422,640	1.0	447,998	1.0	474,878	1.0	503,371	1.0	533,573		
System Trainer	6	263,913	-	-	-	-	1.0	296,532	1.0	314,324	2.0	666,368	3.0	1,059,524	4.0	1,497,461		
		1,925,968	-	-	2	896,288	5.0	2,164,017	5.0	2,293,858	6.0	2,764,674	10.0	5,004,562	12.0	6,123,612		
Marketing and Outreach																		
Stakeholder Relations Manager	10	532,263	-	-	-	-	1.0	598,051	1.0	633,934	2.0	1,343,940	3.0	2,136,865	3.0	2,265,077		
Relationship Agents	7	313,292	-	-	-	-	-	-	5.0	1,865,679	10.0	3,955,239	15.0	6,288,830	15.0	6,666,159		
Outreach Manager	10	532,263	-	-	-	-	0.5	299,025	1.0	633,934	2.0	1,343,940	3.0	2,136,865	4.0	3,020,102		
Outreach Agents	7	313,292	-	-	-	-	0.5	176,007	5.0	1,865,679	10.0	3,955,239	15.0	6,288,830	20.0	8,888,213		
		1,691,110	-	-	-	-	2.0	1,073,084	12.0	4,999,225	24.0	10,598,358	36.0	16,851,389	42.0	20,839,551		
Admin Support																		
Secretary	4	198,214	-	1.0	210,107	1.0	222,713	2.0	472,152	2.0	500,481	2.0	530,510	2.0	562,341			
Reception	3	169,791	-	-	-	-	1.0	190,778	1.0	202,224	1.0	214,358	1.0	227,219	2.0	481,705		
Driver	2	144,664	-	-	-	-	-	-	1.0	172,297	1.0	182,635	1.0	193,593	1.0	205,209		
Refreshments and Kitchen staff	1	129,265	-	-	-	-	-	-	1.0	153,956	1.0	163,194	2.0	345,971	2.0	366,729		
		641,934	-	-	1	210,107	2.0	413,491	5.0	1,000,630	5.0	1,060,668	6.0	1,297,293	7.0	1,615,983		
Total Staff Cost per Financial Year		18,716,694	-	-	6	3,199,770	21.0	11,925,072	72.0	30,518,558	106.0	43,812,815	163.0	65,958,538	196.0	80,960,395		

Department of Higher Education and Training - CAS

Capital Outlay

Baseline Implementation Scenario

Estimated cost inflation		6.0%							
	Base Assumptions	Base	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Software Development									
Project Expenditure - Page 13			6,520,400	30,640,572	33,275,695	7,905,369	-	-	-
			6,520,400	30,640,572	33,275,695	7,905,369	-	-	-
Opening				6,520,400	37,160,972	56,349,334	51,403,762	41,123,009	32,898,408
Additions			6,520,400	30,640,572	33,275,695	7,905,369	-	-	-
Depreciation		20%	-	-	14,087,333	12,850,940	10,280,752	8,224,602	6,579,682
Closing			6,520,400	37,160,972	56,349,334	51,403,762	41,123,009	32,898,408	26,318,726
Computer Equipment individuals									
Non CC staff number increase			-	6	15	38	26	42	24
Cumulative non CC staff			-	6	21	59	85	127	151
Average per new staff member			8,000						
			-	50,880	134,832	362,069	262,595	449,644	272,356
Opening				-	34,090	113,177	318,415	389,277	562,077
Additions			-	50,880	134,832	362,069	262,595	449,644	272,356
Depreciation		33%	-	16,790	55,744	156,831	191,733	276,844	275,363
Closing			-	34,089.6	113,177.5	318,415.0	389,276.9	562,076.8	559,069.8
Computer Equipment central									
High Speed Printers	100,000	per 50 staff		106,000		119,102		133,823	141,852
High Speed Scanners	50,000	per 5 Scan			56,180			66,911	
Network Equipment	100,000			106,000					
File Server	120,000			127,200					
Mail Server	100,000			106,000					
Additional Server	100,000				112,360				
Storage System	150,000				168,540				
			-	445,200	337,080	119,102	-	200,734	141,852
Opening				-	333,900	503,235	466,752	350,064	413,099
Additions			-	445,200	337,080	119,102	-	200,734	141,852
Depreciation		25%	-	111,300	167,745	155,584	116,688	137,700	138,738
Closing			-	333,900	503,235	466,752	350,064	413,099	416,213

Department of Higher Education and Training - CAS

Capital Outlay

Baseline Implementation Scenario

Estimated cost inflation		6.0%								
		Base Assumptions	Base	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Office Furniture & Fittings										
Average per new staff member	4,000			-	25,440	67,416	181,034	131,298	224,822	136,178
Opening				-	-	22,896	81,281	236,084	330,643	499,919
Additions				-	25,440	67,416	181,034	131,298	224,822	136,178
Depreciation		10%		-	2,544	9,031	26,232	36,738	55,547	63,610
Closing				-	22,896	81,281	236,084	330,643	499,919	572,487
Call Centre Equipment										
Call Centre Staff appointments				-	-	-	13	8	15	9
Total cost per seat	100,000			-	-	-	1,548,321	1,009,982	2,007,338	1,276,667
Opening				-	-	-	-	1,238,657	1,798,911	3,044,999
Additions				-	-	-	1,548,321	1,009,982	2,007,338	1,276,667
Depreciation		20%		-	-	-	309,664	449,728	761,250	864,333
Closing				-	-	-	1,238,657	1,798,911	3,044,999	3,457,333
Total Capital Outlay										
Opening				-	6,520,400	37,551,858	57,047,027	53,663,670	43,991,904	37,418,501
Additions				6,520,400	31,162,092	33,815,023	10,115,894	1,403,874	2,882,538	1,827,053
Depreciation				-	130,634	14,319,854	13,499,252	11,075,640	9,455,942	7,921,725
Closing				6,520,400	37,551,858	57,047,027	53,663,670	43,991,904	37,418,501	31,323,829
Depreciation										
Cumulative Value										
Software Development				6,520,400	37,160,972	70,436,667	78,342,036	78,342,036	78,342,036	78,342,036
Computer Equipment individuals				-	50,880	185,712	547,781	810,376	1,260,020	1,532,376
Computer Equipment central				-	445,200	782,280	901,382	901,382	1,102,115	1,243,967
Office Furniture & Fittings				-	25,440	92,856	273,890	405,188	630,010	766,188
Call Centre Equipment				-	-	-	1,548,321	2,558,302	4,565,641	5,842,308
Total asset value				6,520,400	37,682,492	71,497,515	81,613,409	83,017,284	85,899,822	87,726,874
Depreciation										
Software Development	20%			-	-	14,087,333	12,850,940	10,280,752	8,224,602	6,579,682
Computer Equipment individuals	33%			-	16,790	55,744	156,831	191,733	276,844	275,363
Computer Equipment central	25%			-	111,300	167,745	155,584	116,688	137,700	138,738
Office Furniture & Fittings	10%			-	2,544	9,031	26,232	36,738	55,547	63,610
Call Centre Equipment	20%			-	-	-	309,664	449,728	761,250	864,333
Total annual depreciation				-	130,634	14,319,854	13,499,252	11,075,640	9,455,942	7,921,725

Department of Higher Education and Training - CAS Payroll

Baseline Implementation Scenario

Salary level	No.	6%		6%		Average	Salary level	No.	1 April 2014 (Rpa)		1 April 2015 (Rpa)		1 April 2016 (Rpa)		Average	Salary level	No.	1 April 2014 (Rpa)		1 April 2015 (Rpa)		1 April 2016 (Rpa)		Average		
		1 April 2014 (Rpa)	1 April 2015 (Rpa)	1 April 2016 (Rpa)	1 April 2016 (Rpa)				1 April 2014 (Rpa)	1 April 2015 (Rpa)	1 April 2016 (Rpa)	1 April 2016 (Rpa)	1 April 2014 (Rpa)	1 April 2015 (Rpa)				1 April 2016 (Rpa)	1 April 2016 (Rpa)							
1	1	67,806	71,874	76,187		78,503	4	1	103,494	109,704	116,286		126,376	7	1	183,438	194,444	206,111		223,995	10	1	337,998	358,278	379,775	
	2	68,814	72,943	77,319				2	105,048	111,351	118,032				2	186,192	197,364	209,205				2	343,062	363,646	385,464	
	3	69,855	74,046	78,489				3	106,620	113,017	119,798				3	188,985	200,324	212,344				3	348,213	369,106	391,252	
	4	70,896	75,150	79,659				4	108,222	114,715	121,598				4	191,820	203,329	215,529				4	353,433	374,639	397,117	
	5	71,967	76,285	80,862				5	109,842	116,433	123,418				5	194,694	206,376	218,758				5	358,734	380,258	403,074	
	6							6	111,495	118,185	125,276				6	197,616	209,473	222,041				6	364,116	385,963	409,121	
	7							7	113,169	119,959	127,157				7	200,577	212,612	225,368				7	369,576	391,751	415,256	
	8							8	114,864	121,756	129,061				8	203,589	215,804	228,753				8	375,120	397,627	421,485	
	9							9	116,583	123,578	130,993				9	206,640	219,038	232,181				9	380,748	403,593	427,808	
	10							10	118,332	125,432	132,958				10	209,739	222,323	235,663				10	386,457	409,644	434,223	
	11							11	120,111	127,318	134,957				11	212,886	225,659	239,199				11	392,256	415,791	440,739	
	12							12	121,911	129,226	136,979				12	216,084	229,049	242,792				12	398,139	422,027	447,349	
2	1	73,044	77,427	82,072		89,195.30	5	1	123,738	131,162	139,032		151,096	8	1	227,802	241,470	255,958		278,170	11	1	532,278	564,215	598,068	
	2	74,145	78,594	83,309				2	125,589	133,124	141,112				2	231,225	245,099	259,804				2	540,261	572,677	607,037	
	3	75,252	79,767	84,553				3	127,482	135,131	143,239				3	234,690	248,771	263,698				3	548,364	581,266	616,142	
	4	76,383	80,966	85,824				4	129,393	137,157	145,386				4	238,209	252,502	267,652				4	556,602	589,998	625,398	
	5	77,529	82,181	87,112				5	131,328	139,208	147,560				5	241,785	256,292	271,670				5	564,945	598,842	634,772	
	6	78,690	83,411	88,416				6	133,296	141,294	149,771				6	245,409	260,134	275,742				6	573,420	607,825	644,295	
	7	79,872	84,664	89,744				7	135,300	143,418	152,023				7	249,087	264,032	279,874				7	582,018	616,939	653,955	
	8	81,066	85,930	91,086				8	137,328	145,568	154,302				8	252,828	267,998	284,078				8	590,751	626,196	663,768	
	9	82,287	87,224	92,458				9	139,392	147,756	156,621				9	256,623	272,020	288,342				9	599,610	635,587	673,722	
	10	83,520	88,531	93,843				10	141,483	149,972	158,970				10	260,469	276,097	292,663				10	608,607	645,123	683,831	
	11	84,774	89,860	95,252				11	143,607	152,223	161,357				11	264,375	280,238	297,052				11	617,733	654,797	694,085	
	12	86,040	91,202	96,675				12	145,758	154,503	163,774				12	268,338	284,438	301,505				12	627,000	664,620	704,497	
3	1	87,330	92,570	98,124		106,641.72	6	1	148,584	157,499	166,949		181,436	9	1	270,804	287,052	304,275		333,505	12	1	630,822	668,671	708,792	
	2	88,644	93,963	99,600				2	150,819	159,868	169,460				2	274,860	291,352	308,833				2	640,287	678,704	719,426	
	3	89,973	95,371	101,094				3	153,075	162,260	171,995				3	278,979	295,718	313,461				3	649,887	688,880	730,213	
	4	91,320	96,799	102,607				4	155,370	164,692	174,574				4	283,164	300,154	318,163				4	659,631	699,209	741,161	
	5	92,694	98,256	104,151				5	157,701	167,163	177,193				5	287,412	304,657	322,936				5	669,534	709,706	752,288	
	6	94,083	99,728	105,712				6	160,068	169,672	179,852				6	291,729	309,233	327,787				6	679,578	720,353	763,574	
	7	95,493	101,223	107,296				7	162,474	172,222	182,556				7	296,100	313,866	332,698				7	689,769	731,155	775,024	
	8	96,927	102,743	108,907				8	164,907	174,801	185,290				8	300,537	318,569	337,683				8	700,119	742,126	786,654	
	9	98,376	104,279	110,535				9	167,376	177,419	188,064				9	305,049	323,352	342,753				9	710,613	753,250	798,445	
	10	99,855	105,846	112,197				10	169,890	180,083	190,888				10	309,627	328,205	347,897				10	721,275	764,552	810,425	
	11	101,361	107,443	113,889				11	172,446	182,793	193,760				11	314,271	333,127	353,115				11	732,093	776,019	822,580	
	12	102,873	109,045	115,588				12	175,023	185,524	196,656				12	318,984	338,123	358,410				12	743,076	787,661	834,920	

Top Management Full-Time SMS MEMBERS

Level	Ave High/Low		6%		6%	
	Salary 1 April 2014 (Rpa)	Salary 1 April 2015 (Rpa)	Salary 1 April 2016 (Rpa)	Salary 1 April 2016 (Rpa)	Salary 1 April 2016 (Rpa)	Salary 1 April 2016 (Rpa)
13	892,014	945,535	1,002,267	1,002,267		
14	1,084,811	1,149,899	1,218,893	1,218,893		
15	1,277,723	1,354,386	1,435,649	1,435,649		
16	1,669,574	1,769,748	1,875,933	1,875,933		

Department of Higher Education and Training - CAS

Baseline Implementation Scenario

Project Expenditure - Man days

Position and FTE's	Requirement Specification Phase		Design Phase		Build Phase		Launch Support	
	Jul 2016 - Sep 2016		Oct 2016 - Mar 2017		Jul 2017 - Dec 2018		Jan 2019 - Sept 2019	
	50		100		300		150	
Programme Director		0.25		0.50		0.50		0.20
PM Solution Development		0.50		1.00		1.00		0.30
PM Entity Establishment						0.60		0.20
PM Launch & Roll out						0.40		1.00
PM Service Partners				0.50		1.00		0.30
Business & Systems Analysts		2.00		2.00		2.00		0.50
Systems Analysts						2.00		0.50
Screen Developers						4.00		0.50
Workflow Developers						2.00		0.50
Integration Developers						4.00		0.50
Report Developers						2.00		0.50
Data Base Administrators						1.00		0.50
Testing Analysts						2.00		0.50
Finance & Supply Chain Consultants		0.10		0.20		0.50		0.50
HR & Payroll Consultants		0.10		0.20		0.50		0.50
Component Consultants:								
- Scanning				0.10		0.20		0.10
- Content Management				0.10		0.20		0.10
- Document Management				0.10		0.20		0.10
- SMS & email Services				0.10		0.20		0.10
- User Directory				0.10		0.20		0.10
- Content Centre				0.10		0.20		0.10
		3		5		25		8

Project Expenditure - Cost

Position and FTE's	Phase =>	Requirement Specification Phase		Design Phase		Build Phase		Launch Support	
		Jul 2016 - Sep 2016		Oct 2016 - Mar 2017		Jul 2017 - Dec 2018		Jan 2019 - Dec 2019	
Programme Director	R	16,000	200,000	848,000	2,696,640	571,688			
PM Solution Development	R	12,000	300,000	1,272,000	4,044,960	643,149			
PM Entity Establishment	R	10,000	-	-	2,022,480	357,305			
PM Launch & Roll out	R	8,000	-	-	1,078,656	1,429,219			
PM Service Partners	R	8,000	-	424,000	2,696,640	428,766			
Business & Systems Analysts	R	8,000	800,000	1,696,000	5,393,280	714,610			
Systems Analysts	R	8,000	-	-	5,393,280	714,610			
Screen Developers	R	6,000	-	-	8,089,920	535,957			
Workflow Developers	R	6,000	-	-	4,044,960	535,957			
Integration Developers	R	8,000	-	-	10,786,560	714,610			
Report Developers	R	6,000	-	-	4,044,960	535,957			
Data Base Administrators	R	6,000	-	-	2,022,480	535,957			
Testing Analysts	R	4,000	-	-	2,696,640	357,305			
Finance & Supply Chain Consultants	R	10,000	50,000	212,000	1,685,400	893,262			
HR & Payroll Consultants	R	8,000	40,000	169,600	1,348,320	714,610			
Component Consultants:									
- Scanning	R	8,000	-	84,800	539,328	142,922			
- Content Management	R	8,000	-	84,800	539,328	142,922			
- Document Management	R	8,000	-	84,800	539,328	142,922			
- SMS & email Services	R	8,000	-	84,800	539,328	142,922			
- User Directory	R	8,000	-	84,800	539,328	142,922			
- Content Centre	R	8,000	-	84,800	539,328	142,922			
		78,342,035.60	1,390,000	5,130,400	61,281,144	10,540,492			

Per financial year	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
	78,342,035.60	6,520,400	30,640,572	33,275,695	7,905,369	-	-

Department of Higher Education and Training - CAS Financials

Baseline Implementation Scenario

(R 000's)

2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
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Assumptions and Resourcing

Project Phase	Transition period	Key operations	Testing / Skeleton	Launch	1st Roll out	2nd Roll out	Fully operational
Applications Received	-	-	-	100,000	200,000	400,000	600,000
CAS Human Resources	-	6	21	72	106	163	196

Income Statement

Total Income	-	-	-	21,053	43,860	94,737	150,000
Application Fee Income	-	-	-	21,053	43,860	94,737	150,000
Grant and Seed Funding	-	-	-	-	-	-	-

Expenditure

	782	9,286	37,954	62,720	78,047	107,003	127,818
Staff Cost	-	3,200	11,925	30,519	43,813	65,959	80,960
Other Operating Costs	782	6,087	26,029	32,201	34,234	41,045	46,858

Net Income/(Loss)

	(782)	(9,286)	(37,954)	(41,667)	(34,187)	(12,267)	22,182
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Opening Retained Income

		(782)	(10,069)	(48,023)	(89,690)	(123,878)	(136,144)
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Cumulative Net Income/(Loss)

	(782)	(10,069)	(48,023)	(89,690)	(123,878)	(136,144)	(113,962)
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Breakeven application Volumes

Forecast Applications Volumes	-	-	-	100,000	200,000	400,000	600,000
Calculated breakeven Volumes	4,460	50,412	192,302	297,919	355,895	451,792	511,273
Application (Shortfall) / Surplus	(4,460)	(50,412)	(192,302)	(197,919)	(155,895)	(51,792)	88,727

Cashflow

Net Cash Flow	(7,303)	(40,318)	(57,449)	(38,284)	(24,516)	(5,693)	28,276
Opening Balance	-	(7,303)	(47,621)	(105,070)	(143,354)	(167,870)	(173,563)
Closing Balance	(7,303)	(47,621)	(105,070)	(143,354)	(167,870)	(173,563)	(145,286)

Balance Sheet

Fixed Assets	6,520	37,552	57,047	53,664	43,992	37,419	31,324
Current Assets - Cash	(7,303)	(47,621)	(105,070)	(143,354)	(167,870)	(173,563)	(145,286)
Total Assets	(782)	(10,069)	(48,023)	(89,690)	(123,878)	(136,144)	(113,962)
Total Equity and Liabilities	(782)	(10,069)	(48,023)	(89,690)	(123,878)	(136,144)	(113,962)



higher education
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Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

Department of Higher Education and Training - CAS

Financial Feasibility Model

Version - Final Draft V8

No Application Fee Scenario

(Appendix B to Chapter 11 of the Consolidated CAS Enterprise Architecture)

February 2016

Department of Higher Education and Training - CAS

Financial Feasibility Model

Appendix B to Chapter 11 of the consolidated CAS Enterprise Architecture
Index

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Notes

Disclaimer :The results calculated by the model are based on assumptions concerning future events. Actual events may differ substantially from the assumptions and the impact on the results calculated by the model may be material. Accordingly, no opinion is expressed on the output of the financial model. No Audit has been conducted and no opinion is expressed on the reliability of the information provided

Department of Higher Education and Training - CAS Key Assumptions

No Application Fee Scenario

Inflation rate per annum

6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
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Application Assumptions

Application Fee (R')

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Application Fee	R -	-	-	-	-	-	-
Application Fee (Rounded)	R -	0	0	0	0	0	0
Exl VAT value	R -	R -	R -	R -	R -	R -	R -

Application Volumes

Phase 1	-	-	-	100,000	100,000	100,000	150,000
Phase 2	-	-	-	-	100,000	100,000	150,000
Phase 3	-	-	-	-	-	100,000	150,000
Phase 4	-	-	-	-	-	100,000	150,000
Phase 5	-	-	-	-	-	-	-
Phase 6	-	-	-	-	-	-	-
Phase 7	-	-	-	-	-	-	-
Phase 8	-	-	-	-	-	-	-
Phase 9	-	-	-	-	-	-	-
Total Application Volumes	-	-	-	100,000	200,000	400,000	600,000

Application Ffee Income

Phase 1	-	-	-	-	-	-	-
Phase 2	-	-	-	-	-	-	-
Phase 3	-	-	-	-	-	-	-
Phase 4	-	-	-	-	-	-	-
Phase 5	-	-	-	-	-	-	-
Phase 6	-	-	-	-	-	-	-
Phase 7	-	-	-	-	-	-	-
Phase 8	-	-	-	-	-	-	-
Phase 9	-	-	-	-	-	-	-
Total income for year	-	-	-	-	-	-	-

Seed Funding Assumptions

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Seed Funding Source 1	-	-	-	-	-	-	-
Seed Funding Source 2	-	-	-	-	-	-	-
Seed Funding Source 3	-	-	-	-	-	-	-
Seed Funding Source 4	-	-	-	-	-	-	-
Seed Funding Source 5	-	-	-	-	-	-	-
Seed Funding Source 6	-	-	-	-	-	-	-
Seed Funding Source 7	-	-	-	-	-	-	-
Seed Funding Source 8	-	-	-	-	-	-	-
Seed Funding Source 9	-	-	-	-	-	-	-
Seed Funding Source 10	-	-	-	-	-	-	-

Grant Funding Assumptions

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Grant Funding Source 1	-	-	-	-	-	-	-
Grant Funding Source 2	-	-	-	-	-	-	-
Grant Funding Source 3	-	-	-	-	-	-	-
Grant Funding Source 4	-	-	-	-	-	-	-
Grant Funding Source 5	-	-	-	-	-	-	-
Grant Funding Source 6	-	-	-	-	-	-	-
Grant Funding Source 7	-	-	-	-	-	-	-
Grant Funding Source 8	-	-	-	-	-	-	-
Grant Funding Source 9	-	-	-	-	-	-	-
Grant Funding Source 10	-	-	-	-	-	-	-

Department of Higher Education and Training - CAS

Key Assumptions

No Application Fee Scenario

Operating Expenditure Assumptions

		2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Advertising campaigns	Per 100,000 apps							
Call Centre communications	% Call Centre staff cost	20%	20%	20%	20%	20%	20%	20%
Call Centre accommodation & other	% Call Centre staff cost	20%	20%	20%	20%	20%	20%	20%
Call Centre peak time staff	Dble perm staff for 2 mths	17%	17%	17%	17%	17%	17%	17%
Computer services	% Total staff cost	2.5%	3%	3%	3%	3%	3%	3%
Communication campaigns	No of campaigns p.a	24	24	24	24	24	24	24
Consultants/Contractors	Fixed budget p.a							
Internal Audit (as a service)	Fixed budget p.a							
IT Hosting fee	Per IT expenditure table							
IT Network communications	Per IT expenditure table							
IT Application support	% development cost	12.0%	12%	12%	12%	12%	12%	12%
Office space (incl. shared space)	Sqm per non CC staff							
Office communications	Fixed est per non CC staff							
Consumables	% total staff cost	1.0%	1%	1%	1%	1%	1%	1%
Travelling & Accommodation	Fixed est per Exec + M&O	1.0%	1%	1%	1%	1%	1%	1%
Outreach programmes	Per 100,000 apps							
Handbook production & distribution	Fixed ratio to Outreach exp	10.0%	10%	10%	10%	10%	10%	10%
Sundry office expenses	% total staff cost	5.0%	5%	5%	5%	5%	5%	5%
Payment Transaction Fees	% of application fees	0.0%	0%	0%	0%	0%	0%	0%

	Base Values	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Advertising campaigns	R 100,000	-	-	-	119,102	252,495	535,290	851,111
Call Centre communications		-	-	-	678,740	1,127,549	1,999,129	2,633,835
Call Centre accommodation & other		-	-	-	678,740	1,127,549	1,999,129	2,633,835
Call Centre peak time staff		-	-	-	565,616	939,624	1,665,941	2,194,862
Computer services		-	79,994	291,702	742,534	1,059,228	1,572,447	1,918,570
Communication campaigns	R 25,000	-	636,000	674,160	714,610	757,486	802,935	851,111
Consultants/Contractors	R 500,000	-	530,000	561,800	595,508	631,238	669,113	709,260
Internal Audit (as a service)	R 500,000	-	-	-	595,508	631,238	669,113	709,260
IT Hosting fee	See below	-	-	768,542	814,655	863,534	915,346	970,267
IT Network communications	See below	-	-	566,294	600,272	636,288	674,466	714,934
IT Application support		782,448	4,459,317	8,452,400	9,401,044	9,401,044	9,401,044	9,401,044
Office space (incl. shared space)	R 5,760	-	36,634	129,439	384,174	581,749	901,857	1,127,552
Office communications	R 1,800	-	11,448	40,450	120,054	181,797	281,830	352,360
Consumables		-	31,998	116,681	297,014	423,691	628,979	767,428
Travelling & Accommodation		-	10,624	60,474	126,411	186,988	254,378	299,412
Outreach programmes	R 500,000	-	-	-	595,508	1,262,477	2,676,451	4,255,557
Handbook production & distribution		-	-	-	59,551	126,248	267,645	425,556
Sundry office expenses		-	159,989	583,405	1,485,068	2,118,456	3,144,894	3,837,141
Payment Transaction Fees		-	-	-	-	-	-	-
Total Operational Cost per Financial Year		782,448	5,956,003	12,245,347	18,574,109	22,308,680	29,059,988	34,653,096

Information Technology Expenditure

	Base Values	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Hosting Fees								
Virtual servers, 12 TB storage & OS mngmnt X 6	R 288,000	-	-	323,597	343,013	363,593	385,409	408,534
DB Management	R 24,000	-	-	26,966	28,584	30,299	32,117	34,044
Middleware management	R 24,000	-	-	26,966	28,584	30,299	32,117	34,044
Active directory management	R 60,000	-	-	67,416	71,461	75,749	80,294	85,111
Firewall	R 60,000	-	-	67,416	71,461	75,749	80,294	85,111
Data recovery	25%	-	-	512,362	543,103	575,689	610,231	646,845
Contingency	20%	-	-	128,090	135,776	143,922	152,558	161,711
		-	-	640,452	678,879	719,612	762,789	808,556
		-	-	128,090	135,776	143,922	152,558	161,711
		-	-	768,542	814,655	863,534	915,346	970,267
Network Communications								
Fibre VPN to DC	R 120,000	-	-	134,832	142,922	151,497	160,587	170,222
Fibre VPN to DR DC	R 60,000	-	-	67,416	71,461	75,749	80,294	85,111
Fibre to internet	R 60,000	-	-	67,416	71,461	75,749	80,294	85,111

Department of Higher Education and Training - CAS Key Assumptions

No Application Fee Scenario

Regional fibre to internet x 5	R	180,000		202,248	214,383	227,246	240,881	255,333
			-	471,912	500,227	530,240	562,055	595,778
Contingency		20%		94,382	100,045	106,048	112,411	119,156
			-	566,294	600,272	636,288	674,466	714,934

Department of Higher Education and Training - CAS

Key Assumptions

No Application Fee Scenario

Human Resource Assumptions

Phase in planning	Fin Year	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Transition period	2016/2017	Transition period						
Key operations	2017/2018		Key operations					
Testing / Skeleton	2018/2019			Testing / Skeleton				
Launch	2019/2020				Launch			
1st Roll out	2020/2021					1st Roll out		
2nd Roll out	2021/2022						2nd Roll out	
Fully operational	2022/2023							Fully operational

Key Notes:

1. The baseline remuneration is based on PERSAL remuneration tables per DPSA Circular 1 (Levels 13 - 16) and 2 (Levels 1 -12) of 2014, effective 1 April 2014. This was inflated by 6% per annum to get to a baseline remuneration, effective 1 April 2016. The average in each scale band were used in the projections.
2. The average remuneration inflation over the projected period is estimated at 6%. This is a variable field.
3. Each position in the Organisation Structure of the CAS has been allocated a PERSAL grade in order to link it to a remuneration value for the post. This is done in column B on the Staff Cost worksheet. It is a variable field that can be changed to result in an update of the Remuneration Table. (Note: A public entity remuneration offerings are determined by the Board of the entity, subject to Treasury and DPSA guidelines).
4. The latest Draft Project Plan is used to estimate when staff will be required to be on board over the first 7 years. These are indicated in the "Ave FTE" column in the Staff Cost worksheet for each financial year. This is a variable field that can be changed to result in an update of the Remuneration Table.
5. The staffing levels were estimated using the Full Time Equivalent (FTE) concept that allows for the phase in of staff members without building multiple period intervals in a year. A 0.5 FTE indicates that that position should be filled in the middle of a financial year, while a 2.00 FTE indicate that the equivalent of two staff members will fill that position over the full financial year.

Pay Scale Level	PERSAL	Total CTC	Cash	Housing	Pension	13th Cheque	Medical Aid
Top management	16	1,875,933	1,875,933				
	15	1,435,649	1,435,649				
Senior management	14	1,218,893	1,218,893				
	13	1,002,267	1,002,267				
Professionally qualified, experienced specialists & mid-management	12	770,292	770,292				
	11	649,964	649,964				
	10	532,263	412,722	16,200	31,748	34,393	37,200
	9	440,352	333,505	16,200	25,654	27,792	37,200
Skilled technical & academically qualified workers, junior management, supervisors, foreman & superintendents	8	376,148	278,170	16,200	21,398	23,181	37,200
	7	313,292	223,995	16,200	17,230	18,666	37,200
	6	263,913	181,436	16,200	13,957	15,120	37,200
Semi-skilled & discretionary decision-making	5	228,710	151,096	16,200	11,623	12,591	37,200
	4	198,214	126,376	16,200	9,721	10,531	35,385
	3	169,791	106,642	16,200	8,203	8,887	29,860
Unskilled & defined decision making	2	144,664	89,195	16,200	6,861	7,433	24,975
	1	129,265	78,503	16,200	6,039	6,542	21,981

Benefits for Grade 1 - 10:

- 1) Housing - R1,200 pm in 2014 = R16,200 in 2016
- 2) Pension (Salary/13)
- 3) 13th cheque (Salary/12)
- 4) Medical aid = 28% with maximum of R2,760 pm in 2014 = R37,200 in 2016

Department of Higher Education and Training - CAS

No Application Fee Scenario

Key Assumptions

Staff Level Benchmark Assumptions

Staffing Levels	CAO	UCAS	Ireland	DHET CAS	DHET CAS	DHET CAS	DHET CAS
Application Volumes	100,000			100,000	200,000	400,000	600,000
Online	40,000			80,000	170,000	360,000	570,000
Hardcopy	60,000			20,000	30,000	40,000	30,000
% online				80%	85%	90%	95%
Executive Structure	-	-	-	-	-	-	-
Operations	-	-	-	-	-	-	-
Call Centre	-	-	-	-	-	-	-
Human Resources	-	-	-	-	-	-	-
Finance	-	-	-	-	-	-	-
Supply Chain	-	-	-	-	-	-	-
IT & Business Intelligence	-	-	-	-	-	-	-
Marketing and Outreach	-	-	-	-	-	-	-
Admin Support	-	-	-	-	-	-	-
Total Staff	-	-	-	-	-	-	-
Staff per 100,000 applications							

Workload Assessment Assumptions

Staff levels:	KZN CAO	Finding	Required	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Processing Efficiency Factor						90%	90%	90%
Call Centre Efficiency Factor						85%	85%	85%
Document management	6	Adequate	6		2.0	3.0	3.0	2.0
Payment checking and logging	3	Adequate	3		3.0	5.0	10.0	13.0
Data capture	11	Adequate	11		4.0	5.0	6.0	4.0
E-Communication	7	Not adequate	8		8.0	14.0	26.0	35.0
Call Centre	10	Not adequate	12		12.0	20.0	35.0	44.0

Note on staff forecast:

The Scan And Data Capture Agents are not forecasted linear to the increase in volumes from 2021/2022 as it is assumed that improved efficiencies and an increase in electronic submissions will reduce the need for these positions
Staff volumes using KZN CAO volumes of just under 100,000 applications in 2013 and Workload Assessment exercise done

Department of Higher Education and Training - CAS

Financials

No Application Fee Scenario

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Income Statement							
Total Income	-	-	-	-	-	-	-
Application Fee Income	-	-	-	-	-	-	-
Seed Funding	-	-	-	-	-	-	-
Grant Funding	-	-	-	-	-	-	-
Expenditure	782,448	9,286,407	37,663,584	61,164,823	75,102,702	100,708,821	118,568,237
Staff Cost	-	3,199,770	11,668,094	29,701,368	42,369,112	62,897,888	76,742,820
Advertising campaigns	-	-	-	119,102	252,495	535,290	851,111
Call Centre communications	-	-	-	678,740	1,127,549	1,999,129	2,633,835
Call Centre accommodation & other	-	-	-	678,740	1,127,549	1,999,129	2,633,835
Call Centre peak time staff	-	-	-	565,616	939,624	1,665,941	2,194,862
Computer services	-	79,994	291,702	742,534	1,059,228	1,572,447	1,918,570
Communication campaigns	-	636,000	674,160	714,610	757,486	802,935	851,111
Consultants/Contractors	-	530,000	561,800	595,508	631,238	669,113	709,260
Internal Audit (as a service)	-	-	-	595,508	631,238	669,113	709,260
IT Hosting fee	-	-	768,542	814,655	863,534	915,346	970,267
IT Application support	782,448	4,459,317	8,452,400	9,401,044	9,401,044	9,401,044	9,401,044
Office space (incl. shared space)	-	36,634	129,439	384,174	581,749	901,857	1,127,552
Office communications	-	11,448	40,450	120,054	181,797	281,830	352,360
Consumables	-	31,998	116,681	297,014	423,691	628,979	767,428
Travelling & Accommodation	-	10,624	60,474	126,411	186,988	254,378	299,412
Outreach programmes	-	-	-	595,508	1,262,477	2,676,451	4,255,557
Handbook production & distribution	-	-	-	59,551	126,248	267,645	425,556
Sundry office expenses	-	159,989	583,405	1,485,068	2,118,456	3,144,894	3,837,141
Payment Transaction Fees	-	-	-	-	-	-	-
Depreciation	-	130,634	14,316,438	13,489,618	11,061,197	9,425,411	7,887,255
Net Income/(Loss)	(782,448)	(9,286,407)	(37,663,584)	(61,164,823)	(75,102,702)	(100,708,821)	(118,568,237)
Opening Retained Income		(782,448)	(10,068,855)	(47,732,439)	(108,897,263)	(183,999,964)	(284,708,785)
Cumulative Net Income/(Loss)	(782,448)	(10,068,855)	(47,732,439)	(108,897,263)	(183,999,964)	(284,708,785)	(403,277,022)
Breakeven application Volumes							
Forecast Applications Volumes	-	-	-	100,000	200,000	400,000	600,000
Calculated breakeven Volumes	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Net Application volumes (Shortfall) / Surplus	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Department of Higher Education and Training - CAS

No Application Fee Scenario

Financials

Cash Flow Forecasts

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Cash Inflows	-	-	-	-	-	-	-
Application Fee Income	-	-	-	-	-	-	-
Seed Funding	-	-	-	-	-	-	-
Grant Funding	-	-	-	-	-	-	-
Cash Outflows	7,302,848	40,317,865	57,148,686	57,762,515	65,415,079	94,085,654	112,456,968
Staff cost	-	3,199,770	11,668,094	29,701,368	42,369,112	62,897,888	76,742,820
Operational Expenditure	782,448	5,956,003	11,679,052	17,973,837	21,672,392	28,385,522	33,938,162
Capital Expenditure	6,520,400	31,162,092	33,801,540	10,087,310	1,373,575	2,802,244	1,775,986
Net Cash Flow	(7,302,848)	(40,317,865)	(57,148,686)	(57,762,515)	(65,415,079)	(94,085,654)	(112,456,968)
Opening Balance	-	(7,302,848)	(47,620,713)	(104,769,399)	(162,531,914)	(227,946,993)	(322,032,648)
Closing Balance	(7,302,848)	(47,620,713)	(104,769,399)	(162,531,914)	(227,946,993)	(322,032,648)	(434,489,615)

Balance Sheet

Fixed Assets	6,520,400	37,551,858	57,036,959	53,634,651	43,947,029	37,323,862	31,212,593
Software Development	6,520,400	37,160,972	56,349,334	51,403,762	41,123,009	32,898,408	26,318,726
Computer Equipment individuals	-	34,090	107,155	301,612	364,485	509,602	501,102
Computer Equipment central	-	333,900	503,235	466,752	350,064	413,099	416,213
Office Furniture & Fittings	-	22,896	77,236	223,868	310,559	457,755	519,219
Call Centre Equipment	-	-	-	1,238,657	1,798,911	3,044,999	3,457,333
Current Assets	(7,302,848)	(47,620,713)	(104,769,399)	(162,531,914)	(227,946,993)	(322,032,648)	(434,489,615)
Cash	(7,302,848)	(47,620,713)	(104,769,399)	(162,531,914)	(227,946,993)	(322,032,648)	(434,489,615)
Total Assets	(782,448)	(10,068,855)	(47,732,439)	(108,897,263)	(183,999,964)	(284,708,785)	(403,277,022)
Equity	(782,448)	(10,068,855)	(47,732,439)	(108,897,263)	(183,999,964)	(284,708,785)	(403,277,022)
Retained Earnings	(782,448)	(10,068,855)	(47,732,439)	(108,897,263)	(183,999,964)	(284,708,785)	(403,277,022)
Current Liabilities	-	-	-	-	-	-	-
Non-Current Liabilities	-	-	-	-	-	-	-
Total Equity and Liabilities	(782,448)	(10,068,855)	(47,732,439)	(108,897,263)	(183,999,964)	(284,708,785)	(403,277,022)

**Department of Higher Education and Training - CAS
Staff Cost**

No Application Fee Scenario

Est remuneration inflation	6.0%	2016		Transition FY 2016/2017		Key operations FY 2017/2018		Testing/Skeleton FY 2018/2019		Launch FY 2019/2020		1st Roll out FY 2020/2021		2nd Roll out FY 2021/2022		Fully operational FY 2022/2023		
	Scale	Baseline	Ave FTE's	Total Cost	Ave FTE's	Total Cost	Ave FTE's	Total Cost	Ave FTE's	Total Cost	Ave FTE's	Total Cost	Ave FTE's	Total Cost	Ave FTE's	Total Cost	Ave FTE's	Total Cost
DHET CAS Positions:																		
Executive Structure																		
Chief Executive Officer	15	1,435,649	-	-	-	-	1.0	1,613,095	1.0	1,709,881	1.0	1,812,474	1.0	1,921,222	1.0	2,036,496		
Chief Operating Officer	14	1,218,893	-	-	-	-	1.0	1,369,548	1.0	1,451,721	1.0	1,538,824	1.0	1,631,154	1.0	1,729,023		
Chief Financial Officer	14	1,218,893	-	-	-	-	1.0	1,26,147	1.0	1,193,716	1.0	1,265,339	1.0	1,341,259	1.0	1,421,735		
IT Executive	13	1,002,267	-	1.0	1,062,403	1.0	865,500	1.0	917,430	1.0	972,476	1.0	1,030,824	1.0	1,092,674			
Marketing & Outreach Executive	12	770,292	-	-	-	-	-	-	1.0	917,430	1.0	972,476	1.0	1,030,824	1.0	1,092,674		
PPM Executive	12	770,292	-	-	-	-	-	-	1.0	917,430	1.0	972,476	1.0	1,030,824	1.0	1,092,674		
		6,416,286	-	-	1	1,062,403	4.0	4,974,291	6.0	7,641,899	6.0	8,100,413	6.0	8,586,438	6.0	9,101,624		
Operations																		
Applications Handling Manager	10	532,263	-	1.0	564,199	1.0	598,051	1.0	633,934	1.0	671,970	1.0	712,288	1.0	755,026			
Communications Manager	10	532,263	-	-	-	-	-	-	1.0	671,970	1.0	712,288	1.0	755,026				
Referrals/CH Manager	10	532,263	-	-	-	-	-	-	1.0	671,970	1.0	712,288	1.0	755,026				
Office Agents 1 (Finance/Payments)	5	228,710	-	-	-	-	-	-	-	-	-	-	-	-	-			
Office Agents 2 (Advice)	4	198,214	-	-	-	-	-	-	1.0	236,076	2.0	500,481	4.0	1,061,020	8.0	2,249,362		
Scan Agents	4	198,214	-	-	-	-	1.0	222,713	2.0	472,152	3.0	750,722	3.0	795,765	2.0	562,341		
Data Capture Agents	4	198,214	-	-	-	-	1.0	222,713	4.0	944,304	5.0	1,251,203	6.0	1,591,530	4.0	1,124,681		
Validations Agents (Inc Call Centre)	4	198,214	-	-	-	-	-	-	-	-	-	-	-	-	-			
Communications Agents	4	198,214	-	-	-	-	-	-	8.0	1,888,608	14.0	3,503,367	26.0	6,896,629	35.0	9,840,959		
Referrals/CH Agents	5	228,710	-	-	-	-	1.0	272,397	2.0	577,481	4.0	1,224,260	4.0	1,224,260	6.0	1,946,573		
		3,045,278	-	-	1	564,199	3.0	1,043,477	18.0	5,081,404	29.0	8,599,164	46.0	13,706,068	58.0	17,988,993		
Call Centre																		
Call Centre Manager	9	440,352	-	-	-	-	-	-	1.0	524,466	1.0	555,934	1.0	589,290	1.0	624,647		
Call Centre Agents 1	5	228,710	-	-	-	-	-	-	1.0	272,397	2.0	577,481	3.0	918,195	4.0	1,297,716		
Call Centre Agents 2	4	198,214	-	-	-	-	-	-	11.0	2,596,836	18.0	4,504,330	32.0	8,488,159	40.0	11,246,811		
		867,275	-	-	-	-	-	-	13.0	3,393,699	21.0	5,637,745	36.0	9,995,644	45.0	13,169,174		
Human Resources																		
HR Manager	10	532,263	-	-	-	-	-	-	1.0	633,934	1.0	671,970	1.0	712,288	1.0	755,026		
HR Administrator	7	313,292	-	-	-	-	1.0	352,015	2.0	746,271	2.0	791,048	3.0	1,257,766	3.0	1,333,232		
		845,555	-	-	-	-	1.0	352,015	3.0	1,380,205	3.0	1,463,018	4.0	1,970,054	4.0	2,088,257		
Finance																		
Finance Manager	11	649,964	-	-	-	-	1.0	730,300	1.0	774,118	1.0	820,565	1.0	869,799	1.0	921,987		
Financial Accountant	10	532,263	-	-	-	-	-	-	1.0	633,934	1.0	671,970	1.0	712,288	1.0	755,026		
Accountant GL & FA	9	440,352	-	1.0	466,773	1.0	494,779	1.0	524,466	1.0	555,934	2.0	1,178,580	2.0	1,249,295			
AR & Cashbook Clerk	8	376,148	-	-	-	-	-	-	1.0	447,998	1.0	474,878	2.0	1,006,742	2.0	1,067,147		
Senior Clerk Payroll	8	376,148	-	-	-	-	-	-	1.0	447,998	1.0	474,878	1.0	503,371	1.0	533,573		
		2,374,875	-	-	1	466,773	2.0	1,225,079	5.0	2,828,515	5.0	2,998,225	7.0	4,270,780	7.0	4,527,027		
Supply Chain																		
Supply Chain Manager	10	532,263	-	-	-	-	-	-	1.0	633,934	1.0	671,970	1.0	712,288	1.0	755,026		
Procurement Officer	8	376,148	-	-	-	-	1.0	422,640	1.0	447,998	1.0	474,878	1.0	503,371	1.0	533,573		
		908,411	-	-	-	-	1.0	422,640	2.0	1,081,932	2.0	1,146,848	2.0	1,215,659	2.0	1,288,599		
IT & Business Intelligence																		
CAS Systems Administrator	10	532,263	-	1.0	564,199	1.0	598,051	1.0	633,934	1.0	671,970	2.0	1,424,576	2.0	1,510,051			
CAS BI Analyst/M&E Specialist	9	440,352	-	-	-	-	1.0	494,779	1.0	524,466	1.0	555,934	2.0	1,178,580	2.0	1,249,295		
IT Support Technician	7	313,292	-	1.0	332,089	1.0	352,015	1.0	373,136	1.0	395,524	2.0	838,511	3.0	1,333,232			
System Training Lead	8	376,148	-	-	-	-	1.0	422,640	1.0	447,998	1.0	474,878	1.0	503,371	1.0	533,573		
System Trainer	6	263,913	-	-	-	-	1.0	296,532	1.0	314,324	2.0	666,368	3.0	1,059,524	4.0	1,497,461		
		1,925,968	-	-	2	896,288	5.0	2,164,017	5.0	2,293,858	6.0	2,764,674	10.0	5,004,562	12.0	6,123,612		
Marketing and Outreach																		
Stakeholder Relations Manager	10	532,263	-	-	-	-	1.0	598,051	1.0	633,934	2.0	1,343,940	3.0	2,136,865	3.0	2,265,077		
Relationship Agents	7	313,292	-	-	-	-	-	-	5.0	1,865,679	10.0	3,955,239	15.0	6,288,830	15.0	6,666,159		
Outreach Manager	10	532,263	-	-	-	0.5	299,025	1.0	633,934	2.0	1,343,940	3.0	2,136,865	4.0	3,020,102			
Outreach Agents	7	313,292	-	-	-	0.5	176,007	1.0	1,865,679	5.0	3,955,239	10.0	6,288,830	20.0	8,888,213			
		1,691,110	-	-	-	-	2.0	1,073,084	12.0	4,999,225	24.0	10,598,358	36.0	16,851,389	42.0	20,839,551		
Admin Support																		
Secretary	4	198,214	-	1.0	210,107	1.0	222,713	2.0	472,152	2.0	500,481	2.0	530,510	2.0	562,341			
Reception	3	169,791	-	-	-	-	1.0	190,778	1.0	202,224	1.0	214,358	1.0	227,219	2.0	481,705		
Driver	2	144,664	-	-	-	-	-	-	1.0	172,297	1.0	182,635	1.0	193,593	1.0	205,209		
Refreshments and Kitchen staff	1	129,265	-	-	-	-	-	-	1.0	153,956	1.0	163,194	2.0	345,971	2.0	366,729		
		641,934	-	-	1	210,107	2.0	413,491	5.0	1,000,630	5.0	1,060,668	6.0	1,297,293	7.0	1,615,983		
Total Staff Cost per Financial Year		18,716,694	-	-	6	3,199,770	20.0	11,668,094	69.0	29,701,368	101.0	42,369,112	153.0	62,897,888	183.0	76,742,820		

Department of Higher Education and Training - CAS

Capital Outlay

No Application Fee Scenario

Estimated cost inflation		6.0%							
	Base Assumptions	Base	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Software Development									
Project Expenditure - Page 13			6,520,400	30,640,572	33,275,695	7,905,369	-	-	-
			6,520,400	30,640,572	33,275,695	7,905,369	-	-	-
Opening				6,520,400	37,160,972	56,349,334	51,403,762	41,123,009	32,898,408
Additions			6,520,400	30,640,572	33,275,695	7,905,369	-	-	-
Depreciation		20%			14,087,333	12,850,940	10,280,752	8,224,602	6,579,682
Closing			6,520,400	37,160,972	56,349,334	51,403,762	41,123,009	32,898,408	26,318,726
Computer Equipment individuals									
Non CC staff number increase			-	6	14	36	24	37	21
Cumulative non CC staff			-	6	20	56	80	117	138
Average per new staff member	8,000		-	50,880	125,843	343,013	242,396	396,115	238,311
Opening				-	34,090	107,155	301,612	364,485	509,602
Additions			-	50,880	125,843	343,013	242,396	396,115	238,311
Depreciation		33%	-	16,790	52,778	148,555	179,523	250,998	246,811
Closing			-	34,089.6	107,155.0	301,612.3	364,485.3	509,602.0	501,101.9
Computer Equipment central									
High Speed Printers	100,000	per 50 staff		106,000		119,102		133,823	141,852
High Speed Scanners	50,000	per 5 Scan			56,180			66,911	
Network Equipment	100,000			106,000					
File Server	120,000			127,200					
Mail Server	100,000			106,000					
Additional Server	100,000				112,360				
Storage System	150,000				168,540				
			-	445,200	337,080	119,102	-	200,734	141,852
Opening				-	333,900	503,235	466,752	350,064	413,099
Additions			-	445,200	337,080	119,102	-	200,734	141,852
Depreciation		25%	-	111,300	167,745	155,584	116,688	137,700	138,738
Closing			-	333,900	503,235	466,752	350,064	413,099	416,213

Department of Higher Education and Training - CAS

Capital Outlay

No Application Fee Scenario

Estimated cost inflation		6.0%								
		Base Assumptions	Base	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
Office Furniture & Fittings										
Average per new staff member	4,000			-	25,440	62,922	171,506	121,198	198,057	119,156
Opening				-	-	22,896	77,236	223,868	310,559	457,755
Additions				-	25,440	62,922	171,506	121,198	198,057	119,156
Depreciation		10%		-	2,544	8,582	24,874	34,507	50,862	57,691
Closing				-	22,896	77,236	223,868	310,559	457,755	519,219
Call Centre Equipment										
Call Centre Staff appointments				-	-	-	13	8	15	9
Total cost per seat	100,000			-	-	-	1,548,321	1,009,982	2,007,338	1,276,667
Opening				-	-	-	-	1,238,657	1,798,911	3,044,999
Additions				-	-	-	1,548,321	1,009,982	2,007,338	1,276,667
Depreciation		20%		-	-	-	309,664	449,728	761,250	864,333
Closing				-	-	-	1,238,657	1,798,911	3,044,999	3,457,333
Total Capital Outlay										
Opening				-	6,520,400	37,551,858	57,036,959	53,634,651	43,947,029	37,323,862
Additions				6,520,400	31,162,092	33,801,540	10,087,310	1,373,575	2,802,244	1,775,986
Depreciation				-	130,634	14,316,438	13,489,618	11,061,197	9,425,411	7,887,255
Closing				6,520,400	37,551,858	57,036,959	53,634,651	43,947,029	37,323,862	31,212,593
Depreciation										
Cumulative Value										
Software Development				6,520,400	37,160,972	70,436,667	78,342,036	78,342,036	78,342,036	78,342,036
Computer Equipment individuals				-	50,880	176,723	519,736	762,131	1,158,246	1,396,557
Computer Equipment central				-	445,200	782,280	901,382	901,382	1,102,115	1,243,967
Office Furniture & Fittings				-	25,440	88,362	259,868	381,066	579,123	698,279
Call Centre Equipment				-	-	-	1,548,321	2,558,302	4,565,641	5,842,308
Total asset value				6,520,400	37,682,492	71,484,032	81,571,342	82,944,917	85,747,161	87,523,147
Depreciation										
Software Development	20%			-	-	14,087,333	12,850,940	10,280,752	8,224,602	6,579,682
Computer Equipment individuals	33%			-	16,790	52,778	148,555	179,523	250,998	246,811
Computer Equipment central	25%			-	111,300	167,745	155,584	116,688	137,700	138,738
Office Furniture & Fittings	10%			-	2,544	8,582	24,874	34,507	50,862	57,691
Call Centre Equipment	20%			-	-	-	309,664	449,728	761,250	864,333
Total annual depreciation				-	130,634	14,316,438	13,489,618	11,061,197	9,425,411	7,887,255

Department of Higher Education and Training - CAS Payroll

No Application Fee Scenario

Salary level	No.	6%		6%		Average	Salary level	No.	1 April 2014 (Rpa)		1 April 2015 (Rpa)		1 April 2016 (Rpa)		Average	Salary level	No.	1 April 2014 (Rpa)		1 April 2015 (Rpa)		1 April 2016 (Rpa)		Average
		1 April 2014 (Rpa)	1 April 2015 (Rpa)	1 April 2016 (Rpa)	1 April 2016 (Rpa)				1 April 2014 (Rpa)	1 April 2015 (Rpa)	1 April 2016 (Rpa)	1 April 2016 (Rpa)	1 April 2014 (Rpa)	1 April 2015 (Rpa)				1 April 2016 (Rpa)	1 April 2016 (Rpa)					
1	1	67,806	71,874	76,187	78,503	4	1	103,494	109,704	116,286	126,376	7	1	183,438	194,444	206,111	10	1	337,998	358,278	379,775	412,722		
	2	68,814	72,943	77,319			2	105,048	111,351	118,032			2	186,192	197,364	209,205		2	343,062	363,646	385,464			
	3	69,855	74,046	78,489			3	106,620	113,017	119,798			3	188,985	200,324	212,344		3	348,213	369,106	391,252			
	4	70,896	75,150	79,659			4	108,222	114,715	121,598			4	191,820	203,329	215,529		4	353,433	374,639	397,117			
	5	71,967	76,285	80,862			5	109,842	116,433	123,418			5	194,694	206,376	218,758		5	358,734	380,258	403,074			
	6						6	111,495	118,185	125,276			6	197,616	209,473	222,041		6	364,116	385,963	409,121			
	7						7	113,169	119,959	127,157			7	200,577	212,612	225,368		7	369,576	391,751	415,256			
	8						8	114,864	121,756	129,061			8	203,589	215,804	228,753		8	375,120	397,627	421,485			
	9						9	116,583	123,578	130,993			9	206,640	219,038	232,181		9	380,748	403,593	427,808			
	10						10	118,332	125,432	132,958			10	209,739	222,323	235,663		10	386,457	409,644	434,223			
	11						11	120,111	127,318	134,957			11	212,886	225,659	239,199		11	392,256	415,791	440,739			
	12						12	121,911	129,226	136,979			12	216,084	229,049	242,792		12	398,139	422,027	447,349			
2	1	73,044	77,427	82,072	89,195.30	5	1	123,738	131,162	139,032	151,096	8	1	227,802	241,470	255,958	11	1	532,278	564,215	598,068	649,964		
	2	74,145	78,594	83,309			2	125,589	133,124	141,112			2	231,225	245,099	259,804		2	540,261	572,677	607,037			
	3	75,252	79,767	84,553			3	127,482	135,131	143,239			3	234,690	248,771	263,698		3	548,364	581,266	616,142			
	4	76,383	80,966	85,824			4	129,393	137,157	145,386			4	238,209	252,502	267,652		4	556,602	589,998	625,398			
	5	77,529	82,181	87,112			5	131,328	139,208	147,560			5	241,785	256,292	271,670		5	564,945	598,842	634,772			
	6	78,690	83,411	88,416			6	133,296	141,294	149,771			6	245,409	260,134	275,742		6	573,420	607,825	644,295			
	7	79,872	84,664	89,744			7	135,300	143,418	152,023			7	249,087	264,032	279,874		7	582,018	616,939	653,955			
	8	81,066	85,930	91,086			8	137,328	145,568	154,302			8	252,828	267,998	284,078		8	590,751	626,196	663,768			
	9	82,287	87,224	92,458			9	139,392	147,756	156,621			9	256,623	272,020	288,342		9	599,610	635,587	673,722			
	10	83,520	88,531	93,843			10	141,483	149,972	158,970			10	260,469	276,097	292,663		10	608,607	645,123	683,831			
	11	84,774	89,860	95,252			11	143,607	152,223	161,357			11	264,375	280,238	297,052		11	617,733	654,797	694,085			
	12	86,040	91,202	96,675			12	145,758	154,503	163,774			12	268,338	284,438	301,505		12	627,000	664,620	704,497			
3	1	87,330	92,570	98,124	106,641.72	6	1	148,584	157,499	166,949	181,436	9	1	270,804	287,052	304,275	12	1	630,822	668,671	708,792	770,292		
	2	88,644	93,963	99,600			2	150,819	159,868	169,460			2	274,860	291,352	308,833		2	640,287	678,704	719,426			
	3	89,973	95,371	101,094			3	153,075	162,260	171,995			3	278,979	295,718	313,461		3	649,887	688,880	730,213			
	4	91,320	96,799	102,607			4	155,370	164,692	174,574			4	283,164	300,154	318,163		4	659,631	699,209	741,161			
	5	92,694	98,256	104,151			5	157,701	167,163	177,193			5	287,412	304,657	322,936		5	669,534	709,706	752,288			
	6	94,083	99,728	105,712			6	160,068	169,672	179,852			6	291,729	309,233	327,787		6	679,578	720,353	763,574			
	7	95,493	101,223	107,296			7	162,474	172,222	182,556			7	296,100	313,866	332,698		7	689,769	731,155	775,024			
	8	96,927	102,743	108,907			8	164,907	174,801	185,290			8	300,537	318,569	337,683		8	700,119	742,126	786,654			
	9	98,376	104,279	110,535			9	167,376	177,419	188,064			9	305,049	323,352	342,753		9	710,613	753,250	798,445			
	10	99,855	105,846	112,197			10	169,890	180,083	190,888			10	309,627	328,205	347,897		10	721,275	764,552	810,425			
	11	101,361	107,443	113,889			11	172,446	182,793	193,760			11	314,271	333,127	353,115		11	732,093	776,019	822,580			
	12	102,873	109,045	115,588			12	175,023	185,524	196,656			12	318,984	338,123	358,410		12	743,076	787,661	834,920			

Top Management Full-Time SMS MEMBERS

Level	Ave High/Low		6%		Salary 1 April 2016 (Rpa)
	Salary 1 April 2014 (Rpa)	Salary 1 April 2015 (Rpa)	Salary 1 April 2016 (Rpa)	Salary 1 April 2016 (Rpa)	
13	892,014	945,535	1,002,267	1,002,267	
14	1,084,811	1,149,899	1,218,893	1,218,893	
15	1,277,723	1,354,386	1,435,649	1,435,649	
16	1,669,574	1,769,748	1,875,933	1,875,933	

Department of Higher Education and Training - CAS

No Application Fee Scenario

Project Expenditure - Man days

Position and FTE's	Requirement Specification Phase		Design Phase		Build Phase		Launch Support	
	Jul 2016 - Sep 2016		Oct 2016 - Mar 2017		Jul 2017 - Dec 2018		Jan 2019 - Sept 2019	
	50		100		300		150	
Programme Director		0.25		0.50		0.50		0.20
PM Solution Development		0.50		1.00		1.00		0.30
PM Entity Establishment						0.60		0.20
PM Launch & Roll out						0.40		1.00
PM Service Partners				0.50		1.00		0.30
Business & Systems Analysts		2.00		2.00		2.00		0.50
Systems Analysts						2.00		0.50
Screen Developers						4.00		0.50
Workflow Developers						2.00		0.50
Integration Developers						4.00		0.50
Report Developers						2.00		0.50
Data Base Administrators						1.00		0.50
Testing Analysts						2.00		0.50
Finance & Supply Chain Consultants		0.10		0.20		0.50		0.50
HR & Payroll Consultants		0.10		0.20		0.50		0.50
Component Consultants:								
- Scanning				0.10		0.20		0.10
- Content Management				0.10		0.20		0.10
- Document Management				0.10		0.20		0.10
- SMS & email Services				0.10		0.20		0.10
- User Directory				0.10		0.20		0.10
- Content Centre				0.10		0.20		0.10
		3		5		25		8

Project Expenditure - Cost

Position and FTE's	Phase =>	Requirement Specification Phase		Design Phase		Build Phase		Launch Support	
		Jul 2016 - Sep 2016		Oct 2016 - Mar 2017		Jul 2017 - Dec 2018		Jan 2019 - Dec 2019	
Programme Director	R	16,000	200,000	848,000	2,696,640	571,688			
PM Solution Development	R	12,000	300,000	1,272,000	4,044,960	643,149			
PM Entity Establishment	R	10,000	-	-	2,022,480	357,305			
PM Launch & Roll out	R	8,000	-	-	1,078,656	1,429,219			
PM Service Partners	R	8,000	-	424,000	2,696,640	428,766			
Business & Systems Analysts	R	8,000	800,000	1,696,000	5,393,280	714,610			
Systems Analysts	R	8,000	-	-	5,393,280	714,610			
Screen Developers	R	6,000	-	-	8,089,920	535,957			
Workflow Developers	R	6,000	-	-	4,044,960	535,957			
Integration Developers	R	8,000	-	-	10,786,560	714,610			
Report Developers	R	6,000	-	-	4,044,960	535,957			
Data Base Administrators	R	6,000	-	-	2,022,480	535,957			
Testing Analysts	R	4,000	-	-	2,696,640	357,305			
Finance & Supply Chain Consultants	R	10,000	50,000	212,000	1,685,400	893,262			
HR & Payroll Consultants	R	8,000	40,000	169,600	1,348,320	714,610			
Component Consultants:									
- Scanning	R	8,000	-	84,800	539,328	142,922			
- Content Management	R	8,000	-	84,800	539,328	142,922			
- Document Management	R	8,000	-	84,800	539,328	142,922			
- SMS & email Services	R	8,000	-	84,800	539,328	142,922			
- User Directory	R	8,000	-	84,800	539,328	142,922			
- Content Centre	R	8,000	-	84,800	539,328	142,922			
		78,342,035.60	1,390,000	5,130,400	61,281,144	10,540,492			

Per financial year	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
	78,342,035.60	6,520,400	30,640,572	33,275,695	7,905,369	-	-

Department of Higher Education and Training - CAS

Financials

No Application Fee Scenario

(R 000's)

	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023
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Assumptions and Resourcing

Project Phase	Transition period	Key operations	Testing / Skeleton	Launch	1st Roll out	2nd Roll out	Fully operational
Applications Received	-	-	-	100,000	200,000	400,000	600,000
CAS Human Resources	-	6	20	69	101	153	183

Income Statement

Total Income	-	-	-	-	-	-	-
Application Fee Income	-	-	-	-	-	-	-
Grant and Seed Funding	-	-	-	-	-	-	-

Expenditure

	782	9,286	37,664	61,165	75,103	100,709	118,568
Staff Cost	-	3,200	11,668	29,701	42,369	62,898	76,743
Other Operating Costs	782	6,087	25,995	31,463	32,734	37,811	41,825

Net Income/(Loss)	(782)	(9,286)	(37,664)	(61,165)	(75,103)	(100,709)	(118,568)
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Opening Retained Income		(782)	(10,069)	(47,732)	(108,897)	(184,000)	(284,709)
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Cumulative Net Income/(Loss)	(782)	(10,069)	(47,732)	(108,897)	(184,000)	(284,709)	(403,277)
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Cashflow

Net Cash Flow	(7,303)	(40,318)	(57,149)	(57,763)	(65,415)	(94,086)	(112,457)
Opening Balance	-	(7,303)	(47,621)	(104,769)	(162,532)	(227,947)	(322,033)
Closing Balance	(7,303)	(47,621)	(104,769)	(162,532)	(227,947)	(322,033)	(434,490)

Balance Sheet

Fixed Assets	6,520	37,552	57,037	53,635	43,947	37,324	31,213
Current Assets - Cash	(7,303)	(47,621)	(104,769)	(162,532)	(227,947)	(322,033)	(434,490)

Total Assets	(782)	(10,069)	(47,732)	(108,897)	(184,000)	(284,709)	(403,277)
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Total Equity and Liabilities	(782)	(10,069)	(47,732)	(108,897)	(184,000)	(284,709)	(403,277)
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