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Village Telco Westridge – SOUTH AFRICA

FINAL EVALUATION OF TECHNICAL AND FINANCIAL REPORTS

To

AFRINIC Ltd.

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By

SANVI & Co.

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Table of Contents

EXECUTIVE SUMMARY

I. CONTEXT AND DESCRIPTION

FIRE is a Grant and Awards program designed by AFRINIC in order to support and encourage the development of solutions to information and communication needs in the Africa Region. It places particular emphasis on the role of the Internet in the social and economic development for the benefit of the African community.

Launched in May 2012, the program is partly funded by two donors: IDRC and SIDA International Development Agencies. In 2013, AFRINIC selected eleven grant recipients which received 10 000 USD each for their project.

The grantees are bound by several obligations, which are among other things:

- Implementation and use of the project funds solely to perform the objectives and activities of their project
- Use the funds in accordance with the budget set out in their application
- Submission of an Interim and a Final Report in accordance with AFRINIC's report guidelines outlined in the Memorandum of Grant Conditions.

II. PURPOSE AND EXPECTED USE

AFRINIC required this evaluation in order to confirm that the project is run in accordance with the following criteria:

- Quality and reliance of design
- Effectiveness
- Efficiency of implementation
- Impact and potential of sustainability
- Replicability

AFRINIC also requires this evaluation to be run on the basis of the Interim and Financial Reports sent by the project in accordance with their obligations.

III. OBJECTIVES

AFRINIC requires this evaluation to ensure of the following:

- The project meets identified objectives;

- Enhance the Design and the implementation of FIRE programme;

- Demonstrate and Improve the impact of the various projects on the local community;

- Develop recommendations to improve the implementation and the monitoring of future projects;

- Ensure that funds allocated to the various projects are used efficiently and within the initial identified scope.

IV. FINDINGS AND CONCLUSIONS

The main objective of this project was to empower the Mitchell's Plain community with broadband Internet connection at an affordable cost. The initial target was to connect forty households via Communinet network while providing them access to free local calls and various local content. Many activities were initiated and completed nevertheless, there is not a clear implementation strategy defined. Furthermore, we have noticed a lack of monitoring tools as well as a clear methodology to evaluate results and archive data.

V. KEY RECOMMENDATIONS

Though 75% of the targeted households have been connected to broadband Internet via the project, the impact of the initiative on them is still unclear. We note that many actions have been implemented to mitigate various risks identified. We recommend that Project team pay more attention to project planning and monitoring activities as well as data archiving and results analysis. These are key actions to ensure complete success.

THE EVALUATION

1. BACKGROUND INFORMATION

1.1. PURPOSE

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- Develop recommendations to improve the implementation and the monitoring of future projects;

- Ensure that funds allocated to the various projects are used efficiently and within the initial identified scope.

This evaluation is also required by AFRINIC in order to help the project in its implementation in accordance with the Memorandum of Grant Conditions.

1.2. AUDIENCE AND USE

The stakeholders who will make use of the evaluation reports are:

1. FIRE programme – AFRINIC

2. International Development Research Center (IDRC)

3. Swedish International Development Agency (SIDA)

4. The grantees

5. Prospective applicants to FIRE program

1.3. OBJECTIVES

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- The project meets identified objectives;

- Enhance the Design and the implementation of FIRE programme;

- Demonstrate and Improve the impact of the various projects on the local community;

- Develop recommendations to improve the implementation and the monitoring of future projects;

- Ensure that funds allocated to the various projects are used efficiently and within the initial identified scope.

1.4. METHODOLOGY

The evaluation methodology is linked with the objectives, the evaluation questions and the type of evaluation.

Evaluation criteria	Key Results Areas	Evaluation questions	Data sources
Design	Assess the extent to which the project responds to priority issues and identified objectives.	• Are the project objectives still valid? • Has the project team put in place the appropriate strategies? • Are there major risks that have not been taken into account?	• Design documentation. • Project objectives. • Interim and final technical reports.
Effectiveness	Assess the project major key results.	• Are the obtained results aligned with planed objectives? • Are the results in acceptable both in terms of the quantity and their quality?	• Interim and final technical reports. • Project management plan. • Result monitoring report.

Efficiency	Assess the extent to which:
	
	  - Project plan has been followed;
	
	  - Project reports are up to date.
		• To which percentage has project plan been achieved to date?
		
		• Are expenses aligned with established budget?
		
		• Have data collected archived for future use?
			• Project management plan.
			
			• Monitoring and control reports.
			
			• Financial reports.
			
			• Interim and final technical reports.

Impact	Assess to which extent the project will have a long-term positive impact on local community.	To which extent has the project's general objectives and final goals been achieved?	• Project objectives • Interim and final technical reports. • FIRE programme objectives

| Sustainability | Assess to which extent the project has been socially and politically adopted by the local community. | • Will the project contribute to long-term benefits?

• Would the long-term benefits be materialized by the implementation of an organization?

• What are the costs implications for scaling up impact?

• Are there savings that could be made without compromising delivery? | • Project benefits report.

• Project cost report.

• Project monitoring report. |

1.5. TEAM

M. Kenneth SANVI, PMP, is a Canadian Consultant in International Development, specialized in all areas of project management. M. SANVI is a seasoned expert with many audits and evaluations projects in several countries in Africa. He is also a trainer in many areas among which, monitoring and evaluation.

Ms. Rebecca GIDEON, CISA will perform the evaluation of Information Technology aspects of the reports. Ms. Gideon is an experienced Information Technology professional with over seven years of diversified experience.

2. THE PROJECT

2.1. CONTEXT

According to studies conducted by Google South Africa, only 17% of the South African population has Internet access. With the rise of globalisation, Internet access is crucial in today's world. Our ability to connect has never been this simple and is only impeded by a lack of resources, which is rampant in areas such as Mitchell's Plain. A gross lack of information technology coupled with scarce educational resources and limited employment opportunities make the possibility of progress seem light years away.

A large percentage of the community has not used the Internet before let alone a computer. Many socioeconomic problems exist in the area, such as gangsters, high levels of substance abuse and rampant unemployment with no hope at the end of the tunnel. Mitchell's Plain is one of the largest townships in South Africa with the largest population of drug users in the country.

Communinet aims to improve education by providing learners with access to the resources they need for proper research and data gathering to complete their projects with ease and help them develop & grow. Essentially they'll have the ability to connect to millions of other learners around the globe which will give them confidence to research and pursue any career, regardless of their background and demographic. This is evidenced by the new educational paths emerging as seen through the efforts of some of the world's top Universities such as MIT, Stanford & UC Berkeley - offering a portion of their courses free of charge and making the course content available online, all in the name of education for the masses! The ultimate goal is to connect every household in South Africa to the web starting with this first community.

2.2. UNDERLYNG RATIONALE

The objectives of the project are listed below:

i. Connect 40 households to their network in 12 months.
ii. Allow users to make free local calls on their network within 12 months.
iii. Give 40 households access to broadband Internet within 12 months.
iv. Share information across their network between 40 households within 12 months.
v. Enable 40 households to access information from Communinet server from a common network space within 12 months.

2.3. STAKEHOLDERS AND BENEFICIARIES

2.3.1. Stakeholders

    a. FIRE programme – AFRINIC

    b. International Development Research Centre (IDRC)

    c. Swedish International Development Agency (SIDA)

    d. The grantees

    e. Prospective applicants to FIRE program

    f. All the beneficiaries (Primary and secondary school level children, tertiary level kids, unemployed individuals, home owners, small businesses)

2.3.2. Users & Beneficiaries

    a. Scholars

    b. Unemployed individuals

    c. Entrepreneurs

    d. Small business owners

    e. Government

    f. Social enterprises & NGO's

It is to be noted that homeowners were initially listed in the interim report as users but seem to have been removed in the final report. This should be explained. In addition, the distinction pointed out in the scholars should also be reflected in the final report.

2.4. CONCEPTUAL MODEL

2.4.1. Resources and activities

Project team projects to hold below activities:

1. Install 30 Mesh devices.

2. Build 2nd server PC

3. Configure 2nd Communinet server PC

4. Configure 2X Nano Station with Batman Layer 3 (Mesh Software)

5. Apply for 2nd DSL fixed line

6. Configure Communinet network Firewall

7. Manufacture our own RJ45 (ethernet cables) for clients & general sales.

8. Install Nagios3 on server

9. Install Webmin on server

10. Develop based billing software (java) for staff & clients.

11. Upload learning materials & software online

12. Sell & configure 11 Wi-Fi routers.

13. Train a tertiary student on Batman-adv. Layer 2 (Mesh Software)

14. Provide free IT support for all Communinet users.

15. Repair clients PC's

16. Register 2 businesses

17. Distribute promotional flyers.

18. Accounting training for the project manager.

19. Apply for educational eMarketing material from Quirk.

20. Apply for Tax Exemption.

21. Apply for funding from:

    - The Social Development Department of RSA,

    - Department of Economic development and Tourism for the Western Cape Government.

    - Department of Social and   Early Childhood Development for the City of Cape Town.

22. Submit proposal for funding to CTV (Cape Town TV)

23. Design & develop website.

24. Overhaul Communinet website content.

25. Create LinkedIn, Twitter & 2X Facebook accounts

26. Approach three primary schools in Westridge – Ridgeville, Duneside & Westville primary schools to setup meeting to discuss a potential collaboration & assess current ICT situation.

27. Meeting with Ridgeville Primary (Only school who responded after initial contact)

28. Research & investigate a variety new antenna options & wireless technologies which will improve QoS & reach i.e. white TV spaces, Wi-band etc.

29. Create an informative newsletter for community

30. Apply for license exemption services & networks from WAPA

There are differences between the activities performed by the project team as per the interim report and the one mentioned in the final report. As the final report is a continuity of the interim report, it shouldn't have to have any difference between the activities; otherwise an explanation should be given in the report.

2.4.2. Expected results

Expected results from Communinet are listed below:

Infrastructure

1. 30 Mesh devices installed and operational.

2. 11 Wi-Fi hotspots able to support at least 55   devices.

3. 15km of Wireless Mesh infrastructure (Line of Sight) in the Westridge area.

4. Duplicate network of Westridge in neighbouring Strandfontein.

Social

1. Mentoring a tertiary student belonging to our network.

2. Improved safety & awareness by creating a neighbourhood watch Facebook page called Proudly Westridge.

3. Reduced poverty

Products and services

1. Wi-Fi routers R300 –R400

2. Internet service offering R150 for 7GB of broadband data.

3. PC repair service offered. (Free)

4. IT equipment for sale.

5. Small business services offered. (Free)

Economical

1. Tax Exempt

2. Employed several casual staff

3. Assisted 2 Companies in registering & formalising their businesses. http://www.gallomedia.co.za/ & http://alwaysbrightelectrical.co.za/

4. Sold Wi-Fi & IT products from scoop distribution at a small profit.

5. Repaired PC's(x4 Users)   for a fee

Knowledge creation

1. eMarketing training content acquired & available to our users, compliments of Quirk. (Includes eTextbook as well)

2. Google Groups "Village Telco Development Community" group.

3. Custom Firewall configured for our unique mesh network.

4. Linux traffic shaping software used for quality management & fare usage.

5. Webmin software is used for managing server pc (Open source).

6. Development of billing server software

7. Nagios, a network monitoring program (Open source).

8. Informative weekly newsletter.

9. Website development

10. Website content overhaul

11. Communinet Wiki

12. Established a social media presence & used platform to communicate our brand, services & products.

13. Assist users with the installation of Skype & Google Talk

Research

1. Researched all topics in Technical report. To improve quality of report and for better understanding.

2. Acquired additional information with regards to certain topics contained in the technical report.

Training

1. Basic accounting training course taken by Project manager.

   Our In house Java Developer has Training 1 tertiary 2nd year student (Mesh user from our community) attending the University of Cape Town

2.5. RESULT CHAIN AND LOGICAL FRAMEWORK

To achieve expected results, a set of activities seems to have been carried out. However, it appears difficult on the basis of the report to understand the relationship between different elements of the results chain. There seems to be a calibration problem of project objectives. It will be important that links between activities and outcomes are clearly established in the final report.

2.6. PROJECT MONITORING SYSTEM

As mentioned in the interim evaluation, we could not ascertain that neither proper project monitoring is being made, nor that data is being archived. We recommended that necessary steps be taken to implement monitoring processes and identify tools for data archiving, but the same remarks are to be made for the final report. We do not have any information about the fact a monitoring system has been built or not.

2.7. EVALUATION FINDINGS

2.7.1. DESIGN

➤ Valid objectives

The ultimate goal of the project remains valid. Indeed Communinet aims at improving education by providing learners with access to the resources needed for proper research and data gathering complete their projects with ease and help them develop & grow. This objective could be

reached not only via the achievement of name project but also with the combined effort of similar projects. This comment made in the interim evaluation also remains valid for the final report.

Moreover, two new goals were added in the interim report, as aligned with the global overall objective of the project. These were:

i . Supply one primary school with broadband Internet access for a 12 months period;
ii . Assist with ICT development at primary schools and offer supporting services.

As per the final report, the project team decided to put the implementation of the added objectives on hold pending further investigation as the evaluation report recommended. These objectives were added in the interim technical report and after discussing with the project team have decided to no longer invest any energy into them until a business case is developed to ensure the successful execution of the objectives.

➢ Appropriate strategies

We have not been able to identify any strategy that has been implemented to achieve project objectives. Several activities were initiated but the execution of the project does not seem to be following a well-defined strategy to see objectives achieved.

➢ Major risks not accounted for

Some major risks have been mentioned in the interim evaluation but the final report does not provide enough information about how the project team coped with them.

First and foremost, the visible lack of interest from the targeted community seemed to be a major risk. Indeed, Internet connectivity does not seem to be among top priority of a rural community as they probably fail to see how their life will be enhanced by project goals. But the project team increased the marketing efforts, offered demos etc. to mitigate this risk. These actions performed, allowed to see results. They've been able to connect up to 30 homes & 38 devices, some of which consisted of tablets & mobiles phones, with a few homes utilising several devices.

Furthermore, another major risk that the project faces is the availability of computers devices. This risk is of utmost importance, as results could not be achieved without this basic component.

The project also seems to have a major dependency on the Mesh Potato network providers and their Chinese partners.

The lack of financial resources also seemed to be a huge challenge for the project but according to the final report, the project manager has created a few relationships with various government & city departments, working with key stakeholders within government. These new established

relationships might contribute to creating synergy, as well as provide funding that will make the project sustainable. Project team will be sending fresh proposals for funding in June '14.

In addition to the risks mentioned above, project team identified in their final report the following:

- Wait for additional DSL lines for expansion from fixed line operator (Telkom – has monopoly over our fixed lines in SA)

- Update the billing software, which will make managing of client's data usage much easier. The project is unable to financially support the developer on a full time basis, which has delayed the efforts in this area.

2.7.2. EFFECTIVENESS

➢ Results aligned with planed objectives

As per the final report, the results listed below and which seem to be aligned with the revised objectives have been achieved:

- The project team managed to connect 30 households to our network.
- Each user connected to the mesh is capable of connection to each other by using their allocated mesh IP address e.g. 10.10.20.1 using a standard web browser i.e. Google Chrome, Mozilla Firefox provided access is given by recipient, which include limited access to the Communinet server which contain learning materials & other media as well.
- The project team managed to reach 30 households and distributed ~ 800GB of broadband data.
- There are around 50 different devices that are registered by the project server to gain access to the internet.
- Two options have been recommended for the users when making calls through the network
  - o Skype
  - o Google Talk

➢ Results acceptability

The report highlights many activities completed but fails to provide analysis on the impact of the results. There is no indication regarding the process by which data is being collected and measured.

2.7.3. EFFICIENCY OF PLANNING AND IMPLEMENTATION

➢ Percentage of achieved project plan

Based on the report, eleven activities are still on going on a total of thirty. This translates to 63% of activities completed at submission of the report. This is quite a weak achievement considering that objectives identified should have all been completed.

➢ Expenses aligned with budget

The budget seems to be cautiously executed but an amount related to an international travel of 7767 Rands present in the interim report doesn't appear anymore in the final financial report. As per the project team explanation, this amount which really corresponded to a travel of 6267 Rands has been reimbursed by AFRINIC, so there was no need to add it to the final report.

Various categories of the budget were strictly respected but it is important to keep a link between the interim and the final report in order to explain clearly, the evolution of the expenses.

➢ Archive of collected data

Though recommendations were made in the interim evaluation, we still don't have any indication of archiving tools used for the project. This is one of the biggest lacks with the monitoring system, of this project. The implementation process should normally be monitored and archived for further use.

2.7.3. IMPACT

> ➤ General objectives and final goals achieved

We would like to point out that results alone are not sufficient to evaluate the impact of a project. However, it should be noted that the project objectives could be formulated as a first step in achieving overall objectives. However, based on the targeted community, it was necessary to add additional goals.

> ➤ Long-term benefits contribution

The project seems to lead to positive long-term impact. As an evidence of that statement, we could note that the community of Strandfontein has already expressed interest in duplicating the work. Nevertheless, it is important to perform a good analysis of the various problems that arose and seek membership of community members before committing. Indeed, it is important that project implemented do respond to a known defined problem.

2.8. RECOMMENDATIONS

We recommend that Project team pay more attention to project planning and monitoring activities as well as data archiving and results analysis. These are key actions to ensure complete success.