
U.S. TRADE AND DEVELOPMENT AGENCY



EXECUTIVE SUMMARY

Telecomunicacoes de Mocambique Vsat Network Business Plan

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Telecomunicações de Moçambique (TDM) contracted Eccles Associates, Inc. (EA) to conduct a feasibility study on the viability of TDM installing a Very Small Aperture Terminal (VSAT) Communications Network. TDM is considering the implementation of a nationwide VSAT network with a view toward providing Universal Access to all of its potential subscribers. While clearly this objective is not attainable with the first implementation phase, TDM believes that phasing in a Countrywide VSAT network can speed up the process! Accordingly, the objective of this study was to assess the feasibility and recommend -the structure of a VSAT communications system to determine the viability of achieving Universal Access, as well as to meet the following objectives for the VSAT network:

- Improved interconnectivity between major and intermediate size cities and to link rural and other remote population centers.
- Alternate paths for existing transmission capacity.
- Increased network/transmission reliability.
- Added long distance transmission capacity.

EA recommends that TDM procure and implement a demand assigned multiple access (DAMA) VSAT network. EA believes that a DAMA VSAT network ideally meets TDM's immediate and long-term needs, allowing it to respond to rapidly changing client needs and a growing level of competition. TDM should commence implementation of this project within one year. Thus, it should develop a well-defined and strict time line for its management and board to decide on the project, to conclude the tender process for selecting the supplier, to arrange the financing, and to begin installation and testing.

A's evaluation is that there is no need for a pilot VSAT network to be implemented. The technology to be deployed is well proven and there are a number of suppliers

worldwide having sound technological capabilities and experience implementing DAMA networks in similar environments.

More specifically, based on the findings of this study, EA recommends the following:

- Investment in a capital expenditure program of approximately US\$4 million, for the full implementation of a VSAT system, which can initially provide service to 50 remote locations controlled by a hub at Maputo.
- Development of a VSAT system that would have both voice and data capability as well as the ability to provide special services including video conferencing and links to private networks.
- Attention to client needs such that where institutional clients are contemplating their own network, one consideration could be the development of a private network that uses TDM's hub.
- Creation of a VSAT Network Management System, providing control and monitoring of all VSAT traffic.
- Procurement of a VSAT network through a tender process as drafted in the accompanying General Technical Requirements.
- Solicitation of debt financing from sources that might include support from international export credit agencies.