

MALICO VSATs : A Consortium Connectivity Solution for the Academic, Research and Development Community in Malawi



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A happy Principal on the roof of Chancellor College – VSAT in background – 6 May 2005



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In the beginning...

- **General Assembly of the eIFL Network in St Petersburg Russia Dec 2002 (Electronic Information for Libraries Network – now over 50 member countries)**
- **Meeting there of Southern African Librarians including Malawi, Zimbabwe, Zambia.....**
- **Excellent heavily subsidized initiatives to bring top quality Internet-based journal articles to the Region through INASP PERI and eIFL (Malawi had then access to US\$3million worth of electronic content and now has more!)**
- **BUT Internet too slow to make their use meaningful!**
- **Agreement by eIFL to investigate whether any assistance could be forthcoming in improving bandwidth**

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ZULC (Zimbabwe University Library ,)

COSALC(Consortium of South African Library Consortia)

MALICO (Malawi Library and Information Consortiu

eIFL General
Assembly

St Petersburg,
2002



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MALICO :Malawi Library and Information Consortium: one head does not hold up a roof

- MALICO was born as the result of a consultative process on **May 7 2003 to unite the strengths of members especially in the area of purchase of and access to electronic content, and training of users**
- OSISA contributed a Consortium Start-up grant
- MALICO was registered as a Trust in early 2004
- MALICO has 7 members: University of Malawi, Mzuzu University, National Library Service and other research and development organisations
- Members pay a small annual fee and contribute proportionately to Consortial Electronic Journal Purchase: currently we raise from members about US\$18,000 per year towards these journals

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Looking for a Bandwidth Solution...

- Having been informed by eIFL /OSI of the bandwidth problem facing library consortia, OSISA approached MALICO with suggestion that they might support the acquisition of VSATs for two or three MALICO member sites as a solution
- After installation, MALICO would be responsible for all costs.
- They further informed us that this would be a pilot project for other library consortia such as LELICO, or ZULC
- At that point it was assumed that OSISA could fund the whole project
- MALICO emphasised that, given the geography of Malawi and the location of its members, four locations would be best

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MALICO VSAT SITES



Image by CSIR

Mzuzu University

University of Malawi:

**Bunda College of
Agriculture**

Chancellor College

College of Medicine

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Network Expansion

- A vital component of the project from the beginning was that connectivity would be expanded by radio link *on a cost recovery basis* to other MALICO members and organisations involved in learning, research and development

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Chronology

Consultations	
Phone contact – OSISA / MALICO	May 2003
Project takes shape	Jun 2003
UNIMA AND Mzuzu Librarians sell VSAT solution	Jul 2003
Contacts with OSISA	Aug 2003
Application to MACRA	Sep 2003
Stakeholder meetings	Nov 2003
OSISA – CSIR contract	Nov 2003
CSIR visits - Geoff Daniel Stakeholder meetings	Dec 2003
Site report ready at CSIR	Feb 2004
RFP – 1st cut	Mar 2004
visit to CSIR, RFP review	Mar 2004
Project moves eIFL -> OSISA	Mar 2004
Malico legal status as Trust	Mar 2004
MACRA waiver and concessions	Apr 2004

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Stakeholder Buy-in – Site Visits Dec 15th – 20th, 2003

Date and Time	Activity Plan for Malawi visit of CSIR Visitors and Dr Chisala for eIFL/MALICO VSATS
Mon 15 th Dec 16.35	Arrive Blantyre - Dr Chisala will meet Consultants (<i>Mr Howse, MALICO Vice Chair may meet visitors and will help with transport from Zomba for Dr Chisala</i>) Accommodation at Ku Chawe Inn, Zomba Plateau
Tues 16 th Dec 08.30 12.00 13.00 14.00 19.30	Chanco Taskforce Meeting to develop VSATS Business Plan meeting with CSIR Consultants at Chancellor Library A/V Room and site visit Lunch in Chancellor Senior Common Room with Dr Paulos Nyirenda (Malawi SDNP) and Mr F G Howse, MALICO Vice Chair and Unima Ag. University Librarian Meeting with Dr Paulos Nyirenda and MALICO Vice Chair Mr F G Howse Depart for Lilongwe (night at Lilongwe Hotel) Dinner with T and M Ngwira (MALICO Secretary/eIFL Malawi Coordinator, Area 3, Lilongwe)
Wed 17 th Dec 09.30 12.00 14.30	Bunda Taskforce to develop VSATS Business plan meeting with CSIR Consultants at Bunda Library A V Room. Site visit and briefing Lunch at APATU with Principal, Librarian and Programmes Coordinator Meeting with National Librarian and Mr Shaba, KCN Librarian, National Library Services, Lilongwe Night Lilongwe Hotel
Thurs 18 th Dec 08.00 12.30 14.00	Depart for Mzuzu Lunch Mzuzu with Professor J J Uta, MALICO Chair and Mzuzu University Librarian Business plan and Stakeholder meeting at Mzuzu University and site inspection Night at Chintech Inn on Lakeshore
Friday 19 Dec 08.00 12.30	Leave for Blantyre via Lakeshore Road Lunch at Boadzulu Hotel with University of Malawi Strategic Planning team including Pro Vice Chancellor Prof Leonard Kamwanja and MALICO member and VSAT site coordinator for Bunda, Mr Geoffrey Salanje Night at Victoria Hotel, Blantyre/Victoria Hotel
Saturday 20 December 08.30 11.00	Stakeholder meeting at College of Medicine (Mr Thawani, Polytechnic Library, representative of KCN, Blantyre Campus, Mrs Bessire Nyirenda of Schoolnet, National Library, Blantyre, Mr Thombozi of MBS?) Site inspection Roundup meeting with Dr Chisala and Mr F G Howse?? depart for Zomba – <i>Mr Howse to arrange transport</i> Night at Victoria Hotel for CSIR visitors

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: **Expected Timescales**

Task	Responsibility	Completion date
Need Identification	CSIR	December 2003
Basic Requirement Specification	CSIR	January 2004
Letter of Invitation to suppliers	CSIR	2004-02-12
Finalised RFP as amended	CSIR	2004-03-10
RFP accepted	OSISA	2004-05-07
Final RFP provided to agreed list of potential suppliers	CSIR	2004-05-21
Tenders close	Suppliers	2004-06-11
Tender adjudication completed (<i>Dr Chisala representing MALICO</i>)	CSIR/Malico/OSISA	2004-07-02
Short list announcement	CSIR/Malico/OSISA	2004-07-09
Final contract negotiation completed, winner announced	CSIR/Supplier/ Malico OSISA	2004-07-16
Project implementation	Supplier	2004-07-17 to 2004-08-20
Project acceptance and commissioning	CSIR/Malico	2004-08-23 to 2004-08-27

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Putting the pieces in place...

- While a series of technical and consultative steps were initiated towards providing a VSAT network, work on consolidating the funding proved difficult
- **BUT** the recognition by MACRA, the Malawi Communications and Regulatory Authority , at an early stage of the significance of the undertaking was most encouraging

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MALAWI COMMUNICATIONS
MALAWI REGULATORY AUTHORITY
Private Bag 241, Blantyre, Malawi

macra

REGULATORY AUTHORITY
Tel: (265) (0)1 433 411 Fax: (265) (0)1 433 444
www@macra.org.mw

Ref: MACRA/66a

5 April 2004

MALICO
C/O Bunda College Library
P.O. Box 219
LILONGWE

Dear Sir

CONSIDERATION FOR REDUCED VSAT LICENCE FEES FOR MALICO

Your letter dated 27th January 2004 on the above subject matter refers.

We are pleased to advise that, after due consideration of the importance of this VSAT facilities for both research and academic work within MALICO, the Authority has decided the following:

1. That you pay a one – off VSAT registration fees of USD 500.00 per site (Total of USD 2,000.00 for the four sites) instead of USD 20,000.00.
2. That the annual fees of USD 2,500.00 per site be waived for the entire 5 year licence period (total of USD 40,000.00 for the four sites).
3. The total amount of fees **waived** for the five years period, amounting to USD 58,000.00 be recognized as MACRA's contribution to the project.

All official correspondence to be addressed to the Director General

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RFP: issues, selection criteria

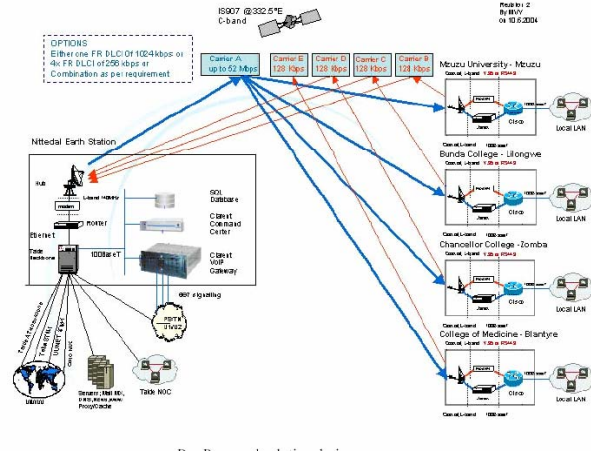
- How proprietary is the equipment?
- Upgrades - what costs, how fast?
- Flexibility in bandwidth assignment, sharing etc?
- The base costs themselves – equipment, recurrent
- Options for 'mesh' topology?
- Trade-in options for equipment?
- Local support/contacts
- KU-band versus C-Band

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RFP – Satellite Linkage



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CSIR RFP for Malico VSAT Network

May 2004

Full Screen
Close Full Screen

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Chronology ...continued

Tender evaluations completed	July 2004
Pretoria bidder's presentations (Emperion, Redwing, GS Telecom, Taide) Winner decided	July 2004
	Aug 2004
OSI joins funding support	Sep 2004
EDRP joins funding support	Sep 2004
Winner announced	Sep 2004
Taide starts details	Oct 2004
Duty waiver from MOF for VSAT import	Oct 2004
Payments commence	Nov 2004
US Public Affairs funds partial transport	Nov 2004
Antennas shipped	Dec 2004
Antenna arrive Lilongwe	Jan 2005
Unima Dossani Trust joins funding support	Feb 2005
Implementation	Feb 2005
Connectivity on all sites	Feb 11 2005

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Network Design & Implementation

- Firewall design
- Mailer system – dual mailers for efficiency, security
- Filters
- Training!!!

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The Technical Processes and the Future

- Consultations
- Partners, donors
- RFP issues, process, output
- Network Design and implementation
- Extending and enhancing the networks
- Challenges of being closer to the Internet

the Future.....

- National Internet exchange dream
- Video Conferencing
- VoIP

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Challenges: Viruses, Spam, Attacks

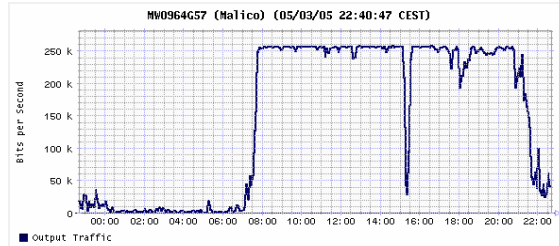
Select	#	Date	From	Subject (Thread)	Size
	16	05/05/2005	Soils U. Chickadees	Looking for cheap high-quality software?	7 kB
	17	05/05/2005	Cantor I. Felice	You best friends and family dverese the BSET ineentr pthoo album!	7 kB
	18	05/05/2005	Content-filter at cirunga.chancVIRUS (Worm.Sober.P) FROM <?@69-167-198-132.atlssl.adelphia.net>		3 kB
	19	05/05/2005	Content-filter at cirunga.chancVIRUS (Worm.Sober.P) FROM LOCAL <?@malonje.chanco.unima.mw>		3 kB
	1	05/05/2005	Content-filter at cirunga.chancVIRUS (Worm.Sober.P) FROM <?@webmail.ubs.edu>		3 kB
	2	05/05/2005	Content-filter at cirunga.chancVIRUS (Worm.Sober.P) FROM <?@thuumrelay1.dtm.ups.aa.net>		3 kB
	3	05/05/2005	Content-filter at cirunga.chancVIRUS (Worm.Sober.P) FROM LOCAL <?@malonje.chanco.unima.mw>		3 kB
	4	05/05/2005	Mail Delivery Subsystem	Postmaster notify: see transcript for details	11 kB
	5	05/05/2005	Mail Delivery Subsystem	Postmaster notify: see transcript for details	9 kB
	6	05/05/2005	Content-filter at cirunga.chancVIRUS (Worm.Sober.P) FROM <?@69-167-198-132.atlssl.adelphia.net>		3 kB
	7	05/05/2005	Mail Delivery Subsystem	Postmaster notify: see transcript for details	17 kB
	8	05/05/2005	Mail Delivery Subsystem	Postmaster notify: see transcript for details	6 kB
	9	05/05/2005	Mail Delivery Subsystem	Postmaster notify: see transcript for details	6 kB
	10	05/05/2005	Content-filter at cirunga.chancVIRUS (Worm.Sober.P) FROM LOCAL <?@malonje.chanco.unima.mw>		3 kB
	11	05/05/2005	Mail Delivery Subsystem	Postmaster notify: see transcript for details	6 kB
	12	05/05/2005	Mail Delivery Subsystem	Postmaster notify: see transcript for details	9 kB
	13	05/05/2005	Content-filter at cirunga.chancVIRUS (Worm.Sober.P) FROM <?@69-167-198-132.atlssl.adelphia.net>		3 kB
	14	05/05/2005	Content-filter at cirunga.chancVIRUS (Worm.Sober.P) FROM LOCAL <?@malonje.chanco.unima.mw>		3 kB
	15	05/05/2005	Content-filter at cirunga.chancVIRUS (Worm.Sober.P) FROM LOCAL <?@malonje.chanco.unima.mw>		3 kB
	20	12:24:34 AM	Content-filter at cirunga.chancVIRUS (Worm.Sober.P) FROM <?@69-167-198-132.atlssl.adelphia.net>		3 kB

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Challenges: bandwidth usage, control



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Where we could have done better!

- When a project stretches over time, characters change, so that although we thought our consultations had been reasonable, at one site when it came to implementation, there was resistance
- This can be linked to individual innovativeness to get connectivity so that is is hard even to give up a poor connection that you struggled for to have a better one where you feel you lose your glory! No virgin territory in this business!

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Spin-off benefits

- At one site, two donors are installing a fibre optic backbone and campus network because of the VSAT
- A local Trust is requesting a project from MALICO on extending connectivity

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As of this month – all good news!

- 2 sites, Chancellor and College of Medicine are doubling downlink from 256 to 512 kbps
- Taide have dropped downlink monthly charges by about 10%: the consortium approach is helping everyone
- Taide have waived fees for upgrading the bandwidth
- Several organisations are asking to purchase bandwidth from each site
- Launch on Friday last with Deputy Minister of Information, street banners and TV coverage
- Memorandum on rights and obligations of sites and MALICO signed by Vice Chancellors and MALICO Board member

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MALICO VSAT NETWORK LAUNCH 6 May 2005



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A final plea !

- **As institutional, national and regional groups here consider issues of bandwidth, please involve your Library Consortia as Stakeholders**
- **They bring expertise in application of technology**
- **They manage distributed access to huge high-value content eg through INASP PERI and eIFL content agreements,**
- **Issues of bandwidth concern them daily**
- **They are the constant link among the three :users, technology and content.**
- **They communicate.**

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Thanks

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