

Text Messaging for Management in Uganda Output-Based Voucher Program

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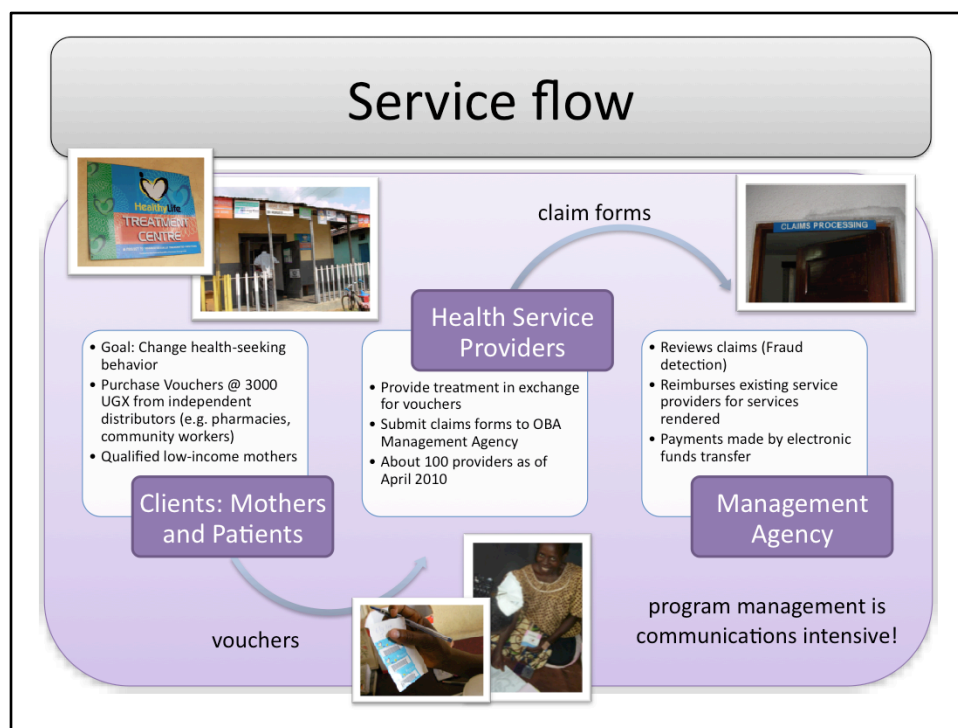


Output-based approach (OBA) in Uganda healthcare

- Steward: Uganda Ministry of Health
- Donors:
 - Global Partnership on Output-Based Aid (GPOBA, World Bank)
 - German Development Bank (KFW)
- Program Management: Marie Stopes International Uganda (MSIU)
- Providers: contracted clinics and hospitals

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Effective healthcare delivery in poor countries is a moral imperative, aids in poverty alleviation, and is a critical and visible proof that governments can effectively deliver to their constituents. Unfortunately donors supporting national governments often find that resources put into national health systems do not achieve desired goals. The output-based aid (OBA) model of financing is one mechanism to address this inefficiency by paying healthcare providers only after verifying service delivery.



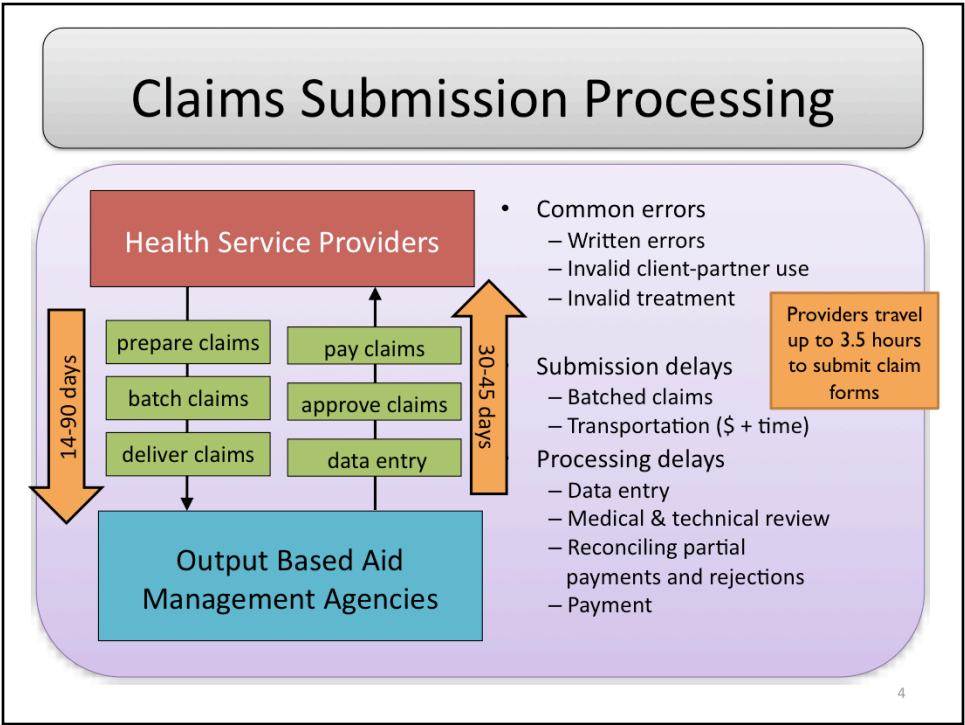
In Uganda these privately owned facilities are contracted to see patients in exchange for bar-coded vouchers. After the patient is treated, the provider files for reimbursement. Following review of the claim, MSIU makes an electronic transfer to the provider's bank account for that period's treatment costs.

Each step in this voucher lifecycle requires transparent information with paperwork to track and reimburse claims. Although payment is quick for most claims (less than 45 days for many claims) any delays in payment cause hardship for participating providers who have limited access to credit.

These contracted "voucher" facilities treat patients in exchange for bar-coded vouchers. The voucher management agency, Marie Stopes International Uganda then reimburses the facilities the cost of the treatment.

What makes this program particularly interesting is that instead of trying to better provision the government clinic, or starting a new clinic that might provide free care, this program supports market based incentives by paying existing clinics to provide specific treatments. The program works with both private for profit and non-profit, NGO-funded clinics, including a clinic run by Marie Stopes International, one of the program management agency partners.

In September 2008, the German Development Bank (KfW) and GPOBA (a World Bank agency) together with the Uganda Ministry of Health launched a US\$ 4.3 million voucher program that provides pregnancy and delivery care for poor mothers as well as treatment of sexually transmitted infections to the general population. The scheme targets households in rural and poor peri-urban environments in western Uganda, and it is expected that 255,000 poor people will benefit by the project's close in 2011.



A key component of program mgmt is claims processing, a time consuming and error-prone procedure in which traditionally the only points of contact have been when the HSP handed in the forms, and 30-40 days later when the payments come through.

Information Constraints

FORM DETAILS				ACCEPTED CLAIMS		REJECTS	
CLAIM DATE	SL. NO	FORM NO	EXPECTED AMT.	FULLY PAID AMT.	ADJUSTED AMT.	REJECT CODE	REJECT AMT.
Second Half of August 2008							
29/Aug/2008	1	10786	6,920	6,920			
29/Aug/2008	14	10800	9,400		4,400	5,000	11
29/Aug/2008	15	19101	19,200	19,200			
29/Aug/2008	16	19102	8,000	8,000			
29/Aug/2008	17	19103	13,700				
29/Aug/2008	18	19105	19,200	19,200			
						NO PREVIOUS FOLLOW UP	8,700
							5,000

Providers often have questions about claim summary reports

4/12 didn't know how many claims have been rejected

4/12 have computer training

12/12 own a mobile phone

3/12 had not gotten feedback

Obscure and Infrequent Feedback
"I don't know. I don't know how we are performing. I don't know how we are faring... and of course it takes a lot of time."

Sequential Rejections
"Cipro pricing b4 C[ontinuing] M[edical] E[ducation]... All above denied b'cos rest of P[atien]t mgt n[ot]. ethical"
 Often an entire month's worth of claims might be rejected at once for the same error

The 11 here indicates that the service provider made an error on the form, indicating a price for the drug that was higher than what the management agency actually reimburses. This is more of a clerical error than anything else. But other common errors also occur, and the service providers often do not understand the numbered codes. While error codes explanations were provided soon after the program launched, most providers had lost that sheet – often buried under a pile of papers. And when asked, they told us that they felt that it was futile to inquire for more feedback or to try to dispute any rejections.

In the photograph seen in this slide, it's written at the bottom, "All above denied b'cos rest of P[atien]t mgt n[ot]. Ethical [i.e. not compliant with reimbursement guidelines]". This is a sample medical advisor review of a claims summary, often occurring weeks after the original mistake had been made several times, before it could be caught and corrective measures could be made, as noted in the first line: "Cipro pricing b4 C[ontinuing] M[edical] E[ducation]"

Timeliness in claims processing is a critical issue – not just because healthcare businesses need cash flow, but because errors that are not caught early are repeated until a medical advisor has a chance to review the claims. In this case, cipro is an expensive drug, and this service provider has lost the cost of five doses of cipro, and probably the lab reagents for the accompanying consultations when repeating the same mistake. If the error had been caught within the first few days, they might have only lost one or two doses.

Communications is key

Linking Stakeholders



Communications Media



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The key to overcoming these constraints is information and communications technologies. The stakeholders are linked together by their collaboration in the RHVP, and innovative uses of ICTs can help them overcome information constraints, improving how these stakeholders communicate over the course of the project.

In this presentation we focus on how and why MSIU uses BulkSMS to communicate with the HSPs

59 providers from initial rollout of maternal voucher “HealthyLife”

**Paper
vs.
E-mail
vs.
SMS**

Topic	Question	Result
Mobile Phones	Average Airtime	20,000 UGX
	Spending	(10 USD)
	Internet Use	12/59 (20.3%)
	SMS Sent/week	8.84 (mean)
	Mobiles Owned	1.49 (mean)
	Mobile SIMS Owned	1.93 (mean)
Computers	Available in Facility	17/59 (28.8%)
Internet Usage	Distance	15.8.km (mean)
	Freq of Use:	
	- Every Day	8/59 (13.6%)
	- Weekly	13/59 (22.0%)
	- Monthly	18/59 (30.5%)
- None	20/59 (33.9%)	

Initially, most program mgmt within the project was handled by paper, and mobile phone, along with personal (non-bulk, non-archived) SMS. While convenient and expedient, both the management agency and the HSPs struggled with the cost of airtime required, and the lack of documentation of medical decision. In addition, most communication was biased towards HSPs with problems, and other facilities felt disengaged, neglected, or unaware since the PMO’s only recourse to mass communication was actually calling each facility individually, or physically visiting them for delivery of documents.

In September MSIU attempted to require all HSPs to get email addresses, and to check the accounts at least monthly. However, while email has many advantages over SMS, the majority of HSPs did not have the infrastructure required to use it effectively. Only 13.6% of facilities had Internet locally available – others travelled weekly or monthly if at all to the nearest major town to check email at Internet cafes, often only to find that the power was out or the Internet connection was down.

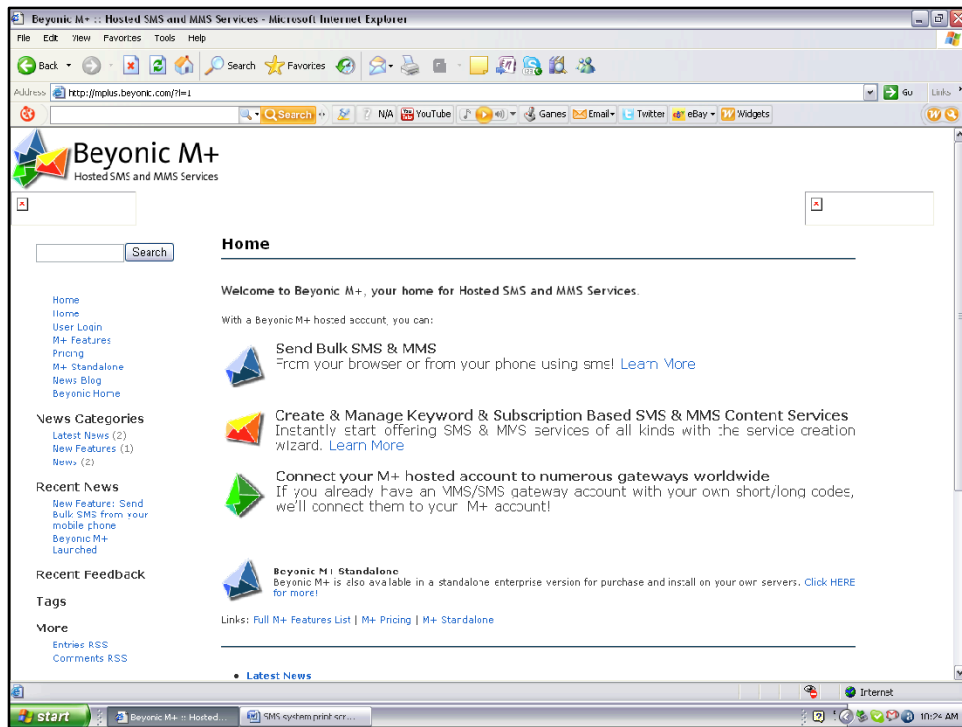
Bulk SMS: Enabling Broadcast Announcements



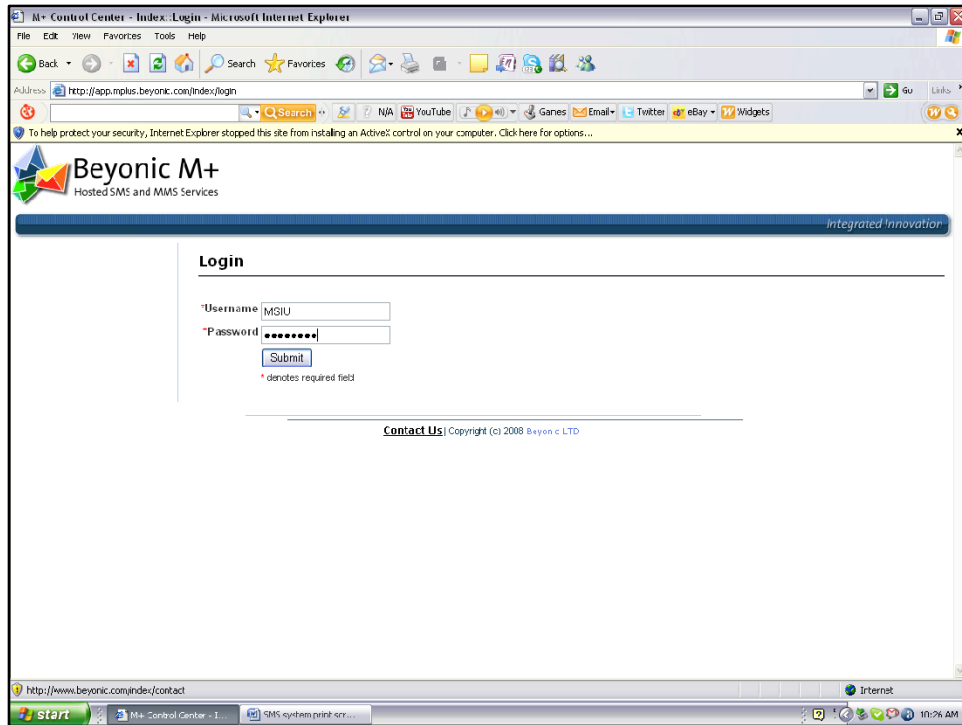
- 150 characters
- Addressed from MSIU (on dominant carrier)
- Template Support
- Two-Way Communication
- SMS Forwarding
- Group Addressing
- Automatic Archiving of Messages

SMS as solution to constraints

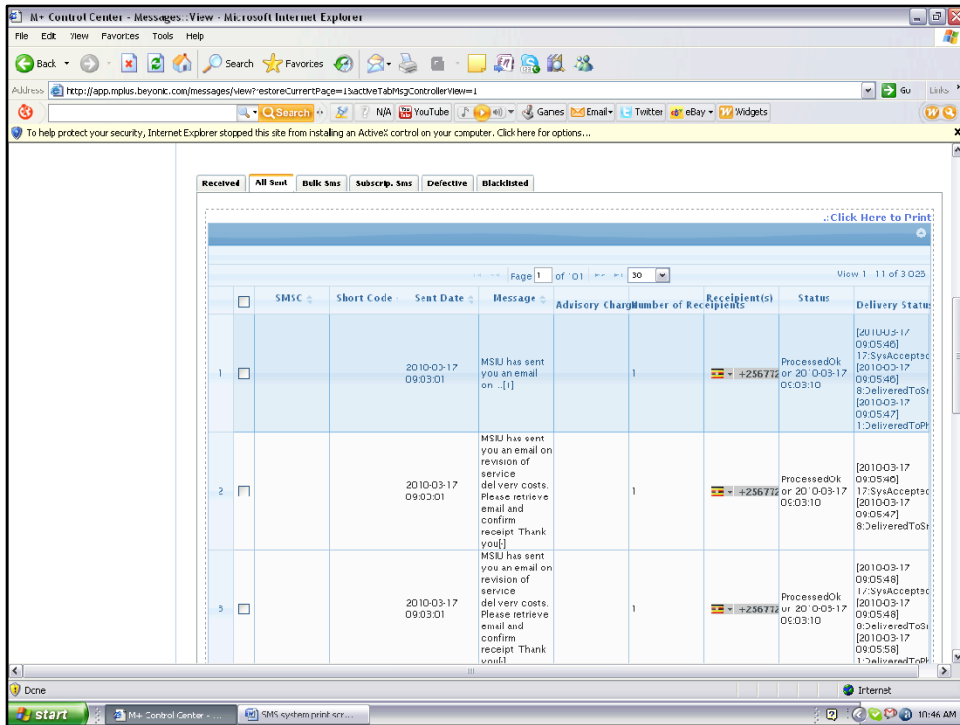
- Notification of payments (from MSIU to the providers)
- Inquiries about payments (from providers to MSIU)
- Requests for additional books/forms/vouchers (from providers/distributors to MSIU)
- Announcements about workshops (from MSIU to providers)
- Communication to voucher sales team (from MSIU in Kampala to MSIU field staff)



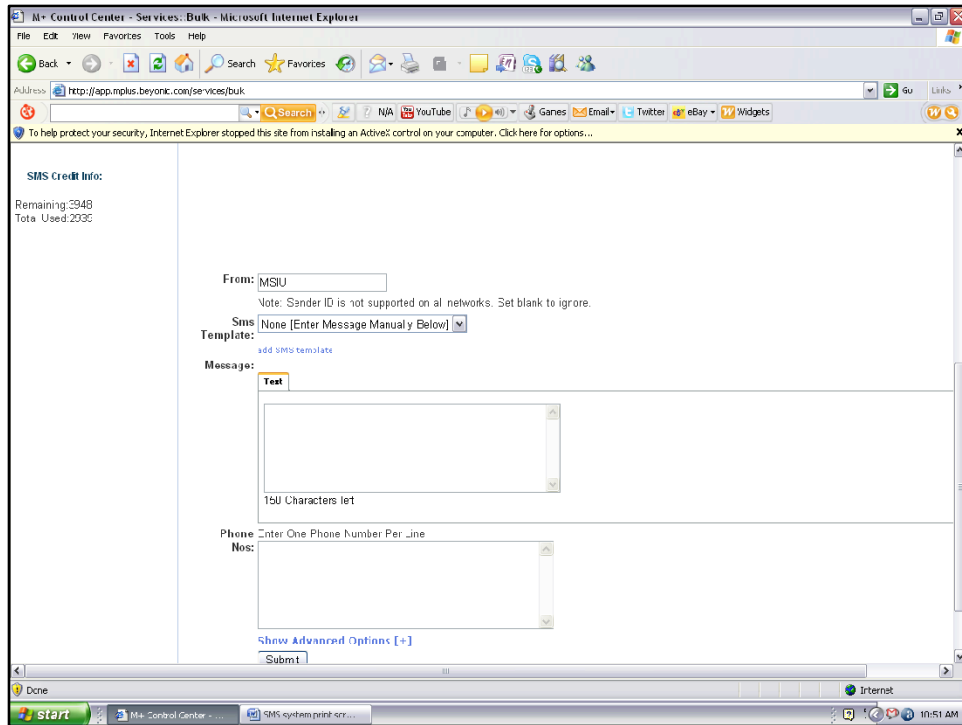
Beyonic M+ is the Kampala based service provider for MSIU's SMS system. Above is the home page.



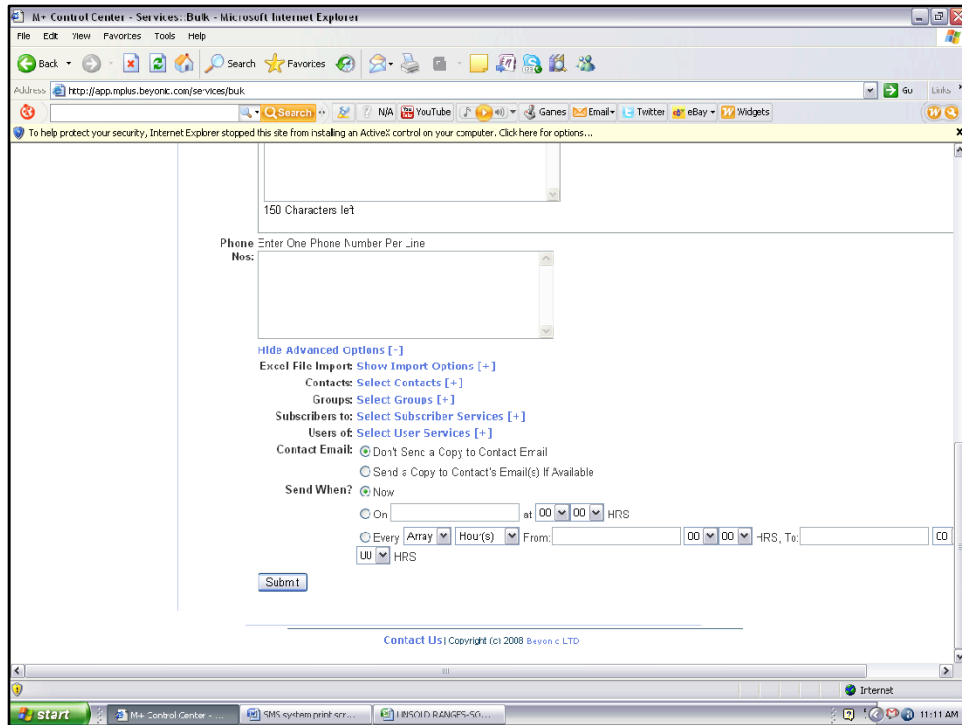
The user login interface requires the user's ID and password.



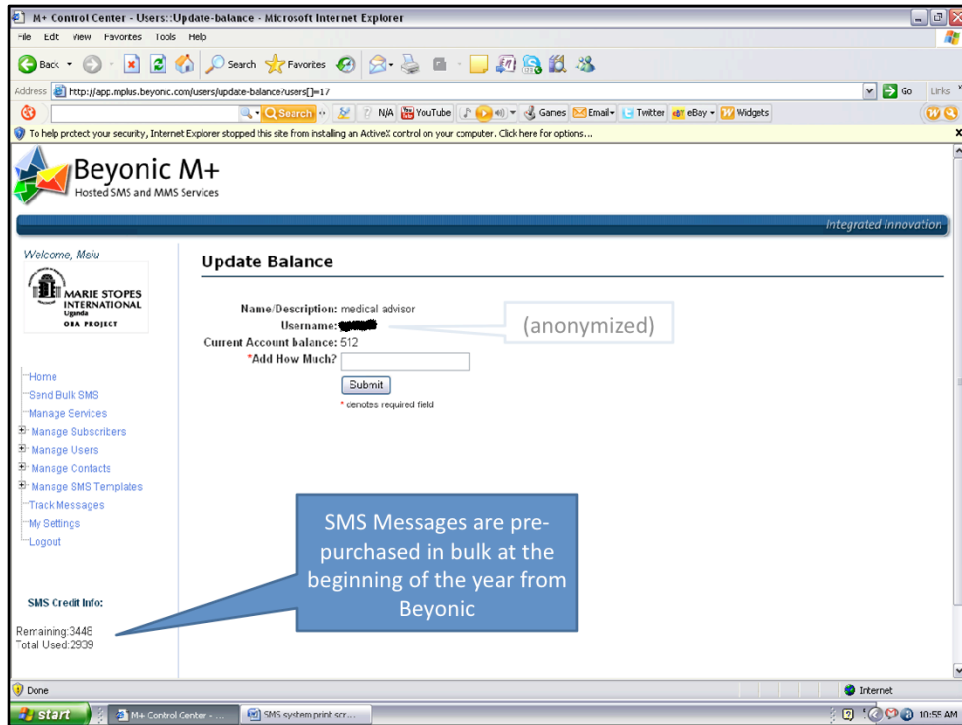
This is a sample of sent messages. The interface is similar to web-based mail services.



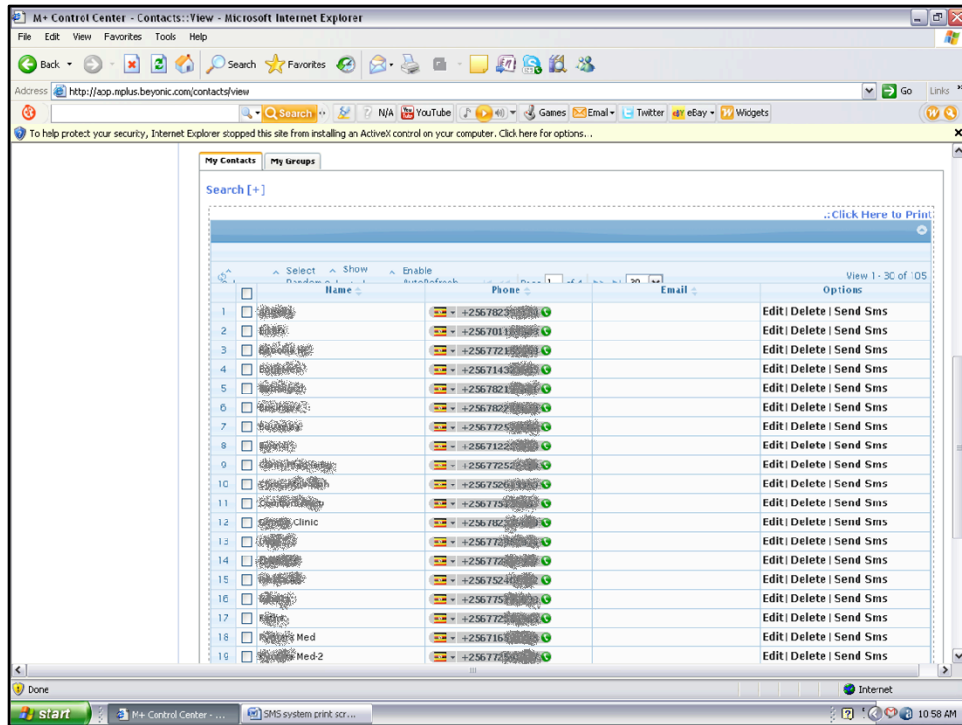
MSIU can send bulk SMS messages through a simple web-based interface.



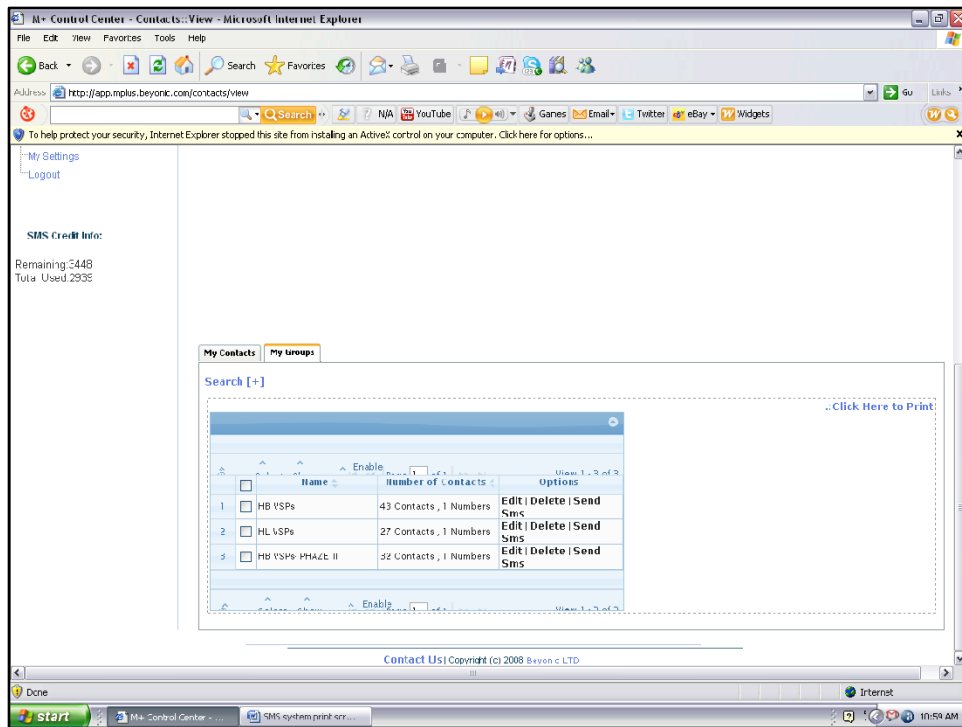
There are additional settings to add multiple recipients, groups, change the send time and similar features.



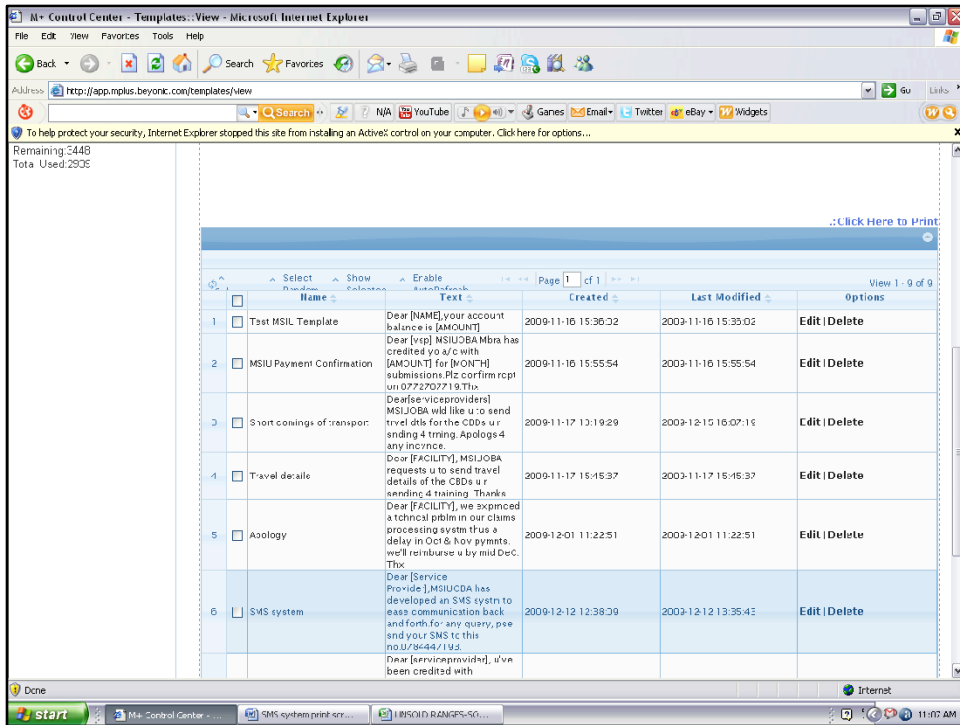
The system allows MSIU to give SMS credit to providers and other users on the system.



Contact management is similar to web-based email allowing users to update individual contacts and create contact groups as shown on the next slide.



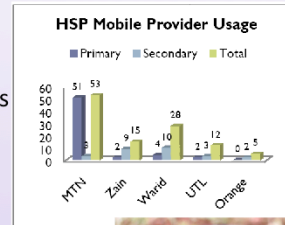
Contacts are organized into groups, making it simple to broadcast announcements to several providers at once.



It's also possible to select previously written SMS templates for routine announcements on payment timing, claims receipts, and common medical questions. This is a record of past templates used. The people at MSIU find that SMS allows for more casual and friendly communication with the providers than formal paper letters or emails.

Technical Difficulties

- Carrier Dependence
 - SMS service is on dominant carrier
 - HSPs on other carriers report that they failed to receive SMS messages
- Phone Number management
 - Wrong numbers
 - Changed numbers
 - Multiple numbers
 - Swapped/shifted numbers in spreadsheet
- Un-received Texts
 - HSPs in low coverage areas
 - HSPs without electricity (phones powered off)
- Duplicate and Delayed Texts



There are issues with the new system. Many providers report that they either never received notifications, or used to receive them but stopped getting them after some time. Some providers report that they have been receiving text messages intended for others. Clinic A has reported that Clinic B relayed a message that Clinic A's finance reports were mistakenly being sent to Clinic B. Clinic A notes that they have never received any notices of payment but they do get general announcements from MSIU. Corrections are made in the databases when errors are identified.

While all HSPs could be on any network, SMS systems don't play well with all networks, and providers using Warid and UTL aren't receiving the text messages. Zain users receive the messages, but the phone number isn't automatically displayed as "MSIU"

To overcome the character limit, MSIU links two SMS messages with a continue tag.

Next steps

- Stronger database management procedures
- Consider expanding SMS database to clients
- Develop M&E applications with short questionnaires for client satisfaction, provider assessment, distributor feedback

Stronger DB mgmt procedures will both enable better evaluation of the SMS system use, and help to followup on the interactivity of the SMS recipients. The system keeps track of which messages are delivered and not, and it is possible to implement human procedures to resend SMSes, or follow up on SMS messages with phone calls if necessary.

Contact management is also key to making the SMS system work well, and requires significant time investment outside of the technicality of the BulkSMS system.

This summer we plan to conduct further work to better understand how HSPs percieve this system and other ICT components of the OBA project.

Acknowledgments

- Marie Stopes International – Uganda
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