ABSTRACT

[1] Argued that [a] healthy and credible legislature is indispensable for representative liberal democratic governance. This representation involves consulting the represented, informing and making decisions as well as exercising influence on their behalf. However the legislative institutions of many African countries lack the effectiveness to either inform or interact with their constituents, resulting in unfortunate citizens-representative disengagement. Fortuitously technology such as mobile technology, online and applications, and (privately owned) radio stations have become promising tools to assist developing state by enabling direct access and participation. This technology is perceived helpfulness in enhancing the democratization process in such countries. The study reviews the ability of these tools towards building stable democracy and the practice of good governance in the context of the Mountain Kingdom of Lesotho. The year 2012 and 2014 in Lesotho will remain a historic time for Basotho people. Lesotho received a coalition Government as an outcome of the election results on May 2012. However, in 2014, Lesotho experienced a ‘partial Government collapse’ due to perceived lack of experience on how to manage such a coalition Government. The paper will examine how Lesotho can benefit from opportunities offered by digital technologies to access information quickly, by utilizing the pervasiveness of broadband and other networks. This provides exciting options and opportunities for the Lesotho Parliament to connect, operate more efficiently and be more open to the public. The questions will be “How make use of the convergence of these technologies provides the context for the delivery of the parliamentary strategic key goals? The paper will conclude by set of key strategic recommendations and immediate key tasks to be invoked as an action plan ready to work. This research paper draws from desktop review and literature search to examine the potentials of digital technology for re-engaging the electorate in the democratic Mountain Kingdom of Lesotho.

Keywords. ICT, Lesotho, Parliament, Electorates, E-Government, E-Democracy, E-Participation

1. INTRODUCTION

[22] Lesotho is a small, landlocked mountainous country with a small population of 1.9 million (estimate 2011) between 15 and 64 years of age (median 22 years), a low GNP per capital, and a high level of poverty. Lesotho’s economy is based primarily on subsistence agriculture, livestock, and remittances from miners employed in South Africa (though this work has declined steadily over the past several years). A small manufacturing base depends largely on farm products that support the milling, canning, leather, and jute industries. Proceeds from membership in a common Customs union with South Africa and from the Lesotho Highlands Water Project (which controls, stores and redirects water to South Africa) form the majority of government revenue [2]. [3] The Lesotho government in its endeavour to develop an ICT-based information society has put a National Strategic Development Plan in place. Its main goals in relation to ICT are to improve the ecosystem and backbone infrastructure (require facilitation of access to high speed broad band and access to basic ICT services throughout the country), to reach universal access and widen ICT literacy, review the e-government strategy and plan to facilitate implementation, facilitate smooth migration from analogue to digital, promote the growth of e-services, and develop niche ICT sub-industries through FDI, research and development and enhance surveillance capacity to deal with cyber security.
The ICT policy, which was adopted in 2005, also has objectives that strongly support infrastructural development and they are as follows; Universally accessible advanced communications networks, provide and sustain diffusion of ICT infrastructure for access to ICT services and products, encourage infrastructure sharing among network operators to optimize scarce resources, create a favourable investment environment for the private sector in the development of ICT infrastructures and endorse competition in the ICT sector so as to increase customer choice, quality and affordability of services [3].

- Lesotho's ICT Policy identifies nine critical areas for the development of the country:
  - ICT and supporting infrastructure
  - Education and human resource development
  - Enabling legal and regulatory framework
  - Rapid delivery of ICT services to society
  - E-Government
  - E-Commerce
  - Health
  - Agriculture and Food Security

Access to telecommunications services in Lesotho is approximately 3% of the population for fixed line and just over 20% of the population for mobile. Internet access is still nascent, with only 2% of residents subscribing to Internet services, with additional access at Internet cafes, primarily in Maseru. In 2009, the Universal Access Fund was established through the collaborative efforts of the Authority (LCA) and the two network operators, Econet Telecom Lesotho (ETL) and Vodacom Lesotho (VCL). The fund has made great strides in extending the communications infrastructure in previously underserved rural areas which were seen as non-viable by the network operators. The Fund has to date completed twelve projects which comprised the construction of sixteen Base Transceiver Station (BTS) sites that currently provide network coverage to some 50,000 people in about 230 villages [2].

2. PURPOSE AND SCOPE

The paper outlines how new digital technology will be used to connect parliamentarians, the public and the parliamentary departments to the information and services they need, building on an already solid base of using technology to support parliament. This is recommend to Lesotho parliament in order to make it the first kind in Lesotho history of democracy should the recommendations be approved. It will improve the strategic and democratic key institutions in Lesotho including Lesotho Independent Electoral Commission, Ministry of home affairs, Parliament port committees, cabinet responsibilities and delivery of local government services. It also:

- Will be used as the basis for future ICT planning and investment, providing a sound basis for investment decisions across the parliamentary departments;
- Outlines a high level implementation plan and next steps;
- Outlines where efficiencies can be made and costs reduced through improved use of technology, resulting in further reduction of paper, power and travel costs; and
- Will be treated as a living document that may change depending on new business imperatives or opportunities resulting from the rapid maturing or introduction of new technology.

It can be used as the strategy document ready to survive for next the five years and will be reviewed and updated annually.

3. POLITICAL AND ELECTORAL BACKGROUND

Upon its independence from Britain in 1966, Lesotho adopted the British Westminster parliamentary system. Under this arrangement the monarch is the Head of State by virtue of his/her hereditary traditional status. The Head of Government is the prime minister, who is the leader of a political party with the majority of seats in Parliament. The prime minister is appointed by the King on the advice of the State Council. Currently, Parliament consists of the 120-member Lower House (with the number having been increased from 80 in 2001 ahead of the 2002 elections) and a 33-member Upper House. The Lower House, commonly referred to as the National Assembly (NA), is made up of democratically elected representatives from whom the majority members of the executive are appointed. The Upper House (the Senate) is made up of 22 Principal Chiefs and 11 appointed distinguished persons. Despite having the 11 appointees, the Senate has over the years been regarded as the domain of the chieftaincy institution. The legislating powers are vested in the NA, while the Senate holds the NA accountable and can delay and critically review bills before they are finally submitted to the King for royal assent [5]

A look at any point in the history of parliament in Lesotho points to competition between the elected Members of Parliament and the Senators. Thus, one of the challenges that Lesotho has had to contend with over the past four decades has been to strike a careful balance in order to manage the co-existence of the traditional and modern institutions of governance represented by the monarchy and chieftaincy on the one hand and elected representatives on the other. Relations between these two institutions have oscillated between cordial and hostile for over four decades.
The country’s political historical epochs range from multiparty democracy (1965-1970) to a one-party state (1970-1986), all under the Basotho National Party (BNP), a military dictatorship (1986-1993) and back to a multiparty dispensation from 1993 to the present day, firstly under the Basutoland Congress Party (BCP) and then its progenies, the Lesotho Congress for Democracy (LCD), the Democratic Congress (DC) and now the coalition of ABC, BNP and [5].

Lesotho’s 1965 independence elections were won by the BNP instead of the BCP, which had spearheaded the struggle for independence [4]. The BNP was a breakaway group from the BCP and its election victory led to fierce rivalry between the two parties. Although the BNP had won the elections, the BCP’s support did not wane, as it enjoyed significant grassroots support. With evident grassroots support for the BCP, the country’s second elections in 1970 were annulled midway by the BNP government after it discovered that the BCP was winning most of the constituencies. The BNP also suspended the country’s constitution and declared a state of emergency during which time it ruled by a decree and embarked on an onslaught, purging the BCP leadership and the party’s supporters. During the period 1970 to 1986, Lesotho did not hold democratic elections. The only elections which took place were organized by the BNP in 1985, with the BNP contesting these elections alone, as opposition parties refused to take part on the basis that the conditions under which the elections were to be held were not free and fair. The BNP went ahead with the elections and claimed to have won. Soon after these elections there was mounting pressure on the BNP regime to open up the democratic space and this, coupled with its almost broken relationship with apartheid South Africa, led to it being overthrown by the military under the leadership of Major General Metsing Lekhanya in January 1986. The army indicated that it was going to hand over power to a civilian authority as soon as peace and stability were attained.[5] However, seven years passed before the army relinquished power in 1993 after concerted efforts from local politicians and civil society organizations buttressed by pressure from the international community [6].

This pressure on the military to relinquish power was against the background of a general democratization wave sweeping through the rest of the SADC region and the African continent at large [7]. New governments had come to power through multiparty elections in the early 1990s. In Namibia, Sam Nujoma’s SWAPO emerged as winners in 1990, ending the 22-year Namibian war of independence. In Zambia, the Movement for Multi-Party Democracy (MMD) led by Frederick Chiluba replaced the United National Independence Party (UNIP) of Kenneth Kaunda after the latter had been in power from 1964 to 1991. In Malawi Hastings Kamuzu Banda’s Malawi Congress Party (MCP) lost to Bakili Muluzi’s United Democratic Front (UDF). It was to be expected, therefore, that with all these changes taking place in the SADC region and beyond, the Lesotho military had little option but to hand over power to civilian authority [4].

Multiparty democracy was therefore re-introduced in 1993, with the BCP claiming a landslide victory at the polls by winning all 65 constituencies at the time, as shown in Table 1 below. The BCP leadership and some of the party’s members had prior to the elections been in exile in Botswana, South Africa and different parts of the world, fleeing from what they saw as the BNP’s purge and extrajudicial killings of their members. The BCP’s 1993 triumphant victory was to be expected against the democratization wave referred to above. By all indications, the BCP could have won the 1970 parliamentary elections had it not been for BNP’s usurpation of power [5].

<table>
<thead>
<tr>
<th>Party Name</th>
<th>Number of Votes</th>
<th>% Voters</th>
<th>Number of Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCP</td>
<td>398,355</td>
<td>74.7</td>
<td>65</td>
</tr>
<tr>
<td>BNP</td>
<td>120,686</td>
<td>22.6</td>
<td>0</td>
</tr>
<tr>
<td>MFP</td>
<td>7,650</td>
<td>1.4</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>6,287</td>
<td>1.2</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>532,978</td>
<td>100*</td>
<td>65</td>
</tr>
</tbody>
</table>

Source: (Lodge, Kadima, and Pottie, 2002:180)

4. METHODOLOGY

It is worth mentioning that a substantial amount of research has been conducted on Electronic-Parliament practice by numerous organizations such as the United Nations Agencies and many regional and global academic institutes. However, the results of research output have not adequately benefited the Mountain Kingdom of Lesotho in as far as the practices, operations and proceedings of Parliament of Lesotho are concerned. Unfortunately the research has not delved into what digital technology can deliver and may have taken place seemingly preferring to ignore areas where electorates can actively participate and be engaged into the daily parliamentary debates from drafting and consolidation, all the way to publishing [9].

The desk survey was used to review the existing policies and strategies from the Mountain Kingdom of Lesotho official and published reports. The questions will be “How to make use of the convergence of these technologies provides the context for the delivery of the parliamentary strategic key goals? The paper will conclude by set of key strategic recommendations and immediate key tasks to be invoking as an action plan ready to work. This research paper draws from an updated literature search to examine the potentials of new digital technology for re-engaging the electorate in the democratic Mountain Kingdom of Lesotho.
5. USE OF INFORMATION COMMUNICATION TECHNOLOGY IN OTHER PARLIAMENTS _ REGIONAL AND INTERNATIONAL PRACTICE.

The legislature is seen as the accredited political institution that serves as intermediary between citizen concerns and government policy [10]. As the citizens’ representative, the legislature is the primary mechanism of popular sovereignty that provides for the representation in governance, of the diverse interests and differences in a multicultural and sub national society and is responsible for bringing these diversity and differences into the policy-making arena [10],[11]. [16] The legislature is, thus, important to the extent that weakness in the representative capacity of the legislature poses a significant threat to democratic advancement [10].

Representation involves informing and listening to those represented and making decisions and exercising influence on their behalf [12], [13] however, legislative institutions of many African countries lack the ability or effectiveness to inform and interact with their constituents [14]. Citizens’ awareness of their political institutions is seen as a prerequisite for accountability in a democratic society, in most African states however, citizens have limited knowledge about their parliaments. They are committed voters but not yet at the point of demanding political accountability from their representatives [15], thus resulting in serious citizens-representatives disengagement [16]. This pervasive contemporary estrangement is manifested in public cynicism towards political institutions and a collapse in once-strong loyalties and attachment between citizens and government [17]. New strategies for re-engaging the electorate by interacting with citizens, informing them and providing multiple channels for receiving and disseminating information is, therefore, imperative if the crisis of democratic legitimacy and accountability is to be averted for the African states [17].

Most African nations like the developed countries have established e-government implementation strategy and have given their legislative bodies online presence [18]. Most of these countries are however, currently using the Internet as a medium to provide information on legislatures’ activities to the citizens. Parliaments in Africa and United Kingdom, Lesotho, European, Canadian, such as Nigeria, Ghana, Kenya, Cameroon, South Africa, Rwanda, Zambia, Zimbabwe, Angola, Botswana and Ethiopia, have their Websites populated with information on parliamentary functions such as Acts, Bills, Order papers, Hansards, Votes and Proceedings. Documents on these parliamentary businesses are available for download in portable document Format (PDF) format on the parliament Web sites. Citizens can access the other parliamentarian oversight function such as committee membership and reports. However, adequate provision has not been made for members of the public to have easy access to or communication with their representatives. Very few of the parliament Websites visited have means for electronic interaction with the legislatures.

Only Federal Republic of Ethiopia House of Federation web site has a functional online forum and Real Simple Syndication (RSS) feeds. It also has provision for chatting. Only Angola Parliament has a fully implemented online petition submission while Zambia Parliament merely generalized its electronic submission platform. The website of South Africa parliament calls for submission and petition from the public. The process of submission is however, completely manual. Kenyan parliament web site also allows searching and viewing of petitions but the process of submission is manual. Phone numbers and emails address of the parliamentarians cannot be gotten from the websites except for South African which gives the official emails of the parliamentarians alongside their names. Kenya, Zambia, South Africa give details of committee activities including their sitting time. Zambia goes a step further to include details of time, venue and accessibility status to the public.

There is more to which parliaments in Africa can do to promote accessibility and citizens’ participation by taking advantage of the Internet. Using Web 3.0 for instance, parliament can provide online streaming of parliamentary session, advance search parliamentary business documents, extraction of all debates on specific bill, online submission of petition/document upload from citizens, online discussion etc. According to the e-parliament report (2012), audio and video capture of proceedings remains the most useful technology by parliaments in developing countries (Figure 1). Most African countries belongs to the least group in the use of document repositories, mobile communication devices, mobile communication application for citizens, speech-to-text dictation software, TV broadcasting of plenary sessions, open standards such as XML and webcasting and ranked second to the last in e-parliament score (Figure 2). It is evident that African parliaments have not adequately employed the Internet as a medium to give voice to the people and making them to be part of their decision making and conducting their oversight function. This is also evident in the Global Centre for ICT in parliament report 2012 [18]. Most African countries falls into the category that least use variety of ICT tools for citizens-representative communication and interaction.
Table 2. Other methods of Communicating with Citizens Used or Being Considered by Parliaments Grouped by Income level

<table>
<thead>
<tr>
<th>Communication Method</th>
<th>Low Income</th>
<th>Current Using</th>
<th>High Income</th>
<th>Low Income</th>
<th>Planning of</th>
<th>Considering</th>
<th>High Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile phones</td>
<td>8%</td>
<td>13%</td>
<td>26%</td>
<td>50%</td>
<td>58%</td>
<td>43%</td>
<td>30%</td>
</tr>
<tr>
<td>Social networking sites such as Facebook or Myspace</td>
<td>0%</td>
<td>20%</td>
<td>30%</td>
<td>20%</td>
<td>24%</td>
<td>25%</td>
<td>20%</td>
</tr>
<tr>
<td>TV programs (on other TV channels)</td>
<td>0%</td>
<td>13%</td>
<td>34%</td>
<td>50%</td>
<td>53%</td>
<td>52%</td>
<td>40%</td>
</tr>
<tr>
<td>Twitter</td>
<td>10%</td>
<td>31%</td>
<td>47%</td>
<td>27%</td>
<td>30%</td>
<td>35%</td>
<td>30%</td>
</tr>
<tr>
<td>Webcasting of committee meetings</td>
<td>0%</td>
<td>5%</td>
<td>15%</td>
<td>20%</td>
<td>20%</td>
<td>22%</td>
<td>20%</td>
</tr>
<tr>
<td>Webcasting of plenary sessions</td>
<td>0%</td>
<td>6%</td>
<td>10%</td>
<td>45%</td>
<td>45%</td>
<td>45%</td>
<td>40%</td>
</tr>
<tr>
<td>Webcasting of special programs</td>
<td>0%</td>
<td>5%</td>
<td>15%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>YouTube or other video sharing service</td>
<td>0%</td>
<td>23%</td>
<td>34%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source (Global Centre for ICT in Parliament, 2012)

Table 3: Average Total E-parliament Scores by Region (Global Centre for ICT in Parliament, 2012)

Source, (Global Centre for ICT in Parliament, 2012)

6. THE NATIONAL ASSEMBLY OF LESOTHO

The National Assembly of Lesotho is composed of one-hundred and twenty elected members. Eighty members are directly elected from constituencies and the other forty are elected through proportional representation. There is a Speaker who is elected by members of the National Assembly. No member of the National Assembly can participate in its deliberations without first taking the Oath of Allegiance. Members making their maiden speeches, which are expected to be short and not controversial, are not interrupted and are generally given an enthusiastic applause by drumming the chambers’ tables vigorously [19].
The Speaker’s chair looks over the entire Assembly. The seating plan is U-shaped. The government side sits on the right of the Speaker with the Prime Minister and Cabinet occupying the front-benches while the other members of the ruling party occupy the back-benches of the same side. This seating plan is mirrored by the main opposition party with its leader and shadow cabinet on the left of the Speaker. When a constituency-elected member of the National Assembly vacates a seat, arrangements are made to have a by-election. When a member elected on the basis of proportional representation vacates a seat, the Speaker of the National Assembly has power to appoint the next person on the Party List to effect a replacement [19]. The National Assembly of Lesotho is the main legislative body. It enacts laws for the good governance and administration of the country and scrutinizes the political executive on the management and administration of the affairs of the land. The Parliament has passed the new Communications Act 2012. The Act came into operation at the end of April 2012 and is aimed at consolidating all pieces of primary legislation that preceded it and would enable Lesotho to truly participate in the global information society.

The Act provides for:

- The establishment of the Universal Service Fund and thus addressing more areas of communications other than just access;
- The introduction of co-regulation and self-regulation within the broadcasting industry through the establishment of the Broadcasting Dispute Resolution Panel (BDRP);
- The introduction of competition management in the communications services markets. Better regulation of market competition, interconnection agreements and anti-competitive practices would ensure efficiencies and would result in higher quality services as well as lower communication costs, and;
- The introduction of regulation of Postal Services by LCA. When regulated, postal services would develop faster than at the present moment.

[19] The Parliament of the Kingdom of Lesotho has a Local Area Network, e-mail and Internet facilities. Parliamentarians do not currently have computers during Sessions in the National Assembly. UNDP has recently funded ICT training for Members of the Parliament as well as Parliamentary sessions. The Honourable Speaker of the National Assembly of Lesotho, Sephiri Motanyane recently joined World e-Parliament Conference 2010 which was held at Pan-African Parliament Gallagher Estate Midrand, Johannesburg 21-22 October 2010. The presence of the speaker duly prove the importance of widely adoption the use of ICT in the Parliament, and the strategic advantages that e-Parliamentary applications can offer to wider society in Lesotho [19].

[18] The Global Centre for ICT in Parliament 2010 report declared that the following has not yet been able to exercise significant influence in among the member States which Lesotho is participatory member;

- The biggest gap is certainly the failure to engage parliamentarians in policy debate about the Information Society. These debates are taking place in national parliaments, but there are so many issues such as cybercrime that really need to be dealt with at the regional and international level. The Global Centre for ICT report takes some first steps towards creating a global community of parliamentarians with expertise in ICT issues. So this should be one of the priorities as we move ahead.
- On the other side, the Global centre still need to mobilize the political leadership in the parliaments more strongly in support of using information and communication technology in parliament to strengthen relations with our citizens.
- There is a need to make long-term commitments to building capacity by investing in staff and training for parliamentarians.

It is believed that Lesotho National Assembly in strategic partnership with the Global Centre for ICT can do more to bring about greater cooperation between donors, international organizations and parliaments. This would lead to more effective support to parliaments, and better results for Mountain Kingdom of Lesotho electorates. In this regard, Lesotho community should make a commitment to mobilize their expertise and goodwill in favour of the parliaments that most need it [18].

Based on the brief background of Lesotho National Assembly, the preliminary review outcome will like to believed that majority of parliamentarians in Lesotho National Assembly will able to use technology to provide accurate verbatim accounts of plenary debates on the same day and sometimes within a few hours. Many of these parliamentarians have already voiced their needs for support in order to understand the technological options that are available to legislatures and to implement them in their environment. A rich base of knowledge and experience exists among the parliaments of the world is available and, if adopted and implemented, can help all improve their capacity to capture and report proceedings and hence expand legislatures’ openness and citizens’ knowledge of the parliamentary process [18].
7. TECHNOLOGY DEVELOPMENT IN LESOTHO

7.1 Digital Broadcasting Migration
The process is focused on migrating television broadcasting from analogue to a more spectrum-efficient and high quality digital platform by 2015. The Ministry of Communications, Science and Technology has invested M400 million into the project and it is in the first stage of implementation. The adoption of digital broadcasting will enable consumers to benefit from improved reception quality, additional programme channels and more efficient use of spectrum in the country Funding source: Government of Lesotho Geographic scope and timeframe: National and ongoing [20].

7.2 Lesotho Government Data Network (LGDN)
This project is an expansion of the Lesotho Government Data Network to district capitals. LGDN aims to connect all government offices in Maseru and in the other nine (9) districts to one network and data centre housed at Moposo House, the Ministry's headquarters. This will help to significantly reduce communications and data-sharing costs within government. The Lesotho Communications Authority (LCA) has decided to initiate and support the establishment of the Internet Exchange Point (IXP) in Lesotho in order to improve access speeds for Internet users, reduce cost since a good proportion of traffic would be exchanged utilizing local rather than international bandwidth. In addition, the IXP would create revenue through new business opportunities by allowing easier hosting of local domains and improved access speeds. To this end, the UAFC set aside about M1.8 million towards the establishment of the IX. Initial groundwork has been started with stakeholders of the Lesotho Internet community to enlist their buy-in into the project. The proposed regulatory framework encourages the deployment of converged technologies, which can be offered over existing networks using IP technology. In relation to overall infrastructure, the country intends to adopt a technology neutral approach in selecting appropriate, scalable technology needed to build robust communications networks. Secondly, the policy seeks to encourage the expansion of the national electricity grid in order to support the deployment of ICT infrastructure [21]. Lesotho is a participant in the Eastern Africa Submarine Cable System (EASSy) through a Special Purpose Vehicle (SPV), the West Indian Ocean Cable Company (WIOCC). The cable went live in July 2010 and places Lesotho at a position to have direct access to high-speed bandwidth for broadband services. Broadband is a transformative platform that impacts the ICT sector as well as other sectors of the economy. The multiplier effect of broadband can drive GDP, productivity, and employment growth. This development places Lesotho at an advantageous position to transform into an information economy. Broadband presently remains expensive and limited to a small number of people. This lamentable state of affairs is expected to be reversed with the advent of competitive bandwidth capacity under the EASSy project [21].

7.3 Utilities Sector Reform Project
The Project which is implemented by The Ministry of Finance and Development Planning addresses the infrastructure constraint in the implementation of Government of Lesotho's ongoing private sector led development strategy. Specifically, the project was to seek to improve business infrastructure such as electricity and telecommunication services, including provisions for internet connectivity in the future [20].

7.4 eHealth Initiatives ICT village in Mahobong (eHealth & eAgriculture)
The Health aspect of the project is intended to provide training on the use of ultrasound technology to the health personnel of the Holy Trinity Clinic in Mahobong to prevent deaths of mothers and children in the area surrounding the clinic. A training period was initially undertaken in early 2011 and trained 20 people. OCCAM, WINFOCUS and Hospital of Lodhi invited representatives from surrounding clinics to attend. There is now a satellite connectivity, which facilitates personnel in Mahobong to refer to dedicated staff at the Hospital in Lodhi for second opinion and any other support needed. Apart from the ultrasound machine, the project intends to support the creation of a delivery room at the Clinic. The project has also been extended to the National University of Lesotho in the Health Department where the trainee nurses are being also trained on the use of the ultrasound scanner. The project will soon be extended to St. Josephs hospital which is in the same area as the University [20].

7.5 Geographic scope: Mahobong, Leribe District
OCCAM and the Faculty of Agriculture of the University of Milan will provide training to the staff at the Resource Center in Mahobong (run by the Ministry of Agriculture and Food Security - MAFS) to support farmers in the detection of plant diseases and parasites through the provision of e-phytopathology and parasitology services. The project also intends to provide agriculture tools as well as seeds, fertilizers etc to the farmers [20].

7.6 Electronic Medical Record
Electronic Medical Record (EMR), which is a computerized medical record, is created in a few hospitals in Lesotho and as of 2011 none of them have a fully integrated system. Subsequently EMR will be created in all hospitals in Lesotho. EMR systems will assist health care professionals to store and share patient information across disciplines and across facilities. It will also provide timely and efficient access to medical records without compromising patient privacy, and allows patients to engage in their own health care [20].
7.7 Development of a web-based Social Welfare Routine Information System (SWRIS)
The Ministry of Health and Social Welfare of Lesotho (MOHSW) and specifically the department of Social Welfare (DSW) developed a routine information system for Social Welfare as part of setting up a functional Monitoring and Evaluation system for the Orphans and Vulnerable Children (OVC) response in Lesotho. The system consists of a data procedure manual for data collection and reporting tools on services provided to OVCs at all levels. The frequency of data collection and reporting varies from monthly, quarterly and annually depending on the indicators for which data is collected and reported for purposes of Monitoring and Evaluation of the National OVC Program. Currently there are an estimated 220,000 OVCs and scores of other vulnerable children. Some require basic services to enable them have basic essentials met to enable them lead near normal lives. In order to plan appropriately for these numbers of disadvantaged children, there is need to know those that are receiving services and those that are not. This can be best facilitated by developing a database on individuals receiving services and the type of services they receive. In addition, there are destitute adults and elderly people being provided with services and these too need to be captured. DSW is in the process of designing, developing and accurately testing a web-based database application that will enable it to collect and report relevant information for decision making and service provision at all levels of its structure in responding to HIV and AIDS pandemic as per the MOHSW and DSW strategic plans [20].

7.8 Laboratory Information System
The Association of Public Health Laboratories (APHL) through a cooperative agreement with the U.S. Centers for Disease Control and Prevention (CDC), Global AIDS Program (GAP) supported the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) by implementing Laboratory Information System (LIS). The goal of this class of software, which handles receiving, processing and storing information generated by medical laboratory processes is to strengthen health system capacity and services for HIV/AIDS. Lesotho piloted its current LIS in four laboratories (Central, Mafeteng, Makoanyane and Scott) after having assessed five of them. The LIS will be extended to additional sites potentially including all District Hospitals in the Lesotho National Public Health Laboratory System (NPHLS) [20].

7.9 Rx Solution
From 2008 Strengthening Pharmaceutical Systems (SPS) has been providing technical support to the Ministry of Health and Social Welfare (MOHSW) by supporting the implementation of the Rx Solution, an electronic information management program. SPS is assisting the country to move towards a comprehensive, integrated patient management information system at hospital level. As at January 2012, Berea hospital has fully implemented the system, and now patient information can be tracked right from when the patient registers up until the dispensing point. This is a great milestone as it will assist the GOL in its endeavour to appropriately manage patient information, particularly of patients on ART, thus creating an enabling environment for improved management of patients on ART [20].

7.10 Pan African eNetwork - Tele-Education
This project aims at providing tele-education services to 10,000 African students to undertake Post-Graduate, Under-Graduate, PG Diploma and Diploma and skill enabling certification courses in subjects such as Business Administration, IT, International Business, Tourism and Finance over a 5-year period in Indian Universities/Educational Institutions. The National University of Lesotho through its outreach programme Institute of Extra-Mural Studies (IEMS) is connected to Universities in India where students in Lesotho have access to lectures in Indian universities. There have already been regular tele-education services [20].

7.11 CECS ICT Literacy Programmes
[20] The Community Education Computer Society (CECS) is a South African-based NGO, which focuses on the development of ICT skills in the form of literacy programmes across southern Africa. Lesotho is one of six countries where CECS has a dedicated ICT literacy programme that was established with the support of the Open Society Initiative for Southern Africa (OSISA). The 80-hour programme on ICT literacy enables participants to use word processing, spreadsheet and presentation software, design a basic Web page using HTML, and perform basic computer troubleshooting and maintenance [20].
Many ICT projects were launched in the public and private sector and among those can be found the Lesotho Government Data Network (LGDN), Independent Electoral Commission Lesotho (2012 elections registration confirmation & results on Website, ‘campaigns’ on Social networks), World Vision (Include Area Development Programs - emergency relief), Lesotho Meteorological Services (Climate Action Intelligence, involves High Performance Computer) and other (Postal, Traffic, Passports, Security) [21].

9. CONCLUSIONS
From the findings of the study, it can be concluded that there is the need to enhance citizens-parliament relations in order to reduce the present disconnect between citizens and their representatives and avert the crisis of democratic legitimacy and accountability for the Mountain Kingdom of Lesotho. (Aderonke and Samuel, 2014:4572) stated that there are new methods for re-engaging the electorate by interacting with citizens, informing them and providing multiple channels for receiving and disseminating information is, therefore, imperative. Mountain Kingdom of Lesotho like other developing countries has given their legislative bodies’ online presence. However, adequate provision has not been made for members of the public to have easy access to, or communication with, their representatives. Thus Internet in Most African states largely remains a medium for providing information to the citizens on legislature’s activities while a large segment of the population suffer the problem of digital divide.
Political leaders in Mountain Kingdom of Lesotho must be committed to addressing the issue of corruption and misappropriation of fund if the goal of democratic representation is to be realized in the various countries of Africa. Lesotho parliaments must also be seen to be genuinely committed to the adoption of ICTs in their mandated representative responsibilities. Legislative Content Management & Regulatory Content Management or Legislative Information Management system (LIMS) is a solution designed to help countries, provinces, states, and cities - large or small - manage the life cycle of their legislative documents, from drafting and consolidation, all the way to publishing. Using open data standards and a powerful content management environment, LIMS helps jurisdictions throughout the world improve public access to their legislation as well as their overall production timelines and costs. LIMS is the world first and most complete Legislative Information Management system (i.e. legislative content management and regulatory content management). This will improve the Mountain Kingdom of Lesotho to enjoy the benefits of the use of modern technologies which had recently seen significantly changing the dynamics and the methods involved in capturing and reporting parliamentary proceedings. The timely availability of these reports for members of parliament and the public has become essential for achieving greater parliamentary transparency and accountability, as well as efficiency in the law-making process.

10. KEY STRATEGIC RECOMMENDATIONS

The ICT Strategic key recommendation is proposed to be connected to the parliamentarians, the public and the Parliamentary Service to the information and services they need from anywhere, at any time, through a range of devices, and provide new opportunities for greater efficiency and effectiveness for the National Assembly of Lesotho. The ICT Strategic recommendations will be defined through four strategic themes that outline the key areas where the Clerk of the National Assembly, Senior staff and ICT Administrator will focus planning, investment and delivery:

a) Supporting parliamentarians to be more effective through better use of ICT anywhere and anytime on a range of devices.

b) Support for the effective and efficient operation of parliament and its committees.

c) Making it easier for the public to engage with parliamentarians and the parliament.

d) A capable, respected and forward looking ICT provider.

The strategic themes will be supported by an underpinning architecture that enables content to be communicated and shared interactively with other individuals, teams and communities of interest. Each strategic theme includes a section outlining the key ICT capabilities required to deliver the specific business drivers. Some of these capabilities are common across multiple themes, but are only mentioned once, under the strategic theme that has the highest dependency to have it in place. Additional ICT capabilities that underpin or are common to a number of themes are included in the supplementary material supporting the ICT Strategic Plan. The complete set of ICT capabilities will form the basis of the projects that will subsequently be planned to deliver the ICT Strategy.

NB: The objective is to establish the National Assembly of Lesotho as a platform both nationally and regionally of how ICT can improve communication, transparency and productivity.

10.1.1 STRATEGIC THEME 1 – Supporting parliamentarians to be more effective through better use of ICT anywhere and anytime on a range of devices.

10.1.2 Key business drivers

Parliamentarians are mobile and are expected to be accessible at all times, whether at Parliament House, in the electorate offices or ‘on the road’ and therefore need flexibility in how they access information and communicate. Parliamentary ICT systems and policies need to better reflect this requirement and provide improved levels of support to parliamentarians to carry out their duties anywhere, at any time and on a range of devices. New mobile devices from Smartphone’s to tablets are becoming increasingly available, affordable and popular, and parliamentarians require a choice of mobile devices that are secure, seamlessly synchronized and link readily to a range of parliamentary systems.

10.1.3 Required ICT capability

The ICT Strategic recommendation outlines an approach that provides greater choice in devices and support services, moving away from the ‘one size fits all’ model to one that better recognizes that users are primarily mobile rather than fixed in a location, and allowing them to tailor their office systems to meet their individual requirements. Future ICT solutions will be device neutral and content will be available in a range of formats complying to standards to enable flexibility of access to information from a range of devices. A key principle to support content creation and delivery is to create once (independent of application, device or location) to enable accurate, consistent and efficient storage and re-use of information.

Clerk of the National Assembly, Senior staff and ICT Administrator will provide strategic advice, guidance and support to parliamentarians’ offices for their IT platforms and business applications, including:

a) Guided selection of software designed to support and manage the business (e.g. email, document management) and that safely operates within the Parliamentary Computer Network (PCN);

b) An ability to secure databases and authorise access to IT systems specific to communities of interest or organizational boundaries; and

c) Easy and convenient access to parliamentary systems (new and existing business applications) including interfaces through mobile applications.

d) Clerk of the National Assembly, Senior staff and ICT Administrator will provide strategic advice on the selection of technology and software for the electorate office that will safely operate on the PCN, and, where required, provide guidance and installation support. Specific areas for technology and software advice include:

- electronic document management;
- collaboration technology to allow real-time access and updates to documents;
- contact management tools;
- telephony integration providing automatic redirection of calls to required devices and integrated messaging;
- converting voice to text and conversely, text to audio; and
- video conferencing, allowing senators and members video communication with their staff, constituents, committees or local groups.

Parliamentarians and staff also require the ability to secure and protect information, based on approved and authorized access. Information architecture will need to be developed that will identify key data groups and interactions where access rules can be applied based on roles and other policy considerations to safeguard data. Where further protection is required, Clerk of the National Assembly, Senior staff and ICT Administrator will look to segment the PCN to provide network-level security.

10.1.5 Upgraded search facilities together with new purpose built mobile applications will provide timely access to information...

Over the strategic planning period, there will progressively be a greater opportunity to access information in digital format (e.g. E-Hansard, e-committees, etc), together with extensions to existing manual systems and Audio Visual Asset Management and Archiving Retrieval. Subject to relevant policy and security considerations, the website and the parliamentarian’s device of choice will enable access to these services and will provide integrated media solutions (video/audio/text) through mobile and other devices. Upgraded search facilities together with new purpose built mobile applications will provide timely access to parliamentary information.

10.1.6 Collaboration services

Collaboration technology enables teams and communities of interest to work together, including the ability to allow simultaneous access to update documents. Clerk of the National Assembly, Senior staff and ICT Administrator will progressively develop collaborative services with initially simple conversational capabilities to enable parliamentarians to invite feedback and conversations on topics with the electorate, and to more advanced use of collaborative technologies over time. The use of collaborative technology will evolve through:

a) live interaction;

b) flexibility of capturing input from a variety of sources; and

c) integration of different mediums to collaborate.

10.1.7 Social media services

A number of parliamentarians have commented that their constituents were now conducting business and social interaction electronically and, as a consequence, expected to be able to interact with their parliamentarians in much the same way. Apart from the provision of tools to enable interaction through social media, Clerk of the National Assembly, senior staff and ICT Administrator will keep abreast of advances in social media technology and where appropriate, look to integrate it with other business processes.

10.1.8 Secure remote access services

Of paramount importance in the underpinning architecture to support Anywhere, Anytime, Any Audience and access through a range of devices will be the security and privacy of data. Parliament ICT systems have adopted the controls as outlined in the Lesotho Government Information Security Manual as the basis of the IT Security Management System to mitigate security risks. The security architecture to support the ICT Strategic recommendations will be developed balancing ease of access with protection against unauthorized access, using a layered model of security based on risk.

**NB: The objective is to secure data but at the same time balancing ease of access with protection.**
10.2.1 Strategic Theme 2 – Support for the effective and efficient operation of parliament and its committees

10.2.2 Key business drivers

Trends in parliaments across the world are demonstrating that innovative business processes supported by the appropriate ICT tools and platforms can result in the more effective and efficient operation of parliamentary systems. Common examples include the increased digitization of documents, with some international chambers and committees now being paperless, electronic voting and remote access through video conferencing. Such changes are enabling parliamentarians to actively participate in the parliament regardless of their location and to access vital information more quickly. There are also demonstrable reductions in printing, document distribution and travel, and these have both a financial and an environmental benefit.

10.2.3 ICT opportunities: Strategic use of technology will result in the digitization of documents providing a whole range of opportunities and benefits.

Strategic use of technology will result in the digitization of documents providing a whole range of opportunities and benefits described below. These include: ICT support for parliamentary functions (including functions to support chambers and committees) to enable a more efficient and open parliament; integration of technologies to provide a richer user experience; rationalization of systems to reduce licenses and support costs; an Information Management Strategy that underpins the capability to source information readily from disparate sources; and the extension of parliamentary ICT based services (e.g. broadcasting, telephony and ICT back up servers). The explosion of mobile devices and webcam technology demands that information be captured in digital format to enable timely interaction and presentation in multiple forms. Digital technology in the parliamentary context includes:

E-documents (including e-Hansard) – this allows documents to be more easily searchable and provides the ability to quickly extract components of information to meet specific needs;
• e-documents can also be easily distributed and integrated with other media (collaboration tools, document management systems, video) to provide more efficient processes, particularly in geographically dispersed areas, and richer interaction;
• e-voting – the means to more quickly record and determine the results of voting in the chambers;
• e-petitioning – the capability to enable the public to electronically lodge);
• e-committees – ICT can provide additional support to many committee functions including extending the electronic distribution of papers, remote access to hearings, etc; systems to compile and distribute procedural information and documents to support the business of the Houses and their committees;
• systems to compile, distribute and archive formal and informal records of the Houses and their committees;
• geographically remote attendance through video and web technologies;
• richer and more varied forms of collaboration including contributions independent of time and geography (e.g. blogs, wiki, Twitter);
• auto captioning – speech recognition (voice to text) is used for auto captioning and transcript production resulting in near instantaneous transcript delivery (in line with Web Content Accessibility Guidelines)
• seamless accessibility – seamless accessibility to information services through virtual desktop interfaces (VDI), security control, peripheral devices (e.g. computer, printer);
• improved search capability on structured and unstructured data – through the introduction of superior search technology utilizing automatic indexing capabilities, provide a step change improvement in the ability to search on structured and unstructured data; and
• Provision of information based on personal profiles – at a time when many people experience information overload, introduce push and pull technology to select and classify information based on personal profiles.
• For ICT to implement these technologies, further foundation capabilities will need to be developed including:
• definition of the underpinning architectures;
• an Information Management and Digitization Strategy; and a security model.

10.3.1 Strategic Theme 3 – Making it easier for the public to engage with parliamentarians and the parliament

10.3.2 Key business drivers

Changing community expectations about access to information and a more active engagement in the parliamentary process present new opportunities through the use of ICT for the public to be more easily and directly involved with parliament and parliamentarians. Developments in ICT are increasingly enabling parliamentarians to communicate with individuals and groups through email, video conferencing, websites and social media. As technology becomes more consumer-friendly and affordable and as broadband speeds increase, many more forms of interaction are becoming possible. Under the ICT Strategic recommendations a significant focus will be on increasing the connection between citizens and individual parliamentarians as well as the broader community with the parliamentary process as a whole.
10.3.3 Increased use of video and teleconferencing will enable parliamentarians to easily communicate with each other and their constituents

10.3.4 Technology to assist participation in the democratic process
Clerk of the National Assembly, Senior staff and ICT Administrator has already invested significantly in digital technology to capture and broadcast the workings of parliament. For example, the Website development project has provided the ability to digitally retrieve some records of the parliament. Further developments to enable a closer link between the operations of parliament and the community will include:

- provision of captioning services to increase the accessibility of parliament and committee proceedings;
- expanded use of e-documents so that parliamentarians and the community have faster, easier access to Hansard, committee papers, chamber documents, reports, etc.;
- increased use of video and teleconferencing through consumer-based tools such as Skype to enable parliamentarians to easily communicate with each other and with their constituents using their own devices;
- enhanced broadcast quality and secure tele-presentation facilities that will, for example, allow parliamentarians to participate remotely from their electorate in committee hearings in Maseru district or elsewhere in the country, and will enable constituents and groups, including people in remote areas, to contribute to policy discussion in a meaningful way.
- increased use of social media to increase the interaction between parliamentarians and stakeholders; and
- providing systems where petitions can be raised and managed for the parliament.

Skype-like services will be available as a base capability, utilising the pervasiveness of the internet to allow an ‘any to any’ style connection. More sophisticated open-standards based technology that will enable a higher quality user experience, integration with other technologies (collaboration, voice to text etc) and more secure communication will be available to any destination that has, at a minimum, a webcam.

In developing this capability, upgrading technology in committee rooms will be required to support collaboration and audio visual commentary on appropriately positioned and configured presentation screens, being mindful of compliance with the design integrity of the building. The tele-presentation capability will also be extended to facilities other than the secure, locked down facility currently available.

10.3.5 Providing better access to information
In addition to enhancing opportunities for active participation and engagement by citizens, the ICT Strategic recommendation will also help deliver more accessible and streamlined information about parliament. The Parliament of Australia website should be the first port of call for all Lesotho’s interested in learning about the work of the parliament, its committees and members. Lesotho’s will be able to search and access the full range of output produced by the parliament, across a broad array of media, meeting all relevant Web Content Accessibility guidelines. Students will have ready access to media-rich resources, while the Parliamentary Ministry of Education Office will be able to interact with multiple schools simultaneously, reaching more schoolchildren than ever before. Archived video of parliamentary proceedings will be available and fully searchable, right down to individual speeches, which in turn, will be linked with the relevant Hansard, and associated material.

10.3.6 Technology to assist visitors at Parliament House and online
The National Assembly of Lesotho will be designed to be the people’s house, a symbol of democracy accessible to all. Investment in new technologies will make that goal more achievable than ever before. There are many opportunities where technology can improve the visitor experience and make parliament electronically accessible to people who are unable to visit in person. There are many opportunities where technology can improve the parliamentary visitor’s experience. These include web based virtual tours, greater use of tactile technology, mobile applications to provide information on items of interest and assist in describing tours around parliament, robot technology and make parliament electronically accessible to people who are unable to visit in person. Finally, technology enables collaboration, video-conferencing and social media tools that allow for direct interaction with parliament. For the visitor to Parliament House, technology will be further exploited in audio/visual presentations, interactive displays, three-dimensional presentations and geographic engagement services where the aim is use the technology to engage with individuals during their visit to the parliament. For the online visitor, the same principles apply so that the experience is no less than that of visiting the building itself. This can be offered through the use of site feeds, websites and use of social media channels and tools that allow the content to be re-distributed.
10.4.1 Strategic Theme 4 – A CAPABLE, RESPECTED AND FORWARD LOOKING ICT PROVIDER.

In many incidents the Public Accounts Committee inquiry highlighted the need for a reduction in the fragmentation of responsibility in the delivery of ICT services to the parliament. Other ICT operational matters raised again in various consultancy submissions to Lesotho Government had concluded the need to the enhanced processes, discipline and good practice of good governance in order to improve:

- consistency in the delivery of ICT services;
- clarity in service provision;
- responsiveness to emerging technologies;
- positioning against security threats; and
- reliability of services.

Cost pressures on ICT continue to mount and one way to address these is to simplify and rationalise the way services are delivered. In addition, the current environment is overly complex, having multiple legacy (unsupported) and siloed systems. This means that a broad set of skills and a range of vendors are needed to support the environment, all at considerable cost. Finally, as there is no clear understanding of the interconnectedness of many of the systems, the environment is fragile, with a consequential risk to changes that are applied. Rationalization of ICT systems over the planning period will take into consideration a range of approaches resulting in a reduction of risk and cost as well as improved support and time-to-market for ICT changes. As well as addressing the specific business drivers outlined above, ICT will be used to improve the speed and flexibility of access to information; to reduce the environmental impact through reduction in paper use; to increase accuracy through a range of disciplines, architectures and technologies; and to reduce operating costs for current services.

10.4.2 Customer focused ICT services through service level agreements and improved rigour in project delivery.

Principles to support the delivery of the ICT capabilities include:

- Supporting production applications through service level agreements, ensuring critical applications have appropriately skilled resources available to address system issues;
- facilitating standard cross-chamber system solutions for similar functionality, striving for common solutions wherever appropriate, but enabling some local customization of business rules for each chamber where required;
- providing appropriately skilled resources for all aspects of the systems development lifecycle;
- delivering ICT solutions in the context of the underpinning enterprise architecture, ensuring an integrated and structured approach to the delivery of solutions;
- developing risk based IT security policies, controls and processes based on the Lesotho Government Information Security Manual (ISM);
- exploring COTS/Cloud technologies before development of in-house bespoke solutions;
- where appropriate, taking advantage of whole of government capabilities and services (such as shared procurement arrangements, data interchanges, security services) to maximize efficiency and interoperability with other agencies; and having technology solutions that are device independent.

10.4.3 Integration of key systems

Integrated systems will be a crucial means of delivering improved service and value for money during the period of this plan. These will include:

- implementation of an Information Management Strategy which will enable system data to be stored in the appropriate format (together with its associated metadata) so that data can be efficiently extracted and combined to dynamically form new sources of information to meet individual or specific information requests;
- integration of key elements of the parliamentary business systems (i.e.TOPS, SCID, CommDoc, Bills System) in line with the underpinning service delivery architecture;
- expanding parliamentary video and audio content to deliver in multiple media formats (including content delivery networks);
- upgrading the telephony system to utilise Internet Protocol (IP), which will integrate the desktop with the telephony system, resulting in greater flexibility in communication; and implementing back up for the servers in the central computer room – virtually all of the PCN servers are located in a single computer centre with no off-site backup.
- Underpinning these changes will be strengthened governance, planning, service delivery and good funding regime.

10.4.4 Governance

In a complex business environment such as the parliament, effective governance controls are vital. The governance framework will include appropriate levels of consultation, and advice, decision-making controls, all of which will ensure services remain relevant, secure and effective. These will include:

- well governed, transparent, consultative, Control Objectives for Information and related Technology (COBIT) the focus of COBIT is illustrated by a process model that subdivides IT into four domains (plan and organise; acquire and implement; deliver and support; and monitor and evaluate); and improved rigour on project disciplines, focusing on project outcomes, and increasing confidence in delivery.
10.4.5 Skills, culture, operations and service delivery
In addition to the benefits of removing fragmentation from service delivery, the Roche report identified other benefits in having a single ICT entity. The implementation of the ICT Strategic Plan will be led by a CIO and a skilled team that understands and responds to the particular working environment of parliamentarians and the role of parliament in the community. In this context the ICT Administrator Division will:

- be respected and recognised as ethical and transparent in its decision making;
- act collaboratively with others in delivering services;
- develop an IT services catalogue, standards and service level agreements covering the provision of services;
- increase the level of support during sitting periods and the days leading up to and following sitting periods;
- be adaptive and responsive in the delivery of services;
- have the right skills and structure to both deliver services and drive innovation;
- be recognised as being focused on service delivery;
- focus on quality outcomes;
- offer a single point for ICT support that responds to user needs;
- operate in a culture of continuous learning; and
- appropriately manage contracts for off-site services that support remote access; develop solutions and quickly rectify problems.

NB The objective is to be responsive, transparent, quality outcomes, continuous learning...

10.4.6 Funding
As ICT is a critical enabler for the operation of parliament and vital to the work of parliamentarians, appropriate costing and funding models must exist to underpin this strategy. For example:

- Funding for ICT will cover the provision of agreed baseline services;
- where appropriate service level agreements will be in place to specify roles and responsibilities, standards and resourcing arrangements;
- A catalogue of ICT services and equipment will be available together with associated charges and costs; and
- Funds for major initiatives in the ICT Strategic Plan will be subject to business cases and funding proposals.
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