



Botswana Telecommunication Corporation (BTC)





**Client Name:**

Botswana Telecommunication Corporation (BTC)

**Client Location:**

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**BTC Overview:**



Botswana Telecommunications Corporation (BTC) was established in 1980 to provide, develop, operate and manage Botswana's national and international telecommunications services. BTC is the government owned fixed line operator in Botswana and a premier organization in the Africa region. It is the only fixed line operator in the country, and until recently operated the only international gateway in and out of Botswana. Botswana Telecommunications infrastructure has always been one of the most modern in Africa. The BTC backbone is composed of an all-digital microwave and fiber optic system with digital exchanges at the main center providing a high quality service.

**Client's Strategic Importance:**

KalSoft was honored to work for a large and prestigious organization like BTC. Successfully completing work for BTC opens major gateways for KalSoft in Africa, a market that KalSoft is now focusing on. A personalized recommendation letter from BTC after the completion of the project is a clear indicator of the perfection with which the work was completed.

Doing projects for government organizations has always been considered important at KalSoft as it gives other government organizations confidence in KalSoft's abilities and integrity. Another factor that makes BTC a strategic client is the fact that it is a major company in the telecom sector. The telecom industry continues to grow globally and new companies emerge at a rapid pace with ever changing IT needs. Having successfully completed this project in the telecom industry adds a lot of value to KalSoft's portfolio and diverse skill set.

**Overview of the Solution Developer - KalSoft Pvt Ltd:**

KalSoft – A part of Kalia Group of Companies is a solution provider with the focus on understanding the client's needs and fulfilling them with the "best fit" solution utilizing state of the art technology and innovations and based on industry best practices. KalSoft enjoys a distinctive position in the IT market due to the high quality of work and a large and ever growing list of satisfied and very prestigious clients. Being an ISO 9001:2000 certified and CMM level 3 compliant KalSoft's quality standards and internal procedures and processes are extremely mature and reliable. At present the company has signed an agreement with Moody's International for assessing KalSoft for CMMI Level 5 which is the highest level of Quality Standard in the world.



## Solution Details:

A complete Electronic Document Management System with Workflow Automation was implemented making use of Microsoft Share Point Portal Server. Along with Microsoft Share Point Portal Server 2003 the solution is utilizing K2.NET workflow automation system and customized development on .NET has also been done.



As BTC needed to meet the document management, versioning and control requirements of ISO 9001, an integrated EDMS system was implemented. The system caters for all active BTC documents, procedures and policies that are currently in use within the organization and is capable of being expanded to interface with other BTC data sources like MS Navision CRM, HR Focus and MS Rights Management Server. K2.net and some customized developments were performed for implementing workflow system in order to support approval routing and comprehensive workflows on the document libraries according to the organizational policies.

According to ISO standards all documents must be controlled and uniquely numbered for identification purposes. A document numbering utility was created as BTC needed to omit the manual process of entering sequence numbers for both the reference number and the document number. This utility deletes the header that is present in a newly uploaded document and replaces it with a new header that consists of a BTC logo, document number, revision number and the effective date.

A utility that checks document type "PR" (Procedure) and marks documents as outdated that have not been reviewed for at least a year was also developed. A report is generated and management can view the list of outdated procedures. The utility also generates automated alerts.

A record management system was created for BTC that provides features like placing softcopy reports in proper libraries, setting up retention periods of different documents, deleting a file from the system on the basis of its retention period and then archiving the deleted files in separate folders. A challenging requirement that was fulfilled by KalSoft was that the folder hierarchy should be automatically managed by the system and it should be aligned with the existing SPS document hierarchy. Retention periods and documents numbers are automatically maintained and the retention period automatically populates to the profile of the corresponding document. An archive job submitter submits the job of archiving based on retention periods and a separated job executer utility does the actual archiving of all submitted jobs.

A temporary variation utility was also developed for BTC as they needed the Document Management System to be able to associate or reference an existing procedure to a modified document for a specific modification time. After a time limit the modified document should not be available leaving the staff with no choice but to use existing unmodified procedures. KalSoft developed the system such that the document profile contains the deviation status along with start time, end time and document reference to the policy deviation document. Another utility that is responsible for checking the start and end time of the deviation procedures was also developed and implemented.



## Challenges:

One of the main challenges that KalSoft dealt with was during the initial stages of the project. The personnel at Botswana Telecommunication Corporation were not clear about their requirements and were not technically sound to understand the requirements as well. An analysis was hence carried out of the existing system to deal with this challenge and technical presentations were given by KalSoft's team to improve their technical knowledge. Eventually detailed requirements were extracted and formally documented.

The old system that existed at BTC was manual and an upgrade to a fully automated system for a large organization that has more than 1000 employees was a huge and daunting task in itself. Everyone in the organization was used to the old manual system and of course this required educating every one about the new system. KalSoft used the "Train the Trainers" methodology to overcome this challenge by training the heads of each department who then trained their subordinates resulting in a staff that was eventually competent to use the new system.