

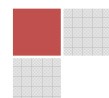
BUSINESS CASE FOR XEDA

Radio Access Network (RAN) Parameter Management

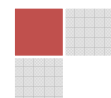
Aexio had successfully deployed its multi-vendor, multi technology RAN parameter management system XEDA Enterprise R4.0 with two leading mobile network operators with a combined total of more than 18 million subscribers.

The requirements of each operator were different with each having their own specific business environment. Two business cases are presented here to illustrate the benefits that can be derived from implementing a daily optimization solution focusing on radio parameter consistency in a live network environment.

	Case 1 (Operator A)	Case 2 (Operator B)
Business Environment		
Vendors	Ericsson, Huawei, Motorola	Ericsson, Siemens
Technology	GSM and WCDMA	GSM
File Parsing Support (as installed at operator)	Ericsson R11,12, 6B Ericsson WCDMA Ericsson MSC Huawei WCDMA Siemens WCDMA Siemens Node B Motorola GSM	Ericsson R10,11,12, 6B Ericsson MSC Siemens GSM BR7, BR9 Siemens SGSN Siemens MSC
System Interfaces	Aircom ASSET Planning Tool (XML update to ASSET)	Remedy CRM ticketing (Ticket number entry)
Reporting & User Interface	MS Excel Reports, PDF & Web view	MS Excel Reports, PDF & Web view



Business Requirements		
Main Requirements	Managing the radio network parameters in a multi-vendor, multi-technology environment with built-in consistency check rules for: <ul style="list-style-type: none"> - Inter-vendor & Inter RAT - Vendor specific rules - MSC Rules (Ericsson) 	Managing the radio network parameters in a multi-vendor environment with automated scheduled switch data dump retrieval & parsing. <ul style="list-style-type: none"> - Inter-vendor & Inter-RAT rules - Vendor specific rules - MSC rules (Siemens)
Specific Requirements	Interface & update ASSET Planning tool with current network parameters from XEDA Enterprise Change requests workflow with change status & history Custom neighbor report based on user selection 2G/3G Cell info change report	Master database setup to compare with live network parameters Change requests workflow with MS Excel type cut & paste change request form Re-parenting verification Default parameter check
Business Benefits		
Inconsistency Detection	Average of 40,000 - 50,000 inconsistencies in first month	Average of 5,000 inconsistencies in 1 st month
Resource Savings / year	2 engineers, 1 consultant <i>(based on operator estimate)</i>	2 engineers <i>(based on operator estimate)</i>
Estimated QoS / KPI Improvement* <i>(based on dropped call rates attributable to inconsistent parameters)</i>	8-10%	Between 5-7%



CONCLUSION

The business case for Aexio's RAN parameter management solution, XEDA Enterprise is evident from the increasing complexity of multi-vendor operator networks which invariably result in Quality of Service (QoS) issues due to parameter inconsistencies and change management processes.

It is known that considerable problems do arise from inconsistent parameter settings in the BSS database and core network which cause handover failures and dropped calls. In single vendor environments, a large part of this can be taken care of with internal consistency checks which are part of the Network Management Software (NMS) software package that should run daily. In a multi vendor environment, as the formats for parameter database are not standardized, this is done via internal macros, custom made software, an internal procedure or in some cases not at all.

Therefore, Aexio's XEDA fulfills a business need for automated parameter consistency checking to ensure that parameters such as neighbor definitions are consistent within the BSS (intra- and inter-BSC or RNC) and between BSS and core network (BSC/RNC to MSC).

