CAN SON BE UTILIZED IN COORDINATING OPERATIONAL CROSS-DEPARTMENT PROCEDURES?

BUSINESS PROCEDURES BECOME SIMPLE, EFFICIENT AND COST EFFECTIVE WITH AUTOMATED SON

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The SON deployment business case is well established today, proving its promise around the immediate benefits in operational and capital expenditure. This has already been already approved by CSP and wireless operators worldwide. Nowadays, SON solutions evolve around automatic, closed loop optimization techniques, supporting a wide range of engineering use cases as well as business scenarios.

Until today the network optimization process has been cumbersome, with many manual stages across radio departments. Operators, who have introduced SON and are already benefiting from improved business processes including network organizing, configuring and healing, are now faced with the dilemma of jeopardizing the well-established and assimilated business processes throughout the radio departments. Should they reap the rewards that come with short-cycled, efficient and automatic tools or stay with the old?

The current mobile operator's typical business operations and procedures for network operations are supported mostly, if not all, by a range of legacy software systems, which impose methodological business guidelines through order workflow and management, status notifications and event synchronization. In this respect, SON is actually viewed as an intrusive technology whose essence, which is automatic, fast, lean and efficient – is in complete contrast to the way things currently work.

Centralized SON (C-SON) solution vendors realize the potential SON brings to the mobile operator; not only in its effect on the network, but also in how SON closes the cross-organizational gaps radio, planning operations, marketing – possibly making the operational processes more efficient. Here lies the vendor dilemma – either to present C-SON as a master of all masters or to submissively adhere to the operators' guidelines and implement its capabilities only around existing business processes.

Can SON take the role of mastering all of the operational processes and become the sole entity for orchestrating the entire practices?

For this to realize, the C-SON vendor product roadmap will have to simultaneously incorporate significant logistical capabilities together with the advanced SON [network optimization] functionalities. C-SON will need to be the information center for the entire network and organization business procedures; requiring it to alert, inform, warn and educate about its automatic activities.

For example: SON optimization, that effects the network service, would need to incorporate bi-directical notification capabilities transferring detailed information towards the NOC (Network Operation Center), in order to avoid operational redundancy between automatic robots and on-site maintenance teams.

Unlike today, where alarms are triggered upon equipment malfunction, C-SON alarms are designed to send notifications toward the NOC at various pre-defined stages during SON operation; i.e.: at the near-time automatic identification of a newly introduced cell during the Plug-n-Play (PnP) optimization process, at the iteration of Mobility Load Balancing (MLB) or even when implementing advanced techniques for Dynamic Load Balancing (DLB).

C-SON solutions today are partially operating in cooperation with business processes in place in the network. The hundreds of pre-planned operations, mainly network maintenance events scheduled by the Operations department and implemented on the network, are not working in harmony with C-SON and are thereby causing a potential for conflict between the automatic and manual procedures. C-SON solutions are required to promptly synchronize with the organizations' calendar; which inherently makes it automatically aware of all maintenance pre-planned events and scheduling. As such, C-SON solutions react accordingly by either suspending their automatic operation for the duration of the maintenance task or alternately, adjusting the SON optimization policies per the event characteristics, especially during mass events.

Seemingly, SON systems today are not capable of taking full ownership of entire business processes. Having said this, it is becoming more and more apparent that C-SON is being assigned very large percentages of ongoing daily task activities. Ideally, C-SON solutions can potentially be best utilized during the rollout process of LTE clusters, which are extremely OPEX efficient, since they are aimed at improving business processes in general. Crowning SON to coordinate business operations might just be the key to flawless planning, optimization and healing procedures, on a network-wide scale.