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Asset Assurance: Bridging the Gap between OSS-BSS

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Communication Service Providers (CSPs) across the globe continue to witness unprecedented growth in competition, due in large part to the feverish pace of the market demand for better and faster products and services. They are responding by introducing innovative and robust service offerings; expanding and transforming their networks to support advanced technologies like 4G / LTE, IPX and M2M; and investing heavily in improving customer experience. This evolution is providing OSS and BSS software providers opportunities to enhance their offerings to enable swifter time to market, stronger integration across BSS/OSS systems, and inclusion of analytics capabilities to support agile decision making.

Today, OSS/BSS solutions have evolved from being merely back-end support to critical operational and decision support systems. According to Research and Markets, the global OSS/BSS market will grow at a CAGR of 16.39 percent over the period 2012-2016. One of the key factors contributing to this market growth is the expanding customer base and increased complexity of network and service offerings.

Revenue assurance, fraud and security management, network capital expenditures (CAPEX) management, bad debt management and settlement related discrepancies are some of the internal challenges service providers are grappling with through the course of ongoing operations.. With most of the OSS and BSS functions operating as silos, valuable data required for effective decision making is trapped within these siloed environments. As a result, service providers lack enterprise-wide and subscriber-centric visibility across CAPEX spend, revenue and cost management, thereby compromising the entire decision making process. With an extremely challenging marketplace and demanding customers, what can service providers do to overcome these challenges? How can they assure operations, protect revenues, minimize costs, reduce network CAPEX while improving their customer experience at the same time?

According to Ovum, telecom operators worldwide are expected to spend a combined $2.1 trillion in CAPEX between 2014 and 2019, driven by tougher competition and the rise of new and advanced networking technologies such as software-defined networking (SDN). Advanced OSS and BSS functions increasingly play an integral role in streamlining operations and implementing service fulfillment and billing processes along with CAPEX and operational expenditures (OPEX) optimization. But with tough competition and faster service innovation, margins are becoming slimmer and CSPs need to buckle up fast.

Subex's thought leadership in OSS/BSS

Subex is a leading global provider of OSS/ BSS solutions that empowers communications service providers (CSPs) to achieve competitive advantage through Capex and Business Optimisation, helping operators improve operational efficiency, and ultimately enhance customer experience. Subex pioneered the concept of the Revenue Operations Center (ROC), a holistic approach that helps telcos sustain profitable growth and financial health through coordinated operational control. Subex provides integrated operations infrastructure, built from the ground up, to establish a link between operations and profitability. The ROC brings together formerly disparate operations, assurance and governance functions and enables service providers to monitor and control the entire revenue chain; identify risks to revenues, margins and customer satisfaction.

But managing OPEX isn't enough. In a highly competitive and resource-constrained telecom environment, the pressure is on to manage CAPEX efficiently. As operators constantly add new assets to support new services and advancements in technology, they lack visibility and accountability around their capex processes. Effective capex management has a strong impact on operational efficiency and return on investment (ROI) for network operators and therefore deserves the attention that it is getting today.

In response to this critical need, Subex has introduced its pioneering OSS solution, *ROC Asset Assurance*. While operators across the globe are having enormous success with Business Optimisation and BSS functions, ROC Asset Assurance helps them manage, maintain and optimize network CAPEX efficiently, helping improve operational efficiency by bridging the gap between the BSS and OSS functions.

Overcome the CAPEX challenges: ROC Asset Assurance

According to a PwC survey telecoms operators indicated that they could be wasting up to 20% or $65 billion/year in capex and in the last decade the long term return on investment (ROI) has been 6%, three percent less than the cost of capital. Their survey also revealed that the current capex process was deeply flawed and capex decisions were driven by technology and not business and commercial objectives. These findings are not surprising given that the asset lifecycle transcends multiple functions each of who have their own information data bases and processes to aid decision making. But lack of data quality in these information data bases, absence of a holistic view of budgets, assets, programs coupled with missing insights results in poor decision making and diluted accountability.

Traditionally telecom operators have deployed stakeholder specific solutions to aid capex decision making. For example, Finance has budget planning, Fixed Asset Register (FAR), manual regulatory and audit compliance focuses, which are mostly BSS functions, whereas the networks team have deployed OSS solutions such as inventory systems, asset management systems, as their primary sources of asset information. But lack of synchronization of these information databases results in visibility and governance issues and thereby making collective and business relevant decisions on CAPEX a challenging task.

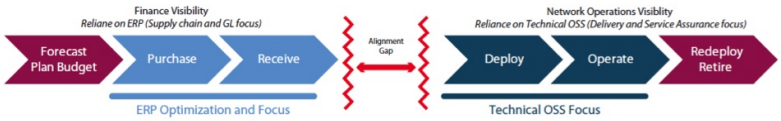

Fig 1: Finance and Network Operations have different views of assets

There has long been an acknowledgement among many operators on the short comings associated with governance of the asset lifecycle. To optimize network capital spending and remain profitable, effective collaboration among various stakeholders, in particular finance and network, is essential. The CTO within an operator wants to know whether all network assets are being used with the greatest possible efficiency while being able to ward off competitive pressures, whereas the CFO wants to be assured that the capital is being efficiently deployed where it is needed. The ambitions and objectives of both the CTO and CFO organization can be met by bringing them on to a common platform and rolling out an effective asset assurance program that will give them the confidence that their network can grow to meet market demands while guaranteeing ROI on every dollar of capital budget spent.

Network analytics applied at each stage of the asset lifecycle can result in significant capital savings annually for the operator. The CAPEX problem requires complete, holistic views into current assets as well as the consumption and placement of those assets. This problem also requires comprehensive analytics that are not only descriptive (show current states, trending etc.), but also predictive, to accurately predict asset exhaustion, procurement triggering levels, time to value, necessary asset warehouse levels, impacts of failure and growth rates on sparing levels, and retirement strategies.

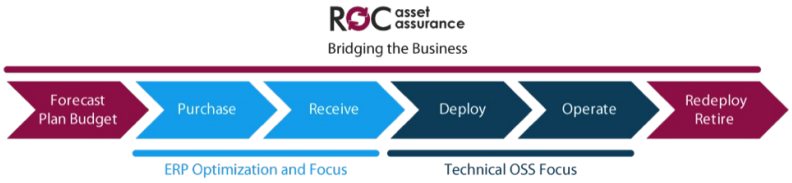

Fig 2: ROC Asset Assurance – Bridging the Alignment Gap

Asset Assurance leverages network intelligence throughout the asset lifecycle to provide both Finance and Operations with the analytics they need to promote more efficient use of capital. Network intelligence provides critical information to complete the asset picture, helping to answer questions including:

> How much time elapsed from the purchase of an asset until it was installed in the network?
>
> How much time elapsed from the installation of the asset until it first carried revenue traffic (i.e. became productive)?
>
> Which assets are deployed in the network but unknown to ERP?
>
> Which assets that appear utilized in inventory are actually un-utilized as reported by the network?
>
> Are spares efficiently distributed based on locations of deployed assets and counts as reported by the network?

The answers for these questions come from capturing, analyzing and comparing large data sets over time from multiple sources (including the network, OSS and BSS) and equipping Finance and Operations with insightful and actionable information.

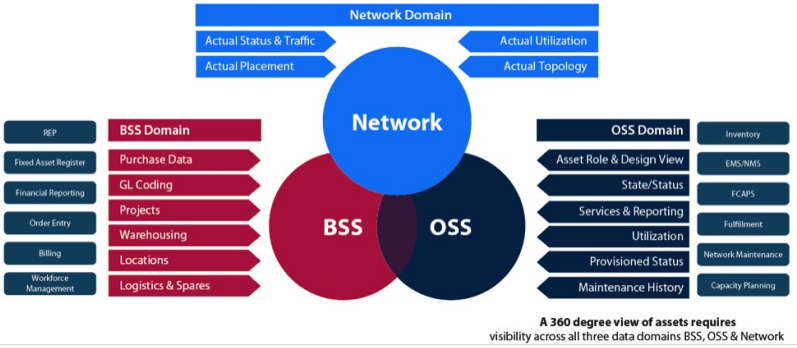

Fig 3: The Asset Assurance Ecosystem

With ROC Asset Assurance solution, operators can manage their telecommunications network assets across all dimensions of the asset life cycle and substantially reduce network CAPEX. The solution is built on the ROC (Revenue Operations Center) product suite, which provides integration not only with existing Subex solutions (Revenue Assurance, Fraud, Partner Settlements, etc.), but also external systems (billing, order management, ticketing, accounting, CRM, etc.). The solution acts as a bridge between the OSS and BSS functions within the telco and successfully blends decision making (actionable intelligence), accountability (purchase controls and gates), and process controls (case management and alerts); all in a comprehensive package that enables operators to reduce their capital expenditure and manage the capacity needs of their networks with precision.

Subex has competency and expertise in asset lifecycle analytics and network intelligence and is leading the Asset Management group in TM Forum. Subex has successfully demonstrated the value of ROC Asset Assurance to help maximize the return on invested capital for its customers and help build competitive advantage, having recently executed a pilot at a Tier 1 operator. With the help of this solution, the operator was able to track visibility of assets across all stages, detect nearly 400 high-end network cards which were untraceable for a specific part of their network, and established a correlation that over a 9 month period there is a direct correlation between increase in repair and corresponding increase in assets. ROC Asset Assurance highlighted that the Operator was spending more capital on keeping buffers to manage increase in defective assets rather than looking at proactive interventions to manage and thereby influencing mean time to repair.

Yet another operator employing ROC Asset Assurance found USD 62 Million in underutilized assets (unknown to the inventory) in the network. This number is still growing.