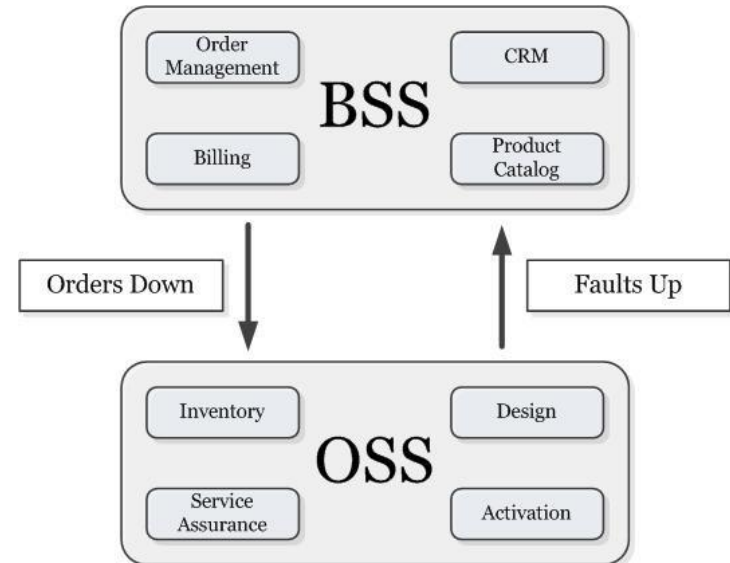


Suite of OSS, BSS, VAS Solutions by Telesens

- Telesens in OSS projects
- OSS by Telesens
- BSS by Telesens
- VAS by Telesens

Agenda

- Telesens in OSS/BSS projects
- OSS by Telesens
 - T-MDS (convergent mediation)
 - T-PCC (PCRF)
 - T-SPA (service provisioning & activation)
- BSS by Telesens
 - T-SDC (subscriber document center)
 - T-PGW (payment gateway)
 - T-SOL (sales online)
- VAS by Telesens
 - T-RBT (RBT, RFT, IVR)
 - T-ACM (account credit management)
 - T-SDP (service delivery platform)

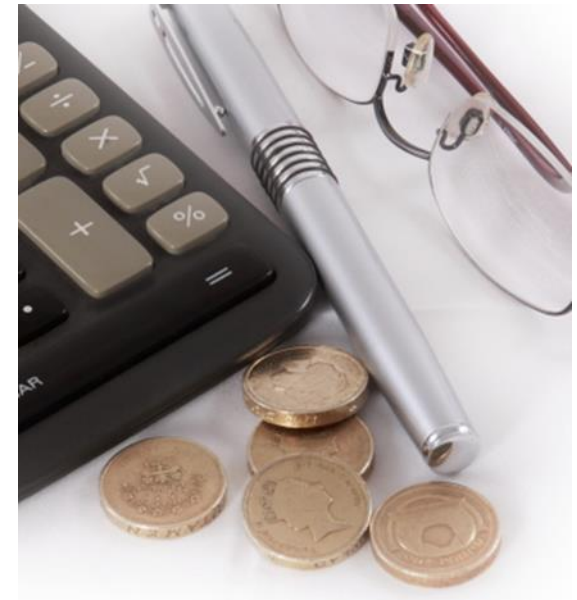


Value-Added Services



Telesens in OSS/BSS projects: Benefits for Operator

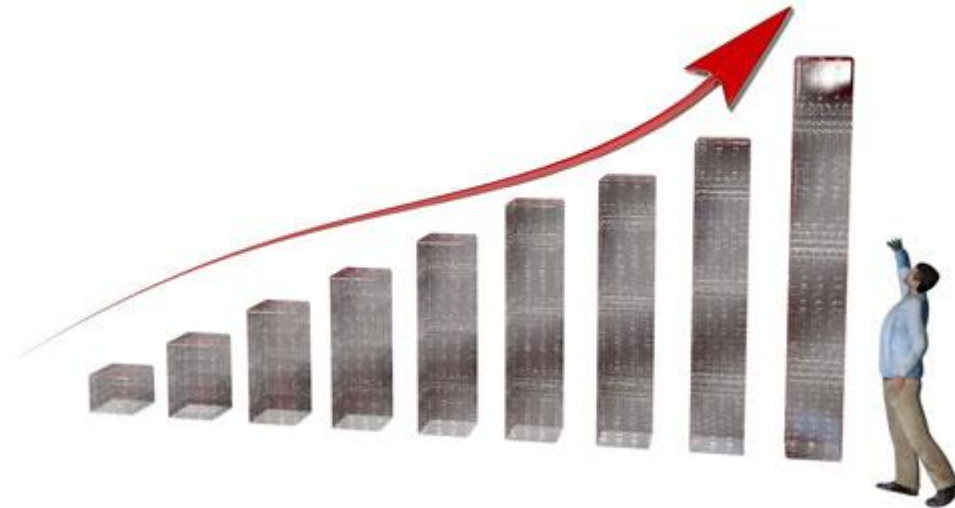
- Reduced requirements for the qualification of employees and reducing the cost of personnel involved in the operation of OS-systems and data processing in the branches:
 - Providing flexibility and the development of infrastructure and telecommunications services
 - Centralization and standardization of pre-billing and service management for all network elements, OSS / BSS and all services (telephony, Internet, TV)
- Working with us you can achieve more by smaller cost:
 - Innovative services to meet changing business needs
 - Cost effectiveness (Ukrainian IT-specialists and European managers and consultants)
 - The safety and stability due to our risk-sharing policy
- Our customers choose Telesens due to many reasons:
 - High professionalism of employees and deep understanding of the business
 - Responsibility for the results, good communication skills
 - Confidentiality
 - Implementation of world-class solution for fair cost



Telesens in OSS/BSS projects:

Technological and operational advantages from Telesens

- Unlimited capacity (vertical and horizontal scaling)
- Fault tolerance (redundancy on the basis of N + 1, High Availability)
- Platforms from world-acknowledged vendors
- Ready to operate in virtual environment
 - Usage of any data-center;
 - Large number of technical platforms becomes unneeded
- Full cycle of services
- Turn-key delivery of solution
- Multi-layer support with following functionality enhancements



Telesens in OSS/BSS projects: Mediation Solutions experience

- Telesens is a key partner of Nokia in engineering, implementation and support of charge@once mediation platform (MediationZone®) for the following telcos: Astelit Ukraine, UCell Uzbekistan, MTS Belorussia, Orange Armenia, AVEA Turkey, Altn Azyr Turkmenistan, MTS Russia, Kcell, etc.:
 - CDR/EDR convertors and call scenarios;
 - data transfer on-line and off-line between network elements and BSS;
 - hardware integration using different on-line protocols: GTP', Diameter, Radius, ParlayX, OSA/Parlay, Netflow;
 - Expansion of CMD-platforms with help of specific agents to deploy additional non-standard interfaces to network elements and information systems.
- Telesens is the official partner of Digital Route AB in projects of installation, customization and support of MediationZone® in EU and CIS:
 - Vodafone, UK – installation, deployment, technical support;
 - ONO, Spain – installation, testing, customization, coding, deployment;
 - MGTS, Russia– installation, coding, implementation, deployment, technical support;
 - UTEL, Ukraine – technical support;
 - MobiStar, Benelux – installation, testing, coding, customization, deployment;
 - 2nd line technical support for Digital Route AB.

The Nokia logo is displayed in a bold, blue, sans-serif font.The Digital Route logo features the text "DIGITALROUTE" in a white, sans-serif font, centered within a dark blue rectangular background. The text is flanked by two white horizontal bars.

Telesens in OSS/BSS projects: Service Provisioning and Activation experience

- Telesens is official partner of Comptel Corporation (Finland) for implementation and support of InstantLink platform for development, delivery and support of service provisioning solutions:

- Several projects of deployment, integration and adaptation of InstantLink platform, solutions for order management
- Enhancement of platform's functionalities with the purpose of provision of services coordination made on various network equipment with information systems, different service



- Telesens is official partner of Siemens Convergence Creators (Austria) for all their portfolio in telecommunication (SIRI OSS fulfillment suite, WiFi Offload, Wallet Express mobile payment, etc.)



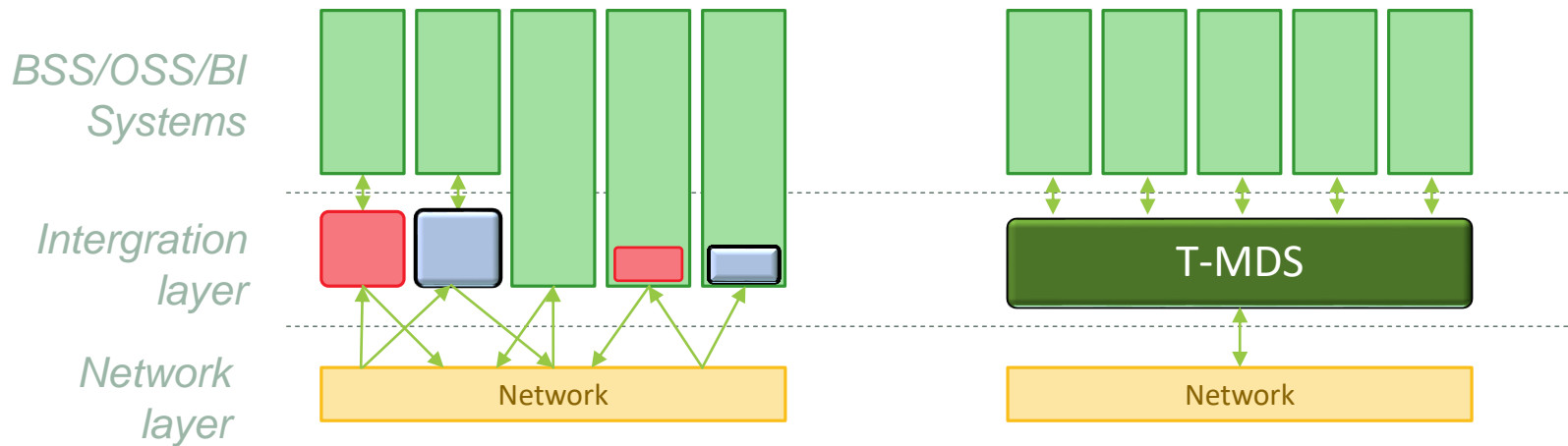
- Telesens is a key partner of Nokia (Finland) in projects of engineering, implementation of custom solutions of services management on vendor's equipment:

- Performed a series of projects for the implementation of business processes of service management with usage of provisioning platforms of third-party vendors (principle Provisioning Proxy)
- Realized a number of standardized components for Provisioning Platforms of Nokia, which facilitates procedures for the preparation and introduction of new types of network services



OSS Solutions:

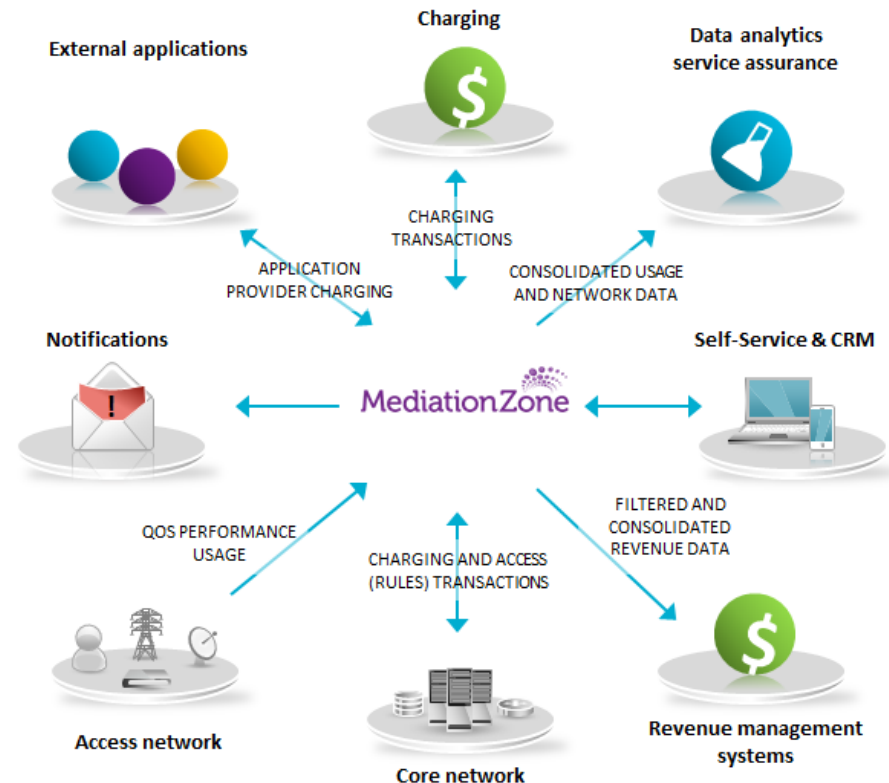
The effective accounting of network services via T-MDS



- T-MDS (Convergent Mediation) performs a function of Common Communication Vehicle between network infrastructure and information systems aimed to realize business processes of monetization (revenue generation) Telecom Operator:
 - Services data exchange with network elements (equipment) and information systems
 - Procession of received data in accordance with pre-defined rules
 - Providing data information system based on a single interface, standardized for each application, according to the principle "one to all"
- T-MDS works with any equipment and provides centralized supplement to information systems with data in required by IS formats
- T-MDS reduces load to other information systems (especially billing) helping to avoid faults in operation

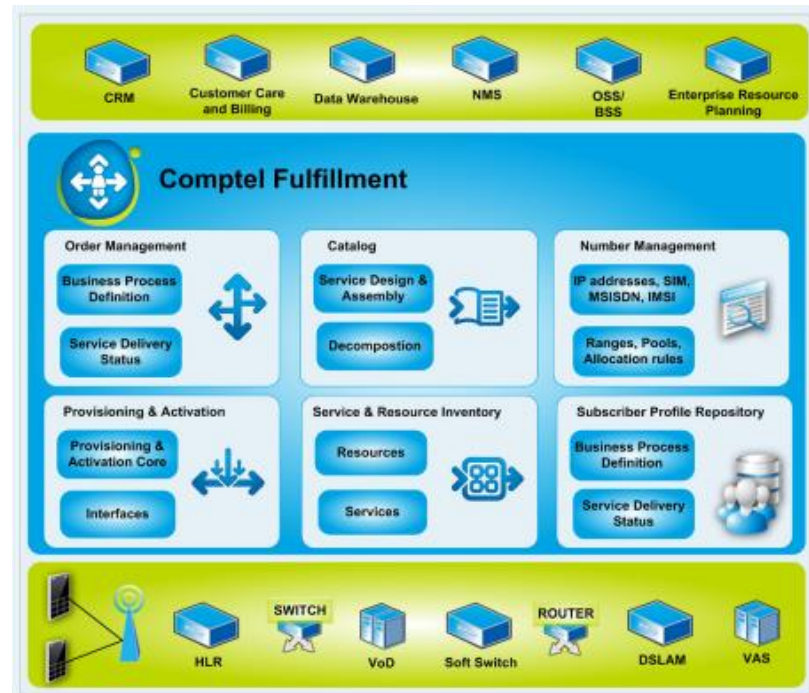
OSS Solutions: Unified governance for quotations and charging of services with T-PCC (Policy & Charging Control)

- T-PCC is a solution designed to enable real-time service and QoS management on per-subscriber basis
- T-PCC is based on the Digital Route MediationZone software platform.
- Effective element of Operators IT-infrastructure and an effective mean of attracting customers due to short time-to-market for new services.
 - Has a flexible and easy configurable workflow-based engine that allows to realize business-processes of any level of complexity, connected to actual and upcoming Operator needs reduce the cost of data services delivering
 - Flexible open architecture, allowing for the expansion of the supported OSS/BSS and types of network elements, service processes and teams:
 - PCC supports integration via standard or proprietary interfaces in complex multi-vendor environments
 - The system architecture provides levels of control, the configuration databases provides allocation of tasks between access points to the network elements
 - Full compliance to NGOSS eTOM (FrameworkX) model



OSS Solutions: Impressive handling of network services with T-SPA

- T-SPA is a set of solutions designed to enable business processes for order management, services and resources
- Based on the software platform of Comptel Corp.
- Effective element of IT-infrastructure operators and an effective means of attracting customers due to the rapid deployment of any telecommunications services:
 - Has a flexible and easy configurable workflow-based engine that allows to realize business-processes of any level of complexity, connected to actual and upcoming Operator needs
 - Flexible open architecture, allowing for the expansion of the supported OSS/BSS and types of network elements, service processes and teams:
 - J2EE & Oracle technologies in use
 - DTK supplied makes it easy to expand the set of interfaces to new network elements and adapt the API to the corresponding OSS / BSS
 - The system architecture provides levels of control, the configuration databases provides allocation of tasks between access points to the network elements
 - Full compliance to NGOSS eTOM (FrameworkX) model
 - Has flexible and scalable tools for stream processing tasks, opportunities for changes "on the fly" means to unify and expand cooperation with all types of OSS/BSS and network elements



OSS solutions: Efficient approach to solve OSS tasks through TIF

■ Platform for building effective information systems and custom software solutions for data processing, management of network services:

- It contains a set of predefined elements to integrate with network elements and OSS/BSS
- Implemented business logic and business processes support via workflow engine

■ Industrial-strength solution that provides:

- Load balancer
- Redundancy
- Scalability
- Open APIs
- Web-based interfaces
- Tools for integration with external NMS

■ Provides ease of use and effective task solving:

- Operates in virtual environment
- Does not depend on 3PP equipment and software (mostly FreeWare)
- Provides tools to quickly and efficiently design algorithms, data and commands processing, means for debugging and testing

Control layer

(command logic configuration)

Application layer

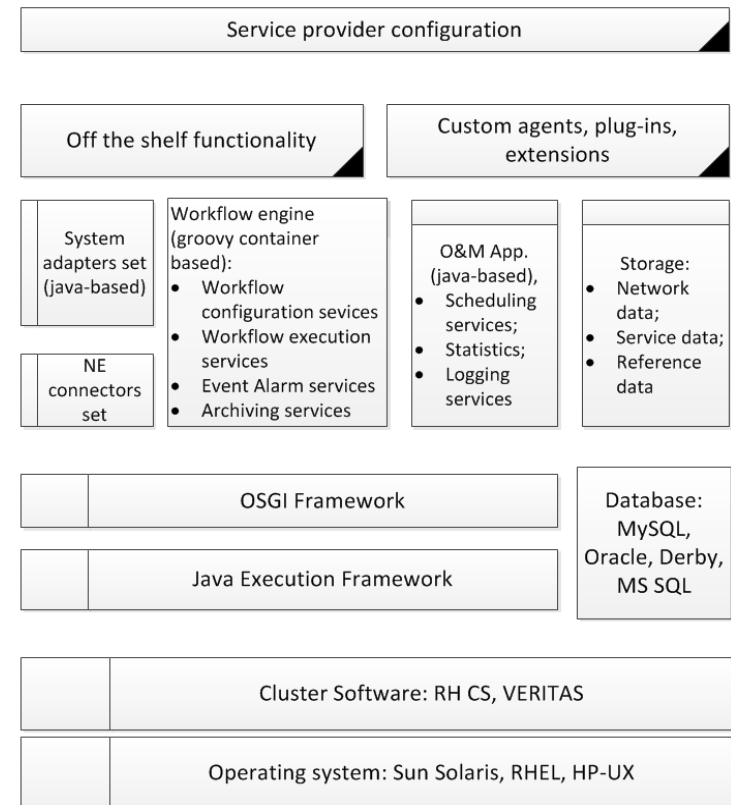
(enhancement of adapters, connectors)

Core layer

(core system server, API, customization)

3PP layer

OS layer



BSS Solutions:

Excellent operations with T-SDC (Subscriber Document Center)

- Processing of bills received from billing and other information systems (XML format), preparation for distribution to subscribers
- Processing and preparation of different file formats PDF, CSV, HTML, XLS:
 - batch
 - print on demand
 - email distribution
- Centralized storage of all «e-original» of all documents
- Flexible tools for creation of new templates, reports and documents (internal and outgoing)
- SOAP API for integration with external systems
- High availability based on resource reservation
- Cross-platform solution



BSS Solutions: Multichannel paying via T-PGW (Payment Gateway)

Charging solution for telco:

- Acceptance of payments:
 - from dealers (resellers) and external payment systems (via SOAP API)
 - from Operator's sales offices: by cash, bank cards etc. (via cashier web-interface)
 - from client-bank systems (banks statements)
- Centralized transaction data storage
- Subscribers account recharge (including returns of erroneous payments and refund of account balances)
- Reseller balance and sub-balance management (recharge of reseller's account, credit limit, etc.)
- Keeping data of Operator's points of sales activity and transactions.
- Reports generation and issue
- Monitoring of system load, performance, transaction intensity



BSS Solutions:

Efficient marketing activity with T-SOL (Sales Online)

- System of sales management Sales Online (T-SoL) unites together the means of unified approach to solving problems of coordination of sales of services and goods as well as customer communications management and marketing campaigns:
 - Covers all tasks range related to sales of services, registration and subscriber management
 - Provides tools for forming of marketing campaigns, aimed for services promotion and attraction of new subscribers
 - Offers capabilities for organization of remote sales points for services and goods by dealers and business partners
 - Supports territorial and organizational structure of operator and it's dealers and business partners
 - Provides the processing of the consolidated data and reporting for various settlements with dealers and business partners
 - Provides the ability to analyze large amounts of data on the progress and results of the various marketing campaigns, subscriber data and the use of products, services and various resources



VAS Solutions:

New value of voice and sound services by T-RBT

- T-RBT ensures perfect functioning of the one of most sought services to mobile operators providing ability to increase loyalty of customers, attract new ones and substantially improve the financial performance of the operator:
 - Ring Back Tones (basic functionality) – replacement of rings for call control melody or a voice message from the called party
- T-RBT is a universal solution with a large number of additional functionality provided by the formation of any kind of additional voice services for the most sophisticated customers of telecom operators:
 - Ring Forward Tones – replacement of rings for call control melody or a voice message from the caller
 - RadioTone – replacement of rings for FM-broadcasting
 - Mobile Voice Advertisement – mobile voice advertising tool
 - Self IVR – capability for subscribers to build their own mini-center for processing of incoming calls
 - Development of any functionality by the request of the Customer



VAS solutions:

The easiness of extra revenue generation by T-ACM

- Account credit management (T-ACM) provides service of credit provision for services to subscribers complied to predefined conditions.
- Solution oriented for support of subscribers with temporary low balance
- Flexible debt collection mechanism is triggered by recharge notifications from billing system and scheduled batch jobs.
- Easily integrated with any NE and BSS/OSS, involved in service provisioning process
- Extendable and scalable architecture allows to implement any new variants, scenarios and conditions of credit providing services



VAS solutions: Central point of content providers management by T-CPP (Content Provider Proxy)

- T-SDP – a single point of integration of content providers with Operator's network infrastructure :
 - Centralized management of all content-oriented services, short codes, the content of the messages, traffic etc.
 - Support for central internal database of profiles of subscribers using content services, coordination of its data in the BSS (billing, subscriber management, etc.)
 - Flexible integration using extensible set of connectors with any network elements (USSDc, SMSc, IP-Proxy, DPI, etc.), involved in the process of content delivery
- Extensive accounting of volume content and traffic for settlement:
 - Configurable online-interfaces to BSSs (product management, rating, etc.) based on event-related schemes
 - CDR generation for each transaction tariffed
 - Hotbilling mode support
- Ease of management and monitoring:
 - Users/groups notification upon events detection
 - Manageable archive of processed transactions and events
 - Direct flexible interface to Provisioning System for automated management of service delivery scenarios





Telesens International Ltd. (HQ)
C/o Paragon Partners
Churchill House 137-139 Brent Street
London, NW4 4DJ, England

Tel: +44 20 3432 8178
Email: info@telesens.co.uk
Web: www.telesens.co.uk



Telesens IT LLC
Molochna Str., 38
61001 Kharkiv,
Ukraine

Tel.: +380 57 719 9471
Email: info@telesens.ua
Web: www.telesens.ua

