



Services & Solutions for

**COMSYS**

Voice  
Web  
Mobile

## **MVNO In A Box**



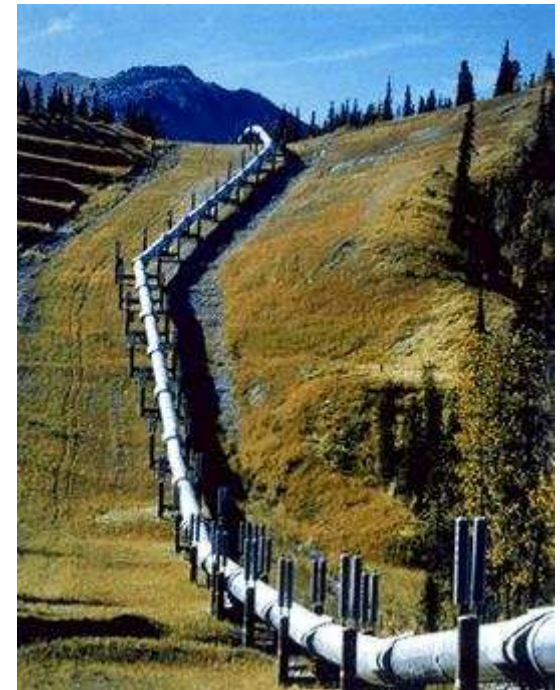
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- The mobile telephony market is saturated
- Killer applications are still Voice and SMS
- BSS environment can not be handled anymore
  - Too complex, old and inflexible structure, full of workarounds
- Most communities are not accessible for MNOs, niche markets are not in focus
- OPEX still very high, approximately 8% - 10%
- Fragmented Network



- Apple, Google, RIM & other App Stores:
  - Mobile applications interacting with the internet
  - Some applications need more than internet access
- MNOs are becoming bit pipes
  - New players in the value chain
  - MVNE as a business enabler
- Business Convergence using MVNO's
  - Consumer market – Loyalty Programs
  - Advertising market – New delivery channels
  - Banking market – Payment Applications
  - Music market – Payment and Loyalty



- Telco processes are still very complex
  - integration needs detailed technical know-how
- Initial set up investments for MVNO are high
  - Hardware
  - Software / Licenses
  - Integration
- The MVNO has to deal with too many Parties
  - Management attention
  - Business case problems
  - Legal requirements
- MVNO BSS are not very dynamic



... is a complete and flexible suite providing:

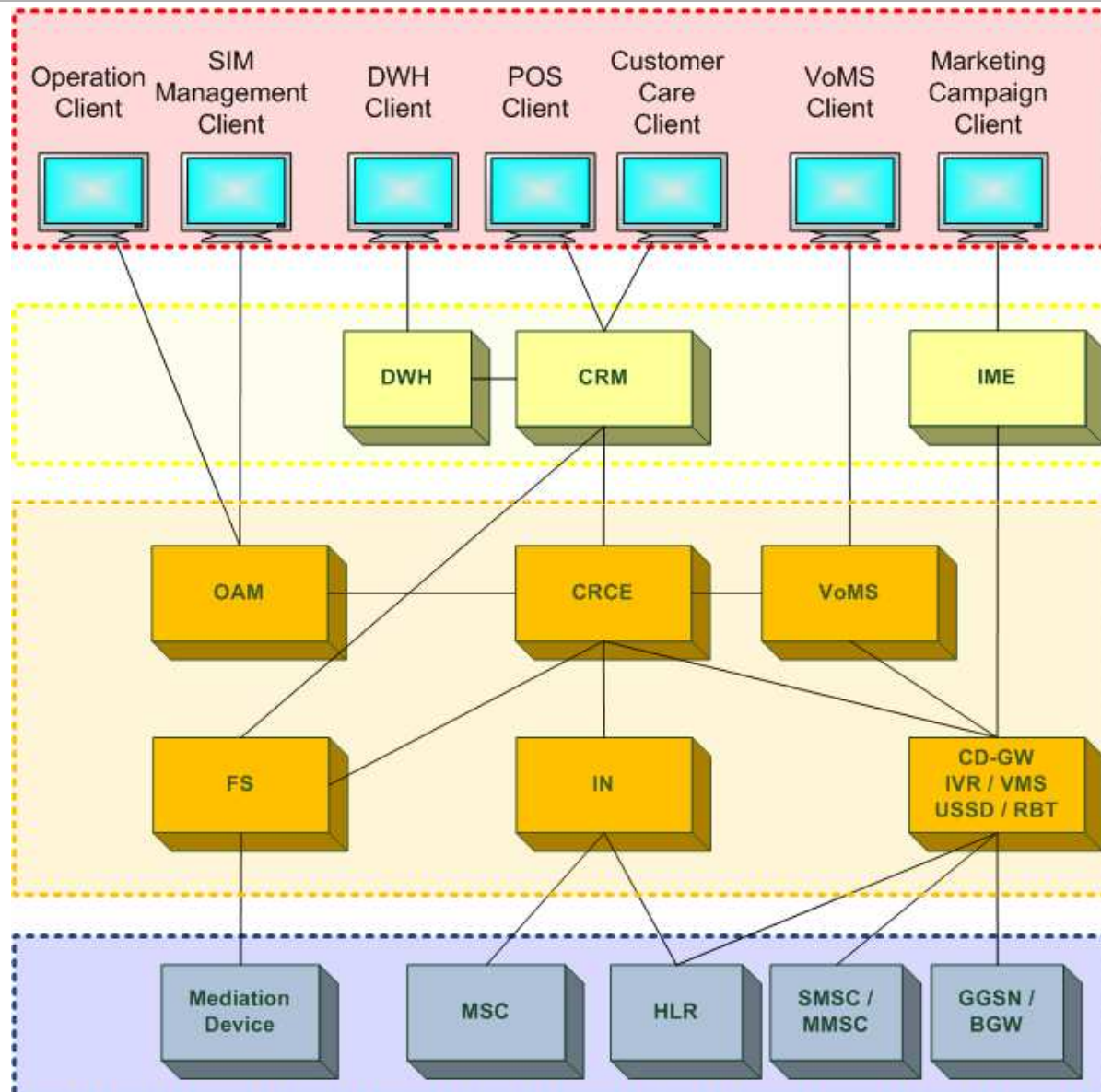
- Voice (also international roaming for Prepaid)
- SMS and USSD
- MMS and MMS roaming
- Mobile Internet Browsing
- Selfcare IVR
- Colored Ring Back Tone
- Voicemail
- Voucher management
- Flexible and fancy tariff model



- MVNO has clients – everything else is provided
- Messaging, marketing and new business models are driving forces
- Connectivity to 3rd party systems
- Mobile Marketing and Loyalty programs
- Telco 2.0 compliancy
- Customer Care and data collection is important
- SMS / MMS / USSD / IP Browsing / IPTV
- Tariff Tool with many features



# Architecture - Overview



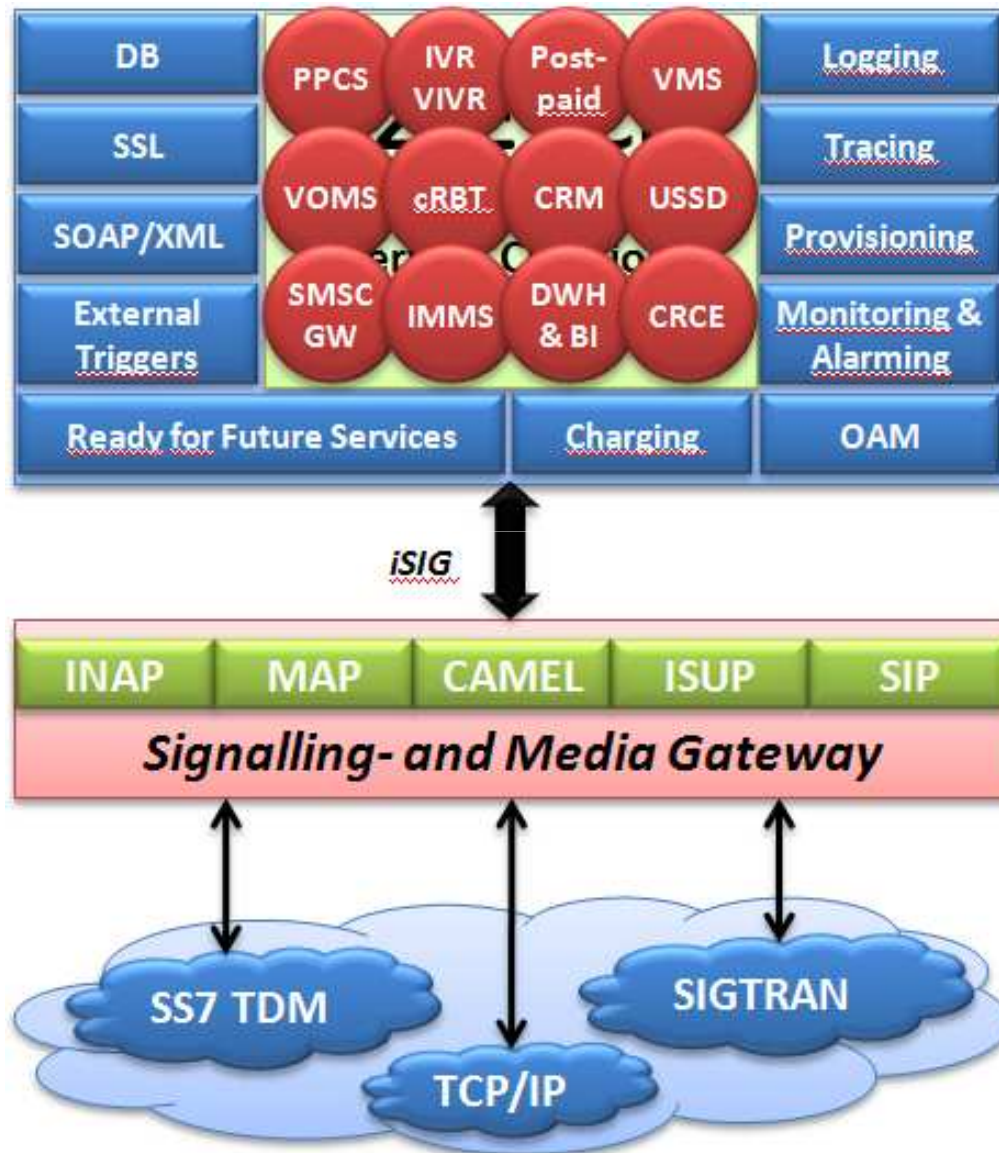
Client Domain

BSS Domain

VAS Domain

Telco Core Domain

# Architecture



Standard interfaces:

- CAP 1-3
- MAP 1-4
- SINAP
- E-INAP
- N-INAP
- ISUP
- SIP
- Diameter
- IACC
- CORBA
- SOAP
- HTTP

- IN System (Prepaid & Postpaid)

- Prepaid Voice and SMS handling
- Prepaid data service
- VPN / NTS and other services



- Convergent Rating and Charging Engine (CRCE)

- Billing (Postpaid)
- Realtime Charging
- Transaction System (Mobile Banking, Mobile Payment)
- Bonus & Loyalty
- Any Unit Charging
- WiMax Interfaces
- Open 3rd party charging and rating



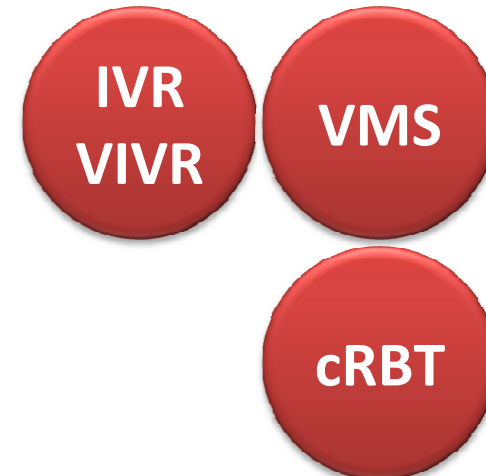
- Content Delivery Gateway

- USSDC/GW
- SMSC/GW
- Call Back Services
- SMSC & SMSGW & SMS-FDA
- Delivery and interception function for Mobile Advertising



- Voice & Video Server

- colored RingBack Tone (cRBT)
- Speech & Video IVR (IVR, VIVR)
- Next Generation VoiceMail Service (VMS)



- CRM

- Customer Care Front End
- SIM Management
- Contract Management
- Sales Agent Web Portal (POS)
- Subscriber Self Management Portal
- Accounting System
- Revenue Assurance



- Data Warehousing (DWH)

- KPI Measurement
- Reporting & Statistics
- Business Intelligence with Flexible Reports



- Voucher Management System (VoMS)
  - Voucher handling
  - Voucher generation
  - Voucher distribution and integration to POS
  - e-Vouchers and e-POS

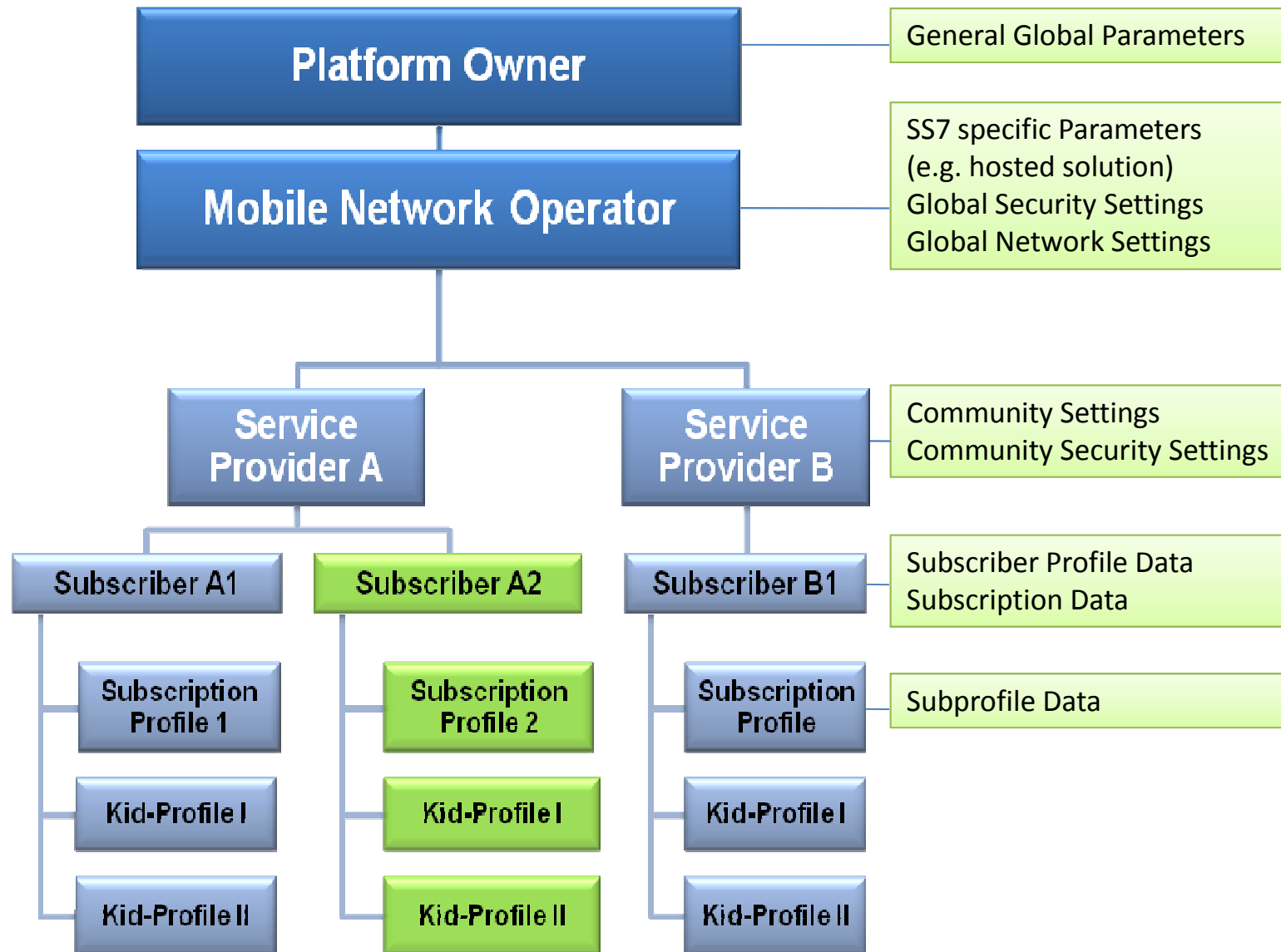


- Mobile Marketing System (iMMS)
  - Marketing campaign management
  - Ads via Cast and Tagging
  - Various delivery channels: SMS, MMS, USSD, Browsing, Voice, IPTV
  - Network and subscriber protection



# Multi-Tenant

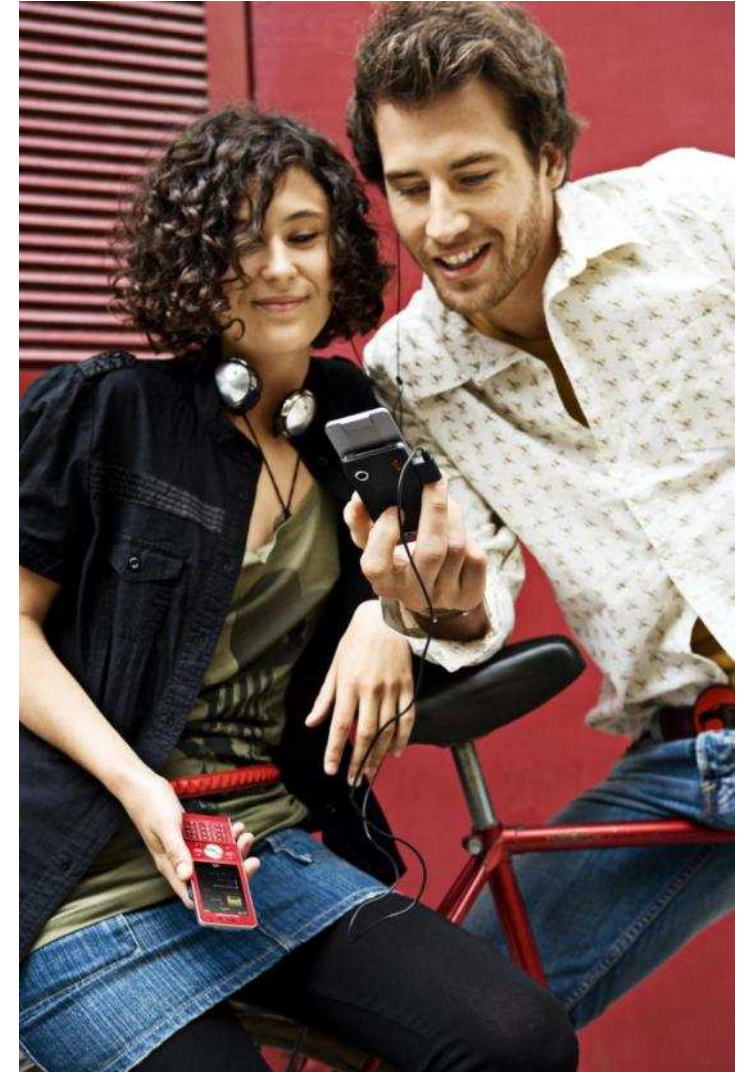
**Multi(v) Operator Platform consistent through all Data Layer**



- Prepaid Voice including Roaming (CAP1, CAP2)
- SMS, SMS roaming (CAP 3)
- MMS, MMS roaming (Diameter)
- USSD
- Browsing (Diameter, CAP 3)
- Selfcare IVR
- Colored Ring Back Tone
- VoiceMail
- Voucher management, voucher top-up
- Flexible and fancy tariff model

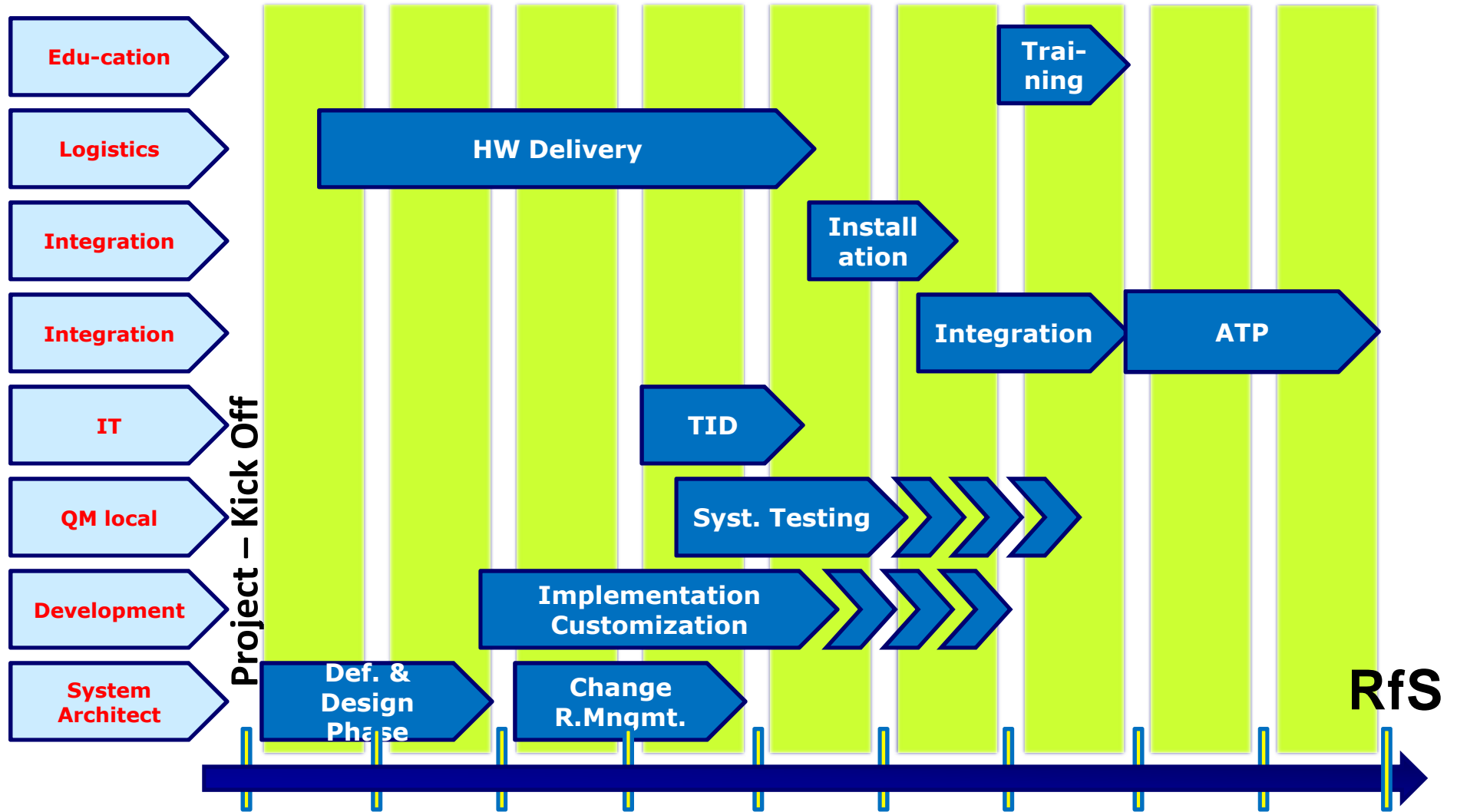


- Voice ads via RingBackTone
- SMS Tagging on keywords
- MMS Tagging
- USSD Tagging
- Browsing Ad  
(Splash screen, banner insert)
- Ads left on Voice Mail Server



# Timeline

**Ready for Service (RfS) in 18 weeks!\***



\*depends on HW delivery conditions

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MVNO In A Box

# Road map



- Road map is demand driven
- Several features already in the lab, in other products or only designed on paper
- Due to the market demand the features can be prioritized
- Features will be presented in regular meetings

- Long tradition in Telecom and Mobile Marketing
- Turnkey Solution
  - Total system for 50k Users starting at <500k€
  - Can be operated with a small team
  - All GSM features (Voice and Data)
  - Very flexible charging models
  - Integrated Mobile Marketing
  - IMS Interfaces
  - Telco 2.0 Compliant
- Easy Integration & minimum impact to host network
  - Standard interfaces (ISUP, SIP, CAP, MAP, IACC, Diameter)
  - Separated domains
  - Managed Services also offered





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COMMUNICATIVE SOLUTIONS