

# Parlay Architecture and NGN

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Next Generation Networks and Fixed Mobile Convergence  
for CEE, CIS and Baltic States*

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## Outlook

1. What is Parlay
2. Parlay Standartization Process
3. Parlay for UMTS & 3GPP
4. Parlay Implementation  
(Appium, Ericsson, HP, IBM)
5. How to modernize Russian telecommunications
  - HP OpenCall
  - Intel NetStructure & ECMA CSTA
  - Parlay/OSA & JAIN
  - Application server AbavaNet

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## 1.1 What is Parlay

(Zygmunt Lozinski Parlay President & IBM STSM)

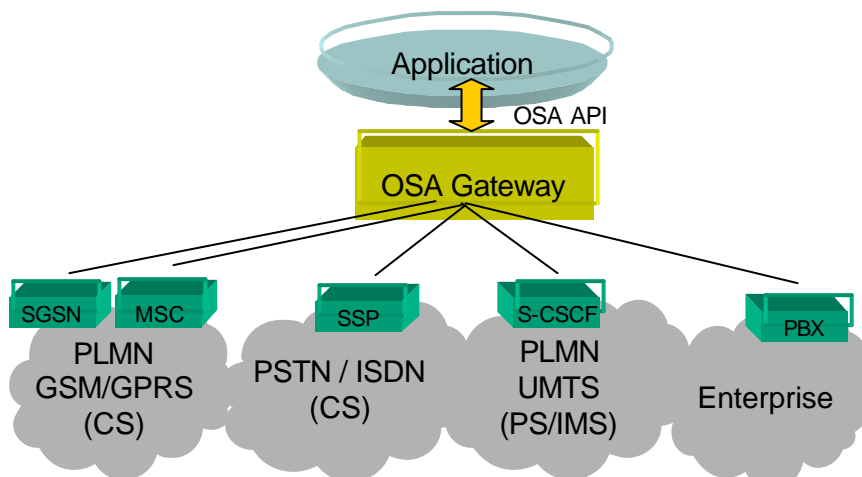


A bridge ...

- From IT to telecommunications
- From application developer to network operator
- From fixed to mobile
- From enterprise to service provider
- From today's network to future networks

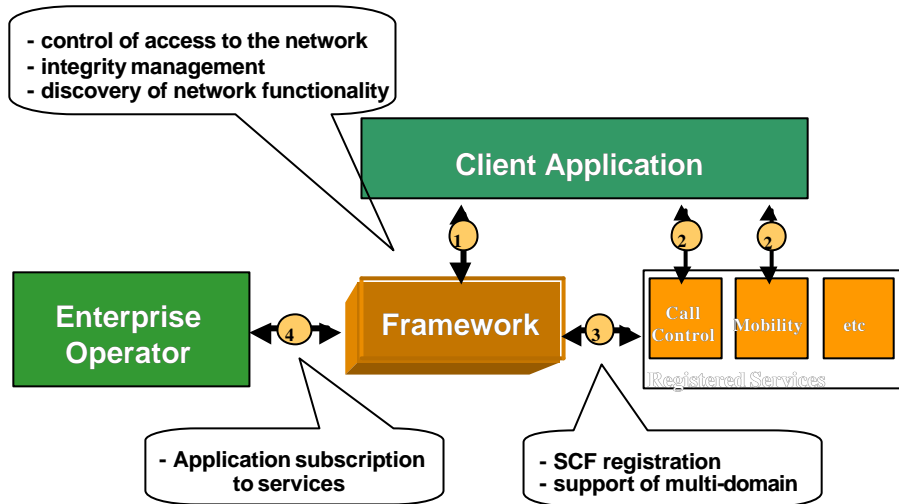
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## 1.2 The Parlay/OSA API



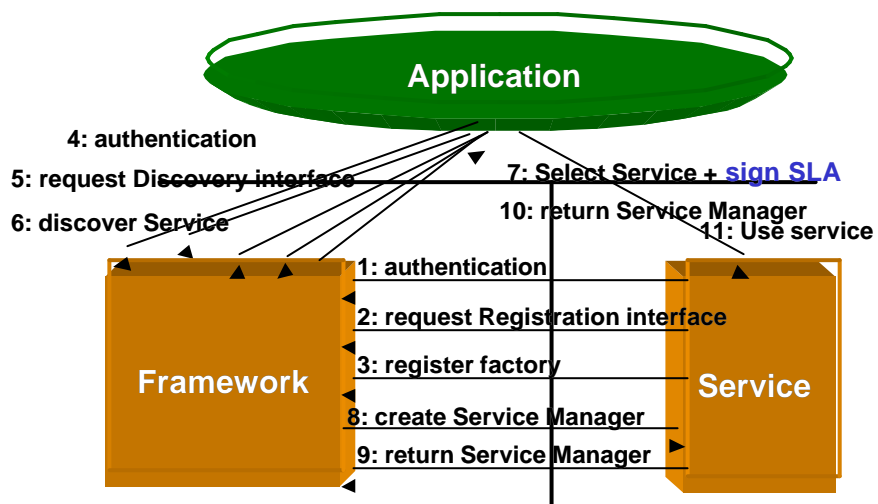
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### 1.3 The Parlay/OSA Framework



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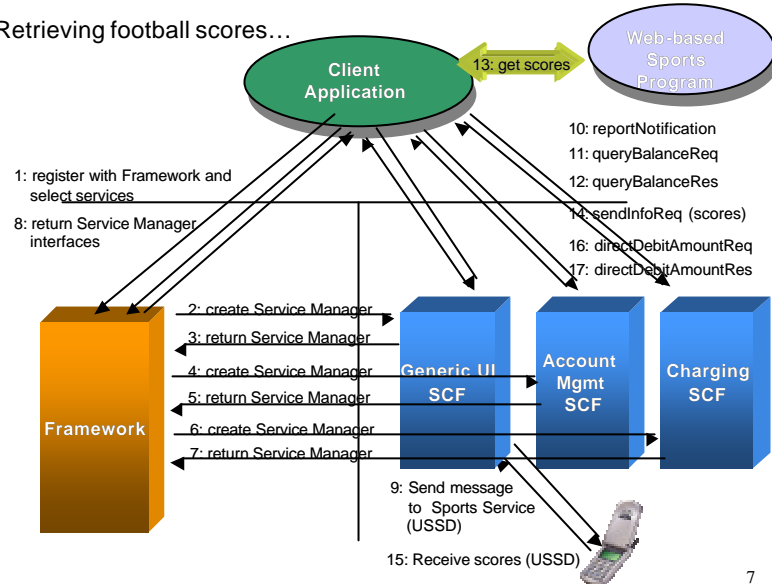
### 1.4 How does the Parlay framework work ?



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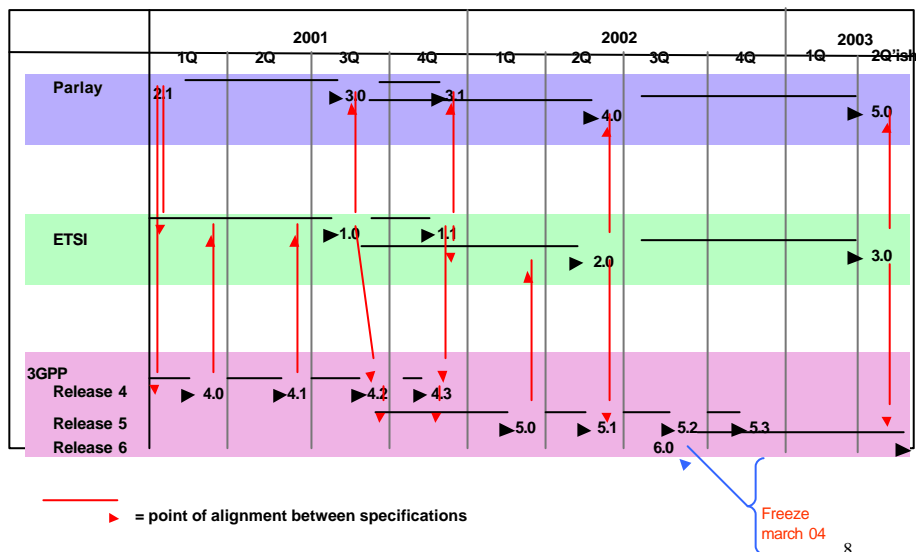
## 1.5 Open Service Access Example

Retrieving football scores...



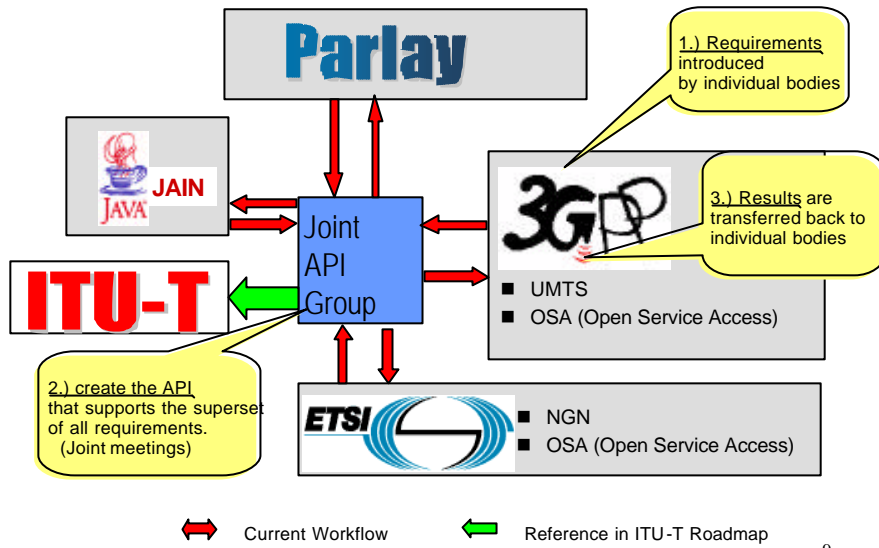
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## 2.1 Parlay Work Synchronization



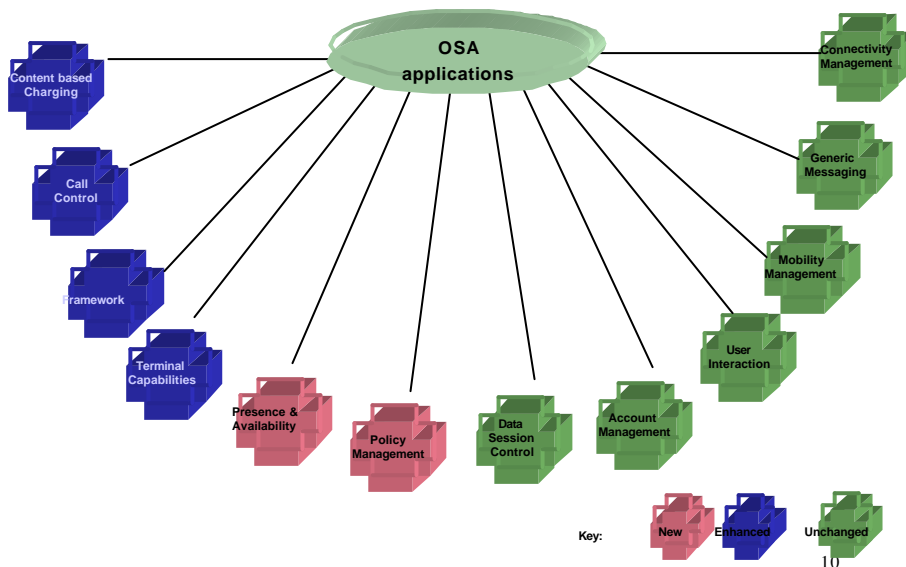
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## 2.2 ONE API for ONE developer community

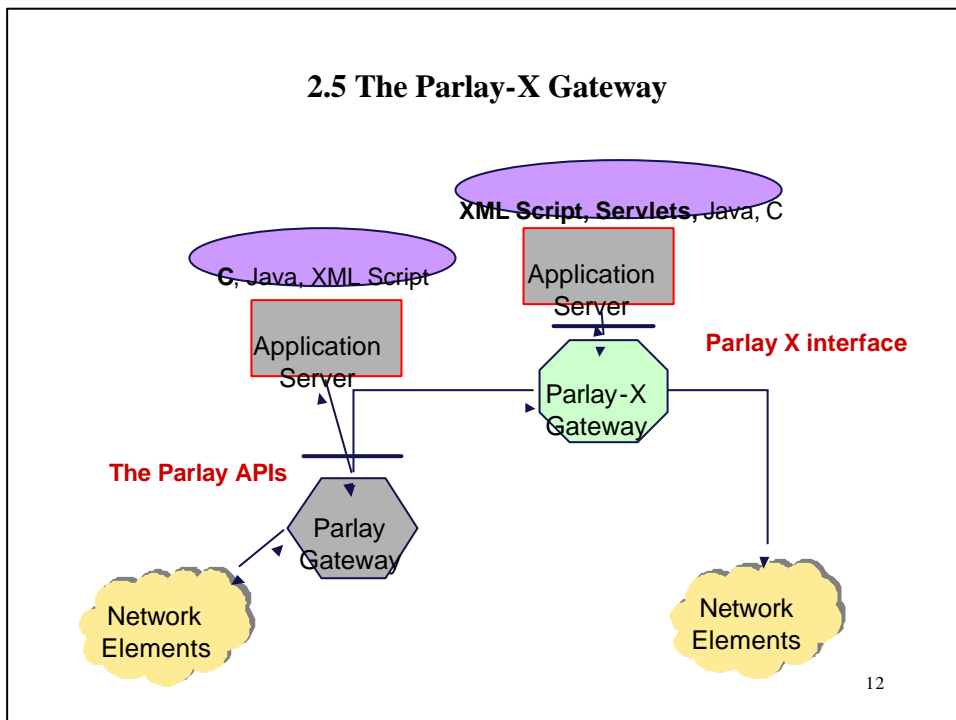
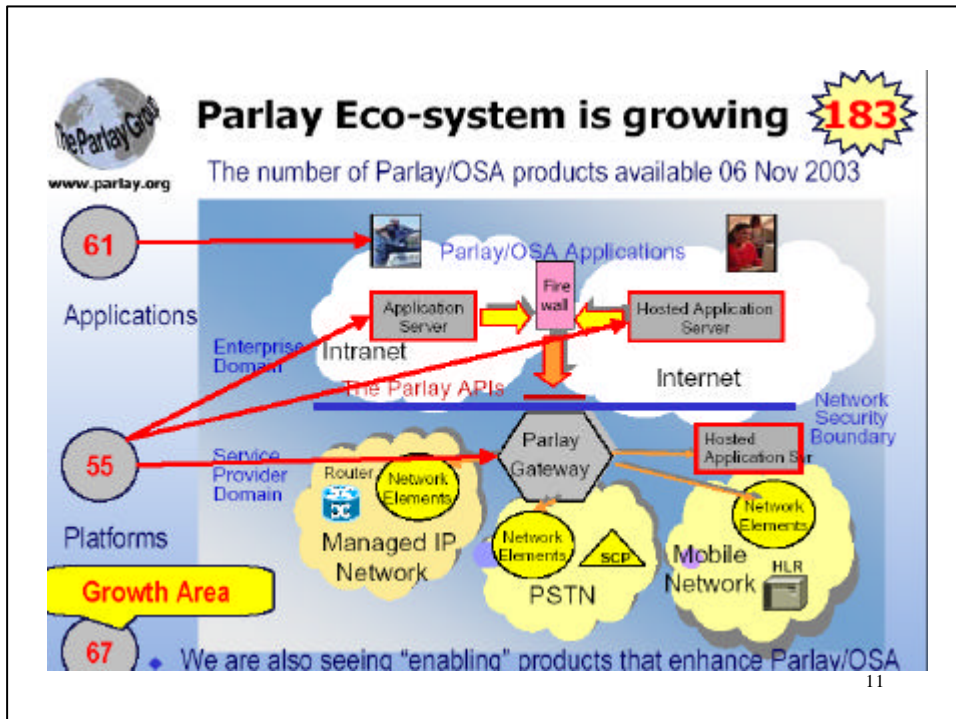


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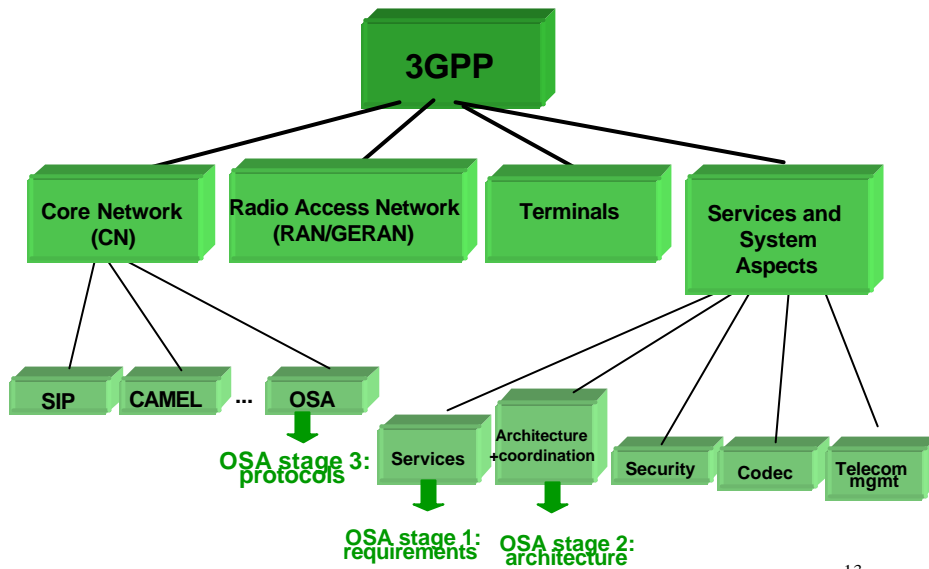
## 2.3 Current Parlay 4 SCFs (Jan 2003)



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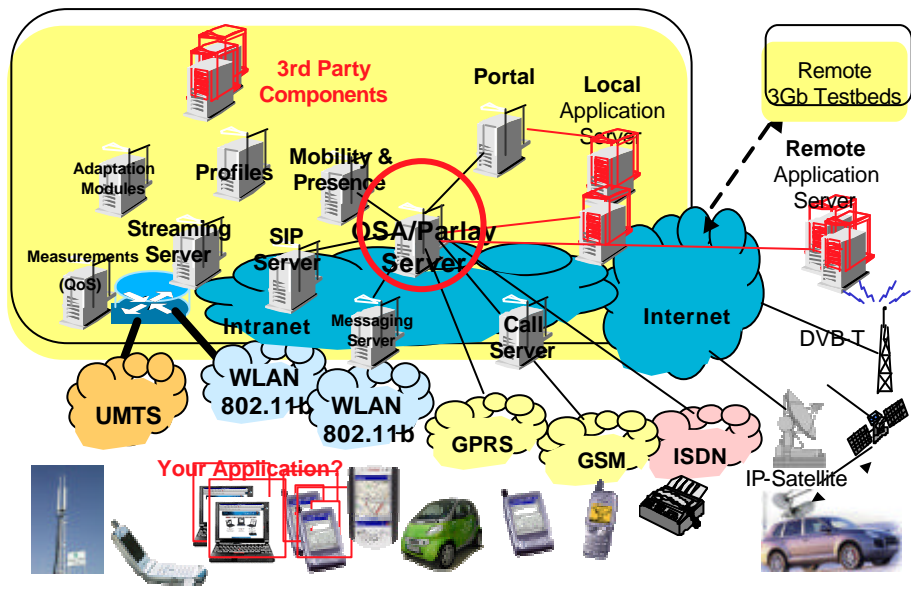
### 3.1 OSA/Parlay and 3GPP



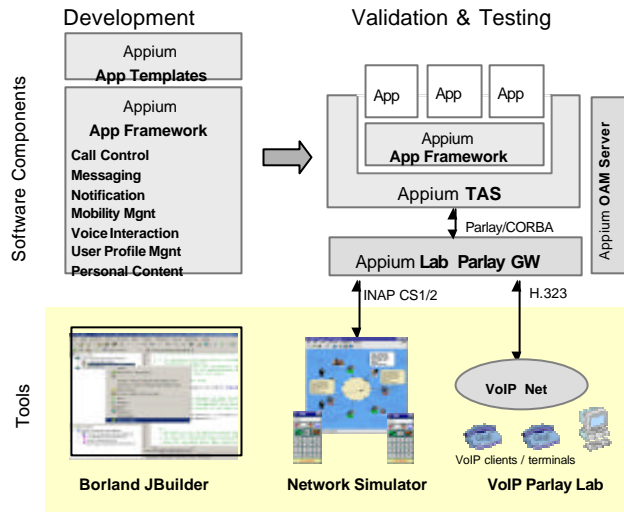
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### 3.2 UMTS and Parlay (FOKUS, Germany)

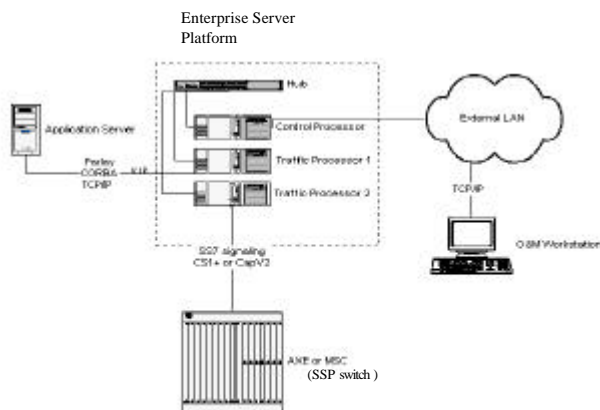


## 4.1 Appium-GBox – Parlay SCE



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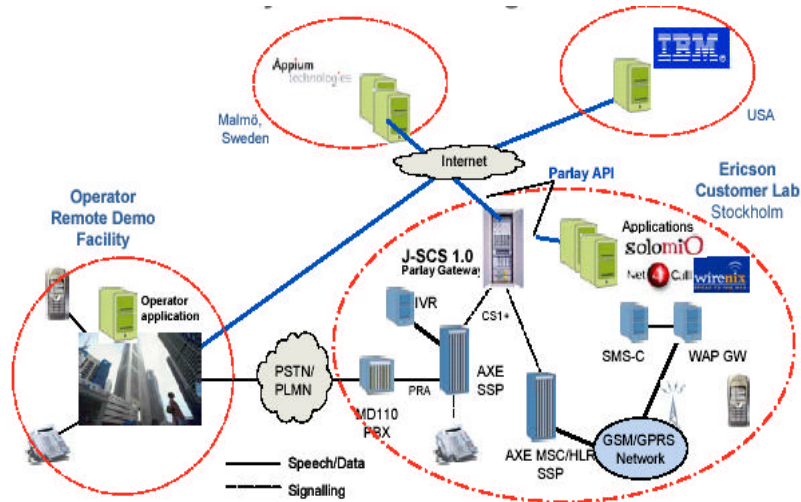
## 4.2 Ericsson Enterprise Service Platform



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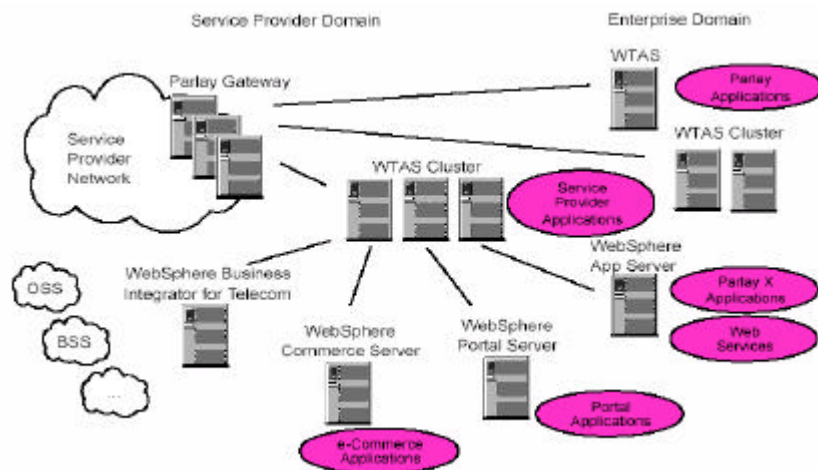


### 4.3 Ericsson Testing Environment



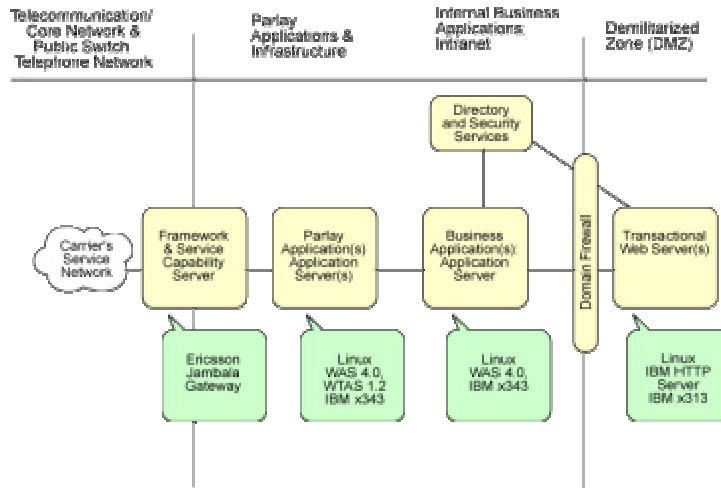
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### 4.4 IBM WebSphere Telecom Appl Server & Parlay/OSA



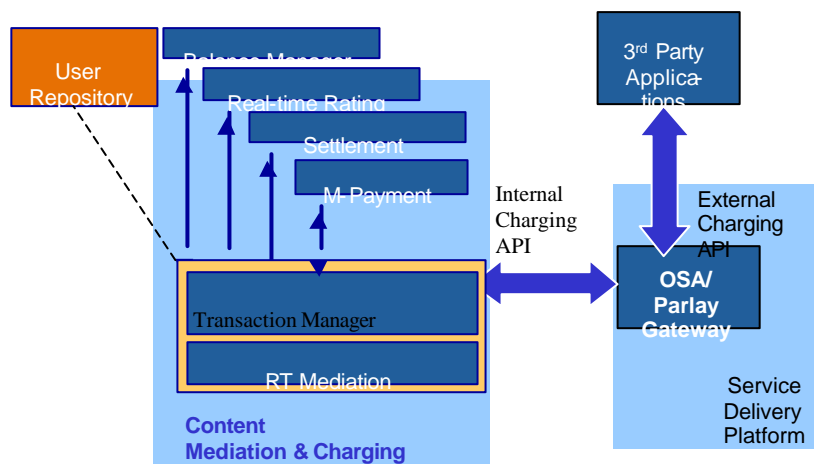
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### 4.5 IBM Products for Telecom



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### 4.6 HP CMC (Content Mediation and Charging) and Parlay Gateway



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## 5.1 Russian telecom programs to be considered



### Russian Telecom Modernization Program:

from 30M telephone lines in 2001  
 (25M lines, namely 17K obsolete exchanges)  
 to 47M lines in 2010 (to install over 30M lines in 10 years)

**e-Russia:** Internet for every school and local government

### Universal Service:

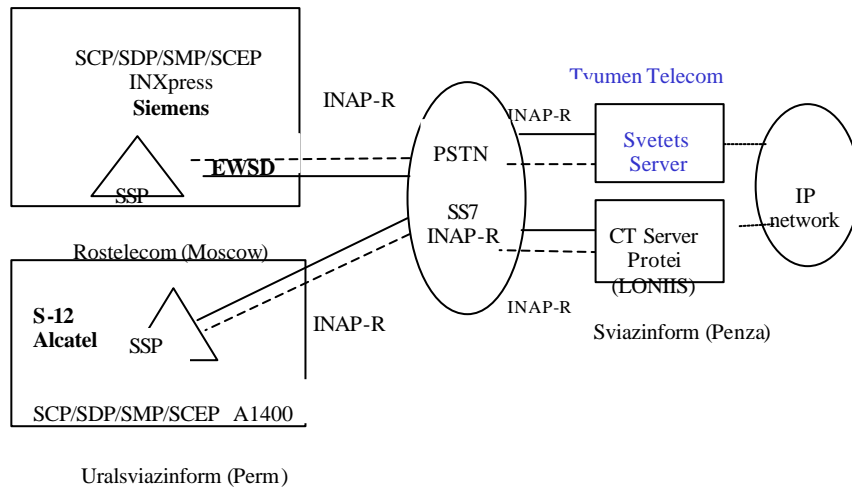
All villages with payphones  
 (now more than 1/3 of villages without phones)  
 Internet-access for each village with 500 inhabitants

**Federal Intelligent Network** (national protocol INAP-R):  
 Several federal services (FPH, CCC, PRM,...) for each subscriber

**BUT...40 million mobile subscribers**

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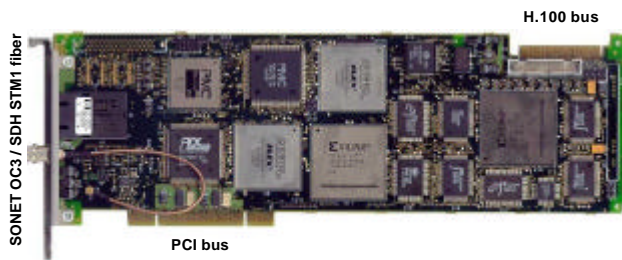
## 5.2 Russian IN Pilot (fragment)



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### 5.3 Approach 1. HP TMC (Telecom Media Card)

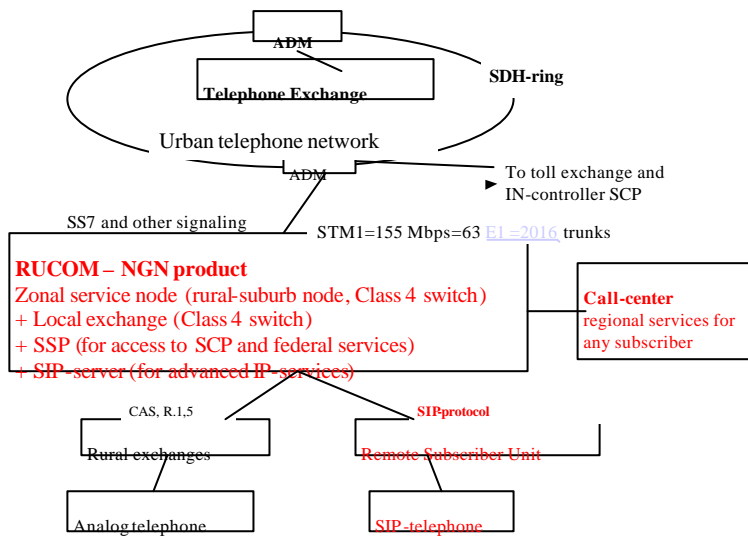
STM 1 = 155 Mbps to SDH  
 2016 PCM channels ( 64 Kbps) = 63 E1  
 PCI bus for input-output  
 ECTF H100 bus (PCM standard)  
 DSP for fax, VoIP, SIP, H323, MGCP  
 ECTF S.410 call control



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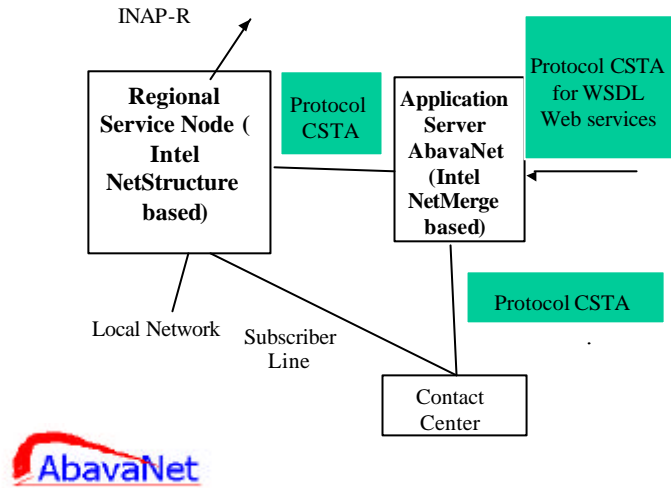


### 5.4 Approach 1. Rural Service Node RUCOM



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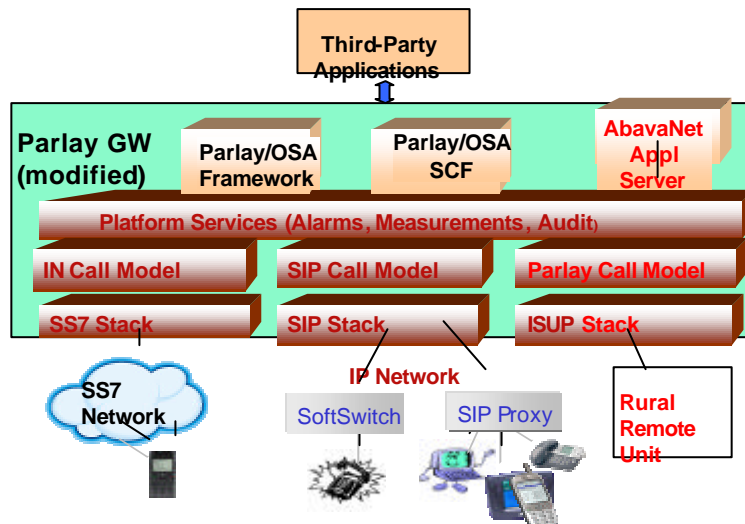
### 5.5 Approach 2. Russian Rural Communications (based upon Intel Technologies and CSTA standards)



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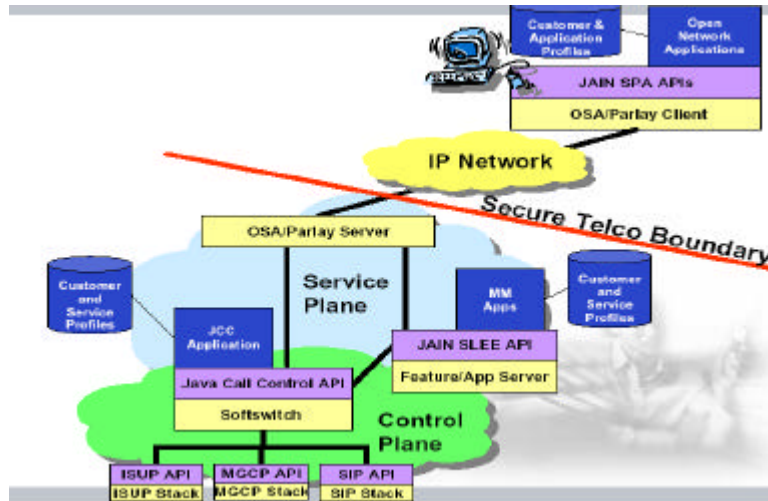


### 5.6 Approach 3. Parlay Gateway as NGN office: ISUP and SIP stacks, AbavaNet AS



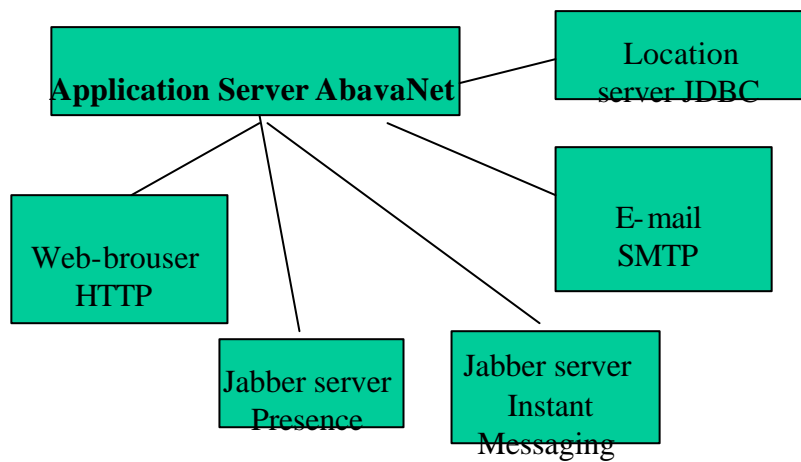
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### 5.7 Approach 3. JAIN BASED NETWORK ARCHITECTURE ?



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### 5.8 Approach 3. Application Server AbavaNet (Open source based)



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## 5.9 RUCOM: Market estimate

**Up to 1500 small transit exchanges in Russia  
(so called rural-suburb nodes),  
17K “obsolete” crossbar exchanges**

**1 RUCOM for 3 – 5 rural districts in Russia  
= 300 RUCOM type systems**

**Each RUCOM up to 2K - 4K trunks  
and 5K – 20 subscriber lines**

**Market abroad Russia (?)**

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## 5.10 Parlay Training in Russia

- Parlay Course (Ericsson sponsored, in Russian) see [www.sotovik.ru](http://www.sotovik.ru)  
(Parlay technology, 7 lectures)
- Book “Parlay architecture and NGN” (in Russian, 2004) co-authored  
by M.Schneps-Schneppe, A.Kilin, M.Rodina, A.Chistov, D.Namiot
- For contacts [www.abavanet.ru](http://www.abavanet.ru)  
[sneps@abavanet.ru](mailto:sneps@abavanet.ru)

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