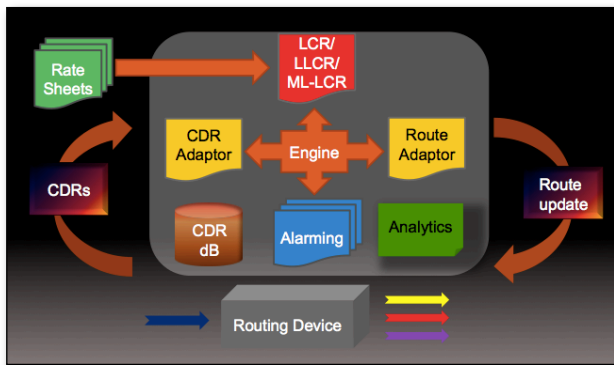


In today's competitive carrier environment of fast changing rates, each carrier needs an edge to ensure they extract the maximum amount of information from their routing systems. Simple reporting and Least Cost Routing is simply not enough any more.

One of the biggest challenges is "visibility" of the calls through the network in near real-time. Substantial revenue opportunities are missed in the complex interaction of suppliers and buyers routing calls based on ever changing rate sheets. It is difficult, if not impossible to predict the call flows based on the rate sheets used and this often result in a significant revenue loss when undetected.

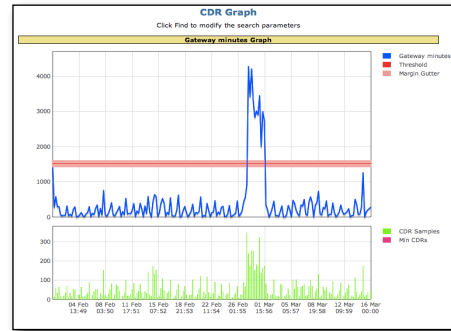
To further complicate the situation, different management systems need to be used across different vendor equipment. Vendor implementations are usually focused on configuration of the particular vendor device and not a holistic performance view.



The IVSTel Adaptiv product suite offers an elegant multi-vendor solution by creating a near real-time vendor agnostic feedback environment based on call or event records. This feedback of call records provides Adaptiv with the information to establish event alarms based on predefined thresholds for early detection of fraudulent events.

Alarming offers a level of assurance and protection against poor network performance or even fraudulent activities. Using alarms, Adaptiv can respond to alarms via automatic route updates or use e-mail/SNMP based notifications to alert key personnel, allowing

them to react to adverse conditions in the network rapidly and effectively.



Rate Sheet Importing can be a difficult and time-consuming manual exercise. This is further complicated if the device used for import does not provide a simple data structure. With Adaptiv, rate sheet import could not be simpler.

```
54341,ARGENTINA ROSARIO,0.8136,2010-06-09,2011-06-09,All
374,ARMENIA,0.1805,2010-06-09,2011-06-09,All
3749,ARMENIA MOBILE,0.1783,2010-06-09,2011-06-09,All
297,ARUBA,0.09,2010-06-09,2011-06-09,All
2979,ARUBA MOBILE,0.1933,2010-06-09,2011-06-09,All
247,ASCENSION ISLAND,1.9754,2010-06-09,2011-06-09,All
2479,ASCENSION ISLAND MOBILE,1.9754,2010-06-09,2011-06-09,All
43,AUSTRIA,0.8235,2010-06-09,2011-06-09,All
439,AUSTRIA MOBILE,0.8729,2010-06-09,2011-06-09,All
431,AUSTRIA VIENNA,0.8235,2010-06-09,2011-06-09,All
994,AZERBAIJAN,0.1518,2010-06-09,2011-06-09,All
99478,AZERBAIJAN MOBILE,0.2592,2010-06-09,2011-06-09,All
1242,BAHAMAS,0.8293,2010-06-09,2011-06-09,All
1242727,BAHAMAS MOBILE,0.8293,2010-06-09,2011-06-09,All
973,BAHRAIN,0.8376,2010-06-09,2011-06-09,All
99999,BAHRAIN MOBILE,0.8376,2010-06-09,2011-06-09,All
```

Adaptiv offers a simple CSV based import solution where the rate sheet information is priced against dial codes. This allows for easy comparison and route generation.

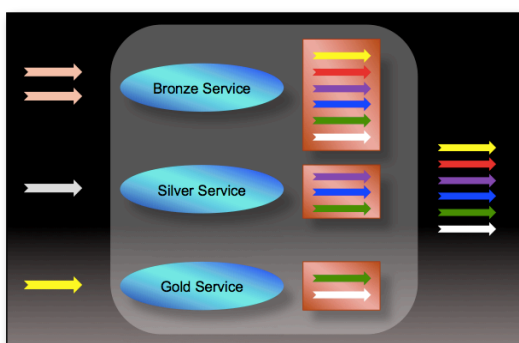
Rate sheets can be imported using different currencies and/or timezones. Adaptiv converts these on the fly making rate imports simple, fast and error free. Currencies are set up independently and can be altered as often as needed.

Lossless-LCR provides a simple and effective way to ensure that all calls are profitable by checking the cost-to-price ratio across all regions from all Buyers to all Suppliers¹. With thousands of possible permutations of Buyer to Supplier calls, LLCR ensures that calls that would result in a loss are clearly identified before routing starts.

This is often the case where a “typo” exposes a carrier to significant loss in revenue that is totally avoidable.

Buyer	Dial Code	LCR 1	LCR 2
Some Buyer	96550	Carrier 0.10488	
Some Buyer	96551	Carrier 0.10488	
Some Buyer	96558	Carrier 0.10488	
Some Buyer	96559	Carrier 0.10488	
Some Buyer	9656	Carrier 0.0913	Carrier 0.10488
Some Buyer	9657	Carrier 0.0913	Carrier 0.10488
Some Buyer	9658	Carrier 0.10488	Carrier 0.10488
Some Buyer	9659	Carrier 0.0913	Carrier 0.10488

Multi-layered LCR is another advanced LCR algorithm that separates carriers into different planes allowing you to offer per customer differentiated services. It allows you to apply different LCR & Quality combinations on a per customer basis.



Combining the CDR stream with rate sheet imports, Adaptiv is able to provide visibility of calls based on engineering as well as business metrics.

¹ Automatic LLCR is device dependent and only routing devices supporting ingress to egress call priority routing will be able to use automatic LLCR.

Reporting offers operational and business based analysis. Users can analyse performance and revenue across a range of metrics to quickly uncover trends in calls or events.

Country	Total Calls	Successful Calls	ACD (minutes)	Egress AG (s)	Total Minutes	Supplier Cost
India	3,240	1,745	434	72	1,406,653	\$2.49
Indonesia	1,245	676	183	70	227,554	\$0.93
Iran	541	236	170	70	91,968	\$11.60
Iraq	35	10	47	86	1,638	\$0.02
Ireland	1,262	627	504	82	646,395	\$49.81
Israel	117	4	53	62	6,148	\$0.01
Italy	296	13	5	61	1,353	\$0.02
Japan	1,514	881	195	74	296,421	\$1.04
Jordan	95	53	233	71	22,083	\$8.51
Kazakhstan	749	259	210	83	157,562	\$28.80

Reports use an advanced dimensional model to return multi-year’s worth of data in seconds.

CDR Analysis & Searching just got a whole lot simpler. Adaptiv allows users to search and filter **any** field in the CDR data of a particular device, allowing for very fine-grained searches of device specific errors.

Using the CDR search and Filter, technical staff can pinpoint a particular call within seconds and provide detailed information to the caller.

Conclusion

Adaptiv offers a real solution to network visibility across multiple routing devices. It allows for a uniform way to import rate sheet data and analyse CDRs. Adaptiv’s graphing provides the user with a simple and intuitive interface to understand the routing of calls through their systems.