



Pulsar's

***Serenity* Platform**
Overview



Carrier Routing and Rate Management – by far, the most complex and most difficult part of providing wholesale or retail telecom services. Especially today, with VoIP enabling the rapid and easy interconnection to a myriad of carriers, service providers end up with thousands of routing options that must be managed constantly, or thousands of dollars can be lost before you know it.

*Enter **Serenity**, Pulsar’s powerful new advanced routing and rating platform. Combined with the Pulsar PNx, or as a standalone to certain other switching systems, Serenity smoothly automates the intricate processes of manipulating carrier routes based on rates, QoS, carrier tiers, times, and several other criteria. It’s as easy as point and click!*

Pulsar’s Serenity makes complex carrier route management and rating simple!

Starting with a simple to use web interface, Pulsar has specifically designed the user experience to be convenient and straightforward. We know what its like to have to maneuver countless carrier rate decks with thousands of entries that change daily. So we’ve automated all of the routing and rating processes based on user selected criteria, allowing you to simply import your rates and let Serenity take care of everything from there. What used to take long hours every day will only take minutes with Serenity, giving you the peace of mind to concentrate on building your business.

Project Serenity by TULSAR COMMUNICATIONS, INC.

Intl Rate Import : Domestic Rate Import : Domestic Lata Definition Import : Profile Editor : Profile Simulator

Import Intl Rates	Import International Rates Into Database.
Import Domestic Rates	Import Domestic Rates Into Database.
Import NPANXX Data	Import new NPANXX Into Database.
Edit advanced routing profile	Import International Rates Into Database.
Profile call routing simulator	Import International Rates Into Database.

International Rates Import
Imports your international rates into the database. You can import part or the entire rates for one or more specific carriers.

Domestic Rates Import
Imports your Domestic rates into the database. You can import part or the entire rates for one or more specific carriers.

Domestic Lata Definition Import
Imports your Domestic NPANXX data for LATA, EXCHANGE, and CITY information into the database system.

Profile Editor
Creates or edits a least cost routing profile.

Profile Simulator
Simulates a call on a profile in order to show potential route and cost information.

KNOWLEDGE. EXPERIENCE. FLEXIBILITY.
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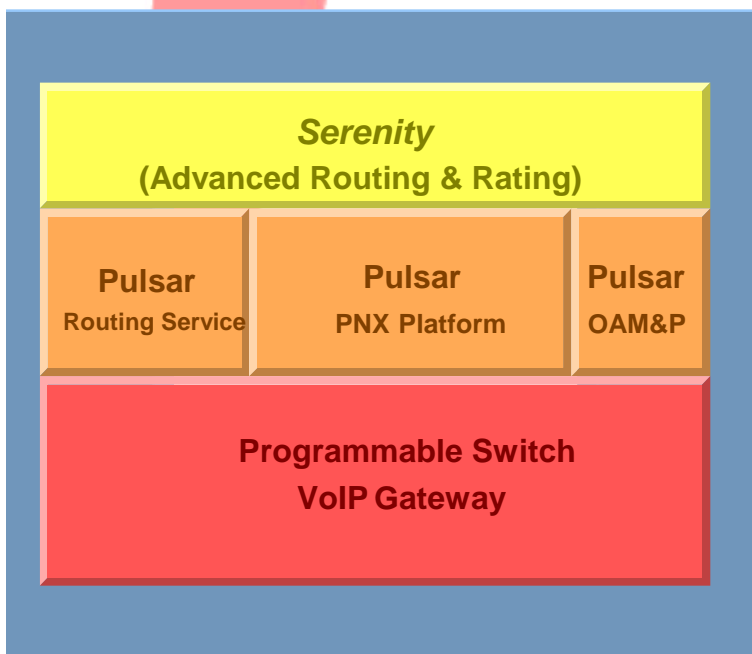


Serenity Benefits

- Complete automation of international and domestic carrier routing
- Routing criteria by Least Cost, Quality of Service, Time of Day, Percentage, and more
- Web-based graphical interface for quick route set-up and review
- Easy-to-use importation tools to simplify complex carrier rate decks
- Able to process hundreds of thousands of route codes without degradation!
- Automation of carrier and customer rating and billing
- Multi-level user access – create agent levels for switch partitioning
- Modeling tools – see profit margins of individual routes and rate decks before implementing

Serenity Architecture

The Serenity platform is focused on facilitating the difficult processes found in large-scale carrier manipulation. This is done with an approach that shields the internal routing engine of our switching platform from the constant database interaction required for complex carrier rate and route management. The highly integrated components of Serenity consist of 4 key components.



PNX Platform

Pulsar's highly scalable, extremely reliable switching platform, utilizing a real-time operating system for call processing control. The PNX includes the most robust internal routing capabilities in the industry.

Routing Service

Self-contained server integrating the PNX to the Serenity database to receive routing and rating instructions. This unique design approach allows us to create unlimited routing options, while maintaining the integrity of Pulsar's internal routing engine.

Pulsar OAM&P

All of the tools required to set-up and maintain the PNX platform.

Serenity Database Server

External routing and rating server incorporating Oracle Database resources to make real-time decisions as to how to process each call as it is attempted.



Serenity Management Tools

The underlying power and complexity of Serenity is concealed under an amazingly simple user-interface. Thousands of International and Domestic routes with corresponding rates are implemented with effortless administrative tools. Even the huge number of U.S. NPA-NXX codes that bring other systems to their knees is quickly imported with corresponding tiers to Serenity with ease. And no need to worry about affecting on-going call processing – our unique architecture allows the internal PNX routing engine to continue working even while massive rate decks are being updated into Serenity.

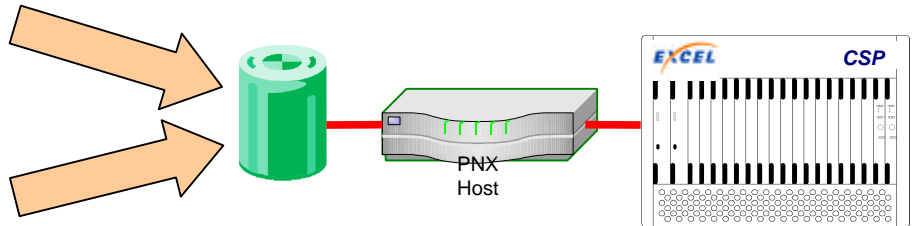
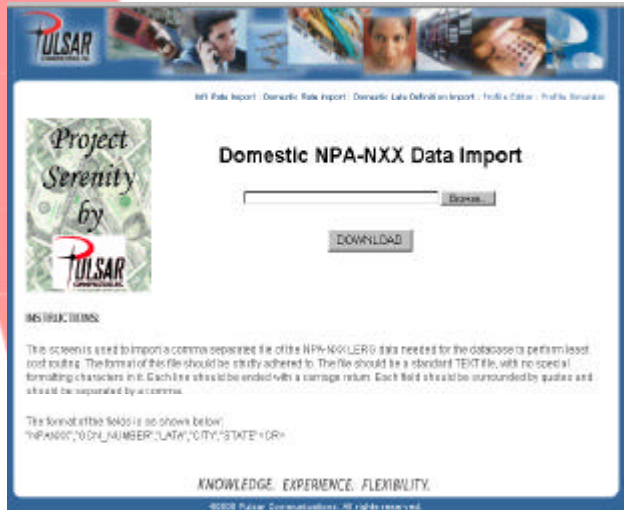
Domestic and Inter/Intra State Routing

Three key factors affect routing and rating inside the U.S.:

- multiple route tiers that are mostly determined by RBOC/ non-RBOC terminations
- Inter or Intra State origination/termination
- Alternate VoIP-based carriers

Due to these factors and the almost non-existent margin for domestic calls, it is imperative to incorporate these criteria into all switch routing decisions. Most domestic carriers have good quality, so least cost often carries highest importance. There are over 130,000 NPA-NXX codes, and with multiple carriers, it can be impossible to keep track. Add to that the question of whether a call will be inter or intrastate (a difference of several cents/minute), and you can see why this used to be left to multi-million \$\$ switches.

Now, Pulsar's Serenity platform will completely automate all of these routing decisions. All you have to do is import the rate decks!



International Routing

The factors affecting international routing and rating can be far different due to the undependable nature of these routes. Decisions of least cost can often be superseded by quality of service and rate of call termination. Past methods of dealing with these issues have been to visually watch ASR and ACD reports, and then manually change switch routing long after problems have been spotted. With thousands of international termination codes, this has not been a realistic endeavor.

Now, not only will Pulsar's Serenity automate the least cost routing, *real-time decisions* can be made based on route quality, time of day or day of week, call termination rates, and more. Thresholds can be changed on the fly for individual routes. Routes will be automatically disabled if dropping below acceptable levels. Actually improve your service quality while maintaining your bottom line!



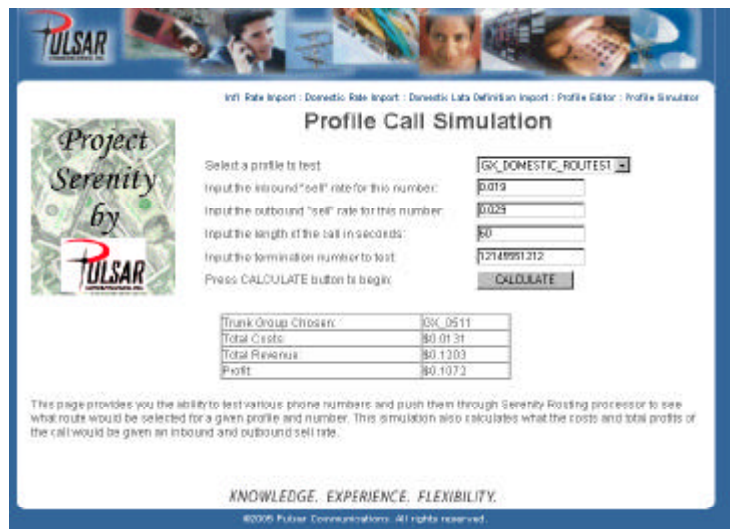
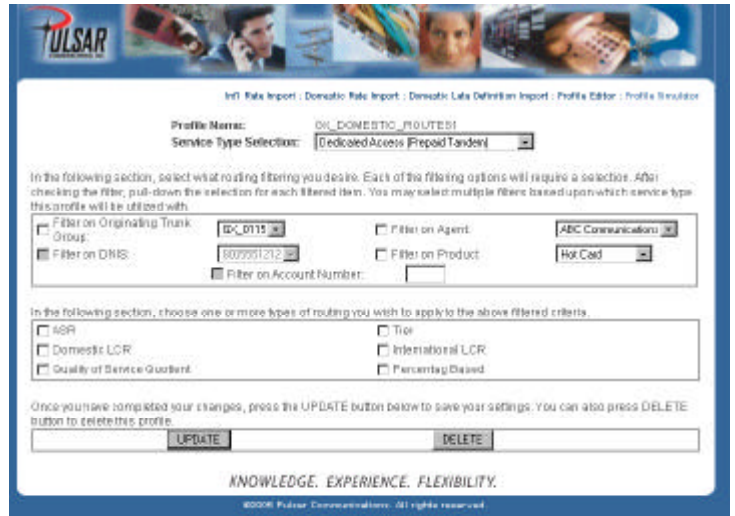
Serenity Profiles

Importing and following carrier rate decks is the first step to carrier management. Next is to create profiles of what you want your routes to do. Pulsar has defined user-programmable criteria that act to determine whether a call follows the lowest cost, the highest quality, a desired carrier, or something in between.

This will create thresholds that Serenity will follow. Exceptions can also be included so that a product may have highest quality to one destination, even though the rest of the country terminations only follow the lowest cost.

While creating profiles, a service provider can also filter criteria by incoming trunk group or IP route, Agent, incoming 800 or local number, or even by product type. The options are practically limitless!

Of course, there may be some unique scenario out there that we haven't yet thought of. So we have certain customizable criteria available too.



Call Simulating

With the complexity of carrier routing, even something as powerful as the Serenity platform should be checked to ensure that you're making money. That's why Pulsar has also designed Call Simulation tools right into the platform. You can view any route termination for profitability. Or put several terminations together to see if a particular product will make money, even with a loss leader.

With Pulsar, you can be confident in the power and reliability of our technology. And now, you can put that power to work for you even if you're a novice in the carrier management world.

Finally, a telecom product that will let you relax! After all, it's called *SERENITY*.



About Pulsar

Pulsar Communications is a telecom technology and service company that supplies a wide range of products and services seamlessly combining voice and data throughout public and private telephone networks.

We're completely driven by a goal of creating new means of building revenue for our clients:

- Carriers turn to Pulsar for ways of delivering new services to capture new revenue, or for approaches to deliver existing service offerings in a more efficient and effective manner
- Value-adding resellers package and market our technical innovation to commercial and individual end users - from the kitchen to the corner store to the corner office - looking for unique solutions to communications challenges and opportunities

The same exclusive Pulsar technology that creates new revenue opportunities also can be harnessed to enhance operating performance associated with existing service offerings, either reducing costs or enhancing margins for our clients.

Knowledge. Experience. Flexibility. Our team knows the business from the ground up. Contact us for more information on how Pulsar Communications can help you grow your revenues.



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