

To check indebtedness in the telecom industry, there's need for

## Interconnect Clearing House — Ike Nnamanni, Medallion Boss

The value of an interconnect clearinghouse in the Nigerian telecom industry cannot be over emphasized. Before discussing the various value propositions that an interconnect clearinghouse offers to Nigerian operators, let me first explain the class of service we are licensed to provide.

An interconnect clearinghouse in the Nigerian telecom environment is an operator that has acquired the license from the Nigerian Communications Commission (NCC) to deploy and operate interconnect switching exchanges and offer a billing settlement service for the telecommunication operators. It is important to note that the key functional requirement of the interconnect clearinghouses is the ability to have a physical switch that carry out transiting function for the operators as well as have a transparent and accurate billing platform that enables settlement of interconnect traffic to be carried out in an efficient and cost effective manner for the operators. It is equally important to note that prior to NCC creating this class of license last year, no company had been licensed to offer this service in the scope that the clearinghouses will be operating. What we had before were basically operators offering transiting services for other operators, but none were functioning as a full clearinghouse. This is why some transit service providers were not able to sustain their service for too long and why today we have a very high debt rate in the industry.

### Value proposition of Interconnect Exchanges

On the technical side, for any two operators to ensure seamless interconnection, their switches have to be physically interconnect. For operators that are not collocated in the same facility (which most times is the case), the cost of setting up this interconnection link can be enormous as it is either done by means of copper, fibre optics, or microwave radio. The longer the distance between the switching centers of the operators the more cost is incurred, especially in the area of right of way. For the operators to be connected in a peer-to-peer arrangement where each operator is directly connected to another operators is therefore going to be a very expensive project for the operators. Having a central interconnection exchange means the operators would only have to spend this money once or twice depending on the number of interconnect exchanges they are connected to. This saves the operators lots of money, which can be used to expand their networks, or they can pass such saving to the subscribers in the form of cheaper call rates.

Today in Nigeria we have three major interconnection points being used by the operators, especially the GSM service providers. These are Lagos, Port Harcourt, and Abuja. The implication of this is that calls from most of the eastern region going from one operator to another would have to get to Port Harcourt before exchanging networks. Local calls from the northern and western states have to find their way to Lagos and Abuja respectively. The resultant effect of this is that what should have been a local call amongst subscribers within the same city ends up going through national network or sometimes (if the transmission medium is VSAT) an international network. Local operators are therefore burdened by this transmission cost. Having an interconnection exchange in these cities will help localize the interconnection of calls. A call from a PTO subscriber to a GSM subscriber within the same city will not have to leave that city before moving from one network to the other. This will free up the national transmission facility of the operators and lead to lower call charges to the subscribers.

On the commercial area, all operators desire to be paid equitably and in a timely manner for calls terminated on their networks. This has not been the case before now. Several operators are not meeting their interconnection obligation for one reason or the other. The most prominent reason has always been disagreement on call detail records (CDRs). When there is a variance in the call details operators are claiming against each other, it is a difficult case once they are only interconnect directly. There is no independent source of traffic data to verify or confirm what they are claiming against each other. Settlement will only be reached when one party grudgingly accepts to write off some of the debts owed. The resultant effect of this is that they are likely to start limiting access to their network by the other operator. Both operators end up losing more money as a result of less calls being terminated and the subscriber is made to bear the brunt with poor quality of service.

Having an interconnect clearinghouse means that there will be an independent collation of call detail records by the clearinghouse. This forms a backup source of traffic data for the operators as well as for the regulator during arbitration. Also the possibility of large variance on the traffic data will be reduced as now you have three different sources collating the same call data.

For a clearinghouse that implements bill settlement, the operators are also assured timely payment of their interconnect debts as well as a guarantee that payments for calls made into their network will be received.

There is a regulatory obligation on all operators to interconnect with any other licensed operator that demands interconnection. However, implementing a peer-to-peer interconnection scheme will make the fulfillment of this requirement expensive and time consuming for the operators, as the number of interconnect links and agreements required is now increased.

A central interconnect exchange would help the operators meet this regulatory requirement in an efficient and cost effective manner.

Finally as already explained above, the Nigerian subscribers are today at the receiving end of lack of seamless interconnection amongst the operators. Subscribers are faced with low call termination rate and higher tariff charges as a result of the current interconnection methodology being implemented by the operators.

Having an interconnect clearinghouse is a major way to ensure that telecom tariff will drop and subscribers will reap the true benefit of a multi-operator telecom environment.

### Difference between interconnect exchange and clearinghouse

There is a difference between the two, grammatically and operationally speaking but in the context of the Nigerian telecom industry and the problem we are trying to address, both functions have to be performed simultaneously by the same operator in order to offer the relief that the service providers are looking for.

As I have explained above, before now we had transit switch operators like Mobitel, Nitel, and Disc Communication to name a few. But these are all telecom operators who are trying to help reduce the need for each operator to build out interconnect links to every other operator. However, none of them offered a clearinghouse settlement scheme. It was not practical for them to have been offering the service because there is a transparency and unbiased requirement, which a clearinghouse is expected to possess which none of them can attest to being operators with subscribers on their network. Also the clearinghouse function is a full time job, not something an operator can provide on a part-time basis. That is why NCC clearly states in our license document that no clearinghouse should have subscribers on their networks. The independence and transparency of the clearinghouse would be compromised once an operator attempts to offer that service. Also, you cannot be burdened with the responsibility of being a clearinghouse and also be busy chasing subscribers to hook up to your network.

On the other hand, you have companies that are basically accounting firms, which an operator can contract its interconnect invoicing and billing services to for more efficient service delivery. This is more important for operators with a large subscriber base, who do not want to deal with the large staff strength required for the settlement and reconciliation. These value added service providers also go by the name of clearinghouses. However, it must be understood that their services is different for the type of service that the NCC has licensed companies like ours to provide. They are not

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going to have interconnect switches and their settlement and reconciliation service would be limited to processing invoices for any operator that decides to use them. They cannot carry out multi-party account reconciliation because they do not have an independent source of call detail record that the interconnect clearinghouses can generate from our switching platforms.

### The same company can combine both functions

Yes, as I have explained above, a combination of both functions is what we currently need in Nigeria and that is what the interconnect clearinghouses licensed by NCC will be doing.

### The place of operators in running Interconnection Exchanges

The function of an interconnect clearinghouse cannot be efficiently provided by the operators with subscribers. This is because the transparency and integrity required as an unbiased settler of different operators interconnection debts would be compromised when you have operators providing the service. Also, the paramount business strategy of any of the licensed telecom operator is to increase their customer base and expand their network to new locations. To ask them to leave that primary function and cater to the need of other operators who are competing with them in the same market will be unfair. Remember Mobitel and Nitel have been trying to play the role of a transit switch and see how much trouble it caused them. To now increase the mandate to a full clearinghouse will be disastrous to say the least.

### Cooperation of network operators

The operators will use the service. The various value propositions listed above are known facts to the operators. It will not make a business sense for the operators not to patronize the services of the interconnect clearinghouses. We have been spending a lot of time drawing up the requirements and specific need of each of the operators and we have found they all need the service even though the value proposition that is more important for one operator may be different from the one that is more important to the other operator. To some, having an interconnection point so close to their geographic area of coverage is the most important parameter, while to another it is the assurance that they will receive payments for calls terminated on their networks. For some others it is the fact that they do not have the resources to setup individual interconnection links to all the operators that want to be able to exchange traffic with. I have heard some people say that they have invested so much resources setting up interconnection links so they do not need the clearinghouse. My question is in how many cities in Nigeria do they have interconnection with the GSM operators? People have to remember that we have 36 states in this country. It is not sufficient to say you have good interconnection in Lagos alone and then expect regional operators to come meet you in Lagos. There is a transmission cost component that the subscribers will ultimately be

made to pay for. To cover these other cities operators cannot afford to implement the same scheme that they have implemented in Lagos. It is just not cost effective.

Even when you have two operators that are sufficiently interconnected in a location, what happens when there is a dispute on call records or when one of the parties have lost their call records like in the case between Reltel and Nitel. We definitely need the interconnect clearinghouses in Nigeria. It just makes business sense for the operators to patronize the service.

### Number of Interconnect Exchanges

I do not think six is necessarily too much. It depends on the implementation strategies of the clearinghouses. Remember each of these licenses is a national license so operators are expected to deploy switches in a number of cities. There is a lot of value in doing that. However, it will not make business sense for more than three clearinghouses to operate in some of the states. A state like Lagos should be able to take four for efficient service delivery.

Also it will not be wise for a particular operator to interconnect with only one clearinghouse because you need to be able to try out different quality of service that each clearinghouse offers. You also need alternative routes in case there is a problem with your preferred route and for overflow traffic during very busy period. In the same way, I do not expect an operator to dismantle an already established route to a particular operator in order to be connected to a new clearinghouse. Both links can be operated simultaneously and the operator will be at liberty to choose which route to use at a particular time based on criteria like costing, quality of service, guarantee on payment, etc.

### Place of Medallion as an Interconnect Clearing house

We spent some time working out the functional requirement from the operators. We had to be sure we understand what they expect from the clearinghouses and this process took some time because what was most important for some operators was not as important to some others. We had to find a middle ground that will satisfy the need of most of the operators.

Also setting up an interconnection exchange is not something you do in a hurry the network design has to be right as well as your switching, billing, and transmission facility to ensure there are no hiccups when you finally open shop.

We are in the last phase of our network implementation plan. We will be fully operational in Lagos in the next few weeks. Other locations will follow shortly after that.

We have the intention to fully implement our license scope. A national rollout of service is the deployment plan. We are however mindful of the fact that telecom networks have to be deployed using a particular methodology to achieve network efficiency. So for us it is not just the physical money to rollout that is important but we are carrying the operators along in our network deployment programme. The goal is to get to a point in this country, where an operator will be comfortable going to provide services in the rural and semi-urban areas knowing fully well that it does not have to deploy additional resources to reach the larger national network operators.

### Investment

Deploying a telecom network involves significant investment in areas of equipment, infrastructure and human resources. Medallion has worked out a creative way to ensure we are not spending more than what we need to spend for efficient service delivery.

Medallion Communications Limited is a wholly owned Nigerian company. Professor Bartholomew Nnaji is the Chairman of our Board of Directors.

Upon full implementation, the Medallion solution offers to telecom operators:

- Increase operating traffic with reduced downtime
- Better services with reduced operating tariffs/rates
- Efficient Billings, Payment/Settlement process with verifiable call detail record
- Reliable, Efficient and scalable network
- Reducing legal disputes thereby minimizing cases requiring mediation between operators by NCC;
- Interconnection exchange will drive the speed of service delivery to rural and semi-urban areas of the country.
- It is envisaged that a sophisticated interconnect exchange such as the one being deployed by Medallion will reduce cost of telephone calls, thus enabling more sub subscribers to hook on to the network via any chosen operators.

—By Godfrey Ikhememhen



Ike Nnamanni, Medallion CEO