



# Wireless Backup Connectivity Lowers Costs and Positions Networks for the Future

**The GNCI MSM product provides banking client with fast, flexible and secure wireless technology that is forwardly compatible to next-generation wireless**

Formed in 1946, this financial institution has \$12.3 billion in assets, more than 381,000 customers and 57 branches. Stable and reliable branch communications are of paramount importance in servicing their clientele. Backup facilities in the event of main circuit failure are essential to providing an ongoing superior level of service.

### Case Study Summary

#### Business Challenge

- Reduce operating costs of backup network.
- Keep capital investment to a minimum.
- Invest in technology for the future, while avoiding short-term solutions.
- Support communication needs of branches during failures.
- Flexibility for disaster planning options.

#### Technology Solution

- GNCI MSM solution is cost-effective and is easily upgradeable to future networks without disruption.
- The flexibility of the MSM is one of the key factors driving the hardware decision.

#### Business Results

- Backup network costs are reduced by \$20,000.00 monthly.
- Capital investment is low and provides the most long-term value.
- Ability to insert / remove new radio technology anytime with little or no cost.
- Adaptability to use carriers of choice.
- Forward compatibility with new wireless technology.
- Supports backup connectivity at branches.
- Provides for disaster recovery.

### The Business Challenge

Backup facilities are essential to this customer. However, the ongoing costs of maintaining a full backup network have come under scrutiny and the business has been challenged to find an alternate solution. Additionally, this institution has recently had cases of complete branch isolation when their main fiber circuits **and** their T1 copper backup facilities were both cut in the same incident.

*“The challenge from our business was to lower our costs, while finding a way to avoid the mainline and backup circuit down situations that we had recently experienced”.*

It became clear that using wireless connectivity was the best option, which would definitely eliminate the possibility of having both circuits down. Additionally, the speeds and availability of 3G cellular service made this a viable option to consider more closely.

Investigation into pricing of 3G service revealed that huge cost savings can be made by replacing the T1 copper backup facilities with wireless 3G service, with little or no performance degradation.



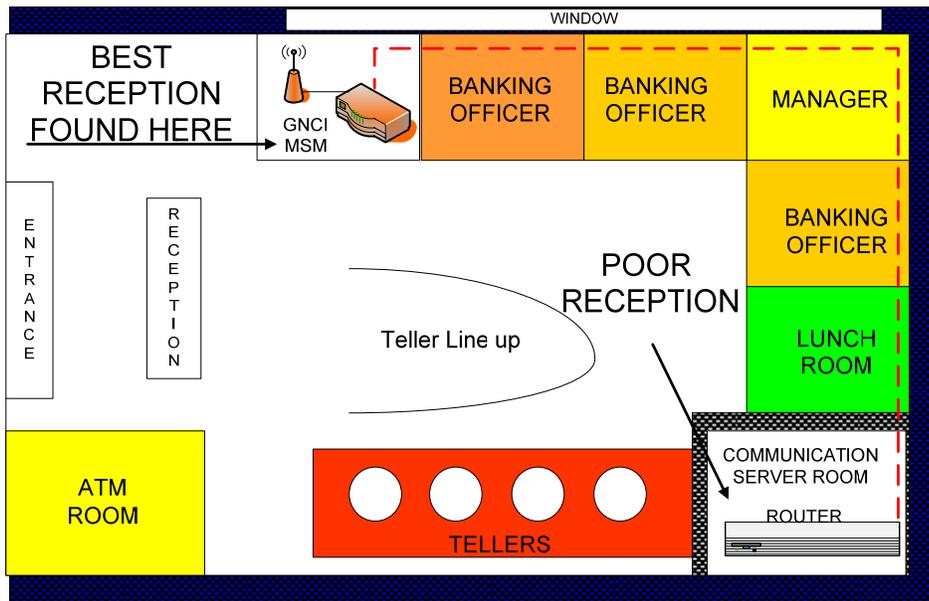
## Considering 3G Hardware Options

Many options for 3G connectivity for branch-based routers are available, each with benefits and drawbacks. Extensive experience with wireless and strategic planning with 3G carriers reveals that an important criterion for any hardware solution is to be forwardly compatible with wireless network evolution.

*“The speeds of the next-generation networks will soon outperform T1 lines both for upload and download speed. Our solution needs to be able to accommodate new radio technology quickly, without costly upgrades.”*

## The 3G Router Module

One popular option considered was a hardware module manufactured by the same company as the institution’s router vendor. This hardware module has an embedded radio module. To change 3G technology for accommodation of higher speeds in the near future, or to change 3G carriers, would require a new module to be purchased. Also, installation of this module required a power-down and a firmware image upgrade for the entire router.



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The router module concept was further discouraged when it was realized that the module would only work in certain models. Not all of the fleet was compatible: Making any deployment consistent would have meant that over 20 routers would need to be replaced at a very high cost.

*“Another problem with the router module approach is that our routers are located inside branches, sometimes in enclosed, confined spaces that are poorly suited to good RF performance. Installing a module in these routers is not only disruptive, but often would not work. Adding a 10 foot antenna does not resolve this issue in many cases, and movement of the secure router platform is out of the question.”*



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## Customer Case Study

### The Final Hardware Solution

The customer turned to GNCI for advice on hardware and quickly realized that the GNCI MSM product met the objectives of their business needs, provided flexibility for the future, protected their investment and implemented the service non-disruptively.

*"We have a solution that has allowed us to deploy in every branch, regardless of the location of our branch router. We have the capability to simply locate the MSM in the most favorable RF location in the branch with a CAT5 cable connection back to the router. This connectivity can be added to our branch router with no disruption, no image upgrades, and it is as seamless as turning on a new Ethernet port."*

*"The MSM can accommodate new wireless technology for years to come, simply by changing the Cardbus-based radio, or adding a new USB radio. The cost of these new radios are insignificant, giving us a far better retention on our investment."*

### Results

This financial institution was able to reduce the cost of their backup network by \$20,000.00 monthly. This was accomplished by removing the T1 networks, and replacing them with 3G-enabled GNCI MSM units running on 3G networks.

*"We are very pleased with the GNCI hardware solution, with its inherent flexibility and cost effectiveness. GNCI has proven to be a strong, effective networking partner with our organization. Their optional service programs (such as RF site surveys, equipment staging, radio activations and installations) have made GNCI our vendor of choice for wireless branch connectivity."*

This solution has also enhanced the disaster recovery program considerably. In the event of disaster, branches can continue to operate even when landlines are damaged. This configuration has allowed branches to maintain communications to both the online host as well as the disaster host using the same MSM unit over the 3G wireless network.

### Next Steps

This financial institution is now pursuing temporary branch locations, and certain primary router applications with GNCI.



## GNCI

Global Net Suite Commerce, Inc.  
2102 Business Center Drive, Suite 130  
Irvine, CA 92612  
Phone: 949-515-1960  
Email: [info@globalnetcommerceinc.com](mailto:info@globalnetcommerceinc.com)

