# Leveraging Voice over IP for Successful Telecommuting

From GlobalPhone Corp.

Why fight the Traffic?   Retrofit your business PBX phone system to enable telecommuting.

Your employees are faced with exasperating traffic jams, wasted hours commuting and expensive gas prices. They want jobs closer to home.   Telecommuting can be a strategic business advantage for companies that successfully implement it. **It's time to go green, as in saving dollars.**
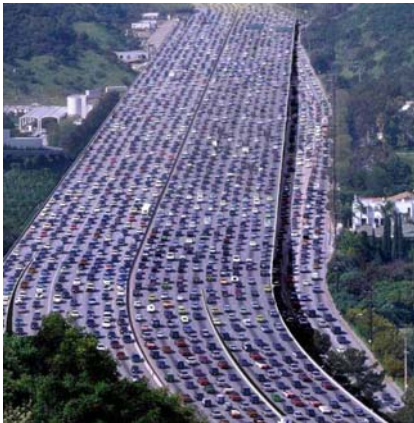
Fortunately, "**Going Green**" by telecommuting is easier to accomplish than ever before with new Voice over Internet Protocol (VoIP) technologies. The challenge associated with telecommuting is bringing the telephone and data facilities into the home in a way that ensures the same employee productivity and oversight that exists in the office.

IT managers are familiar with enabling remote information systems through technologies such as Terminal Services, but expanding the voice network to the home has stymied many telecommuting initiatives.

Companies that operate legacy private branch exchange (PBX) phone systems have tried call forwarding to the home or cell phone, but, this is not equivalent to having a true office phone, with the voicemail system, extension dialing, call hold and call transfer features of the office phone. There is little control over the home phone activity and employers have to reimburse home phone costs. Legacy PBX manufacturers have marketed proprietary VPN voice networks, but they are complicated and expensive.

With the maturity of VoIP and Hosted PBX technology, it has become relatively easy to accommodate employees working at home. The corporate phone system can

easily be extended into the home at a low incremental cost without requiring a forklift upgrade of the existing office private branch exchange (PBX) phone system. Accomplishing this is not dependant on proprietary vendor solutions from the traditional PBX manufacturers.

If you are starting fresh, it is easy to put in a new **Hosted PBX** system. A Hosted PBX is a VoIP based PBX system where the PBX functionality resides at the provider location, in the cloud. The Hosted PBX system will support any remote phone and provide normal PBX features such as voicemail, call hold, transfer, three way calling etc seamlessly without dependence on location.

For corporations with large PBX systems, replacing all the digital phones with VOIP phones is not an easy option.   So, to achieve effective home and office phone integration, it is important to connect the legacy office PBX access to the VoIP network by using SIP trunking. (SIP or Session Initiated Protocol is the primary industry standard voice protocol.) Both the home office phone and the office PBX will need to be connected to the internet and use a VoIP SIP service available from many VoIP vendors.

SIP trunking provides local phone service to your legacy PBX, and usually at a lower cost than the incumbent telephone company. In contrast to Hosted PBX services, SIP trunking does not provide PBX features. It provides only dial tone like the local phone company. The PBX features are provided by the legacy PBX. By putting both the home phone and the legacy PBX on the same network, the job of transferring calls back and forth is simplified and the phone will have free on-net calls between the office and the corporate PBX.

When you contact a Hosted PBX/SIP Trunk vendor to establish local phone service, be sure the vendor support Hosted PBX services as well as SIP trunking services. Companies running carrier grade switches from Broad soft or Metaswitch can best provide these types of services with guaranteed reliability.

 Once you initiate service, the vendor will send a SIP VoIP phone to your employee's house. The employee plugs it into his router/switch and utilizes his existing broadband internet service to carry the voice traffic. The most widely supported SIP phones include Polycom, Cisco, Linksys, Aastra and Grandstream models. The Hosted PBX vendor will charge a monthly fee for the home service, typically ranging anywhere from $20 to $50 per month depending on the features and free minutes included in the plan.

On the legacy PBX side, the vendor will install a VoIP gateway which will convert SIP VoIP traffic to the standard interfaces used by your PBX system. Gateways can provide analog lines or channelized T-1 voice circuits using ISDN PRI protocol. Popular models include Adtran, Linksys, Cisco, Quintum, and Audiocodes. Phone

numbers can be ported from your existing carrier, so you don't lose your phone numbers. Moving to SIP trunking saves money compared to the local phone company, so it is advantageous to do from a standalone cost perspective.

To complete the integration, the hosted PBX provider will assist you to configure a variety of software services. For example, using a software feature called Shared Call Appearance**,** your office extension can be made to ring concurrently in your office and your home phone.   When a call comes in to the employee's phone number at the office, the office phone will ring as usual but also the home will ring. Shared Call Appearance can accommodate either extensions or Direct Inward Dial (DID) numbers. Employees simply dial the three digit extension to talk between home and office, or they can use a **Push to Talk** intercom function. You can also setup **hunt groups** (numbers that call multiple phones).

Integrating your legacy PBX with hosted phones is now easy and inexpensive, and very effective. It is a great feeling to be able to wake up in the morning, walk into your home office and start work without anyone knowing that you did not make that long commute.

GlobalPhone Corp. located in Falls Church Virginia. http://www.gphone.com