

H.M.Net Technologies Inc.

H.M.Net's new Subscriber VoIP,
pre-paid and post-paid
application telephony servers



2

3

5

When H.M.Net Technologies Inc. was founded in February 1997, its primary business was focused on offering Internet services.

Three years later, the executive team wanted to develop a new service that would produce recurring revenues like our existing internet services. Consequently, in February 2000, H.M.Net's engineers started to design a new telephone switching system that would be inexpensive to operate and would require minimal maintenance, while producing real time billing information like the current telephone switching systems.

In May 2000, H.M.Net Technologies Inc. registered with the CRTC as a long-distance telephone reseller. (Check Web site: <http://www.crtc.gc.ca/eng/public/Iplists/Reseller.htm>)

In August 2000, H.M.Net Technologies Inc. started offering local extended telephone services in the Ottawa area. The switching unit allowed customers in the areas surrounding Ottawa, who each had local calls to Ottawa, but long distance calls to the surrounding regions, to call each other in the surrounding areas without incurring the long distance charges.

With this service, operating costs were fixed and H.M.Net Technologies Inc. was able to offer unlimited calls on the network to all customers, for a low monthly flat fee.

By 2002, with its state of the art switching platforms, H.M.Net Technologies Inc. became a leader in local extended telephone services. This achievement is mainly attributed to the company's marketing and engineering teams who designed an innovative telephone switching system within only 12 months!

Today, H.M.Net Technologies Inc. is offering a new pre-paid telephone-switching platform to other long-distance providers. With this new platform, using Versatel's EdgeIQ series of switches, you can provide new pre-paid and post-paid services to your customers. You can also reduce carrier costs by using the EdgeIQ system's VoIP gateway feature!

Using the Versatel switch and our software switch solution, you can start offering Internet dial tone services! With the same hardware and software, you can generate different streams of revenues using just one platform.



With H.M.Net Technologies Inc.'s new telephony application servers, you can start offering the following services:

- Pre-paid and post-paid 1+ tandem calls.
- Pre-paid and post-paid calling card calls.
- Pre-paid, post-paid dual stage dialing calls.
- Pre-paid, post-paid inter-city forwarded calls.
- Our new CellPager* technology.
- Gateway to gateway VoIP calls using SIP/H323 protocol.
- Wholesale VoIP gateway calls using SIP/H323 protocol.
- VoIP dial tone services using SIP protocol..

H.M.Net Technologies Inc. has designed this new telephony application server with the following features:

Local database replication

The application server retrieves the complete database into local RAM every 15 minutes. Once the database is completely loaded, the application copies the database content to a local flat file.

If, for any reason, the SQL database server stops responding, the application server will not overwrite the local flat file and will continue to run using the current database loaded into RAM.

If the application server has to restart, and the SQL database is not functioning, the application server will reload the database from the local flat file in order to allow the system to continue offering telephone services.

Call Detail Records

All CDRs are sent to the CDR server residing in the SQL database server. All pre-paid accounts are updated within 5 seconds of the terminated call.

CDRs are stored in a local flat file on the application server and also on the SQL database server. These files are processed in the middle of the night around 4:00 A.M. during low traffic times.

If the CDR server is not running, CDRs are stored in the application server and are stamped as UNPROCESSED. When the CDR files are rotated at 00:00 A.M., the system reprocesses all unprocessed records.

DTMF digits collection

The application server collects all DTMF digits using DSPs from the EdgeIQ T1/E/VOIP cards. In order to determine how many digits to collect, the system searches and matches current digit strings with the call routing table containing the maximum number of digits to collect for the call.

The switch operator normally specifies the total digit timeout to collect digits. With this method, there is no need to limit inter-digit timeout!

ôla! hello! allô!

Multiple resellers database

The system can be programmed with multiple resellers. Each reseller can reuse trunks or have its own set of trunks. With the same hardware, you can lease T1 space to resellers. This means more revenue with the same system! For security reasons, each reseller only has access to its own database with its own call routing tables.

Remote management

The system was completely designed with remote management in mind. Most systems are co-located in a data center and need to be managed remotely with an internet connection.

Remote monitoring

We also designed a tool to remotely monitor the system for any errors. We monitor the VSOS connection, CDR Link, SQL Database, connection to system and also all enabled channels. So, if the PRI-T1 provider has a problem on a PRI-T1, we find out within 30 seconds!

Announcements

For each DNIS, we can program different announcements. For example, if you set up 6136884000 as your calling card access number, you can have an English announcement, and you can set up 6136884001 for another calling card access number but with a Spanish announcement!

VoIP Dial tone

With our systems, you can also provide VoIP dial tone services. Our intelligent gateway allows you to setup an ATA with a SIP URL (sip:agent007@yourcompany.com) and assign a public DID number to that device. So one public DID number could be assign to many ATAs, and multiple DID numbers can be assigned to one ATA! Our VoIP dial tone includes the following features:

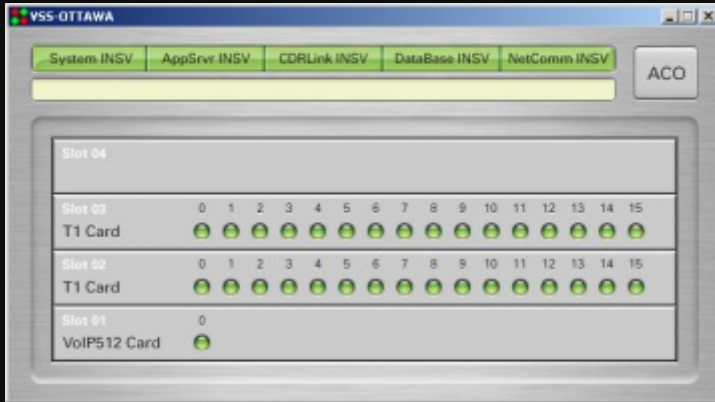
- Caller ID
- Call waiting
- Visual Call waiting
- Call transfer
- 3-way call conference
- Call Forward
- Call forward BUSY
- Call forward no answer
- Request last caller
- Speed dials
- Unified voice mail server
- Private number
- Blocked numbers

What's cooking for the future?

We're now designing a conference service that would interact with a Web page, so users can set up multiple legs of the calls. This will allow us to have users to conference with friends and family members using a regular telephone or even a VoIP phone!

We will also continue to update and implement new features for our VoIP dial tone module.

ôla! hello! allô!



Another great tool is our remote system monitoring, which can remotely monitor your application server and detect any problems like database server problems, PRI-T1 out of service situations, network communications issues and also CDR problems!

H.M.Net Technologies inc. offers remote monitoring services:

- We monitor your switch 24/7 using a dedicated DSL Internet service.
- When a critical alarm occurs, we dispatch a qualified person to/from your organization within 5-10 minutes!
- Available as an option, we can also interact with the PRI-T1 services providers without dispatching the person on-call in your organization.

This service can save thousands of dollars a year to small and medium telephone service operators!

We offer remote management services:

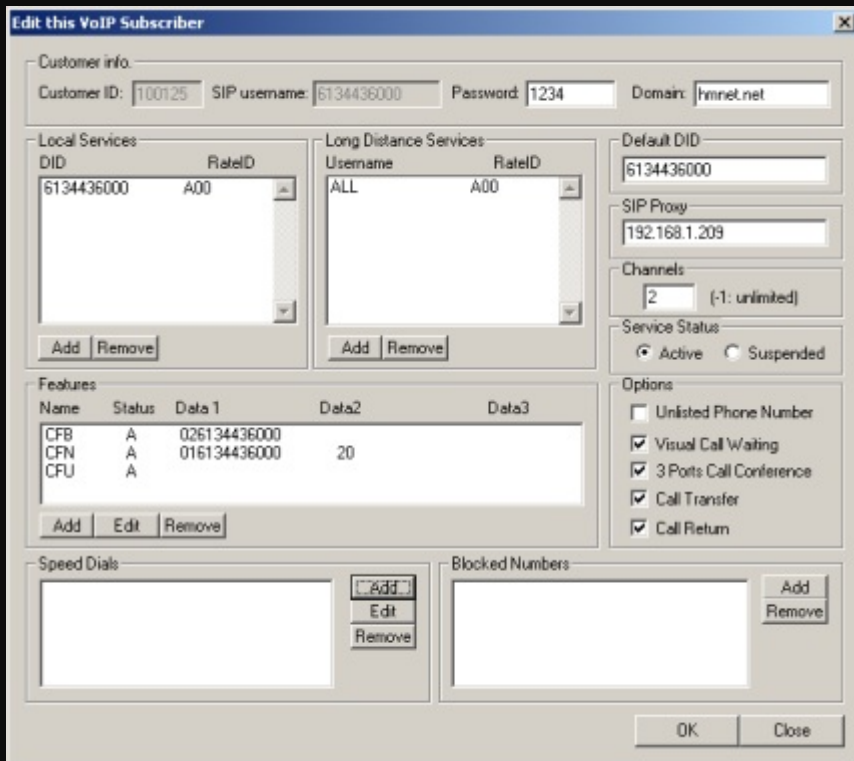
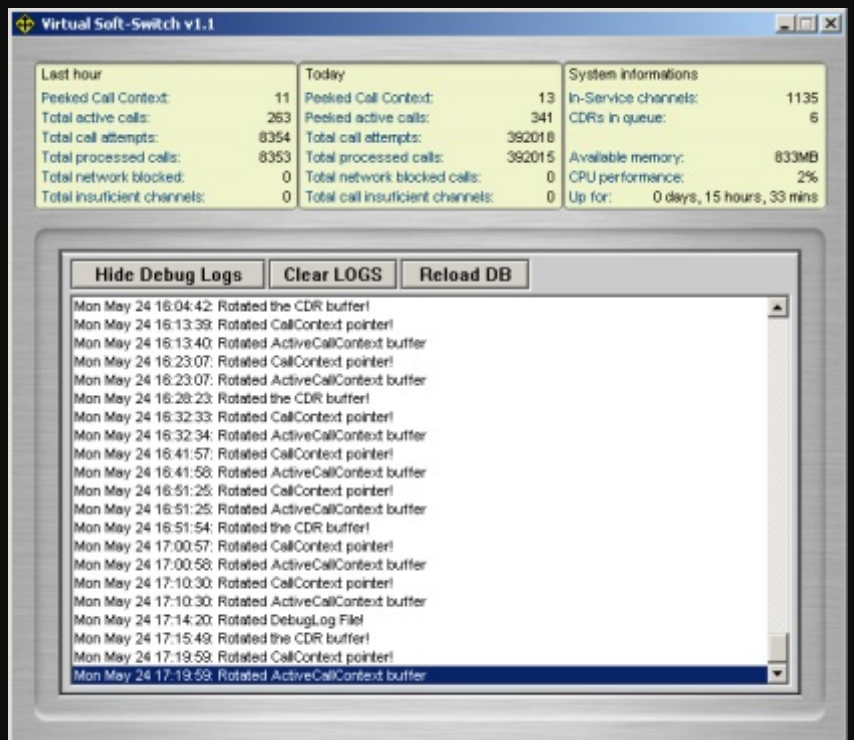
- This service permits small and medium switch operators to properly configure and set up all trunks and call routes within the EdgeIQ system.
- Our highly skilled engineers will save you time and money by optimizing your systems for you!

Our main application server provides the switch operator with some essential troubleshooting information:

- Active calls
- Attempted calls
- Processed calls
- Network blocked calls
- No resources calls

You also know how much memory is left as well as the number of in-service channels. Moreover, the system indicates the CPU performance and the number of CDRs in queue.

The application server has been tested for more than a 1,000,000 calls at a rate of 26,400 calls/hour without dropping a single call!



This screen shows how easy it is to setup a new VoIP dialtone customer with some features like call forwarding.

Included with the system is an auto-provisioning server for the ATAs. With this server, you can change the ATA's configuration by editing values from this screen and get the end user to power cycle the ATA to update his configuration!

Your OPEX gets reduced significantly with the auto-provisioning server.