

# INTEGRATED VoIP SOLUTION

#### Key Features

- Fully integrated, turn-key solution that does not require any additional investments
- Support comprehensive Accounting, Billing, Authentication, and Account Management services
- Provides integrated IVR, Radius, Sybase Database, Web servers
- Allows online and offline pre-paid and post-paid calling card support
- Lowest price in the industry
- Compatible with all Radius enabled H.323/SIP gateways like Cisco, Quintum, and others.
- IVR Server

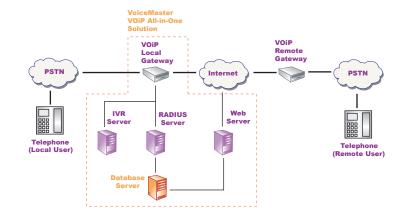
- RADIUS Server
- Web Server
- Billing Server
- Sybase Database Server
- Web Application/ CGI Server
- Online Call History & Online Balance
- Credit Card Interface

### **The Need for VolP**

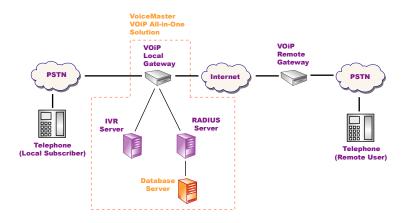
VoIP implementation presents a significant challenge in terms of system component integration. For every pre-paid calling card solution NextGen Telco companies require a minimum of gateway, gatekeeper, IVR, Radius, database, and Web interface. All components are usually sold by different vendors that present significant integration and compatibility overhead.

### What We Offer

The VoiceMaster is an integrated turnkey VoIP solution that is built on a scaleable UNIX platform with NO restrictions in terms of supported gateway servers and processed call time. The solution incorporates one manageable platform for VoIP that supports H.323 gateways with Radius/AAA authentication such as Cisco, Quintum, and other gateway products. It includes Radius, IVR, SQL database, Web servers on a Linux UNIX platform.



# **How It Works?**



- 1. Subscriber calls into the local VoIP gateway (connected to the PSTN) via access code (1-800-xxx-xxxxx).
- 2. The gateway negotiates with the RADIUS server the account request.
- 3. The gateway retreives from the IVR server a welcome message prompting for entering the subscriber PIN number.
- 4. Caller enters the PIN number.
- 5. Gateway sends the PIN number to the RADIUS server for authentication. In this step the RADIUS server retreives necessary data from the Database server.
- 6. The RADIUS server returns to the gateway the credit balance for the account.
- 7. The gateway plays the credit balance and prompts for the caller for destination number. The gateway retreives all necessary aduio data (WAV audio files) from the IVR server unless it is already cached.
- 8. Caller enters destination number.
- 9. The gateway sends the destination number to the RADIUS server for authorization.
- 10. The RADIUS server responds to the gateway with the duration for which the caller is authorized to speak.
- 11. The gateway plays to the caller the authorized time in minutes. At the same time the gateway "knows" when to disconnect the connection should the time limit is exceeded.
- 12. The gateway resolves an IP address based on the destination phone number, using defined Pnone-to-IP address tables. After resolving the IP address, the gateway establishes connection to a remote gateway.
- 13. The remote gateway establishes the connection to the destination side using the remote PSTN.
- 14. The phone-to-phone connection is established. If either side of the connection disconnects, the local gateway informs the RADIUS server to stop the accounting for the call. All data relevant to the call is written into the Database server.
- 15. The subscriber can check at any moment status of his/her account including call history, user profile and also can recharge his/her account. Administration of the VoiceMaster VoIP solution is entirely web based using a browser.



#### Full online billing and accounting

- Users can review:
- call history
- call information
- user profile
- credit card information

Full online browser based administration

Administrators can easily configure all aspects of the VoIP system such as update phone rates, audit users etc.

## Components

#### **Flexible Gatekeeper**

VoiceMaster incorporates a flexible H.323/SIP gatekeeper capable of working in three modes: static, routed, and proxy. It also utilizes an intelligent mechanism for distributing traffic across a gateways based on least cost or higher availability. The gatekeeper supports tech prefixes and also provides flexible phone number manipulation for maximum compatibility with 3rd party gateways/gatekeepers.

### Web Server and CGI Application Server

VoiceMaster allows Telco companies to provide seamless Web integration for their calling card application. Full support for user profiles, credit card account funding, and customer support is provided via Web. The solution also includes sample of Credit card API interface for easy integration with third-party credit card processors.

### **IVR and Radius/AAA Component**

VoiceMaster solution includes a full-scale TFTP IVR server that provides storage for audio playback files required for all pre-paid and post-paid calling card applications. All system users are authenticated via Radius/AAA procedure that collects and checks PIN information, account balance information, and dialed number information. The system supports multiple languages

#### SQL Database Authentication and Accounting Information

All RADIUS calls are executed on a database level to provide current account balance and user authentication information. The database is capable of supporting over 5,000,000 concurrent phone calls. The database also stores call history and call audit information as well as user profile and credit card information.

#### **Hardware Specifications**

- Industrial 1U Server with LCD
- Intel P4 CPU
- Dual 60GB hard drives
- Dual Intel 10/100Mbps network adapters
- Up to 1GB RAM
- 1 year hardware warranty

## **CONTACT INFO**

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