

Quintet Enterprise – Unified Communication Solutions

Product Overview

INTRODUCTION

We live and work in a new world rich in communication media – telephone, cell phone, fax, wireless, email, world-wide-web. But do these media devices make it easier to communicate, or more difficult? The real challenge is: How does your enterprise manage all these tools efficiently to maximize their true capacity? How does your enterprise find a way to improve internal communication, enhance customer responsiveness, and increase productivity?

The UniVoice® Quintet Enterprise makes available the next-generation communication solutions designed to power your enterprise's communication needs and improve productivity. Quintet Enterprise enhances your enterprise with unified messaging capabilities by integrating communication services and solutions into a brand new, or existing, IT infrastructure.

The objective of Quintet Enterprise is to provide a set of comprehensive communication tools that deliver voice messaging, fax messaging, and a single point-of-access to all types of messages at any time, from anywhere.

Quintet Enterprise deploys a voice messaging infrastructure to your existing voice and data network. It utilizes a set of integrated unified messaging services to combine the various types of media, provides each user with a single point-of-access to all types of messages whether from a phone or a desktop computer. Using Text-to-Speech (TTS) technology, mail users can listen to their email messages over the phone and, vice-versa, with Quintet Enterprise's email integration, mail users can view and listen to voice messages through their email client or web browser by using a series of mouse clicks.

Quintet Enterprise comes with a suite of voice and web applications, including Personal Agent Services (PAS) – a web access component allowing call control, voice messaging, and personal setting changes via the Internet. It provides immediate solutions, with a quick and easy deployment process, to meet all your communication needs; particularly your need for Unified Messaging. At the same time, its open-ended voice processing architecture provides your organization the ability to extend features into future XML based Voice Menu Processing – flexible voice menus for listening to web information through the telephone. The XML Voice Menu Processing component for the Quintet Enterprise is scheduled to release in the first quarter of 2002.

Quintet Enterprise comes with powerful voice and data integration capabilities, which can be seamlessly deployed regardless of the various types of networking equipment in your existing infrastructure. It supports both E1 and T1 lines, as well as Voice-Over-IP (VoIP) gateway and IP PBX integration.

PROBLEM OVERVIEW

Many customer organizations or enterprises are facing one or more of the following challenges:

- ? Different types of messaging systems, in particular the voice messaging system, are separate from one another.
- ? Users cannot access voice messages from their desktop computer.
- ? Users cannot access their email or fax messages while on the road without logging on to the Internet or their company intranet.
- ? New unified messaging solutions or systems are often far too complex, expensive, and difficult to deploy. Most solutions are either "Completely-Replace-It" or "Better-Wait-for-Later". The market

lacks an “Integrated” messaging solution.

- ? Users either cannot control phone calls from their desktop computer or are required to install fat client on their desktop computer in order to perform telephony functions.

Overall, customer organizations, or enterprises, need better and more efficient ways to access the various forms of messaging information within their organization whether within the workspace or while traveling on the road. Most existing messaging servers are separate entities and hardly ever integrated. Because there are many access points pointing to the various message storage areas, organization mail users struggle to keep up with and manage their messages in a timely manner. More and more organizations are looking for unified messaging solutions in order to simplify the process of accessing and managing messages.

Quintet Enterprise is designed to provide an integrated solution to achieve the goal of unified messaging. When all forms of message servers are integrated, all messages can be accessed and managed through a single access point such as a phone, an email client, or a web browser.

SERVING COMMUNICATION NEEDS

The most important need for building a next generation unified messaging solution is a robust voice communication server, which can serve as a bridge between the voice and data networks.

Most customer organizations already have an email server, thus the Quintet Enterprise Voice Communication Server can serve as a platform to transport messages between the voice (voice mail) server and the data (email) server.

There are some organizations who already have both an email server and a voice mail server. For them, an Email Reader only solution can be deployed to serve in converting email messages to a readable WAV format for message playback over the phone.

For organizations who have comprehensive voice and data networks, including Voice-Over-IP, Quintet Enterprise serves by providing tight integration between both traditional PBXs, VoIP gateways, or IP PBXs.

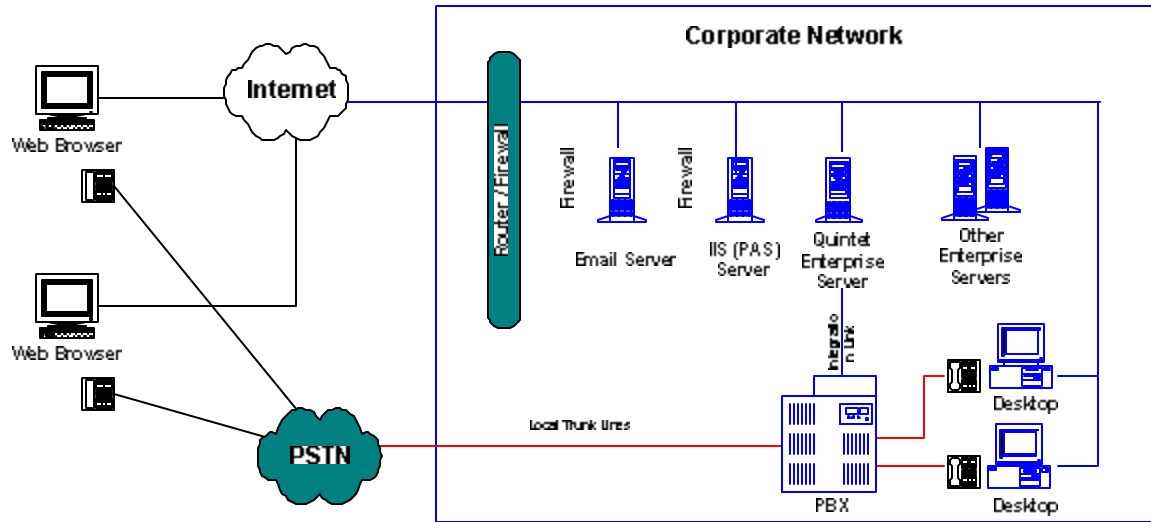
Quintet Enterprise also integrates with an Internet Web Server (IIS) to provide web access to voice communication and messaging. The Quintet Personal Agent Services (PAS) delivers call control and message access through the Internet to extend an organization’s web access capability.

Finally, for organizations looking for a simple “one-email-client-for-all” solution, Quintet Enterprise can serve as a POP3 mail server, through which voice messages can be pulled into email clients through the simple POP3 message protocol.

The focus of Quintet Enterprise is to provide a unified messaging solution by integrating the complete system, or specific sets of communication components, into an organizations’ existing network.

ARCHITECTURAL OVERVIEW

The following diagram illustrates a fully deployed Quintet Enterprise System in a medium-to-large organization. The infrastructure consists of four principal server components organized into a manageable, coherent architecture:



Telephone Conversation uses the industry standard for voice navigation. It's easy to follow and easy to use.

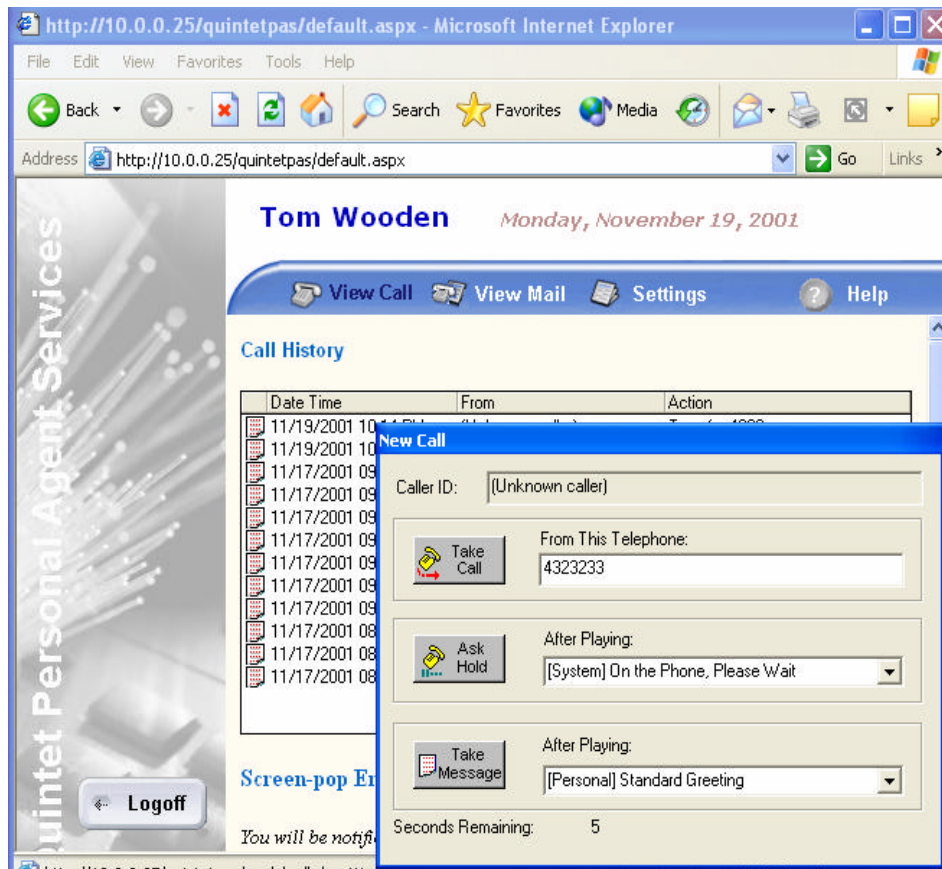
2. Quintet Personal Agent Service (PAS) is a series of web based applications allowing users to perform telephony functions (View Call), voice message access (View Mail), and personal settings via the Internet by using a web browser. PAS provides the ideal interface for office workers who travel and are on the road a lot, without the need of installing a fat client on their desktop computer. Quintet PAS supports any kind of web browser, on any desktop platform, and can be accessed at any time, from anywhere.
3. Third party email clients, such as Outlook and Lotus Notes, provide the third interface for a single point of access to all types of messages. With Quintet Enterprise Email Integration, voice or fax messages are shown on the email client in addition to their email messages. Voice messages can be played back from the desktop computer using any kind of multi-media device.

WEB ACCESS – PERSONAL AGENT SERVICES (PAS)

Internet information access has become daily routine for most business users. By using a web browser, a user can browse personal and business information from any computer connected to the Internet or their company intranet without need of specialized client software. Considering that the web accesses data in viewable format, Quintet Personal Agent Services provides voice information in a similar viewable format via a web browser. The primary functionalities for Personal Agent Services are: View Call, View (voice) Mail, and View Personal Settings (personal voice settings such as voice mail greetings, etc.).

View Call

The View Call application is designed to provide a virtual office environment for users who are on the road. Users can control telephone calls from a web browser even when they are away from their office. With View Call, users are able to monitor incoming calls via screen-pop on their web browser. They then can decide what action to take, such as requesting the caller to hold, recording a message for the caller, or transferring the call to a specified phone number.



The View Call application is essential for business travelers who are on the road but don't want to miss important phone calls while working at a remote computer.

View Mail

The View Mail application allows business travelers to check their voice messages through a web browser without having to call in to the organization's phone system. Messages can be played back through the UniVoice Media Player or any other specified multi-media player on a remote computer.

Personal Settings

With PAS web access, all unified messaging related settings can be changed through the Internet. Even the mail user's voice mail greeting can be re-recorded using the computer's multi-media device.

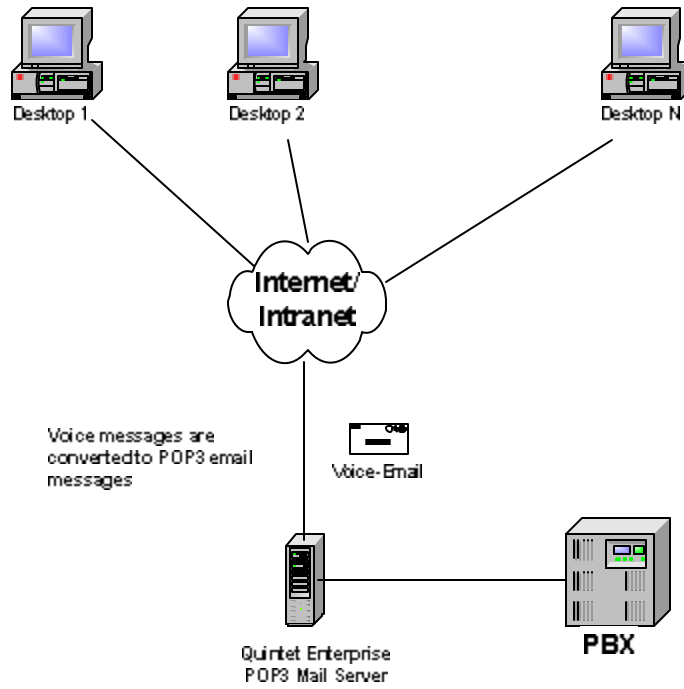
EMAIL INTEGRATION DEPLOYMENTS

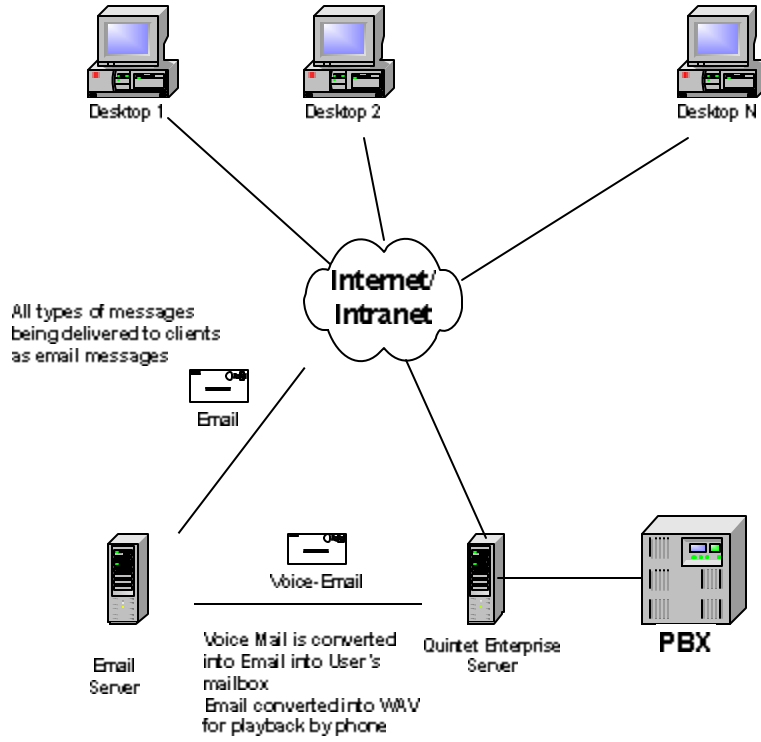
The key to delivering the functionality and performance as outlined by the Quintet Enterprise is to deploy the server(s) and components by integrating them according to your organization's existing voice and data network architecture.

Simple Mail Server for Voice Messages

It will not take a convoluted integration with your existing email server for voice messages to be pulled from the Quintet Enterprise Voice Communication Server into desktop email clients. Simply by

configuring the voice mail server as a POP3 mail server, voice message can be requested using the POP3 protocol.





Quintet Enterprise consists of the following:

- ? **Quintet Enterprise Voice Communication Server.** Running on Microsoft Windows NT or Windows 2000, the Quintet Enterprise Voice Communication Server is the centerpiece for bridging between your corporate voice network and data network. It provides voice processing functions such as automated attendance, voice mail, and audio-text. It also provides telephony platform and resource services for Text-to-Speech (TTS) functions.
- ? **Personal Agent Services – Web Access.** A comprehensive set of web applications to perform telephony functions such as call control, monitoring of incoming calls (screen-pop), and handling incoming calls (hold, transfer, play greeting, take message) through a web browser. It also provides web access to voice messages and allows download, playback, and delete functions remotely from a desktop computer. A separate UniVoice Player component is included to provide media playback functions for voice messages and/or greetings.
- ? **Email Reader – Text-to-Speech.** Reads email messages over the phone. It supports multi-channel, multi-language, as well as various text formats, such as plain text, HTML, RTF, etc.
- ? **Voice Mail and Email Integration.** Supports POP3 Mail Server, as well as voice to email message delivery. The transported email messages can be in the form of WAV attachments, links to the WAV files, or plain text messages.
- ? **Fax Mail and Fax-On-Demand.** Allows for remote fax retrieval and forwarding, fax messaging, a one call fax-on-demand library, and fax document delivery.
- ? **Voice-Over-IP Integration.** Supports IP gateway integration, IP-PBX integration and IP phones. It supports industry standard protocols such as H.323 v.2, H.225, H.245, RAS, RTP/RTCP, etc.

CONCLUSION

Quintet Enterprise provides integrated solutions to meet your unified communication needs. Instead of overhauling your existing data network or voice communication components with a complex one-piece message server solution, Quintet Enterprise components can be integrated into your existing infrastructure according to your needs. The goal of providing unified messaging to all your mail users can be achieved by integrating your email server, voice mail server, and fax mail server with select Quintet Enterprise components.

Quintet Enterprise delivers a well-tested, targeted, and optimized deployment of a set of communication tools that serves as a bridge for your voice and data network. This component designed architecture enables services and options to be deployed based solely on your existing infrastructure, thus, both your current and future investment are greatly enhanced and protected.

Moreover, while Quintet Enterprise is highly both scalable and expandable, you have the ability to extend the unified communication functionalities to the deployment of your future network and components. For example, with the Quintet Enterprise Voice Communication Server platform, you will be able to offer mail users who have XML based Voice Menu capability the ability to read information from the world wide web.

Service and support options are available to deploy and support solutions that are ready to deliver business value to you on day one. Please visit the UniVoice web site (<http://www.univoice.com>) for more information.

The information contained in this document represents the current view of UniVoice Technology, Inc. on the issues discussed as of the date of publication. Because UniVoice must respond to changing market conditions, it should not be interpreted to be a commitment on the part of UniVoice, and UniVoice cannot guarantee the accuracy of any information presented after the date of publication.

This white paper is for informational purposes only. UNIVOICE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS DOCUMENT.

Complying with all applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the express written permission of UniVoice Technology, Inc.

UniVoice may have patents, patent applications, trademarks, copyrights, or other intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from UniVoice, the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property.

© 2001 UniVoice Technology, Inc. All rights reserved.