# ChoiceView Technology and Architecture

See it and Hear it

ChoiceView^{TM} consists of a technology platform and corresponding software applications to allow 3G+ mobile device users to receive visual information and data simultaneously during an ordinary phone call.   In essence, the ChoiceView technology platform joins a voice call with an associated data connection to allow a mobile caller to speak with an enterprise agent while that party shares relevant visual information in real time.

Typically, the called party is a live agent in a contact center or on an individual PC or an interactive voice response (IVR) system. In this document, the term "agent," unless otherwise qualified, refers to both live-person and automated endpoints.
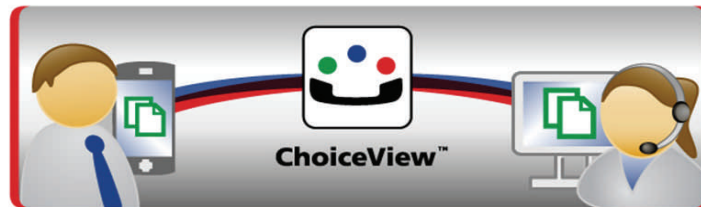
ChoiceView also allows context-specific caller information to be delivered visually to the agent's desktop so that s/he can immediately understand the context of the call and can answer it appropriately. Both of these capabilities offer significant gains in efficiency, understanding, accuracy, and satisfaction.

Key User Features

- Allows a caller to connect to an agent without having to supply separate address information apart from the phone call. ChoiceView data path follows the call.
- Allows the caller to see, while talking or texting, any visual information sent by the agent, including photos, videos, diagrams, documents, forms, and graphics.
- Allows a caller to save any visual information received from the agent for later retrieval and viewing by simply tapping the ChoiceView App's 'History' button.
- Transparently handles dropped connections. The ChoiceView Switch automatically reconnects the caller to the proper agent with no action required by the caller.
- Supports new types of interactions. For example, a caller can navigate an IVR menu visually or type sensitive information, e.g., credit card number, consent forms, etc., instead of speaking it.
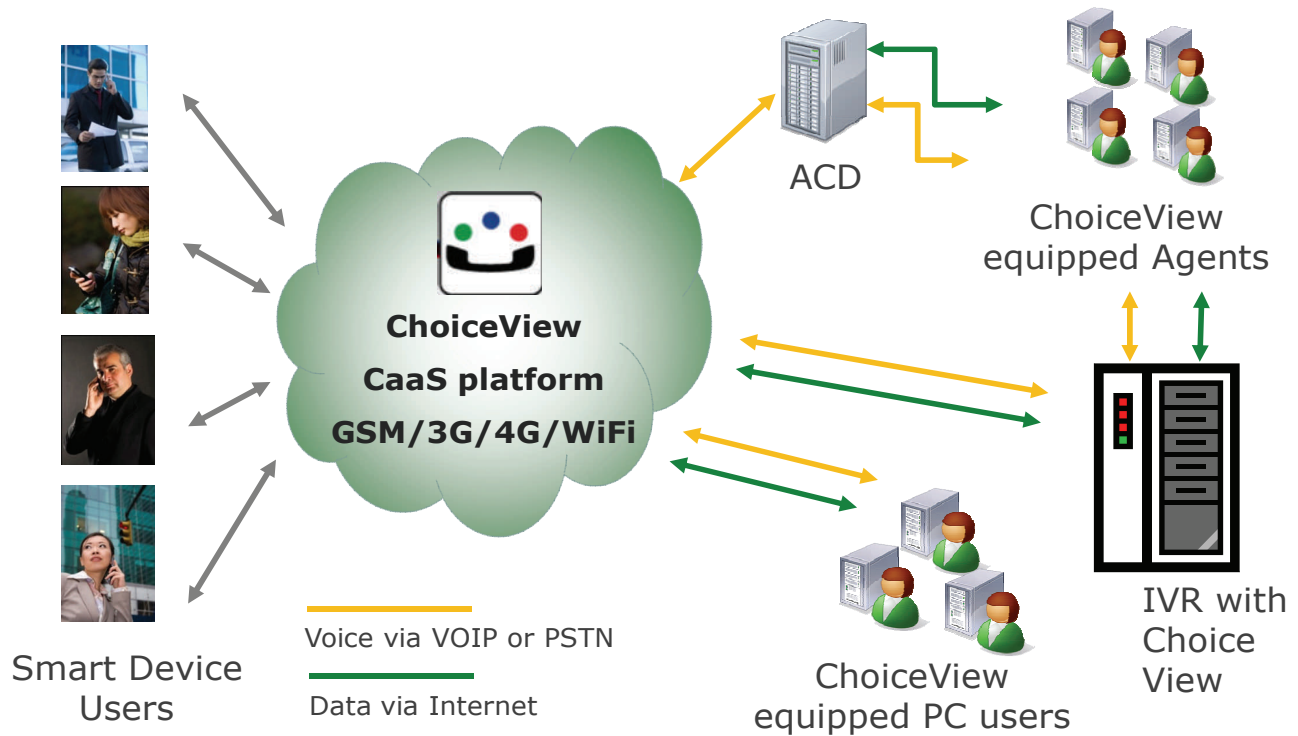
Existing Phone and Internet Capabilities

ChoiceView uses the phone and Internet capabilities that are inherent in smart mobile devices and agent endpoints. ChoiceView builds on the existing voice and data networks rather than bypassing them. A major advantage of this approach is that ChoiceView capabilities can be easily added to existing mobile devices, agent positions, and IVR systems by simply adding software. A further advantage is that all of the features, billing, redirection, and network capabilities offered by mobile device manufacturers and carriers remain in place unaltered.

ChoiceView provides mobile callers with a self-contained app that integrates voice, data, and messaging functions in a simple and convenient caller interface. A similar rationale applies on the agent side. ChoiceView is unique—no existing technology is able to play this role for either the user interface or system functionality and performance.

System Architecture

A key element of the ChoiceView infrastructure (graphic next page) is the ChoiceView Switch which operates as 'Communications-as-a-Service' (CaaS) in the cloud. It connects callers and agents and allows content, control messages, and system messages to be sent between them in real time. Callers and agents communicate with the ChoiceView Switch via the ChoiceView protocol. ChoiceView Apps, programs, SDKs, and APIs shield mobile devices, business endpoints, and IVRs from dealing directly with the protocol.

Smart Device Users

Voice via VOIP or PSTN

Data via Internet

ChoiceView CaaS platform GSM/3G/4G/WiFi

ACD

ChoiceView equipped Agents

ChoiceView equipped PC users

IVR with Choice View

Key Technical and Architectural Advantages

- A robust, high-performance protocol and switching infrastructure designed expressly to enable real-time Unified Communications via existing PSTN or VoIP networks.
- A family of business and mobile products, SDKs, and APIs that allow smart mobile devices to communicate with PSTN or VoIP-based contact centers and IVRs through software modifications only.
- Ability for a data session to be joined seamlessly and transparently with a phone call, allowing the data connection to follow the phone call.
- Ability to reconnect a mobile device with the same called party if the data connection is temporarily lost during the call.
- Provision for real-time, two-way interaction with existing IVRs, allowing visual navigation and visual responses.
- Capability to send common business files and documents, including videos, diagrams, photos, visual menus, images, MS Office files, Adobe files, and text files.
- Ability to work with a mobile device's native phone or with VoIP apps or land lines on tablet devices.
- Delivery of enhanced caller ID to called-party endpoints.
- Ability to launch ChoiceView sessions via the generic ChoiceView App, third-party mobile apps equipped with ChoiceView, or ChoiceView widgets in mobile web pages.

Products and Services

ChoiceView **App** (Apple iOS and Android devices), ChoiceView **Live Agent** (PCs), ChoiceView **IVR**, ChoiceView **SDK** (Software Developers Kit), ChoiceView **CaaS**, and **Professional Services**.

More information and demo videos at www.RadishSystems.com.

ChoiceView™