



Deploying a Customer Engagement Hub

Delivering focused communications to earn customer trust

By: Jay Malin, AGENT511

1 Background

Over the past decade, the retail marketplace and methods by which companies interact with customers has changed dramatically. Today, customer expectations are set by the largest brands, Google, Amazon, Twitter, and Apple, and customers have come to expect personalized, targeted, and timely messaging. They also expect this messaging to arrive on their preferred devices and channels whether it be phone, tablet, home speaker, PC, or social media. To survive and thrive in this new, global, competitive environment, and stop others from encroaching upon your business, you must follow suit with relevant, personal communications intended to engage and satisfy.

It is important to encourage transparency and open dialogue when determining your customer engagement strategy and the requisite supporting technologies. This paper describes the various components needed when considering how to move your organization forward and set-up your customer service technology foundation for future success.

2 Objectives

While each organization's business objectives may differ based on its product offerings, demographics, location, or governance, your success hinges upon key performance indicators (KPI's): reducing costs; increasing operational efficiency; generating revenue; increasing customer satisfaction; and meeting organizational and governmental mandates. Success in these areas generally translates to increased sales, higher customer satisfaction, improved standing with the industry and government, improved relationships, improved operating metrics, and limited liability exposure.



3 Why Customer Engagement?

So, how does engaging your customers help you to meet your objectives? Older business models relied upon engaging with a customer infrequently, typically with information sent through the mail or a more personal contact when they called you on the phone or walked into your office. This reflected the tools available at the time. With today's proliferation of personal communication devices and the robust digital communications platforms available, an organization has many more opportunities to connect and communicate with their customers. In fact, with the abundance of information available today, espousing transparency in your communications with customers is vital to engender and maintain long-term trust.

Each time a customer interacts with you is an opportunity to move the needle toward achieving your objectives. When you send your customer a reminder of an upcoming appointment, you build customer satisfaction. When a customer signs up for electronic billing, you save printing and postage expense. When a customer uses a self-serve option rather than calling your call center, you have the opportunity to realign duties for the contact center staff. When you have the ability to reach your customer electronically or through a targeted automated message, you further reduce operating expense and enhance efficiency. These individual changes in customer behavior add up and incrementally enhance your bottom line as well.

For more in-depth information on bottom line impact, our white paper, "Return on Investment (ROI)" defines several quantitative reasons to consider why customer engagement matters.

4 Customer Engagement Hub

How do you get started? Mapping individual customer journeys is a useful exercise to identify all the opportunities you have to proactively engage your customers and support your organizational objectives.

4.1 Preferences

Once you've identified the areas for potential dialogue between you and your customers, a key ingredient is finding out HOW your customers want to engage: how do they want to send you information and requests; and how do they want to receive your responses? This is called "Preference Management" and is accomplished through a platform like a "Customer Engagement Hub," herein, called the "Hub."



The Hub orchestrates the who, how, and why so you may proactively communicate to customers, deliver responses, and provide broad and focused messaging prompting your customers to take immediate action. An immediate call to action might be to pay an outstanding bill, leave their location if there is a local emergency, or prepare for an anticipated service interruption.

“Preference Management” allows a customer to express their preference, desire, and need for receiving timely, relevant, and personal messages likely to engage, inform, or invoke an appropriate action. Sample preferences include desired channels of communication, messaging campaigns of interest, language preferences, and time of day filters including quiet hours when messages are not welcome.

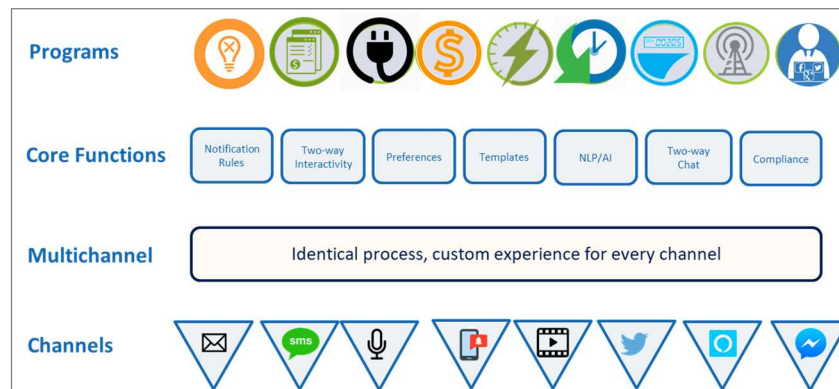
Most customer databases contain customer contact information. But contacts are not the same as preferences. What differentiates a preference from a contact? A contact is typically limited to name, address, phone number, and email address linked with account information and is gathered when a customer first signs up for service. This is important for basic contact and billing. However, “Preference Management” allows you to collect information from a customer about how they want to be contacted in a variety of situations and any additional device details such as short message service (SMS) or text, phone number, Twitter handle, or Facebook user ID.

The Hub is utility facing and allows the utility to consolidate and synchronize information from a variety of System of Record platforms to deliver a branded, relevant, and timely message to customers for a variety of situations and circumstances. For example, if you wish to inform a customer about a scheduled service outage at one of their account locations, you need to synchronize the transformer, feeder, or node that will be out of service with the corresponding meter number, account information, and contact preference for such an event. It’s likely that these pieces of information are maintained in separate systems and a consolidator and translator are required to pull it all together, such as the Hub. During a major incident, you don’t have time for one system to query another platform or invoke another database for a record to deliver thousands or millions of messages notifying customers of a recommended action.

Often, utilities believe the system that contains all their customer data suffices for the purpose of providing a total preference solution. However, customer information systems (CIS) are typically not able to directly apply

event triggers and filters along with templates to create and deliver notifications. A Hub, seeded with customer preferences, consolidates and synchronizes this information with all appropriate System of Record platforms across all your programs and chosen channels to deliver a branded, relevant, and timely message to customers at light-speed. Figure 1 shows that a single platform may be leveraged to maintain a consistent brand through common templates, rules, and channels.

Figure 1: orchestration of programs, functionality & channels



4.2 Templates

“Preference Management” allows you to translate all iterations of your customers’ journeys into seamless, satisfying interactions. This is best accomplished through the creation of multilingual, channel-specific templates to address each situation they might encounter on their journey. Creating personalized templates is a key foundational element allowing specific, targeted yet automated information to your customers. Automation is key to helping your organization be more efficient and save money. Further, a Hub essentially normalizes templates across channels to deliver a consistent message and customer experience.

4.3 Campaigns (Programs)

Customer campaigns will vary based on the type and interactivity level you’d like with your customer. A campaign is a universal term used to describe messaging for a specific customer program such as demand response, appointment reminders, green alerts, or outage or leak notification. Most are captured by the various campaign types described

below. Determining your technology approach and architecture to deploy a robust, interactive preference solution depends on your organization’s objectives, desired programs, channels you want to support, your internal

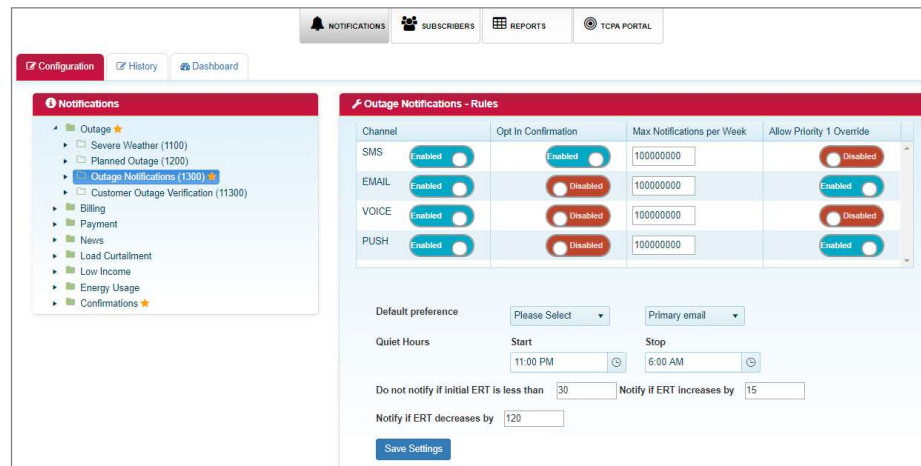
team’s strengths, and legacy/existing and planned systems.

4.3.1 Complex, Triggered

A complex communications campaign is one that leverages a combination of events, locations, and personal preferences to inform customers. It is triggered by an event and the resulting communication is automated based on the event type and customer preferences. An example is a power outage or network service interruption where a circuit is down or a network router is compromised. This may be a result of overload, damage, or preventive maintenance. Regardless of the reason, the first thing a customer wants to know when they experience a service interruption is, “Does the utility know my power is out?” The sooner the customer is provided with this information, the more confidence they’ll have in their provider. Next, it is desirable to notify impacted customers of the reason for the outage, if known, and the expected restoration time. This information allows the customers to plan their day without worry. In addition, information available about cause, safety, crew status, and related customer impacts may be useful to comfort customers. This includes the ability for the customer to receive a multimedia (MMS) picture on their phone, tablet, or PC demonstrating the cause, extent of any damage, field crews in action, and restoration efforts.

The Hub overcomes the limitations of some customer information systems which only store customer contact information without the ability to correlate that information with events, programs, and preferences, or allow the utility to create and edit messaging.

Figure 2: administrator ability to create new messaging campaigns and templates





4.3.2 Ad Hoc Blast

An ad hoc campaign is familiar to administrators because it is similar to popular on-line email tools like Mailchimp. At its simplest, ad hoc blasts allow an administrator to apply filters such as account type, customer type, or region then create a template and schedule or send a message template immediately. Sample filters may be critical facilities, residential or commercial customers, node or transformer, and/or region.

An ad hoc drip campaign is a type of blast campaign that is frequently used for marketing purposes. Each drip message and messaging template is scheduled in the system by the administrator.

4.3.3 Confirmation

One-time transitional confirmation messages may be sent without formally enrolling in a program. For example, a customer may be sent a text message receipt as confirmation of payment by an interactive voice response (IVR). The text message may include a custom link to take a survey based upon his experience. The integration for transactional campaigns is extremely straightforward and is readily configurable.

4.4 “Solicited” Two-Way

A two-way solution allows for an interactive flow of information between you and your customer. In most cases, the customer identity is validated as part of the interaction before a message is delivered. Additionally, the customer may authenticate themselves by providing identifying information via text or a secure, embedded web page. The sample two-way flow may be initiated by an external event, such as an invoice transmittal, as shown below:

To customer: “Your bill for \$45.72 is due 12/15/19 and is available at short.com/23f3dfd. Reply PAY plus amount to pay bill.”

From customer: “pay 45.72”

To customer: “Your payment of \$45.72 will be posted today.” This example demonstrates several elements of a Hub.

1. The message was sent via SMS which means that the customer had requested billing and payment information be sent to them via a text;
2. The message incorporates your collection rules about the acceptable minimum amount due and the appropriate date for the balance due; and
3. If the customer had not already provided their payment information or did not have a wallet on account, they would have been sent a one-time, shortened URL with the mobile wallet to collect payment details.

The two-way flow is built directly in the Hub and can be modified to meet an organization’s requirements.



4.4.1 Two-Way + Artificial Intelligence

Two-way communications with artificial intelligence (AI) are incredibly powerful. AI takes advantage of natural language processing (NLP) tools. This tool has matured significantly in recent years and helps reduce the rigidity of two-way digital dialogue customers may have experienced in the past. Previously, exact match keywords were required for recognition and customers received sequenced, structured information. With contemporary NLP tools, these rigid interactions give way to more unstructured, conversational interaction more in line with an actual conversation with a live agent. AI systems leverage an “intents dictionary” and AI framework such as Google Cloud, wit.ai, or IBM Watson to determine how to correctly route and collect needed details to create an appropriate interaction. For example, the word “large” is defined as a size intent. Therefore, the NLP engine would understand that use of the words “giant,” “big,” or “huge” are likely substitutes for the word “large” and have similar meaning to the customer.

Even more, the system is capable of both assisted and machine learning (ML) to improve the responses provided. Assisted learning occurs when program administrators review analytics such as requests and outcomes and optimize dictionaries and actions. The process by which the system automatically performs this assessment is called ML. Typically, assisted learning is required to train the system so that ML can be enabled.

Using two-way communication with AI leverages the Hub’s ability to access customer preferences and customer database information as well as information found in other Systems of Record and combine these with your rules and processes to improve the accuracy and speed of digital interactions and responses.

5 Communication Channels

After you determine your communication campaign requirements and the messaging types you want to use to inform, engage, or encourage your customers to take action, you will need to consider the channels you want to support to send those messages. Customers will then have these as options to select the way they receive messages. This is a comprehensive list and depending on your campaign requirements you may need to secure some or all these channels.

5.1 Short Message Service

Business to consumer short message service (SMS), better known as text messages, are messages sent to customers’ mobile phone and are very popular today. More than 50% of people today prefer to use SMS to access



customer service.¹ Text messages have the advantage of popping up on a phone's primary screen, without the customer initiating an action and are accompanied by an audible alert to get the customers' attention. This increases the likelihood that your message will be seen as opposed to an email communication which may get buried among other incoming mail.

If you want to use this communication channel, you'll need to select a code that will identify you to your customer when your message pops up on their phone. There are two options, either a 10-digit long code or a 5 or 6-digit vanity short code. The long code number may be matched to your business or office phone number. An easily identifiable vanity short code ensures your messages stand out and makes it easier for your customers to recognize your messages and respond. The wireless carrier industry leases short codes to businesses for \$500/month for a random short code and \$1,000/month for a vanity short code. 10-digit numbers are comparatively inexpensive.

5.2 Email

Email continues to be a reliable and popular channel for communicating with customers. Most people today have an email account and email allows more complex or detailed information to be conveyed than many of the other channels. Email offers the additional advantage of allowing customers to respond with equally lengthy information or questions and provides a documented record of the conversation for both parties.

5.3 Voice

Voice calls to residential and commercial customers remains an important option. Voice calls may be delivered using prerecorded audio or text-to-speech (TTS) templates, or both. Modern TTS systems deliver high quality audio in a multitude of languages. TTS is most useful for messages that change frequently or are created on demand.

Voice calls are likely to interrupt the customer and are best sent for one-time, urgent communications such as service restoration or bill past due. Voice messages left on a residential line may be heard by multiple parties; as such sensitive information should be left only on the mobile phone.

5.3.1 Mobile Application – Push Notification

Most of us today have experienced some sort of automated "push" message appearing on our mobile phone. Push notifications may be sent to a group of customers or to a specific customer and typically appear on a mobile device accompanied by an audible alert to get the customers' attention. To use Mobile Push notifications, your organization will need to secure and offer a

¹<https://www.smallbizdaily.com/4-stats-prove-small-business-sms-marketing-game-plan/>



branded application (app) to your customers. The key to channel adoption is having customers download the app.

5.3.2 Application Messaging

There is a wide variety of popular messaging solutions such as Apple Chat, Facebook Messenger, WhatsApp, and soon, Rich Communications Suite (RCS) that are delivered to the mobile phone, tablet, or PC over an Internet connection. In many cases, they avoid the carrier network and consequently, many carrier fees. Organizations may create a profile or address – which are oftentimes searchable – to which users may submit messages to the organization, and likewise, the utility may respond. Conversations are auditable and these channels may be leveraged within the Hub similarly to text, email, and voice.

5.3.3 Social Media

Social media is a great way to share information. Generic or global messages identifying situations or events impacting a group of customers are most suitable for the social media channel. Broadcasting customer-specific information is not appropriate, except in the context of a direct application message (see Section 5.3.2). However, as an example, a customer may directly message Twitter reporting a power outage for which the Hub may broadcast to Twitter that a member of the community reported an outage in the town or county. In this case, the Hub, integrated with Twitter, verified that the Twitter handle matched a customer account and proceeded to automatically report the outage. The same could be applied for other like requests. It's important to set up appropriate rules for using social media and responding to items received from customers. Incoming information may be inaccurate or critical. Thinking through, ahead of time, how your organization wants to handle these situations will lead to a better overall experience and avoid customer confusion and conflict.

5.3.4 Alexa/Google Home Speakers

A new entrant into the market is the option for a completely freeform conversation with a home speaker, also called a chatbot. Interestingly, people over 55 years old represent the largest segment of first adopters² for this innovative technology. Technologies such as Alexa and Google Assistant are voice activated and allow customers to verbalize questions or request specific information immediately available to them. These platforms leverage artificial intelligence and text-to-speech as described in Sections 0 and 0. For example, a customer might ask Alexa when their next utility bill is due. Alexa will respond with the amount due and may continue the dialogue with another question such as whether the customer wants to pay their bill now via text. This is a very powerful tool and offers your customers access and

² NPR and Edison Research, 2018, <https://youtu.be/AT4Gd6O7JQs>



convenience to your services.

5.3.5 Multimedia Messaging

Multimedia Messaging Service (MMS), the sister to SMS described in Section 5.1, delivers a message instantly to a customer's phone with a read rate 6-8 times that of an email³. Personalized MMS combines text, audio, video, and picture templates into a single story that pops into the user's messaging box. An MMS picture could display a custom outage map showing the intensity of a service interruption in the customer's neighborhood, dispatched crew activities, and resources such as warming or cooling centers. A video may include outage status, safety messages, weather reports, and images of line crews braving inclement weather to fix a downed power line. An animated video could also be leveraged as a real-time bill explainer with clear descriptions of commodity and delivery charges, savings comparison, and payment method. This technology augments your conversation with easy to digest visual images giving customers a sense of caring and connectivity with their service provider.

6 Implementing a Hub

6.1 Internal Team Strengths

The breadth of your customer engagement strategy, campaigns, and channels offered to customers may depend on the skill level of your existing staff, their current workload, and their ability to take on additional work. An honest evaluation of capability is critical and will help you decide the best path for your organization. Supplementing your staff with contract personnel may be necessary.

6.2 Integration with Utility Systems

The age and structure of your existing systems may influence how you want to set up your Hub. Modern customer information systems and related technologies leverage transactional real-time interfaces such as JavaScript Object Notation (JSON) for integrating systems. In some legacy, and even new systems, batch files transferred at periodic intervals may be best used to convey bulk customer data, billing, or outage transactions to filter and process.

6.3 Timeframes

No two organizations have the same needs, however, a simple engagement solution and a Customer Engagement Hub with limited integration and existing filter capability could be delivered in 3 months or less, however, most implementations that include the full lifecycle from analysis to post-launch are durations of 6-12 months. Wireless carrier SMS and MMS provisioning is

³ <https://www.gartner.com/smarterwithgartner/tap-into-the-marketing-power-of-sms>



approximately 8-12 weeks and occurs in parallel to the expected completion date.

7 Other Considerations

Communication Templates

Automation is the key to lowering your cost of service. Thinking through your customers' journeys and identifying opportunities to provide automated, yet personal and targeted, responses will not only save you money but enhance customer satisfaction.

Data Synchronization

The power of a robust engagement notification solution is its ability to pull information from a variety of systems, organize that data, apply filters, apply your customers' preferences, and provide timely, relevant, and targeted information to your customers. To ensure accuracy of your communications, data synchronization across all systems is vital. Synchronization may occur in real-time or scheduled in batches throughout the day. As such, stakeholders should assess "loss of synchronization" and initiate periodic tests that determine any gaps.

Compliance

On August 4, 2016, the Federal Communications Commission (FCC) provided relief from The Consumer Protection Act (TCPA) to the utility industry that would allow them to notify customers about service interruptions. This allows the utility to substantially increase the number of customers notified for power outages. The ruling can be found here:

<https://docs.fcc.gov/public/attachments/FCC-16-88A1.pdf>.

It is recommended that any utility wishing to opt-in customers for service interruptions, contact its legal advisers for guidance.

In addition, SMS short codes must comply with industry requirements found in: <https://www.wmcglobal.com/ctia-short-code-handbook>. Service providers like AGENT511 assist with provisioning, carrier connections, and audit responses.

Maintain Accurate Contact Information

Most utilities continuously seek to improve data quality and update customer contact information. Typically, contact information provided at the start of service may change throughout the customer lifecycle. Carriers may recycle a phone number terminated by one of your customers by reconnecting the phone numbers with other people. In order to avoid sending messages to the wrong device, the Hub must process carrier disconnections and transfers by: (1) removing disconnected numbers, (2) updating contact and carrier details, and (3) sending messages via alternative channels.



8 Summary

Delight customers by delivering timely, relevant customer communications, leveraging a Customer Engagement Hub that orchestrates branded messaging campaigns across channels. A Hub normalizes both proactive and two-way multilingual messaging via provisioned templates to embolden your organization's voice. Published API's allow organizations to integrate external applications in order to rapidly create new messaging campaigns using up-to-the-minute data sources. Further, the platform is a foundation for new services and device channels which continually evolve with technology. Achieving a seamless customer journey via focused interactions will build trust and pave the way for transacting new goods and services.

About AGENT511

In 2008, AGENT511 built and deployed their first integrated text solution, REACH™, so that universities could deliver personalized notifications to students of course and facility changes. In 2009, the platform was significantly expanded and deployed at ComEd, a major electric utility serving Northern Illinois to send timely, personalized outage restoration alerts. This expansion added complex rules and filters, programmable templates, and integration with customer information systems. Since then not only has the REACH platform undergone major expansions from Education and Electric Utilities, but now encompasses the industries of Emergency Services, Health Care, General Municipal Services, and Water and Gas Utilities. The REACH platform now covers millions of users and hundreds of organizations across North America.

AGENT511 helps organizations to develop and build upon its customer engagement strategies by delivering timely, relevant multichannel communications. Its team works with yours to identify important customer journeys and helps to fulfill your objectives for successful digital customer engagement. We differentiate ourselves by participating in the entire project lifecycle by providing expert onboarding and support. Our team is continually innovating and bringing leading-edge solutions to market. We take pride in delivering quality, on-time and on-budget services.

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