

## **Avoid Stranger Danger: How to Leverage SAS® Customer Intelligence Solutions to Avoid the Real Risks**

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### **ABSTRACT**

Do you know who is visiting your website? Have they lurked here before and are they ready to purchase—or worse yet, they just purchased and you don't even know it? Marketers know the risk of treating customers like strangers; research shows that consumers equate non-personalized brand interaction with a poor customer experience, and results show that personalized recommendations have a 5.5 times higher conversion rate. Marketers strive to provide the highly personalized, relevant messaging that consumers now expect with each interaction, but they are challenged to manage consumer identity across all channels in real time, and to use the real-time interactions to improve consumer profiles and targeting.

In this paper, we share how SAS® Customer Intelligence solutions helped a professional sports team identify and understand their prospects and customers better to improve consumer experience and marketing effectiveness across online and offline channels. SAS® solutions were used to personalize messaging and refine marketing strategy with improved insight in real time across their internal and third-party systems in the customer journey.

### **INTRODUCTION**

Consumer expectations are higher than ever for seamless, omni-channel brand experiences across industries. For marketers to deliver highly relevant, personalized customer experiences they must first be able to create and manage identities across all interactions. What is the risk when businesses do not meet marketplace expectations? At best, a missed or mistaken identity can mean lost business opportunities and lower conversion rates. At worst, poor customer experience degrades brand loyalty and leads customers to terminate relationships. According to NewVoiceMedia, U.S. brands are losing \$41 billion per year to poor customer experiences (Infutor).

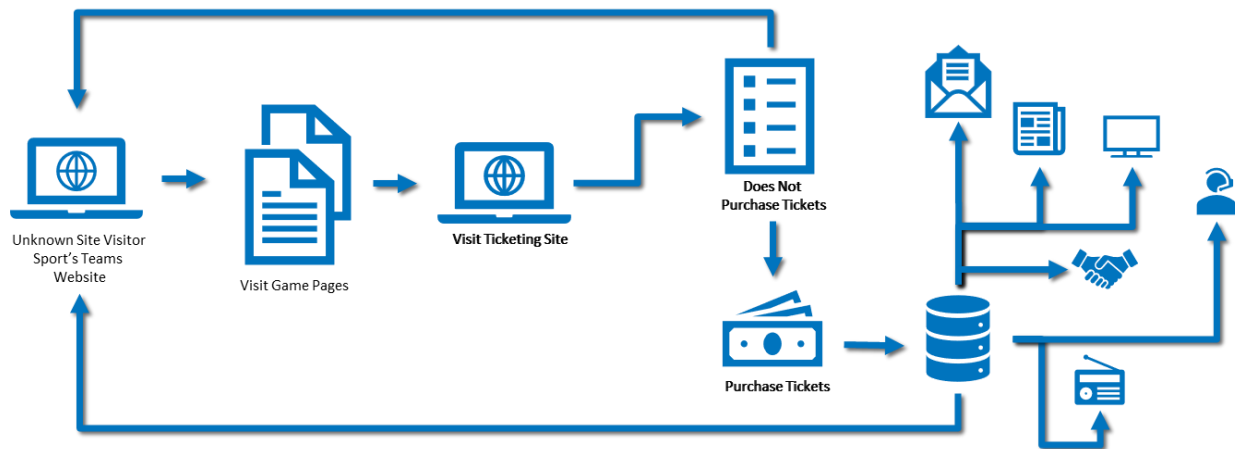
This would be an easy problem to solve if businesses could require every user to create a unique login and use it every time, in person and in digital interactions, across every device. Even that impractical approach would not be without challenges. Businesses need to understand both prospect and customer behavior for a holistic view. In addition, complex digital relationships, like third-party booking sites or loyalty management sites in the digital space, further complicate a consumer's interaction with a single brand. Marketers must now be able to trace customers' interactions and their value across any number of digital provider partners to understand the customer journey.

SAS® Customer Intelligence 360 enables users to define, manage, and execute all customer interactions across channels. The solution includes digital intelligence and execution capabilities that enable marketers to dynamically create, manage, and place digital content using both on-premises and generated interaction data. At the core of the solution is the ability to manage identity, from sources like visitor-provided attributes (for example, logins) and with supplementary identity information. Over time, SAS Customer Intelligence 360 uses on-premises and contextual data to create a robust profile. This profile prevents stranger danger and provides customers and prospects with a consistent, relevant customer experience across channels.

In the following use case, we share how SAS Customer Intelligence solutions helped a professional sports team identify and understand their prospects and customers better. We show how they were able to improve consumer experience and marketing effectiveness across online and offline channels. The customer journey traversed the team's owned channels plus third-party ticketing and venue sites. SAS solutions were used to manage the customer identity and to improve the customer experience in real time across these internal and third-party systems to meet the following business objectives:

- Increase ticket sales by converting prospects to customers during the buying journey.
- Increase venue revenue by cross-selling venue parking, concessions, etc.
- Improve retention of season ticket holders from one season to the next.

Figure 1 illustrates the team's goal of tracking an unknown site visitor through the purchase journey to become a known customer.



**Figure 1. Customer Purchase Journey**

## MANAGING IDENTITIES WITH SAS CUSTOMER INTELLIGENCE 360

To understand how SAS helps with consumer identity management, it is important to understand how the solution captures and tracks digital behavior.

Unlike similar competitor solutions, only a single edit per page is required to facilitate tracking and personalization. For each page that customers want to monitor or personalize, they need to add only a single piece of code (the "tag") to each page (loading it as early as possible). The tag enables marketers to collect a client's web behavior and enables web personalization and digital marketing.

An example JavaScript function is shown here:

```
<script>
(function() {
  var ot = document.createElement('script');
  ot.type = 'text/javascript'; ot.id = 'ob-script-async'; ot.async = true;
  ot.src = 'https://<server>.sas.com/js/ot_boot-min.js';
  var a = document.createAttribute('a');
  a.nodeValue = '83a61275...'; // This value is your external tenant ID.
  ot.attributes.setNamedItem(a);

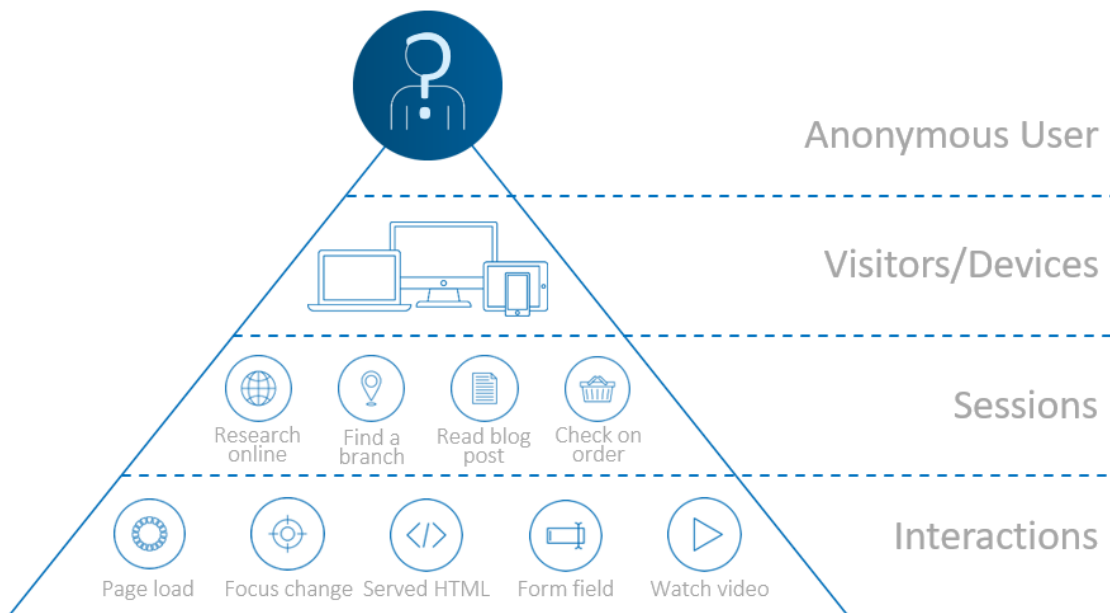
  var s = document.getElementsByTagName('script')[0];
  s.parentNode.insertBefore(ot, s);
})();
</script>
```

For every page with this tag, SAS Customer Intelligence 360 tracks all digital interactions. The tag captures all behavior from the landing page and beyond--every page load, every click, every form field, shopping cart, submit, etc.

Interactions are grouped into digital sessions. Sessions are defined based on the duration of digital activity; the duration is completely customizable by each SAS customer as a configuration setting within the user interface.

SAS Customer Intelligence 360 creates a unique SAS Datahub ID for each visitor, from each device. Each interaction, visit, and session are associated with this SAS Datahub ID. This ID collects information across any web properties that contain the SAS® Customer Intelligence 360 tag. This ID is also used to track contact and response interactions for targeting, reporting, and analysis. The identifier is persisted across sessions by matching a cookie stored on the visitor's device. These anonymous users can be targeted based on this identifier.

Figure 2 represents the types of data collected by SAS Customer Intelligence 360.



### Figure 2. All data Is Tied Back to a Unique Identity

When you look at website behavior, you typically want to start segmenting known or identified versus unknown or unidentified visitors. To recognize visitors, you might use a login as a way of identifying visitors. When a website does not require a login, you may rely on email campaign or registration as an option. With SAS, you can not only track customer behavior on websites that are owned by your organization, but also on those that are owned or rented third-party websites.

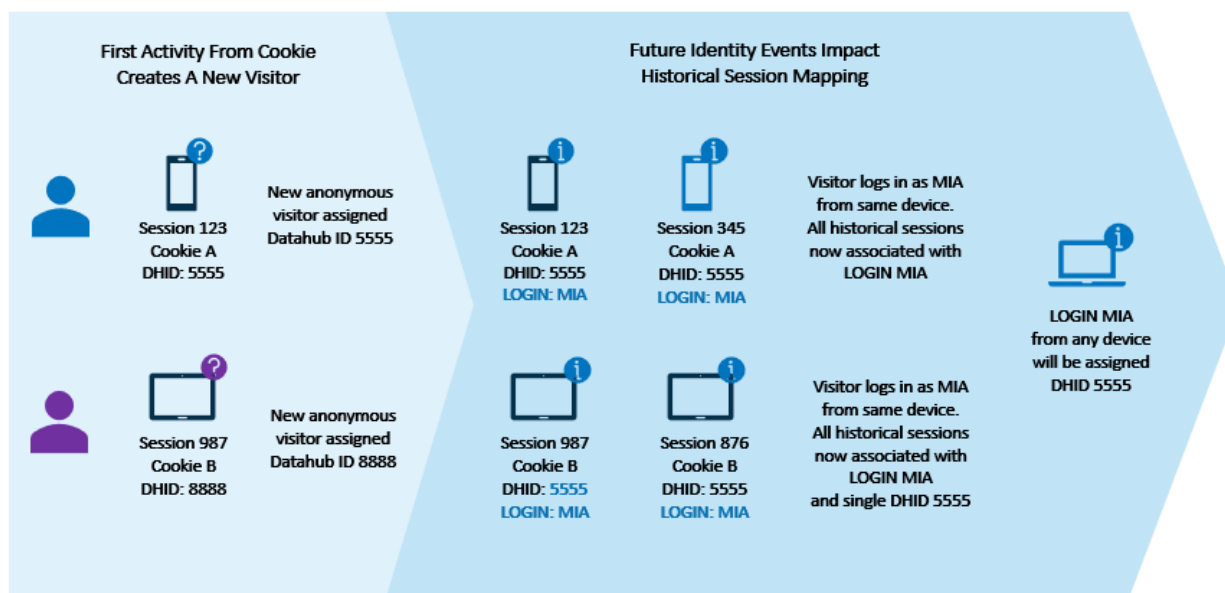
If the business has configured a unique customer identifier, like a login, within the digital interactions, the SAS Datahub ID is connected to that user. The customer identifier is available across the SAS Customer Intelligence 360 platform and can be used not only for identifying individuals that have visited digital properties, but also for marketing campaign segmentation and targeting.

As individuals use more devices, they have been assigned multiple SAS Datahub Identities. The multiple SAS Datahub Identities can be reconciled across devices when matched with a

business customer identity as a way of identifying that person against a larger business database.

Once a customer has provided a customer ID (for example, the visitor has logged in to the website from a device), the SAS Datahub Identifier is matched to that visitor. If the visitor logs in to the website on multiple devices, the SAS Datahub Identifiers are merged and use the same SAS Datahub ID ongoing.

Figure 3 demonstrates how SAS Customer Intelligence 360 creates robust identity profiles by matching visitors and combining Datahub Identities over time.



**Figure 3. Conceptual Overview of SAS Customer Intelligence 360 Identity Matching**

When all interactions are governed on a single website, this is an easy enough process based on what we have learned about identity management within 360. What about for websites without any login or registration to tie web behavior to known individuals? Or for industries that use third-party providers to manage purchases? What about this and many other sports teams, hotel and other travel sites, or any company that leverages a third-party shopping cart? SAS Customer Intelligence solutions can help marketers address this challenge.

## IDENTIFYING KNOWN CUSTOMERS

For this professional sports team, like and many others, there is a limited mechanism on the website itself to capture identity attributes like a login, email, or registration. The sports team has a fan registration process where users can provide their personal information, including an email address or mobile phone number for receiving periodic communications, but logging in as a registered user is not tied to any website features or capabilities. Most significantly, the registration information isn't requested from the team site nor carried over to the third-party site where ticket purchase transactions actually occur.

## IDENTITY MANAGEMENT USING A THIRD-PARTY TICKETING SITE

How was the team able to identify web ticket purchasers when no identity was required during the ticket purchase? They were able to do this by configuring SAS Customer Intelligence 360 to capture the transaction Order ID during the web purchase on the third-

party ticketing site. This Order ID was downloaded as part of the standard solution provided data and available to match back to the on-premises data to customer information.

The team started by adding the SAS Customer Intelligence 360 tag to all related websites, including the ticketing website.

Then, using the SAS Customer Intelligence 360 user interface, an event was configured to capture the ticket purchase. The cart event, number of tickets, and the order number were identified as custom attributes to gather along with the event.

Figure 4 and Figure 5 show how SAS Customer Intelligence 360 Engage: Digital is used to configure events.

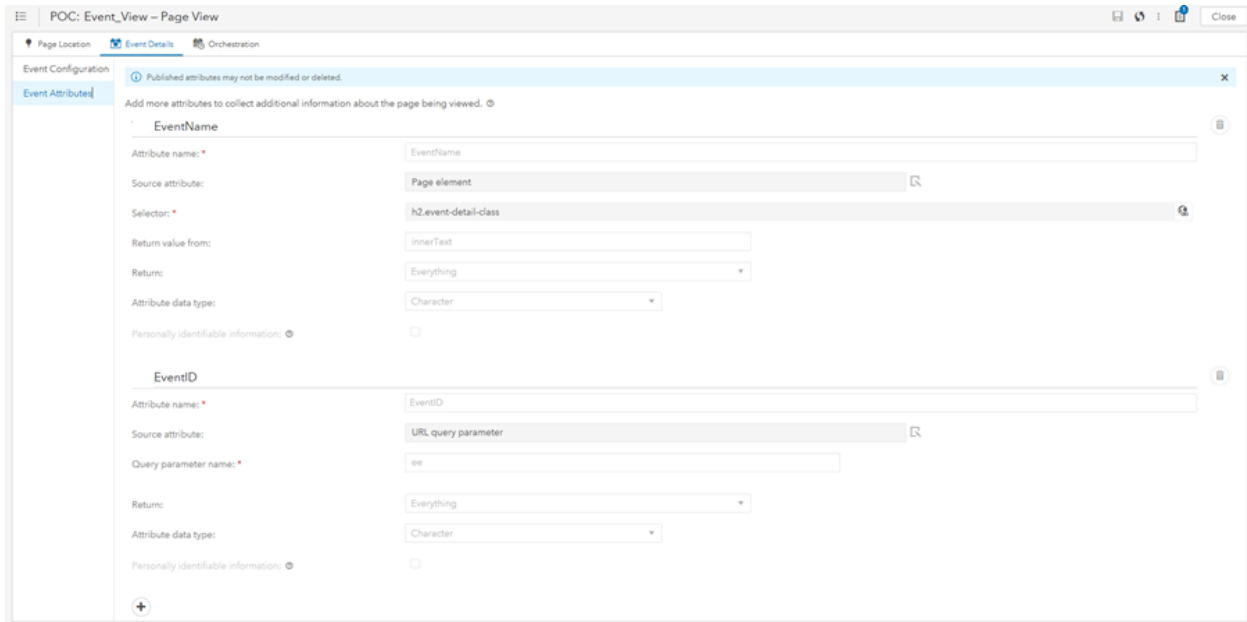


Figure 4. Configuration to Collect Event on Team Website

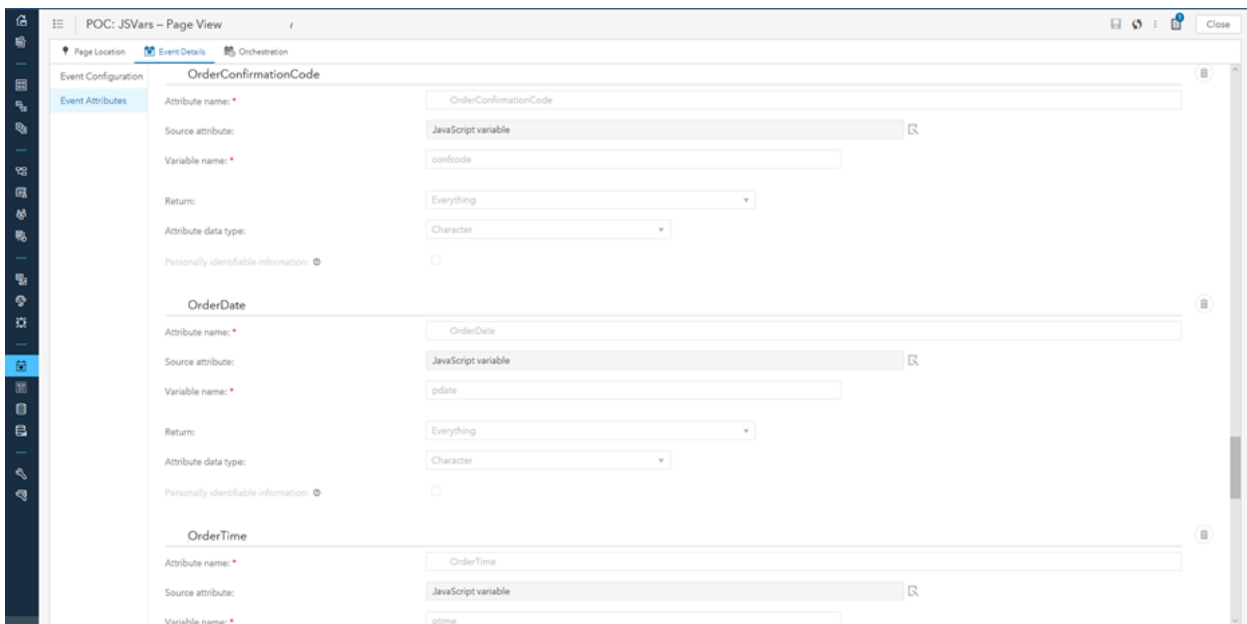


Figure 5. Third-Party Ticket Data Collection Event

During configuration, marketers can validate that SAS Customer Intelligence 360 is collecting data, including data from the third-party ticketing site, prior to download and without IT support using freely available tools like Chrome Developer Tools. Figure 6, Figure 7, and Figure 8 below show how to use these developer tools to validate the data attribute collection configured within the SAS Customer Intelligence solutions. To access this type of detail using Chrome Developer Tools, open the programming console (More Tools > Developer Tools) and review the tag that is collecting inside the Network Tab. Filter for "360" information and then review the POST data to find the events that have been configured.

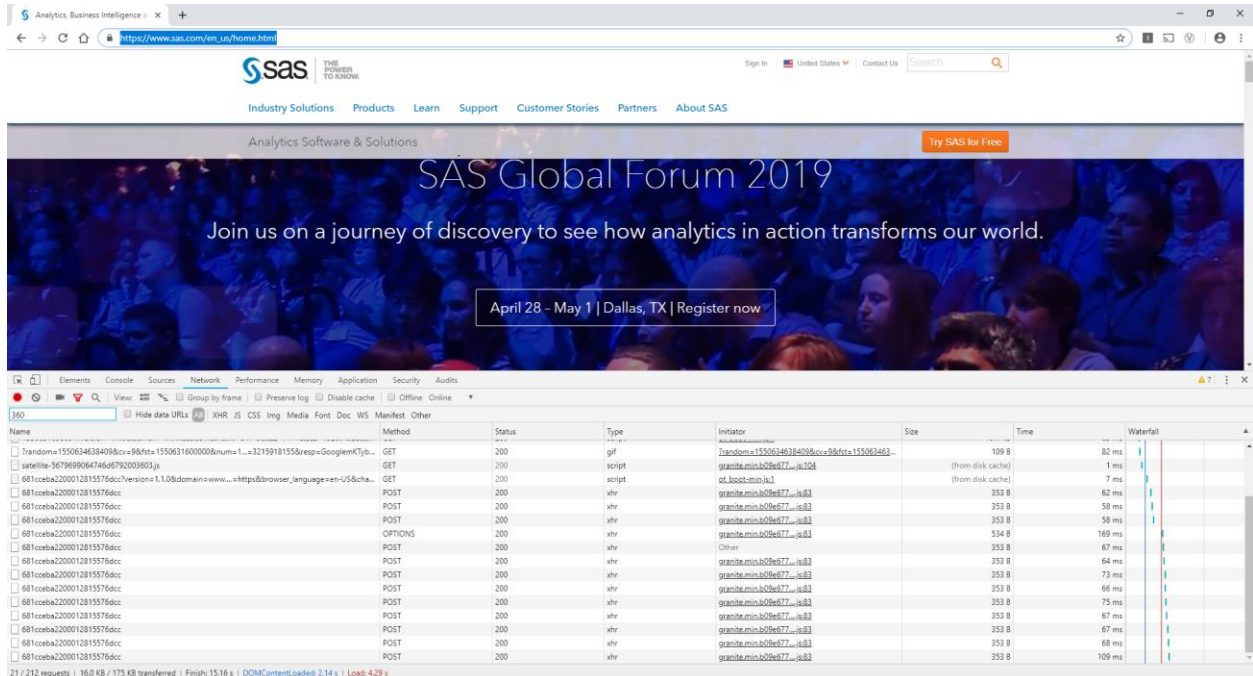


Figure 6. Examples of SAS Code Capturing Ticket Information

```
▼ Form Data view source view URL encoded
visitor: 9082b81d37255e6a0090982a
session: a6b44d130a8a7f057d105f38
domain: www1.ticket.com
load_id: 757c1e00f5204e3cd833e0a
event_guid: 757c1e00f5204e3cd833e0a418061888725
tab_id: 361429832301
hb: 773799
version: 1.1.0
event: load
flags:
event_channel: web
cts: 1519665971578
cts_base: 1519665971545
cts_boot_base: 1519665971279
timestamp: 1519665971471
csn: 2
datahub_id: 32765be2-5a9c-3bcb-ba64-bfa427a6e2d7
page_title:
referrer: https://www. .com/event-registration/?ee=970
uri: https://www1.ticket.com/the-smashing-pumpkins-shiny/event/0100544C9468348E?artistid=736143&brand=tdg
requestedfile: /the-smashing-pumpkins/event/0100544C9468348E
tzo: 360
platform: win32
protocol: https
flash_enabled: false
javascript_enabled: true
```

**Figure 7. Website Development Console Validating Data Event Is Being Captured on a Third-Party Ticket Site**

```
cookie.kampyleUserSessionsCount: 24
cookie.kampyleSessionPageCounter: 1
cookie_Sl_SID_1.708c175de80001356f52b9ac: a6b44d130a8a7f057d105f38.1519665971578.773799
jsvar.artist_name: The Smashing Pumpkins
jsvar.majorcat: Music
jsvar.artistid: 736143
jsvar.event_id: 0100544C9468348E
jsvar.event_date: /31/2018
jsvar.event_name: The Smashing Pumpkins: Shiny And Oh So Bright Tour
jsvar.venueid: 8337
jsvar.event_time: 07:00 PM
jsvar.venue_name:
jsvar.confcode:
jsvar.pdate:
jsvar.country: US
jsvar.venuezip: 02114
jsvar.tixp:
jsvar.fvalue:
jsvar.pagename: TM_US: CCP EOP: RS: Onsale
jsvar.ptime:
jsvar.referrer: https://www. .com/event-registration/?ee=970
jsvar.minorcat: Alternative Rock
jsvar.page_id:
eventSource: webmarketing|ace
event_uid: d76242cf-0f59-4812-a609-915efc8b9006
```

**Figure 8. Website Development Console Validating That Ticket Order Data Is Being Captured Including Order Number (not shown)**

Once the team’s configurations were complete, each transaction captured the relevant data over time. The digital transaction data was included as part of the standard download process executed periodically to store data on-premises for further analyses. The captured Order ID from the web transaction data was matched to the Order ID within the transaction management system data to identify purchase responses and their related customer information.

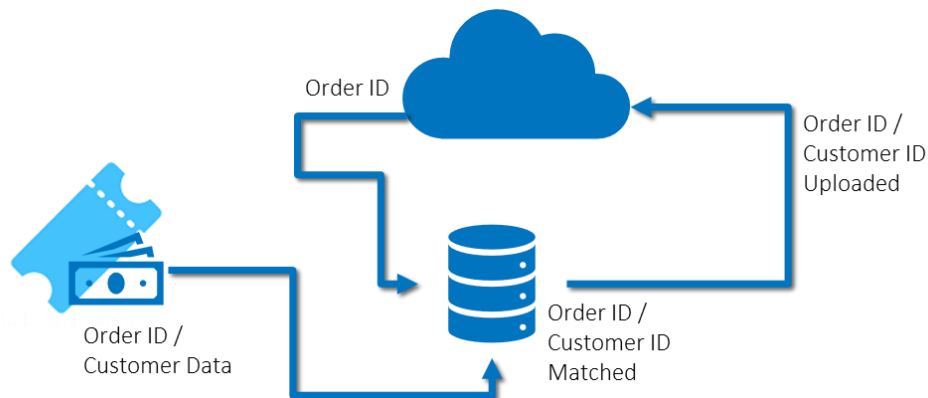
The team used this purchase information along with other downloaded website interaction data for other marketing purposes. Business rules were applied to infer segments from the known and unidentified customers and improve targeting and messaging. These segments were designed to be mutually exclusive.

- Purchasers: Visitors who purchased tickets based on a matching online transaction Order ID with an on-premises transaction order ID.
- Most Likely Purchasers: Visitors who had not purchased, but who had clicked a link to redirect them from the team site to the ticketing website were identified.
- More Likely Purchasers: Visitors who had not purchased, who had not been redirected to the ticketing site, but who had viewed game pages.
- Least Likely Purchasers: Visitors who had not purchased, who had not been redirected to the ticketing site, and who had not viewed game pages.

SAS on-premises campaign management capabilities were then used to create a list of Datahub IDs for these segments. This segmented list was scheduled to refresh daily and upload to SAS Customer Intelligence 360 where the segments could be used for targeting and personalization as desired.

The data match process supported another team goal to better understand how the website supports the purchasing journey. With the data, the team could identify ticket purchasers that had come from the website. Identifying and tracking website visitors was critical to help them determine segmentation and messaging for future website development and marketing spend to promote the website.

Figure 9 shows the website behavior and on-premises data match process.



**Figure 9. Using Order ID to Create Known Customer Identity**

## **OTHER NON-TRADITIONAL IDENTITY SOURCES**

For sports teams, a natural source of identity from the web transaction is the ticket order. For other customers with similar challenges, sources that might be available to leverage in similar logic include:

- Call center data
- Mobile device email and POP messages
- Website: Email captured from a landing page when directed from email



- Social media logons that are captured from a landing page when directed from social media
- Other third-party website details that are captured when directed from a third-party website

## TARGETING ANONYMOUS USERS

One of the team’s primary objectives was to increase ticket sales by acquiring new ticket holders. The team does not have a required login to browse and search for tickets, so most of the customer journey for purchasing tickets is targeting unidentified users. With the SAS Datahub ID, the team was able to retarget anonymous users during their website interaction. Even this anonymous journey assumes that the website has a mechanism to know and to distinguish between visitors who have purchased tickets from those who have not.

A lead nurturing program was developed to encourage a ticket purchase once a visitor was determined to be part of the buying journey. If a visitor returned to the team website, he or she was presented a series of messages to influence purchase behavior. The targeting was based on the number of times a visitor returned to the website.

The team did not have past campaign performance to analyze and determine what messages or offers were more effective among these two groups: the prospects who were least likely and most likely to make ticket purchases. To learn more, the likelihood to purchase segment was recorded so that it could be used in campaign analyses based on test messages presented using an A/B split. The results of this testing would be used to refine messaging strategy in the future.

Figure 10 shows the messages presented as part of the lead nurturing program.

- The first time they returned to the team website, the team showed them the last event or game that they were viewing.
- After the second visit to the website, they were presented with the same event or game, but with one of two additional messages based on an A/B split :
  - A discount on the tickets
  - An ad for fan registration
- After a third visit within the journey, they were presented with a package discount for the game with parking.

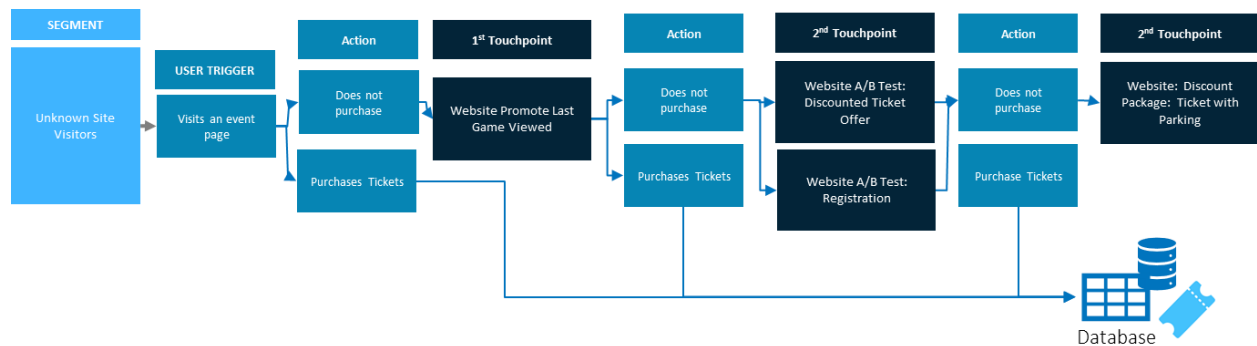
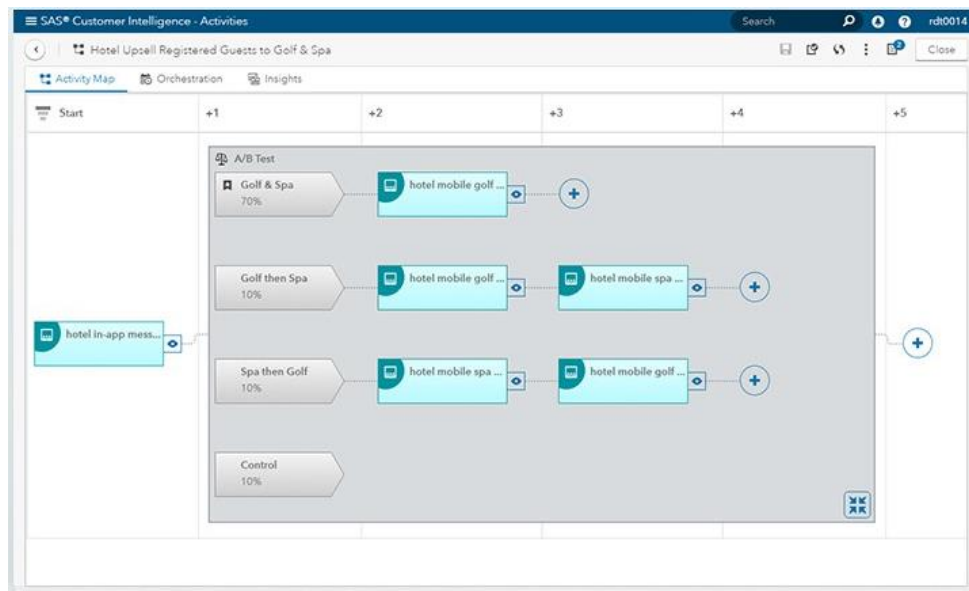


Figure 10. Lead Nurturing Messages to Support the Ticket Purchase Journey

Creating a personalized customer journey with SAS Customer Intelligence can be completed without additional web or other technical resources because all required attributes are available within the SAS user interface. Examples of how to configure this journey using SAS Customer Intelligence 360 Engage are shown in Figure 11.



**Figure 11. Configuration Example**

## PERSONALIZING THE CUSTOMER EXPERIENCE FOR KNOWN USERS WITH OFFLINE DATA

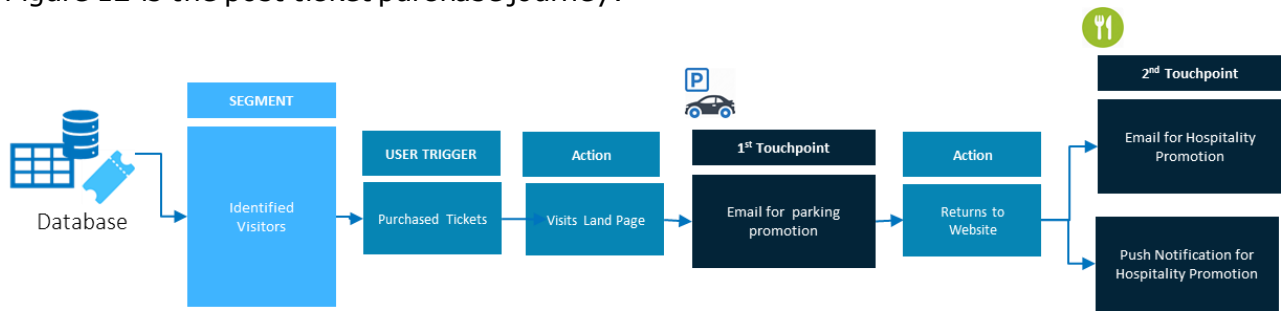
For known users, any data that can be uploaded to SAS Customer Intelligence 360 for a known identity can be used in targeting and personalization, just like the digital behavior data that the software captures. Segments, like the ones defined by user behavior to predict purchase likelihood, can be used to define targeting rules for a class of visitors. Individual data items, like event dates or venues, can be used as merge tags to personalize the presented message.

The sports team used offline data to support their goals to increase ticket holder spending with additional purchases of parking, concessions, and other venue purchases. As part of the purchase journey, messaging to drive revenue after ticket purchase was created.

Immediately after the ticket purchase, an offer for parking was presented to the visitor.

The next time the visitor returned to the website after purchase, the visitor was presented with a concession or hospitality offer. This offer was personalized based on the venue of the purchased ticket with data available within the data mart. The assignment and fulfillment of this message was made possible with data created with SAS® Marketing Automation using the on-premises database and uploaded for use in SAS Customer Intelligence 360. This same offer was presented again the day of the event to those who had not redeemed within the mobile app (for those users who had opted in to this channel).

Figure 12 is the post ticket purchase journey.



### Figure 12. Post-Ticket Purchase Journey

Preparing the segments and data attributes for personalization is completed in SAS Marketing Automation. The data is uploaded to SAS Customer Intelligence 360 as a data descriptor. Once available in SAS Customer Intelligence 360, the descriptor data items can be used as merge tags to personalize the message presenting the offer.

Figure 13 shows how the SAS Customer Intelligence 360 user interface can be used to personalize digital messages with on-premises data.

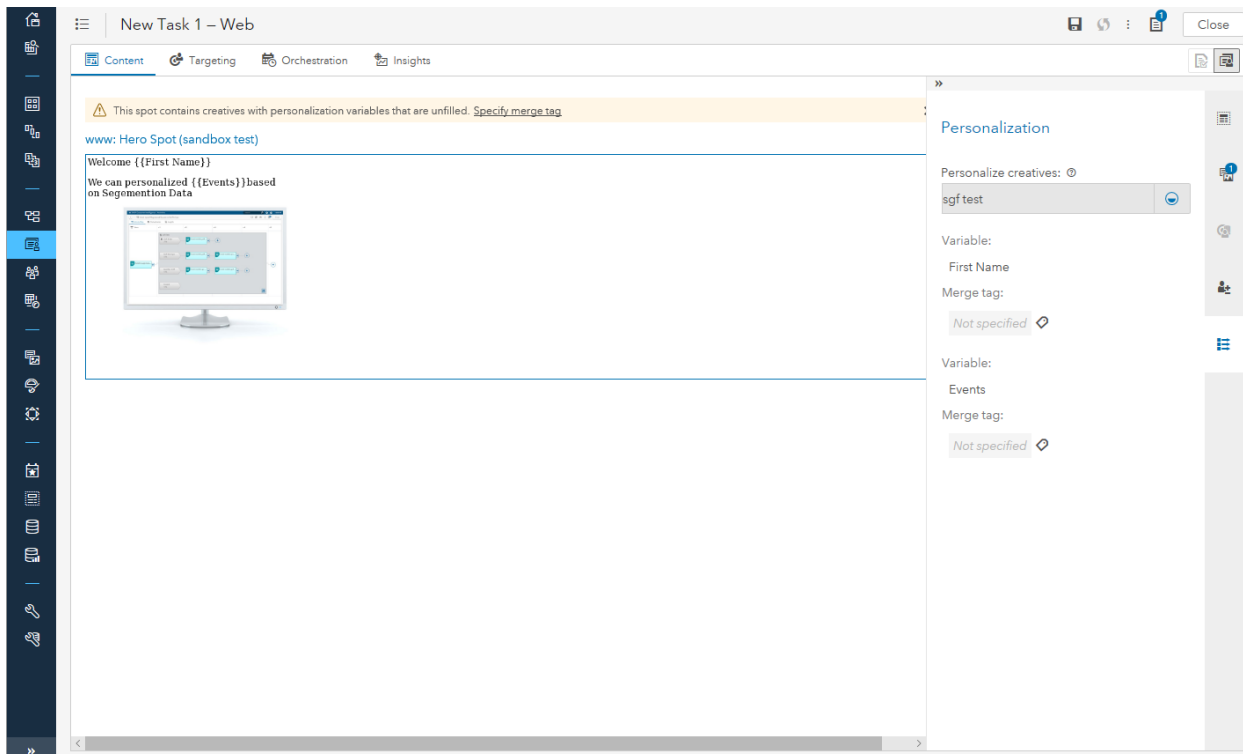
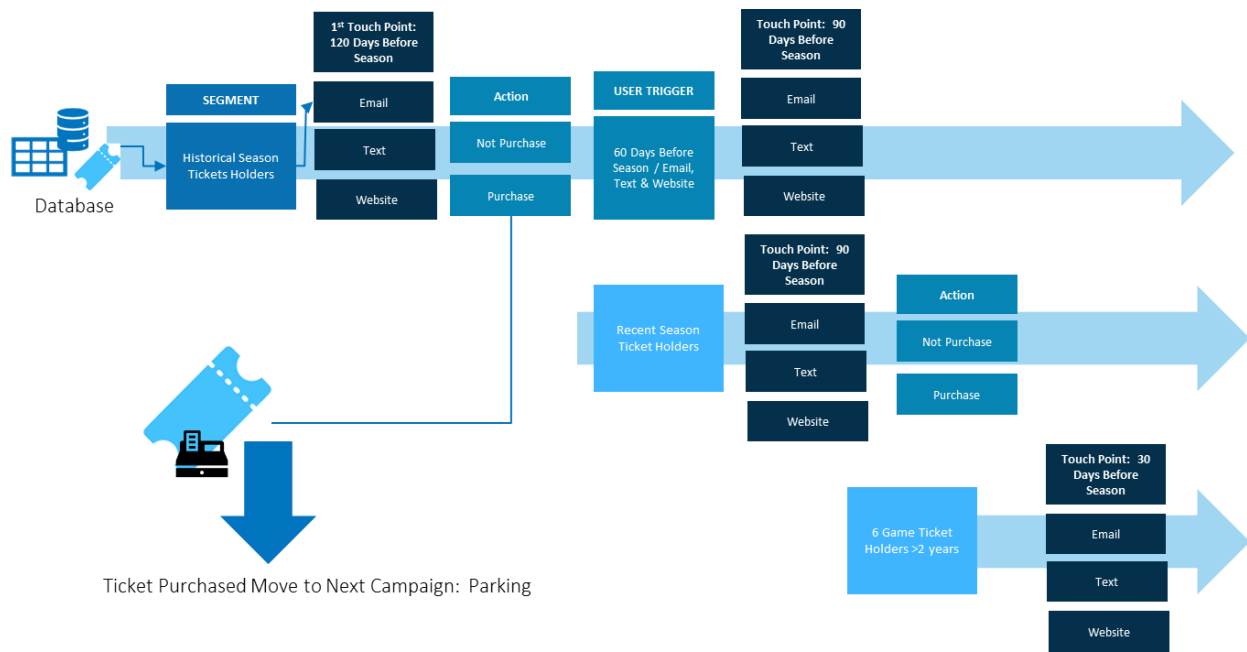


Figure 13. Using Data Descriptor for Digital Personalization

## DELIVERING OMNI-CHANNEL MARKETING WITH SAS CUSTOMER INTELLIGENCE

Season tickets are an important source of revenue for the team. SAS Customer Intelligence solutions were used to deliver an omni-channel campaign to support the team strategy to retain prior year's season ticket holders.

The targeted segments and offers were based on a number of variables including customer tenure (number of years purchasing season tickets), value of tickets purchased, prior year special event attendance, and other demographic and psychographic data. Communications were planned to be delivered 120, 90, 60, 30, 10, and 5 days prior to the season opener for those customers who had not already completed a purchase for the current season.

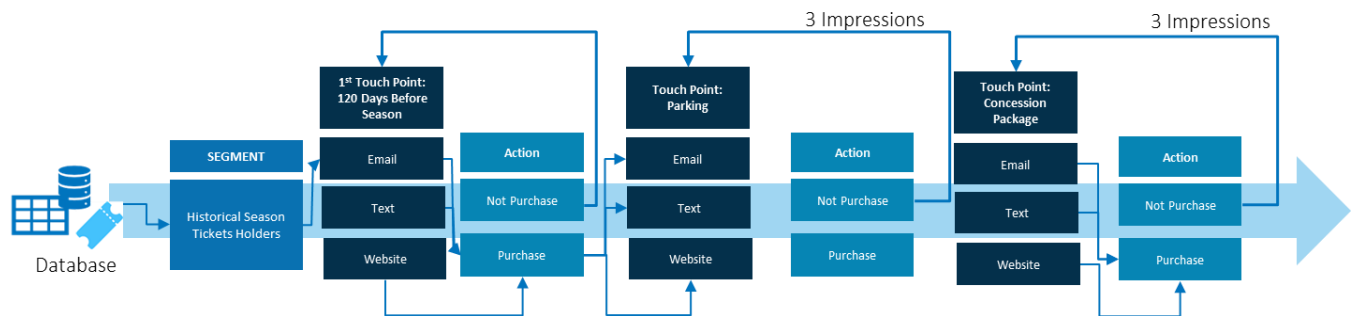


**Figure 14. Communications Plan Example**

In each wave, the discounts, add-ons, and other incentives varied based on customer segment and time prior to current season. The offer was also planned to be adjustable by the team as they monitored progress against their season ticket sales goals throughout the campaign.

Each wave included email, SMS, and mobile push for those customers who had opted in to these channels. The 120-day communication included direct mail for the less than two years tenure segment. Personalized web messaging was planned throughout the campaign to support the outbound communications.

Figure 15 shows the customer journey for a single segment in the season ticket campaign.



**Figure 15. Using SAS Customer Intelligence Solutions for an Omni-Channel, Multi-Wave Marketing Strategy**

SAS Marketing Automation was used to create the segmented lists for each wave and channel to deliver according to the campaign calendar. In addition, a segmented list to support the website was designed to be scheduled for daily refresh and upload to SAS Customer Intelligence 360. This list provided the data required for personalizing the season ticket offers to be delivered to the customer on the website. The daily refresh was required to reassign customers who had completed recent season ticket purchases from the pre-purchase segments to a post-purchase segment to complete the journey.

## CONCLUSION

The risks of “stranger danger” are real. Non-personalized communications and poor customer experiences have been demonstrated to reduce conversion rates and lead to lost revenue. In order for today’s marketers to achieve the one-to-one marketing that consumers demand—giving them what they want, when they want it, where they want it—they must have complete and accurate customer identity data across their channels. This is true across verticals, from sports teams to retail, to banking, to services, and more.

SAS Customer Intelligence solutions can help marketers identify and understand their prospects and customers better to provide consistent, relevant customer experience across channels—even customer journeys that traverse multiple digital domains and third-party systems.

SAS solutions helped the team deliver personalized customer experiences in real time and to achieve their goals of increasing ticket sales, cross-sell revenue, and season ticket holder retention. The team is setting their sights higher for next season’s goals with their improved understanding of customer behavior across digital and offline channels.

## REFERENCES

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[https://targetmarketingmag.tradepub.com/free/w\\_infw05/](https://targetmarketingmag.tradepub.com/free/w_infw05/).

SAS Institute Inc. 2019. *SAS Customer Intelligence 360: User's Guide*. Cary, NC: SAS Institute Inc. Available:

<https://go.documentation.sas.com/?cdcId=cintcdc&cdcVersion=production.a&docsetId=cintwn&docsetTarget=titlepage.htm&locale=en>. To obtain the access key for the documentation, contact SAS Technical Support.

## ACKNOWLEDGMENTS

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## RECOMMENDED READING

- SAS Institute Inc. SAS® Customer Intelligence 360 Blogs. Available <https://blogs.sas.com/content/?s=Customer+Intelligence+360>
- SAS Institute Inc. SAS® Customer Intelligence 360 Online Training Videos. Available <https://video.sas.com/category/videos/customer-intelligence>
- Google. Chrome DevTools. Available <https://developers.google.com/web/tools/chrome-devtools/>

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