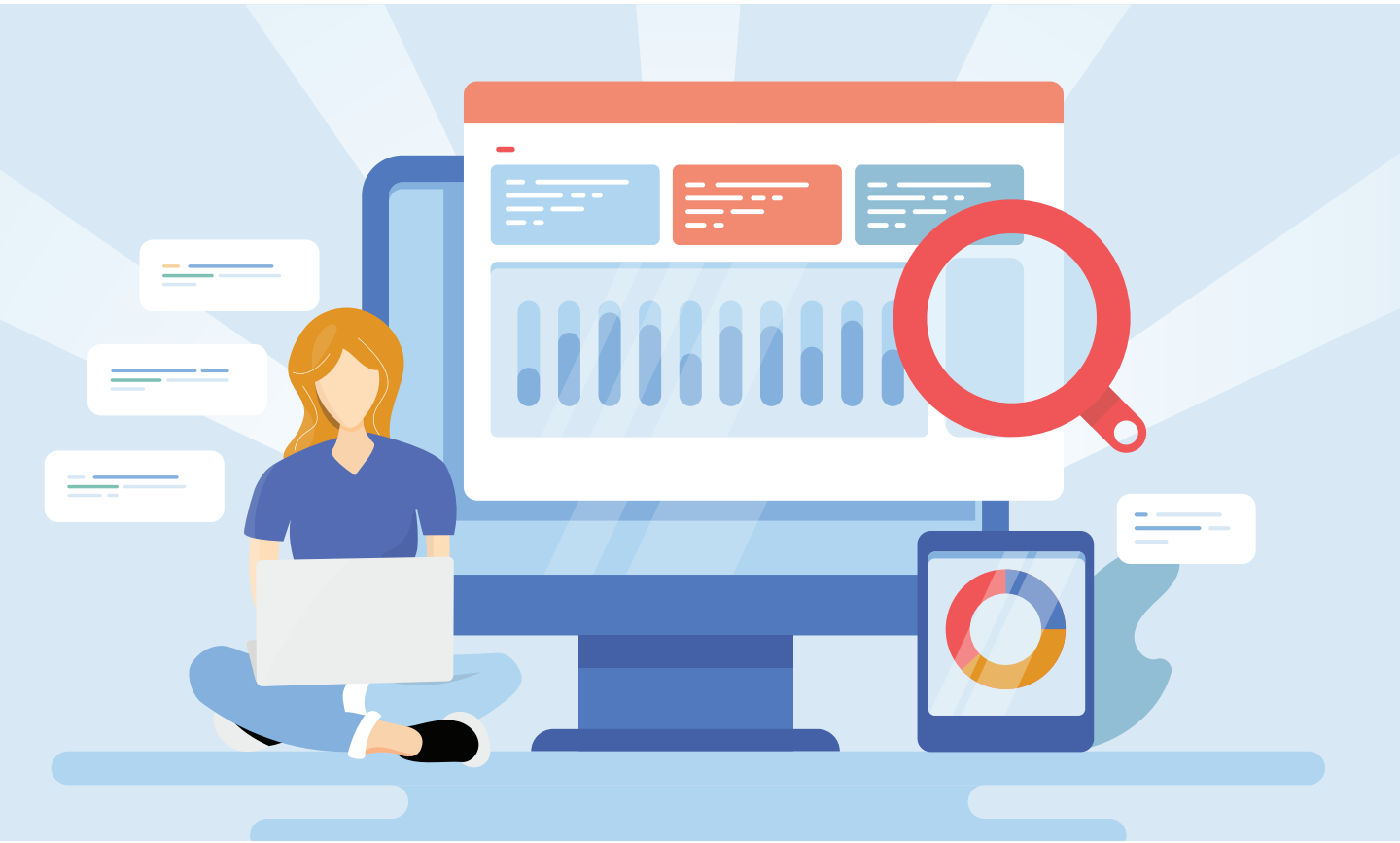
A BRANDACTION TECHNICAL GUIDE

From anonymous visit to account signal



A low-cost way to connect website behavior, known account activity and Google Analytics 4

What this guide gives you
A practical way to track consented anonymous visitors, connect them to a known company when a reliable signal appears and report earlier and future behavior at the account level. The approach uses GA4, Google Tag Manager, first-party cookies, a CRM or email platform and a small identity table.

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Technical implementation note
This guide provides an illustrative framework for structuring account-level engagement tracking. The workflows, code samples, field names and configurations shown are examples, not a plug-and-play implementation. They will likely need to be adapted, secured, tested and validated for your specific technology stack, consent requirements, data architecture and business needs.

Before deploying any portion of this approach, consult the appropriate web development, analytics, security and privacy professionals. If you need help designing or implementing an account-level tracking solution for your organization, contact us at sayhello@brandactionagency.com or 312-584-9037.

Start here

A considered B2B purchase rarely belongs to one person. Several people research different questions, visit different pages and move at different speeds. Standard web reports record those actions one visitor at a time, which can make a moving account look quiet.

This guide shows how a smaller B2B company can build a useful account signal system without buying a major marketing platform. The system gives each consented browser an anonymous visitor GUID. A tracked email click, form or login can later connect that browser to an account GUID. Future activity carries both IDs, while BigQuery can connect earlier anonymous behavior to the account inside an approved lookback window.

The BrandDemand point of view
Tracking is only useful when it leads to a better buyer experience. Account signals should help marketing and sales offer clearer content, stronger proof and more relevant conversations. They shouldn't become a reason to watch people more aggressively or send faster spam.

What you need

- Google Analytics 4 and Google Tag Manager
- A website where a developer can add a small amount of server and browser code
- A CRM, Mailchimp or another email platform that can store custom fields
- A consent banner or consent management tool
- A small database table, protected file or WordPress table for identity records
- BigQuery export for historical account reporting

What the system can and cannot do

It can	It cannot
Recognize a consented browser across return visits	Identify every anonymous company on the web
Connect several browsers to one known account	Prove that a visitor has purchase intent
Bring earlier anonymous behavior into an account report	Rewrite older GA4 events inside standard GA4 reports
Show topics, content types and decision signals by account	Prevent all mistakes caused by forwarded links or changed employers
Give sales better context before outreach	Replace sales judgment or privacy review

The tracking flow

From anonymous visit to account signal

The four identifiers

Identifier	Represents	Where it belongs	Send to GA4
visitor_guid	One browser	First-party cookie and identity table	Event parameter for BigQuery
account_guid	One company	CRM, email platform, account cookie and identity table	User property or event parameter after identification
contact_guid	One known person	CRM or email platform	Usually no
click_token	One tracked link or recipient	Email platform and protected lookup table	No

Keep the IDs separate
Don't use an account GUID as the GA4 User ID. Google treats each User ID as one user. A shared account ID would combine several committee members into one person and hide the breadth you're trying to measure.[1]

Set the privacy rules first

A good setup starts with clear rules. The website should issue custom tracking cookies only after the required consent. Google Consent Mode doesn't provide a consent banner or determine whether consent is required; it communicates the consent state supplied by the site's banner or CMP and adjusts Google tag behavior.[2] In basic mode, Google tags are blocked until consent. In advanced mode, tags can send cookieless measurements while storage consent is denied. Select and test the implementation that matches the organization's requirements.

The IDs must remain opaque. Don't send email addresses, phone numbers, names or company names to Google Analytics. Google prohibits customers from sending information that Google can recognize as personally identifiable information.[3] A random GUID may still count as personal data under privacy law, so your privacy notice and retention policy should describe the use clearly.

- Use random GUIDs that reveal nothing by themselves
- Store the account and contact meaning inside systems you control
- Set Secure, HttpOnly and SameSite cookie attributes where appropriate
- Choose a retention period that fits the normal buying cycle
- Give visitors a clear way to refuse or withdraw consent
- Ask qualified privacy counsel to review the setup for the markets you serve

Privacy review
This guide explains a measurement approach. It is not legal advice. Consent and disclosure requirements vary by location, audience and use case.

Build the system in nine steps

1. Prepare the account and contact records

Start with a clean account key. A CRM account ID works well. A normalized company domain can work when Mailchimp or a spreadsheet serves as the main contact system. Every contact at the same company should receive the same account GUID. Every contact should also receive a separate contact GUID and click token.

Field	Example
Company	Example Manufacturing
Company domain	examplemanufacturing.com
Account GUID	8f09b942-048f-46d0-bf3d-91bd1c72356a
Contact GUID	380f2238-5289-4dcf-a0d2-61047fc7e63a
Click token	9ca55b63-1fa1-4260-833c-c991e45c91f3

2. Generate the GUIDs

Most CRMs can create random IDs through a workflow, formula or API. Google Sheets offers a simple fallback for a pilot. The script below assigns one account GUID per company domain and a separate contact GUID and click token for each row.

The script assumes a sheet named Contacts, one row per contact and exactly one header each for Company Domain, Account GUID, Contact GUID and Click Token. It fills blank identifier cells and preserves existing identifiers. A production database should enforce unique token and GUID constraints.

The Click Token column is for the current pilot campaign. Generate a new token for each later campaign-recipient or link-recipient record rather than reusing one permanent contact token indefinitely.

Sample Google Apps Script

```
// Run assignContactIds from the spreadsheet's Apps Script project.
function assignContactIds() {
  const lock = LockService.getScriptLock();
  lock.waitLock(30000);
  try {
    const sheet = SpreadsheetApp.getActiveSpreadsheet()
      .getSheetByName('Contacts');
    if (!sheet) throw new Error('Missing Contacts sheet.');

    const values = sheet.getDataRange().getValues();
    const headers = values[0];
    const columns = [
      'Company Domain', 'Account GUID',
      'Contact GUID', 'Click Token'
    ].map(function (name) {
      const index = headers.indexOf(name);
      if (index < 0 || headers.lastIndexOf(name) !== index) {
        throw new Error('Need exactly one header: ' + name);
      }
      return index;
    });
    const [domainCol, accountCol, contactCol, tokenCol] = columns;
    const rows = values.slice(1);
    const domains = rows.map(function (row) {
      return String(row[domainCol]).trim().toLowerCase();
    });
    const accounts = new Map();

    // Read every existing account ID before filling any blanks.
    rows.forEach(function (row, i) {
      const domain = domains[i];
      const account = row[accountCol];
      if (!domain || account === '') return;
      if (accounts.has(domain) && accounts.get(domain) !== account) {
        throw new Error('Conflicting account IDs: ' + domain);
      }
      accounts.set(domain, account);
    });

    rows.forEach(function (row, i) {
      const domain = domains[i];
      if (!domain) return;
      if (!accounts.has(domain)) {
        accounts.set(domain, Utilities.getUuid());
      }
      [accountCol, contactCol, tokenCol].forEach(function (col) {
        if (row[col] !== '') return;
        const id = col === accountCol
          ? accounts.get(domain)
          : Utilities.getUuid();
        sheet.getRange(i + 2, col + 1).setValue(id);
      });
    });
  } finally {
    try {
      SpreadsheetApp.flush();
    } finally {
      lock.releaseLock();
    }
  }
}
```

3. Store the fields in Mailchimp or your CRM

Mailchimp audience text fields can store custom values, and merge tags can place those values inside campaign links.[4] Mailchimp needs only the fields the campaign actually uses. For this link, create a hidden, non-required Click Token text field with the merge tag CLICKTOK. Keep Account GUID and Contact GUID in the CRM or protected lookup table unless Mailchimp has a defined need for them. Contact-specific merge tags don't populate in ordinary test emails; verify the URL in Preview Mode with live merge-tag information enabled or send it to a small live test segment.

Audience field	Suggested merge tag
Account GUID	ACCTGUID
Contact GUID	CNTGUID
Click token	CLICKTOK

Sample Mailchimp tracking link

https://example.com/track?t=*|URL:CLICKTOK|*&utm_source=mailchimp&utm_medium=email&utm_campaign=account_signal_pilot

The click token should be a high-entropy, opaque identifier scoped to a campaign-recipient or link-recipient record. Its protected server-side record should supply the account, contact, campaign, approved destination, expiration and revocation status. The URL must not contain an email address, name or other direct identifier. The token must never authorize sensitive content or actions.

4. Issue the anonymous visitor cookie

Every consented browser should receive one random visitor GUID. Keep that cookie when the account later becomes known. The visitor GUID lets the report count separate browsers inside the same account.

Server-set cookies offer stronger control and can use HttpOnly. Browser-set code works for a simple pilot when the visitor GUID only needs to reach Google Tag Manager. Browsers return first-party cookies to the same site on later requests.[5]

Sample browser code after analytics consent

```
// Run only after the CMP confirms analytics consent.
const VISITOR_COOKIE_NAME = '__Host-baa_visitor_guid';
const UUID_V4 = new RegExp(
  '^[0-9a-f]{8}-[0-9a-f]{4}-4[0-9a-f]{3}-' +
  '[89ab][0-9a-f]{3}-[0-9a-f]{12}$',
  'i'
);

function readCookie(name) {
  const prefix = name + '=';
  for (const part of document.cookie.split(';')) {
    const cookie = part.trim();
    if (!cookie.startsWith(prefix)) continue;
    try {
      return decodeURIComponent(
        cookie.slice(prefix.length)
      );
    } catch {
      return null;
    }
  }
  return null;
}

function getOrCreateVisitorGuid() {
  const existing = readCookie(VISITOR_COOKIE_NAME);
  if (existing && UUID_V4.test(existing)) {
    return existing;
  }
  if (
    !window.isSecureContext ||
    !window.crypto ||
    typeof window.crypto.randomUUID !== 'function'
  ) {
    return null;
  }
  const guid = window.crypto.randomUUID();
  const maxAge = 180 * 24 * 60 * 60;
  const expires = new Date(
    Date.now() + maxAge * 1000
  ).toUTCString();
  document.cookie =
    `${VISITOR_COOKIE_NAME}=${encodeURIComponent(guid)}` +
    `; Max-Age=${maxAge}` +
    `; Expires=${expires}` +
    '; Path=/' +
    '; Secure' +
    '; SameSite=Lax';
  return readCookie(VISITOR_COOKIE_NAME) === guid
    ? guid
    : null;
}

getOrCreateVisitorGuid();
```

5. Create the tracked link endpoint

The tracking endpoint receives a click token, resolves its server-side record and redirects to an approved destination. A request may come from a security scanner, link preview or forwarded email, so a click by itself doesn't prove identity or consent. The simple pilot flow can create a relationship only for a returning browser that already has both a valid analytics-consent state and a visitor GUID. A first-time email click should remain a campaign-attribution signal and should not create an account mapping.

- Receive the token over HTTPS and validate its format.
- Look up an active server-side record containing the account, contact, campaign and approved destination. Reject blank, unknown, expired or revoked tokens.
- Confirm that an existing valid consent state and visitor GUID are present. Don't infer consent from the email click.
- If both are present, write the dated visitor-to-account relationship and its source and confidence.
- Set the account cookie with an expiration no later than the relationship's valid_until value.
- If either consent or the visitor GUID is absent, don't create an account cookie or identity relationship.
- Redirect to the server-approved clean destination using a temporary redirect. Return Cache-Control: no-store and Referrer-Policy: no-referrer, and redact the token from application, proxy and access logs.

Don't consume or invalidate a token solely because it received a GET request; the request may have come from an automated security scanner. Never accept an arbitrary redirect destination from the URL.

Sample PHP account cookie

```
// PHP snippet: place inside your existing PHP end-
point.
// Call only after validating consent, visitor GUID
// and the active identity relationship.
// $relationship_valid_until is that relationship's
// valid_until, converted to Unix seconds as an integer.
$uuid_v4_pattern =
  '/\A[0-9a-f]{8}-[0-9a-f]{4}-4[0-9a-f]{3}-' .
  '[89ab][0-9a-f]{3}-[0-9a-f]{12}\z/i';

if (
  !is_string($account_guid) ||
  preg_match($uuid_v4_pattern, $account_guid) !== 1
) {
  throw new InvalidArgumentException(
    'Invalid account GUID'
  );
}
if (headers_sent()) {
  throw new RuntimeException(
    'Cannot set cookie after output'
  );
}
$now = time();
if (
  !is_int($relationship_valid_until) ||
  $relationship_valid_until <= $now
) {
  throw new InvalidArgumentException(
    'Missing or expired relationship end time'
  );
}
$cookie_expires = min(
  $now + 180 * 24 * 60 * 60,
  $relationship_valid_until
);
$cookie_set = setcookie(
  '__Host-baa_account_guid',
  $account_guid,
  [
    'expires' => $cookie_expires,
    'path' => '/',
    'secure' => true,
    'httponly' => true,
    'samesite' => 'Lax',
  ]
);
if (!$cookie_set) {
  throw new RuntimeException(
    'Cookie header could not be created'
  );
}
```

6. Store the identity map

The identity table provides the bridge between anonymous behavior and the known account. Store the source and confidence because a form or login offers stronger evidence than a forwarded email link.

Field	Purpose
visitor_guid	The consented browser
account_guid	The known company
identified_at	The date the connection appeared
attribution_start	The earliest anonymous behavior included
source	Email click, form, login or another source
confidence	Low, medium, high or verified
valid_until	The date the relationship expires
contact_guid	Optional internal reference

Forwarded links need care
A coded email link may reach a colleague, consultant or personal device. Keep the mapping as medium confidence until a form, login or sales conversation confirms the relationship. Never overwrite history when a browser later connects to another account. Create a new dated relationship.

7. Push visitor and account context into Google Tag Manager

The server can read an HttpOnly account cookie and place the value in the data layer before Google Tag Manager loads. Google describes the data layer as a structured object that lets tags access stored page and interaction data.[6]

Create Data Layer Variables for each field. Send the visitor GUID as an event parameter for BigQuery. Send the account GUID as an event parameter or user property after the account becomes known. Avoid registering visitor GUID as a normal custom dimension because unique visitor values create high cardinality and can push rows into the other category.[7]

Sample data layer event

```
// Example payload only. Populate these values at runtime
// using validated, safely JSON-encoded server data.

window.dataLayer = window.dataLayer || [];

window.dataLayer.push({
  event: 'account_context_ready',
  visitor_guid:
    '7a032b49-0000-4000-8000-000000000000',
  account_guid:
    'c18b2184-0000-4000-8000-000000000000',
  visitor_status: 'account_known',
  account_id_source: 'mailchimp_click',
  account_id_confidence: 'medium'
});
```

8. Add BrandDemand behavior fields

Account reporting becomes much more useful when the events explain what buyers are trying to answer. Add a small content taxonomy to key page views and actions.

Parameter	Sample values	What it tells you
content_topic	account intent, access security	The issue receiving attention
buyer_role	technical, operations, finance, executive	The role the content supports
branddemand_stage	recognition, consideration, conversion	The buyer need served
content_type	article, customer story, comparison, pricing	The kind of evidence selected
signal_type	behavioral, readiness	How the action enters the signal view
intent_points	1, 3, 5, 10	A simple relative weight

The score shouldn't pretend to predict a sale. It gives the team a consistent way to compare weak, moderate and strong patterns.

9. Connect earlier anonymous behavior in BigQuery

GA4 user properties apply to future events. Standard GA4 reports don't rewrite older sessions when an account becomes known. BigQuery provides the cleanest way to connect earlier anonymous behavior to the account without changing the original events.

GA4 standard properties can export raw events to BigQuery, with a daily batch export limit of 1 million events.[8] The identity table then joins to the exported events through visitor GUID and a dated lookback window.

Simplified account assignment query

```
-- Illustrative example using a prepared GA4 event view

SELECT
  e.event_date,
  m.account_guid,
  e.event_name,
  e.visitor_guid,
  e.content_topic,
  e.buyer_role,
  e.intent_points
FROM `your-project.reporting.ga4_events_prepared` AS e
JOIN `your-project.identity_data.identity_map` AS m
  ON e.visitor_guid = m.visitor_guid
  AND e.event_ts_utc >= m.attribution_start
  AND e.event_ts_utc < COALESCE(
    m.valid_until,
    TIMESTAMP('9999-12-31 23:59:59+00')
  )
WHERE e.visitor_guid IS NOT NULL;
```

This simplified example assumes that a developer has created a prepared BigQuery view that extracts the required fields from GA4's nested event parameters and converts the GA4 event timestamp into a standard timestamp. The actual view, table names, fields, consent filters, date ranges and account-mapping rules must be adapted to the organization's implementation.

The actual GA4 export stores custom parameters inside nested event parameter records, so a developer will need to unnest the fields. Google publishes the full export schema for reference.[9]

Build the account movement report

A useful report should help marketing and sales understand movement, not admire activity. Looker Studio can report the joined BigQuery data, while GA4 Explorations can still support future known account activity.

Report field	What it shows
Account GUID	The company grouping
Anonymous research start	The first observed behavior in the lookback window
Identification date	When the browser became account known
Active browsers	A rough view of buying group breadth
Buyer roles	The role questions supported by viewed content
Content topics	The problems receiving attention
Readiness events	Proof, pricing, comparison and rollout behavior
Intent points	The combined weight of tracked actions
Sales validation	Direct context from CRM or sales

Use three movement levels

Movement level	Observed pattern	BrandDemand response
Early	One or two browsers, repeated topic activity and mostly educational content	Strengthen useful education and brand relevance
Growing	Several content types, more than one browser or role and at least one readiness action	Add proof, comparison tools and role-specific content
Strong	Several browsers or roles, recent pricing or rollout activity and a verified trigger	Brief sales on the topic, likely questions and content history before outreach

Better signals should create better support
The team should never open with "We saw you on our website." The signal should help sales lead with a relevant issue, useful point of view or piece of proof. That approach supports the buyer and protects trust.

A practical four-week setup plan

Week	Primary work	Output
1	Clean account data, define GUID rules and map the buyer behavior fields	Account table and tracking dictionary
2	Build the anonymous cookie, tracking endpoint and identity table	Working browser and account connection
3	Configure Google Tag Manager, GA4 events and Mailchimp links	Test campaign and event stream
4	Connect BigQuery, create the account report and test edge cases	Pilot dashboard and review process

Who should own each part

Role	Primary responsibility
Marketing lead	Define target accounts, buyer roles, content meaning and response rules
Sales lead	Confirm account context and give feedback on signal quality
Web developer	Build cookies, token validation, redirects and the identity table
Analytics or RevOps lead	Configure GA4, Tag Manager, BigQuery and reporting
Privacy counsel or privacy lead	Review consent, notices, retention and data handling

Testing checklist

- ☐ A new consented browser receives one visitor GUID.
- ☐ The same browser keeps the GUID on a return visit.
- ☐ A tracked link connects the browser to the correct account GUID.
- ☐ The final landing page URL no longer contains the click token.
- ☐ A second contact at the same account appears as a separate browser under the same account.
- ☐ A visitor who refuses analytics consent receives no tracking cookie.
- ☐ An expired or changed token fails safely.
- ☐ A later verified form can correct a medium confidence email mapping.
- ☐ GA4 DebugView shows the intended events and parameters.
- ☐ BigQuery receives visitor GUID and account GUID fields.
- ☐ Earlier anonymous events appear inside the account lookback window.
- ☐ Sales can read the report without seeing names or personal details.

Governance checklist

- ☐ Document the purpose of every identifier.
- ☐ Set retention and expiration rules.
- ☐ Limit access to the identity map.
- ☐ Keep PII out of URLs, GA4 and data layer values.
- ☐ Record identification source and confidence.
- ☐ Create a process for account corrections and deletion requests.
- ☐ Review the model with marketing, sales and privacy owners each quarter.
- ☐ Use signals to guide helpful outreach, not automatic pressure.

A sensible place to start
Run the first pilot with a small target account list and one email campaign. Test the data, review the account patterns with sales and adjust the rules before adding more accounts. A smaller setup that people trust will teach you more than a larger setup nobody uses.

Sources and platform notes

1. Google Analytics User ID
2. Google Consent Mode
3. Google Analytics rules for personally identifiable information
4. Mailchimp unique URLs and merge tags
5. MDN guide to cookies and Set Cookie
6. Google Tag Manager data layer
7. Google Analytics guidance on high cardinality identifiers
8. Google Analytics BigQuery export
9. Google Analytics BigQuery export schema

About BrandAction Agency

BrandAction Agency specializes in BrandDemand marketing, helping B2B organizations connect trust-building brand strategies with performance-driven demand generation. We have deep experience in win-back campaigns, customer retention, revenue acceleration, full lifecycle messaging and content management, brand management and demand generation. Our work helps businesses not only acquire customers, but keep them engaged for the long term.

Our proven frameworks, including GAMEPLAN, help brands structure and execute high-impact customer engagement strategies that drive measurable business results. By combining data-driven insights, creative messaging and multi-channel outreach, we help businesses reactivate lost customers, maximize customer lifetime value and create sustainable growth.

To learn more about how BrandAction Agency can help your business, visit BrandActionAgency.com or contact us at 312-584-9037.

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