Feature Sheets

Exchange Solutions User Documentation

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Environments, Databases, and Monitoring

Purpose of this document

This document provides details at the business, technical (including configuration), and implementation levels for specific features within the ES Loyalty feature set. It covers a subset of functionality focused on Loyalty Environments, Databases, and Monitoring.

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Member unique identifier

A member unique identifier (MID) identifies a member and associates all data tracked to them. The system supports linking multiple IDs to a single member — for example, a loyalty ID, phone number, or email address.

When a customer visits a site that contains ESI's JavaScript tracking scripts for the first time, ESI assigns a GUID to the user based on their unique device. The system permanently stores this identifier on the user's device using local storage. Note that this identifier is different from the customer unique identifier that the retailer uses internally.

The MID can be a numeric or alphanumeric value. It can represent a member directly, or represent a card, since members can have multiple cards. The MID sometimes appears on the member's physical card or in their **Profile**. Depending on the context or client, it may be considered **Personally Identifiable Information (PII)**.

Examples:

```
623081290129329
D99-E032JI-0132JS-J1SF92
```

ESI-to-Carebook mappings include:

Member identifier/lookup using linked loyalty card

This feature lets the system identify a member at the point of sale (POS) or through another channel using their linked loyalty card.

With this feature, a member only needs to provide their linked loyalty ID number to complete a transaction — they don't need to present both their loyalty ID and payment card. A more conventional approach is **payment-linked loyalty**, where the payment card automatically triggers the reward through a data exchange with the linked loyalty card. This approach benefits the member because they only swipe or scan one card, and don't need to worry about forgetting their loyalty card. The payment provider receives useful anonymized data, and the loyalty partner gets a more efficient transaction path.

References:

- WIZ525
- WIZ-1116
- WIZ-2497

Environments

ES Loyalty uses Amazon Web Services (AWS) with auto-scaling for peak performance and the flexibility to store data in multiple jurisdictions. It also uses Snowflake as a best-in-class analytical data warehouse.

Cloud computing uses a network of remote servers hosted on the internet to store, manage, and process data, rather than relying on a local server or personal computer. The AWS auto-scaling service monitors applications and automatically adjusts capacity to maintain steady, predictable performance at the lowest possible cost. Snowflake scales smoothly to handle concurrent users and workloads, supports complex data pipelines and analytics, and supports programmatic control through Java or SQL.

Client UAT and SIT (systems integration testing) environment/database

This feature covers provisioning of User Acceptance Testing (UAT) and Systems Integration Testing (SIT) environments and databases for client use and testing.

After a feature passes the QA process, it may go through a UAT environment and a SIT environment before the client accepts it and promotes it to their Production environment. Depending on client requirements, UAT and SIT can take several weeks.

Disaster recovery/continuity

ESI maintains a Business Continuity Plan and a Disaster Recovery Plan, and tests both at least annually through tabletop exercises and communication escalation drills.

ES Loyalty is a highly available solution that runs active-active across multiple data centers and can withstand multiple simultaneous data center failures. Cross-region replication is also available.

Not applicable.

Monitoring, alerts, and logging

ES Loyalty uses a standard set of monitoring and alerts to ensure the availability, performance, and security of Exchange Solutions systems and integrations, as governed by the applicable SLAs. Detailed logging supports diagnostics.

The system logs all system activities and monitors the health and security status of various systems. It generates alerts when a system deviates from its optimal status.

TBA

ESI also uses Wiretap (see the Configuration section below).

Business unit feature set

This feature tracks transactions and promotions by identifiable business units or partners that participate in a shared program.

Business units represent different departments, divisions, or other sub-entities within a business. Partners from different companies can also work together through a shared loyalty program.

Whether for divisions within the same company or for external partners, the system must segregate and secure data across different business units or partners. Assigning features and data to each business unit enables this segregation.

Segregation module

The segregation module prevents promotions, banners (advertisements), and their related data from one business unit from being viewed, edited, or accessed by actors in another business unit.

This feature lets multiple discrete business units — for example, business units, partners, banners, or franchises — interact with a loyalty program while respecting organizational boundaries around program configuration and results. Segregation features are distinct from multi-banner or multi-brand features, which don't require keeping information confidential for antitrust, legislative, or other business reasons.

Right to be forgotten request (GDPR/CCPA)

Under GDPR and CCPA, a user has the right to request that the company holding their data delete it, under certain circumstances.

A user or member may exercise the **right to erasure** — also known as the **right to be forgotten** — and request that the company delete all of their data from its systems. This right applies if any of the following criteria are met (under GDPR; CCPA requirements are similar):

- The personal data is no longer necessary for its original purpose.
- The user withdraws consent on which the processing was based, provided that they previously gave explicit consent.
- The user objects to how their data is being processed — for example, for profiling — and the data holder cannot demonstrate a compelling reason to retain it.
- The data is being processed unlawfully.
- The data must be erased to comply with applicable law.
- A parent or legal guardian did not authorize the processing of a minor's data.

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Currency Bank and Currency Accounting

Purpose of this document

This document provides details at the business, technical, and implementation levels for specific features within the ES Loyalty feature set. It covers a subset of functionality focused on Loyalty Currency Bank and Currency Accounting.

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Currency bank

The currency bank manages all debits and credits of a member's loyalty currency — for example, points, cashback, and credits.

A member's earning and redeeming activity flows into the Exchange Solutions system, which makes corresponding adjustments in the currency bank. The currency bank manages the member's rewards balance in real time and provides the basis for tracking and displaying that balance.

> **NOTE**
>
> This feature uses the term "currency bank" rather than "points bank" because reward points are only one form in which the system can hold rewards. Other forms include cashback, credits, coupons, vouchers, gift card balances, member benefits (such as access to discounts, events, or tier benefits), partner benefits, and subscriptions. The same reasoning applies to the use of "currency" rather than "points" in other contexts.

A robust currency bank must handle different types of rewards accurately and in real time. It also requires provisions for auditing and adjustments.

Currency holdback

Currency holdback uses time-based loyalty currency holdback to guard against gaming and fraud.

A **points holdback** holds points and prevents them from being credited to an account for a specified period of time, or until other criteria are met (such as a minimum spend threshold), so they are not immediately redeemable. The holdback duration can be set or made configurable. Slowing the velocity of redemptions and providing additional time for fraud investigations deters many common rewards fraud schemes.

For example, a client may want to hold points for 12 hours after a purchase transaction before making them available for redemption. Alternatively, a client may require the member to reach a certain spend level before they can redeem rewards.

A key client can use a delayed transaction that holds all redemptions until $5,000 in spending is confirmed. When the system sends the Finalize request, it places the awarded currency on indefinite hold. When Exchange Solutions receives a confirmation API call from the client, it releases the hold and makes the points available for redemption.

Redeemable currency balance

The redeemable currency balance tracks the available point balance for redemption, taking into account currency holdback rules and other factors.

The redeemable currency balance is the balance that the system can currently apply to redemptions. It equals any or all of the following:

- The total rewards balance minus any point holds from recent earnings, adjustments, or Post-Purchase Earn (PPE) events — for example, due to a 12-hour rule used to prevent fraudulent activity.
- The total rewards balance subject to business rules, such as requiring an order to be paid for or fulfilled before the system recognizes the points earned (delayed transaction), or requiring the member to reach a specific spend level before points are redeemable (as with some key clients).
- The total rewards balance (subject to the provisions above) that is above the minimum redeemable points threshold and below the maximum redeemable points threshold.
- The total rewards balance (subject to the provisions above) associated with a card that has an Active status.

> **NOTE**
>
> - Points transfers from one account to another can only come from the redeemable balance — points that are on hold cannot be transferred.
> - The redeemable balance may be measured in reward points, dollars, or another currency form used to calculate and redeem rewards.
> - If the client has an auto-redemption mechanism, the system can redeem the entire reward balance when the expiry date is reached. For example, MMS auto-redeems points as a credit on the member's account at expiry, redeeming the entire eligible balance in the alternative currency.

The redeemable currency is the portion of total currency that is not on hold, meets one of the redemption thresholds, and is at or below any redemption limits. For example:

A client has a redemption threshold at every 25,000-point increment, and the member receives $10 for each 25,000-point increment redeemed. The member was just awarded 80,000 points (less than 12 hours ago), and the hold period is 12 hours. Before that transaction, the member had a balance of 70,000 points.

- The **Account Balance** is 70,000 (previous) + 80,000 (just awarded) = **150,000 points**.
- The **Available Balance** is **70,000 points**. The 80,000 points were awarded less than 12 hours ago, so they are on hold and not yet available for redemption.
- The **Redeemable Balance** is the largest multiple of 25,000 that fits within the Available Balance. With 70,000 points available, the redeemable balance is 2 × 25,000 = **50,000 points**.
- The **Redeemable Value** of 50,000 points is **$20** (at $10 per 25,000 points). Note that a single-session or single-day redemption limit may also apply. For example, if the member had a 150,000-point redeemable balance but a $40/day limit on redemptions, the redeemable value would be $40, not $60.

Account balance	Available balance	Redeemable balance	Redeemable value
150,000*	70,000	50,000	$20

Base earn rules

Base earn rules define the earning logic for base earning — for example, 10 points per $1 of eligible spend, or 10 points per 1 unit of fuel.

Base points are rewards earned through regular purchase transactions, not through offers. The earn rate for base points is typically set as points per eligible dollar of spend or per eligible item. Base points are often considered part of the baseline operating cost of running a loyalty program. Note that some loyalty programs do not include base points earning. The **base points rule** sets the earn rate for base points at a specified level.

Multiple base earn

This feature lets ES Loyalty clients define and configure multiple base offers that run simultaneously for all members. These offers are non-overlapping.

In the loyalty marketplace, "Base" is typically the value proposition that is always available to all members. Previously in ES Loyalty, Base was:

1. A single evergreen offer
2. Configured at the business unit level
3. Not using the full breadth of the Promo Engine's offer capabilities — for example, it did not support product targeting.

With this feature, there is no change to how Base offers are set up. Setup remains a back-end migration and is not viewable or editable in the Console Promotions section. The feature adds enhancements to enable product targeting on the Base offer and to enable the use of Unit. Offers must be configured in a non-overlapping way.

For transaction history and receipt messaging, the system displays one line item for global base earned in the transaction. Further development will break this out by parts. Aggregations sum all Base earns together. If a maximum is set (for example, to prevent fraud), it applies to the aggregate value of base earns.

Bonus offers that use the "Base Point Multiplier" reward multiply the global base earning to determine the bonus reward.

The ability to have multiple base earns is uncommon in traditional consumer retail loyalty, but is more common in coalition programs and in fuel, hotel, and air travel verticals.

> **NOTE**
>
> **Pricing consideration:** Having many Base earns may have pricing implications, but this is not an operational concern.

Additional information

Examples of multiple base earn:

Example 1:

- "Earn 10 pts for every $1 spent on c-store products"
- "Earn 10 pts for every 1L (unit) of fuel purchased"

Example 2:

- "Earn 10 pts for every $1 spent on c-store products"

- "Earn 10 pts for every 1L (unit) of regular fuel purchased"
- "Earn 15 pts for every 1L (unit) of premium fuel purchased"

Example 3:

- "Earn 15 points for every $1 spent on Client Private Brand"
- "Earn 10 points for every $1 spent on everything else"

Currency classification

The system classifies rewards currency into categories — for example, Base, Bonus, Partner, Goodwill, and various account types and sub-types.

The system classifies rewards in several ways:

- **Base rewards** — Rewards earned through normal or regular purchases, typically as a specified increment of reward currency per unit of purchase currency. For example: "Get 100 points for every $10 spent."
- **Bonus rewards** — Rewards based on offers. For Exchange Solutions, points earned through offers and other targeted promotions are typically considered bonus points. In other cases, a marketing department uses bonus points to promote certain brands or products.
- **Partner rewards** — Rewards earned through interactions with a retailer's partner. For example, a member may earn rewards for using a payment card associated with a partner financial institution.
- **Goodwill rewards** — Rewards granted for customer retention purposes. For example, if a customer received a late or missing shipment, the retailer can award them rewards to maintain positive customer relations and reinforce loyalty.
- **Rewards based on account types and sub-types** — Rewards tied to the classification of different account types. For example, different account tiers may each be eligible for a different rewards profile.

Exchange Solutions can tag different types of reward currencies.

Earn rules based on account/card status

Business rules determine when a member can earn rewards, based on the status of their account and/or card. For example, suspended accounts cannot earn points.

Cards earn and burn points based on account and card status. The rules for earning points are permissive — as long as the account status is not Closed or Deceased, the account can earn points. If the account status is Active, the card can earn points as long as the card status is not Cancelled.

Can earn rewards	Account and card status
Yes	Account: Active; Card: Active
Yes	Account: Active; Card: Suspended, Lost or Stolen, Damaged, or Fraud/Abuse
Yes	Account: Expired, Suspended, or Unregistered
No	Account: Closed or Deceased
No	Card: Active but Cancelled

Burn rules based on account/card status

Business rules determine when a member can redeem (burn) rewards, based on the status of their account and/or card. For example, only active accounts can redeem points.

For redemption, the account status must be Active, and the card status must be Active, Deceased/Active, or Active/Damaged. Only the available balance can be redeemed. Points that were just awarded are placed on a 12-hour hold as a fraud prevention measure.

Can redeem rewards	Account and card status
Yes	Account: Active; Card: Active
No	Account: Closed, Deceased, Expired, Suspended, or Unregistered ("ghost" card)

Can redeem rewards	Account and card status
No	Account: Active; Card: Suspended, Lost or Stolen, Damaged, Fraud/Abuse, or Cancelled

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Currency and account expiry logic (activity-based)

This feature supports configurable business rules to manage the expiration of points and account status based on member inactivity, using the last activity date (LAD).

Currency (points) expiry: Points expiry retires reward points or reward currencies — making them no longer available for redemption — when a specific interval of time passes with no account activity. Activity includes earning or burning loyalty currency (points or other credit types) across earn/burn types such as base points, bonus points, partner earn, discretionary, returns, adjustments, donations, and transfers between members.

A system monitor task runs every 5 minutes and checks for accounts where the last activity date is older than the configured points expiry rule. The system flags dormant accounts for expiry and sweeps the points as soon as the Event Processing module detects the flag.

Account expiry: Account expiry is separate from points expiry, although similar criteria may apply. An account expires when there is a prolonged, specified period of inactivity. Note that account expiry does not necessarily trigger a points sweep, as the age of the account and the age of the points may differ.

As points approach expiry, the system sends a series of messages encouraging the member to take action that would reset the expiry clock. The simplest action is a purchase, but clients can configure other events that also reset the clock — for example: redemptions, points transfers, earning a badge, loading offers, completing a survey, completing registration, and more. An activity can also be a system-recognized event such as a status change, profile change, opting into email, or linking to another member or business unit.

Expiry exemption

This feature lets a program administrator exempt certain account categories from the inactivity-based account expiry process as a program benefit — for example, "no expiry of points for partner-linked accounts."

A program administrator may want to exempt select members from inactivity-based account and balance expiry to provide a differentiated member experience. The goal is to allow certain members' points to never expire, regardless of their activity with the program. This lets the client market the benefit to members — for example: "Link to Megabank and your points and account will never expire."

ES Loyalty uses queries to identify accounts approaching the expiry threshold. It then checks whether the account is flagged for exemption under specific conditions — for example, whether the account is linked to a partner — and exempts qualifying accounts from account and point expiry.

> **NOTE**
>
> This feature currently applies to Last Activity Date (LAD) expiry only, not to First-In, First-Out (FIFO) expiry.

Currency expiry logic (FIFO)

This feature supports configurable business rules to manage the expiration of points based on first-in, first-out (FIFO) logic.

With FIFO expiry, the system redeems or expires the oldest rewards first, then the next oldest, and so on. This prevents the system from redeeming the newest points while expiring the oldest, and also allows partial expiry rather than expiring the entire balance. Note: today, ESI expires the entire account balance, and redemption is not linked to individual transactions.

Annual point expiry

Points earned in a preceding year can be expired once annually.

Previously, the system could expire a member's accumulated points on a monthly basis. This functionality has been expanded to allow annual expiry based on client preferences. For example, a client may choose to sweep all accumulated points from existing accounts on the first day of February each year. Members can redeem their points right up until the sweep date, after which reward point accumulation starts again from zero in the following year.

Point expiry prevents large point balances (and corresponding liabilities) from accumulating, and encourages customer engagement through the redemption process.

Delayed transactions

This feature processes transactions and calculates potential point earnings, but does not release those points until the transaction is confirmed — for example, due to payment or fulfillment delays.

Clients may need to process transactions that only become permanent after other processes complete. The delay applies to the reward given to the customer. Two types of delay are supported:

1. **Payment** — The system logs the transaction against the customer account, but does not award points until all items in the order have been paid for.
2. **Fulfillment** — The system logs the transaction against the customer account, but does not award points until all items in the order have been fulfilled. Depending on the client, this may be when the order is packaged for delivery, when it ships, or when it is delivered to the customer.

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Account and Card Status Guide

This page explains how member account statuses and loyalty card statuses work — what each status means, how they affect a member's ability to earn and redeem points, and what happens when statuses change.

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Account statuses

An account can be in one of six states. Most accounts are Active. Deceased and Closed are permanent — they can never be changed once set.

Status	What it means	Can it be changed?
Active	All earning, redemption, and account operations are available with no restrictions.	Yes
Suspended	All earning, redemption, and profile updates are blocked. The account stays suspended until an administrator explicitly reactivates it — there is no automatic expiry.	Yes — an administrator must explicitly change it back to Active

Status	What it means	Can it be changed?
Unregistered	Earning is allowed. Redemption is blocked until the member completes registration, at which point the account automatically moves to Active.	Yes — resolved when the member completes self-registration
Cancelled	Earning and redemption are blocked. Whether the account can be reactivated depends on client configuration — some programs treat it as permanent, others allow administrator reactivation.	Depends on configuration
Deceased	All operations are permanently blocked. The status cannot be changed by any API call or administrator action — only a database-level correction can alter it.	No — permanent
Closed	All operations are permanently blocked. The status cannot be changed by any API call or administrator action — only a database-level correction can alter it.	No — permanent

What each status means in practice

Active — The member can earn, redeem, and transfer points, update their profile, add cards, and receive offers. No restrictions.

Suspended — An administrator has explicitly blocked all point earning, redemption, point transfers, and most profile changes on this account. The member can view their account in read-only mode only. The account stays suspended indefinitely — it does not auto-expire. An administrator must explicitly change the status back to Active to restore operations.

Example: A fraud investigation is opened after suspicious transactions are detected and all account activity must be frozen while the case is reviewed. The account remains suspended until the investigation is closed and an administrator clears it.

Unregistered — A ghost account created by a data feed or partner system before the member has self-registered. Earning is allowed at the point of sale. Redemption is blocked until registration is completed, at which point the account automatically moves to Active.

Example: A loyalty card is picked up in-store and scanned at checkout before the member has created an online profile. Points accumulate on the ghost account. Once the member registers online and links their card, the account becomes Active and redemption is unlocked.

Cancelled — A cancellation triggered by a system process (not by a member request or direct administrator action). Earning and redemption are blocked. Whether reactivation is possible depends on client configuration: in some programs the account can be returned to Active by an administrator; in others it behaves as a permanent end state.

Example: An automated rule cancels accounts that have had no activity in 36 months. An administrator may be able to reactivate on request if the member re-engages.

Deceased — Set when a death notification is received. All earning, redemption, profile updates, and card operations are permanently blocked. The status cannot be changed through any API call or administrator action — only a database-level correction can alter it. The system automatically deletes the member's phone number (for privacy compliance), releases their email and phone identifiers so they can be reused by new members, and unsubscribes the account from SMS. Cards are left in their current state for manual review by an administrator.

Example: A family member or legal representative contacts customer service with a death certificate. The account is marked Deceased, locking it permanently while allowing estate-related card review.

Closed — Set when a member requests account deletion or an administrator terminates the account. All earning, redemption, and account operations are permanently blocked. The status cannot be changed through any API call or administrator action. The system automatically cancels all cards on the account, releases all identity locks, and can optionally anonymize personal data, purge point balances, and remove the member from their household.

Example: A member submits a GDPR right-to-be-forgotten request. The account is Closed with anonymization and point purge options enabled, removing all identifiable data and terminating the membership permanently.

Card statuses

A card can be in one of seven states. Most cards are Active. Cancelled and Expired are permanent and cannot be reactivated.

Status	What it means	Can it be changed?
Active	Earning and redemption are both available. No restrictions on this card.	Yes
Suspended	Redemption on this card is blocked. Earning continues — points still accumulate to the account. The card stays suspended until an administrator explicitly reactivates it.	Yes — an administrator must explicitly change it back to Active
Lost or Stolen	All redemption on this card is blocked. Earning continues. A replacement card is issued. The original card is not reactivated in most cases.	Effectively no — a new replacement card is issued instead
Damaged	All redemption on this card is blocked. Earning continues. A replacement card is issued and the damaged card is eventually cancelled.	Effectively no — a new replacement card is issued instead
Fraud/Abuse	Redemption on this card is blocked while earning continues. The card stays in this state until an administrator completes the investigation and either clears it (back to Active) or confirms fraud (moves to Cancelled).	Yes — an administrator must explicitly resolve the investigation
Cancelled	All earning and redemption on this card are permanently blocked. Cannot be reactivated.	No — permanent
Expired	All earning and redemption on this card are permanently blocked. Cannot be reactivated. A renewal card can be issued.	No — a new renewal card is issued instead

What each card status means in practice

Active — The card can be used for all transactions: earning, redeeming, and transfers.

Suspended — An administrator has blocked redemption on this specific card. Earning is not affected — points continue to accumulate to the account as normal. The card stays suspended indefinitely; it does not auto-expire. An administrator must explicitly change the status back to Active to restore redemption.

Example: Suspicious redemption activity is detected on one card in a multi-card account. That card is suspended to block further redemptions while the specific card is investigated, without blocking the rest of the account.

Lost or Stolen — The member has reported this card missing. Redemption is blocked on this card number. Earning continues so the member is not penalized while waiting for a replacement. A new card is issued and the original card remains in Lost or Stolen status permanently.

Example: A member calls customer service to report their wallet was stolen. The card is marked Lost or Stolen immediately and a replacement card is mailed. Any transactions against the old card number still earn points but cannot be used to redeem.

Damaged — The physical card is no longer readable — for example, a broken chip or demagnetized stripe. Redemption is blocked on this card. Earning continues. A replacement card is issued. The damaged card is eventually moved to Cancelled once the replacement is active.

Example: A member's card no longer scans at checkout due to a worn magnetic stripe. Customer service marks it Damaged and ships a replacement. The member can still earn points at the register once the new card arrives.

Fraud/Abuse — The card has been flagged due to suspicious activity. Redemption on this card is blocked; earning continues. The card stays in this state until an administrator resolves the investigation: if cleared, the card returns to Active; if fraud is confirmed, the card moves to Cancelled and the account may also be suspended or closed.

Example: The system detects an unusual pattern of high-value redemptions on a single card within a 24-hour window, consistent with card-sharing or point-farming. The card is flagged for Fraud/Abuse, blocking further redemptions while a team member reviews the transaction history.

Cancelled — All earning and redemption on this card are permanently blocked. Cannot be reactivated. Cancellation is triggered by account closure (all cards on the account are auto-cancelled), card replacement (the old card is cancelled when a new one is issued), or a manual cancellation by an administrator.

Expired — The card has passed its printed expiration date. All earning and redemption are permanently blocked. A renewal card with a new expiry date can be issued to replace it.

Earning points

Earning is lenient by design. The system applies one primary rule: if the account is Closed or Deceased, earning is blocked entirely. For all other account states, earning is allowed as long as the card itself is not Cancelled or Expired.

- **Earning is allowed** when the account is Active or Unregistered, as long as the card is not Cancelled or Expired. A card that is Suspended, Lost or Stolen, Damaged, or flagged for Fraud/Abuse still allows earning — points accumulate to the account until the card issue is resolved.
- **Earning is blocked** when the account is Closed, Deceased, Suspended, or Cancelled — regardless of card status. It is also blocked when the card is Cancelled or Expired, even on an Active account.

Account status	Card status	Can earn?
Active	Active	✅ Yes
Active	Suspended	✅ Yes — points accumulate; redemption on this card is blocked
Active	Lost or Stolen	✅ Yes — points accumulate while awaiting replacement card
Active	Damaged	✅ Yes — points accumulate while awaiting replacement card
Active	Fraud/Abuse	✅ Yes — points accumulate while the investigation is open
Active	Cancelled	❌ No — card is permanently deactivated
Active	Expired	❌ No — card is past its expiration date

Account status	Card status	Can earn?
Unregistered	Active, Suspended, Lost, Damaged, or Fraud/Abuse	✅ Yes — ghost accounts earn before registration is complete
Unregistered	Cancelled	❌ No — card is permanently deactivated
Suspended	Any	❌ No — account-level block overrides all card statuses
Cancelled	Any	❌ No — account-level block overrides all card statuses
Deceased	Any	❌ No — permanent account-level block
Closed	Any	❌ No — permanent account-level block

Redeeming points

Redemption is strict by design. Spending points is treated as a financial transaction — the system requires both the account and the card to be fully Active before allowing any redemption. There is one configured exception for unregistered accounts.

- **Redemption is allowed** only when both the account and the card are Active. One exception: an Unregistered account where a customer service agent has explicitly applied a redemption override flag can also redeem.
- **Redemption is blocked** in every other status combination. Any account status other than Active blocks redemption regardless of card status. Any card status other than Active blocks redemption regardless of account status.

Even when status allows redemption, the system also checks for points on hold (recently earned points are held briefly as a fraud measure), minimum lifetime spend thresholds, daily redemption caps, and any active fraud alerts.

Account status	Card status	Can redeem?
Active	Active	✅ Yes
Active	Suspended	❌ No — redemption blocked on this card until an administrator reactivates it
Active	Lost or Stolen	❌ No — member must use replacement card to redeem
Active	Damaged	❌ No — member must use replacement card to redeem
Active	Fraud/Abuse	❌ No — blocked until an administrator resolves the investigation
Active	Cancelled or Expired	❌ No — card is permanently deactivated
Unregistered	Active	⚠️ Special case — only if a customer service agent has explicitly applied a redemption override flag to the account
Unregistered	Any other	❌ No
Suspended	Any	❌ No — account-level block overrides all card statuses
Cancelled	Any	❌ No — account-level block overrides all card statuses
Deceased	Any	❌ No — permanent account-level block
Closed	Any	❌ No — permanent account-level block

Deceased vs. Closed

Both statuses are permanent and block all operations. The differences matter for data privacy and card handling.

	Deceased	Closed
Triggered by	Death notification received from a family member, legal representative, or government agency	Member submits a deletion request, or an administrator terminates the account
All operations blocked	Yes	Yes
Phone number	Deleted from the database immediately — a stronger privacy obligation applies on death	Retained in the database — may be needed for compliance audits or dispute resolution
Cards	Left in current state — an administrator reviews them manually (for example, for estate handling)	All cards are automatically cancelled when the account is closed
Data anonymization	Not available	Available as an option — used for GDPR right-to-be-forgotten requests
Identity locks released	Yes — email, phone, and external ID can be reused by new members	Yes — email, phone, and external ID can be reused by new members

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Common scenarios

Member loses their card

1. The old card status changes to Lost or Stolen — redemption is immediately blocked on that card number.
2. A replacement card is issued as Active.
3. Earning continues on the old card number — any transactions still credit the same account.
4. Redemption is only available once the member transacts with the new Active card.

Fraud investigation

1. The account is set to Suspended (blocks all earning and redemption) and/or specific cards are set to Fraud/Abuse (blocks redemption on those cards; earning continues).
2. The account or card stays in this state until an administrator explicitly resolves it — there is no automatic expiry.
3. If cleared: an administrator changes statuses back to Active and all operations resume.
4. If fraud is confirmed: the account moves to Closed (permanent) and all cards are auto-cancelled.

Death notification received

1. The account moves to Deceased — all operations are permanently blocked; the status cannot be changed by any API call.
2. The phone number is deleted from the database immediately.
3. Email and phone identifiers are released so they can be reused by new members.
4. Cards remain in their current state for an administrator to review (for example, for estate-related handling).

Member requests account deletion (GDPR)

1. The account moves to Closed — all operations are permanently blocked; the status cannot be changed by any API call.
2. All cards on the account are automatically cancelled.
3. Personal data is anonymized — names, email, and phone are replaced with system-generated placeholders.
4. Point balances are purged to zero.
5. The member is removed from their household if applicable.

Unregistered member shops at the register

1. The sale completes at the POS normally.
2. Points are earned and credited to the ghost account.
3. Redemption is blocked until the member completes online registration — at which point the account moves to Active and all accumulated points become redeemable.

4. Exception: if a customer service agent has explicitly applied a redemption override flag to the account, redemption is available before registration is complete.

Quick reference

Account status capabilities

	Active	Suspended	Unregistered	Cancelled	Deceased	Closed
Earn points	✅	❌	✅	❌	❌	❌
Redeem points	✅	❌	⚠️	❌	❌	❌
Transfer points	✅	❌	❌	❌	❌	❌
Update profile	✅	Read-only	Limited	❌	❌	❌
Add cards	✅	Config	Limited	❌	❌	❌
Change status	✅	✅	✅	Config	❌	❌

Card status capabilities

	Active	Suspended	Lost/Stolen	Damaged	Fraud/Abuse	Cancelled	E
Earn points	✅	✅	✅	✅	✅	❌	❌
Redeem points	✅	❌	❌	❌	❌	❌	❌

	Active	Suspended	Lost/Stolen	Damaged	Fraud/Abuse	Cancelled	Ex
Promote to primary	✅	❌	❌	❌	❌	❌	❌
Replace card	✅	✅	✅	✅	✅	❌	❌

Last updated on ***Oct 14, 2018***

(Simulated during dev for better perf)

Loyalty Card Management

Purpose of this document

This document provides details at the business, technical (including configuration), and implementation levels for specific features within the ES Loyalty feature set. It covers a subset of functionality focused on Loyalty Card Management.

Table of contents

General configuration

- Card limits configuration -- `card_limits_config.json`
- Changes to configuration made to support Multiple Active Cards -- WIZ-4704

Physical/digital card number generation and allocation

The system generates and allocates authentic card numbers for both physical and digital cards and assigns them to members.

When creating a new user, the system assigns a card number to them. For plastic cards, the system automatically assigns the number. For manually allocated cards, the card number must be provided explicitly when calling the registration API.

The system also uses a card pool -- a list of pre-generated card numbers that follow a specific format. The card pool determines how card numbers are assigned to users. The system loads generated card pools into the ES Loyalty DynamoDB table through a Jenkins Card Load Job.

- An allocated card has been sent for printing. It must be manually assigned to an individual account by passing the card number to the registration API.
- An unallocated card is available for digital assignment in the system.

Card validation check

Card validation lists the attributes and values associated with a card type and validates the card type.

The system determines whether a card is valid for enrollment by checking that it meets one of the following conditions:

- The card is allocated but not yet linked to an account.
- The card is linked to an unregistered account.

Cards already linked to a registered account are considered invalid for enrollment.

- CUX API Validate Card request -- Exchange Solutions ES Loyalty API Suites

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Enrollment - issuing a physical card and associating it to an account

When a user enrolls, the system associates a physical or digital card number with their account.

If enrollment takes place where a physical card is issued, the physical card number is entered into the system. If no physical card number is specified in the enrollment request, the system allocates a digital card number from the digital card pool.

The Enroll User request (CUX API) can include a loyalty card ID in the `physicalCard` attribute, which associates a physical card with the account. If the `physicalCard` attribute is left blank, the card defaults to `DIGITAL` and the system provides the card number from the available pool. If the loyalty card ID in the request is not in the client's pool of available numbers, the API returns an error.

The API response includes the resulting card type in the `cardType` attribute -- `PHYSICAL` if a valid loyalty ID number was provided in the request.

- Enroll User request in CUX API in Postman

Enrollment - issuing a digital card and associating it to an account

When a user enrolls, the system associates a physical or digital card number with their account.

If no physical card number is specified during enrollment, the system allocates a digital card number from the digital card pool.

If the `physicalCard` attribute in the Enroll User request (CUX API) is left blank, the card defaults to `DIGITAL` and the system provides the card number from the available pool. The API response includes the resulting card type in the `cardType` attribute -- `DIGITAL` in this case.

- Enroll User request in CUX API in Postman

Low allocation availability alert

The system sends a card availability alert when the pool of legitimate card numbers -- physical or digital -- drops below a pre-set threshold.

Card numbers must be allocated from an approved set, or pool, to ensure that all cards used in the system are legitimate, valid, and acquired through an approved process.

The alert notifies the client that their pool of member card numbers will soon be insufficient to meet demand for new issuances. It gives the client enough lead time to order additional card numbers and keep their loyalty program running without interruption.

Replace existing card

This feature replaces an existing card with an unregistered card that has no transactions on it.

When a card needs to be replaced -- for example, because it is damaged or lost -- the system replaces the existing Active card with an unused card from the pool that has no associated transactions. The new card inherits the account, and the old card is set to Cancelled.

The replacement card must come from the allocation pool associated with the client. A card can be replaced with either a physical (plastic) or digital card. The replacement card becomes a new Active card on the account, and the replaced card is cancelled. If the Multiple Active Cards feature is enabled, the new card can also be designated as the Primary card on the account.

Cards can be cancelled and replaced from the Member page. The replacement can be a physical (plastic) or digital card with a valid card number from the allocation pool.

Bulk card allocation

This feature allocates a block of loyalty program card numbers and, if required, orders the corresponding physical cards.

Each loyalty member must receive at least one unique card number, either in physical or digital form. The system allocates these numbers to the client as a block or pool, from which the client draws as new members join the program. Card numbers outside the assigned pool for that client cannot be used by their members.

Last updated on ***Oct 14, 2018***

(Simulated during dev for better perf)

Data Integration

Purpose of this document

This document provides details at the business, technical (including configuration), and implementation levels for specific features within the ES Loyalty feature set. It covers a subset of functionality focused on Data Integration.

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- Business unit linking
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- Partner program
- Member householding
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- Ad hoc rewards
- Ad hoc redemptions

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Console API suite

The Console API suite contains the requests and responses that the Console uses to carry out its functions. These APIs are internal only and are not exposed to clients.

The calls are organized to mirror the Console menu structure:

- **Membership** — Top-level functionality that lets an agent find a member using their loyalty ID, email address, or account associations. Once a member is found and selected, the agent can manage their details, including profile, extended data, cards and card status, point transfers, householding, discretionary points, badges, banners, and transactions.
- **Promotions** — Includes Offers, Banners, Badges, and Campaign Management (including Campaigns, Seed Lists, and Offer Pool to manage Boost campaigns).
- **Analytics** — Search functions for Standard and Custom Reports.
- **User Management** — Manages Users, Groups, and Roles. Users belong to Groups, and Roles are applied to Groups to set permissions for various features.

- **Program Management** — Manages Activity Types, Report Management (administration), Member Tiers Program, Expiry, Reporting Identifiers, Budget Management, Reward Identifiers, Ad Hoc Rewards, Redemption Catalogue, and Redemption Identifiers.

The Console API suite powers the Console, giving marketers, agents, and other client staff access to Exchange Solutions functionality through a user-friendly interface.

Gen AI API suite

The Gen AI API suite is an internal set of APIs that serves as an interface between ES Loyalty features and ESI's GenAI module.

The Gen AI suite supports generative AI functions such as Gen AI Help (searching help content for Console users using their prompts) and the Audience Recommender (generating audiences from user prompts). The API currently supports requests to:

- Determine prompt completion status
- Save user feedback
- Get and update system prompts

Fraud Plus API suite

The Fraud Plus API suite is an internal set of APIs that serves as an interface between ES Loyalty features and the Fraud Plus module.

A fraud prevention feature covers several functional areas:

1. **Detection** — Identifies unusual or suspicious activity within the loyalty program, using data points such as spending habits, location data, or transaction history.
2. **Analysis** — Analyses flagged transactions or behavior to determine whether fraud has occurred, cross-checking against other data sources to validate legitimacy.
3. **Notification** — Sends a notification to the appropriate team or individual when fraudulent behavior is detected — for example, an internal fraud prevention team, law enforcement, or the affected loyalty program member.

4. **Prevention** — Takes steps to prevent future fraud, such as implementing additional security measures, educating members about security best practices, or updating internal policies.

Fraud Plus detects potentially fraudulent, erroneous, or excessive behavior, and provides information and advice to users and other systems on how to respond. The module is architected outside of the core ES Loyalty technical stack, which means it can be enhanced over time to add additional metrics, actions, and reporting, and can potentially serve other systems through its APIs.

To accomplish this:

- Member-level, time-bound thresholds are configured — for example, more than 3 profile changes in a single day, or member-to-member points transfers exceeding 20,000 in a given week.
- Fraud Plus "advice" is returned when these rules are triggered — for example, log only, or log and block redemption for 15 days.

When ES Loyalty (or another system) calls the Fraud Plus module, it returns any advice for a given member. In the current version, this applies in two ES Loyalty contexts:

1. During the POS flow, the system calls Fraud Plus to check for any rules that prevent earn or burn.
2. Within the Console member section, the system displays any flagged behavior for a given member.

The Fraud Plus module delivers information to the loyalty program administrator through emailed notifications and to agents through the Flagged Behavior section on a member's page (if enabled and if there is advice about a potentially fraudulent situation to display).

Data Integration Gateway (DIG) API suite

The Data Integration Gateway (DIG) API suite is an internal set of APIs that serves as an interface between ES Loyalty features and external marketing systems.

The DIG is a generic module that accepts messages sent by ES Loyalty for various supported integrations. The module applies filtering rules to incoming messages and routes them to the appropriate connector module, which then consumes the message and interacts with an external vendor or provider — for example, a client's Email Service Provider, Data Integration Provider, or a specific API.

The DIG is implemented as an independent component with the following sub-modules:

1. **DIG API module** — Consists of the API gateway, AWS Lambda, and EventBus. This module exposes a REST API interface that ES Loyalty uses to exchange data with the integrated provider. The API contains routing logic for synchronous, asynchronous, and batch file flows.
2. **Connector modules** — Consist of Lambda and EventBus rules and contain the logic for connecting to specific integrated software.
3. **Database module** — Creates the tables required for storing configuration and message data for auditing.

DIG API suite configuration determines which message types are supported and the filtering rules for messages.

Customer Experience API suite

Use the Customer Experience API (CUX API) to give members — for example, on a website or in an app — the functionality they need to manage their membership and offers.

The REST CUX API includes requests and responses to:

- Start user sessions
- Handle member enrollment, opt-in, and profile updates
- Handle balance and membership tier inquiries
- Support offer, banner, and badge operations
- Provide access to a member's transaction history
- Support card operations such as validating, replacing, and managing loyalty card data
- Send member activities to the system
- Link a business unit to a member account

Start session

The Start Session request begins an API session and establishes the identifiers used to associate subsequent requests with a member account.

Start Session begins a session with a customer account through a channel such as a website or mobile app. A session is required for any API interaction outside of enrollment. The request requires a unique identifier — the loyalty identifier, account ID, or external ID (client identifier) — which points to the account for which the session is opened. The request also requires a correlation ID and the channel (for example, an app, store, website, POS system, or partner).

The response includes the following information about the member:

- The unique identifier used (account, loyalty, or external ID)
- The membership type (regular or employee)
- The user/account status (for example, active, unregistered, deceased, expired, closed, or cancelled)
- The card status (for example, active, invalid, suspended, lost or stolen, damaged, fraud/abuse, cancelled, expired, or non-loyalty)
- The card type (digital or physical)
- Flags indicating whether the account is expired or suspended
- Point and dollar balances, including points available for redemption
- Minimum and maximum redemption limits for the current session
- Cumulative redemptions year-to-date, including adjustments
- The correlation ID for the session
- Tier information including tier details, the member's tier and unique identifier, the date range and expiry date for the tier, and additional tier data
- Contributions toward the next tier, current spend, and the amount required to reach the next tier
- The relevant business unit for the member
- Household data related to the member

> **NOTE**
>
> Profile information (date of birth, gender, name, business name, address, and email address) has been moved to a separate Member Profile request. See Member profile below.

Additional information

- CUX API — Start Session documentation

Member profile

This API retrieves member profile data independently of a Start Session call, giving clients more flexibility in retrieving member data and allowing Personally Identifiable Information (PII) to be better managed and protected.

Member profile attributes represent the collection of attributes relevant to a loyalty program member. Both B2B and B2C loyalty programs require the ability to track meaningful attributes, which can vary by client.

Profile attributes for a specific client might include date of birth, gender, name, related business name, address, and email address. For example:


```
{
  "dateOfBirth": "1975-03-29",
  "gender": "M",
  "firstName": "Derek",
  "lastName": "Shep",
  "email": "dereks@gmail.com",
  "businessName": "RXL",
  "phoneNumber": "xxx-xxx-xxxx",
  "street": "street",
  "street2": "street2",
  "suite": "suite",
  "city": "city",
  "provinceState": "provinceState",
  "postalZipCode": "M5C 2C5",
  "countryCode": "countryCode",
  "languagePreference": "EN",
  "registrationDetails": {
    "registrationChannel": "STORE",
    "registrationDate": "2022-07-18T11:20:44.933Z",
    "registrationDateEpoch": 1658143244933
  }
}
```


Additional information

- Member Profile request in CUX API documentation

Member management

Member Management is a group of CUX API requests used to manage members and accounts. The requests are:

- **Enroll User or Update User Profile** — Enrolls a customer in the loyalty program or updates profile information for an existing member. The request includes possible PII, email address (required), street address, language preference, enrollment channel, a unique card name, any extended data, and account associations. The response includes the account ID, card number, card status (always `ACTIVE` on enrollment), and card type (`PHYSICAL` or `DIGITAL`).
- **Account EMD Query** — Retrieves Extended Member Data for a specified account.
- **Update Profile with Extended Data** — Updates an account's primary attributes and can add `extendedData` attributes for reporting and analytics. This call works for both Loyalty and Non-Loyalty accounts. If the profile already includes extended data and is being updated, all `extendedData` should be sent. If the EMD should not change, omit the `extendedData` object.
- **Balance Query** — Returns all relevant account balance information, including main, points, dollar, available, and redeemable balances, and minimum and maximum redemption limits in both points and dollars.
- **Membership Tier Query** — Returns all membership tier information for the account, including tier code, name, and rank; the next tier's ID, rank, and name; contributions information; and related business units.
- **Member Search** — Searches for a member using EMD on the account — for example, by partner linkage.
- **Set Opt-in Status** — Sets the opt-in status for member communications on a user account.
- **Account Suspension** — Programmatically suspends an account or removes a suspension. The request includes an action code (`SUSPEND` or `REMOVE`) and a reason. The response confirms the result.
- **Close Account with Options** — Closes an account with options to zero account balances and/or anonymize the member's data.

The system must be able to manage member information for enrollment, extended data, balance and tier inquiries, and account status. It must also be able to manage opt-in preferences and account suspension.

Additional information

- Member Management requests in CUX API documentation

EMD

The CUX API supports Extended Member Data (EMD) for clients who want to store additional information about members beyond the standard key-value attribute pairs.

Clients store member data that is not standard to loyalty programs. ES Loyalty accepts this data as EMD. Current uses for EMD include audience targeting, display in the member admin Console, and reporting.

EMD currently uses atomic updates. If a client has multiple sources of EMD, they may overwrite each other's data unless the data is merged into a single source before being sent to ES Loyalty.

Extended member data is submitted through the CUX API User Enrollment/Profile Update POST request and retrieved through the CUX API Extended Member Data GET call.

Account closure

This feature lets a user close an account, zero out the point balance, and anonymize member data.

The API call closes an account with options to zero the account balance and anonymize the member's data (masking data in the database to protect PII and setting the Opt-In flag to `false`). The `AccountStatus` is set to `CLOSED` and the `LoyaltyStatus` to `CANCELLED`. The account can no longer earn or redeem rewards.

Member gameplay

This feature lets the system view gameplay rewards earned by a member.

Many retailers incorporate gamification to encourage spend, shape customer behavior, and collect zero-party data about customer preferences. This request returns gameplay rewards earned by a specified member.

Each gameplay record in the response includes:

- Game identifier
- Offer code — the name of the related offer

- Gameplay URL — the URL the member uses to access the game
- Game type
- Transaction ID — unique identifier for the qualifying transaction
- Earned date — date and time the gameplay was earned

Member aggregation

This feature exposes member-level aggregations configured within ES Loyalty — for example, Total Redeemed Points (calendar year), Total Eligible $ Spend (calendar year), and Total Points Earned (calendar year).

If a client migrates to ES Loyalty mid-year, the aggregate values must be updated to reflect transactions that occurred outside of ES Loyalty. Historical transaction feeds do not affect aggregations.

The feature covers a data aggregation system with the following key areas:

1. **Historical data and aggregates** — Historical data migration feeds preload and calculate aggregates. Configuration allows flexibility for adding, overwriting, or appending values during import.
2. **Design considerations** — Aggregates are an internal implementation detail. The feature handles incoming data, manages date ranges, and updates existing aggregates.
3. **Separate feed for aggregates** — A dedicated feed manages aggregates, separate from membership tier feeds, to avoid overlaps or dependencies.
4. **Flexibility and future-proofing** — Configuration supports separate CUX API and Console functionality. Naming conventions and configuration ensure scalability.
5. **Error handling and validation** — The system accounts for configuration mismatches between account and member-level distinctions, and implements error logging and warnings.

The supported granularity for the member override feed includes: `DAY`, `YEAR`, `QUARTER`, `MONTH`, and others.

Card operations

Card Operations is a group of CUX API requests used to manage member cards. The requests are:

- **Validate Card** — Validates whether a card is eligible for enrollment. A card is valid if it is allocated but not linked to an account, or if it is linked to an unregistered account. A card is invalid if it is linked to a registered account. The response returns `true` or `false`.
- **Replace Existing Card** — Replaces a known account card with a new digital card. The old card is invalidated and the new card receives `ACTIVE` status. The update status must be one of: `DAMAGED`, `CANCELLED`, or `LOST_OR_STOLEN`. The response provides the new card number and a confirmation message.
- **Change Card Status** — Changes the current status of a card. The response confirms the success of the operation.
- **Manage CardLabel and ExtendedData** — Adds or replaces the `cardLabel` and `extendedData` attributes on a card object. Both attributes are optional, but at least one must be included. Sending `cardLabel` as an empty string removes the attribute. Sending `extendedData` as an empty object replaces the current value with an empty object.
- **Promote Secondary Card to Primary** — Promotes a secondary card to the primary card on the account. The previous primary card retains `ACTIVE` status. Cannot be used if the account status is `CLOSED` or `DECEASED`.
- **Add Multiple Active Cards to Account** — Adds physical and/or digital cards to an account as active cards. Only one card type (digital or physical) can be added per request. The account has a card limit; exceeding it returns an error. The response lists cards that were successfully added and those that failed, along with failure details.

The system must be able to manage loyalty cards associated with member accounts.

Additional information

- Card Operations directory in CUX API documentation

Offer/banner/badge operations

This group of CUX API requests supports getting information about offers, loading offers, and responding to offers. It also includes requests for banners and badges.

Offers

- **Get All Offers** — Retrieves all targeted offers available to the user based on criteria set in the Console, which may include age, gender, extended member attributes, partner associations, badge eligibility, and member tier.

- **Get Future Offers** — Returns offers with an effective date in the future for the current session user, based on the same criteria as Get All Offers.
- **Respond to Offer** — Accepts or declines an offer on behalf of a loyalty member. Valid states are `ACCEPTED`, `DECLINED`, and `UNACCEPTED`.
- **Load All Offers** — Loads all unaccepted offers that are currently active based on their display, start, and end dates. Accepts the same reply options as Respond to Offer.
- **Get Best Offer** — Returns the most relevant offer for the current session.
- **Get Completed Offers** — Returns completed offers, excluding mass offers.
- **Get Accepted Offers** — Retrieves all accepted offers for the customer (typically for customer portals).
- **Get Expired Offers** — Retrieves all expired offers for the customer (typically for customer portals).
- **Get Historical Offers** — Retrieves the full offer history for the customer (typically for customer portals).
- **Get Mass Offers (logged in)** — Returns mass offers configured for all members after the user logs in. Mass offers may use any activation method but cannot target personal data such as age, gender, or postal code. The response includes `productTargeting` data.
- **Get Mass Offers (not logged in)** — Returns the same mass offers when the user is not logged in.

Banners

- **Get Banner Offers** — Returns all banners available to the user based on province or state.

Badges

- **Get Member Badges** — Returns all badges associated with the member.

Offer requests primarily focus on retrieving lists of offers of various types. The exceptions are Respond to Offer and Load All Offers, which also support offer management. The banner and badge calls return a list of items.

Additional information

- Offer/Banner/Badge Operations in CUX API

Send activity

The Send Activity request passes information about a member activity that qualifies for rewards into the Exchange Solutions system. Activities include events such as responding to a survey, downloading an app, or logging into the app. The request also includes the channel (for example, store, POS system, or website).

The request is sent either with or without an activity identifier (`activityId`). If no `activityId` is provided, the system generates a GUID and uses it as the `activityId` in the response.

If applicable, the request must include the business unit relevant to the member and the activity. The request must also include an ISO 8601-formatted date and may include extended data with additional field names and values.

Additional information

- Send Activity request in CUX API
- Send Activity (with Activity ID) request in CUX API

Transaction history

Transaction History is a paginated API call that returns rich transactional data for the member associated with the current session. To retrieve the next page of data, pass in a `transactionId` — typically the last `transactionId` returned in the previous page call. You can also pass any `transactionId` to start from that point in the history; however, very old transaction IDs may return no results. There is no indicator of remaining data until you request a page that returns fewer items than the configured page size limit.

The request supports query parameters for filtering results, including `to` and `from` dates, a limit on the number of records returned, and a `transactionId` for starting from a specific transaction. The following transaction action types are supported:

- `ACCOUNT_EXPIRY` — Points clawed back due to account-level expiry
- `ACTIVITY` — Bonus points awarded for a reported activity event or behavioral offer
- `ADHOC_REWARD` — Points awarded by a partner or business unit on an ad hoc basis
- `ADHOC_REDEMPTION` — Points redeemed by a partner or business unit on an ad hoc basis

- `ADJUSTMENT` — Points clawed back during an adjustment
- `ADJ_NO_RECEIPT` — Points clawed back during an adjustment without an original transaction
- `DISCRETIONARY` — Points awarded through discretionary processes such as goodwill
- `EXPIRY` — Points clawed back during points expiry
- `FIFO` — Points removed from account due to First-In First-Out expiry or auto-redemption
- `FINALIZE` — Points awarded during a finalize transaction from the POS
- `MERGE` — Points transferred during a merge request
- `POINTS_TRANSFER` — Points transferred from one account to another
- `POST` — Points posted to an account to correct the balance
- `PPE` — Points awarded against an originally anonymous transaction (Post-Purchase Earn)
- `PURCHASE` — Points awarded for a purchase transaction from a feed or any process that skips the trial/finalize/SAF flow
- `SAF` — Points awarded during a SAF transaction from the POS
- `TRANSFER` — Points transferred outside of a merge request (account to account with no victim account)
- `TRIAL` — Used internally; Trial actions should never generate transactions to the database
- `UNKNOWN` — Default transaction action type; if used, something has gone wrong
- `VOID` — Points clawed back during a full adjustment; under normal circumstances this does not appear in history, but may appear for non-trivial transactions

Transaction parts may also have their own action types:

- `BASE` — Base points earned
- `BONUS` — Bonus points earned (excluding targeted offers)
- `DISCRETIONARY` — Discretionary points awarded
- `EXPIRY` — Points clawed back due to account expiry or FIFO expiry date
- `REDEEM` — Points redeemed by the member or auto-redeemed at the FIFO auto-redemption date
- `TARGETED` — Points earned for targeted offers
- `TRANSFER_IN` — Points transferred from another account through merger or transfer
- `TRANSFER_OUT` — Points transferred to another account through merger or transfer

Additional information

- Transaction History request in CUX API

Void transaction

This feature voids a transaction within a configured number of days from the original transaction date. It also supports configuration of whether voided transactions appear in the member's transaction history. Supported transaction types include regular transactions and partner/business unit transactions such as ad hoc rewards and ad hoc redemptions.

Void transactions

Void transactions fully reverse previous transactions that awarded or redeemed points. For example, if a member redeemed points for a catalogue item and then returned it, the void mechanism returns the points to their account.

Housekeeping processes related to voids include adjusting the member's balance, recording the transactions correctly, and including or excluding them from the transaction history based on configuration.

Transaction history behavior

Previously, and as the current default, a void completely reversed the original transaction and removed both the original transaction and the void from the member's transaction history. A configuration flag now supports either removing both transactions or including both in the transaction history, depending on client preferences.

Related features include:

- A feature switch to control whether the original ad hoc reward or redemption and the void transaction are included or excluded from the transaction history
- Display of the void transaction in the Console with relevant details
- Support for positive void amounts (rebate of rewards on reversal of a redemption) or negative void amounts (clawback of rewards on reversal of a reward)

Reporting

Reporting currently covers points rewarded or redeemed at the aggregate level. Void transactions cancel out the original transaction in reports.

Additional information

- Void Transaction request in CUX API

Configuration

The void feature flag is already part of the existing configuration. The adjustment feature in the CUX and Partner APIs has been enhanced with:

- A check on whether the original transaction action is eligible for a void (must be `ADHOC_REWARD` or `ADHOC_REDEMPTION`)
- A flag to verify that the partner for the original transaction matches the partner for the void transaction
- A flag to include or exclude voided transactions (both the original and the void) from the transaction history — defaults to `false`

Post purchase earn

This feature lets members perform post-purchase earn from the client website or mobile app without requiring an agent to update their points.

- Applies the same rules as standard PPE
- Assumes no direct PPE fraud control (the client can optionally control this through the front end)
- Enhances the API to add channel data
- Requires the member to have access to the transaction ID for the qualifying transaction

The following validations apply:

- The account and loyalty ID must be eligible to earn
- PPE must be performed within a configured number of days from the original `transactionDate`
- The latest transaction in the original transaction chain must be anonymous

Additional criteria:

- Invalid requests are rejected
- Valid requests are processed correctly, including:
  - Incrementing the member's balance
  - Updating the last activity date (LAD) if earn is enabled as a tracking activity
  - Returning the household balance if the member is part of a household

Additional information

- CUX Post Purchase Earn API

FIFO

FIFO (first in, first out) is an inventory management and accounting concept applied to loyalty. It means that the earliest points earned are the first to be redeemed or expired. Points that are not used within a certain duration are either expired (removed from the account) or auto-redeemed (converted to another form such as a voucher or loyalty card).

This feature has two components: (1) FIFO tracking of points, and (2) a process to sweep them to redemption or expiry. The Get Upcoming Point Sweep request returns a list of pending point sweeps for a specific account.

Each sweep is identified by month and indicates the number of points that will be swept on the last day of that month.

Additional information

- Upcoming Point Sweep request in CUX API

Business unit linking

Business unit linking supports two requests:

- **Add/Update Business Unit Link** — Adds or updates a business unit link. Multiple links can be added if they are attached to the user from the `correlation_id`.
- **List Business Unit Links** — Lists all business unit links for the account.

For some business units, an external link is required to connect their users to the central loyalty program. To support call center scenarios where agents may not know whether a customer is already connected, clients can syndicate this information to ES Loyalty and view it in the Console.

Additional information

- Business Unit directory in CUX API

Account associations

This feature lets the system create associations between ES Loyalty accounts. The Account Association requests support creating, updating, deleting, and listing associations for a specified account:

- **Create Association** — Creates an association for a specified account
- **Update Association** — Updates association information for a specified account
- **Delete Association** — Deletes an association from a specified account
- **Get All Associations of a Member** — Lists all associations for a member account

Associations support reporting roll-ups (aggregated results for associated accounts) and let Console users be aware of associations so they can apply relevant business logic — for example, performing points transfers.

Each account can associate at two levels:

1. **Parent (Bill-to)** — Defines an account's parent. An account can only associate with one Bill-to.
2. **Children (Ship-tos)** — Defines an account's children. An account can associate with multiple Ship-tos, provided that each Ship-to is not already associated with a different Bill-to.

Associations can be configured through client applications or the ES Loyalty Console. An association can be made with any existing ES Loyalty account regardless of its status (including Cancelled or Unregistered). Either account can initiate or delete the association. There is currently no upper limit on the number of associations.

Additional information

- Account Associations directory in CUX API

Partner program

This feature links a financial partner's payment products to the loyalty program to accelerate program acquisition and increase earn and burn opportunities. Future capabilities may include:

- Earning limits (for example, 2% worth of points, up to $500 value per month)
- Earning rate tiers (for example, 2% back on the first $1,000 annual spend, 1% back beyond that)
- Bonus points for related behaviors (for example, earn 10,000 bonus points when you link)

- Variable earn rates by category (for example, 3% back on beauty, 2% on everything else)

The feature links a member's loyalty account to a partner's payment card so the member can earn additional points for activities related to using that card.

Additional information

- Manage Partner Links (Multiple Accounts) request in CUX API

Member householding

The householding feature lets multiple loyalty participants — whether personal, family, or business relations — coordinate their loyalty experience. Each member owns their own points and can independently join or leave a household. The Primary member has broader permissions than Secondary members, including the ability to view data for other household members. If the Primary member leaves the household, the household is deleted.

All household members contribute to a shared household point balance. Only members with household redemption privileges can redeem from this shared balance. When a redemption is made from the household balance, points are drawn proportionally from each member's redeemable balance.

For example:

- Member A's balance: 100 points
- Member B's balance: 200 points
- Member C's balance: 0 points
- Household redeemable balance: 300 points
- Member C redeems 100 points — 67 points come from Member B's account, and 33 from Member A's (rounding applies)

Members without household redemption privileges can still redeem from their own personal balance.

Additional information

- Member Householding directory in CUX API

Issuance

This feature manages the issuance of rewards to loyalty program members. Currently, issuances are used for vouchers only.

The request supports a wide range of query parameters to filter results, including a maximum limit on the number of vouchers returned, a date range, a specific business unit, the issuance type (currently `VOUCHER` only), and the issuance status.

Additional information

- Issuances request in CUX API

Ad hoc rewards

This feature lets a client or their partners award member points in real time through an API request and response, with related reporting.

The `ADHOC_REWARD` API is used by client partners and business units to issue ad hoc bonus points to members without running a promotion in Exchange Solutions. Issuers associate rewards with a reward identifier for reporting purposes, which is maintained in the Console.

The API includes the channel (for example, `APP`, `ONLINE`, or `STORE`), a business unit, a unique member identifier, a unique session ID, unique identifiers for the issuer and the reward, and the reward amount. The response returns the transaction ID and a result message, or an error message if the call fails.

All points awarded through this method are bonus points. Receiving members are validated as active. Reward identifiers distinguish one bonus reward from another for the same issuer.

The reward amount can be positive or negative. It must be a whole integer and is subject to the maximum points per transaction limit set at the client or program level (not the partner level).

For reporting, ad hoc rewards roll up into bonus aggregations per user and can be further broken down by reward identifier.

Ad hoc rewards require two API calls:

- **Create Ad Hoc Reward ID** — Used to issue ad hoc bonus points without running a promotion in ES Loyalty. Bonus points can also be awarded via regular feed processing or file upload through the Console. This request also handles negative `rewardAmount` values for FIFO points expiry.
- **Issue Ad Hoc Reward** — Issues bonus points to a loyalty program member account in real time.

Additional information

- Issue Ad Hoc Reward CUX API

Ad hoc redemptions

This feature lets a client or their partners redeem member points for in-store or catalogue items.

The client or partner must be able to perform real-time redemptions through the API and bulk redemptions through a batch process (both back-end and Console). Both feeds and APIs support reject handling based on the unique correlation ID. A processing summary response is available for bulk integrations for both the Console and SFTP.

The APIs retain the existing workflow to prevent negative balance scenarios: Inquiry `>` Reservation `>` Transaction `>` Finalize. Reservation does not apply to batch (feed) intake, but batch processing does not execute negative balance transactions.

Only business units and linked partners that have been enabled can redeem points. They are identified by a unique redeemer ID. Only pre-defined, enabled redemption IDs are eligible for ad hoc redemptions.

Examples of ad hoc redemptions (Redeemer ID | Redemption ID — description):

- `ClientA | Store_item_soda_123` — Redeem for item in-store or at station
- `ClientB | Catalogue_SafetyKit` — Online catalogue redemption
- `ClientC | iTravel_Jan_2023` — Unofficial partner use case
- `ClientD | Investment_Consult` — Hypothetical "Linked Partner" use case

Ad hoc redemptions require three API calls:

- Reserve for Redemption
- Issue Ad Hoc Redemption

- Cancel Reservation

Additional information

- Ad Hoc Redemption directory in CUX API

Point of Sale API suite

Use the POS API for primarily transactional interactions, such as at retail point of sale or in online checkout experiences. The ES Loyalty POS API is optimized for high reliability and steady response times suitable for country-wide or global use in retail and e-commerce checkout solutions.

Start session (POS)

The Start Session request begins an API session and establishes the identifiers used to associate subsequent requests with a member account.

Business requirements

This request begins a session with a customer account through a POS system. A session is required for any API interaction outside of enrollment. The request requires a unique identifier — the loyalty identifier, account ID, or external ID — which points to the account for which the session is opened. The Start Session call also creates a correlation ID used as the session identifier.

Start Session provides two API call options:

- **Start Session on Behalf of Loyalty Account** — Starts a new session for a specified loyalty account, captures a `correlationId` for all calls during the transaction, and returns account and card status, balance information, minimum and maximum redeemable values, and the appropriate prompt or receipt message.
- **Start Session without Loyalty ID** — Initiates an anonymous session and captures a correlation ID for all calls during that customer session.

Additional information

- Start Session without Loyalty ID API call

Prompt responses

This feature sets options and details for a member through the POS terminal, including capturing an email address for a loyalty ID and setting the opt-in status.

Prompt responses involve two API calls:

- **Set Email Address for Loyalty ID** — Captures an email address and associates it with a ghost card. The `status` parameter indicates the user's email prompt preference: `deferred`, `accepted`, or `declined`.
- **Set Opt-In Status for Loyalty ID** — Captures opt-in status for loyalty program communications.

Additional information

- Set Email Address for Loyalty ID API call

Redemption

This feature lets a client or their partners redeem member points for in-store or catalogue items.

The client or partner must be able to perform real-time redemptions through the API and bulk redemptions through a batch process (both back-end and Console). Both feeds and APIs support reject handling based on the unique correlation ID.

The APIs retain the existing workflow to prevent negative balance scenarios: Inquiry > Reservation > Transaction > Finalize. Reservation does not apply to batch intake, but batch processing does not execute negative balance transactions.

Only business units and linked partners that have been enabled can redeem points. They are identified by a unique redeemer ID. Only pre-defined, enabled redemption IDs are eligible.

Examples (Redeemer ID | Redemption ID — description):

- `ClientA | Store_item_soda_123` — Redeem for item in-store or at station
- `ClientB | Catalogue_SafetyKit` — Online catalogue redemption
- `ClientC | iTravel_Jan_2023` — Unofficial partner use case

- `ClientD | Investment_Consult` — Hypothetical "Linked Partner" use case

Additional information

- Reserve for Redemption API call

Transactions

The Transactions API supports all loyalty program behavior at the POS, including base point earning, bonus point earning, point redemption, customer and receipt messaging, and prompts. It also supports programmatic ingestion of POS transaction data on a regular cadence.

Trial Activity request — Sends the current purchase transaction to ES Loyalty to retrieve a point estimate. Works with the Near-Miss Prompt feature to advise customers at POS or in e-commerce about a bonus offer or earning threshold they are close to achieving.

Finalize request — Sends a finalize activity for a user and returns details about earning, redeeming, and offer rewards for the purchase transaction. When a valid reservation token is included, the system processes the redemption.

Store and Forward (SAF) request — Sends finalized transaction details where the data was stored and forwarded. If ES Loyalty and the client POS or e-commerce storefront lose connectivity, all finalized calls should be converted to SAF for forwarding later. SAF cannot process redemptions; these are processed once connectivity is restored. SAF transactions still qualify for rewards, but the transaction date is backdated to when the offers occurred to maintain reporting accuracy.

Transactions (behavior recognition):

- POS API Send Trial Activity request
- POS API Send Finalize Transaction request
- POS API Send Store-and-Forward (SAF) request

Redemption:

- POS API Reserve for Redemption request
- POS API Cancel Redemption Reservation

Prompts:

- POS API Set Email Address for Loyalty ID request
- POS API Capture Near-Miss Prompt request

Finalize

The Finalize request finalizes an activity and returns the relevant details, including earning, redeeming, and offer rewards for the transaction.

This request sends a finalize activity for a user and returns details about earning, redeeming, and offer rewards for the purchase transaction. When a valid reservation token is included, the system processes the redemption.

In some cases, points can only be awarded after payment or fulfillment is complete, resulting in delayed transactions. Adding the confirmation object to the end of the call supports a delayed transaction that requires confirmation.

Additional information

- Finalize call in API

Store and forward (SAF)

The SAF request sends finalized transaction details for a user where the data was stored and forwarded due to a connectivity interruption.

If ES Loyalty and the client POS or e-commerce storefront lose connectivity, all finalized calls should be converted to SAF for forwarding later. SAF cannot process redemptions; these are processed once connectivity is restored. SAF transactions still qualify for rewards, but the transaction date is backdated to when the offers occurred to maintain reporting accuracy.

If a purchase by a non-loyalty account is delayed being sent into the system until after the user registers, no points are awarded — the user was not associated with a loyalty account when the purchase was made.

In some cases, points can only be awarded after payment or fulfillment is complete, resulting in delayed transactions. Adding the confirmation object to the end of the call supports a delayed transaction that requires confirmation.

Additional information

- Store and Forward (SAF) call in API

Trial

The Trial request sends the current purchase transaction to ES Loyalty to retrieve a point estimate. It works with the Near-Miss Prompt feature to advise customers at POS or in e-commerce about a bonus offer or earning threshold they are close to achieving.

- Sends a "non-finalized" activity (a transaction detail) for a user
- Returns details about what the customer would have earned if this had been sent as a real activity
- Returns the dollar difference between the amount spent and the amount that would have triggered a bonus offer or earning threshold, rounded to two decimal places
- Optional: the `callId` can be included to further identify the request in reporting; if not provided, a GUID is generated

Additional information

- Send Trial Activity call in API
- Capture Near Miss Prompt Response call in API
- Send Trial Activity call with redemption in API

Post purchase earn (POS)

This feature lets members complete post-purchase earn through a website or in-store. For example, if a member forgets to scan their loyalty card at a gas station, the printed receipt includes a barcode. The member can bring the receipt to the station attendant, who scans the barcode to award the loyalty points. Alternatively, the member can call the service desk and provide their transaction number for a Customer Service Agent (CSA) to award the points through the Member page.

Business requirements

Members can only earn one form of loyalty per transaction. For transactions without a loyalty swipe at the pump or in-store, a barcode must be printed on the receipt so the member can present it in-store to append loyalty information to the original transaction.

One possible PPE workflow:

1. The POS scans the barcode on the receipt to retrieve the original transaction and appends the loyalty information. ESI adds the loyalty information to the original transaction using the same loyalty sequence ID.
2. A reconciliation is created for the loyalty settlement. Depending on the client's systems, this can take different forms — for example, sending a dummy transaction number with a loyalty reconciliation ID. A new receipt is produced at POS to show the loyalty information, marked as a revised version of the original.
3. A time limit (for example, 7 days) may apply for how long the member has to claim their loyalty rewards.

Additional information

- Award Post Purchase Earn call in API

Adjustment

An adjustment (or partial reversal) removes some items from the original cart while leaving others, and claws back the corresponding points, program contributions, frequency offer contributions, and offer completions. Membership tier eligibility may also be adjusted.

Four API requests are available for adjustments, depending on the circumstances:

- **Adjust Points in a Basket (with Receipt)** — Deducts loyalty points based on items returned from the cart within `reversalLineItems`. The `correlationId` for the original transaction is passed in the request path. Time restrictions on how old a transaction can be may apply.
- **No-Receipt Adjustment** — Adjusts points when a transaction receipt is not available. No-Receipt Adjustments do not reference the original transaction, so original offers cannot be clawed back. Points are clawed back against Base and Base Membership offers (excluding frequency offers). Relevant program contributions are clawed back and membership tiers are adjusted where applicable.
- **Void a Transaction** — Performs a full reversal, including reversing any points earned or redeemed. Neither the original transaction nor the void appear in the member's transaction history. A void can also reverse a redemption, returning the consumed points to the member's account.

- **Confirm Delayed Transaction** — Provides confirmation details against a prior transaction that included a confirmation request. The `mode` parameter indicates the confirmation type (for example, `CART` = Full Cart Confirmation). Once the transaction is fully confirmed, ES Loyalty releases any points on hold from the original transaction, making them available on the account.

Additional information

- Adjust Points in a Basket (with Receipt) API call
- No-Receipt Adjustment API call
- Void a Transaction API call

Partner Program API suite

Use the Partner Programs API to power links between the primary loyalty program and external partners — for example, a banking partner that wants to link their credit cards to the loyalty program.

Search loyalty account

The Search Loyalty Account request lets the system search programmatically for members with partner links, using either the account loyalty ID or the unique identifier for partner links.

Returns the loyalty account ID and link status based on an email address, `loyaltyId`, or `partnerLinkIds`. Up to 25 individual emails, loyalty IDs, or partner link IDs can be searched at once. The response returns results with or without account balances.

Manage partner links (multiple accounts)

This feature lets an external client create one or more links to a single loyalty program for one or more accounts, and link to a financial partner's payment products to increase program acquisition and earn and burn opportunities. Future capabilities may include earning limits, earning rate tiers, bonus points for related behaviors, and variable earn rates by category.

The feature links a member's loyalty account to a partner's payment card so the member can earn additional points for activities related to using that card.

Additional information

- Partner API Manage Partner Links request

Issue ad hoc reward

This feature lets a client or their partners award member points in real time through an API request and response, with related reporting.

The Issue Adhoc Reward API is used by client partners and business units to issue ad hoc bonus points to members without running a promotion in Exchange Solutions. Issuers associate rewards with a reward identifier for reporting purposes. A list of valid reward identifiers is maintained through the Console.

All points awarded through this method are bonus points. Receiving members are validated as active. The reward amount can be positive or negative, must be a whole integer, and is subject to the maximum points per transaction limit set at the client or program level.

Issue ad hoc redemption

This feature lets a client or their partners redeem member points for in-store or catalogue items.

The client or partner must be able to perform real-time redemptions through the API and bulk redemptions through a batch process (both back-end and Console). Both feeds and APIs support reject handling based on the unique correlation ID.

The APIs retain the existing workflow to prevent negative balance scenarios: Inquiry > Reservation > Transaction > Finalize. Only enabled business units and linked partners with pre-defined, enabled redemption IDs can carry out ad hoc redemptions.

Examples (Redeemer ID | Redemption ID — description):

- `ClientA | Store_item_soda_123` — Redeem for item in-store or at station
- `ClientB | Catalogue_SafetyKit` — Online catalogue redemption
- `ClientC | iTravel_Jan_2023` — Unofficial partner use case
- `ClientD | Investment_Consult` — Hypothetical "Linked Partner" use case

Void transaction (partner)

This feature lets a member void a previous transaction through the Partner API, effectively undoing the original transaction including any points, offer progression, and related data.

- Validate the request
- The original transaction must belong to the same member and must not have already been voided
- The request action in the original transaction must be one that allows voiding
- If validation is required, the partner in the original transaction must match the partner in the void transaction
- The system must create the void transaction object, promotion delta object, disbursal objects, points bank update (if FIFO is enabled), member balance update, and a stamp on the original transaction indicating it has been voided

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Inbound feeds (operational)

Activity feed

This API/feed channels any type of member activity or event — for example, downloading a mobile app, using app features, writing a review, or checking in — into the ES Platform to trigger promotions, complete behavioral offers, or enrich the member's profile. The Send Activity request in the CUX API sends an activity associated with a user.

- If no `activityId` is passed in, the system generates a GUID.
- If `businessUnit` is passed in, the system evaluates offers belonging to that business unit. Otherwise, offers from any business unit are considered.

> **NOTE**
>
> A single session (`correlationID`) can process multiple activities. Each request must have a unique `activityId`.

Ad hoc redeem feed

This feed accepts ad hoc redemption data from business units or partners.

The Ad Hoc Redeem feed provides business unit and unique identifier information along with redemption data, including the redeemer type (such as `PARTNER` or `BUSINESS_UNIT`), a unique redeemer identifier, a unique redemption transaction identifier, the total redemption amount, and the unique identifier and quantity of any related catalogue items (if applicable).

Internal ad hoc redeem feed

This feed accepts ad hoc redemption data through a Console upload.

The feature must be enabled and a properly-formatted CSV file must be uploaded. For each member, the file includes a unique identifier (`loyaltyID`, `externalIdentifier`, `accountId`, or `emailId`), a session identifier (`correlationId`), a business unit, the channel (such as `APP`, `STORE`, or `ONLINE`), the redeemer type, a unique redeemer identifier, a unique redemption transaction identifier, the redemption amount, and a unique identifier and quantity for any related catalogue items.

The upload page shows the names and statuses of previous uploads, including the number of records and errors, the date, and the agent. Agents can download reject files from the Download menu.

Errors are thrown if the feature is not enabled, if any required value is missing or empty, if the reward identifier does not exist, or if the reward exceeds the set limit.

Ad hoc reward feed

This feed lets a client or their partners issue bulk bonus points via SFTP or Console upload, with related reporting.

The `ADHOC_REWARD` feed is used by client partners and business units to issue ad hoc bonus points to members without running a promotion in Exchange Solutions. Issuers associate rewards with a reward identifier for reporting purposes.

All points awarded through this method are bonus points. The reward amount can be positive or negative, must be a whole integer, and is subject to the maximum points per transaction limit at the client or program level. Rejected records are collected into an outbound feed file.

Internal ad hoc reward feed

The `INTERNAL_ADHOC_REWARD` feed file is used by Console users (such as TSAs) to issue ad hoc bonus points to members in bulk, using a CSV file uploaded to SFTP.

The feature must be enabled and a properly-formatted CSV file must be uploaded. For each member, the file includes a unique identifier, a session identifier (`correlationId`), a business unit, the channel, the issuer name, a reward identifier, and a reward amount. Errors are thrown if the feature is not enabled, if any required value is missing or empty, if the reward identifier does not exist, or if the reward exceeds the set limit.

Aggregation override feed

This feed exposes member-level aggregations configured within ES Loyalty — for example, Total Redeemed Points (calendar year), Total Eligible $ Spend (calendar year), and Total Points Earned (calendar year).

If a client migrates to ES Loyalty mid-year, aggregate values must be updated to reflect transactions that occurred outside of ES Loyalty. Historical transaction feeds do not affect aggregations.

Key areas of the feature:

1. **Historical data and aggregates** — Historical data migration feeds preload and calculate aggregates. Configuration allows flexibility for adding, overwriting, or appending values.
2. **Design considerations** — Aggregates are an internal implementation detail. The feature handles incoming data, manages date ranges, and updates existing aggregates.
3. **Separate feed for aggregates** — A dedicated feed manages aggregates, separate from membership tier feeds.
4. **Flexibility and future-proofing** — Configuration supports separate CUX API and Console functionality.
5. **Error handling and validation** — The system logs errors and warnings for configuration mismatches between account and member-level distinctions.

Supported granularity for the member override feed: `DAY`, `YEAR`, `QUARTER`, `MONTH`, and others.

Bulk account closure feed

This feed closes multiple accounts in a single batch operation, with options to zero point balances and anonymize member data.

The client provides a JSON file listing loyalty IDs for accounts to close. Using these IDs, the system closes the account, cancels related loyalty cards, removes partner links (if applicable), and removes the member from any household (if applicable). Optionally, PII data is anonymized and point balances are zeroed.

Bulk offer import feed

This feature lets clients import externally created offers — such as flyers — into ES Loyalty for behavior recognition. Instead of manually creating up to 150 offers daily in the Console, clients can export offers from their system in a supported format and integrate them efficiently.

The client system administrator provides a JSON file containing offer data, which ES Loyalty ingests. The system operates in two modes:

- **Strict Validation** — All validations must pass for every record
- **Flexible Validation** — Allows partial ingestion, skipping invalid entries while processing the rest. Flexible mode allows unknown products and stores and can be further customized by relaxing other validation rules

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Discretionary feed

The Discretionary feed adjusts a member's rewards by awarding or removing points in batch for discretionary reasons. Discretionary currency is added or removed from a member's account at the discretion of a customer service agent or other authorized personnel.

The feed includes the loyalty ID, the number of points involved, the reason for the adjustment, unique identifiers for the adjustment action, whether points are being added or subtracted, the related business unit (if any), the transaction date, and the session ID.

Common reasons for adjustments include:

- Card not swiped at checkout

- Missing points from an in-store or flyer offer
- Missing points from a digital offer
- Points reinstatement — expiry (points lost on account expiry, now being restored)
- Points reinstatement — fraud (points lost due to a fraud investigation, now being restored)
- Missing partner card bonus points
- Other adjustments to the points balance

A bulk discretionary currency issuance corrects multiple account balances in a single operation — for example, when partner card bonus points were not issued due to a technical issue.

Exclusion feed

The Exclusion feed provides information about products that are not eligible for offer rewards due to regulatory, commercial, or vendor restrictions.

There are different categories of exclusions. For example:

- Some items may be excluded due to regulations in specific jurisdictions
- Items from vendors who choose not to participate in the loyalty program
- Items on which the company decides not to provide rewards

A statement of exclusions must be available to the loyalty program member before they complete a transaction.

Historical transaction feed

Historical transaction data is loaded into ES Loyalty for use in purchase history targeting, analytical segmentation, seeding purchase data for ES Loyalty Boost, and viewing transaction history for various transaction types. All historical data is stored in Snowflake rather than the Exchange Solutions operational system.

If the data feed option is selected, the historical purchase feed is sent via Exchange Solutions' FTP site. The file goes through the normal cryptography service and is transferred to the Snowflake ADS ingestion S3 bucket. From there, the normal Snowpipe process loads the data.

The `HISTORICAL_TRANSACTION` feed receives information from the POS or e-commerce solution containing historical purchase and cart information for each retail transaction. This data covers all transactions that occurred before the loyalty program was initiated.

Issuance feed

This feed carries information from the client about member issuances such as vouchers. For example, if a client issues vouchers quarterly, they use this feed to report those issuances back into the Exchange Solutions system.

Different values can be assigned to the type of issuance — for example, `VOUCHER` or `COUPON`. Rewards can be issued in `POINTS` or `DOLLARS`, and the status can be set to `AVAILABLE`, `REDEEMED`, or `EXPIRED` for each voucher. Other feed fields include a unique identifier, business unit (optional), the issuance type and unique code, timestamp data (issued, expiry, and optional redemption dates), and any extended data the client wishes to attach. Missing required information returns an error.

Member feed (enrollment/update)

The Member feed provides full member information to the ESI platform from the client system and is used both to enroll new members and to update data for existing members.

This feed adds and updates members. Deleting and disabling users is handled through the ES Loyalty Console. The feed can be accepted once per 15-minute period. Any transactions referencing newly-enrolled members must arrive after the receipt of this file. Transactions for members without loyalty IDs can be sent with the special `loyaltyID` keyword `ANONYMOUS`.

The feed includes the unique member identifier (`loyaltyID`) along with other member details such as first and last name, birth year and date, gender, address, city, province, zip or postal code, phone number, language preference, and extended data.

Member feed (enrollment/update) enhancement

Status: Wish List

This enhancement adds data points to the Member feed to support program migration — for example, a `firstPurchaseDate` field.

This feed adds and updates members, with the same 15-minute acceptance cadence and `ANONYMOUS` transaction handling as the standard Member feed. It includes additional fields beyond those in the standard Member Feed, such as `firstPurchaseDate`, that extend the use of EMD.

Member balance update feed

The `MEMBER_BALANCE_UPDATE` feed sets up the point balance for members imported into the system and can also be used to correct balance errors after launch.

The feed must be able to set a correct member balance by adding or subtracting (negative values) from the member's account point balance. The feed includes a unique identifier, a session ID (`correlationId`), the points amount (positive or negative), and a date/time stamp.

Member extended data feed (changes only)

This feed imports supplemental member attributes — for example, employee flags, survey data, and segmentation scores.

Extended data is optional, program-specific member data used for offer targeting (for example, an analytical segment) or accessed by a CSA or salesperson through the Console (for example, a customer's shirt size). Any key-value pair is allowed, but the maximum data size per customer is 5 kilobytes, with up to 20 unique root-level keys across all members. Attributes must be declared by an ESI TSA before they can be used by the client.

The feed supports up to 20 attributes available for use by the client and Exchange Solutions. EMD supports audience targeting, reporting, and can also be used in Boost in future.

Member household feed

This feed adds or removes member households — groups of members who aggregate rewards for redemption.

Each household has one Primary member and one or more Secondary members. If the Primary member is removed, the household is disbanded. If a Secondary member is removed, the household continues.

The feed includes unique identifiers for the Primary and one Secondary household member, an action (`ADD` or `REMOVE`), and a date/time stamp.

- `"action":"ADD"` — If only the `primaryLoyaltyID` is passed, the household is created and that member becomes Primary. If both `primaryLoyaltyID` and `secondaryLoyaltyID` are passed, the household is created with one Primary and one Secondary member.
- `"action":"REMOVE"` — If only the `primaryLoyaltyID` is passed, the household is disbanded. If both IDs are passed, only the Secondary member is removed. The Primary member's household ID must match the Secondary member's household ID or the request is rejected.

Note: neither type of member may be associated with a ghost (unregistered) account.

Membership tier feed

The `MEMBERSHIP_TIER_FEED` identifies the tier associated with a member and is used to create and configure the membership tier program.

The feed provides customer profile data, including loyalty and program ID, the program code (a tier program description), the member's rank in the tier program, and their start date.

Partner feed

The Partner feed identifies client partners with which a member is associated and executes a linking activity such as `Add` or `Delete`.

All fields in the feed are required — an error is thrown if any field is missing or empty. The feed includes a unique identifier, the last four digits of the payment card number, the card holder class, the partner card linking activity, a date/time stamp, and the name of the partner providing the payment card.

Partner link feed

The `PARTNER_LINK` feed imports bulk partner linking data for multiple members.

The feed lets clients define the operation for each member: add, remove, update, or no operation. It uses unique identifiers for the member and optionally for the linked partner card (using "last 4" or `linkId` depending on configuration) and the Bank Identification Number (BIN) of the partner card. Date/time stamps are applied. Optional metadata about the partner card link and the type of linked card (such as `PAYMENT_CARD`) may also be included.

The return feed delivers error messages for rejections, primarily for missing or empty required values.

Product feed

The `PRODUCT_FEED` provides data from the product catalog, including product definitions, categorization (for category, brand, or department offers), and pricing (for offer economics).

The product feed can be sent once per day. It includes standard product codes (by identified type such as GTIN), product names, status (for example, in stock or out of stock), categorization, vendor details, related dates (such as the first date in the catalog), and Extended Data specific to the client that extends their product data profile but is not used by the ESI platform.

Redemption feed

This feed redeems points in batch for a list of members — for example, for redemption issues manually managed by the retailer or for non-POS redemptions.

Points may not be redeemed correctly if, for example, a POS interface issue prevents redemption transactions from being properly transmitted, or if the retailer wants to issue the value of those points to members as gift cards. A bulk redemption applies the remedy to multiple accounts in a single operation.

Store location feed

The `STORE_FEED` provides data about retail store locations for targeting purposes.

The feed provides a store name, country code, province, retail banner (for example, an outlet banner for a chain with multiple banners), and a store code. It can also include extended data specific to the client and the business unit (division) to which the store belongs.

Transaction (purchase) feed

The `PURCHASE_FEED` provides transaction details from the POS or e-commerce solution, including purchase and cart information for each retail transaction. It is accepted frequently to keep data up to date.

The feed can be accepted up to once per 15-minute period. Key rules:

- Any external member IDs referenced in the file must have already arrived in the `MEMBER` feed, or the record is rejected.
- If a `MEMBER` record referenced in the file does not exist in ES Loyalty, the record is rejected and reported in the `REJECT` feed.
- Transactions for non-loyalty members can use the special `loyaltyId` value `ANONYMOUS`. Anonymous transactions are accepted without a corresponding `MEMBER` record.
- A `REJECT` or `REWARD` return feed is generated for records that meet the relevant criteria.

Vendor feed

The `VENDOR_FEED` enumerates third-party vendors that supply products to the business and may participate in the loyalty program. This feed is used for reporting purposes only.

The feed includes the vendor ID number, the human-readable vendor name, and, if applicable, the business unit within the company associated with that vendor.

Outbound feeds (operational)

FIFO auto-redeem or FIFO auto-expiry feed

> **NOTE**
>
> This feed is not available to all new clients. A data warehouse feed is used instead.

The `FIFO_AUTO_REDEEM` or `FIFO_AUTO_EXPIRY` feed contains accounts and their First In First Out (FIFO) auto-redeemed or automatically-expired points.

- **`FIFO_AUTO_REDEEM`** — For the automatic redemption of points a set time after they were earned, the client can use this feed to send gift cards containing the redeemed value to those members. This report is generated only if the `fifoType` is `REDEEM` for the client.
- **`FIFO_AUTO_EXPIRY`** — For the automatic expiry of points a set time after they were earned, the client can use this feed to sweep the points from the member account. This report is generated only if the `fifoType` is `EXPIRY` for the client.

The feed provides unique identifier information for each FIFO operation, along with ISO 8601 and Epoch date/time stamps, the points and dollar amount, and the transaction ID.

Offer data feed

> **NOTE**
>
> This feed is not available to all new clients. A data warehouse feed is used instead.

The `OFFER` feed communicates offers to the client's email service provider or for other customer messaging purposes (such as push notifications). The feed includes targeted offer changes, offer template changes, and reward tracking and user stampbook changes. It provides the acceptance state of each offer (`NONE`, `ACCEPTED`, `COMPLETED`) and detailed data about the offer itself.

The `OFFER` feed is an outbound delta feed that provides offer information to an external email service provider.

Offer targeting details (`recordType` = `OFFER_TARGET`): Includes acceptance date/time stamps, the accepted state, and a unique account identifier. Also includes date/time stamps for when the offer became effective, was completed, and expired, a completion count, the loyalty ID and email address for the member, a unique offer identifier, the record type, control group information, and a version number.

Offer template details (`recordType` = `OFFER_TEMPLATE`): Includes display, effective, and expiry date/time stamps, offer start and end dates, marketing program identifiers, the activation method (`MASS` or `LOAD-TO-CARD`), the product category and subcategory, vendor funding status, offer version, reward type (`FLAT`, `BONUS`, or `MULTIPLIERS`) and amount, embedded local messages, a unique offer code, offer status, qualification type (static or dynamic), maximum completions, and offer rank (priority).

Scheduled member marketing feed

> **NOTE**
>
> This feed is not available to all new clients. A data warehouse feed is used instead.

This feed communicates member data to the client's email service provider or for other customer messaging purposes.

If there is a spend threshold and it has not been met, the on-hold amount equals the current account balance. If there is no spend threshold, or it has been met, the on-hold amount equals the number of points on hold.

Only accounts in good standing with a `LoyaltyID` are included. The following are excluded:

- `AccountStatus` = Closed, Deceased, or Cancelled
- `CardStatus` = `NON_LOYALTY`
- Accounts without an `emailAddress`

The feed includes unique identifiers, loyalty ID and business name, comprehensive member information (email, name, language preference, localization flag), program participation data (tier, opt-in, LAD, point and dollar balance, account suspension and expiry flags), and member statistics (total rewards and redemptions, total eligible spend by month and year).

Scheduled report reject feed

The `REJECT` feed provides information about records rejected from any other feed.

For each inbound feed file with one or more records that could not be uploaded or processed, the Reject feed provides:

- Header file information indicating the file name, number of successful records, and number of failed records
- If a file completely failed to upload: details about the attempted inbound feed and the reason for failure
- If only some records failed: details about each rejected record, including the original JSON request, a unique identifier for the failed record, technical rejection reason, record status (always `REJECTED`), the source file name, the failure reason code, and a user-friendly message

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Scheduled report reward feed

> **NOTE**
>
> This feed is not available to all new clients. A data warehouse feed is used instead.

The `REWARD` feed communicates points information for reconciliation purposes or to support an external point bank.

This feed reports rewards provided to members. It includes the loyalty ID, a correlation ID for the original transaction, details about points earned and their categories (base, bonus, targeted, and total), and information about the related offer (unique offer code, description, points earned, and category).

The following transactions are not included in the `REWARD` feed:

- Anonymous POS transactions
- Activity transactions that did not earn points

Scheduled burn reconciliation feed

> **NOTE**
>
> This feed is not available to all new clients. A data warehouse feed is used instead.

This reconciliation feed extracts all currency bank activity for audit, reconciliation, financial reporting, and backup purposes. Detailed transaction data is sent to the partner to reconcile against the system of record.

Detailed transaction data includes unique transaction identifiers, card numbers, transaction amounts, terminal information (for POS transactions), and points earned and redeemed.

The client process identifies unreconciled activity and escalates it to ESI. A standard set of outbound data feeds also lets partners reconcile against program metadata (such as product, promotion, and offer data). In the absence of a transaction-level reconciliation process, aggregate data can be sent for reconciliation purposes.

Scheduled earn reconciliation feed

> **NOTE**
>
> This feed is not available to all new clients. A data warehouse feed is used instead.

This reconciliation feed extracts all currency bank activity for audit, reconciliation, financial reporting, and backup purposes. It provides transaction-based reconciliation reporting for each specific earn transaction.

Details are provided for each specific earn transaction.

Account and loyalty card feeds (DWH)

Account feed

The Account feed stores customer state for each card account. Note that the Available Point Balance does not account for daily redemption limits — an additional `RedeemablePointBalance` value is required for this purpose.

The Account feed provides:

1. The unique account identifier and status
2. The version number and date for the last update in the data table
3. The created, registration, and last updated dates for the account
4. A unique ID for a loyalty card associated with the account, along with the card status (`ACTIVE`, `SUSPENDED`, `LOST_OR_STOLEN`, `DAMAGED`, `FRAUD_ABUS`, `CANCELLED`, or null)
5. A Boolean switch indicating whether the POS operator should ask for the customer's email address
6. Current total and available point balances, and whether the customer is a client employee
7. A card swipe counter indicating how many times cards on this account have been swiped
8. An external identifier used by the client (if any)
9. The registration channel (for example, `APP`, `WEBSITE`, `STORE`)
10. Customer information: first and last name, email address, city, postal or zip code, street, province or state, and country
11. The name of the agent making profile changes
12. The channel through which a profile change was made (`POS`, `SYSTEM`, `CLIENT`, or `AGENT`)

Loyalty card feed

The `loyalty_card` table lists each historical loyalty card an account has had, including the current card number.

The Loyalty Card feed provides:

1. A unique ID for the loyalty card
2. The version number and date for the last update in the data table
3. The unique account identifier
4. The card status (`ACTIVE`, `SUSPENDED`, `LOST_OR_STOLEN`, `DAMAGED`, `FRAUD_ABUSE`, `CANCELLED`, or null)
5. The created, issued/registered, and last updated dates for the loyalty card

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Activity feed (DWH)

Lists account activity including audit details, activity status, any related transaction ID, and date/time and activity data.

The Activity feed provides:

1. The account ID associated with the token
2. A unique activity identifier
3. The version number and version date of the activity update
4. The activity type — for example, `FIRST_TIME_LOGIN`
5. The associated unique identifier for the loyalty card
6. Audit details for the activity
7. The activity status — for example, `REWARDED`
8. The transaction ID linked to the activity
9. Any additional activity data
10. The date/time stamp for when the activity occurred

Account token feed

Contains point reservation tokens associated with an account. Points are reserved in a separate API call from the point redemption.

The Account Token feed provides:

1. The account ID associated with the token
2. The token itself
3. The version number and version date of the account token update
4. The date/time stamps for when the token was created and when it will expire
5. The number of points reserved by this token

Payment card link feed

Contains partner payment cards linked to loyalty accounts, along with the status and metadata of the partner payment card.

The Payment Card Link feed provides:

1. The unique account identifier
2. A unique identifier for the partner associated with the payment card (for example, `MEGABANK`)
3. The last four digits of the payment card number
4. The version number and date for the last update, and the date and time when the version expired
5. The created, last updated, linked, and unlinked date/time stamps; if the card was linked or unlinked more than once, the linked stamp refers to the most recent instance
6. The link type: `PAYCARD_LAST4` or `PAYCARD`, depending on how the payment card is identified
7. The type of card holder: Retail or Business
8. The type of payment card: `C` (credit) or `D` (debit)
9. A unique link ID when the link type is `PAYCARD`
10. The current status of the linked payment card
11. A Bank Identification Number (BIN) — the first 4–6 digits on the payment card identifying the issuer

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Partner card link feed

Contains partner payment cards linked to loyalty accounts, along with the status and metadata of the partner payment card.

The Partner Card Link feed provides the same fields as the Payment Card Link feed, with the addition of a current status field that indicates `LINKED` or `UNLINKED`.

Scheduled member marketing feed (DWH)

This feed communicates member data to the client's email service provider or for other customer messaging purposes.

Same structure as the operational Scheduled member marketing feed. Accounts that do not meet the inclusion criteria (active status, loyalty ID, and email address) are excluded.

Scheduled burn reconciliation feed (DWH)

This reconciliation feed extracts all currency bank activity for audit, reconciliation, financial reporting, and backup purposes. It provides transaction-based aggregated point reconciliation reporting for redemptions.

The feed includes enhanced validation to verify critical data against other reliable sources. Exchange Solutions uses an internal reconciliation process because it is not the System of Record (SoR) for many clients.

The feed checks for `TRANSFER_OUT`, `REDEEM`, or `HOUSEHOLD_REDEEM` transaction parts to identify burn transactions. Snowflake does not enforce data uniqueness, so duplicates are possible — ongoing checks are in place to detect duplicates and fail a data transfer process if they are found. Due to the enhanced validation process, validated data may not be available for several days.

Detailed transaction data includes unique transaction identifiers, card numbers, transaction amounts, terminal information, and points earned and redeemed.

Scheduled earn reconciliation feed (DWH)

This reconciliation feed extracts all currency bank activity for audit, reconciliation, financial reporting, and backup purposes. It provides transaction-based aggregated point reconciliation reporting for rewards. Enhanced validation is used to verify critical data against other reliable sources.

The feed includes all transactions along with the number of points earned. Snowflake does not enforce data uniqueness, so ongoing duplicate checks are in place. Validated data may not be available for several days due to the enhanced validation process.

Details are provided for each specific transaction.

Transactional data feeds (DWH)

Session feed

A session is a series of API calls made in the context of a single customer interaction — for example, a checkout at POS or a single login to a web or app. The primary key is provided by the system initiating the session.

The Session feed provides:

1. A unique session identifier
2. The version number and date for the last update in the data table
3. A unique account ID and a unique loyalty card ID
4. A Boolean tracker to identify if the card was swiped or keyed in
5. The source channel: `POS`, `MOBILE`, `WEB`, `CONSOLE`, `SYSTEM`, `APP`, or null
6. Points redeemed and earned in the session, and the point balance at the start of the session
7. The net difference in points that occurred during the session
8. The status (`OPEN` or `CLOSED`) and the date/time stamp of the session start

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Transaction feed

A transaction represents any point earning or point spending event — essentially a customer's point banking statement.

The Transaction feed provides:

1. A unique transaction identifier
2. A unique account identifier
3. The source channel: `POS`, `MOBILE`, `WEB`, `CONSOLE`, `SYSTEM`, `APP`, or null
4. A unique store identifier
5. The eligible transaction amount
6. A Boolean to track why a zero-point transaction occurred
7. The account status (`ACTIVE`, `EXPIRED`, `SUSPENDED`, `DECEASED`, `CLOSED`, `CANCELLED`, `UNREGISTERED`, or null)
8. A Boolean to track whether the account is eligible to earn
9. The default loyalty card status
10. The date/time stamp for when the transaction was processed
11. The API call that triggered the reward calculation
12. The dollar amount of the basket or cart
13. The date/time stamp for the POS transaction (may be backdated for SAF calls)

14. The net point amount, balance after the transaction, and balance before the transaction
15. The agent and reason if discretionary points were awarded
16. The opt-in prompt result from the POS (`deferred`, `declined`, `accepted`, or null)
17. The email prompt result from the POS
18. Base points and bonus points earned, excluding partner points
19. Total targeted points earned, excluding loyalty targeted points
20. Discretionary points earned
21. Total points redeemed and the redemption dollar value
22. Partner ID, partner base and bonus points earned, and partner targeted points earned
23. A call ID — a unique identifier generated internally if missing from the transaction
24. The agent name if a profile update was made
25. The transaction and account IDs associated with transferred points

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Transaction_Tender feed

A transaction represents any point earning or point spending event. The tender type is the payment method — for example, `VISA`, `CASH`, `DEBIT`, `COUPON`, `MASTERCARD`, or `AMEX`.

The Transaction_Tender feed provides:

1. The unique transaction identifier
2. A unique identifier for each tender object
3. The tender type: `VISA`, `CASH`, `DEBIT`, `COUPON`, `MSTCARD`, or `AMEX`
4. The first six digits of the payment card number (null if not sent)
5. The last four digits of the payment card number (null if not sent)
6. The type of card holder: Retail or Business
7. The payment card type: `C` (credit) or `D` (debit)
8. The amount paid by this payment card
9. An identifier for any linked partner (or null if not applicable)
10. A call ID — generated internally if missing from the transaction
11. A Boolean to indicate if this account is associated with a link ID

Transaction_Promo_Audit feed

Contains details about the promotions recognized in a transaction.

The Transaction_Promo_Audit feed provides:

1. A unique promotion transaction identifier used to join this data with associated details
2. The transaction ID this audit is linked to
3. The client-specific reporting identifier associated with the promotion
4. A promotion description — for example: "Get 500 bonus points when you spend more than $20."
5. The unique offer code — for example: `008GET500`
6. The version of the promotion used in this transaction
7. A unique name for the promotion tier, if applicable
8. The number of points provided as a reward
9. The customer spend eligible for the reward
10. A message associated with the audit — for example: "EXCLUSION: User is not targeted for this promotion."
11. The number of items recognized by the promotion
12. The promotion category: `BASE`, `BONUS`, or `TARGETED`
13. The unique partner identifier — for example: `MEGABANK`
14. A call ID — generated internally if missing from the transaction

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Transaction_Promo_Audit_Detail feed

Contains further details about a specific `TransactionPromoAudit`.

The Transaction_Promo_Audit_Detail feed provides:

1. A unique promotion transaction identifier used to join this data with associated details
2. The transaction ID this audit is linked to
3. The spend associated with this item
4. The number of items considered
5. The unique identifier of the item considered
6. The type of item considered — for example: `SKU`

7. The number of points disbursed for an individual SKU for a specific offer; data type is float, as individual points can be split between products in the basket
8. A call ID — generated internally if missing from the transaction

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Promotion and targeted offer data feeds (DWH)

Targeted_Offer feed

A list of available targeted offers attached to an account.

The Targeted_Offer feed provides:

1. The account ID targeted
2. A code indicating the promotion to which this offer belongs
3. A sequential version number and the date/time stamp for when the offer version took effect
4. The version of the offer
5. The version of the offer being accepted
6. The current acceptance state: `NONE`, `COMPLETED`, `DECLINED`, or `ACCEPTED`
7. The number of times the offer has been completed
8. The date/time stamp for when the offer becomes active
9. The date/time stamp for when the offer expires
10. The maximum number of times this offer may be completed
11. The date/time stamp for when the offer was last completed
12. The date/time stamp for when the offer was accepted

Live_Promotion feed

A list of promotions that are currently active — that is, whose `EffectiveDate` and `ExpiryDate` bracket the current date.

The Live_Promotion feed provides:

1. A unique identifier for the offer
2. The version of the promotion
3. A sequential version number and the date/time stamp for when the offer version took effect
4. The date/time stamp for when activation of the promotion took place
5. The date/time stamp for when approval took place, and the approving user
6. The version this promotion was based on
7. The valid channel for the offer: `POS`, `MOBILE`, `WEBSITE`, `CONSOLE`, `SYSTEM`, `APP`, `WEB`, or null
8. The date/time stamp for when the promotion becomes active
9. The date/time stamp for when the promotion expires
10. The promotion status: `ACTIVE` or `EXPIRED`
11. The submission date/time stamp and the submitting user
12. The promotion category — for example: `PROMO`
13. The promotion sub-category — for example: `BONUS`
14. The activation method: `MASS` or `LTC`
15. A Boolean to indicate whether global exclusion rules are disabled
16. A long description of the promotion
17. The name of the promotion
18. The rank of the promotion
19. An associated award group
20. The sections of the promotion description
21. A Boolean to indicate whether the promotion is vendor-funded
22. A Boolean to indicate whether the promotion is dynamic

Promotion_Tier feed

Represents the reward tiers applicable to a given promotion.

The Promotion_Tier feed provides:

1. A unique identifier for the offer
2. The version of the promotion

3. A sequential version number and the date/time stamp for when the offer version took effect
4. A unique name for the tier
5. The precedence of the tier (evaluated in ascending order)
6. The number of points or a point multiplier
7. The reward type: `FLAT` or `MULTIPLIER`
8. The tier threshold category: `SPEND` or `UNIT`
9. The tier threshold sub-category: `AMOUNT` or `COUNT`
10. The tier threshold type: `MIN`, `MAX`, or `PER`
11. The actual value of the tier threshold

Promotion_Metadata feed

Contains client-provided reporting metadata for a given promotion.

The Promotion_Metadata feed provides:

1. A unique identifier for the promotion
2. The version of the promotion
3. A sequential version number and the date/time stamp for when the offer version took effect
4. Two different tags for grouping promotions, and a description of a promotion-grouping event
5. A client-specific reporting identifier associated with the promotion
6. The number of days the offer is active for each user
7. The number of times this offer can target a user
8. The action carried out by the activity — for example: `MEMBER_REGISTRATION`

Household feed

Provides daily changes made to a household account by any household member.

The Household feed provides:

1. A unique account identifier
2. A unique household identifier

3. The member's role in the household: `PRIMARY` or `SECONDARY`
4. The date/time stamp for when the member joined the household
5. The unique identifier for the inviter
6. The user agent that made the household update
7. The channel where the change was made — for example: `POS`

Frequency_Offer_Progress feed

This feed lets clients track progress on frequency offers so that timely email communications can be sent to increase customer lifetime value.

Examples:

1. "Jane Doe is 1 transaction away from completing the offer: 'Purchase 2 Mars bars in 2 separate transactions'."
2. "James Doe, you are only $10 away from completing the 'Spend $50 in any transaction to earn 3,000 points' offer."

Requirements include:

1. Tracking frequency offer progress in the feed for both spend amount and quantity
2. A Data Warehouse feed containing the necessary attributes to track frequency offer progress

The Frequency_Offer_Progress feed provides:

1. A unique account identifier
2. The account identifier type (`ACCOUNT_ID` or `LOYALTY_ID`)
3. A unique promotion code — for example: `TIER_PROGRESSION_OFFER_TIER2`
4. A description of the promotion — for example: "Spend $100 to get 3,000 points."
5. The date/time stamp for when the offer version took effect
6. The date/time stamp for when the offer version expires
7. The number of times the offer was completed
8. A Boolean to indicate if the completion limit was reached
9. The maximum number of completions allowed
10. The count of rewards earned per completion

11. The offer type: `SPEND` or `QUARTERLY`
12. The balance needed to reach the spend threshold
13. The total amount spent on the offer
14. The amount spent above the threshold
15. A list of transactions associated with the offer
16. The completion percentage based on the contribution type

Product_Spotlighting feed

A list of available targeted offers attached to an account, enhanced to support product spotlighting and compliance.

This feature enhances DWH feeds to include product identifiers for eligible products. It supports compliance traceability — for example, allowing compliance auditors to verify that the organization has a record of product identifiers (usually SKUs, but potentially UPC or GTIN) for each offer, enabling appropriate reports for stakeholders to refine marketing campaign parameters.

The feed returns a list of product identifiers and matching aliases for active offers only. Aliases are returned only if data volume is not excessive.

The main source of the feed is the cart selector within the promotion table. The cart selector JSON is converted into a list of eligible products. If a CSV file of eligible products was uploaded in the Console, that list is used directly.

The feed is provided through a daily upload or through Snowflake synchronization. Redemption offers and category redemption offers are included; activity offers are not. The feature can be fully enabled or disabled per client. The product code and product code type are also configurable (`UPC`, `SKU`, `GTIN`, or another identifier).

Fulfillment feeds (DWH)

Blackhawk Network direct deposit feed

This feed supports loyalty programs that allow points to be redeemed for cash, applied as a direct deposit. Payment data is sent through the Blackhawk Network.

Clients currently receive a file with bank account details and redemption amounts, which they send to a third-party payout processor. Exchange Solutions replicates this functionality using Blackhawk Network as the processor. Signing a partnership agreement with Blackhawk Network is required.

For US clients, the Blackhawk file format includes the email address and reward amount. BHN sends emails to members to collect their banking details. Members click the link, provide their banking details, and BHN completes the fund transfer.

Fulfillment direct deposit feed

This feed supports loyalty programs that allow points to be redeemed for cash, applied as a direct deposit.

When this option is selected, the Direct Deposit file is generated and retrieved by the client, who then sends it to a third-party payout processor to complete the fund transfer. The file is generated by Exchange Solutions on a configured weekly cadence. The client retrieves the file from ES Loyalty and initiates transfers using their payout processor software as part of back-office operations.

Fulfillment statement credit feed

This feed supports B2B loyalty programs that allow points to be redeemed for cash applied as a statement credit to reduce payment required for products purchased.

When this option is selected, a statement credit file is generated. The client uses this file and processes the statement credit through their internal business process.

Phone number enablement

Business definition

This feature supports SMS marketing for loyalty program members. SMS marketing delivers high member engagement, increases revenue and average order value, and is the most direct way for members to engage with time-sensitive information in real time. It complements other marketing channels and improves member loyalty and engagement.

Salesforce Marketing Cloud (SFMC) integration

Trigger email send

This feature triggers an email to a member when a specific event occurs — for example, if a member has a linked partner payment card, they may receive an email detailing the transaction if they used the card, or a reminder about card benefits if they did not.

This feature triggers emails to members through Salesforce Marketing Cloud (SFMC). Messages can also be triggered for events such as enrollment, first login, account adjustments, point redemption, voiding a redemption, frequency offer progress, account suspension, badge earned, partner linking, member household updates, and imminent points expiry.

ESP data sync

Syncs with SFMC directly when any of the following occur: account updates, opt-in preference changes, promotion template attribute changes, targeted offer reward tracking and completion status, and partner link status.

A set of marketing integrations synchronize key data from ES Loyalty with a marketing provider to support transactional emails and business email campaigns. Three integration modes are supported:

1. **Near-realtime integrations** — Two capabilities:
    - *Transactional emails* — Triggered when specific ES Loyalty actions occur (for example, registration confirmation, redemption, partner linking/unlinking, points transfer, password reset, email address update)

- *Low-latency data sync* — Two sub-modes:
  - *Push* — Keeps the marketer's data current with changes in ES Loyalty, including member profile updates, opt-in management, promotion maintenance, targeted offer tracking, and partner link status
  - *Pull* — Retrieves opt-in preferences, partner link status, and other member settings from the marketer

2. **Batched, file-based synchronization** — Generates files on a schedule (time- or size-based) containing changes across the entire member population. Files are sent to an SFTP site at the marketing provider or used to invoke a bulk import/export API. Currently supports Push operations only.

3. **Snowflake Secure Data Sharing** — Allows data ingested or derived in an ES Snowflake instance to be securely shared with a client's Snowflake instance. This is not near-realtime — operational data is gathered in an S3 bucket and ingested into Snowflake on a schedule (typically daily). This enables bulk refreshes and allows the client to use this data across any system that can integrate with their Snowflake.

Sync aggregations

This feature synchronizes member aggregations from ES Loyalty to Salesforce Marketing Cloud through the Data Integration Gateway (DIG). It enables aggregated loyalty data — for example, monthly points earned and yearly spend amounts — to be transmitted to SFMC in near real time.

The enhancement is implemented within DIG and available for use with the SFMC Connector. Additional work may be required to support this capability across other connectors. Member aggregations sync automatically when the feature is enabled.

1. Aggregated member data is synchronized from ES Loyalty to SFMC when the feature is enabled
2. Synchronization occurs in near real time
3. Aggregations are based on the Exchange Solutions Aggregations framework, rolling up member transactions across defined time granularities (for example, monthly and yearly)
4. Implementation effort may be required for other ESP connectors

This feature enables marketers to perform richer customer segmentation, create personalized campaigns using aggregated loyalty metrics, and execute behavior-driven audience strategies using multiple time granularities.

Sync issuance/vouchers

This feature synchronizes voucher data from ES Loyalty to Salesforce Marketing Cloud through the Data Integration Gateway (DIG). It transmits voucher data to SFMC whenever voucher data is updated, supporting outbound communications and campaign execution.

The enhancement is implemented within DIG. Additional work may be required to support this capability across other connectors. Voucher data syncs automatically when the feature is enabled.

1. Voucher data is synchronized from ES Loyalty to SFMC when the feature is enabled
2. Synchronization is triggered whenever voucher data is updated (via the issuance feed)
3. The feed includes voucher lifecycle events: `AVAILABLE` → `REDEEMED` → `EXPIRED`
4. Implementation effort may be required for other ESP connectors

This feature enables marketers to notify members on voucher status, send reminders for vouchers nearing expiry, and leverage behavioral strategies such as loss aversion to increase engagement.

Email native integration (via Data Integration Gateway)

This feature provides bulk and triggered loyalty data to support email messages about redemption, offers, partner linking, points transfer, badges, point expiry, and other email types.

ES Loyalty has native integration with SFMC that supports core loyalty marketing communications, including both batch and near-realtime integrations. Exchange Solutions can trigger communications through SFMC based on the state of the client's offers, including current offers, reminders, and confirmations.

SMS native integration (via Data Integration Gateway)

This feature provides bulk and triggered loyalty data to support SMS messages about redemption, offers, partner linking, points transfer, badges, point expiry, and other SMS message types.

The integration between Exchange Solutions and SFMC manages SMS subscriptions for members. A data extension tracks loyalty members' phone numbers based on their marketing SMS sign-up numbers, capturing both registered and unregistered activities and new sign-ups classified as non-loyalty accounts. ES Loyalty reads and writes to this data extension to manage SMS subscriptions. An automation in SFMC updates subscription status from the SFMC mobile connect module back to this data extension every 20 minutes in production.

Marketo integration (via Data Integration Gateway)

Full native integration

Trigger, bulk, and enablement integration for standard ESP-loyalty functionality.

- Use existing file generation and translate file entries to marketing bulk API calls
- Introduce a new module for ESP integration, starting with Marketo as the first ESP
- Completely decoupled from Loyalty — begin by syncing promotional offers to ESP
- Respects ESP service limits and resumes after hitting them
- Future scope: decouple remaining ESP integration points (triggered send, etc.) per ESP provider
- Does not currently account for syncing extended member data

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DotDigital integration (via Data Integration Gateway)

Trigger email send

This feature triggers an email to a member when a specific event occurs — for example, if a member has a linked partner payment card, they may receive an email detailing the transaction if they used the card, or a reminder about card benefits if they did not.

This feature triggers emails through Dot Digital. Messages can be triggered for events such as enrollment, first login, account adjustments, point redemption, voiding a redemption, frequency offer progress, account suspension, badge earned, partner linking, member household updates, and imminent points expiry.

Optimove integration (via Data Integration Gateway)

Native integration

Trigger individual data sync to support summary and journey-type email campaigns, and bulk data transfer focused on targeted offers.

Exchange Solutions has a partnership with Optimove, a science-first marketing relationship hub. For practical purposes, Optimove can be considered a platform with combined CDP, CRM, and ESP capabilities. This partnership benefits joint clients by combining ESL's strength in offer personalization with Optimove's strength in orchestrating CRM journeys.

ESL leverages Optimove's CDP and ESP capabilities by:

1. Syncing loyalty data points to Optimove
2. Supporting personalized loyalty email communications sent via Optimove
3. Syncing promotional offers and member interactions with promotions to Optimove

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Email Service Provider (ESP) integration

Email integration — member synchronization

This enhancement to the feed tracks progress of frequency offers to provide marketers with additional channels for sending timely communications to increase customer lifetime value.

The feature lets clients track frequency offer progress so that email communications can be sent — via the client's existing ESP integration — to inform members of their offer progress.

Examples:

1. "Jane Doe is 1 transaction away from completing the offer: 'Purchase 2 chocolate bars in 2 separate transactions to complete the offer.'"

2. "James Doe, you are only $10 away from completing the 'Spend $50 in any transaction to earn 3,000 points' offer."

Two outbound feeds support ESP communication:

- **Offer Feed** — Provides offer template data, information about members who receive those offers, and progress toward completing them (including frequency offers)
- **Member Marketing Feed** — Provides member profile and program data

Use case 1: As a marketer, I want to use the offer feed to track frequency offer progress in both spend amount and quantity.

Use case 2: As an analyst using the data warehouse feed, I want to track frequency offer progress in both spend amount and quantity.

Email integration — targeted offer data synchronization

This feature provides necessary promotion data — including point balance, offer details, and targeting — from ESI to be consumed by an ESP (for example, SFMC) to enable outbound communications. The `OFFER` feed communicates offers to the client's ESP or for other customer messaging purposes. It provides the acceptance state of each offer and detailed offer data. Offer acceptance is expected to take place through the Customer Experience API. The enhancement includes frequency offer progress.

The feed is generated every 15 minutes, or whenever 50 MB of data is generated, whichever comes first.

Email integration — extended member data synchronization

Extended member data attributes are synced from ES Loyalty into SFMC for targeting or content personalization. This is optional, program-specific consumer data that can be used for offer targeting (for example, an analytical segment) or accessed by a CSA or salesperson from the Console (for example, a shirt size).

Any key-value pair is allowed (camel case naming convention is strongly recommended), but the maximum data size for extended data per consumer is 5 kilobytes, with up to 20 unique root-level keys across all members.

Agents can also view Extended Member Data for individual members on a per-member basis in the Console.

Email integration — individual data sync (API/feed)

This feature provides event trigger type and targeting data from ESI to an ESP for outbound communications. It must be able to trigger specified emails to relevant members in an ESP based on an event in ESI — for example, a redemption.

When a user performs a redemption, they receive an email informing them of the redeemed amount (in dollars, for Kent), the store number where the redemption was made, and the date and time of the redemption. An account must be registered to redeem and therefore must be registered to receive a redemption transactional email.

Modular ESP integrations

This feature enhances the ease and depth of key integrations across marketing platforms and ESPs.

Exchange Solutions has identified generalizable patterns across marketing platforms (such as Marketo and Selligent) and ESPs. The goal is to develop standard approaches for triggering scheduled and event-triggered emails to loyalty program members, requiring as little custom work as possible per platform.

Two integration patterns:

Triggered sends:

- A user activity generates an event that immediately triggers an email to that user
- Specific to user behavior
- Works on a single channel (email only)

Marketing feeds:

- A user uploads a file containing campaign information to SFTP
- The file is processed and ingested into SFMC
- An email blast is sent to all users identified in the campaign

Triggering data can be sent through an outbound feed or through an API.

Data migration

Member migration

Data migration is the preparatory phase of onboarding a new client, in which existing member data from their current loyalty program is moved into ES Loyalty or another app.

Data migration includes moving the following data into ES Loyalty:

- One-time migration of loyalty card numbers (possibly through the existing card loading mechanism in ESL)
- Member data — enhanced member feed
- Ghost card accounts — This is to be decided by the technical team handling the data migration
- Last activity date — new feed
- Point balances — new feed
- Householding data — new feed
- Partner linked data (financial or non-financial partner) — existing Partner Feed or Partner Programs API
- New card number generation (after cut-off period) — enhancement needed to ensure newly generated card numbers are net new

Transaction migration

Data migration of selected historical transaction (purchase history) data — typically 1–3 years — from the legacy system to ES Loyalty.

Depending on client requirements and feasibility, the migration may include 1–3 years of historical transaction data, potentially including:

- Partner linked data transaction history
- Loyalty data transaction history

- Ghost card data transaction history
- Non-loyalty data transaction history (for analytics purposes)

Data sync

Member sync

This syncing can occur both during and after the program transition and migration period.

As part of the Suncor migration to the ES Loyalty platform, member data must remain consistent across three phases:

Pre-Production Data Migration (t0)

During this phase, when `SOR` is `false`, the following feeds are used to migrate and update members and household data:

- Member feed
- Member Household feed

Transition Period (t1)

`SOR` remains `false`. The client calls API endpoints to perform the following actions:

- Member enrollment
- Update member profile
- Suspend or reinstate an account
- Add or remove household
- Change card status
- Replace card
- Partner linking

In this phase, the `loyaltyId` passed in requests may or may not already be registered in ES Loyalty, and the system handles both scenarios correctly.

Production (t2)

All features from the previous phase work as standard.

Transaction sync (inbound)

This feature supports inbound transactions into ES Loyalty from pre-cut-over sites during a client onboarding, prior to cutting over to ES Loyalty.

A generic transactions API was created to accept inbound transactions from pre-cut-over sites. As part of this API:

- A new session is started (System)
- The transaction model is constructed based on the request body
- The transaction is persisted and tagged to indicate it is a special type
- The member's account balance is updated
- The Promo Engine is not called
- Metric and Aggregation (ODS) processes are skipped
- FIFO is not supported for this transaction type

Transaction sync (outbound)

This feature supports outbound transactions to cut-over sites — that is, sites already using ES Loyalty.

A common payload is published to the client's Kafka queue. High-level implementation steps:

1. Create a new event processor in ESL to publish transaction data from cut-over sites to the client's Kafka queue
2. Listen on all `requestAction` types except `HISTORICAL_TRANSACTION`
3. Create a new DTO object containing all relevant transaction data and push it to Kafka — this is a generic, non-client-specific payload for reuse in future
4. Apply data-cleansing rules to prevent PII from being published
5. Guaranteed delivery:
    - Retry sending the message 3 times on error
    - If all retries fail, push the message to a dead letter queue (SQS)

- Configure an alarm for messages moved to the dead letter queue

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Member profile changes SOR data sync

Some clients store member profile information in their own system of record (SOR). When a call center receives a request to change a loyalty member's profile, the changes made in the Console are synced back to the client's SOR.

The following member profile fields are synced when changed:

1. First name
2. Last name
3. Date of birth
4. Gender
5. Phone number
6. Street address
7. City
8. Province
9. Postal code
10. Account associations

Note: Extended Member Data is not synced to the SOR. EMD originates from the SOR when uploaded into the Console.

Member profile data is synced through Kafka with a Guaranteed Delivery mechanism using a Dead-Letter Queue (DLQ) for messages that cannot be delivered due to errors.

When activated, the SOR data sync feature may cause throttling issues for Salesforce Syndication. A new parameter, `AccountProcessingMode`, addresses this:

- `HIGH_THROUGHPUT` — Uses a new pipe to stream data to an SQS queue (for clients not using Salesforce)
- `LOW_THROUGHPUT` — Uses the existing DynamoDB triggers (for clients using Salesforce)

Retail/client data integration

Advanced experiential loyalty powered by Cataboom

Comprehensive gaming, badging, and prizing functionality designed to boost member engagement with the loyalty program or brand, deliver engaging experiences, and capture valuable zero-party data to enhance downstream personalization.

The Cataboom partnership helps Exchange Solutions capture and engage members with on-brand gamified experiences and prizing that motivates targeted behaviors. Cataboom drives loyalty program member acquisition and engagement through:

- **Targeted KPIs:**
  - For acquisition: number of enrollments, loyalty penetration (example tactic: instant win or sweepstakes)
  - For member engagement: active rate (or reduced churn), redemption rate, digitally-engaged members percentage, frequency of visits and purchases (example tactic: collect and win — member completes tasks to qualify)
- Chance-to-win entry for signing up
- Gamified experience to highlight program features and benefits

First- and zero-party data collected through games enriches member insights and offer targeting.

Cataboom can also support ES Engage offer engagement — for example, members may unlock an offer by completing a simple task such as watching a video or engaging in a poll or quiz. First-party or zero-party data can then be used for member insights and offer targeting, attributed to purchases or digital and physical traffic drivers.

Other data integrations

Agent audit — Splunk

This feature syncs agent audit details to the client's Splunk environment. Splunk connection details (endpoint, ID, and secret/password) are stored in an ES Loyalty secret.

An activity log tracks agent activities and allows drilling into specific details of agent events.

Agent action types:

- `DISCRETIONARY_TRANSACTION` — An agent awarded or removed points from a member account
- `UPDATE_PROFILE` — An agent updated a loyalty member's profile
- `CREATE_NOTE` — An agent created a note about a loyalty member
- `UPDATE_NOTE` — An agent edited a note about a loyalty member
- `DELETE_NOTE` — An agent deleted a note about a loyalty member
- `CREATE_PROMOTION` — A marketer created a loyalty promotion
- `UPDATE_PROMOTION` — A marketer edited a loyalty promotion
- `DELETE_PROMOTION` — A marketer deleted a loyalty promotion
- `TRANSFER_POINTS` — A marketer transferred points from one account to another
- `ACCEPT_OFFER` — An agent accepted an offer on a customer's behalf
- `UPDATE_CARD_STATUS` — An agent updated the status of a member's loyalty card (for example, from `ACTIVE` to `CANCELLED`)
- `UPDATE_ACCOUNT_STATUS` — An agent updated the status of a member's account (for example, from `ACTIVE` to `DECEASED`)
- `REPLACE_CARD` — An agent replaced a member's card
- `UPLOAD_TARGETING_LIST` — A marketer uploaded a customer targeting list
- `AWARD_PPE_POINTS` — An agent entered a receipt number to award points to a customer after the fact (the customer did not swipe their card and had not previously earned points)
- `CREATE_BANNER` — A marketer created an advertising banner
- `UPDATE_BANNER` — A marketer updated an advertising banner
- `DELETE_BANNER` — A marketer deleted an advertising banner

For each activity, the data includes the before and after state. A useful starting point is to build a report of action and time. For some specific actions — particularly `DISCRETIONARY_TRANSACTION` and `AWARD_PPE_POINTS` — recording the point amounts is recommended.

Snowflake data integration

This feature integrates ES Loyalty with the client's Snowflake instance to facilitate program data import into ES Loyalty.

With Snowflake data sharing, Exchange Solutions can access and exchange required data directly with the retailer's Snowflake account to run modular loyalty and personalized offer solutions, without the need for complex ETL. This requires that the retailer uses Snowflake and that all required data resides and is accessible in Snowflake.

Benefits for retailers:

1. Faster speed to market — no feed ETL setup required
2. Cost-effective — no ongoing ETL management
3. Data remains centralized — avoids data duplication at the retailer
4. All data resides in one place (the client's Snowflake)
5. Simplified data enrichment — ES product data shared back directly to Snowflake for easy unification and enrichment
6. Accelerated model training — new data elements easily accessed to update and train personalized offer intelligence more quickly
7. Product implementation shortened from months to weeks

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Offer Gallery

Purpose of this document

This document provides details at the business, technical (including configuration), and implementation levels for specific features within the ES Loyalty feature set. It covers a subset of functionality focused on the Offer Gallery (JavaScript tag).

Offer gallery

The Offer Gallery is a JavaScript tag that delivers an offer gallery experience in any digital channel. It is an alternative to the Web/App API for clients who want to reduce development time.

The gallery hosts offer content on website and app pages. Offers are delivered to those pages via a JavaScript tag and drawn from an Offer Gallery. The following offer types are shown to loyalty program members:

- Load-to-Card Offers
- Autoload (MASS) Activation Offers

The Offer Gallery lets loyalty program members view offers and account information on a website or in an app without the client rendering the offers. The gallery is responsive and works across desktop, laptop, tablet, and mobile devices.

The gallery is embedded in a page on the client's website. Common elements that clients include on the page outside the gallery are:

- Information about the loyalty member program.
- Relevant loyalty program information such as a static image showing tier levels.
- Banners, which can be implemented using the Exchange Solutions Banners feature in the Console.

Rewards dashboard (member gallery)

The Rewards Dashboard is a JavaScript tag that delivers member data -- such as balance and tier -- into a client's responsive website. It is an alternative to the Web/App API for clients who want to reduce development time.

The Rewards Dashboard lets members view their account balances, redeemable amounts, and available voucher amounts. It also displays cumulative rewards information for a specified time period and the member's eligible contribution toward their next tier.

Transaction history gallery

The Transaction History Gallery is a JavaScript tag that delivers a transaction history experience into a client's responsive website. It is an alternative to the Web/App API for clients who want to reduce development time.

The Transactions tab shows a list of the member's most recent transactions, including purchases, adjustments, and discretionary points.

Issuance/voucher gallery

The Issuance/Voucher Gallery is a JavaScript tag that delivers pass-through data related to rewards issuance -- for example, vouchers -- into a client's responsive website. It is an alternative to the Web/App API for clients who want to reduce development time.

The Vouchers tab displays up to 20 of the member's vouchers.

Configurable gallery labels

This feature lets clients customize labels and hide select table columns in the gallery.

To meet client UX needs, ESI is enhancing the gallery to make it more configurable per client. The configurable changes fall into three areas:

1. Label configuration
2. Date format configuration
3. Notable scope exclusions

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Loyalty Offers

Purpose of this document

This document provides details at the business, technical, and implementation levels for specific features within the ES Loyalty feature set. It covers a subset of functionality centered on the Promo Engine and Offer Management.

Offer details

Unique offer identifier

Used for offer search, lookup, and reporting within the ESI system. Provides a unique name that you can search for in the Console and use for reporting.

The unique identifier that you enter in the Offer ID field must use 3 to 128 alphanumeric characters and underscores only.

Implemented in the Console on the offer creation page.

Offer copy and creative

Customer-facing offer text and images, configured to match the front-end look and feel for offers (that is, the Offer Gallery and Email).

Offer Copy and Creative is a section that appears in the Console when you build a new offer. It provides standard information in offers that members view, including headlines, short and long descriptions, Terms and Conditions (T&C), and thumbnail images.

Fields have different character limits. Inline error messages appear when content violates the acceptable limits. You must also be able to render the copy and creative in another language -- currently French.

Offer copy fields are passed through as plain text only. No special formatting is passed through to the front end. Instead, the front end is responsible for applying formatting.

Image URL fields are used to retrieve images from the client-hosted image repository. Clients are responsible for ensuring that the referenced images are available and correct.

Implemented in the Console on the offer creation page.

Sort logic (simple, ranked)

A ranking capability used to control the offer presentation sequence and priority on the front end.

The Offer Gallery provides access to offers available to the Console user for deployment. The ranking sets the position of the offer within the gallery. A higher number means a higher position -- 1 is the highest. The number can be 1-9.

For sort ranking details, see Member Dashboard and Offer Gallery.pptx.

Implemented in the Console on the offer creation page.

Offer scheduling

Evergreen scheduling

Enables offers that are available for an indefinite period with no end date.

Offers that don't expire are set to "evergreen scheduling." A client might prefer a fixed start date but no end date for specific offers.

You must be able to set an offer to have a specific start date but no end date when creating the offer.

Implemented in the Console on the offer creation page.

Fixed start/end date (timeframe/time of day)

The start and end time that defines when member behavior is eligible for the offer.

Both the start date and the end date are set for the offer.

You must be able to set both the start date/time and the end date/time of the offer when creating the offer.

Implemented in the Console on the offer creation page.

Display date

Indicates when members can first view the offer. Set this date on or before the start date.

If left blank, this field defaults to match the start date.

You must be able to set a date on which members can view the offer -- either a few days before the start date, or on the start date (by leaving this field blank).

Implemented in the Console on the offer creation page.

Triggered scheduling (one-time trigger)

Enables observed events to initiate one-time targeting of an offer (for example, firing a welcome offer when a member enrolls).

Triggered event offer types are limited to the loyalty event data that is integrated into or originates from the ES Platform. A triggered event (referred to as an "activity" in the Console) can be system-defined (such as Partner Card Link, First Time Login, Member Registration, Tier X Achieved, or Profile Completion) or defined by the business or client.

- Event-Triggered Offer Enhancements PRD: Event-Triggered Offer Enhancement.docx
- Event-Triggered Offers Enabled Using the Activity Feed PRD: Triggered Offers using the Activity Feed_103020.docx

Implemented in the Console on the offer creation page.

Triggered scheduling (multiple triggers)

Enables observed events to initiate multiple occurrences of offer targeting. Triggered event offer types are limited to the loyalty event data that is integrated into or originates from the ES Platform.

The triggered offer enhancement introduces the ability for a triggered offer to fire multiple times for a given member, as well as the ability to cap the number of times it can fire for that member.

Offer end date extension (hold over)

Lets you edit the end date of an offer to give all members who were targeted with it more time to complete it and earn points.

As an Offer Administrator, you must be able to extend a live offer's end date in order to extend promotional campaigns.

Criteria:

- Offers can be extended only if the feature is enabled. The default behavior is disabled.
- Only a live offer's end date can be extended.
- When editing a live offer, the End Date input box is editable.

Restrictions:

- The Start Date can't be edited. The End Date can't be changed to a date before the Start Date or before the current End Date -- only extensions are allowed.
- The End Date can be set to "Offer does not expire", which sets the end date to the year 3001.
- Last-minute changes (within 24 hours of the current offer end date) aren't possible.
- If the targeted offer has already been created, the End Date of the targeted record must be updated.
- The End Date of a completed offer can't be changed.

For the related Jira ticket, see WIZ-4928.

Offer required behaviors

Transaction spend amount

Lets you set up offers that require the member to spend a specific dollar amount.

You must be able to set the spending threshold that the member has to meet to qualify for the offer reward, and the resulting reward. You must also be able to set the spend amount for one transaction or across multiple transactions.

Set the spend amount and reward in the Console for a single transaction or across multiple transactions.

Transaction spend on product hierarchy (SKU, category, and so on)

Lets you set up offers that require the member to spend a specific dollar amount on items from a specific product category, brand, SKU, and so on.

You must be able to select a specific spend amount and reward, and then filter the offer by either including a query for specific products or uploading a list of applicable product data.

You can set up the product query or upload the list in the Details section when creating an offer in the Console.

Quantity purchase on product hierarchy (SKU, category, and so on)

Lets you set up offers that require the member to purchase a specific quantity of items from a specific product category, brand, SKU, and so on.

You must be able to select a specific product quantity and reward, and then filter the offer by either including a query for specific products or uploading a list of applicable product data.

You can set up the product query or upload the list in the Details section when creating an offer in the Console.

Exclusion logic on full product hierarchy (SKU, category, and so on)

Lets you exclude specific products that aren't eligible to contribute toward the required behavior of the offer.

Allow products to be excluded from an offer using query logic and a NOT IN operator.

When creating an offer in the Console, in the Details section, select Logic to set up the query that defines the products included in the offer. Then use the NOT IN operator to exclude specific product categories, subcategories, brands, GTINs, SKUs, and so on.

Global exclusions on pre-set product hierarchy (SKU, category, and so on)

Lets you exclude a universal set of products that aren't eligible to contribute toward the required behavior of the offer.

Selecting Yes for the global exclusions option means that pre-defined global exclusion products aren't eligible to contribute toward the completion of this offer. Global exclusions are also applied based on the province of the store where the transaction takes place.

You can enable the application of global exclusions to an offer from the Details section when creating an offer in the Console.

Fuel quantity purchased

Lets you set up offers that require the member to purchase a specific quantity (in liters) of fuel. This feature is identical to the offer functionality that awards points on quantity purchase by SKU.

Jaguar uses this feature as-is. Examples:

- Between June 30 and July 14, 2024, members can earn 300 bonus points per fill-up (minimum 25 L fill).

- Between July 15 and July 30, 2024, members can earn 500 bonus points per fill-up (minimum 25 L fill).
- Maximum of 1,500 points during the offer period.

Redemption

Lets you set up offers that require the member to perform a redemption to get rewards.

You must be able to select Redeem as the behavior and specify the number of points to be redeemed to get the reward.

Set up the redemption in the Console in the Details section when creating an offer.

Category redemption

Lets you set up offers that require the member to perform a redemption on a specific set of products.

You must be able to select Redeem as the behavior, enter the number of points to redeem to get the reward, and specify the products included in the offer.

- Category Redemption Offers PRD: Category Redemption Offers.docx
- Category Redemption Offers HLSD: HLSD_Category_Redemption_Offer.docx

Set up the redemption and query in the Console in the Details section when creating an offer.

Category Redemption Offers epic:

Frequency

Lets you set up offers that require the member to perform a required behavior across multiple transactions or within a timeframe.

Frequency offers allow members to perform the offer's required behavior across multiple transactions, sessions, or other interaction points.

- Frequency Offers PRD: Frequency Offers_011420.docx

- Frequency Offers HLSD Phase 1: Frequency_Offer_HLSD.docx
- Frequency Offers matrix: Frequency Offer Matrix.xlsx
- Frequency Offers internal training: Frequency Offers.docx

Frequency Offers epic:

Behavioral offers (digital, profile, membership) to drive member engagement

Lets you set up offers that require the member to perform various digital, profile, or loyalty membership related behaviors.

- Activity-Triggered Offers and Behavioral Offers presentation (2021): Activity Primer.pptx
- Behavioral Offers PRD: Behavioral Offers using the Activity Feed_103020.docx
- Behavioral Offers UX matrix: Behavioral Offers UX Matrix.xlsx

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Multi-behavior offers

Lets you set up offers that require the member to perform multiple, different behaviors to complete the offer.

You must be able to create offers for which the member has to meet the threshold for more than one behavior or condition.

Multi-behavior offers enable advanced marketing strategies to grow average order value (AOV), increase category penetration, and increase or protect margin.

These offers are configurable in the Console. With Multiple Behavior selected, you can create multiple behaviors connected by logical AND or OR operators.

To set up a multi-behavior offer, select Multiple Behavior in the Details section.

Offer reward types

Points -- flat bonus

Rewards a fixed point amount (for example, 1,000 pts).

You must be able to set up a reward value (number of points to award) for an offer when the member carries out the specified behavior.

In the Console, when building an offer, go to Details > Rewards and select Flat Bonus.

Points -- base multiplier bonus

Rewards a base point multiplier amount (for example, 3x the points).

You must be able to set up a multiplier for an offer. Note the following:

- If you set up a base multiplier offer with specific products selected, the bonus applies only to those products.
- If you set up a base multiplier offer for all products, the bonus applies to 100% of the eligible basket.

In the Console, when building an offer, go to Details > Rewards and select Base Multiplier.

Points -- tier multiplier bonus

Rewards a base point multiplier amount (for example, 3x the points).

Setting up tiers of incremental rewards for incremental spending encourages members to spend more on purchases.

A "tier program" is a grouping of all related member tiers. A standard tier program multiplier can be used to multiply the rewards offered by each program tier level.

- Tier program HLSD: HLSD_ESL_Member_Tiers.docx

The offer tiers are configured in the Details > Rewards section of the offer creation page. Select Tier Program Multiplier and enter a Multiplier value.

Points -- fractional base multiplier bonus

Lets you create offers that provide a bonus as a percentage of the base points.

Based on configuration, the settings are available in the Console, including a base multiplier that can include decimal increments.

You activate this feature through configuration by setting the Multiplier increment in the CONSOLE_CUSTOMIZATION configuration file. Most clients continue to have the multiplier increment set to whole numbers, but for some clients it can be set to one decimal place to allow bonus points to be set as a percentage of base points.

When a fractional base multiplier is used to multiply the base points awarded, the results are often also fractional. Results must be rounded using standard rounding logic:

- Values at or above .5 are rounded up to the next whole number.
- Values below .5 are rounded down.

  separately in reporting. whole-number points awarded.

References:

Reward type -- "For Every" or "Minimum"

Lets you define whether the reward is paid out once ("Minimum") or every time the behavior is completed ("For Every").

You must be able to set the offer to reward a behavior either once (the first time it's performed) or multiple times (every time the member completes the behavior).

Set this option in the Details > Rewards section when creating a new offer in the Console.

Non-points rewards ($off, %off)

Instructs the POS in real time to deliver a dollar or percent discount during the transaction when a member completes their offer.

Dollar off or percent off offers provide direct dollar savings as the offer's reward. These rewards can be expressed as:

1. $ off item(s)
2. $ off total cart
3. % off item(s)
4. % off total cart

PRD: Non-Loyalty Points Rewards ($ off, % off).docx

Reward tiers

Lets you configure "spend more, get more" style offers.

Use offer tiers to set different reward levels for different tiers of member spending.

You must be able to set up offer tiers that allow specific rewards for different purchase or redemption levels on the same offer.

When creating an offer, set up different offer tiers by adding tiers in the Details > Rewards section.

Offer targeting

Audience targeting -- mass targeting (loyalty members)

An offer targeted to all loyalty program members.

Mass targeted offers provide a low barrier to entry for members, but don't provide the precision benefits of other targeting types.

Set the audience targeting for mass targeting in the Console when creating a new offer in the Details section.

Audience targeting -- member profile data

Targeting based on member profile data such as city, province, postal code, birthday, and gender.

- Location targeting lets you set up offers that may differ between cities, provinces, or postal codes.
- Attribute targeting (such as Birthday or Gender) lets you personalize offers for specific events or by product category.

Set the audience targeting for member profile data in the Console when creating a new offer in the Details section.

Audience targeting -- analytic segmentation/scoring

RFM, propensity, or other scoring associated with the member profile to enable offer targeting.

You must be able to select a segment -- either ESI-defined or business-defined -- and filter the offer to that segment.

Set the audience targeting for analytic segmentation or scoring in the Console when creating a new offer in the Details section.

Audience targeting -- member purchase history

Targeting based on member purchase data (for example, category spend, AOV, total spend, number of purchases, or first/last purchase date).

Targeting on Member TXN History PRD: Targeting On Member Txn History.docx

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Audience targeting -- digital engagement

Targeting based on member digital engagement (for example, app download or last login date) based on received data.

Member characteristics are evolving, particularly across generations. Whereas the oldest model of interaction with a company is through its physical stores, interactions and purchases increasingly occur through the company website and mobile apps.

Set the audience targeting for digital engagement in the Console when creating a new offer in the Details section.

Audience targeting -- communications history

Targeting based on communication responsiveness data exchanged from an Email Service Provider (ESP).

This targeting applies to members who match a specific profile for their email responses such as email click-throughs or last email offer acceptance within a specified time period.

Set the audience targeting for communication history in the Console when creating a new offer in the Details section.

Audience targeting -- dynamic targeting

The target audience is determined in real time during behavior recognition.

For dynamic targeting, the target audience is determined in real time. This approach lets members continuously qualify into the offer over the offer time period.

- Dynamic LTC Product Lens: Dynamic LTC_061520.docx
- Dynamic Targeting for LTC-Enabled Non-Mass Audiences PRD: Dynamic Targeting for LTC-enabled, Non-Mass Audiences.docx

Set the audience targeting for dynamic targeting in the Console when creating a new offer in the Details section.

Audience targeting -- static targeting

Lets you create a target audience based on the time the offer is created and published.

With static targeting, the audience for the offer is determined ahead of time using specific criteria. The targeting takes place when the offer is published.

Set the audience targeting for static targeting in the Console when creating a new offer in the Details section.

Audience targeting -- audiences

Targeting based on a selection of existing audiences, built either manually or using the Audience Recommender.

All audiences must be available for selection when Audience is selected as the targeting source when building an offer or banner.

PRD: Audiences v1.docx

Store location targeting

Lets you specify the store locations where this offer is eligible for use.

Targeting on Store ID, Country Code, Province or State, Postal Code or Zip Code, Retail Banner, or Extended Data provides flexibility for targeting offers to specific locations.

Targeting is set up in the Console in the Details > Targeting section.

List-based targeting for audience

Lets you define audience inclusions using a CSV list.

As an alternative to building a query, you can upload a list to provide targeting for a specific audience. The list uses an identifying heading (loyaltyId) that is meaningful to the system.

In the Offers section of the Console, when creating a new offer, you can target audiences by uploading a list in the correct format.

An example of an uploaded list:

```
loyaltyId
```

```
61057XXXXXXXXXXXXXX
```

List-based targeting for products

Lets you define product inclusions using a CSV list.

- Promo Targeting via GUI File Upload HLSD: HLSD_ESL_Product_Targeting_via_CSV.docx
- Targeting Products Through File Upload epic:

In the Offers section of the Console, when creating a new offer, you can target products by uploading a list in the correct format.

An example of an uploaded list:

```
productCode
53363659-03
```

Delayed targeting

Delayed (scheduled) targeting lets you set up an offer but delay targeting until just before the start date.

- Delayed Targeting Product Lens: Delayed Targeting_061520.docx
- Delayed vs. Dynamic Targeting: Delayed Targeting vs. Dynamic Targeting.pptx

When creating an offer in the Console, with static targeting selected, you can set delayed targeting to Yes and select a date and time for the targeting to occur.

Offer activation

Offer activation -- automatic

Lets you configure an offer so that the member doesn't need to perform any action other than the required behavior for the offer to be recognized.

The Auto Load feature is useful, for example, to provide a path for accepting print offers without any numeric coupon or offer loading.

Set up this feature when creating an offer in the Console. In Details > Activation & Usage Controls, set the first option to Auto Load.

Offer activation -- coupon (including single-use capability)

Lets you configure that a specific coupon code must be in the cart for the offer to be recognized for behavior.

The "single-use coupon" capability is enforced by the ES Loyalty engine by validating that the member using the code was:

1. Targeted for the offer.
2. If configured, within the offer usage cap set to 1.

Set up this feature when creating an offer in the Console. In Details > Activation & Usage Controls, set the first option to Coupon Code.

Offer activation -- load to card/account

Lets you configure that an offer must be loaded or accepted by the member to be recognized for behavior.

Load to Card makes it clear that the member is accepting the offer. After receiving it, they take an additional action such as clicking through an email link to load the offer to their account.

When creating an offer in the Console, set the Load to Card option from the Details > Activation & Usage Controls section.

Offer usage controls, caps, and budgets

Offer usage/reward controls (user level)

Controls the number of times a member can use an offer across multiple transactions.

For instance, if the offer requires the member to spend $10 to get 100 points, and the usage limit is 3, the member can spend $10 or more in 3 separate transactions to get 300 points.

When creating an offer in the Console, set this limit from Details > Activation & Usage Controls.

Offer usage/reward controls (offer level -- total uses)

Controls the total number of times all members can use an offer, restricting overall offer usage for budgeting or exclusivity purposes.

This setting limits the number of members who can be awarded points from this offer. By combining this setting with a maximum limit on the number of points a member can receive from this offer, you can set a maximum budget.

When creating an offer in the Console, set this limit from Details > Activation & Usage Controls.

Offer usage/reward controls (user level -- total points)

Controls the number of points awarded to a member for an offer, restricting overall offer usage for budgeting or exclusivity purposes.

This setting limits the number of points that can be awarded to any member from this offer.

When creating an offer in the Console, set this limit from Details > Activation & Usage Controls.

Offer usage/reward controls (offer level -- transaction level -- total points)

Controls the number of points awarded to a member for a given offer in a given transaction.

As part of fraud control, points earned for Base offers are capped. This same pattern is generalized for other bonus offers as well.

Feature criteria:

- Add a new `transactionLimits` attribute in `rewardControl` of the offer template.
- This points limit is assumed to be per transaction.
- Update the promo engine to check for `transactionLimits` in `rewardControl` and enforce the cap on points earned.
- Any capping of the Base Reward must trickle down to Base Multipliers.

Jira ticket:

Stacking logic

Logic that specifies which offers can't be combined and rewarded together. The offer that provides the higher reward takes precedence.

This setting controls whether this offer should be added to a group that prohibits offer stacking. If you add this offer to the Unstackable Offers Group, it can't be combined with other offers.

- Stacking Logic PRD: Stacking Logic_091820.docx
- Stacking Logic HLSD: HL_Solution_Design_Template_Stacking Logic_111620.docx

When creating an offer in the Console, set this option from Details > Activation & Usage Controls.

Stacking Offers Confluence page referenced in internal docs.

Offer performance and effectiveness

Offer-level test vs. control assignment (list-based static targeting)

Lets you measure promotion effectiveness by assigning a control holdback group at the offer level based on static targeting using a list of members.

Several business requirements have been identified for the control group feature:

- Control customer selection is random.
- The percentage of customers held out is configurable, generally 10%-20%.
- Once a member is held out as a control, the member stays in the control group for the life of the offer.
- The control group can be compared to the offer group using several metrics.

TBA

Offer-level test vs. control assignment (logic-based static targeting)

Lets you measure promotion effectiveness by assigning a control holdback group at the offer level based on logical static targeting.

Several business requirements have been identified for the control group feature:

- Control customer selection is random.
- The percentage of customers held out is configurable, generally 10%-20%.
- Once a member is held out as a control, the member stays in the control group for the life of the offer.
- The control group can be compared to the offer group using several metrics.

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Loyalty Banners

Purpose of this document

This document provides details at the business, technical, and implementation levels for specific features within the ES Loyalty feature set. This document specifically addresses a subset of functionality centred on banners.

General description

The ES Loyalty Promotions Banner functionality lets loyalty marketers set up and target static content for loyalty members in digital channels.

This content typically consists of an image, description text, and click-through links. It's used to promote marketing initiatives or inform members about various topics.

Banner details

Unique banner identifier

Used for banner search, lookup, and reporting purposes. Provides a unique banner name within the ESI system that can be searched in the Console and used for reporting.

The unique identifier entered in the Banner ID field (shown when creating a banner in the Console) must use 3 to 128 alphanumeric characters and underscores only.

Implemented in the Console on the banner creation page, in the Internal Identifiers section.

Banner copy and creative

Customer-facing banner text, images, and URLs. Configured to match the front-end look and feel for the banner.

Banner copy and creative is a section that appears in the Console when a new banner is being built. It provides standard information shown to members in banners, including a banner link, alternative text (on mouseover), a description, and thumbnail images.

Fields have different character limits. Inline error messages appear when content violates the acceptable limits. The copy and creative must also support rendering in a second language, currently French.

Image URL fields are used to retrieve images from the client-hosted image repository. Clients are responsible for ensuring that the referenced images are available and correct.

Implemented in the Console on the banner creation page, in the Copy and Creative section.

Banner scheduling

Evergreen scheduling

Enables banners that are available for an indefinite period with no end date.

Banners that do not expire are set to evergreen scheduling. A client may prefer to set a fixed start date with no end date for specific banners.

Ability to set a banner with a specific start date and no end date when creating the banner.

Implemented in the Console on the banner creation page, in the Scheduling section.

Fixed start and end date (timeframe and time of day)

The start and end times that define when member behavior is considered eligible for the banner.

Both the start date and the end date are set on the banner.

Ability to set both the start date/time and the end date/time of the banner when creating the banner.

Implemented in the Console on the banner creation page, in the Scheduling section.

Banner audience targeting

Audience targeting: static targeting

Configure and enable basic targeting (for example, by province) for banner content displayed in digital channels.

- Banners for Promotions manual -- Promotional Banners.docx
- Banner Targeting Enhancements PRD -- Banner_Targeting_121020.docx

The Specific Audience selection is made in the Details section of the banner creation page.

Audience targeting: mass targeting (loyalty members)

Configure and enable logic- and query-based targeting for banner content displayed in digital channels.

Mass-targeted banners are shown to all loyalty program members.

Banner Targeting ETD presentation -- BannerTargeting_ExtendedData.pptx

In the Console, when creating a banner, go to the Details section and select Everyone.

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Loyalty Badges

Badge details

Unique badge identifier

Used for badge search, lookup, and reporting purposes within the ESI system.

A new API endpoint returns all badges configured in the system. The `badgeID` attribute is used as the basis for badge searches and lookups.

The Console API supports auto-completion on the front end for the new Badge(s) earned targetable attribute on the offer configuration page. The API call requires no query parameters or a request body. The response includes badges in Active status (including Expired), but not Deleted or Disabled. For each badge, only the `badgeID` attribute is returned.

When creating a badge ID in the Console, enter a unique name that meets the following validation parameters: 3-128 alphanumeric characters and underscores only.

API to return list of `badgeID` -- WIZ-4652

Badge copy and creative

Badge text and images, including badge headlines, additional text sections, and different versions of the badge image.

Ability to provide information related to the badge in text and image formats, including images showing the badge.

When creating a badge in the Console, the creative elements can be configured in the Copy and Creative section of the page.

Badge scheduling

Evergreen scheduling

Enables badges that are available for an indefinite period with no end date.

You must be able to set a start date for a badge without setting an end date, so that the badge remains available to members after the start date.

Ability to set a badge with a defined start date and no end date, making it an evergreen or perpetually available badge for members.

Implemented in the Console on the badge creation page, in the Scheduling section.

Fixed start and end date

The start and end times that define when member behavior is considered eligible for the badge.

You must be able to set the start and end dates during which the badge is available to eligible members. The badge is not available outside of these dates and times.

Ability to set the date and time for both the start and end of badge availability to members.

Implemented in the Console on the badge creation page, in the Scheduling section.

Badge required behaviors

Transaction spend amount

Ability to set up badges that require the member to spend a specific dollar amount.

Ability to set the required behavior to Purchase $ amount and configure the following:

- Whether the criteria must be met in a single transaction or across multiple transactions.
- How much must be spent.

This feature can be configured in the Console when creating a new badge, in the Details section.

Transaction spend on product hierarchy (SKU, category, etc.)

Ability to award badges that require the member to spend a specific dollar amount on items from a specific product category, brand, SKU, or similar.

Ability to set the required behavior to Purchase $ amount and configure the following:

- Whether the criteria must be met in a single transaction or across multiple transactions.
- How much must be spent.
- A query on the specific products or product categories on which the money must be spent.

This feature can be configured in the Console when creating a new badge, in the Details section.

Quantity purchase on product hierarchy (SKU, category, etc.)

Ability to award badges that require the member to purchase a specific quantity of items from a specific product category, brand, SKU, or similar.

Ability to require the member to purchase a specified quantity of a particular product or set of products to earn their badge.

When creating a badge in the Console, in the Details section, select the Purchase X quantity required behavior and set the other parameters.

Exclusion logic on full product hierarchy (SKU, category, etc.)

Ability to exclude products that are not eligible to contribute toward the required behavior for earning the badge.

Ability to exclude specific products from badge earning. Parts of a transaction, or full transactions, involving products that are Not In the defined product set cannot contribute to earning the badge.

This feature can be configured in the Console when creating a new badge, in the Details section.

Global exclusions on pre-set product hierarchy (SKU, category, etc.)

Ability to exclude a universal set of products that are not eligible to contribute toward the required behavior for earning the badge.

Globally excluded items don't contribute to earning badges or meeting the threshold. If a transaction with a cart item is sent via the POS API, cart line items are checked against a list specific to the province in which the store is located. The transaction won't progress badge earning, and an entry is made in the audit object.

The option to apply global exclusions can be selected in the Console when creating a new badge, in the Details section (after selecting the required behavior).

Support for global exclusion in badge evaluation -- WIZ-4659

Behavioral badges (digital, profile, membership) to drive member engagement

Ability to set up a particular behavior--such as completing a survey--as the criterion for earning a badge.

Ability to set up badges that require the member to perform one of the following types of behavior to earn the badge:

- **Digital** -- for example, downloading the mobile app, using app features, or checking in.
- **Profile** -- for example, signing up for communications or providing additional profile information.
- **Loyalty membership** -- for example, achieving a point earn threshold.

This feature can be configured in the Console, in the Details section, when selecting the required behavior.

Frequency

Ability to set up badge criteria that require the member to perform a required behavior across multiple transactions or within a timeframe to earn a badge.

Frequency badges allow members to fulfill the badge's required behavior across multiple transactions, sessions, or other points of interaction.

Ability to set up complex required behavior for earning a badge, including:

- Requiring multiple transactions to earn the badge.
- Selecting how many dollars must be spent or how many items must be purchased.
- Setting up a product query to focus on particular products for badge earning.

When creating a badge in the Console, in the Details section, the required behavior can be configured to require multiple transactions and to set the number of transactions required.

Redemption

Ability to redeem a badge for a specified reward.

Ability to set a redemption activity to earn a badge based on the following:

- Setting the required behavior to Redeem.
- A pre-set minimum redemption amount.
- The option to use a product query to define specific products or departments that must be in the cart during redemption.

When creating a badge in the Console, the Redeem option in the required behavior allows you to set a minimum redemption amount and, optionally, include a product query.

Badge audience targeting

Audience targeting: mass targeting

Badge targeted to all loyalty program members.

Ability to make a badge available to all members in the loyalty program.

In the Console, when creating a badge, the default targeting setting makes the badge available to all loyalty program members.

Audience targeting for offers based on earned badges -- WIZ-4602

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Tiering and Premium Memberships

Purpose of this document

This document provides details at the business, technical, and implementation levels for specific features within the ES Loyalty feature set. This document addresses a subset of functionality centred on tiering and premium memberships.

Tier eligibility

A tier program is a grouping of all related member tiers. For example, Bronze/Silver/Gold is a group of member tiers that forms one tier program.

Configurable logic is available to define how a member achieves a membership tier level.

- Members can attain or lose a tier status in different ways (for example, logic-based, manual assignment, or payment).
- Members can receive a wide variety of treatments based on their tier (for example, digital experience, rewards, discounts, or free products).

Membership tier eligibility logic can be applied based on the member's dollar spend, quantity purchased, or spend on a particular product.

Reward calculation: based on end-of-period total contribution

Tier reward calculated based on total spend at the end of the tier period.

A new quarterly benefit period is required. Requirements:

- A new quarter benefit period must be created.
- A new aggregation for `SPEND_QUARTER` is required.
- The new quarter benefit period must be available for use via the API call for tier creation.

Reward cap: end-of-period maximum

The reward cap limits the number of rewards that a member can earn during a specified period.

The reward cap and the related time period are set for the client in a configuration file:

```
"EndOfPeriodReward": {
    "Enabled": false,
    "cappingThresholdPoints": 10000,
    "cappingAggregationName": "REWARDS_YEAR"
}
```

Other tier benefits

Ongoing tier benefit: evergreen scheduling

Ability to configure an ongoing benefit for a given tier (for example, 3x base points on all purchases, accelerated earning, percentage-off thresholds, free shipping, or free gift).

Ability to persist a tier so that the benefits do not expire on a fixed date.

See the technical information at the top of this page.

Household-based tier status

Member tier status is derived from the aggregate eligible contribution of all household members.

This feature is available in a limited capacity to select B2B clients. Program setup is not available in the Console, and no reporting is provided.

1. Past-period spend of all household members is considered for tier rollover status.
2. Current-period spend of all household members is considered for the current period's earned tier status.
3. Spend from members who have left a household no longer contributes to calculations.
4. Returns and adjustments to tier contributions result in recalculations.
5. Manual adjustments apply when joining, forming, leaving, or disbanding a household.

- Household-Based Tier Status
- Household Tier Status - Manual Override Logic Changes

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Referrals

Purpose of this document

This document provides details at the business, technical, and implementation levels for specific features within the ES Loyalty feature set. This document addresses a subset of functionality centred on referrals between members.

Referral rewards

Ability to deliver a single- or double-sided reward when a new member enrolls using a unique code (or when they enroll and make a required purchase). The purchase opportunity can be limited to a specific promotion period.

A single-sided reward is one that only the existing member referring a new member (the referrer) receives. A double-sided reward is one provided to both the referrer and the referee.

The Console lets users set up and manage referral promotions. Setup follows the formatting and validation patterns already used in offers and badges, and includes multi-lingual copy and creative fields (if required), name, description, terms and conditions, and image URLs.

When this section is expanded, the data shown includes:

- Member's referral code: The unique code that the current member can use to invite other customers to become members in the loyalty program.
- Usage limit used: The referrer has a limit on how many times they can use the referral code. This field shows the number of referrals the member has used versus the total limit.

There is a single unique one-use code per member, used across all promotion periods.

Referral scheduling

Ability to schedule discrete referral periods with unique copy, creative, reward levels, usage controls, and more.

The Referral Program section shows information related to the current member's referral activity. Depending on configuration, the referral program can reward the referrer only or both the referrer and the referee.

If a referral requires the referee to carry out an activity to receive rewards, the referral is credited to the referral program active when the referral activity is completed.

Referral usage controls

Configuration of the maximum number of times a bonus can be rewarded for a given referee during a given referral promotion.

Configurable caps limit the number of referees that can complete the promotion per referrer. This usage control increments only once the referee has successfully completed all required behaviors.

Last updated on ***Oct 14, 2018***

(Simulated during dev for better perf)

Partner Linking Module

Purpose of this document

This document provides details at the business, technical, and implementation levels for specific features within the ES Loyalty feature set. This document addresses a subset of functionality centred on the financial partner module.

Financial partner module

Ability to link financial partner payment products to accelerate program acquisition and loyalty earn and burn opportunities.

Ability to link a member's loyalty account to a partner's payment card so that the member can earn additional points for activities related to use of that payment card.

Financial partner usage: offer required behavior

Ability to only trigger or complete an offer if a member has used their partner card in the transaction.

Ability to link a member's loyalty account to a partner's payment card so that the member can earn additional points for activities related to use of that payment card.

Audience targeting based on financial partner linking

Ability to target promotions (offers, badges, banners) to members based on their financial partner linked status.

Ability to link a member's loyalty account to a partner's payment card so that the member can earn additional points for activities related to use of that payment card.

Financial card as unique identifier

Ability for members to identify themselves (for example, at POS) using their partner card only (that is, without a loyalty swipe).

Ability to use a Partner LinkID as a unique loyalty identifier, including:

1. POS, CUX, and Partner Program API suites.
2. All feeds.
3. List-based offer targeting in the Console.
4. Member lookup in the Console.
5. Search for a member in the Console for points transfer or to invite to a household.

A new config point will be added to the partner config to identify whether the partner is financial:

```
"IsLoyaltyIdentifier": true,
"IsFinancialPartner": true
```

Multiple partner linked cards

Ability for members to link to multiple different partners and to have multiple linked cards per partner.

As a member, you can link to multiple partners (for example, RBC and HBC). As a program manager, you can configure the details of each linked partner separately.

The existing partner object is augmented with a key called `LinkType`:

```
"LinkType": "PAYCARD"
```

Accepted values: `PAYCARD_LAST4`, `BIN_LAST4`, `PAYCARD`.

A new config point supports restricting response attributes:

```
"AllowResponseAttributes": {"status": true, "balance": true}
```

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Householding and Account-to-Account

Purpose of this document

This document provides details at the business, technical, and implementation levels for specific features within the ES Loyalty feature set. This document addresses a subset of functionality centred on householding and account-to-account features.

Multi-active cards

Ability for a single account to have multiple active cards (that is, one primary and multiple secondary cards).

Multi-active cards allow an account to have more than one active card, whether physical or digital. At the time of account enrollment, only one card—the primary card—needs to be assigned to the account.

- This feature lets an ES Loyalty account have multiple active cards linked to it (for example, card IDs 1, 2, and 3 are all linked to account A).
- The primary benefit of this feature is the ability to distinguish between behavior performed by different cardholders (for example, purchases and redemptions performed by card 1 versus card 2).
- As a secondary step—which can occur immediately in the enrollment workflow or later—the member needs the ability to add additional secondary cards to the account (for example, request 10 additional cards).
- These workflows are enabled on client applications, websites, and portals (that is, the Customer Experience APIs) as well as the ES Loyalty Console in the member administration section.

Account associations

Ability for multiple accounts to maintain a relationship with one another and to have their relative roles defined (for example, parent/child, ship-to/bill-to).

Accounts can have relationships between them that must be recognised by the loyalty program system in order to properly allocate rewards and maintain an auditable trail. For example, there may be a number of ship-to accounts that represent entities that order goods and earn and redeem points, but these activities are rolled up for reporting and payment is made from a bill-to entity. Each ship-to account has a one-to-one relationship with the bill-to account, and the bill-to account has a one-to-many relationship with the ship-to accounts.

Account associations allow the relationship between accounts to be defined.

One example is MMS, which uses a single bill-to primary card on the account (used for invoicing and payment), and one or more ship-to secondary accounts to designate cards used to submit orders, receive shipments, and earn and burn rewards. Actions on the ship-to cards are rolled up to the bill-to account.

Another example is Kent, where the primary card may represent a contracting company and secondary cards may be used by individual employees of the company to purchase building supplies.

Household privileges

Ability to configure at the program level whether primary and secondary members can redeem from the household balance, invite others to the household, or view household details.

The householding feature allows multiple loyalty participants—with personal, family, or business relations—to coordinate their loyalty experience. A key distinction between B2C and B2B householding is that in B2C, individuals typically own their own points and can independently choose to participate in or leave a household.

As part of the implementation, a household member can perform the following actions:

1. Invite others to the household.
2. Redeem from the household balance.

3. Leave the household.
4. View household details (status, balance, transaction history, household members, and so on).
5. Disband the household (that is, leave the household as the primary member).

The Householding section lets an administrator control household features for members using universal settings. Depending on permissions, Householding may or may not appear in the Program menu, or it may be visible but not editable. Only administrators with full permissions can edit the settings on this page.

The following three settings are available only in the configuration file for the household template. Contact your Exchange Solutions TSA for more details if required:

1. **`capacity`:** The maximum number of members that can be in a household, set at the system level. If the settings on the household page exceed this configured maximum, an error message is shown. For example, this value might be set to 25.
2. **`dailyMemberInviteLimit`:** The maximum number of member invitations a specific member can send in a day. For example, this might be set to 100.
3. **`expireInviteAfterInDays`:** The number of days before a household invitation expires. For example, this might be set to 20.

The following additional settings can be viewed and changed by an administrator on the Household page:

1. **Maximum number of members:** The maximum number of members that can be part of a household. The value entered must be 1 or higher. Note that a configuration limit applies and cannot be exceeded.
2. **Privileges -- primary member:** Privileges can be assigned to allow the primary member to view other member details (as relevant to the household), redeem points from the household point balance, and invite members to the household.
3. **Privileges -- secondary member:** Secondary members are those invited by the primary member or by another secondary member. Privileges can be assigned to allow secondary members to view other member details (as relevant to the household), redeem points from the household point balance, and invite members to the household.

Household balance pooling (proportional redemptions)

Ability for accounts in a household to redeem amounts that are distributed proportionally to each member's point balance.

For most clients, the redemption logic is view-only because there is only one option-- `PROPORTIONAL`--which is also the default. This means redemptions are distributed across all household members in proportion to their current redeemable balance. For example, if household member A has $300 redeemable, member B has $200, and member C has $100, a total redemption of $300 would deduct $150 from member A, $100 from member B, and $50 from member C.

Note that if any household member has a redeemable balance of zero, the redemption is taken proportionally from the members who do have a redeemable balance.

Note also that the redeemable balance for any member may not match their contributions if those contributions exceed the member's daily redemption cap.

Household balance pooling (defined redemptions)

Ability for accounts in a household to redeem a defined amount from each member's balance.

For one particular Exchange Solutions client, the ad hoc redemption logic is set to `REQUEST_DEFINED`, which means the primary member can define how much is redeemed from each household member included in the request. Members not included in the redemption request contribute zero.

In this case, a secondary member can still redeem points if they have redemption privileges, but only their own points--not those of other members. The default redemption logic is still shown as `PROPORTIONAL` but is not applied in this scenario.

Points transfer

Ability for an account to send points to another account.

The MVP user experience for points transfer is as follows:

1. The sender calls Customer Care.
2. The agent uses the existing member search functionality to look up the sender's account profile based on loyalty information the sender provides (card number, email address, or external identifier).
3. The agent uses the existing member search functionality to look up the recipient's account profile based on loyalty information the sender provides (card number, email address, or external identifier).
4. The agent performs manual verification in accordance with the client's business processes-- for example, asking the sender to confirm the recipient's name and postal code.
5. Provided the agent has the required permission, they initiate the points transfer from the sender's member profile page, which calls the new API described below.
6. After the points have been transferred and transactions recorded in both accounts, a transaction search for either member shows a transaction indicating points debited or credited, along with any relevant information.

The existing config for LAD has been updated to include this new transaction type. Both the sender's and recipient's LAD are updated by the points transfer. Some code changes may also be required to integrate with this LAD code for the points transfer flow.

The usual metrics are generated for both transactions, containing all relevant item details. Requirements around aggregation are not yet finalised.

For the sender, a triggered email is expected. A new class has been added in Event Processor to sync points transfer data with SFMC, similar to what is done for redemption emails.

Last updated on ***Oct 14, 2018***

(Simulated during dev for better perf)

Currency redemption

Purpose of this document

This document provides details at the business, technical, and implementation levels for specific features within the ES Loyalty feature set. This document addresses a subset of functionality centred on redemption types and redemption rules.

POS redeem for dollar-off savings

Real-time rewards redemption at POS in currency.

This feature facilitates real-time redemptions by ensuring the currency required for the redemption is available, decrementing the currency accordingly, and delivering the associated reward or initiating fulfilment. Execution of real-time currency redemption for dollar-off rewards depends on the client's POS capabilities.

Ability to redeem specified rewards in currency at the point of sale. The customer must have a POS system capable of exchanging data with ESI through the POS APIs.

The following flow using the POS APIs is recommended for point redemptions. Points redemptions are first reserved before being processed to prevent customers from reaching a negative balance.

A reservation flow should follow this sequence:

1. **Balance inquiry:** Check how many dollars are available for redemption. For example, the POS technician may inform the member that they can redeem $80.
2. **Redemption reservation:** Makes a reservation for a loyalty point redemption. The reservation sets aside the appropriate number of points for a configured duration, guaranteeing that the final redemption call has enough points to cover it. A token is returned on the reservation and must be provided on the finalize activity call.
3. **Transaction details exchange:** Transaction details are exchanged between the POS system and the ESI POS API.

4. **Finalize transaction:** The token is used for the finalize call. The redemption is carried out and the points (equivalent to the dollar value) are removed from the account.

POS redeem for catalogue items

Facilitates real-time redemptions by ensuring the currency required for the redemption is available, decrementing points appropriately, and delivering the associated reward or initiating fulfillment. The procurement, hosting, and fulfillment of reward catalogue items are handled by a third-party rewards partner (for example, Helix), managed by the client.

The following use cases must be supported:

1. Reservation against a catalogue item instead of specifying a points amount to reserve.
2. Product codes (stored in the system using the product feed) are used to look up the catalogue item and map it to the points to be reserved for that item.
3. A single reservation can include multiple catalogue items. For example, reserving and redeeming a car wash and a can of Coke in the same transaction.
4. Multiple quantities of the same catalogue item can be reserved and redeemed in the same transaction. For example, reserving and redeeming three cans of Coke in the same transaction.

The following APIs are called in sequence to achieve the in-store redemption flow:

1. **POS start-session API:** Work to allow partner card ID as one of the identifiers that can be used to start a session is handled through the Partner Linking feature.
2. **POS reservation API**
3. **POS finalize**

To support this, two value selectors are added to the Catalogue Item Details page when creating a new catalogue item:

1. **Redemption type:** Select `DISCOUNT` or `TENDER`.
2. **Product code:** Multi-value input to specify the products included in the redemption.

Ad hoc redeem

Facilitates redemption for an item (via catalogue redeem) or another value delivered to the member (for example, a donation, contest entry, points conversion, or experiential reward).

This feature is used by client partners and business units to redeem points on behalf of the member. Points can be redeemed using the CUX API, regular feed processing, or file upload through the Console. The redemption is recorded in the system as a transaction type (`RequestAction=ADHOC_REDEEM` and `TransactionParts.Action=REDEEM`).

Redeemers (partners or business units) associate the redemption with a `redemptionId` for reporting purposes. Valid redemption identifiers are maintained through the Console. Instead of specifying a points amount to redeem, a catalogue item identifier can be provided, which is then mapped to a points value for redemption. Valid catalogue item identifiers are maintained through the Console per partner and business unit.

The feature consists of the following flows:

1. Management of identifiers:
    i. Redemption identifiers.
    ii. Catalogue identifiers.
2. Ad hoc redemption by the client using the CUX API.
3. Ad hoc redemption by partners using the Partner API.
4. Ad hoc redemption feed.
5. Ad hoc redemption using file upload in the Console.

Scheduled redeem (auto-redeem)

Scheduled automatic redemption, used to draw balances down so that rewards can be fulfilled.

Scheduled auto-redeem takes place based on elapsed time since the points were earned. For example, points may be automatically redeemed a set number of months after they are earned, or a set elapsed time after a qualifying member activity such as making a purchase or redeeming points. Automatic redemptions help the client manage their rewards liabilities.

Points that are automatically redeemed may be provided to the member as reward points on a card or an account.

Redemption rules

Ghost card / unregistered card redemption override

A special flag to allow redemption on select ghost cards.

An agent in the Console needs a way to allow a redemption on a ghost (unregistered) card, specifically for a member who wants the benefits of the loyalty program without providing PII such as their email address, date of birth, or phone number.

- Ghost members have a checkbox on their profile in the member admin console to toggle the redemption flag for that member.
- The status of the redemption flag configuration is returned as part of the Member Search call in the admin console.
- The **Update Status** button text changes to **Update Account** for unregistered users only.
- The new confirmation modals apply to unregistered users only; for active users, the existing modal is used.

Additional information

In the Console, use **Find a Member** to search for an unregistered (ghost) card, then click the result to open the member's landing page. Scroll down to see the notification that the account is not registered.

Expand the section. The checkbox at the bottom provides the option to allow redemption on this unregistered account.

Selecting this checkbox allows the unregistered member to bypass the registration process and redeem rewards on their ghost card.

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

System Generated Activities

Purpose of this document

This document provides details at the business, technical, and implementation levels for specific features within the ES Loyalty feature set. This document addresses a subset of functionality centred on system-generated activities.

Standard activities

Standard activities are out-of-the-box activities that can be used to trigger the scheduling of an offer or to complete or contribute to an offer's required behavior.

Registration

Ability to generate a completion activity when a member registers their account (provides their email address).

Member registration acts as a trigger for an offer in the client system. The offer is provided only once per member.

A system activity has been set up for one client to offer a reward to members who register. This activity can be configured from the offer creation page of the Offers section in the Console.

Partner card linking

Ability to generate a completion activity when a member links their loyalty card to a partner payment card, so they receive rewards when paying with that card.

A system activity has been set up for one client to offer a reward to members who link a partner payment card. This activity can be configured from the offer creation page of the Offers section in the Console.

Profile completion

Ability to generate a completion activity when a member completes their member profile.

Note: Beginning with ES Loyalty v4.1.1, the required fields that must be completed to trigger a profile completion activity are configurable on a client-by-client basis.

A system activity has been set up for one client to offer a reward to members who complete their profile by entering information in all mandatory fields. As of July 2024, mandatory fields are set as follows:

- **BEINPLUS:** `["FirstName", "LastName", "Gender", "DateOfBirth", "Street", "City", "Province", "PhoneNumber"]`
- **Other clients:** `["FirstName", "LastName", "Gender", "DateOfBirth", "PostalCode"]`

X tier achieved

Ability to generate a completion activity when a member achieves a new tier level.

The Member Tier Link object is updated when a higher membership tier level is achieved.

Ability to convey data about changes in the relationship between an account and the tier to which it belongs. If the assessment indicates a change of tier rank, the accompanying Link object is updated.

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(Simulated during dev for better perf)

Audiences

Purpose of this document

This document provides details at the business, technical, and implementation levels for specific features within the ES Loyalty feature set.

Audiences

Audiences are reusable assets that can be referenced when defining member targeting, such as during offer setup. At its core, an audience is a logic statement that defines a specific set of members. Audiences can be created using either Audience Builder or Audience Recommender.

Audiences created with either tool can be saved, exported, analysed for member counts, and applied across various targeting scenarios, including banner targeting, offer targeting, and offer pool inclusion logic.

Audience Builder

Create member audiences by building query logic statements. This feature enables marketers to define precise audience segments using customisable rules and conditions.

The Audience Builder enables users to create sophisticated segments by combining multiple member data attributes. It supports advanced logic, including greater than, less than, equals, in, AND/OR clauses, and clause grouping.

With access to a wide range of data points—such as profile attributes, EMD, and past purchase history—the builder is suitable for both simple segments (for example, gender = male) and complex audiences requiring precise logic.

Audience Recommender (Gen AI)

Audience Recommender is a generative AI-powered tool, accessible through the Audience feature in the Console, that enables marketers to explore and discover new member audiences. It improves marketer productivity through text-to-query audience setup. The underlying AI technology uses large language models (LLMs) and natural language processing (NLP)— similar to AI capabilities becoming prevalent in the CDP, ESP, and digital advertising spaces— to allow the marketer to describe an audience in plain language, then generate a matching audience with a single click.

This feature enables marketers to explore and discover new member audiences while improving productivity through text-to-query audience setup. When combined with other ES Loyalty features (for example, Offers), it helps drive business results.

Like the Audience Builder, this feature can set up audiences based on a broad range of data, including profile attributes, EMD, past purchase history, point balance, partner linking, and offer engagement data.

While it supports both simple and highly complex audience creation, its key differentiator is its ability to translate natural language into intricate logic that would otherwise be difficult to configure manually in the builder. It can also refine vague or open-ended inputs into precise audience definitions (for example, identifying members likely to be environmentally conscious based on their purchase history).

The intent is to help marketers determine their audiences based on the following:

- **Products:** Who is buying particular products and who is not.
- **Matching customer segments to categories:** How specific customer segments can be matched to particular products—for example, ride-share drivers to fuel, health-focused members to nutritional products and vitamins, or new parents to baby supplies.
- **Spending patterns:** How to increase spending for low or non-spenders, or for those who only buy sale or low-margin items; how to identify members who are no longer actively engaged in the loyalty program.
- **Engagement with other ES Loyalty features:** Who is earning badges, completing frequency offers, or likely to join a loyalty household.

Using Audience Recommender, marketers can automate the generation of targeted audiences that engage with these trends and drive business results through related features such as Offers.

Audience Recommender is aware of a diverse set of member data that can be used to create the desired audience, including:

- **Standard profile information:** City, province or state, country, gender, postal or ZIP code, and so on.
- **Past purchase information:** Spending on particular products as defined by department, group, vendor, category, sub-category, or brand (either name or code). Note: the feature can answer product ID (SKU/GTIN) queries with some success; however, this is not an officially supported use case as it has not been tested or QA'd in this area.
- **Store and channel purchases:** Members who have purchased at different stores and channels.
- **Extended member data (EMD):** Additional information provided by and relevant to the client.
- **Partner linking information:** Details about which partners the member is linked to.
- **Member point balance:** The point balance on the member account.
- **Offer engagement:** Member engagement with specific offers and types of offers, including accepting and completing offers, accepting offers at a particular time, completing a specified number of offers, accepting or completing any offer, completing offers with a particular Reporting Identifier (such as "Flyer"), or multiple conditions (for example, a member who did not accept an offer in 2023 but has done so in 2024).

Gen AI module integration

This feature interacts with enterprise-grade, third-party generative AI products via the ES Loyalty Gen AI module. All data processed through these features is handled securely and is not used to train or improve AI models. The information provided to these services includes:

- Console user input (for example, "members who are male").
- ES Loyalty database schema overview (table structure only, no client data).
- The client's EMD attribute labels (for example, "Favourite Color EMD", but no member data).
- The client's product hierarchy (for example, brand and category structure).
- Client partner names only.

At no point does the AI have access to the ES Loyalty database or any member data, such as profile or transaction details.

Audience export: account IDs, loyalty IDs, or external IDs

This feature is available for audiences created using either the builder or the recommender.

The user can export the account ID, the loyalty ID, or—if the environment is configured for it—an external ID for each account in the audience as a CSV file. When the user clicks **Generate File** in the Audience Export section, they can select one of the two or three available identifiers (depending on configuration) in the **Export Audience** dialog.

After selecting an identifier type, the user clicks **Save** and the file is exported containing the selected ID.

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

POS/Checkout Capability

Purpose of this document

This document provides details at the business, technical, and implementation levels for specific features within the ES Loyalty feature set. This document addresses a subset of functionality centred on POS/checkout capability.

POS prompts

Ability to configure POS prompts (for example, email opt-in or email capture prompt, dollar amount away from a bonus offer, or contact call centre prompt). Execution depends on the client's POS capabilities.

Anonymous shopper prompts

Ability to configure POS prompts for non-loyalty members (for example, displaying the points a member could have earned if they were enrolled in the loyalty program).

The objective of this feature is to present prompts to anonymous shoppers to inform them about points they could earn by scanning their loyalty card, thereby increasing the scan rate.

Only mass offers created in the Console are eligible for prompts to be presented to anonymous shoppers.

Receipt messaging on finalize

Ability to configure receipt messaging (for example, point balance, base and bonus points earned, summary of completed offers, targeted offers pending, or "you could have earned" messages). Execution depends on the client's POS capabilities.

TBA

Returns claw back

Ability to process returns and claw back base and bonus point earnings according to the adjusted transaction details. Execution depends on the client's POS capabilities.

- Adjust Points in a Basket (with receipt) POS API request in Postman: in the Postman ES

Store and forward

Ability to receive and process bulk transactions in the event that the connection between ES Loyalty and stores is temporarily offline. Execution depends on the client's POS capabilities.

If ES Loyalty and the client POS or e-commerce storefront lose connectivity, all finalised calls should be converted to store and forward (SAF) for forwarding at a later date. SAF cannot process redemptions; these are processed once connectivity is restored. SAF transactions still qualify for rewards, but the transaction date is backdated to when the offers occurred in order to maintain reporting accuracy.

- Store and Forward (SAF) POS API request in Postman: in the Postman ES Loyalty workspace,

---

Email member lookup

Ability to perform a member lookup and start a session using a unique member email address (as an alternative to member ID lookup).

TBA

- Sets Email Address for Loyalty ID -- POS API request in Postman: in the Postman ES

E-receipts trigger

Ability to inform the POS whether a member has opted into e-receipts so that the email process can be initiated.

TBA

- Set Opt-In Status for Loyalty ID -- POS API request in Postman: in the Postman ES Loyalty

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No-receipt return

This request allows adjustments to be made when a transaction receipt is not available.

No-receipt adjustments or reversals do not reference an original transaction, so there is nothing to compare the reversal against and none of the original offers can be clawed back.

However, the following do apply:

- Points are clawed back against base and base membership offers (not including frequency offers).
- Relevant program contributions are clawed back and membership tiers adjusted, if applicable.
- Relevant offer completions are clawed back.
- There may be restrictions on how old a transaction can be for adjustments to still be allowed.

TBA

- POS API No-Receipt Adjustment POST request -- Postman: in the Postman ES Loyalty

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Digital Member Experience Features

Purpose of this document

This document provides details at the business, technical, and implementation levels for specific features within the ES Loyalty feature set. This document addresses a subset of functionality centred on digital member experience features, which are enabled on the client application.

Customer experience

Enroll member in program

Customer Experience API (CUX API) feature.

This API request is used to enroll a user, either using a physical card (which must be in the client's card pool) by providing the card number, or using a digital card, for which the number is automatically assigned from the card pool.

Ability to receive information such as PII, address, language preference, channel, and extended metadata for a user in order to enroll them in the loyalty program as a member. If the card to be assigned is a physical card, the card number is also included in the CUX API Enroll User request.

The response includes the account number, the card number, the status (almost always `ACTIVE` at this point), and the card type (`PHYSICAL` or `DIGITAL`).

CUX API Enroll User request sends a correlation ID and account details, and returns the account ID, loyalty ID, and status.

- CUX API Enroll User request

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Reporting and Insights

Purpose of this document

This document provides details at the business, technical, and implementation levels for specific features within the ES Loyalty feature set. It specifically addresses a subset of functionality centered on reporting and insights.

Current standard reports

Program performance

Promotion summary report

The promotions summary report tracks the performance of all promotional offers to members, including promo reach, offer engagement metrics, issuance costs, and associated sales activity.

This report lets marketers discover, within a selected time period, whether members are engaging with their offers. It shows the total number of members targeted, the cost of promotional spend and points issuance, and the impact of offers on revenue. The report only includes bonus promotions, not base promotions.

Data exploration and transformation

Outlier treatment/filter

Internal capability to remove outliers for more accurate analytics.

Exchange Solutions provides an estimation of incremental revenue performance as part of the overall reporting on program success. A very small percentage of control members may have transactions that are significantly higher than average. These outliers can skew the overall results of the comparison and distort the measurement of incremental revenue performance.

TBA

Gen AI analytics

Insights Pulse

The purpose of Insights Pulse is to accelerate users' access to information through detailed visualizations, allowing them to explore data in novel ways and derive new insights from loyalty program data.

The goal of this tool is to let users slice and dice various aspects of audiences to gain insights into how to market and sell to these groups using the loyalty program.

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Self-serve console

Purpose of this document

This document provides details at the business, technical, and implementation levels for specific features within the ES Loyalty feature set. It addresses a subset of functionality centered on the self-service console (SaaS).

Authentication

SSO integrations

SSO integrations with supported independent software vendors (ISVs) such as AD, Okta, and others.

Single sign-on (SSO) is a session and user authentication service that lets a user use one set of login credentials to access multiple applications.

SSO is implemented through integration of a third-party software platform such as Active Directory or Okta. ES Loyalty always adheres to the group assignment passed in by the SSO system at login.

User administration

Create and manage users, roles, and groups

Controls access to the console and to features and functionality within it.

Ability for an administrator to manage the details of individual users, the groups to which they are assigned, the permissions attached to each group through role assignments, and the permissions enabled for each role.

Multi-factor authentication (MFA)

Standard MFA tooling delivered through ESI tooling, or through client services if SSO is enabled to use the client identity provider.

Analytics

View, filter, and export reports

Manage reports through different data views, by filtering the data displayed, and by exporting reports for use in other documents.

Users of reports must have the ability to filter data, save views, switch between views, and export the current view in a variety of formats.

Ghost card points transfer

Rewards accumulated on an unregistered or ghost card must be transferable to another card.

- Ghost card definition: Ghost or blank card - Account Management Knowledge Library - Confluence
- Ghost account description: Ghost account

Audiences

Create and manage audiences in a selected business unit, including searching for, filtering on, editing, enabling and disabling, and creating audiences.

Audience Builder

Audience Builder lets the user build an audience by making selections for audience identification, then setting up the logic on which the audience is based.

This feature provides a standalone area in the console where users can build and manage member audiences using query logic.

Audience Recommender

The Audience Recommender uses a generative AI engine to generate an audience based on a prompt entered by the user.

The Audience Recommender in ES Loyalty is a feature that allows for the creation of member audiences using natural language prompts.

Member Scoring and Intelligence

Member Scoring and Intelligence (MSI)

Member Scoring and Intelligence (MSI) provides an intuitive interface that empowers loyalty program managers to generate, tailor, and easily implement comprehensive member insights.

MSI transforms raw transaction data into actionable intelligence that can be used for targeted marketing strategies.

Offer management

Create a new offer from scratch

Lets users set up and edit offers for loyalty program members, including content, scheduling, rewards, behavior, targeting, activation and usage, and related metadata.

Ability to select a business unit, specify a name and unique identifier, set scheduling, add copy and images, specify required behavior, set reward details, set targeting, set activation and usage controls, and set related metadata.

In the console, navigate to Promotions > Offers and click +Offer.

Create a new offer by duplicating an existing one

Lets the user reduce the time required to create an offer by duplicating an existing offer.

Ability to duplicate an offer and create a new offer with a different name but many of the same settings.

Search, sort, and filter existing offers

Ability to search for an offer by name or offer ID, sort offers, and filter by market status, dates, and reporting identifier.

Ability to find an existing offer by searching on the name or ID, sort existing offers into pages, and filter on market status, related date and time, or reporting identifier.

In the console, navigate to Promotions > Offers.

View, edit, and preview offer details

Ability to view existing offers, edit settings that can be edited, and preview offer details before publishing.

Ability to access existing offers on the landing page, edit the offer settings, and view a preview before publishing.

In the console, navigate to Promotions > Offers.

Enable and disable existing offers

Ability to enable an offer for live use or disable it so that it is not currently available.

Ability to enable an offer by publishing it or to disable an offer through the expiry date.

In the console, navigate to Promotions > Offers.

Count estimator for query builder for audience targeting

Lets the user build a query and then determine how many loyalty program members are returned by that query.

Ability to determine the count of loyalty program members to be returned by a query set up in an offer being created.

Export offer details (CSV file)

Ability to download a CSV file containing details of offers.

Ability to download details of offers on the current page to a CSV file.

Draft and publish workflow

Users can save an offer as Draft if the offer has not been completed or if further revisions are required before the offer is ready for use.

Offers can sometimes not be completed in a single working session, so the user must have the ability to save an offer in draft mode.

In the console, navigate to the offer landing page and click +Offer.

Banner management

Create and manage banners

Allow configuration of display banners used to communicate offers to loyalty program members.

Ability to create new banners, search for and edit existing banners, duplicate, delete, enable and disable, and export banners.

Badge management

Create and manage badges

Lets loyalty program members be rewarded for specified behaviors and achievements with non-currency rewards.

Ability to award a badge when a member meets some predefined required behavior, define the timeframe when a badge can be earned, display earned badges, target offers to members based on badges earned, and include badge data in reporting.

Membership tier management

Create and manage tier programs

Lets loyalty program members attain different benefit levels and experiences based on their level of engagement.

Ability to facilitate the creation and management of membership tiers addressing qualifying behavior types, tier thresholds, tier period, tier assessment, and tier benefits.

Program administration

Manage expiry logic

Allow configuration of points expiry for member accounts to occur under client-specified conditions and according to a specified period of inactivity on the account.

Ability for a client administrator to configure loyalty program member account and points balance expiry based on eligible member behavior and inactivity period.

Manage membership tiers

The membership tiers can be defined in the console from Program Management > Member Tiers Program.

This function lets you manage internal identifiers, scheduling, qualifying behavior types, tier scheduling period, tier status period, tier configuration details, and ongoing reward identifiers.

Manage householding

Configure member householding logic, including maximum number of members, and primary and secondary member privileges.

This function lets you manage maximum number of members, primary member privileges, secondary member privileges, and redemption logic.

Data management

Declare activity types in console

Data declaration for activities, including enabling and disabling, and specifying the activity name and identifier.

In the console, the user can create and enable activity types used with activity-triggered offers.

In Console online help: Data Management > Activity Types

Ad hoc redemption file upload

Upload a file directly to the console to perform redemptions. View current and past file processing status.

The ad hoc redemption features let partners or business units issue redemptions in bulk by uploading a file. The file must be a maximum size of 10 MB.

In Console online help: Data Management > Ad Hoc Redemptions

Ad hoc reward file upload

Upload a file directly to the console to issue bonus points. View current and past file processing status.

Ability to upload a CSV file including multiple records with sufficient details to generate ad hoc rewards for specified members. The file must be a maximum size of 10 MB.

In Console online help: Data Management > Ad Hoc Rewards

Configure ad hoc reward identifier

Ability to set up valid identifiers for use in the ad hoc reward API and feeds.

A reward identifier is used to differentiate earns that originate from the same issuer. The reward identifier must be from an eligible, pre-existing list of Bonus IDs.

In Console online help: Data Management > Reward Identifiers

Configure ad hoc redemption identifier

Ability to set up valid identifiers for use in the ad hoc redemption API and feeds.

A redemption identifier is used to differentiate redemptions from each other.

Extended member data

Add, edit, select, and deselect the member attributes to be used for promotion targeting and ESP syndication.

Ability to upload a CSV file including multiple records with sufficient details to specify extended member data attributes and values. The file must be a maximum size of 10 MB.

In Console online help: Data Management > Extended Member Data File Management

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Configure catalogue redemption item

Ability to set up and manage valid catalogue redemption items, including their identifier, point value, whether they are tender or discount, what business unit or linked partner they are associated with, and localized messaging.

Similar to the redemption identifiers, there is also a need to maintain a list of catalogue items.

General

Configure member profile

Ability to hide profile fields in the console member profile and mark profile fields as read-only.

The configuration file includes four states that help manage specific member profile fields: mandatoryFields, nonBlankOptionalFields, hiddenFields.console, and readonlyFields.console.

GenAI console help

Online help that provides console user assistance and is available from the Help button in the console. The help chatbot lets users enter queries and get responses from the Gen AI engine based on the documentation that has been uploaded and vectorized.

Documentation

User documentation informs users about relevant concepts and guides them through various tasks in the console.

The documentation UX includes a table of contents along with index, glossary, and search features to make relevant information accessible.

View the documentation in the console by clicking Documentation on the top menu bar.

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Fraud Real-Time (RT)

Purpose of this document

This document provides details at the business, technical (including configuration), and implementation levels for specific features within the ES Loyalty feature set. It specifically addresses a subset of functionality centered on fraud controls.

Standard suite of fraud controls

ES Loyalty provides a standard suite of fraud controls to prevent or limit the illegitimate acquisition of points or goods through redemptions. These measures are detailed in this section and the next (Fraud Plus). They include automated rules to block excessive earning or burning of points, or to perform other actions (such as suspending an account) when fraudulent behavior is detected.

The following types of fraud may affect a loyalty program:

- An employee using their points card for customer transactions
- Delivery of redemption proceeds to false addresses, then appropriating them
- Adding charges to another member's primary account
- Coupon abuse
- Illegitimate points transfers
- Purchases made with lost or stolen credit cards
- Sharing card or account information to provide member discounts to ineligible entities
- Redeeming points, then returning purchases -- note that this activity is not always fraudulent, but may result in a negative account balance
- Excessive discretionary credits being awarded to a member by an agent

Fraud prevention involves recognizing fraudulent patterns of account activity and freezing affected accounts, as well as limiting the number of points that can be earned or burned, particularly within a given time period.

Daily redemption cap

Automated rules that limit the number of points that can be redeemed daily, expressed in dollars across all potential purchases. These rules are configured to limit offer fraud and abuse, or to manage budget and points liability at a broader level. The current solution provides only agent audit data (partial, not complete) to a client-hosted Splunk instance on Azure.

Spend-based redemption access

Program-to-date (PTD) redemption logic that allows redemption privileges only for members who have met a PTD eligible spend threshold. This can be enabled with a modifier that allows certain redemption types to bypass the block.

A client may require members to spend a minimum amount on eligible items before they can redeem. Real-time fraud tracking measures member spending against the threshold to determine whether a redemption request is legitimate and to take appropriate action or display appropriate messaging.

Card linking cap

Limits how often a new card can be generated and linked to a partner per month. The default setting allows 2 new cards to be linked to a partner. This limitation is applied to the Replace Card function, accessible from the Member page.

Out of province/state redemption block

Limits the state or province in which an offer can be redeemed to the one where the member is identified as residing in their profile information.

This feature matches the member's state or province of residence with the state or province of a store location and prohibits the member from completing the redemption if the two do not match. It is designed to prevent fraud by blocking redemptions on lost or stolen cards that have been used outside the member's jurisdiction.

Redemption lock

A real-time account control that lets members instantly block point redemptions to prevent fraud, while maintaining normal non-redemption point activity.

This feature allows any form of point redemption on a member's account to be frozen while the account continues to accrue points through purchases, tier rewards, and other point-accruing activities.

It provides members with an instant on/off switch that blocks all point redemptions across every redemption channel, reducing fraud-related losses with zero impact on any other point movement (transfers, expiry, negative discretionary, and so on).

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Fraud Plus

Purpose of this document

This document provides business, technical (including configuration), and implementation details for specific features within the ES Loyalty feature set. This document specifically addresses a subset of functionality centred on Fraud Plus.

Core concepts

Fraud Plus is a feature designed to detect potentially fraudulent, erroneous, or excessive behaviors, and to provide information and recommendations to users or other systems on how to respond when they occur. This feature is architected as a module that sits outside of the core operational ES Loyalty technical stack. It integrates with ES Loyalty today and can be enhanced in the future to add additional metrics, actions, and reporting. It may also serve other systems through its APIs. The overall result is greater awareness when these behaviors occur, automated action on occurrence, and a reduction in negative outcomes such as program abuse, incorrect point issuance, and fraudulent redemptions.

How Fraud Plus monitors activity

The ES Loyalty platform sends transaction metrics and account metrics to Fraud Plus in real time (or asynchronously) whenever transactions occur or account events are triggered. These metrics contain rich contextual information, including:

- Transaction type (for example, `PURCHASE`, `ACTIVITY`, `ADJUSTMENT`, `DISCRETIONARY`, `POINTS_TRANSFER`, `ADHOC_REDEEM`)
- Transaction parts (for example, `REDEEM`, `HOUSEHOLD_REDEEM`, `BASE`, `BONUS`, `TARGETED`, `DISCRETIONARY`)
- Account identifiers
- Store information

- Amounts and point values

Fraud Plus aggregates this data across configurable time windows (day, week, month) and evaluates rules to detect concerning patterns. For example:

- Total redemption attempts (BURN activity) across any transaction type containing `REDEEM` or `HOUSEHOLD_REDEEM` parts
- Discretionary earn transactions (`DISCRETIONARY` type) aggregated by day, week, or month
- Post-purchase earn (PPE type) frequency patterns
- Points transfer activity (`POINTS_TRANSFER` type) across time periods
- Purchase transaction counts regardless of earn or burn activity
- Email update frequency on accounts

Advice actions

Fraud Plus provides "advice" when specific rules are triggered — for example, "Member has redeemed more than 10 times in a 7-day period" or "Member received discretionary points 5 times in 24 hours."

Actions may include one of the following:

- Logging the event and blocking redemption for a configured duration (for example, 15 days)
- Only logging the event for monitoring purposes
- Blocking the action itself (for example, blocking a redemption request at POS or online)
- Issuing warnings to console operators during session start

When advice is returned, it contains the following fields:

- **Entity:** What is being advised on (for example, `ACCOUNT`)
- **Context:** The business activity type (for example, `REDEMPTION`)
- **Posture:** The recommended action (for example, `BLOCK`, `WARN`)
- **Duration:** How long the advice remains active

Configuration

The ES Loyalty Fraud Plus system contains a set of rules configured to detect and manage fraudulent or other sensitive behaviors. These rules are composed of the following sections.

Operating modes

- **Synchronous mode:** Fraud Plus advice is checked in real time during operations (for example, at session start or during a redemption attempt).
- **Asynchronous mode:** Metrics are sent to Fraud Plus, and advice is returned via event bus and stored for later enforcement.

Aggregation types

Aggregation types define different ways that events are grouped or aggregated for analysis. The available aggregation types are:

- **Member:** Rules evaluated per individual account
- **Program:** Rules evaluated across the entire loyalty program
- **Member group:** Rules evaluated for specific cohorts or segments

System advice rules

Configurable rule definitions specify which patterns to detect. Examples include:

- `ADVICE_CHECK_ACCOUNT_BURN_DAY/WEEK/MONTH` — Monitors redemption frequency
- `ADVICE_CHECK_ACCOUNT_DISCRETIONARY_EARN_DAY/WEEK/MONTH` — Tracks manual point adjustments
- `ADVICE_CHECK_ACCOUNT_PURCHASE_TRANSACTION_COUNT_DAY/WEEK/MONTH` — Monitors transaction volume
- `ADVICE_CHECK_ACCOUNT_EARN_FROM_PPE_DAY/WEEK/MONTH` — Tracks post-purchase earn patterns
- `ADVICE_CHECK_ACCOUNT_EARN_FROM_POINTS_TRANSFER_DAY/WEEK/MONTH` — Monitors point transfer activity
- `ADVICE_CHECK_ACCOUNT_EMAIL_UPDATE_DAY/WEEK/MONTH` — Detects frequent profile changes

Each rule can be independently enabled or disabled and configured with custom thresholds.

Alert-only console display

This configuration option lets the system display fraud alerts in a console view without taking any automatic action. This is useful for monitoring and visibility purposes.

Configurable member identifiers

Member identifiers can be configured to use different fields or attributes to uniquely identify members in the fraud detection system. This allows flexibility in how members are tracked and analyzed. Supported identifiers are `AccountID`, `LoyaltyId`, and `ExternalIdentifier`.

Redemption block release

When a redemption is blocked due to fraud detection, this configuration allows for:

- Defining the duration that advice remains active
- Console operator override capabilities with audit trails
- Manual advice removal with reason codes

Rule engine configuration

The rule engine is the core component that evaluates fraud conditions. It can be configured with:

- Rule threshold values
- Enabled or disabled rules per client
- Action mappings for each rule (`BLOCK`, `WARN`, `LOG`)
- Time window specifications (day, week, month)
- Override lists for specific contexts

Monitoring and alerting

This section covers configuration for how fraud events are monitored and what alerts are sent when fraud is detected, including integration with the ES Console for operator visibility.

Integration points

Fraud Plus integrates with other systems and components within ES Loyalty as follows:

- OAuth-based API authentication
- EventBridge integration for async advice delivery
- DynamoDB storage of advice records in the `AccountMetadata` table
- Real-time enforcement at POS session start and redemption endpoints

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Language and Region

Purpose of this document

This document provides business, technical (including configuration), and implementation details for specific features within the ES Loyalty feature set. This document specifically addresses a subset of functionality centred on language and localization features.

Multi-language/localization

Offer output

Localization is the ability to support multiple languages in the platform, specifically for configurable offer output. The intent is to provide localization options for both loyalty program members (in the offers they receive, receipt messaging, and so on) and Console or Reports users.

For members:

- Language settings options in a website or web application presenting loyalty program offers or other content generated by Exchange Solutions.
- Messages and information provided by supporting systems available in all supported languages.
- Program communications based on the member's language preferences.
- Storage of language preferences between sessions, with OS language preferences used for first-time access.

For Console and Reports users:

- Member Admin Console and Promo Console available in all supported languages.
- Reports available in all supported languages.
- Console allows text to be entered in supported languages and allows language-specific content to be entered for creative elements.

TBA

Banner output

Localization is the ability to support multiple languages in the platform, specifically for configurable banner output.

The reasons for supporting this feature include:

1. **Compliance with legislation requirements** -- Particularly for a mandated language in a localized area, such as French in Quebec.
2. **Customer engagement** -- Engaging with customers in the language they're most comfortable with.
3. **Competitive necessity** -- Many competitors already offer these capabilities.

For clients, the Console allows multiple languages (by configuration) to be entered for creative elements.

Users can edit banner copy for non-expired banner states (Live, Disabled, Inactive, Future).

Additional languages appear in the **Banner Preview** modal when an additional language is selected from the dropdown. The **Duplicate** functionality also carries over secondary language copy creative. When a draft is saved, secondary language copy, if present, is persisted for later editing. When **Save and Publish** is clicked, the secondary language copy is persisted and flows to the appropriate data store.

When exporting the banner view to CSV files, the additional language copy for a banner is included in the export. The client's developer can retrieve banner offers in the language required for display in a loyalty app or web front end.

PRD -- Banner_Localization.docx

ES Console and reporting

Supports multiple languages within the Console for program managers and reporting consumers.

Multilingual ES Console and ES Loyalty PRD -- Multilingual ES Console & ES Loyalty.docx

When exporting the banner view to CSV files, the additional language copy for a banner is included in the export. The client's developer can retrieve banner offers in the language required for display in a loyalty app or web front end.

For instance, multiple language options are available when setting up the Copy and Creative section in creating a new offer.

Receipt messaging

Supports multiple languages in the platform, specifically for receipt configuration output. Provides a message in any supported language on the member's receipt for a transaction.

Provides messages in multiple languages on transaction receipts. The parameters for localization are set in the related configuration file:

```
{
  "audit": {
    "created": { ... },
    "updated": { ... },
    "version": 1
  },
  "Category": "LOCALIZATION",
  "ConfigDetails": {
    "Description": "Specifies the list of locales we support.",
    "Enabled": true,
    "Locale": [{ "en-CA": "English (CA)" }, { "fr-CA": "French (CA)" }],
    "DefaultLocale": "en-CA"
  },
  "ConfigType": "LOCALIZATION"
}
```

This `LOCALIZATION` config is shared by both receipt messages and prompt messages. Depending on whether localization is enabled or disabled, the `Locale` and `DefaultLocale` values are used to populate the data.

Receipt and Prompt Messaging -- Receipt and Prompt Messages - ES Loyalty - Confluence

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Prompts

Supports English, French, and other languages in the POS systems with which ES Loyalty is integrated, for POS prompts. These prompts may be displayed to a POS terminal operator or to the member.

Multilingual ES Console and ES Loyalty PRD -- Multilingual ES Console & ES Loyalty.docx

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Canadian address (member profile, store address)

Enables Canadian address information within member profiles and store data, including associated features such as targeting based on member geography.

Ability to present Canadian address details -- specifically, the province with its relevant two-letter code and the postal code in the correct format -- in various parts of the product, including API calls, feeds, and the Console.

American address (member profile, store address)

Enables American address information within member profiles and store data, including associated features such as targeting based on member geography.

Ability to present American address details -- specifically, the state with its relevant two-letter code and the ZIP code in the correct format (including extensions) -- in various parts of the product, including API calls, feeds, and the Console.

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(Simulated during dev for better perf)

Loyalty Managed Services

Purpose of this document

This document provides business, technical (including configuration), and implementation details for specific features within the ES Loyalty feature set. This document specifically addresses a subset of functionality centred on managed services for loyalty.

Loyalty program design

Program design services range from end-to-end program design (including goals discovery, market and customer research, data analysis, business case, strategic recommendation, technical requirements, and implementation plan) to best practice sharing at the time of program implementation.

Working together with the client, ESI designs the complete program structure, resulting in a program that meets the client's business goals and supports the experience they want to offer customers both online and in-store. Areas covered include:

- Program structure, rewards, and benefits
- Member experience, onboarding strategy, and member lifecycle
- Launch strategy and loyalty marketing plan
- Loyalty business processes

Account management and program strategy/optimization

dedicated FTE.

ESI offers a full complement of account management and ongoing program strategy services. Services include, but are not limited to:

- Stakeholder relationship management
- Status meetings and project management
- Addressing platform and program-related questions
- Ongoing training, knowledge transfer, and orientation
- New project intake and prioritization
- Strategy meetings with cross-functional ESI Loyalty subject matter experts
- Member engagement and communication enhancements

Advanced analytics

dedicated FTE.

Analytics resources to perform ad-hoc queries, segmentation, modeling and profiling, campaign and promotions strategy, post-campaign analysis and results, and more.

Data scientists, statisticians, and computer scientists provide services designed to support loyalty program performance, assist with member lifecycle management, and generate advanced analytics such as modeling, segmentation, and market basket analysis.

Promotions/campaign strategy

Offer strategy design, financial modeling, setup, and optimization, leveraging advanced analytics.

Offer strategy is centred on a framework that uses a phased approach of increasingly sophisticated offers that meet member needs more directly over time.

Financial modeling is used to ensure the program's core concept is profitable and aligns with the client's business case. The financial modeling process identifies all costs and additional revenues over a specified period. The modeling includes:

- Implementation costs (technology enablement and marketing components)

- Management costs (rewards, communication, ongoing training, and promotions)
- Revenue generated by members' additional spending and customer acquisition (ROI)

Member communications management

Communications strategy, design, and ongoing management of communications deployment, leveraging the client's ESP or ESI's internal capabilities.

ESI develops communications strategies and related collateral to support the client in communicating with their loyalty program members.

Card production management

A managed service to facilitate the creative design and production runs of physical loyalty cards, leveraging ESI's card production partner.

ESI manages production of both physical and digital member cards across all phases of the production cycle. This includes:

- Selecting the card type
- Creating the design and creative elements
- Obtaining client approvals
- Administering the card production program
- Producing test cards
- Establishing or renewing the client's card pool
- For physical cards: working with trusted printing vendors to produce the cards

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Member website/mobile app design, development, and hosting

Design, development, and hosting of a standalone member website and mobile app to support the loyalty program, leveraging either in-house resources or best-in-class partners.

ESI's in-house creative and UI team can support creative needs for the member website and mobile app. Alternatively, ESI can work with the client's preferred creative agency to integrate creative assets.

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)

Non-Functional Requirements

Purpose of this document

This document provides business, technical (including configuration), and implementation details for specific features within the ES Loyalty feature set. This document specifically addresses a subset of functionality centred on non-functional requirements.

POS response time

Response time of less than 750ms from time to first byte (TTFB), excluding the routine maintenance window, based on a performance load that does not exceed 150 transactions per second.

TTFB measures the duration from the moment a user or client makes an HTTP request to the moment the first byte of the page is received by the client's browser. This time is made up of:

- The socket connection time
- The time taken to send the HTTP request
- The time taken to receive the first byte of the page

In general, a TTFB of under 800ms is considered optimal.

The 750ms response time must be maintained under loads of up to 150 transactions per second.

Number of concurrent active offers

ES Loyalty must be able to scale to support numerous simultaneous offers in market across different campaigns, with varying aspects such as targeting and rewards design. The robustness of this capability is reflected in the richness of the offerings and the ability to precisely target different groups of users based on many combinations of criteria.

*Last updated on **Oct 14, 2018***

(Simulated during dev for better perf)