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Etechflow Abandoned Cart Email & Exit-Intent Popup

User Guide & Reference Documentation

Version: **1.2.0** Last Updated: June 2026 Vendor: **ETechFlow** Compatibility: Magento 2.4.4+ / Adobe Commerce / Luma / Hyvä

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1. Introduction

Etechflow Abandoned Cart Email & Exit-Intent Popup is a Magento 2 extension that helps merchants recover lost sales through two complementary channels:

- **Email Recovery** — automatically sends scheduled reminder emails to customers who abandon their shopping carts.
- **Exit-Intent Popups** — displays on-site popups when visitors show signs of leaving, with one-click coupon application.

Both systems work independently or together, sharing a unified configuration, analytics dashboard, and license validator.

Who This Extension Is For

- Merchants experiencing cart abandonment (industry average: 70%+)
- Stores running email marketing or paid acquisition
- Brands wanting to convert exit-intent visitors before they leave

Compatibility

Component	Supported Versions
Magento Open Source	2.4.4, 2.4.5, 2.4.6, 2.4.7, 2.4.8, 2.4.9
Adobe Commerce	2.4.4+
PHP	8.1, 8.2, 8.3, 8.4
Themes	Luma, Hyvä, custom themes (theme-neutral CSS)
Multi-store	Full support (per-store rule targeting)
B2B (Adobe Commerce)	Compatible

2. Key Features

Email Recovery System (v1.0.0)

Feature	Description
Real-time cart tracking	Observer captures cart on every change
Multi-rule email sequence	Define unlimited rules with different time intervals
Pre-built templates	3 ready-to-use designs (Luma, Hyvä, With-Coupon)
Custom template support	Use Magento's native template

Feature	Description
One-click cart restore	editor Customer clicks email → cart pre-filled at checkout
Auto-stop on order placement	No further emails after customer completes purchase
Open & click tracking	Per-email engagement analytics
Unsubscribe handling	GDPR-compliant opt-out link in every email
Frequency caps	Per-rule and global max emails per cart
Customer group filtering	Target specific groups, exclude guests if desired
Cart subtotal filters	Min/max thresholds per rule

Exit-Intent Popup System (v1.1.0)

Feature	Description
4 trigger types	Exit Intent, Time on Page, Scroll Depth, Cart Subtotal
5 page scopes	All Pages, Cart, Checkout, Category, Product
Multiple popup rules	Unlimited rules with priority-based selection
Customer group targeting	Per-rule audience selection
One-click coupon apply	Linked Magento Cart Price Rule, instant cart discount
Frequency caps	once_per_session / once_per_day / once_per_lifetime
Impression limits	Hard cap per visitor (lifetime or session)

Visual Design (v1.2.0)

Feature	Description
4 layout templates	Modal, Slide-In, Bottom Bar, Top Bar
5 color customization fields	Background, headline, body, CTA button, CTA text
4 entrance animations	Fade In, Slide Up, Zoom In, Bounce
Border radius + width	Per-rule rounded corners and dialog size
Mobile exit-intent	Auto-detected device →

Feature	Description
Configurable mobile fallback	visibilitychange + fallback timer Admin-editable timeout (default 15 seconds)

Analytics & Reporting

- Email metrics — sent, opened, clicked, converted, recovery rate, revenue recovered
- Popup metrics — impressions, accepted, dismissed, converted, conversion rate
- Per-rule breakdowns with date range filter
- Visual KPI dashboard cards

Technical Highlights

- HMAC-signed license validation
- CSRF-aware AJAX endpoints
- Open-redirect mitigation on tracking links
- Idempotent recovery detection (observer + plugin defense-in-depth)
- Magento Marketplace coding standards
- Full Hyvä theme compatibility (separate template + layout)

3. Installation

Prerequisites

- Magento 2.4.4 or higher
- PHP 8.1+
- Composer
- Admin access to your Magento server
- SSH/CLI access

Installation Steps

Option A: Composer (recommended)

```
composer require etechflow/module-abandoned-cart
bin/magento module:enable Etechflow_AbandonedCart
bin/magento setup:upgrade
bin/magento setup:di:compile      # production mode only
bin/magento cache:flush
```

Option B: Manual ZIP upload

1. Download extension ZIP from your account
2. Extract into app/code/Etechflow/AbandonedCart/

3. Run the same Magento commands above

Verify Installation

```
bin/magento module:status Etechflow_AbandonedCart
```

Expected output: Module is enabled.

Optionally run the bundled health check:

```
bin/magento etechflow:abc:verify
```

This runs 14 end-to-end checks (DB tables, repositories, source models, round-trip tests). All should pass.

4. License Activation

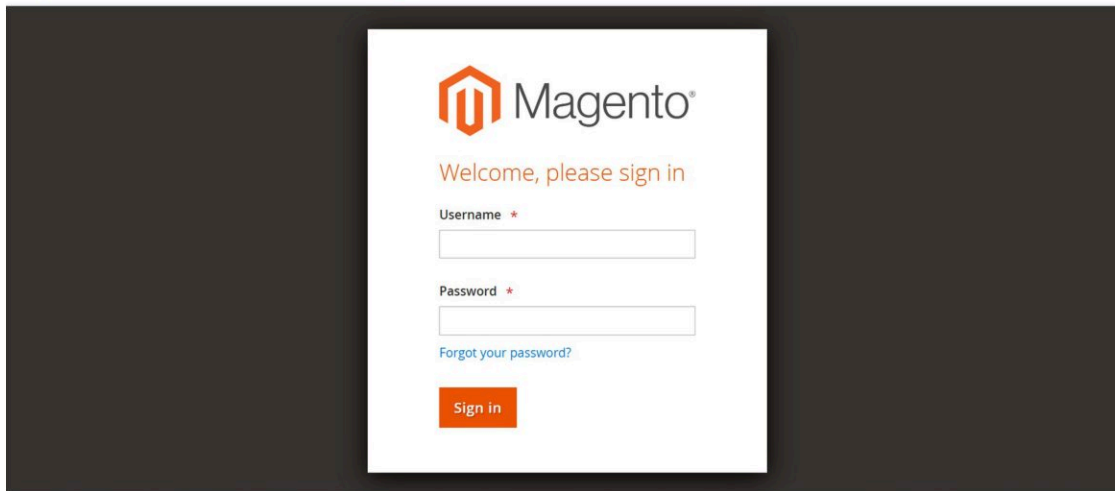
After installation, your extension is in unlicensed state. To activate:

Step 1 — Obtain Your License Key

Your license key was emailed when you purchased the extension. The key is **host-locked** to your storefront domain (e.g., yourshop.com).

If you don't have the key, contact ETechFlow Support with: - Your purchase email / receipt - The exact domain you'll deploy the extension on

Step 2 — Enter the Key in Admin



Magento Admin Login Screen

Figure 1: Magento Admin login screen.

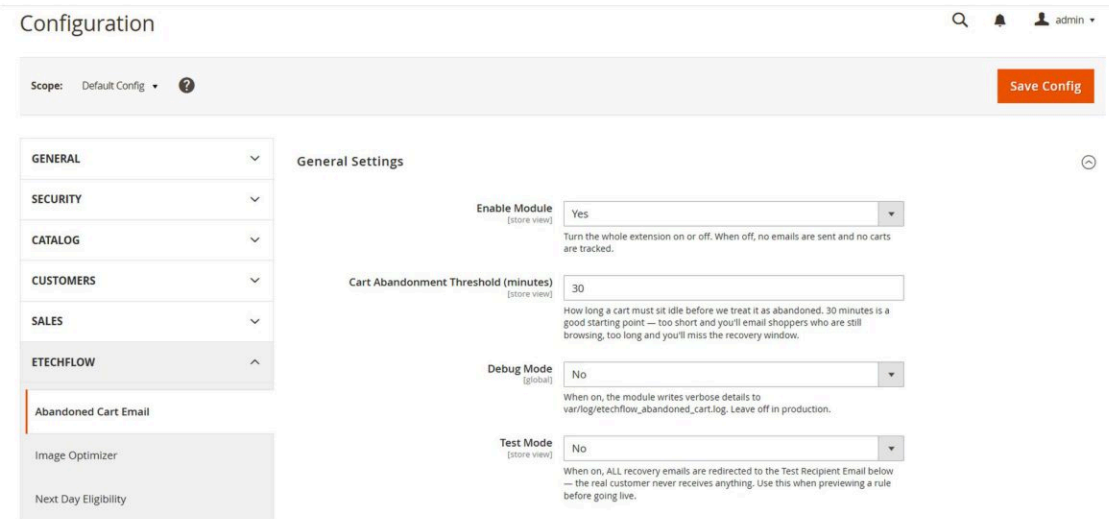
Navigate to:

This is the same flow industry incumbents (Amasty, Mageplaza) use for their subscription products.

5. System Configuration

All extension-wide settings live under:

Admin → Stores → Configuration → ETechFlow → Abandoned Cart Email



Configuration Overview

Figure 3: Configuration page — ETechFlow Abandoned Cart Email section.

The configuration is grouped into **8 sections** described below. Each setting can be overridden per store view in multi-store setups (use the **Store View** dropdown at the top-left of the configuration page).

5.1 General Settings

Controls the master switch and core behavior.

Field	Default	Description
Enable Module	Yes	Turn the whole extension on or off. When off, no emails are sent and no carts are tracked.
Cart Abandonment Threshold (minutes)	30	How long a cart must sit idle before it counts as “abandoned” and becomes eligible for

Field	Default	Description
Debug Mode	No	recovery emails. When on, the module writes verbose details to <code>var/log/etechflow_abandoned_cart.log</code> . Leave off in production.
Test Mode	No	When on, ALL recovery emails are redirected to the Test Recipient Email — the real customer never receives anything. Use this when previewing a rule before going live.

General Settings



Enable Module [store view]
 Turn the whole extension on or off. When off, no emails are sent and no carts are tracked.

Cart Abandonment Threshold (minutes) [store view]
 How long a cart must sit idle before we treat it as abandoned. 30 minutes is a good starting point — too short and you'll email shoppers who are still browsing, too long and you'll miss the recovery window.

Debug Mode [global]
 When on, the module writes verbose details to `var/log/etechflow_abandoned_cart.log`. Leave off in production.

Test Mode [store view]
 When on, ALL recovery emails are redirected to the Test Recipient Email below — the real customer never receives anything. Use this when previewing a rule before going live.

General Settings

Figure 4: General Settings fieldset.

Recommended Production Setup:

Enable Module: Yes
 Cart Abandonment Threshold: 30 minutes (or longer if checkout flow is slow)
 Debug Mode: No (only enable when troubleshooting)
 Test Mode: No

5.2 Email Sending

Controls who emails come from and global send caps.

Field	Default	Description
Sender Name	General Contact	Shown as the “From” name when the customer receives the email.
Sender Identity	General Contact	Which Magento sender identity (“General Contact”, “Sales”, “Customer Support”) to use. Set up identities in Stores → Configuration → General → Store Email Addresses.
Reply-To Email	—	Optional. If set, replies from customers go here instead of the sender identity’s address.
BCC Email	—	Optional. Receive a copy of every recovery email — useful for monitoring during launch. Comma-separated for multiple. Leave empty in normal operation.
Maximum Emails per Cart	3	How many reminders a single abandoned cart can ever receive. Stops the module from harassing the same customer with the same cart.
Default Email Template	Hyvä-Styled Reminder	The template a rule uses when its own template field is left blank.

Sender Name [store view]
 Shown as the "From" name when the customer receives the email.

Sender Identity [store view] ▼
 Which Magento sender identity ("General Contact", "Sales", "Customer Support") to use. Set up identities in Stores → Configuration → General → Store Email Addresses.

Reply-To Email [store view]
 Optional. If set, replies from customers go here instead of the sender identity's address.

BCC Email [store view]
 Optional. Receive a copy of every recovery email — useful for monitoring during launch. Comma-separated for multiple. Leave empty in normal operation.

Maximum Emails per Cart [store view]
 How many reminders a single abandoned cart can ever receive. Stops the module from harassing the same customer with the same cart.

Default Email Template [store view] ▼
 The template a rule uses when its own template field is left blank.

Email Sending fieldset

Figure 5: Email Sending fieldset.

Note: The actual SMTP transport is configured separately under Admin → Stores → Configuration → Advanced → System → Mail Sending Settings (Magento native). Our extension uses whatever Magento's transport is set to (sendmail, SMTP, etc.).

5.3 Cart Restore

Controls how cart-restore links behave when customers click email buttons.

Field	Default	Description
Restore Token Expiry (days)	30	Each recovery link contains a one-time token. After this many days, the link stops working. Longer = more conversions, shorter = more secure.
Auto-Login Customer on Restore	Yes	When a logged-in customer clicks their recovery link, log them straight back in. Guests are not affected.
Merge with Existing Cart	Yes	If the customer has already built a new cart in the meantime, this merges the recovered

Field	Default	Description
Cart Restore		items into it. When off, the recovered cart replaces the new one.
Restore Token Expiry (days) <small>[store view]</small>	30	Each recovery link contains a one-time token. After this many days, the link stops working. Longer = more conversions, shorter = more secure.
Auto-Login Customer on Restore <small>[store view]</small>	Yes	When a logged-in customer clicks their recovery link, log them straight back in. Guests are not affected.
Merge with Existing Cart <small>[store view]</small>	Yes	If the customer has already built a new cart in the meantime, this merges the recovered items into it. When off, the recovered cart replaces the new one.

Cart Restore fieldset

Figure 6: Cart Restore fieldset.

5.4 Tracking

Field	Default	Description
Enable Open Tracking	Yes	Embeds a tiny invisible image in every email so we can tell when it gets opened.
Enable Click Tracking	Yes	Wraps every link in the email so we can record clicks. Required to attribute recovered orders back to specific emails.
UTM Source	etechflow_abandoned_cart	Added to every link as ?utm_source=... for Google Analytics.
UTM Medium	email	GA campaign medium.
UTM Campaign	cart_recovery	GA campaign name.

Enable Open Tracking
[store view] Yes

Embeds a tiny invisible image in every email so we can tell when it gets opened.

Enable Click Tracking
[store view] Yes

Wraps every link in the email so we can record clicks. Required to attribute recovered orders back to specific emails.

UTM Source
[store view] etechflow_abandoned_cart

Added to every link as ?utm_source=... for Google Analytics.

UTM Medium
[store view] email

UTM Campaign
[store view] cart_recovery

Tracking fieldset

Figure 7: Tracking fieldset.

5.5 Cron / Processing

Field	Default	Description
Batch Size	50	How many carts to process per cron tick. Larger batches finish faster but spike server load. Magento's default cron runs every 5 minutes, so $50 \approx 600$ carts/hour.
Lock Timeout (minutes)	15	Safety net — if the cron crashes mid-run, the lock auto-releases after this many minutes so the next tick can take over.
Maximum Runtime (seconds)	240	The cron stops itself after this many seconds to leave room for Magento's other cron jobs.

Batch Size [global]

How many carts to process per cron tick. Larger batches finish faster but spike server load. Magento's default cron runs every 5 minutes, so 50 ≈ 600 carts/hour.

Lock Timeout (minutes) [global]

Safety net — if the cron crashes mid-run, the lock auto-releases after this many minutes so the next tick can take over.

Maximum Runtime (seconds) [global]

The cron stops itself after this many seconds to leave room for Magento's other cron jobs.

Cron / Processing fieldset

Figure 8: Cron / Processing fieldset.

Cron Requirement: Magento cron must be running on your server. Verify with:

```
crontab -l      # should show "bin/magento cron:run" entry
```

If not, install via:

```
bin/magento cron:install
```

5.6 Cleanup & Retention

Field	Default	Description
Email Log Retention (days)	180	Old email send logs are deleted after this. Keep enough to fill your reporting window — 6 months by default.
Expired Cart Retention (days)	90	Carts that are abandoned but never recovered get deleted after this. The original quote row in Magento stays untouched — only our tracking row goes.

Email Log Retention (days) [global]

Old email send logs are deleted after this. Keep enough to fill your reporting window — 6 months by default.

Expired Cart Retention (days) [global]

Carts that are abandoned but never recovered get deleted after this. The original quote row in Magento stays untouched — only our tracking row goes.

Cleanup & Retention fieldset

Figure 9: Cleanup & Retention fieldset.

5.7 Hyvä Compatibility

Field	Default	Description
Use Hyvä-Compatible Email Templates	Yes	When you're running the Hyvä theme, send emails with the Hyvä-styled templates (Tailwind-inspired, no Knockout). When you're on Luma, this is ignored.

Hyvä Compatibility



Use Hyvä-Compatible Email Templates

[store view]

Yes

When you're running the Hyvä theme, send emails with the Hyvä-styled templates (Tailwind-inspired, no Knockout). When you're on Luma, this is ignored.

Hyvä Compatibility fieldset

Figure 10: Hyvä Compatibility fieldset.

5.8 License Settings

Already covered in Section 4 — license key entry and validation.

6. Abandoned Cart Email Recovery

This is the extension's flagship feature — automatically emails customers who leave items in their cart without completing checkout.

6.1 How It Works (High-Level Flow)

1. Customer adds product to cart
- ↓
2. Observer captures cart snapshot in our DB (status: pending)
- ↓
3. Customer leaves site without purchasing
- ↓
4. Cron checks every 5 minutes for carts past the "abandonment threshold"
- ↓
5. For each eligible cart, cron picks the next applicable Email Rule (based on `sequence_number + send_after_minutes`)
- ↓
6. Email queued → transactional email sent via Magento SMTP
- ↓
7. Customer opens email → tracking pixel hit (status: opened)

- ↓
8. Customer clicks "Complete Purchase" → restore link (status: clicked)
- ↓
9. Original cart restored at /checkout/cart
- ↓
10. Customer completes order → order_place_after event
- ↓
11. RecoveryService.markRecovered() → cart status: recovered
- ↓
12. All future emails for this cart suppressed (status filter excludes recovered)

6.2 Email Rules Grid

Navigate to:

Admin → Marketing → ETechFlow Abandoned Cart → Email Rules

Email Rules

7 records found

ID	Rule Name	Active	Sequence #	Send After (min)	Priority	Action
1	Default: First Reminder (1 hour)	No	1	2	10	Select
2	Default: Second Reminder (24 hours)	No	2	1440	20	Select
3	Default: Third Reminder (72 hours)	No	3	4320	30	Select
4	Test 1min reminder	No	1	1	10	Select
5	First Reminder (30 min)	Yes	1	30	10	Select
6	Second Reminder (24h)	Yes	2	1440	20	Select
7	Final Reminder (72h)	Yes	3	4320	30	Select

Email Rules Grid

Figure 11: Email Rules listing grid in admin.

Grid Features:

Element	Purpose
Add New Rule button (top-right)	Creates a fresh rule
Filter controls	Search by name, filter by Active status
Sort any column header	Default sort: Priority ASC
Per-row Edit / Delete	Right-side actions column
ID column	Internal rule_id (used when troubleshooting)

6.3 Creating an Email Rule

Click **Add New Rule**. The form opens with 4 fieldsets.

General Information

New Email Rule

Define when reminders fire

General Information

Rule Name *

Description

Visible to admins in the Rules grid — describe when this rule fires.

Active

When off, this rule never fires regardless of conditions.

Priority 10

Lower numbers fire first when multiple rules match the same cart.

Email Rule — General Information

Figure 12: Email Rule edit form — General Information fieldset.

Field	Notes
Rule Name	Required. Internal label only (not shown to customers).
Description	Optional. Visible to admins in the grid.
Active	Yes/No master toggle for this specific rule.
Priority	Lower number = evaluated first. Used as tiebreaker when multiple rules match.

Schedule

Schedule

Send After (minutes) *

How many minutes after the cart goes idle this email fires.

Sequence Number *

1 = first reminder in a sequence, 2 = second, etc. Counts against Maximum Emails per Cart.

Apply to Guest Carts

When off, this rule only fires for logged-in customers.

Email Rule — Schedule

Figure 13: Email Rule form — Schedule fieldset.

Field	Notes
Send After (minutes)	How long after the cart is idle this rule fires. E.g., 30 = first reminder; 1440 = 24h; 4320 = 72h.
Sequence Number	This rule's position in the sequence (1 = first email, 2 = second, etc.). The same cart won't receive an email from a rule whose <code>sequence_number ≤ cart.emails_sent</code> .
Apply to Guest Carts	Yes = guests get emails too; No = only logged-in customer carts.

Typical 3-Email Sequence:

Sequence	Send After	Rule Name	Strategy
1	30 minutes	First Reminder	Polite "you forgot something"
2	1440 (24h)	Second Reminder	Include 10% discount coupon
3	4320 (72h)	Final Reminder	Bigger discount, urgency framing

Email

Email

The screenshot shows a form with two dropdown menus. The first dropdown is labeled 'Email Template' and is set to 'Default Reminder (Luma)'. Below it is a small text note: 'Leave default to use the system-wide default template. Clone a template under Marketing → Email Templates to customize.' The second dropdown is labeled 'Sender Identity' and is set to 'General Contact'.

Email Rule — Email Template Selection

Figure 14: Email Rule form — Email fieldset with template dropdown.

Field	Notes
Email Template	Choose from the 3 pre-built templates or a custom one you cloned (see Section 6.5).
Sender Identity	Magento email-identity preset for "From" address.

Targeting

Targeting

Stores

Main Website Store
Main Website Store
Default Store View

Hold Ctrl (Windows/Linux) or Cmd (Mac) and click to select multiple. Leave nothing selected to fire on every store.

Customer Groups

NOT LOGGED IN
General
Wholesale
Retailer

Hold Ctrl (Windows/Linux) or Cmd (Mac) and click to select multiple groups. Includes "NOT LOGGED IN" for guests. Leave nothing selected to fire for every group.

Minimum Cart Subtotal

Only fire if the cart's subtotal is at least this amount. Leave blank for no minimum.

Maximum Cart Subtotal

Only fire if the cart's subtotal is at most this amount. Leave blank for no maximum.

Email Rule — Targeting

Figure 15: Email Rule form — Targeting fieldset.

Field	Notes
Stores	Multi-select. Hold Ctrl/Cmd to choose multiple. Leave empty for all stores.
Customer Groups	Multi-select. Includes “NOT LOGGED IN” for guests.
Minimum Cart Subtotal	Optional. Cart must be \geq this value. Leave blank for no minimum.
Maximum Cart Subtotal	Optional. Cart must be \leq this value. Useful for tiered offers.

Click **Save** (or **Save and Continue Edit**) at top-right. Grid will reload with the new rule.

6.4 Email Templates — Three Pre-Built Designs

The extension ships with 3 ready-to-use email templates. Choose one in the Email Rule’s **Email Template** dropdown.

Template	File	Style
Default Reminder (Luma)	abandoned_cart_default.html	Classic Luma — clean, brand-neutral
Hyvä-Styled Reminder	abandoned_cart_hyva.html	Modern, minimal, Inter font
Default Reminder + Discount Coupon	abandoned_cart_with_coupon.html	Prominent coupon code box

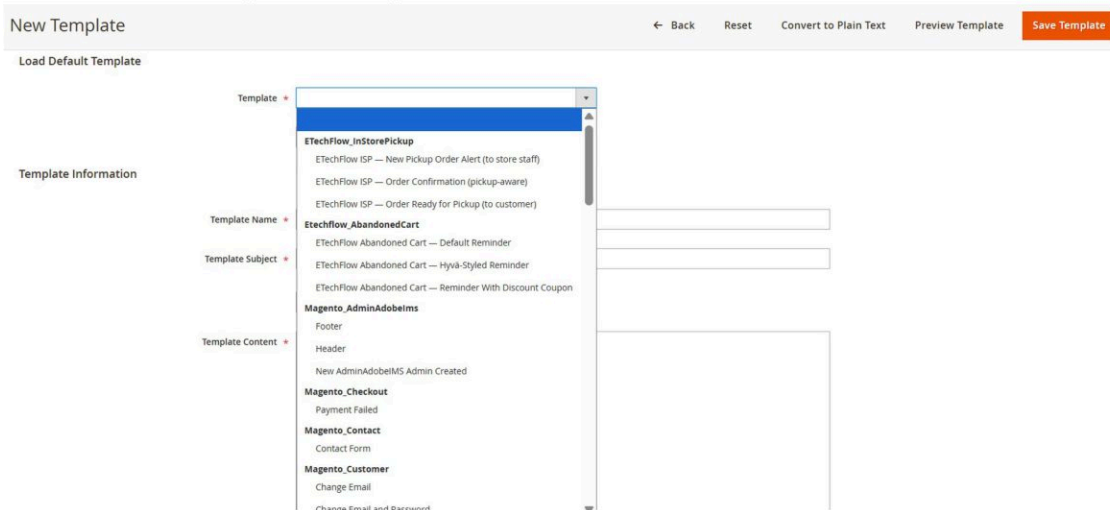
Each template includes:

- Customer first name greeting (if available)
- Store name personalization
- Cart items list (image, name, qty, price)
- “Complete Your Purchase” CTA button → restore link
- Open-tracking pixel
- Click-tracking on all links
- GDPR-compliant unsubscribe footer

6.5 Customizing Email Templates

To customize the look/copy without editing extension files:

1. Navigate to Admin → Marketing → Communications → Email Templates → Add New Template
2. From the **Load Default Template** dropdown, choose one of the 3 ETechFlow templates
3. Click **Load Template**
4. Edit subject, content (HTML supported), styling
5. Give it a name (e.g., “Black Friday Reminder”)
6. Save Template
7. Now open your Email Rule, choose this custom template from the Email Template dropdown



Magento Email Templates — Load Default

Figure 16: Magento’s Email Templates page with ETechFlow templates available.

You can create unlimited custom templates and assign different ones to different rules.

6.6 Tracking & Recovery Detection

The extension tracks every email touchpoint:

Action	Status	DB Column
Email queued by cron	sent	email_log.status = 2
Customer opens email (pixel hit)	opened	email_log.opened_at timestamp + status update
Customer clicks any link	clicked	email_log.clicked_at + status update
Customer places order from restored cart	converted	email_log.status = 5 + abandoned_cart.recovered_at

Recovery Detection (2 Layers — Defensive)

Layer	Trigger	Why
Observer	sales_order_place_after event	Standard Magento order placement
Plugin	Magento\Quote\Model\QuoteManagement::submit	Catches non-standard order flows

Both call `RecoveryService::markRecovered()` which is **idempotent** — firing twice is safe. The first call updates the cart's status, the second call sees it's already recovered and does nothing.

6.7 Auto-Stop Conditions

Emails stop sending automatically when any of these occur:

Condition	Verified In Code?
Customer places an order	✓ Yes (Path A + B)
Customer unsubscribes via email link	✓ Yes (sets status: unsubscribed)
Max emails per cart cap is hit	✓ Yes (cron filter on emails_sent < cap)

Note: Two additional auto-stop conditions are planned for v1.3.0 — “stop after email click” and “skip if cart item is out of stock”. Track the changelog for updates.

7. Exit-Intent Popup System

Real-time on-site recovery — show a popup when a visitor is about to leave, with one-click coupon application.

7.1 How Popups Work (Visitor Side)

1. Visitor lands on a page → JS handler loads
- ↓
2. Handler reads rule config + calls /popup/get for matching rules
- ↓
3. First matching rule selected (by priority – lower number wins)
- ↓
4. Trigger listener attached based on rule.trigger_type:
 - Desktop + exit_intent → mouseout (top viewport)
 - Mobile + exit_intent → visibilitychange + fallback timer
 - time_on_page → setTimeout(N seconds)
 - scroll_depth → scroll event with % threshold
 - cart_subtotal_threshold → immediate (already matched)
- ↓
5. Trigger fires → popup renders in chosen layout (modal/slide-in/bar)
- ↓
6. /popup/track logs impression (DB row created)
- ↓
7. Visitor clicks CTA →
 - If rule has linked Cart Price Rule: generate single-use coupon, auto-apply to current cart via /popup/apply
 - If no discount linked: simply close popup
- ↓
8. Success message shown with coupon code, OR popup closes

7.2 Popup Rules Grid

Navigate to:

Admin → Marketing → ETechFlow Abandoned Cart → Popup Rules

Popup Rules

3 records found

ID	Rule Name	Active	Trigger	Page Scope	Priority	Action
3	VIP - Big Spender (\$500+)	Yes	Exit Intent (mouse leaves viewport)	All Storefront Pages	5	Select
5	Mid-Tier 10% Off	Yes	Exit Intent (mouse leaves viewport)	All Storefront Pages	10	Select
2	exit intent test	Yes	Exit Intent (mouse leaves viewport)	All Storefront Pages	15	Select

Popup Rules Grid

Figure 17: Popup Rules listing grid.

Grid Features:

Element	Purpose
Add New Popup Rule button (top-right)	Creates a fresh popup rule
Trigger column	Quick view of which trigger fires this popup
Page Scope column	Which storefront pages this rule applies to
Priority column	Tiebreaker when multiple rules match the same visitor — lower wins
Default sort	Priority ASC (highest-priority rule at top)

7.3 Creating a Popup Rule

Click **Add New Popup Rule**. Form opens with **6 fieldsets**.

7.3.1 General Information

The screenshot shows a web form titled "New Popup Rule". At the top right, there is a button labeled "Create a popup rule". Below the title bar, there are navigation options: "Back", "Save and Continue Edit", and a "Save" button. The "General Information" fieldset contains the following elements:

- Rule Name**: A text input field with a red asterisk indicating it is required.
- Description**: A text area with a red asterisk and a small icon for help.
- Active**: A toggle switch currently set to "No". Below it is a note: "When off, this popup never shows regardless of conditions."
- Priority**: A text input field containing the value "10". Below it is a note: "Lower numbers evaluate first when multiple popup rules match the same page."

Popup Rule — General

Figure 18: Popup Rule form — General Information fieldset.

Field	Notes
Rule Name	Internal label only.
Description	Visible in grid only — describe when this rule fires.
Active	Master toggle for this rule.
Priority	Lower = higher priority. When multiple rules match the same

Field	Notes
	visitor, lowest-priority rule wins (only one popup shows per page load).

7.3.2 Trigger

Trigger

Trigger Type * When the popup is offered: exit-intent (mouse leaves window), time on page, scroll depth, or cart subtotal threshold.

Trigger Value For Time on Page: seconds. For Scroll Depth: percent (0-100). For Cart Subtotal: amount. Ignored for Exit Intent.

Page Scope * Which pages this popup can fire on.

Mobile Fallback Seconds For exit-intent trigger on mobile devices: idle seconds before popup fires as a fallback (mobile doesn't have mouse-leave events). 0 disables the fallback. Default 15.

Popup Rule — Trigger

Figure 19: Popup Rule form — Trigger fieldset with all 4 trigger types.

Field	Notes
Trigger Type	4 options — see Section 7.4 below
Trigger Value	Numeric value whose meaning depends on trigger type. Blank for exit_intent.
Page Scope	Which pages: All / Cart / Checkout / Category / Product
Mobile Fallback Seconds (v1.2.0)	For exit-intent on mobile: idle timer fallback. Default 15s. 0 disables.

7.3.3 Popup Content

Popup Content

Headline * Bold attention-grabbing line at the top of the popup.

Body Supporting copy below the headline. HTML allowed.

Call-To-Action Button Text

Image URL Optional banner image shown above the headline. Use an absolute URL.

Popup Rule — Content

Figure 20: Popup Rule form — Popup Content fieldset.

Field	Notes
Headline	Required. Bold attention-grabber at top of popup.
Body	Optional. HTML allowed (inline styles work). Description below headline.
CTA Text	Button label. Default: "Get My Discount".
Image URL	Optional. Absolute URL to a banner image shown above the headline.

Tip: Use HTML in Body for richer formatting:

```
<p style="text-align:center; color:#dc3545;">
  <strong>Limited Time Offer!</strong>
</p>
<ul>
  <li>Free shipping included</li>
  <li>Single-use code</li>
</ul>
```

7.3.4 Discount

Discount

Linked Cart Price Rule ID

When customer clicks the CTA, a coupon code is generated for this Cart Price Rule and applied to their cart. Create the rule under Marketing → Cart Price Rules and paste its ID here. Leave blank for non-discount popups.

Popup Rule — Discount

Figure 21: Popup Rule form — Discount fieldset (linked Cart Price Rule ID).

Field	Notes
Linked Cart Price Rule ID	Optional. Magento Cart Price Rule ID to auto-apply when CTA clicked. Leave blank for non-discount popups (CTA just closes the popup).

To Set Up a Discount:

1. Navigate to Admin → Marketing → Promotions → Cart Price Rules → Add New Rule
2. Create the rule (e.g., 10% off, specific coupon type, **Use Auto Generation: Yes**)
3. After saving, the URL shows id/X — note this number
4. Paste **X** into the popup rule's **Linked Cart Price Rule ID** field

Coupon *

Coupon Code *

Use Auto Generation

If you select and save the rule you will be able to generate multiple coupon codes.

Magento Cart Price Rule Setup

Figure 22: Magento native Cart Price Rule edit page — must use Specific Coupon + Auto Generation.

7.3.5 Visual Design (v1.2.0)

Visual Design

Template Layout

Entrance Animation

Background Color

Headline Color

Body Text Color

CTA Button Background

CTA Button Text Color

Border Radius (px)

Dialog Width (px)

Popup Rule — Visual Design

Figure 23: Popup Rule form — Visual Design fieldset (v1.2.0) with all customization fields.

The Visual Design fieldset (introduced in v1.2.0) gives admins **per-rule visual customization** without editing CSS files.

Field	Default	Description
Template Layout	Modal	See Section 7.5
Entrance Animation	Zoom In	See Section 7.5
Background Color	#ffffff	Popup background hex
Headline Color	#0f172a	Heading text hex
Body Text Color	#374151	Paragraph text hex
CTA Button Background	#0f172a	Button hex
CTA Button Text Color	#ffffff	Button text hex
Border Radius (px)	12	Rounded corner size

Field	Default	Description
Dialog Width (px)	480	Modal width (Bar layouts span full width)

Customise popup appearance

7.3.6 Targeting & Frequency

The screenshot shows a configuration form titled "Targeting & Frequency". It contains several sections:

- Stores:** A multi-select dropdown menu with options: "Main Website", "Main Website Store", and "Default Store View".
- Customer Groups:** A multi-select dropdown menu with options: "NOT LOGGED IN", "General", "Wholesale", and "Retailer".
- Minimum Cart Subtotal:** A text input field with a small note below it: "Only show if the cart's subtotal is at least this amount. Leave blank for no minimum."
- Maximum Cart Subtotal:** A text input field with a small note below it: "Only show if the cart's subtotal is at most this amount. Leave blank for no maximum."
- Apply to Guests:** A dropdown menu currently set to "Yes", with a note below it: "When off, this popup only shows to logged-in customers."
- Frequency:** A dropdown menu currently set to "Once per Session (resets on browser close)".
- Max Impressions per Customer:** A text input field with the value "3" entered.

Popup Rule — Targeting & Frequency

Figure 24: Popup Rule form — Targeting & Frequency fieldset.

Field	Notes
Stores	Multi-select (Ctrl+click). Leave empty for all stores.
Customer Groups	Multi-select. Includes "NOT LOGGED IN".
Minimum Cart Subtotal	Optional. Cart subtotal must be \geq this. Set to 0.01 to require non-empty cart.
Maximum Cart Subtotal	Optional. Cap on cart size for this popup.
Apply to Guests	Yes/No.
Frequency	once_per_session / once_per_day / once_per_lifetime
Max Impressions per Customer	Hard lifetime cap (0 = unlimited)

7.4 Trigger Types Deep Dive

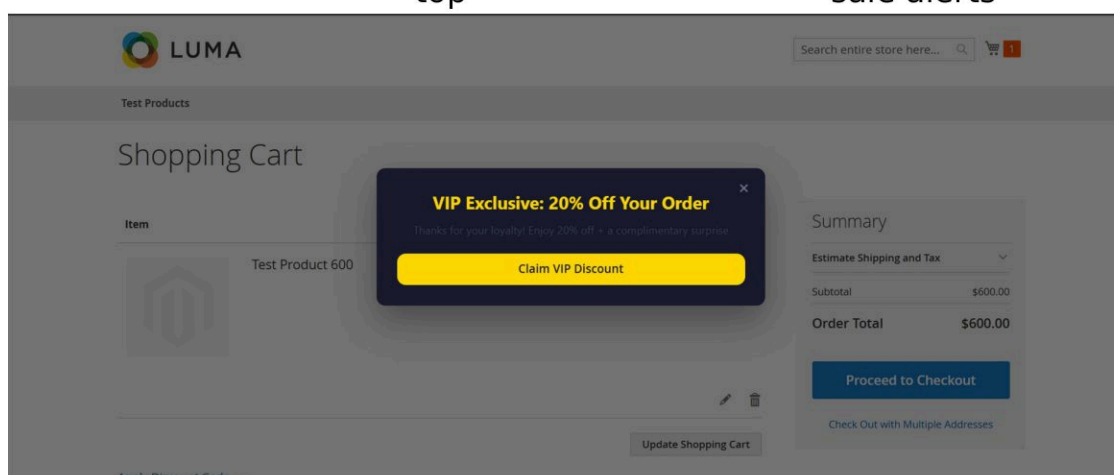
Trigger	When It Fires	Trigger Value	Best Use Case
Exit Intent	Visitor moves mouse to top of viewport (desktop) OR switches tab /	(ignored)	Standard "wait, don't go" recovery

Trigger	When It Fires	Trigger Value	Best Use Case
Time on Page	idle timer (mobile) After N seconds on page	Seconds (e.g., 30)	Welcome popup, newsletter signup
Scroll Depth	After scrolling N % down	Percent (e.g., 50)	Content engagement, mid-article offers
Cart Subtotal Threshold	When cart subtotal exceeds Min Cart Subtotal	(ignored — uses Min/Max Subtotal in Targeting)	“Spend \$X for free shipping” upsell

7.5 Visual Design — 4 Templates + 4 Animations

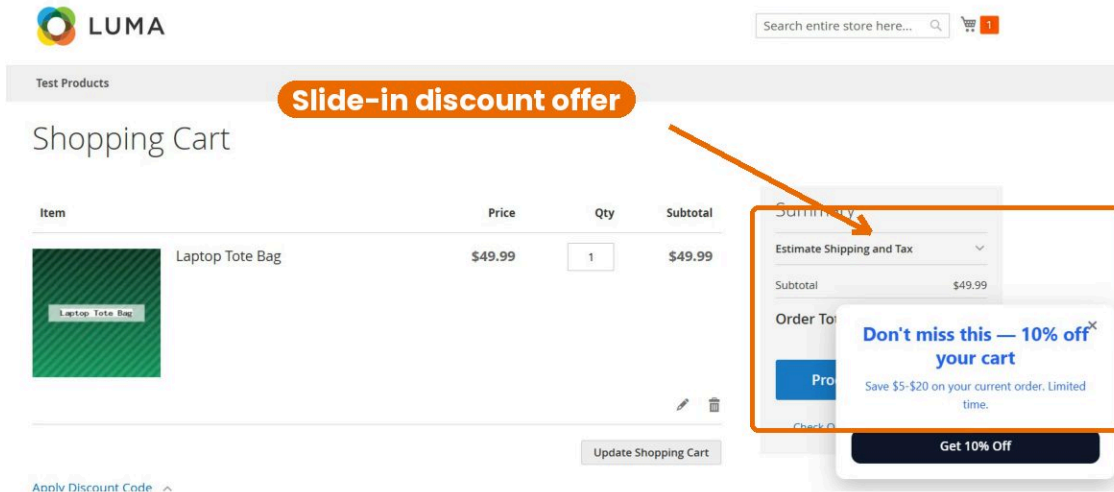
Template Layouts

Template	Visual	Best Use
Modal (default)	Centered overlay with dark backdrop	General offers — high attention
Slide-In	Bottom-right corner card	Less intrusive — newsletter, soft offers
Bottom Bar	Full-width strip at page bottom	Site-wide announcements, urgency banners
Top Bar	Full-width strip at page top	Critical notifications, sale alerts



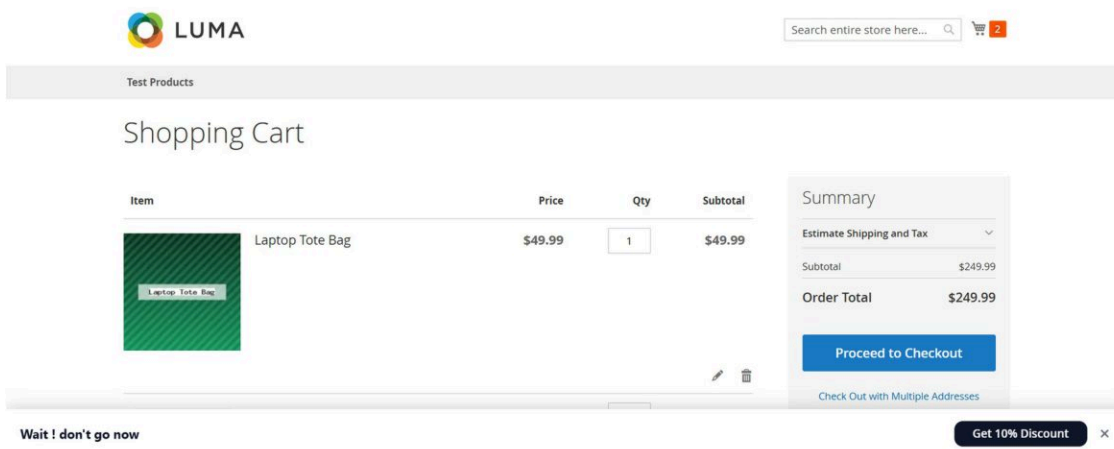
Storefront — Modal Layout

Figure 25: Storefront popup using Modal layout (centered overlay).



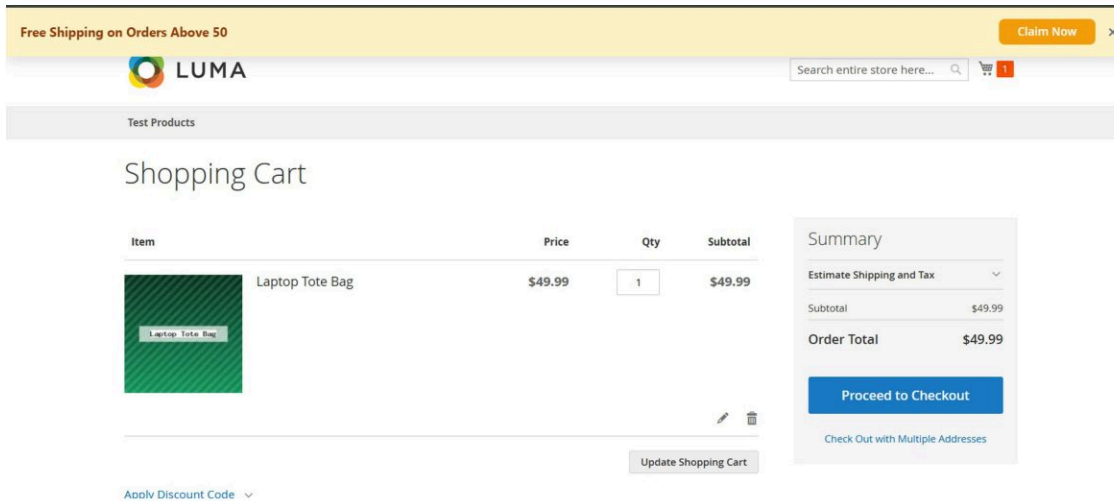
Storefront — Slide-In Layout

Figure 26: Storefront popup using Slide-In layout (bottom-right corner card).



Storefront — Bottom Bar Layout

Figure 27: Storefront popup using Bottom Bar layout.



Storefront — Top Bar Layout

Figure 28: Storefront popup using Top Bar layout.

Animations

Animation	Effect	Best Pairing
Fade In	Opacity 0 → 1 (220ms)	Subtle, professional
Slide Up	Translate from below (280ms)	Mobile-friendly, modern
Zoom In (default)	Scale 0.94 → 1.0 (220ms)	Universal, attention-grabbing
Bounce	Spring effect (480ms)	Playful, fun brands

7.6 Mobile Behavior (v1.2.0)

Desktop's mouseout event doesn't fire on touch devices — so mobile exit-intent uses different signals:

Signal	When Fires
visibilitychange (primary)	Visitor switches to another tab / app / locks screen
Idle Timer (fallback)	After N seconds of no interaction (admin-configurable, default 15s)

The JS handler auto-detects device from User-Agent — no per-rule device toggle needed.

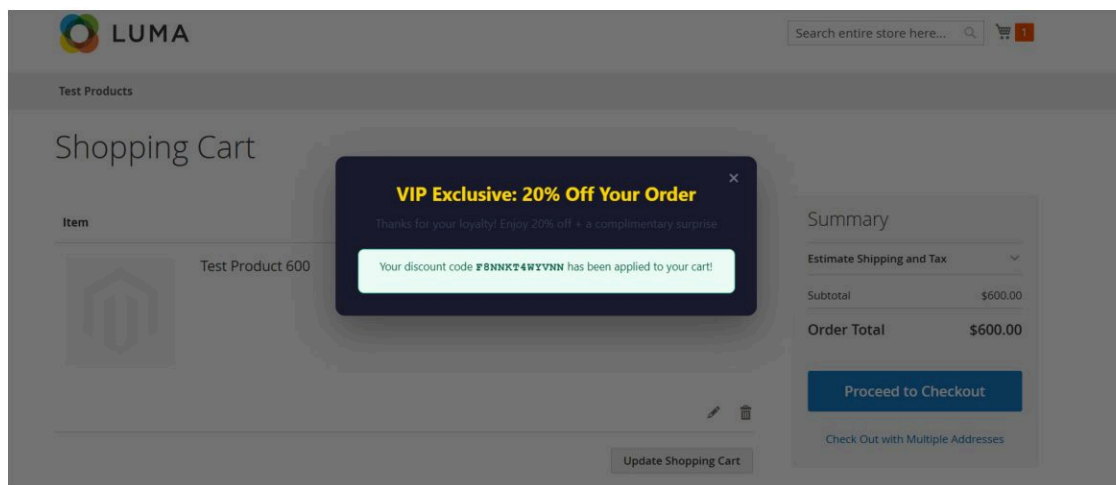
To disable mobile entirely:

- Set Mobile Fallback Seconds to 0
- Mobile visitors will only see popup if they actively tab-switch — most won't

7.7 Discount Linkage — How Coupon Application Works

When CTA is clicked and a Cart Price Rule is linked:

1. JS sends POST /etechflow_abandonedcart/popup/apply { rule_id, impression_id }
↓
2. Backend (Apply controller):
 - Validates impression belongs to current session
 - Checks idempotency (if already accepted, return same coupon)↓
3. PopupCouponGenerator creates a UNIQUE 12-char alphanumeric coupon (uppercase + digits, avoiding 0/0/1/I/L for clarity)
 - Single-use (usage_limit = 1, usage_per_customer = 1)
 - Linked to the popup's Cart Price Rule↓
4. Coupon applied to current quote (cart)
 - quote.setCouponCode(generated_code)
 - quote.collectTotals() recalculates discount
 - cartRepository.save(quote)↓
5. Impression row updated: accepted_at + coupon_code_generated
↓
6. JSON response: { success: true, coupon_code: "K7M3PXR9HBQ2" }
↓
7. Popup shows green success strip:
"Your discount code K7M3PXR9HBQ2 has been applied to your cart!"
↓
8. Customer clicks Cart → sees Discount line in summary



Popup — Coupon Applied Success

Figure 29: Popup showing green success strip after coupon application.

Apply Discount Code ^

F8NNKT4WYVNN Cancel Coupon

Cart with Applied Discount

Figure 30: Cart page showing discount line item in the Summary panel.

7.8 Tiered Discount Strategy Example

Smart merchants set up multiple popup rules with non-overlapping cart subtotal ranges:

Rule	Cart Range	Discount	Template	Priority
Free Shipping Push	\$30-\$49.99	Free shipping	Bottom Bar	15
Mid-Tier Offer	\$50-\$199	10% off	Slide-In	10
VIP Big Spender	\$200+	20% off	Modal	5

Each visitor sees exactly **one popup** matched to their cart size — no overlap, no spam. Lower priority number always wins when ranges happen to overlap.

8. Reports & Analytics

Single unified dashboard showing both email recovery and popup performance.

Navigate to:

Admin → Marketing → ETechFlow Abandoned Cart → Reports



Reports — Email KPI Cards

Figure 31: Reports dashboard — date filter + email KPI cards.

8.1 Date Range Filter

At the top of the dashboard, two date inputs (From / To) let you scope all metrics. Defaults to the last 30 days.

Click **Apply** after changing dates — page reloads with updated metrics.

8.2 Email KPI Cards

Card	Calculation	Meaning
Abandoned Carts	COUNT of carts in window	Total tracked carts (any status)
Recovered	COUNT where status = recovered	Carts that converted to orders
Recovery Rate	recovered / abandoned × 100	Percentage success — industry avg 5-15%
Revenue Recovered	SUM of recovered_revenue	\$ value of recovered orders
Emails Sent	COUNT of email_log with status ≥ sent	Total emails delivered
Open Rate	opened / sent × 100	% of customers who opened email
Click Rate	clicked / sent × 100	% who clicked restore link
Failed Sends	COUNT with status = failed	Bounces, SMTP errors, etc.

8.3 Per-Rule Email Breakdown

Track which rule converts

Per-Rule Performance

Rule	Active	Sequence	Sent	Opened	Clicked	Converted	Open Rate	Click Rate	Conversion Rate
Default: First Reminder (1 hour)	—	1	1	0	0	1	0.0%	0.0%	100.0%
Test 1min reminder	—	1	3	3	0	2	100.0%	0.0%	66.7%
First Reminder (30 min)	✓	1	1	1	0	0	100.0%	0.0%	0.0%
Default: Second Reminder (24 hours)	—	2	0	0	0	0	0.0%	0.0%	0.0%
Second Reminder (24h)	✓	2	1	1	0	0	100.0%	0.0%	0.0%
Default: Third Reminder (72 hours)	—	3	0	0	0	0	0.0%	0.0%	0.0%
Final Reminder (72h)	✓	3	0	0	0	0	0.0%	0.0%	0.0%

Reports — Per-Email-Rule Breakdown

Figure 32: Per-Email-Rule performance breakdown table.

Shows each Email Rule’s individual performance:

Column	What
Rule Name	The Email Rule label
Active	✓ if currently enabled, — if disabled
Sequence	This rule’s position in the sequence
Sent	Emails sent from this rule in date range
Opened / Clicked / Converted	Engagement counters
Open Rate / Click Rate / Conversion Rate	Calculated percentages

Use this to identify which rule converts best — then adjust subject lines / send-time / templates for underperformers.

8.4 Popup Performance Section (v1.1.0+)



Reports — Popup Performance

Figure 33: Popup Performance KPI cards section.

Card	Meaning
Impressions	Total popup views (any rule) in date range
Accepted (CTA)	Visitors who clicked CTA
Acceptance Rate	accepted / impressions × 100

Card	Meaning
Dismissed	Visitors who closed without clicking
Converted Orders	Popups that led to a completed order
Conversion Rate	$\text{converted} / \text{accepted} \times 100$ — “of those who clicked, how many bought?”

8.5 Per-Popup-Rule Breakdown

Popup Rule	Active	Trigger	Page Scope	Impressions	Accepted	Converted	Acceptance Rate	Conversion Rate
Top Bar Demo	—	exit_intent	all	0	0	0	0.0%	0.0%
VIP - Big Spender (\$500+)	✓	exit_intent	all	1	1	0	100.0%	0.0%
exit intent test	✓	exit_intent	all	0	0	0	0.0%	0.0%
Mid-Tier 10% Off	✓	exit_intent	all	2	0	0	0.0%	0.0%

Reports — Per-Popup-Rule Breakdown

Figure 34: Per-Popup-Rule performance breakdown table.

Same as per-email-rule but for popups. Shows trigger type + page scope so you can correlate “which combination converts best”.

9. Admin Permissions (Role-Based Access)

The extension supports Magento’s standard role-based access control. Owners can give selective access to marketing staff without exposing sensitive settings.

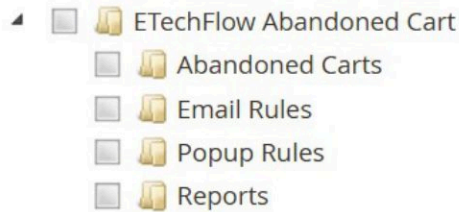
9.1 ACL Resources

The extension defines 5 permission nodes:

Resource	Controls
Etechflow_AbandonedCart::main	Parent menu visibility
Etechflow_AbandonedCart::carts	View + manage Abandoned Carts grid
Etechflow_AbandonedCart::rules	View + manage Email Rules
Etechflow_AbandonedCart::popup_rules	View + manage Popup Rules
Etechflow_AbandonedCart::reports	View Reports dashboard
Etechflow_AbandonedCart::config	Edit Stores → Configuration section (license, SMTP-adjacent settings)

9.2 Creating a Restricted Marketing Role

Example: Give your marketing assistant access to **rules + reports** only — withhold configuration (license + sensitive settings).



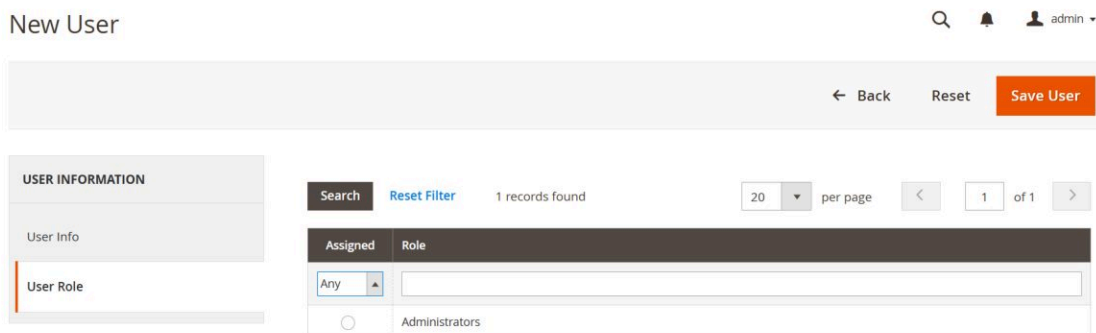
User Role Resources

Figure 35: Add New User Role — Role Resources tab with ETechFlow Abandoned Cart nodes.

Step-by-step:

1. Navigate to Admin → System → Permissions → User Roles
2. Click **Add New Role**
3. **Role Info** tab — set name: “Marketing Assistant”
4. **Role Resources** tab — select:
 - o ETechFlow Abandoned Cart → Email Rules
 - o ETechFlow Abandoned Cart → Popup Rules
 - o ETechFlow Abandoned Cart → Reports
 - o ETechFlow Abandoned Cart Configuration (uncheck — hides license)
5. **Save Role**

9.3 Assigning a User to the Role



Assign User Role

Figure 36: Add New User → User Role tab.

1. Navigate to Admin → System → Permissions → All Users

2. Click **Add New User**
3. Fill name, email, password
4. **User Role** tab — select “Marketing Assistant”
5. **Save User**

When this user logs in, they’ll see only the Marketing menu items they have access to. Configuration sections will be hidden or read-only.

9.4 Storefront vs Admin Distinction

Audience	Access
Storefront customers / guests	Never any configuration access — extension behavior controlled by admin only
Super Admin	Full control over everything
Custom admin users	Whatever ACL grants their assigned role

10. Storefront Customer Experience

What customers see from their side of the website.

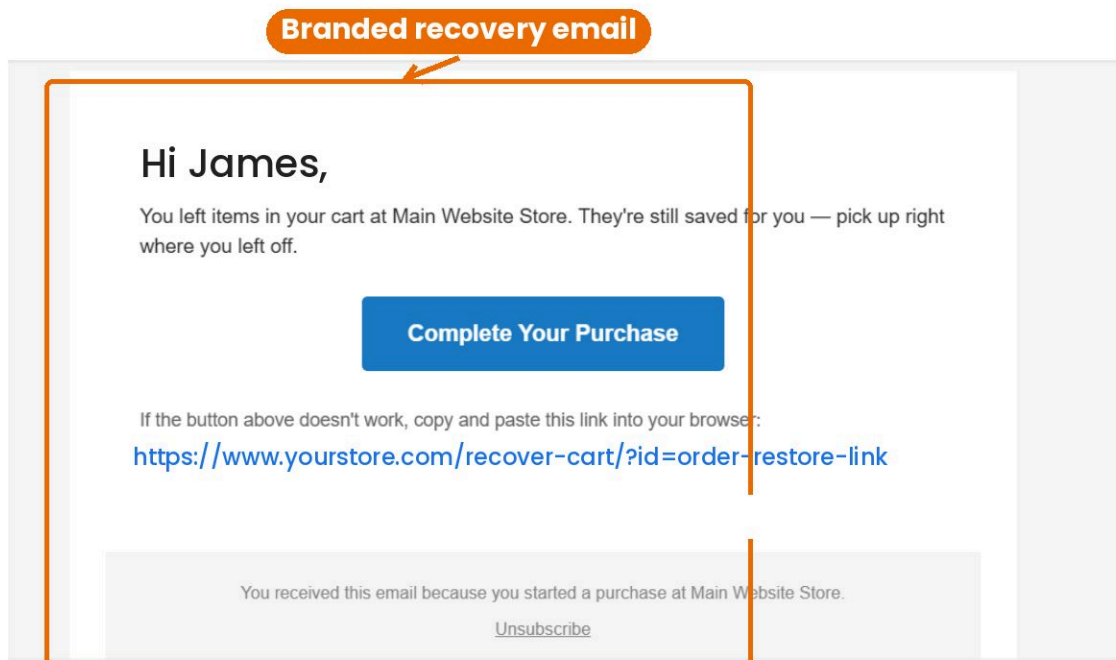
10.1 Cart Abandonment

Nothing visible to the customer. Behind the scenes:

- Observer captures cart snapshot on each cart action
- Customer doesn’t see any “you’ll be emailed” notice (intentional — not invasive)

10.2 Receiving the First Email (T+30 min)

Customer’s inbox shows:



Gmail Inbox — Cart Reminder

Figure 37: Gmail inbox showing incoming abandoned cart reminder.

Subject: “Don’t forget your cart” (or rule-specific subject from template)

Email contents:


- Greeting with customer first name
- Cart items table (product image, name, qty, price)
- Big CTA button: “Complete Your Purchase”
- Footer: unsubscribe link + store name

10.3 Clicking the Restore Link

When customer clicks the CTA button:

1. Browser opens `/etechflow_abandonedcart/restore?t=TOKEN`
2. Extension validates token (still valid? not expired? not unsubscribed?)
3. Original quote is loaded into the customer’s session
4. If customer was logged in originally + auto-login is enabled, they’re logged back in
5. Redirect to `/checkout/cart` — items pre-filled

Shopping Cart

Item	Price	Qty	Subtotal
 Laptop Tote Bag	\$49.99	1	\$49.99

[Move to Wishlist](#) [Update Shopping Cart](#)

Summary

Estimate Shipping and Tax ▼

Subtotal \$49.99

Order Total \$49.99

[Proceed to Checkout](#)

[Check Out with Multiple Addresses](#)

Cart Restored from Email

Figure 39: Cart page after clicking email's restore link — items pre-filled.

10.4 Popup Appearance

Per rule's template + animation. Customer sees:

- Backdrop (modal only) — dims the page
- Dialog with image (if set), headline, body, CTA button
- Close button (X)
- ESC key + backdrop click also close

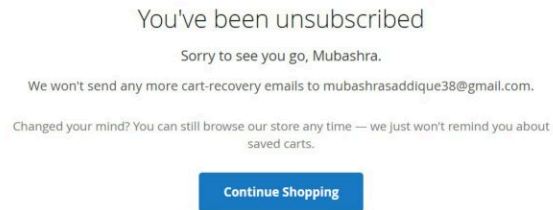
After clicking CTA with coupon linked:

- Green success strip appears in the popup
- Coupon code shown in monospace font
- "Your discount code XXXX has been applied to your cart!"
- Popup auto-closes after a few seconds (or customer clicks X)

10.5 Unsubscribe Flow

If customer clicks "Unsubscribe" in any email:

Unsubscribe Confirmation



Unsubscribe Confirmation

Figure 40: Unsubscribe confirmation page after customer clicks unsubscribe link.

1. Browser opens /etechflow_abandonedcart/unsubscribe?t=TOKEN
 2. Cart's status is updated to unsubscribed
 3. Confirmation page shown: "You won't receive any more cart reminders from this email."
 4. No more emails ever — cron's findCandidates query filters by status = pending so unsubscribed carts are excluded forever.
-

11. Troubleshooting

11.1 No Emails Are Being Sent

Symptoms: Cart is tracked in DB but emails_sent stays 0.

Checklist:

1. Cron running?

```
crontab -l # should show bin/magento cron:run
docker exec magento-db mariadb -u<user> -p<pass> magento -e
"SELECT * FROM cron_schedule WHERE job_code LIKE 'etechflow%'
ORDER BY schedule_id DESC LIMIT 5;"
```

Recent success entries should appear. If only pending, cron isn't running.

2. Active rules exist?

```
docker exec magento-db mariadb -u<user> -p<pass> magento -e
"SELECT rule_id, name, is_active, send_after_minutes FROM
etechflow_abandoned_cart_rule WHERE is_active=1;"
```

3. **Cart eligible?** Check `abandoned_at + send_after_minutes ≤ NOW()`
AND cart status is pending AND `emails_sent < sequence_cap`.

4. **Manual trigger:**

```
docker exec magento-app bin/magento etechflow:abc:send
```

Watch for “Processed: N” output.

5. **Check exception log:**

```
docker exec magento-app tail -50  
/var/www/html/var/log/exception.log
```

11.2 Email Sent but Customer Didn't Receive

Most common cause: Test Mode is enabled, emails redirected to admin's email.

```
docker exec magento-app bin/magento config:show  
etechflow_abandoned_cart/general/test_mode  
# Expected output: 0 (disabled)
```

If 1, set to 0:

```
docker exec magento-app bin/magento config:set  
etechflow_abandoned_cart/general/test_mode 0  
docker exec magento-app bin/magento cache:flush
```

Other causes: - SMTP credentials incorrect - Gmail's spam filter — check spam folder - Gmail's Promotions tab — sometimes auto-categorized

11.3 Popup Not Showing on Storefront

Checklist:

1. **Browser console errors?** Open DevTools (F12) → Console tab.
2. **Config JSON present?** In DevTools → Elements, search for `etechflow-popup-config` — should be a `<script type="application/json">` tag.
3. **Endpoint working?**

```
curl -s "https://yourstore.com/etechflow_abandonedcart/popup/get?  
page_scope=all" -H 'X-Requested-With: XMLHttpRequest'
```

Expected: `{"rules": [{...}]}`. If `{"rules": []}`, no rule matches the current visitor.

4. **Common filters blocking:**

- o `customer_group_ids` doesn't include guest's group (0 = NOT LOGGED IN)
 - o `min_cart_subtotal` too high — empty cart doesn't match
 - o frequency cap hit — visitor already saw popup this session
 - o `max_impressions_per_customer` hit
5. **JS file loaded?** Network tab → search “etechflow” → `popup-handler.js` should be Status 200.

11.4 PHP 8.4 Deprecation Warnings

If you see warnings like:

Implicitly marking parameter as nullable is deprecated

This typically affects custom code or third-party extensions. Our extension is PHP 8.4 compatible from v1.1.0+.

11.5 Verify Command Reports Failures

```
docker exec magento-app bin/magento etechflow:abc:verify
```

14 checks run sequentially. Any FAIL output shows the specific reason — common ones:

Failure	Likely Cause
“DB tables present”	Schema not upgraded after install — run <code>bin/magento setup:upgrade</code>
“AbandonedCart repo round-trip”	Foreign key constraint — fake test quote ID doesn't exist (cosmetic v1.0.0 bug)
“RuleRepository lists rules”	DI compilation needed — run <code>setup:di:compile</code>

11.6 Cart Restore Link Shows “Invalid Token”

The restore token has expired (default 30 days). Customer must shop again.

To increase expiry:

```
docker exec magento-app bin/magento config:set
etechflow_abandoned_cart/restore/token_expiry_days 90
docker exec magento-app bin/magento cache:flush
```

12. Technical Reference

12.1 Module Structure

app/code/Etechflow/AbandonedCart/

```
├── Api/
│   ├── Data/                # Service contracts (interfaces)
│   └── *RepositoryInterface.php
├── Block/
│   ├── Adminhtml/          # Admin UI blocks
│   ├── Frontend/           # Frontend blocks (PopupConfig)
│   └── Email/              # Email rendering blocks
├── Console/Command/        # CLI commands
│   ├── VerifyCommand.php
│   ├── SendCommand.php
│   ├── CleanupCommand.php
│   └── PerfCommand.php
├── Controller/
│   ├── Adminhtml/          # Admin controllers (CRUD)
│   ├── Popup/              # Storefront popup endpoints
│   ├── Restore/            # Cart restore flow
│   ├── Track/              # Open + click tracking
│   └── Unsubscribe/        # Opt-out endpoint
├── Cron/                   # Cron job classes
├── Model/
│   ├── Service/            # Business logic services
│   ├── Source/             # Admin dropdown sources
│   └── ResourceModel/      # DB access layer
├── Observer/               # Event observers
├── Plugin/                 # Magento class plugins
├── Setup/                  # Data + schema patches
├── Ui/Component/Listing/  # Admin grid columns
├── etc/                    # XML config
├── view/                   # Frontend + admin templates
└── tools/                  # Internal CLI tools (license generation –
NEVER ship to merchants)
```

12.2 Database Tables

Table	Purpose
etechflow_abandoned_cart	Cart snapshots, restore tokens, recovery state
etechflow_abandoned_cart_rule	Email rule configuration
etechflow_abandoned_cart_email_logging	Per-email send + engagement history
etechflow_popup_rule	Popup rule configuration (incl. v1.2.0 visual fields)
etechflow_popup_impression	Popup show events

12.3 Storefront Endpoints

URL	Method	Purpose
<code>/ etechflow_abandonedca rt/popup/get</code>	GET	Returns matching popup rules (JSON)
<code>/ etechflow_abandonedca rt/popup/track</code>	POST	Logs popup impression
<code>/ etechflow_abandonedca rt/popup/apply</code>	POST	Applies coupon to cart
<code>/ etechflow_abandonedca rt/restore</code>	GET	Restores cart from email link
<code>/ etechflow_abandonedca rt/track/open</code>	GET	Open-tracking pixel
<code>/ etechflow_abandonedca rt/track/click</code>	GET	Click-tracking redirect
<code>/ etechflow_abandonedca rt/unsubscribe</code>	GET	Customer opt-out

12.4 CLI Commands

Command	Purpose
<code>bin/magento etechflow:abc:verify</code>	End-to-end health check (14 steps)
<code>bin/magento etechflow:abc:send</code>	Manually trigger send cron
<code>bin/magento etechflow:abc:cleanup</code>	Run retention cleanup
<code>bin/magento etechflow:abc:perf</code>	Performance profiling

12.5 Cron Jobs

Job	Schedule	Purpose
<code>etechflow_abandoned_c art_send_reminders</code>	<code>* / 5 * * * *</code> (every 5 min)	Pick up eligible carts
<code>etechflow_abandoned_c art_send_queued_email s</code>	<code>2-57 / 5 * * * *</code> (offset 2,7,12,...)	Transmit queued emails via SMTP
<code>etechflow_abandoned_c art_cleanup</code>	<code>0 3 * * *</code> (daily 3am)	Purge old logs + expired carts

12.6 Configuration Paths (for bin/magento config:set)

Path	Default
etechflow_abandoned_cart/ general/enabled	1
etechflow_abandoned_cart/ general/ abandonment_threshold_minutes	30
etechflow_abandoned_cart/ general/test_mode	0
etechflow_abandoned_cart/ general/test_recipient_email	(blank)
etechflow_abandoned_cart/email/ sender_identity	general
etechflow_abandoned_cart/email/ max_emails_per_cart	3
etechflow_abandoned_cart/ restore/token_expiry_days	30
etechflow_abandoned_cart/ restore/auto_login_customer	1
etechflow_abandoned_cart/ tracking/open_tracking_enabled	1
etechflow_abandoned_cart/ tracking/click_tracking_enabled	1
etechflow_abandoned_cart/cron/ batch_size	50
etechflow_abandoned_cart/cron/ lock_timeout_minutes	15
etechflow_abandoned_cart/cron/ max_runtime_seconds	240
etechflow_abandoned_cart/ retention/log_retention_days	180
etechflow_abandoned_cart/ retention/ expired_cart_retention_days	90
etechflow_abandoned_cart/ license/license_key	(blank)
etechflow_abandoned_cart/ license/is_production	0

12.7 Events Fired by the Extension

Event	When	Payload
(none custom — uses Magento's	—	—

Event	When	Payload
standard events)		

The extension subscribes to Magento events but doesn't fire its own custom events. To extend behavior, use plugins on the extension's classes.

12.8 Plugins / Around-Methods Used

Target	Plugin	Purpose
Magento\Quote\Model\QuoteManagement::submit	Etechflow\AbandonedCart\Plugin\Quote\SubmitPlugin	Defensive recovery detection backup

13. Changelog

v1.2.0 — Visual Templates + Mobile Exit-Intent + UX Fixes

New Features:

- 4 visual popup templates (Modal, Slide-In, Bottom Bar, Top Bar)
- 4 entrance animations (Fade In, Slide Up, Zoom In, Bounce)
- 5 admin-editable hex colors (background, headline, body, CTA bg, CTA text)
- Per-rule border radius + dialog width
- Mobile exit-intent — visibilitychange + admin-configurable fallback timer (default 15s)
- Save/Back/Delete/Save-And-Continue button blocks on rule forms

Schema: 10 new columns on etechflow_popup_rule table.

Bug Fixes:

- Nullable trigger_value for exit-intent rules without numeric trigger
- PHP 8.4 implicit-nullable parameter deprecations in 3 Grid Collections

v1.1.0 — Exit-Intent Popup System

New Features:

- Complete popup feature: 2 DB tables, admin grid + form, storefront JS handler
- 4 trigger types (Exit Intent, Time on Page, Scroll Depth, Cart Subtotal)
- 5 page scopes (All, Cart, Checkout, Category, Product)
- One-click coupon application via linked Cart Price Rule
- Popup impressions tracking
- Reports dashboard extended with popup KPIs + per-rule breakdown
- Verify command extended to 14 steps

Theme Support:

- Luma + Hyvä parallel templates
- Single shared vanilla-JS handler (IIFE, no framework deps)
- Theme-neutral CSS

v1.0.0 — Initial Release

- Abandoned cart tracking observer
 - Email Rules engine
 - 3 pre-built email templates (Luma default, Hyvä, With-Coupon)
 - 3 cron jobs (send, queue transmit, cleanup)
 - Cart restore + click-tracking + open-tracking endpoints
 - Unsubscribe flow
 - Reports dashboard
 - License validator (HMAC-signed, host-locked)
 - VerifyCommand (initially 9 steps)
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14. Support

Contact

Vendor: ETechFlow **Email:** etechflow0@gmail.com **Website:** <https://etechflow.com>

Reporting Issues

When reporting bugs, please include:

1. Magento version + edition (Open Source / Adobe Commerce)
2. PHP version
3. Theme (Luma / Hyvä / custom)
4. Extension version (bin/magento module:status Etechflow_AbandonedCart)
5. Verify command output (bin/magento etechflow:abc:verify)
6. Last 50 lines of var/log/exception.log and var/log/system.log
7. Steps to reproduce

License Terms

This extension is licensed per-domain. The license is **non-transferable** — each Magento installation requires its own license key.

Updates

Updates are delivered via your purchase channel: - Composer: composer update etechflow/module-abandoned-cart - ZIP: download latest from your account → replace files → run setup:upgrade

After updating:

```
bin/magento setup:upgrade
bin/magento setup:di:compile      # production mode
bin/magento cache:flush
bin/magento etechflow:abc:verify # confirm health
```

End of Documentation — Etechflow Abandoned Cart Email & Exit-Intent Popup v1.2.0

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