



SYNDICATION SPECIFICATION

TPX MLS & Syndication Server

Technical specification for private property exchange, syndication creation, source ownership, receiving-site behavior, synchronization and revocation across the TPX network.

Specification purpose

This document defines how a canonical TPX property moves from its source agency into the private exchange and onto authorized receiving websites without losing source ownership or creating duplicate source records.

Contents

The specification defines the complete syndication model from source availability through receiving-site publication, updates and revocation.

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01 - Syndication Principles

TPX syndication distributes selected property inventory while preserving one authoritative source record.

The originating agency remains the canonical owner of the property record. A receiving agency obtains the right to publish a managed local copy through a syndication relationship; it does not become a second source owner.

Core Principles

- The source agency controls whether its property is available to the TPX network.
- One canonical TPX property remains authoritative for shared property data.
- An authorized network member may syndicate a property that the source has made available.
- A syndication creates a distribution relationship, not a duplicate canonical property.
- Receiving websites use genuine local Houzez property posts so normal local functionality continues to work.
- Source changes should propagate to active managed copies.
- Withdrawal revokes distribution while preserving canonical and historical records.
- Syndicated copies must never be uploaded back to TPX as new source properties.

CORE MODEL

```
graph TD
    SA[SOURCE AGENCY] --> CTP[CANONICAL TPX PROPERTY]
    CTP --> PE[PRIVATE EXCHANGE]
    PE --> SR[SYNDICATION RECORD]
    SR --> TA[TARGET AGENCY]
    TA --> LMC[LOCAL MANAGED COPY]
```

Canonical authority

The source property remains the authoritative record for shared property information. Syndication does not transfer ownership of that record.

02 - Actors & Records

Syndication depends on explicit relationships between organizations, canonical properties and receiving copies.

Entity	Role
Source Agency	Organization that owns and synchronizes the canonical property.
Canonical Property	Authoritative TPX property record used by the network.
PropertySource	Links the source agency, source type and external property ID to the canonical property.
Target Agency	Authorized network member that chooses to publish the shared property.
Syndication	Records the controlled distribution relationship between the canonical property and target agency.
Local Managed Copy	Property post created on the target website and maintained as a TPX syndicated record.

Separation of Roles

OWNERSHIP VS DISTRIBUTION

PROPERTY SOURCE

- Owns canonical identity
- Can update TPX property

SYNDICATION

- References canonical identity
- Can distribute property
- Does not become source owner

03 - Exchange Eligibility

Only properties deliberately made available by their source organization may be syndicated through the private network.

Availability Control

EXCHANGE AVAILABILITY

```
exchange_available = false
|
NOT AVAILABLE FOR SYNDICATION

exchange_available = true
|
AVAILABLE TO AUTHORIZED MEMBERS
```

When a source agency checks the equivalent of Make available to TPX Network, the source connector synchronizes that state to the central TPX property.

Eligibility Checks

- The canonical property exists.
- The source agency is active and authorized.
- The property is marked `exchange_available = true`.
- The target agency is an active authorized member of the same permitted network context.
- No rule prevents the target from receiving the property.
- A duplicate active syndication for the same target is not created.

No Per-Listing Approval

The intended TPX private-network model does not require the source agency to approve each target syndication individually. Making a property available to the approved network is the source agency's authorization for eligible members to add it.

Closed network model

This immediate syndication model assumes that membership and network authorization are controlled centrally. It is not an unrestricted public property feed.

04 - Creating a Syndication

The target workflow should make adding an available property to a member website simple while preserving server-side controls.

Target User Interface

EXCHANGE ACTIONS

[View Details] [Add to My Website]

When the target selects Add to My Website, the receiving connector or future syndication API should create or obtain a syndication record and then construct the managed local property.

Creation Sequence

SYNDICATION CREATION

```
TARGET SELECTS PROPERTY
|
VERIFY TARGET AUTHORIZATION
|
VERIFY PROPERTY AVAILABLE
|
CHECK EXISTING SYNDICATION
|
CREATE / RETURN SYNDICATION ID
|
FETCH CANONICAL PROPERTY DATA
|
CREATE LOCAL MANAGED COPY
|
STORE TPX IDENTIFIERS
```

Idempotency

Repeated requests from the same target for the same canonical property should not create multiple active syndication relationships. The server and connector should resolve the existing relationship where appropriate.

05 - Receiving Website

A syndicated TPX property should become a genuine local Houzez property post on the receiving website.

Why Local Posts Are Required

- Houzez property search can index the listing.
- The property can appear on local maps.
- Favorites and saved-property features can operate normally.
- Local SEO pages can be generated by WordPress/Houzez.
- The site's existing property templates continue to work.
- The receiving site does not depend on permanent remote rendering from TPX.

Required TPX Metadata

Metadata	Purpose
_tpx_property_id	Canonical TPX property identifier.
_tpx_syndication_id	Specific syndication relationship identifier.
_tpx_source_agency_id	Originating agency identifier.
_tpx_local_agency_id	Receiving agency identifier.
_tpx_managed = 1	Marks the local property as managed by TPX.
_tpx_role = syndicated	Prevents the local copy from being treated as an owner-originated source property.

RECEIVING IDENTITY

```
LOCAL HOUZEZ POST
|
_tpx_managed = 1
_tpx_role = syndicated
_tpx_property_id = CANONICAL ID
_tpx_syndication_id = DISTRIBUTION ID
```

Critical rule

A TPX-managed syndicated local post must never be submitted back to TPX as a new owner-originated property.

06 - Data & Media Distribution

The receiving connector maps canonical TPX data into local Houzez fields, taxonomies and media.

Representative Houzez Mapping

TPX Data	Receiving Houzez Target
title	post_title
description	post_content
sale_price	fave_property_price
bedrooms	fave_property_bedrooms
bathrooms	fave_property_bathrooms
property_type	Houzez property type taxonomy
province / district	Houzez location taxonomies
features	property_feature taxonomy
latitude	houzez_geolocation_lat
longitude	houzez_geolocation_long
images	WordPress Media Library and Houzez gallery

Media Distribution

IMAGE FLOW

```
SOURCE ORIGINAL IMAGE
|
TPX PROPERTY MEDIA
|
TARGET CONNECTOR DOWNLOAD
|
LOCAL WORDPRESS MEDIA LIBRARY
|
FEATURED IMAGE / HOUZEZ GALLERY
```

The receiving website should download originals and create local Media Library attachments rather than permanently hotlinking the source image URL. Featured-image state and gallery ordering should be preserved.

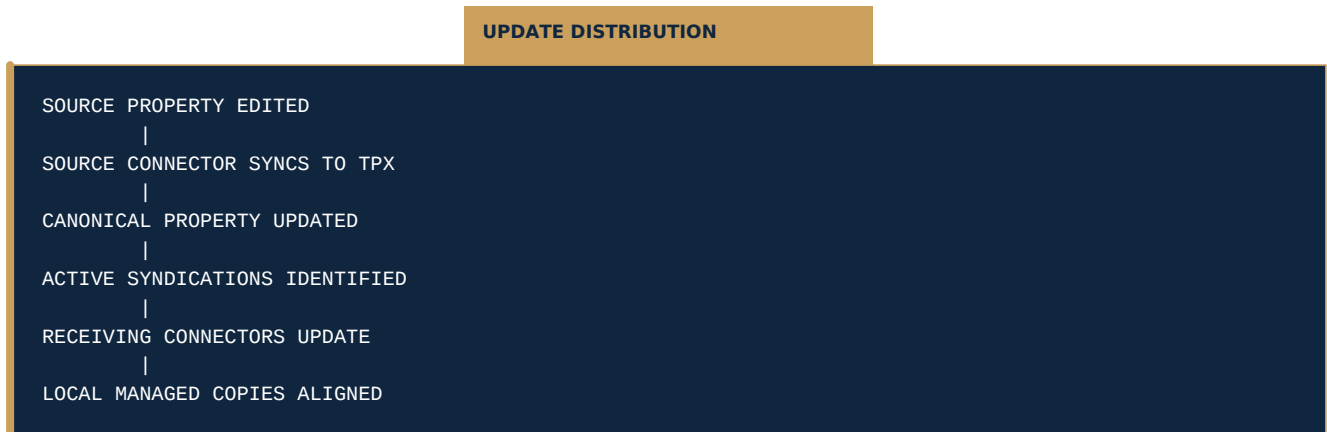
Taxonomy Mapping

TPX classifications should map to local Houzez taxonomy terms. The connector should not assume that WordPress term IDs are identical across different member websites.

07 - Synchronization Lifecycle

Active syndications should remain aligned with the canonical source property.

Source Update Flow



Fields Subject to Synchronization

- Title and description.
- Sale or rental pricing.
- Bedrooms, bathrooms and property sizes.
- Property type, features and classifications.
- Location and coordinates.
- Property media.
- Listing availability and lifecycle status.

Initial Synchronization Strategy

The planned initial connector design uses synchronization after local source changes together with a scheduled 10-15 minute reconciliation process as a safety net. Failed operations should be queued and retried.

Real-time wording

TPX should not publicly describe event-driven real-time syndication as implemented until webhooks and their delivery/retry behavior are operational.

08 - Withdrawal & Revocation

The source agency must be able to stop network distribution without destroying the canonical property record.

Source Withdrawal

WITHDRAWAL LIFECYCLE

```
SOURCE SETS
exchange_available = false
|
TPX RECORDS WITHDRAWAL
|
ACTIVE SYNDICATIONS REVOKED
|
TARGET CONNECTORS PROCESS REVOCATION
|
LOCAL MANAGED COPIES UNPUBLISHED / DISABLED
```

Database Behavior

The current server behavior revokes active non-revoked syndication records when a property changes from exchange available to unavailable.

Receiving-Site Behavior

Once connector revocation handling is implemented, the preferred behavior is to unpublish, draft or trash the managed local copy according to configured policy. Destructive permanent deletion is not the default because it removes useful operational history.

Re-Availability

If a source later makes the property available again, TPX should treat new distribution as a controlled lifecycle decision. Whether an earlier revoked syndication is restored or a new syndication is created should be explicitly defined in the implementation rather than inferred by the connector.

Historical integrity

Revoked syndication records should remain identifiable for audit and troubleshooting.

09 - Target Agency Controls

The receiving agency can control whether it wants to publish a syndicated property locally, but cannot change canonical ownership.

Permitted Target Actions

- Add an eligible shared property to its website.
- Pause or unpublish its own local managed copy.
- Remove its own participation in a syndication according to network rules.
- View canonical property information and source identity.
- Allow TPX to update managed fields when the source changes.

Restricted Target Actions

- Change the canonical source agency.
- Upload the syndicated copy as a new TPX source property.
- Override a source withdrawal and continue treating the copy as an active TPX syndication.
- Modify canonical source data belonging to another agency.
- Create multiple active syndications for the same target/property relationship.

Local Overrides

If future versions allow target-specific local marketing fields, those fields must be explicitly separated from TPX-managed canonical fields. Otherwise a synchronization could overwrite local changes or allow a target to diverge from the authoritative source.

10 - Identity & Loop Prevention

Syndication must preserve property roles so distribution cannot create duplicate or circular source records.

Owner Property Metadata

OWNER ROLE

```
_tpx_property_id  
_tpx_source_type = owner  
_tpx_last_sync
```

Syndicated Property Metadata

SYNDICATED ROLE

```
_tpx_property_id  
_tpx_syndication_id  
_tpx_source_agency_id  
_tpx_local_agency_id  
_tpx_managed = 1  
_tpx_role = syndicated
```

Upload Guard

CONNECTOR DECISION

```
LOCAL PROPERTY CHANGED  
|  
IS _tpx_role = syndicated ?  
|  
YES ----- NO  
|           |  
DO NOT CREATE   OWNER SYNC  
SOURCE PROPERTY MAY PROCEED
```

Duplicate Prevention

The central server identifies owner-originated properties using the authenticated source agency plus source type and stable external property ID. The receiving connector identifies syndicated copies using the canonical TPX property ID and syndication ID.

Most important safeguard

A syndicated copy re-entering TPX as a source listing would undermine canonical ownership and can create synchronization loops. Connector code should block this by design.

11 - Failure Handling

Syndication is a distributed workflow, so temporary failures must be recoverable without creating inconsistent ownership or duplicate records.

Failure Categories

Failure	Expected Handling
TPX unavailable	Queue or retry the operation; do not create a second source identity.
Target website unavailable	Keep syndication state and retry delivery/reconciliation.
Image download fails	Retain property identity, log media failure and retry media separately.
Taxonomy mapping missing	Log mapping issue and avoid inventing incorrect taxonomy IDs.
Authentication failure	Stop protected operation and require credential correction.
Source withdrawn during retry	Revocation state takes precedence over stale publish work.

Reconciliation

SAFETY CHECK

```
FETCH / COMPARE EXPECTED STATE
|
CHECK LOCAL TPX IDENTIFIERS
|
CHECK SYNDICATION ACTIVE?
|
CHECK PROPERTY VERSION / DATA
|
REPAIR OR UPDATE IF REQUIRED
```

Idempotent Operations

Retries should be safe. Repeating a create/update operation must not create duplicate canonical properties, duplicate syndications or duplicate local posts when the relevant identifiers already exist.

12 - Security & Authorization

TPX syndication operates inside a controlled private network and must enforce organization-level authorization.

Authorization Rules

- The source agency must be active.
- The target agency must be active and authorized.
- API clients must be valid, active and associated with the correct agency.
- The property must be exchange-available before a new syndication is permitted.
- A target must not gain write access to another agency's canonical property.
- Revoked or withdrawn inventory must not be treated as available for new distribution.

Source Protection

The existing property synchronization layer prevents an authenticated organization from overwriting a canonical property belonging to another source. The same source-protection principle must apply to all future syndication endpoints.

Private Network Boundary

TPX is designed for closed property networks rather than unrestricted public aggregation. Network membership and API access provide the trust boundary within which immediate syndication can operate.

13 - Current vs Planned Implementation

The syndication model is defined ahead of some connector and API components; documentation must distinguish implemented server behavior from planned distribution behavior.

Currently Established

- Canonical property, property-source, agency, API-client and syndication data models.
- Exchange availability fields on canonical properties.
- Administrative exchange and syndication areas.
- Authenticated property synchronization endpoint.
- Source-agency protection during property synchronization.
- Canonical reuse based on source relationship.
- Automatic database revocation of active syndications when exchange availability changes from true to false.

Planned / To Be Implemented

- TPX Houzez Connector exchange browser and Add to My Website action.
- Public/connector syndication creation and management endpoints.
- Automatic target-site creation of local Houzez property posts.
- Target media download and gallery creation.
- Scheduled connector reconciliation and retry queues.
- Revocation processing on receiving websites.
- Webhook subscriptions and signed event delivery.
- Events such as property.updated and syndication.revoked.
- Target-side pause/remove controls and operational logs.

Planned Event Model

FUTURE EVENTS

```
property.created  
property.updated  
property.withdrawn  
property.sold  
syndication.revoked
```

Implementation discipline

The specification defines the intended behavior, but planned features should not be marketed as operational until the corresponding server and connector components have been implemented and tested.

TPX - Real Estate Technology for Houzez

Private MLS, property syndication and integration infrastructure for controlled real-estate networks.