# TACo-Powered Warranty Claim Flow – BlockReceipt.ai

## 💡 Concept: “Click-to-Claim” Warranty Flow Using TACo + AI

BlockReceipt.ai enables fast, privacy-preserving warranty claims using NFT receipts. Instead of scanning emails and filling out forms, users click their NFT, grant access using Threshold TACo, and allow an AI agent to auto-fill and submit the return request.

## 🔐 How TACo Powers This Flow

TACo (Threshold proxy re-encryption) allows fine-grained access to encrypted metadata. The original wallet owner encrypts metadata. When a warranty claim is triggered, the app grants a re-encryption key to a verified vendor or AI support agent so they can decrypt only what’s needed.

## ⚙️ Workflow Overview

1. User clicks “Claim Warranty” on their NFT receipt  
2. App shows: “Do you want to grant access to [Vendor Support]?”  
3. User approves — backend runs TACo re-encryption:

```ts  
const rekey = await taco.createReEncryptionKey(userKey, vendorSupportKey);  
```

4. AI agent accesses:  
- Item name  
- Purchase date  
- Warranty end date  
- Serial number (if available)  
5. AI agent pre-fills and submits a return/warranty claim with the vendor’s support API

## 🧠 AI's Role

The AI agent:  
- Reads the decrypted metadata  
- Determines if the warranty is still valid  
- Fills out the vendor's support form  
- Generates a return label or ticket

Example Output:  
```json  
{  
 "item": "Sony Headphones",  
 "purchaseDate": "2024-06-01",  
 "problem": "Left ear not working",  
 "warranty": "2 years",  
 "result": "Return label generated. Eligible for replacement."  
}  
```

## ✅ Replit Build Prompt

Add a “Claim Warranty” flow to the NFT receipt viewer. When clicked, the user can grant TACo re-encryption access to a support entity. The backend uses Threshold to share encrypted metadata with the vendor's AI agent. The agent decrypts the data, prepares a claim, and returns a return label or confirmation.

Flow:  
1. User clicks Claim Warranty  
2. App asks to grant access to [Vendor Name]  
3. If granted, run Threshold re-encryption logic  
4. AI agent reads decrypted metadata and generates claim  
5. Return label / support confirmation is shown to user  
6. Log the claim in metadata as “processed”

## 🚀 Strategic Advantages

For Users:  
- No forms, no scanning receipts  
- Privacy-preserving, encrypted proof  
- Click-based returns  
  
For Vendors:  
- Fraud-proof warranty verification  
- No fake purchase claims  
- Faster RMA and ticket handling