Central Depository Services (India) Limited

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COMMUNIQUÉ TO DEPOSITORY PARTICIPANTS

CDSL/OPS/DP/POLCY/2024/695 **November 14, 2024**

SOP TO GUIDE PRINCIPAL ENTITY (PE) IN REGISTERING THEIR PE-TM CHAIN BINDING ON THE DISTRIBUTED LEDGER TECHNOLOGY (DLT) PLATFORM

DPs are advised to refer our communique no. **CDSL/OPS/DP/POLCY/2024/650** dated **October 29, 2024,** regarding amendment measures to curb misuse of headers and content templates under telecom commercial communication regulations, 2018, TRAI.

In addition to above, TRAI has shared the Standard Operating Procedure (SOP) for registering Principal Entity – Telemarketer (PE-TM) chain binding on the Distributed Ledger Technology (DLT) platform. DPs are advised to refer to the annexures below regarding the SOP.

Annexure I - Airtel PE-TM Binding SOP
Annexure II - BSNL PE-TM Binding SOP
Annexure III - BSNL PE TM Mapping Chain Hash Logic
Annexure IV - Reliance Jio Infocomm Limited PE-TM Binding SOP
Annexure V - Reliance Jio Infocomm Limited PE-TM_FAQ
Annexure VI - TATA Telle PE-TM Binding SOP
Annexure VII - VIL PE-TM Binding SOP

TRAI has mandated the registration of Sender-Telemarketer chains to improve traceability and curb spam calls/SMS. While the initial deadline for registration was October 31, 2024, TRAI has extended it to November 30, 2024. Starting December 1, 2024, messages with undefined or mismatched chains will be rejected.

DPs are requested to take note of the same and ensure compliance for PE-TM Binding.

Queries regarding this communiqué may be addressed to: CDSL – Helpdesk Emails may be sent to: dprtasupport@cdslindia.com **and connect through our IVR Number 022-62343333** .

For and on behalf of
Central Depository Services (India) Limited

sd/-

Nilesh Shah
Asst. Vice President

Public

PE-TM BINDING

For PE - Slide - 02 To 16

For TM - Slide - 17 To 20

PE-TM Binding – TRAI DIRECTIVE

Mandated by TRAI w.r.t TCCCPR 2018. This directive requires immediate action to prevent the use of Header, Template & PE id.

Indian Cyber Crime Coordination Centre (hereinafter referred to as “T4C”) through its various reports, has brought to the notice of the Authority many cases of misuse of Entity ID, Header ID, and Content Template ID, and indicated the need to trace the Telemarketer who had sent messages using the compromised Headers, and further, I4C has also suggested to ensure traceability of messages by implementing the Telemarketers and Principal Entities chain binding:

Vide another Direction No. RG-25/(6)/2022-QoS dated 16th February, 2023, directed all the Access Providers to, inter alia, ensure traceability of

messages from Principal Entity (PE) to the recipient at all times in all modes of transmission by obtaining from the PE the complete chain of the telemarketers engaged by such PE, including the registered telemarketers used in the chain between PE and OAP, for transmission for each message; reject all messages where the chain of TMs is not defined or does not match: and bar all telemarketers, who are not registered on Distributed Ledger Technologies (hereinafter referred to as "DLT") platform from handling the content template, scrubbing and delivery of messages to Access Provider:

Hence as per TRAI New directive industry has started PE-TM binding process on DLT, Proposed scrubbing date is – 01-11-2024

This document outlines the step-by-step process for the **PE (Principal Entity)** and **TM (Telemarketer)** tagging workflow. It provides a clear guide for PEs to register and manage their workflows effectively.

Important Points > PE -TM Binding

•All Principal Entities will be required to define their Telemarketer (TM)/Aggregator on the respective DLT Portals.

•Telemarketers (TM) must then either:

1. Define whether they them selves are acting as the Telemarketer Delivery

•(TMD) who is responsible for final message delivery via Telecom Service Provider (TSP), or

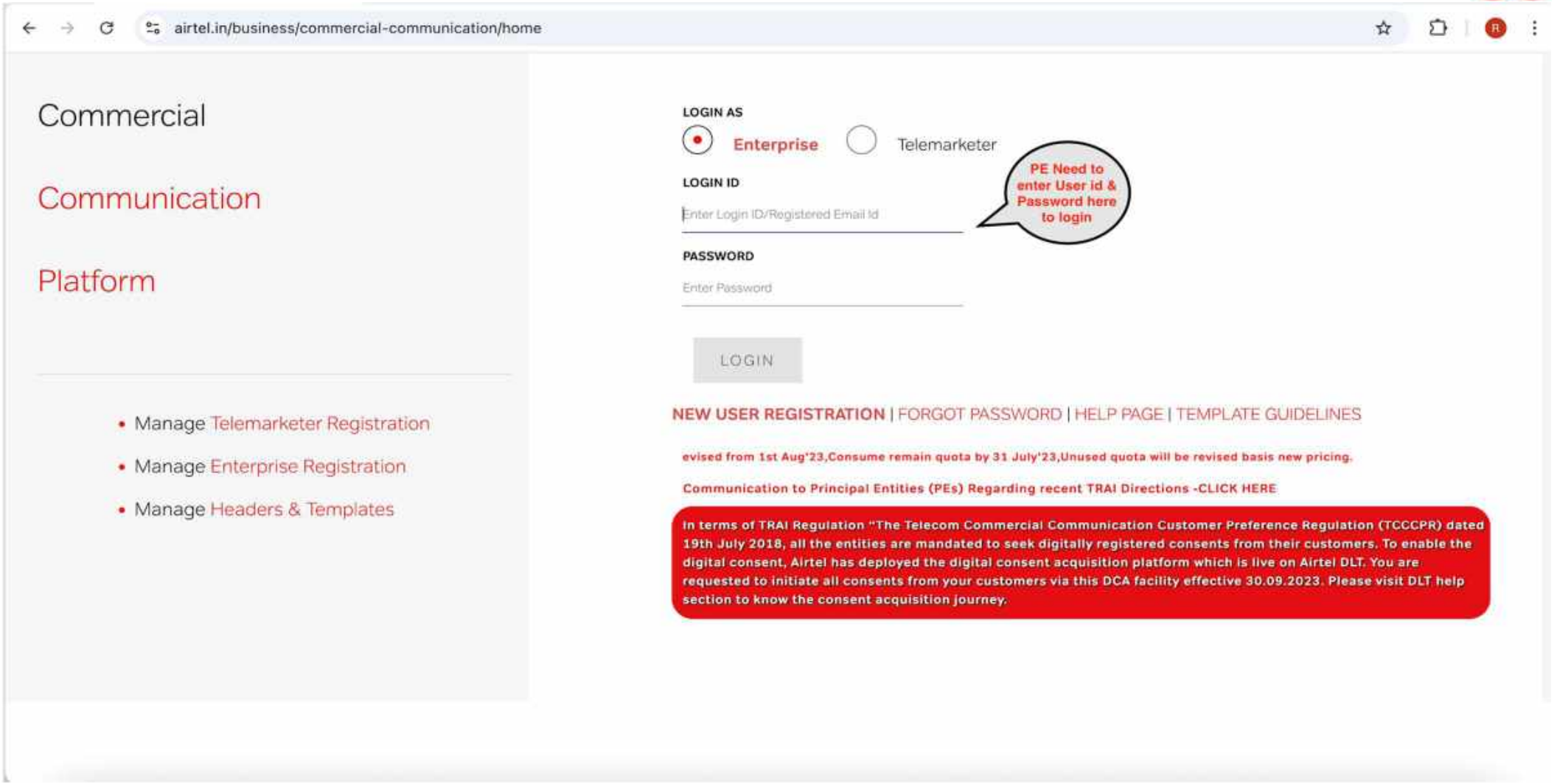
2. Select another TM who will further define their role as TMD or select an additional TM in the chain.

•Once the entire PM -> TM -> TM -> TMD chain is defined, the TMD must then hash the entire workflow to ensure compliance during SMS submission for DLT scrubbing.

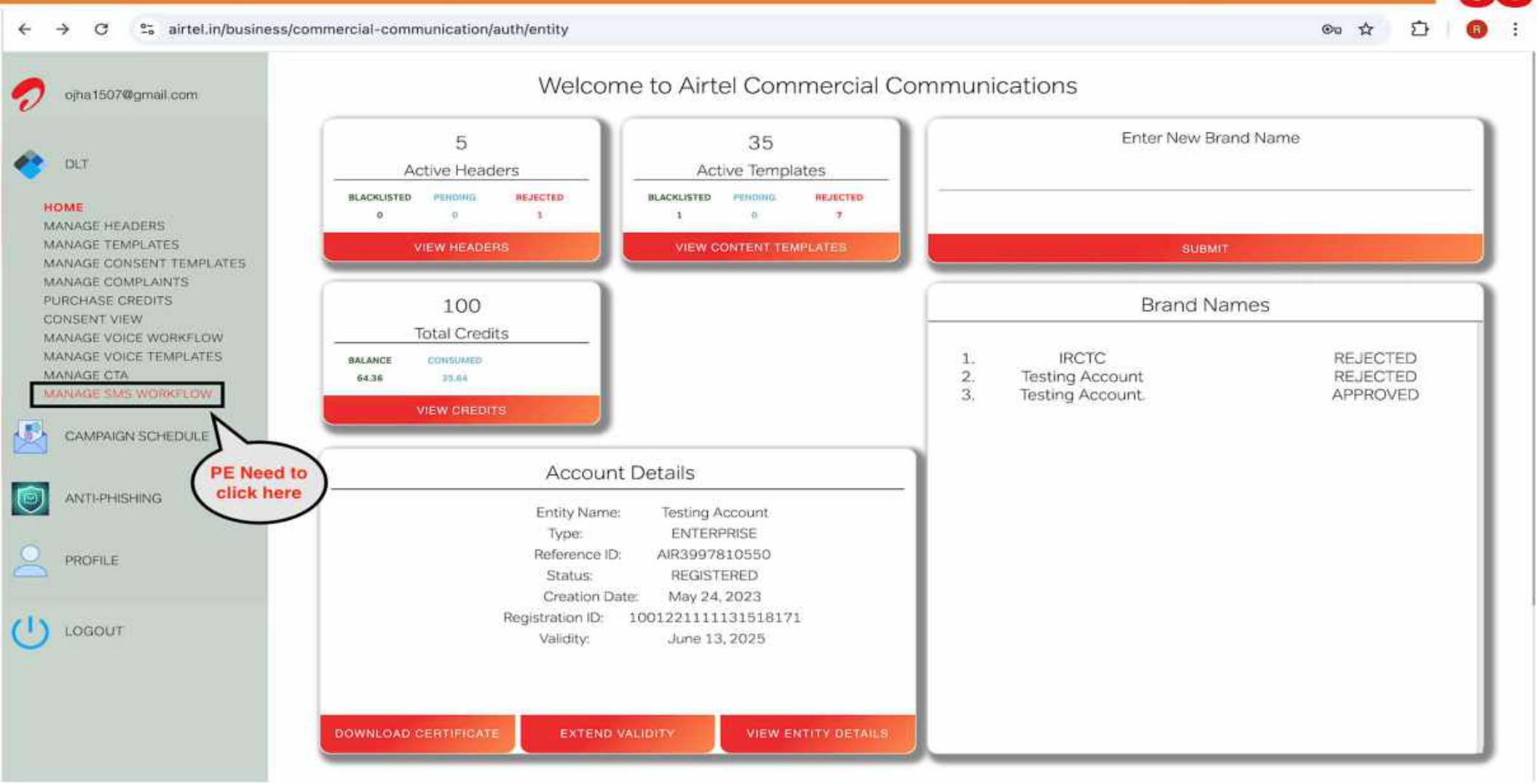
List of Abbreviations used

Abbreviations	Details
PE	Principal Entity – Business Owner
TM	Telemarketer - Who is connected to PE and he is further connecting to another TM and/or TD but not with Operator.
TMD	Telemarketer Delivery - Who is directly connected with Operator (TSP) for SMS submission for delivery.
TSP	Telecom Service Provide- From where the SMS is getting originating
OAP	Originator Access Provider – Airtel, Jio, TATA, VIL, MTNL, BSNL Etc.

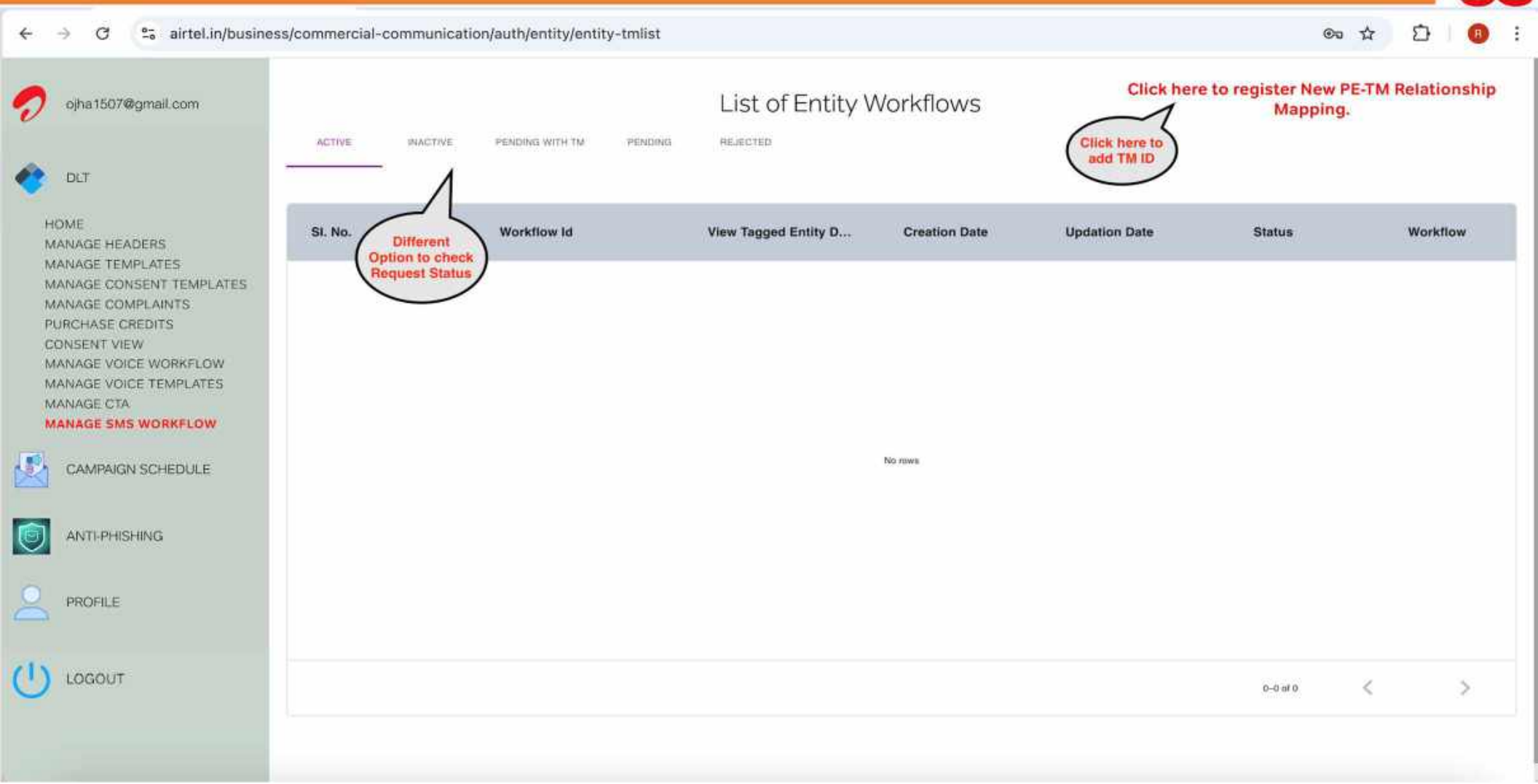
Principal Entity (PE)-Telemarketer (TM) Binding - Process For PE



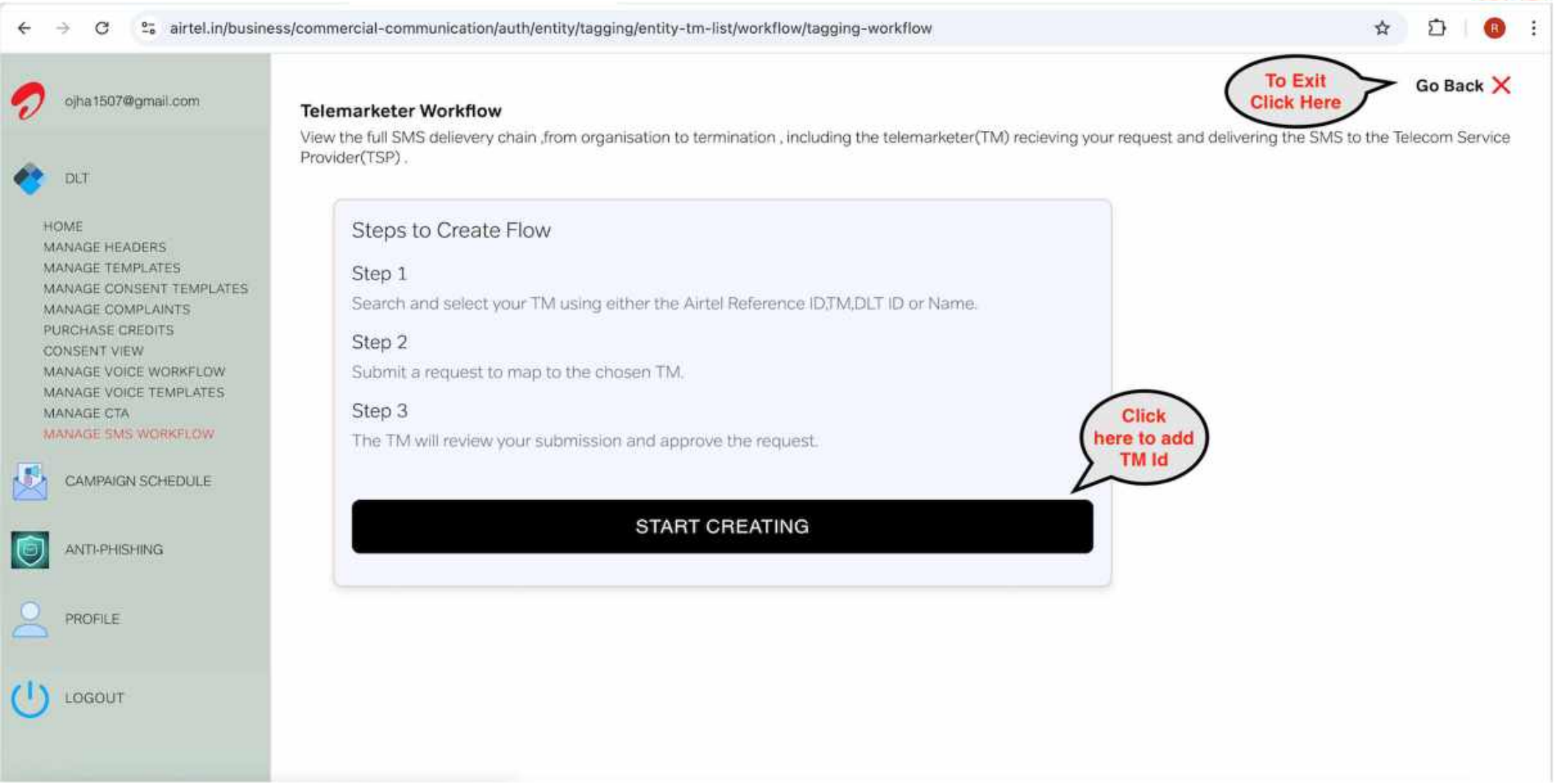
Principal Entity (PE)-Telemarketer (TM) Mapping on DLT



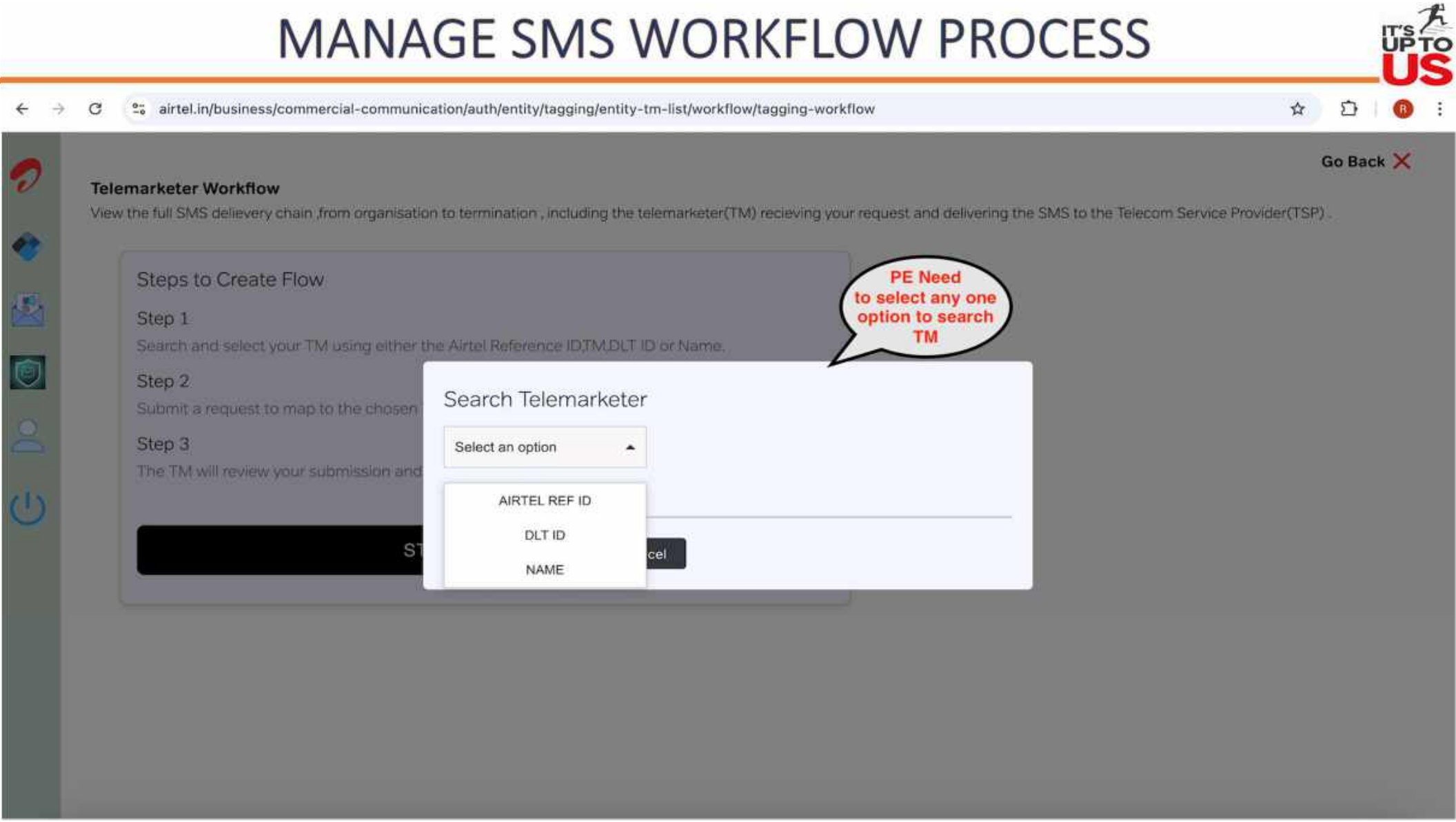
MANAGE SMS WORKFLOW PROCESS



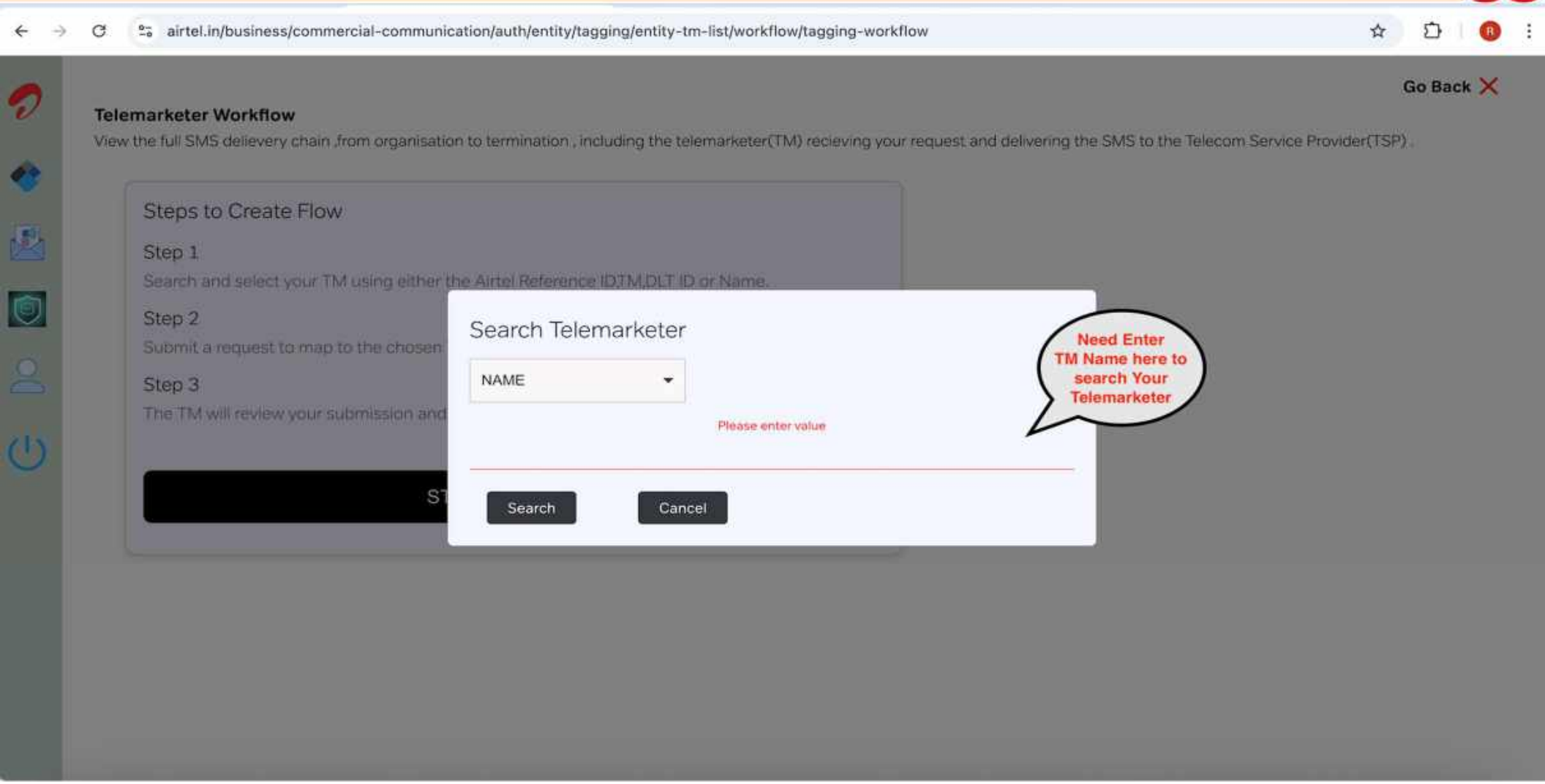
MANAGE SMS WORKFLOW PROCESS



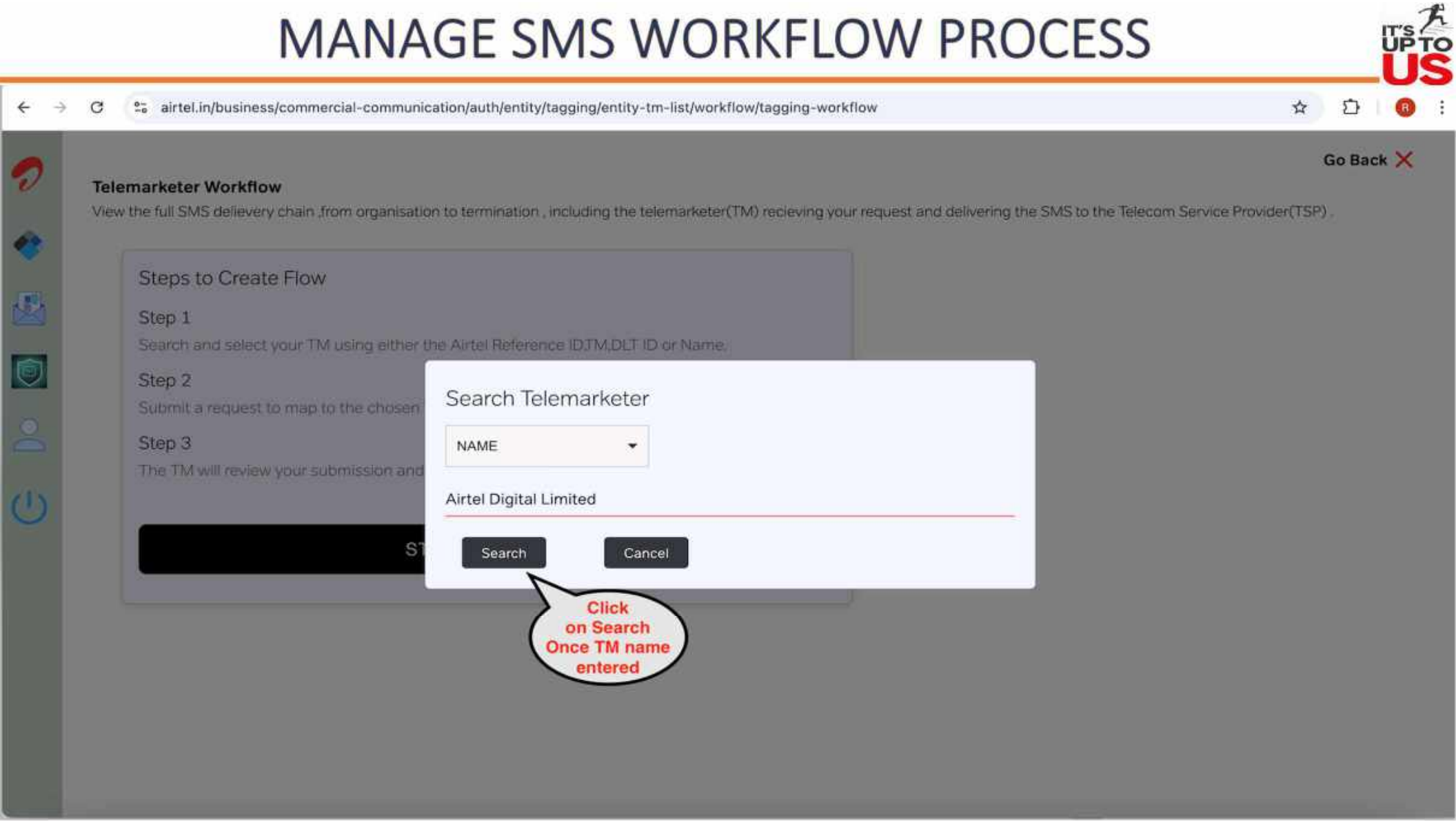
MANAGE SMS WORKFLOW PROCESS



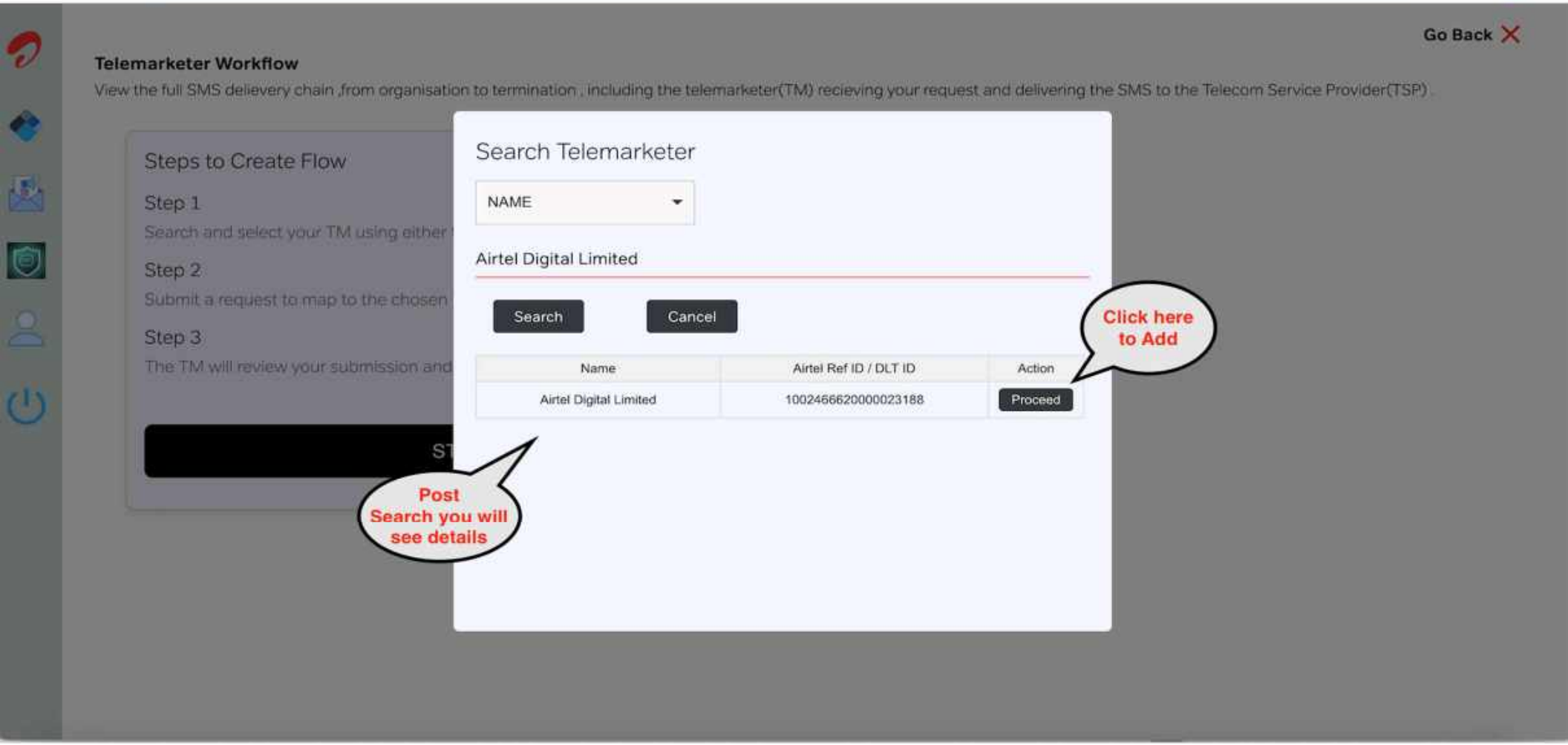
MANAGE SMS WORKFLOW PROCESS



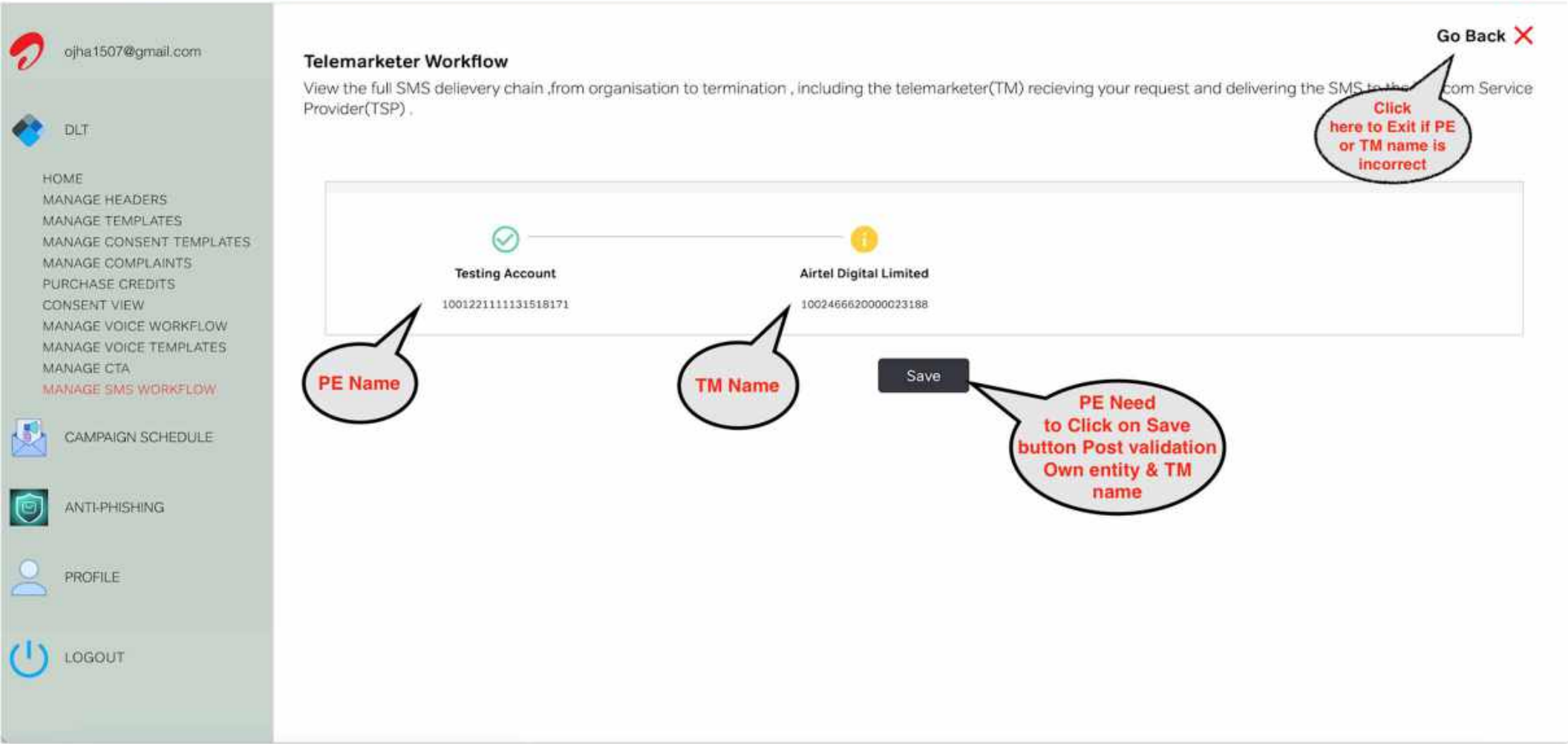
MANAGE SMS WORKFLOW PROCESS



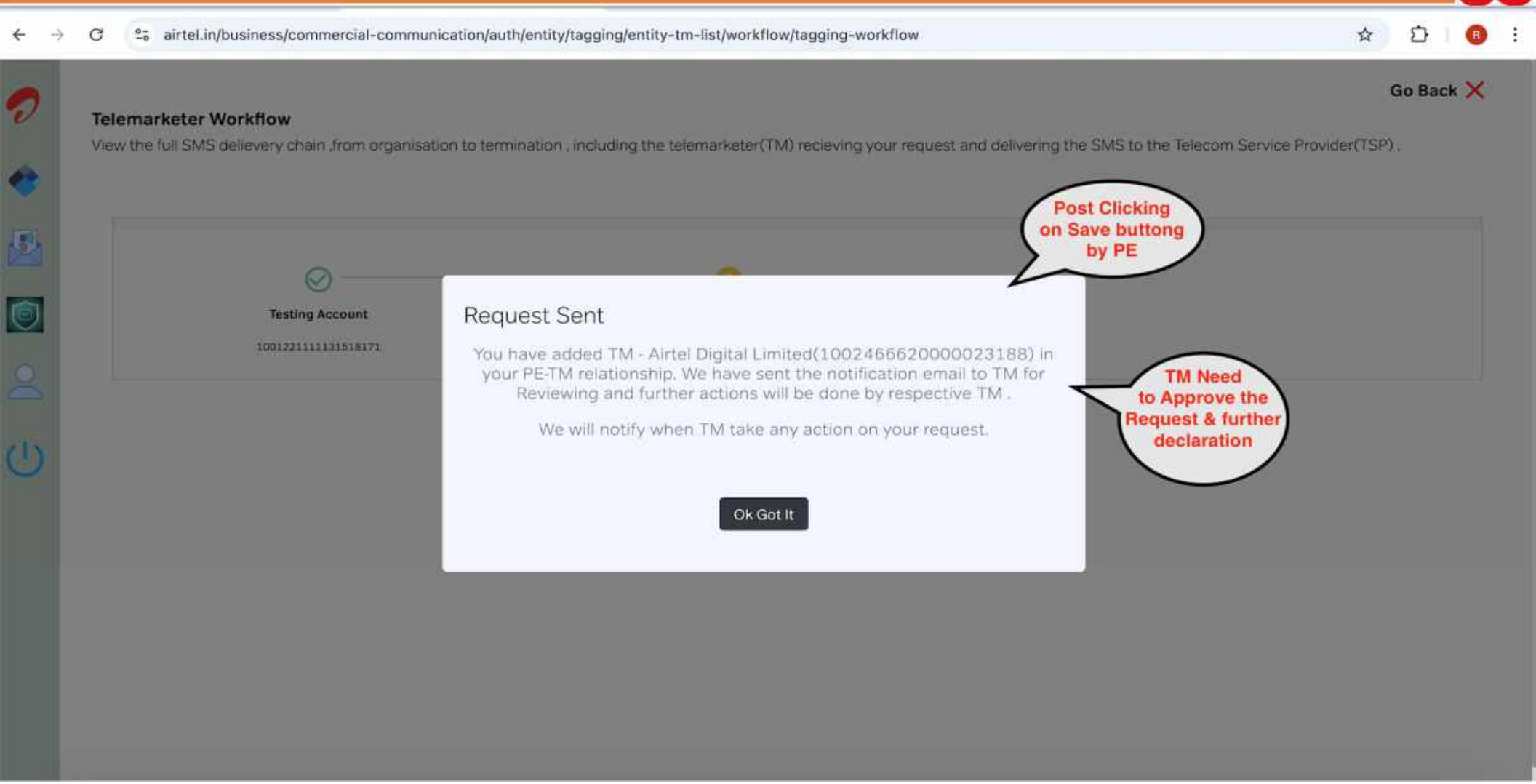
MANAGE SMS WORKFLOW PROCESS



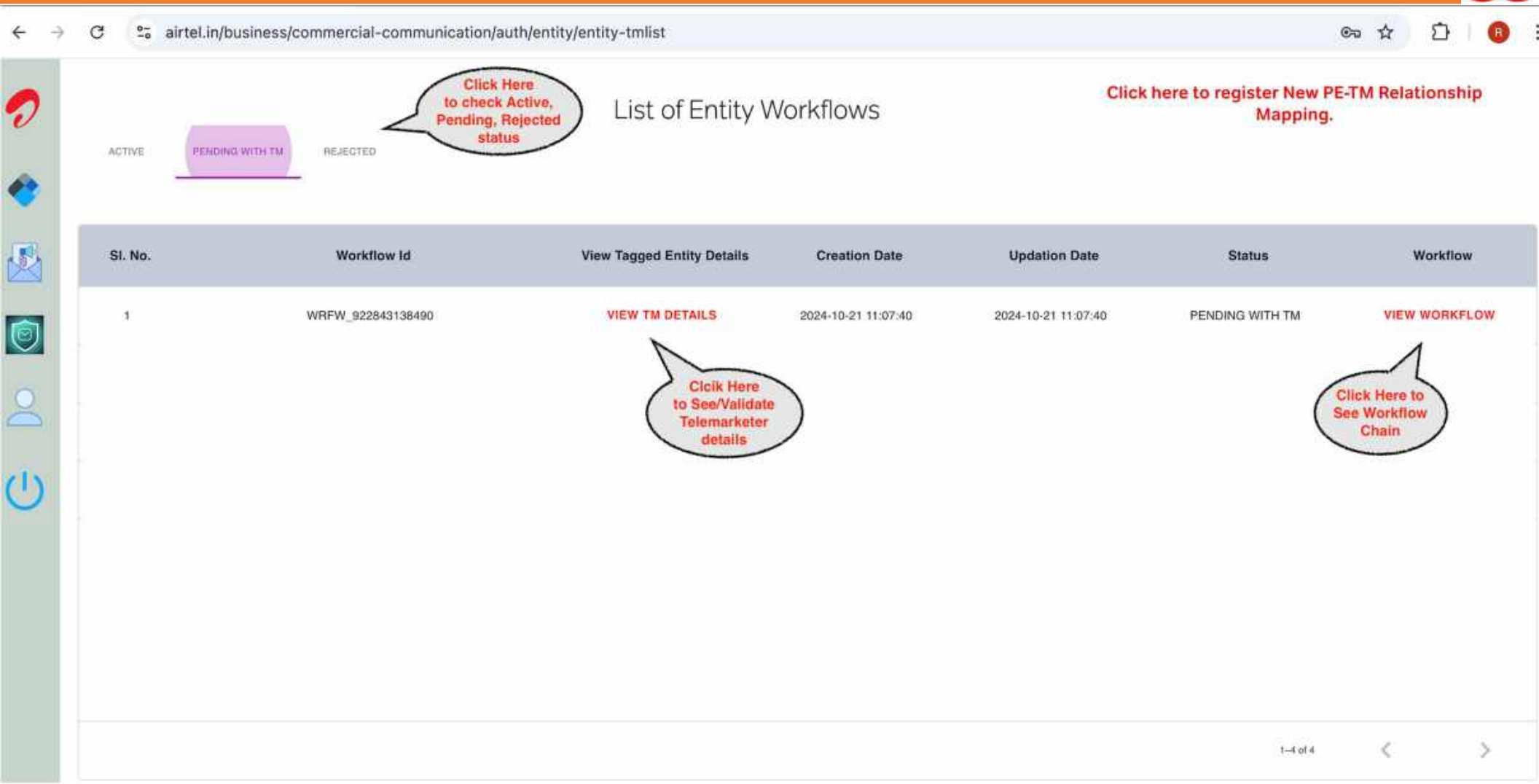
MANAGE SMS WORKFLOW PROCESS



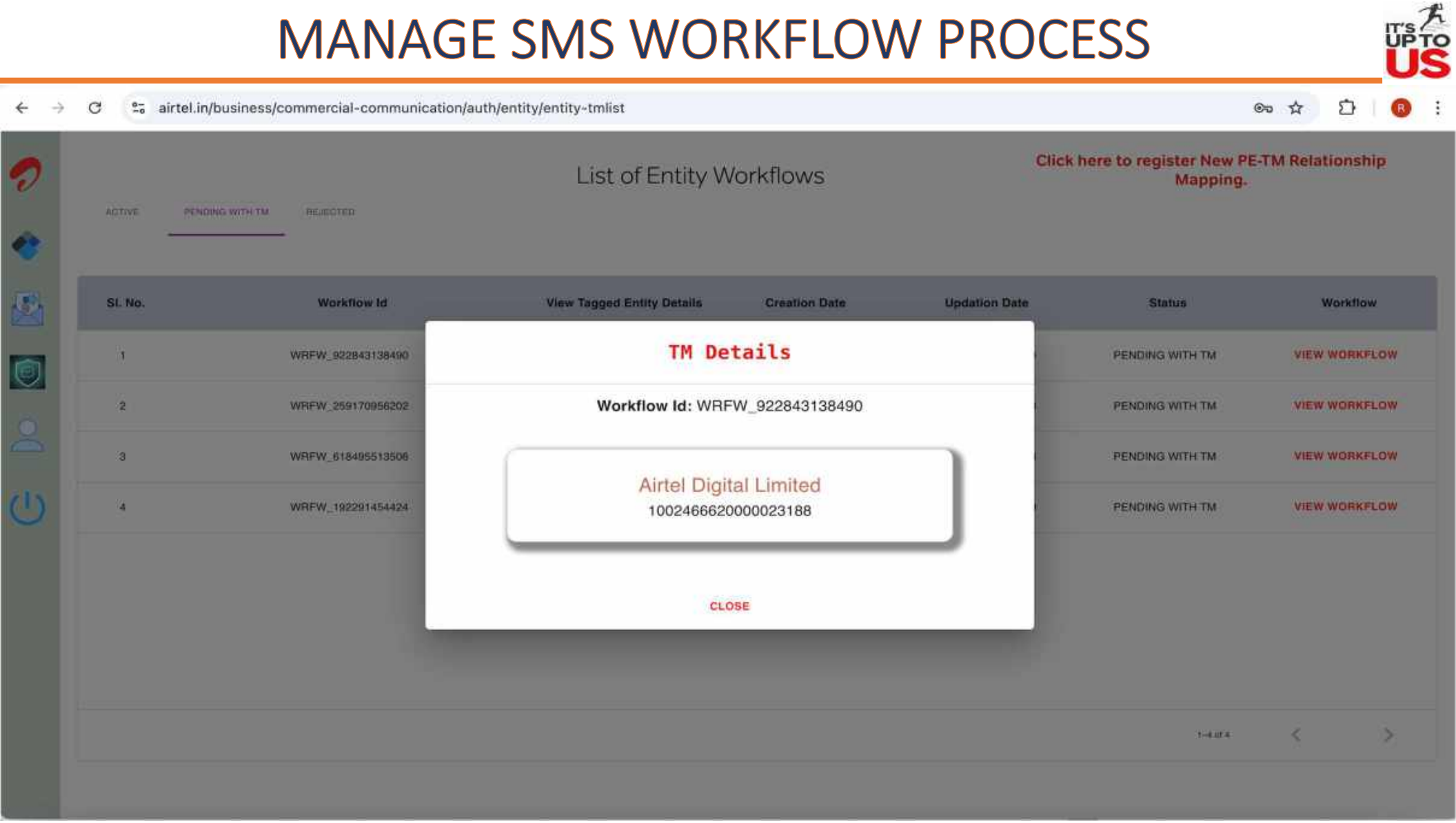
MANAGE SMS WORKFLOW PROCESS



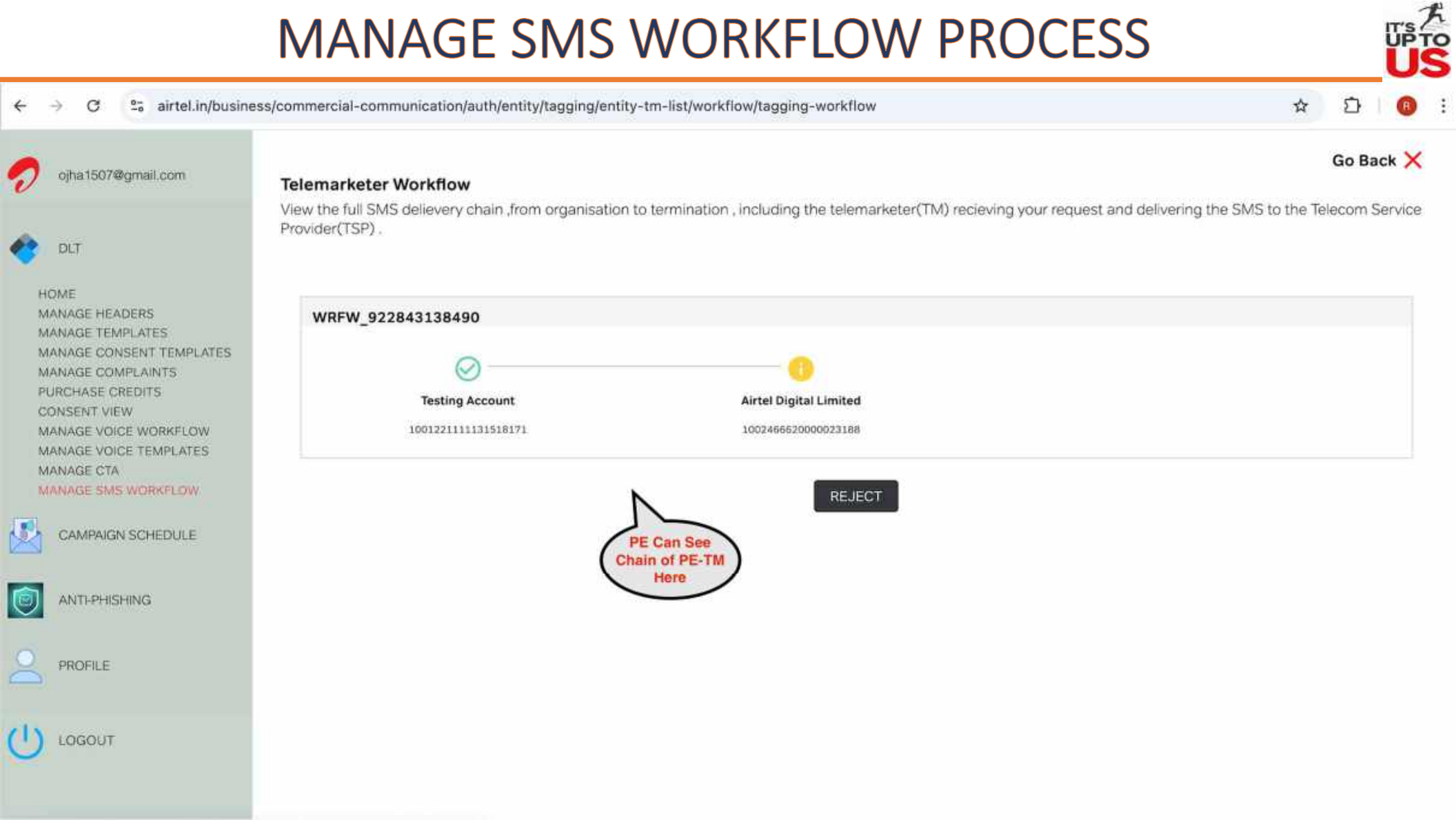
MANAGE SMS WORKFLOW PROCESS



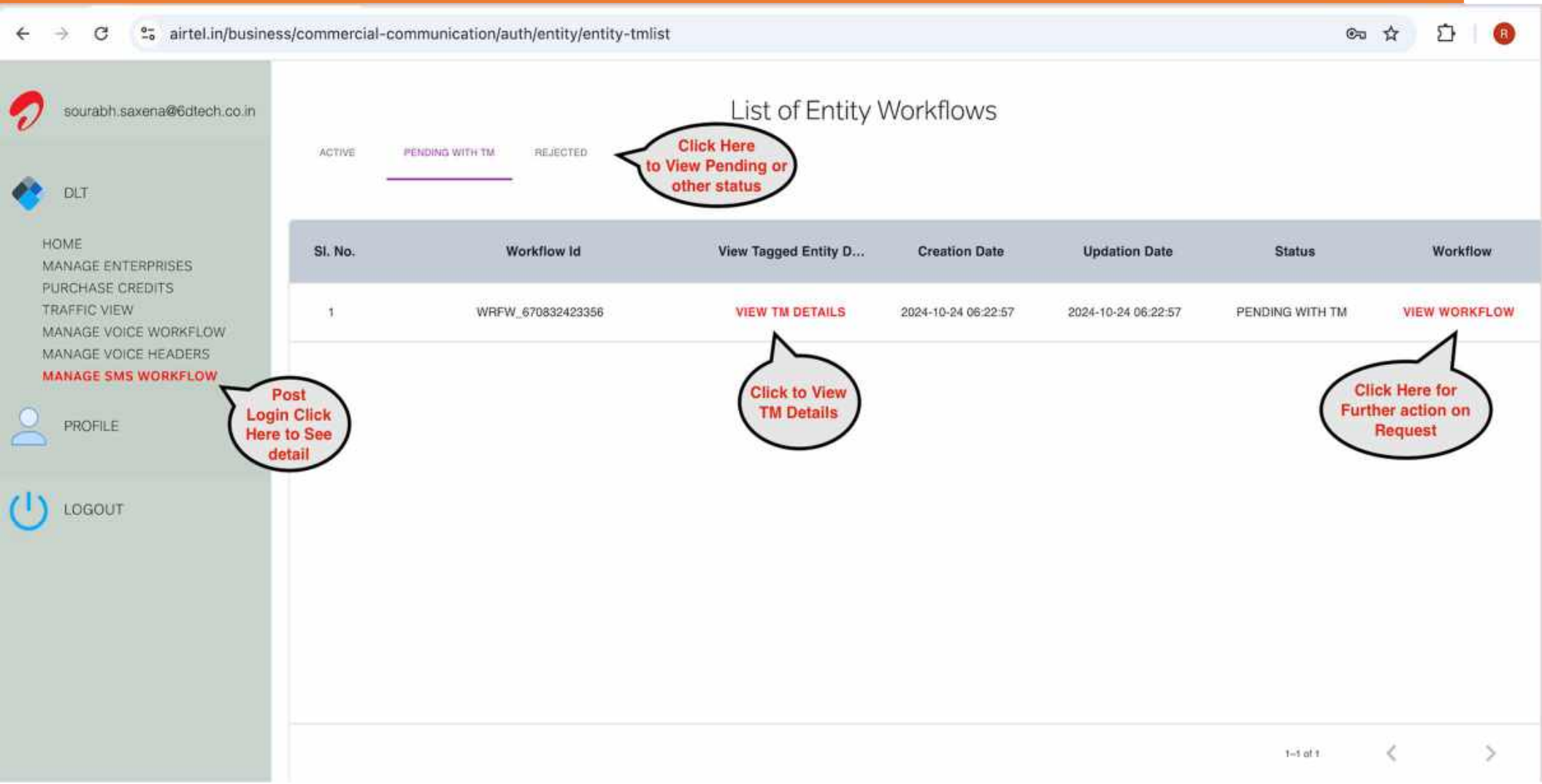
MANAGE SMS WORKFLOW PROCESS



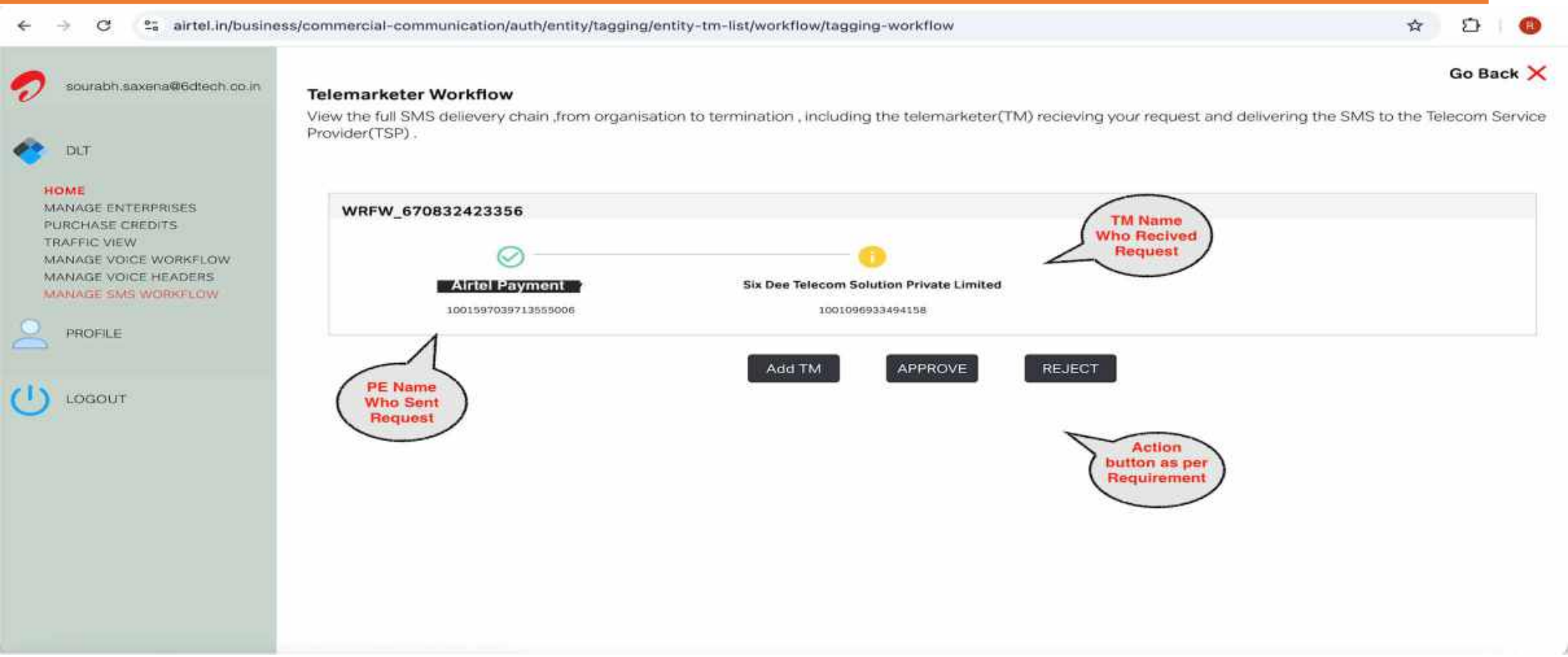
MANAGE SMS WORKFLOW PROCESS



Binding Journey For Telemarketers



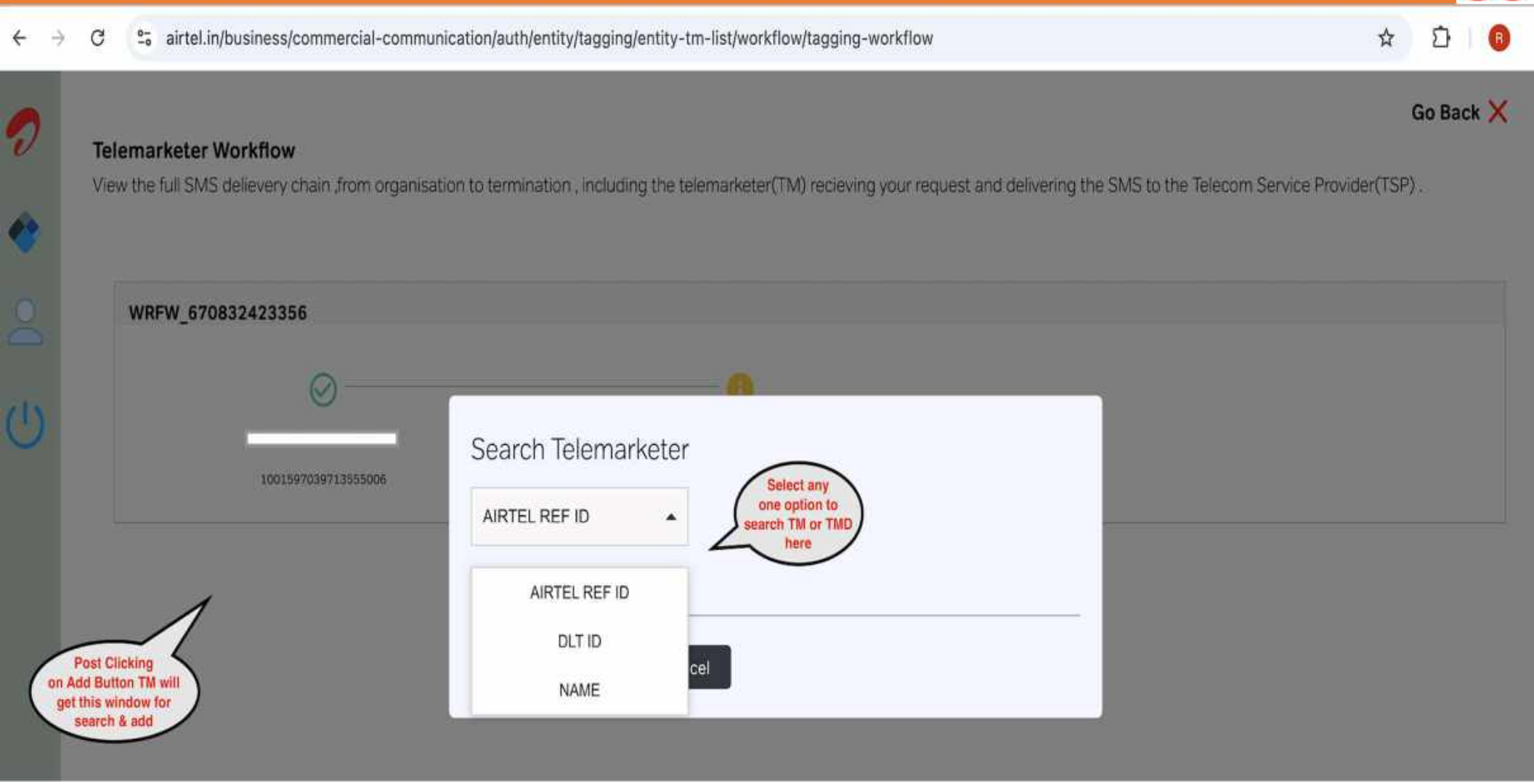
PE-TM Binding – Action For Telemarketer



Approve: If the request meets all criteria, click this button to approve.
Reject: If the request does not meet the necessary requirements, select this option to reject the request.

Add TM: If you believe additional Transaction Managers (i.e., TM Aggregator, TM Delivery)need to be involved (for instance, if the PE added the TM as an aggregator), click this button to include more TMs.

PE-TM Binding – Action For Telemarketer



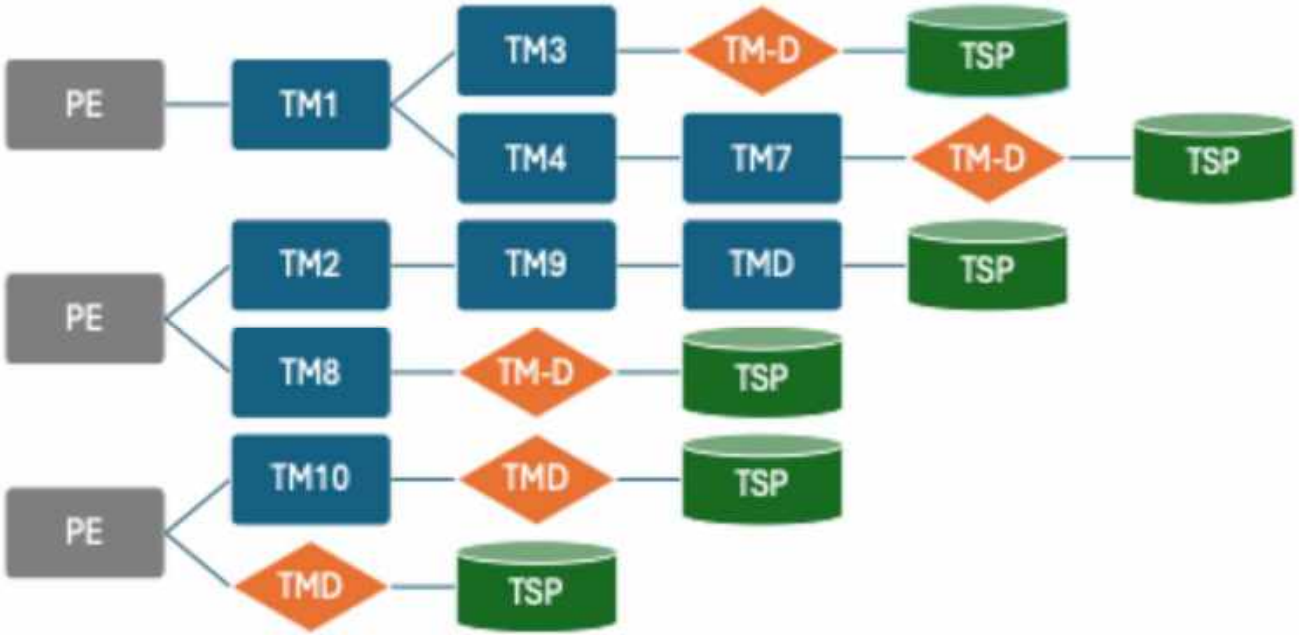
PE - TM Binding Approval Process & Workflow

Approval Process:

TMD will be last member of PE-TM Chain, Only TMD will approve the request to close the chain.

Post-Approval Process:

- Upon approving the PE chain, a unique hash code will be generated.
- The request will then undergo before being securely pushed to the DLT Blockchain for final processing.



THANK YOU

PE TM Chain Creation

User Manual
For Enterprises & Telemarketers

Overview

This document outlines the necessary steps required for PE – TM chain creation on DLT for Enterprises, Telemarketers for Aggregation Function (TM-AF) as well as Telemarketers for Delivery Function

The Chain can be initiated on any DLT by an enterprise. The TM's will need to login to the respective DLT Portal to approve or reject the request. The TM's which are not directly mapped to the same DLT as enterprise, will be given option to login to the DLT portal with limited access to access PE – TM Chains.

The chain has to be approved at all stages by all respective stakeholders like TM-AF as well as TM-DF. The Selection of TM-DF will mark the end of chain and it will be assumed that traffic will be submitted by TM-DF to the Telco DLT Network. Once the TM-DF is marked in the chain and its accepted by the TM-DF, a final request will go to PE for the approval of end-to-end chain.

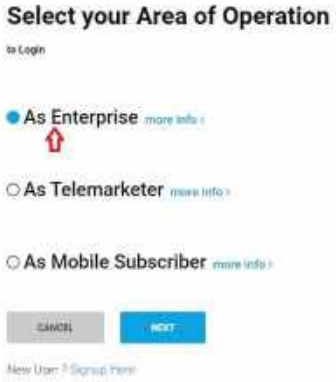
PE as well as TM-AF are required to choose only the next hop to whom the traffic is being directly submitted. TM-DF will have no option to choose any next hop.

TM-DF are required to generate hash and submit the same in the TLV parameter, the process for which will be shared separately with all TM-DF.

Enterprise Login

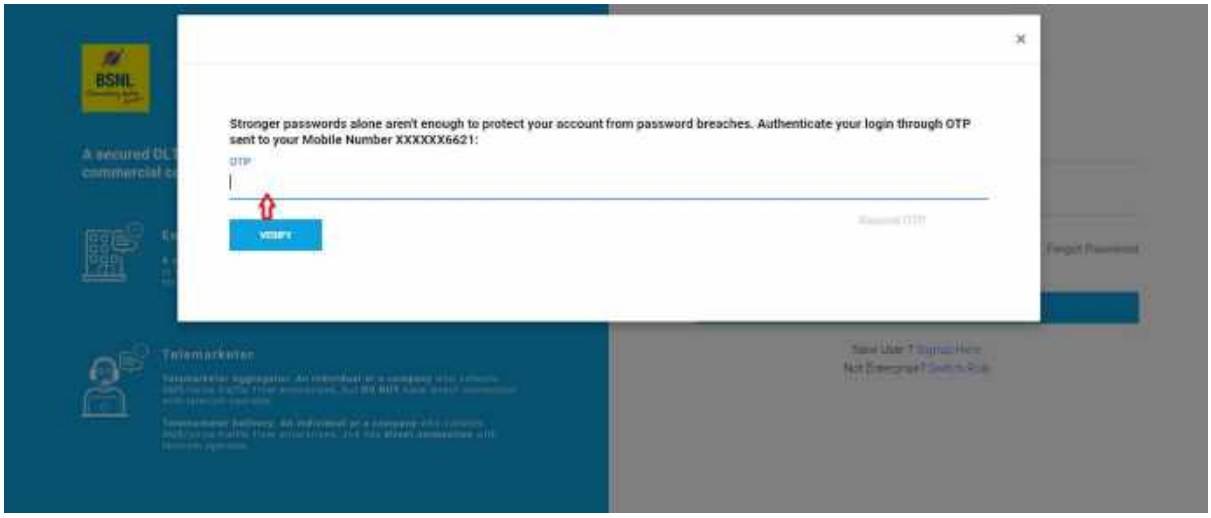
1. To initiate the chain, enterprise needs to login to DLT and initiate a chain on DLT Portal. Go to https://www.ucc-bsnl.co.in/ and Click on Login

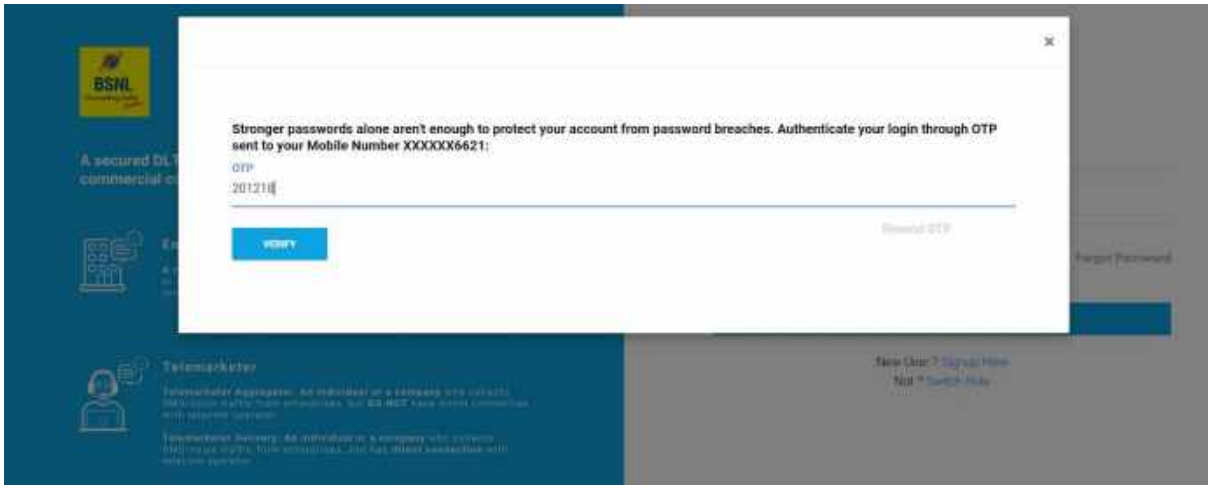
2. Select Login as Enterprise and Click on NEXT



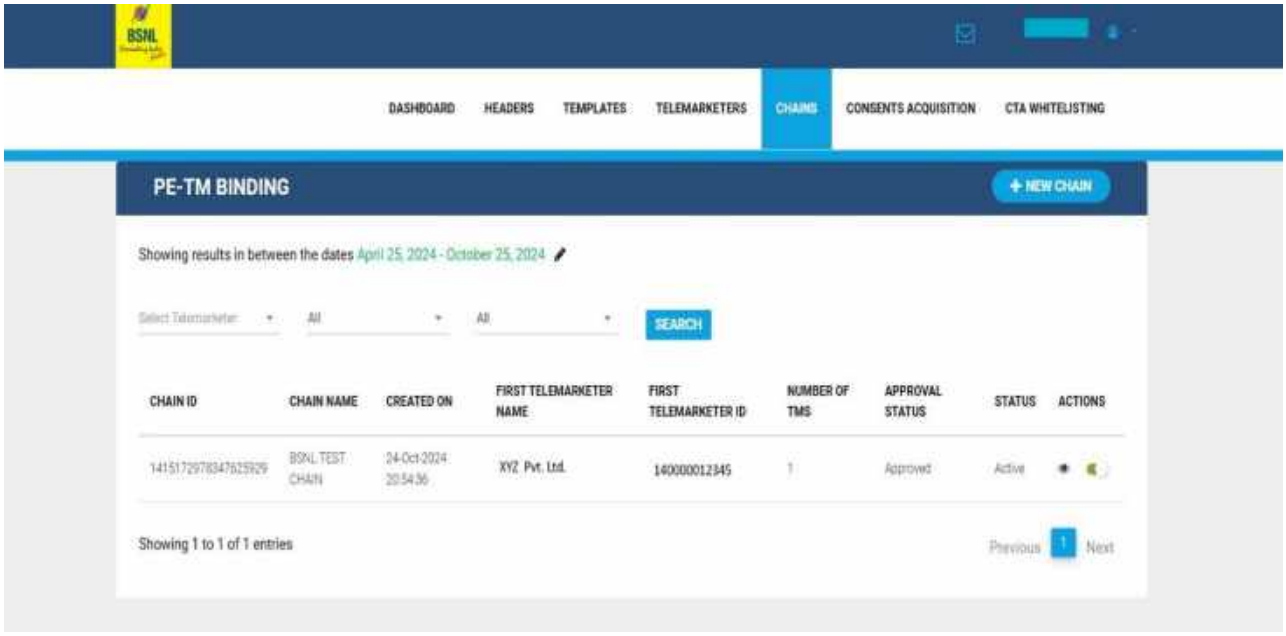
3. Enter your Email Address and password

4. Enter the OTP received on your registered Mobile number and click Verify

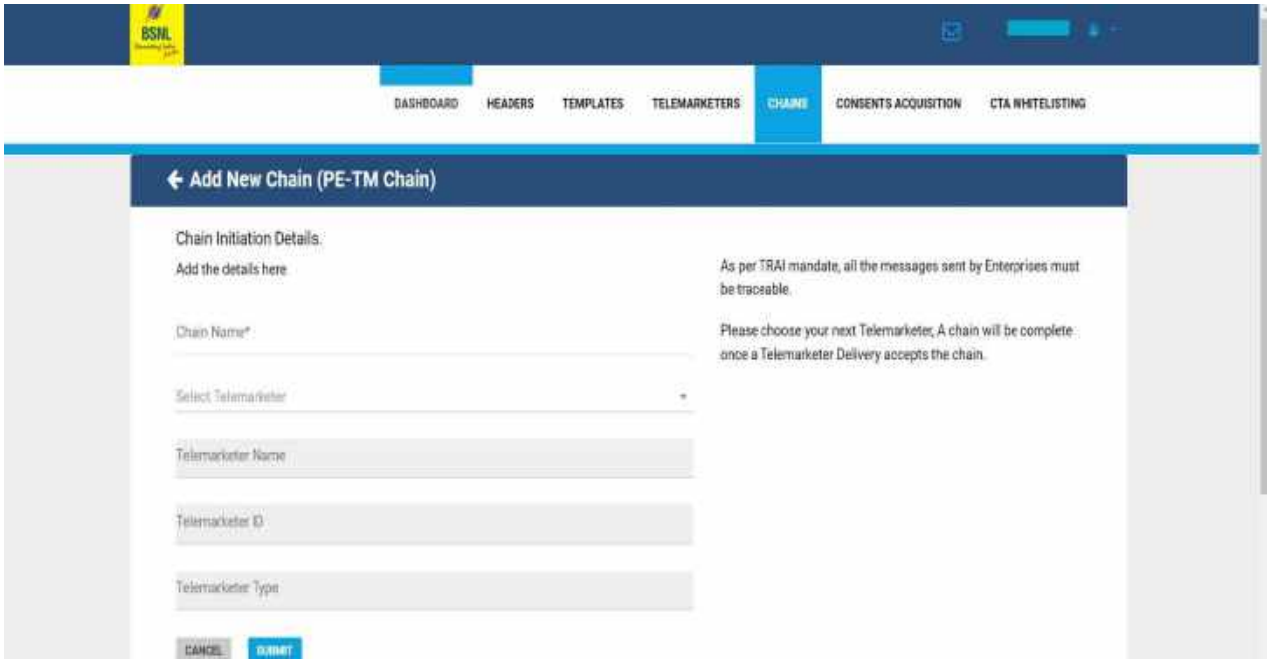




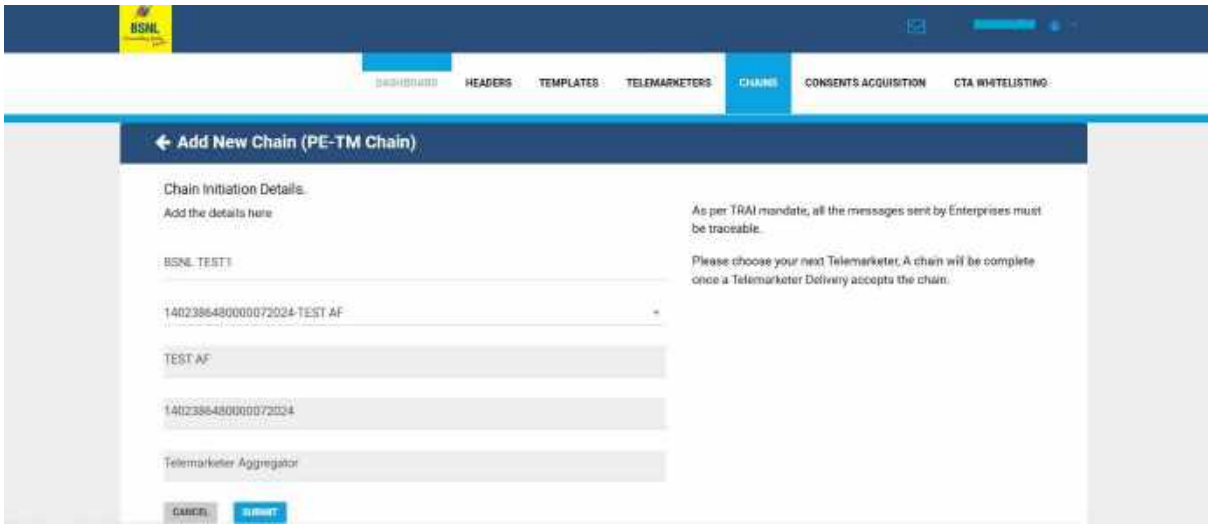
5. On the DLT Home page, you will see the option of **Chains**, click on chains option and further click on **"+New Chain"** tab



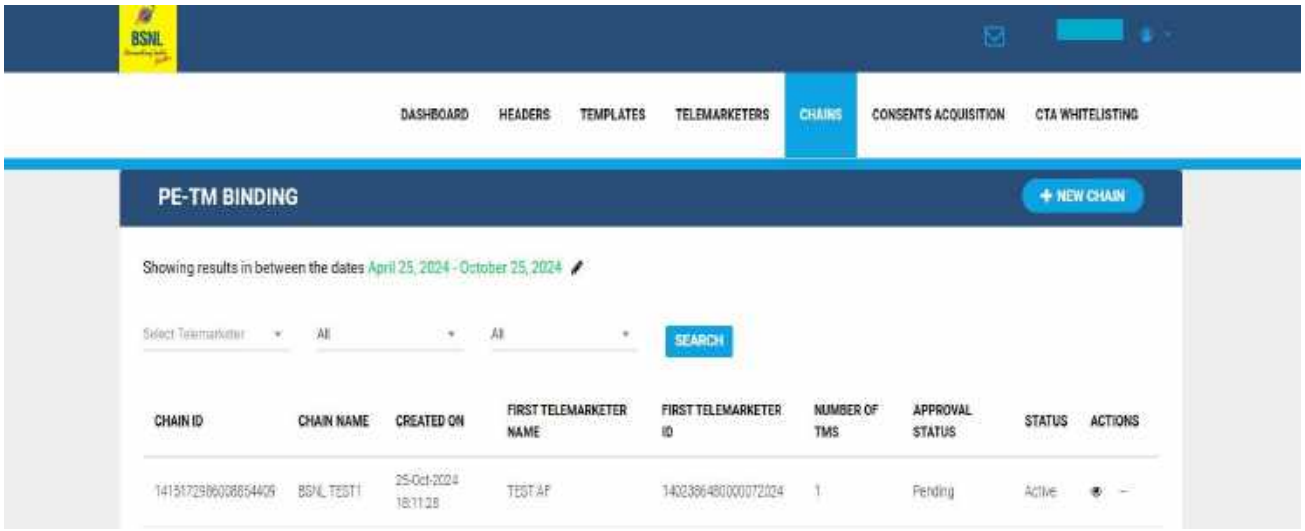
6. Chain initiation Page



7. Enter a name to the chain, search TM-AF or TM-DF (to whom the traffic is delivered directly by the Enterprise) and submit the request,

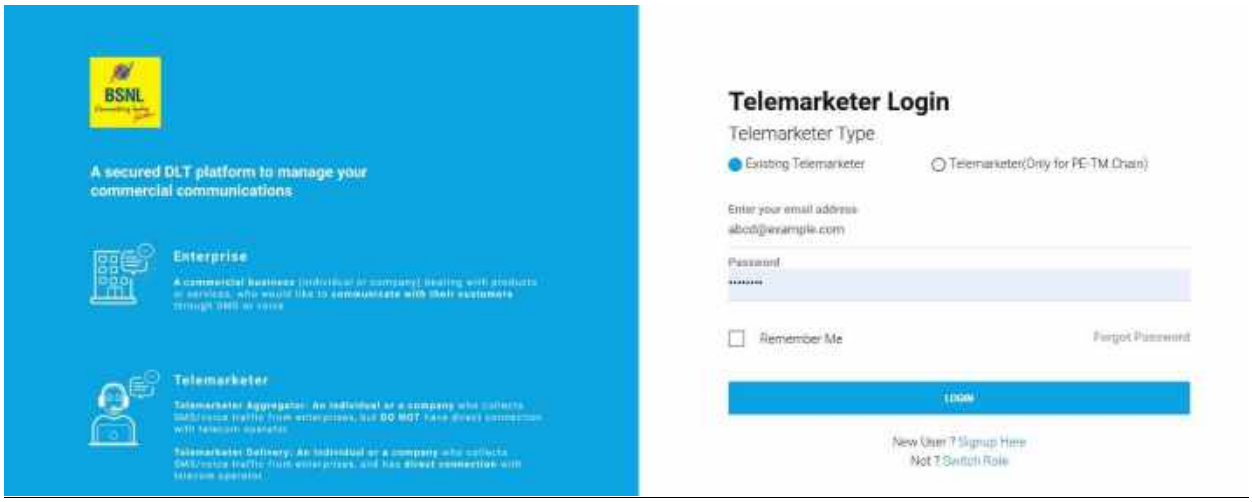


8. Chain Home page will show the request pending as its pending with the TM to approve chain initiation request.

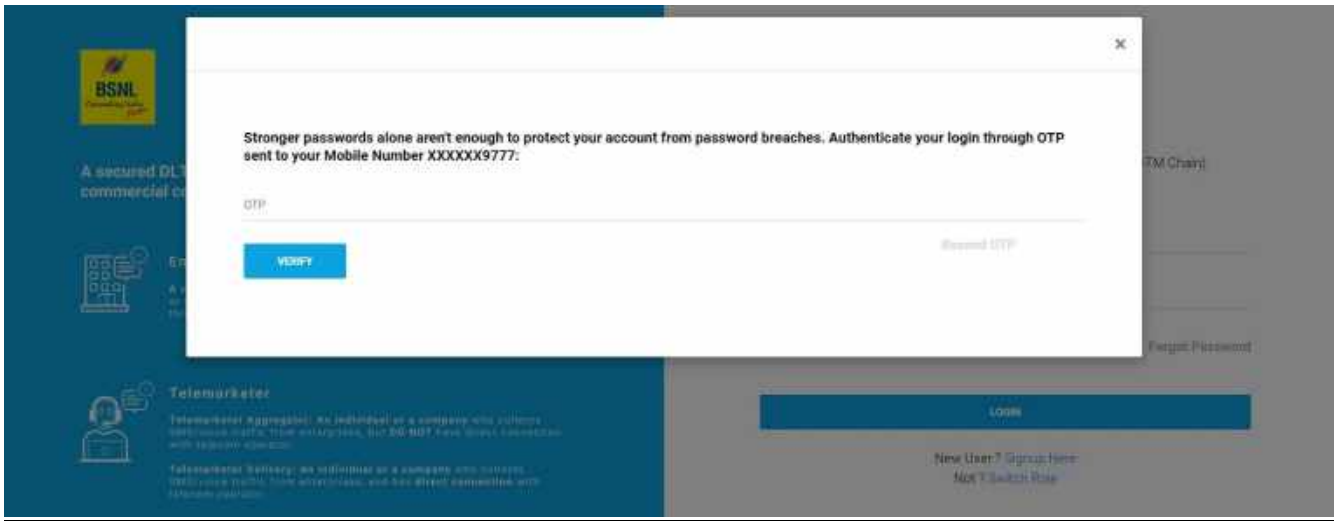


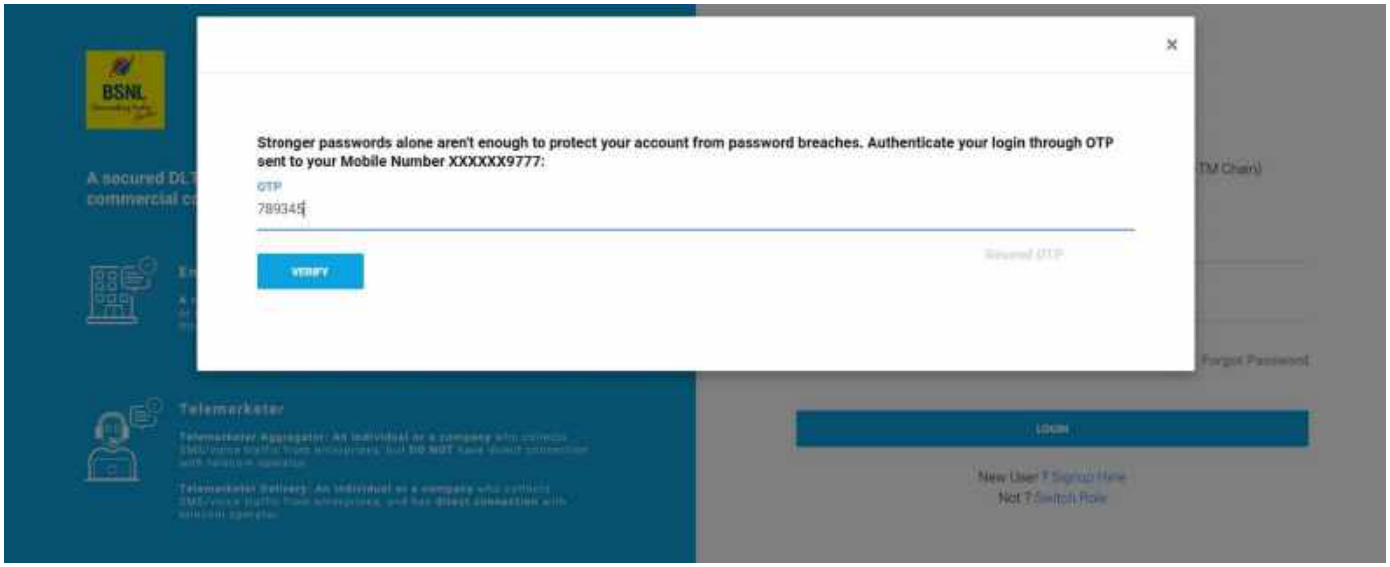
TM – Aggregator Login

1. For TM with existing credentials with BSNL DLT, choose existing telemarketer for login and enter email and password. TM will receive a mail notification to their registered mail ID, to act on the PE-TM chain.
   TM with existing relation with have access via regular login, while TM with no relation to BSNL DLT will have limited access with Telemarketer (only for PE-TM chain)

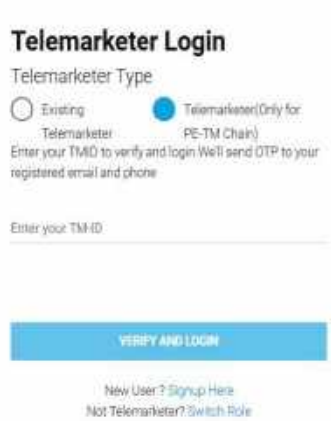


2. Enter the OTP to login to the BSNL portal

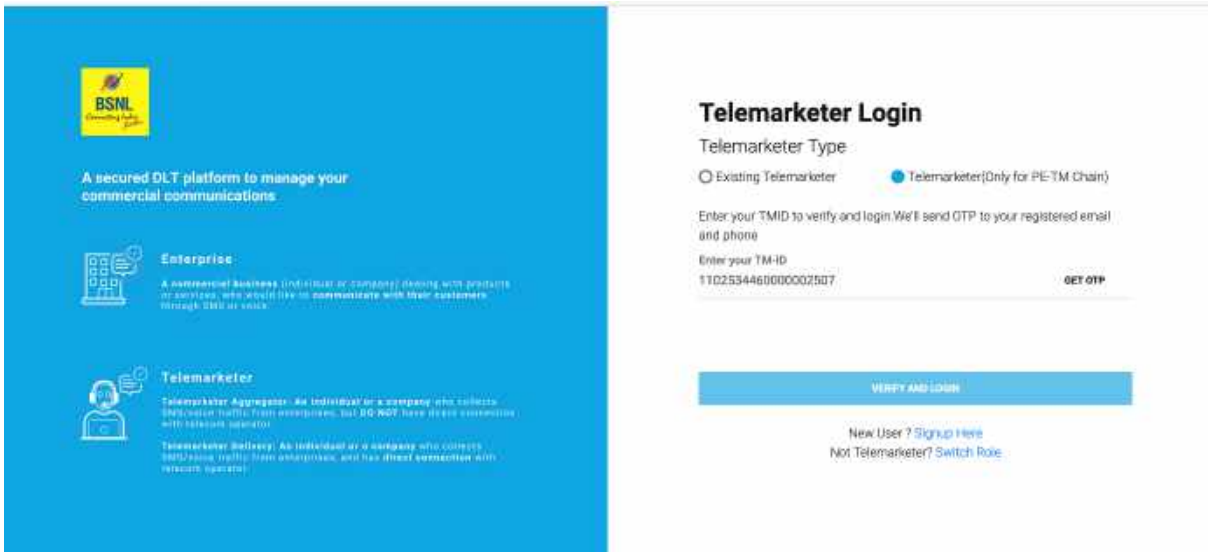




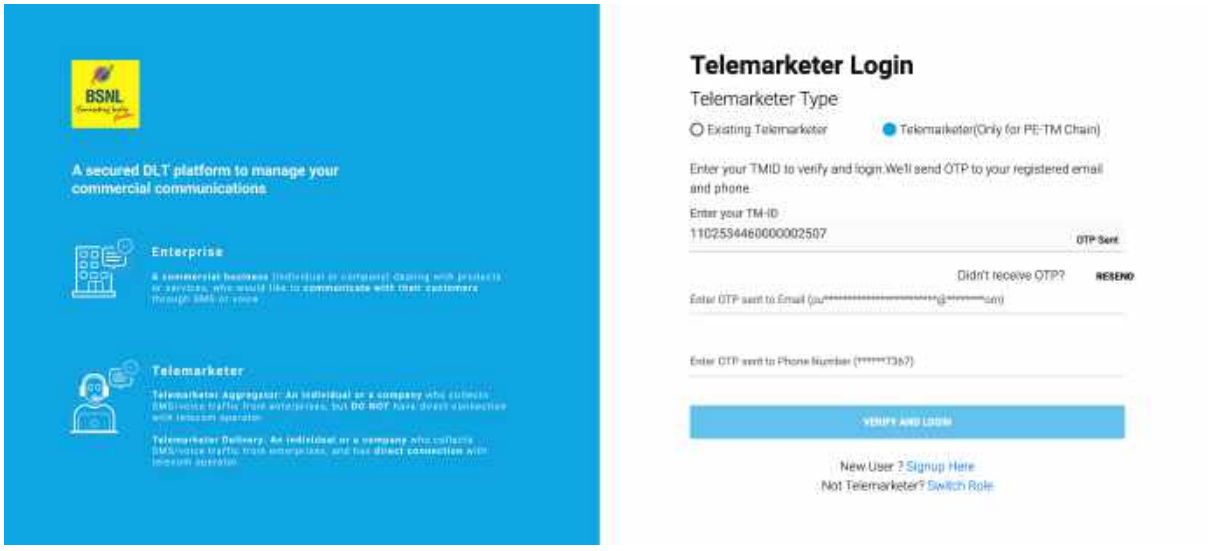
3. For TM with no existing relationship with BSNL DLT portal, pl choose TM (only for PE-TM chain)



4. Please enter the Telemarketer ID issued by the DLT eco system

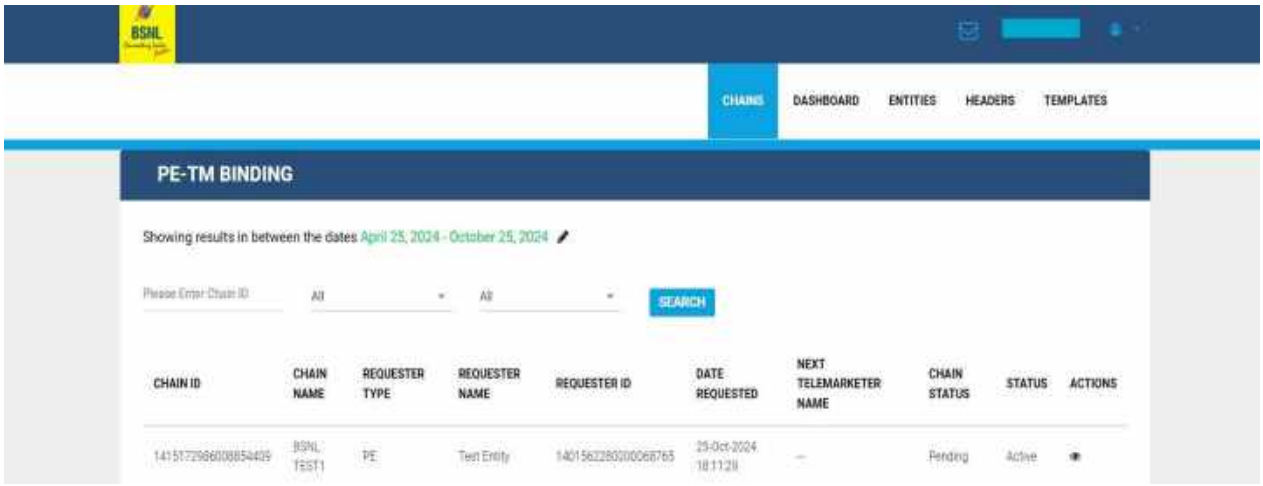


5. Enter the OTP triggered to both registered Mobile Number and Email id which will be used to two factor authentication to the BSNL DLT Portal

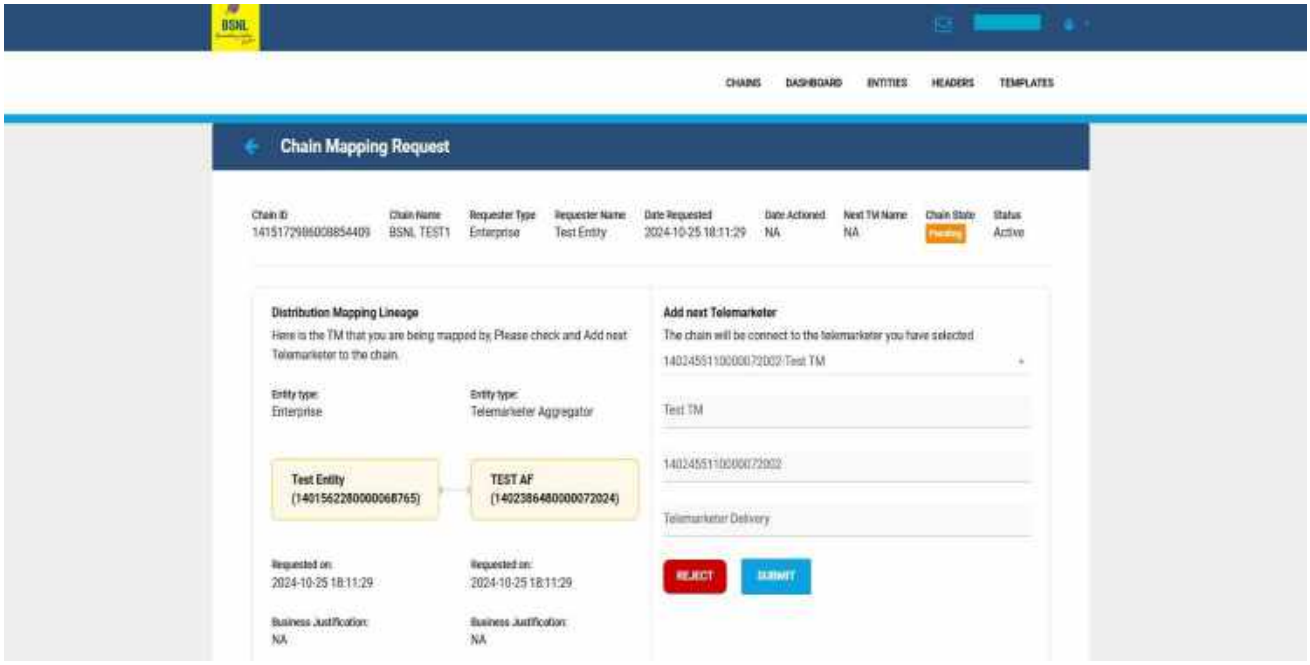


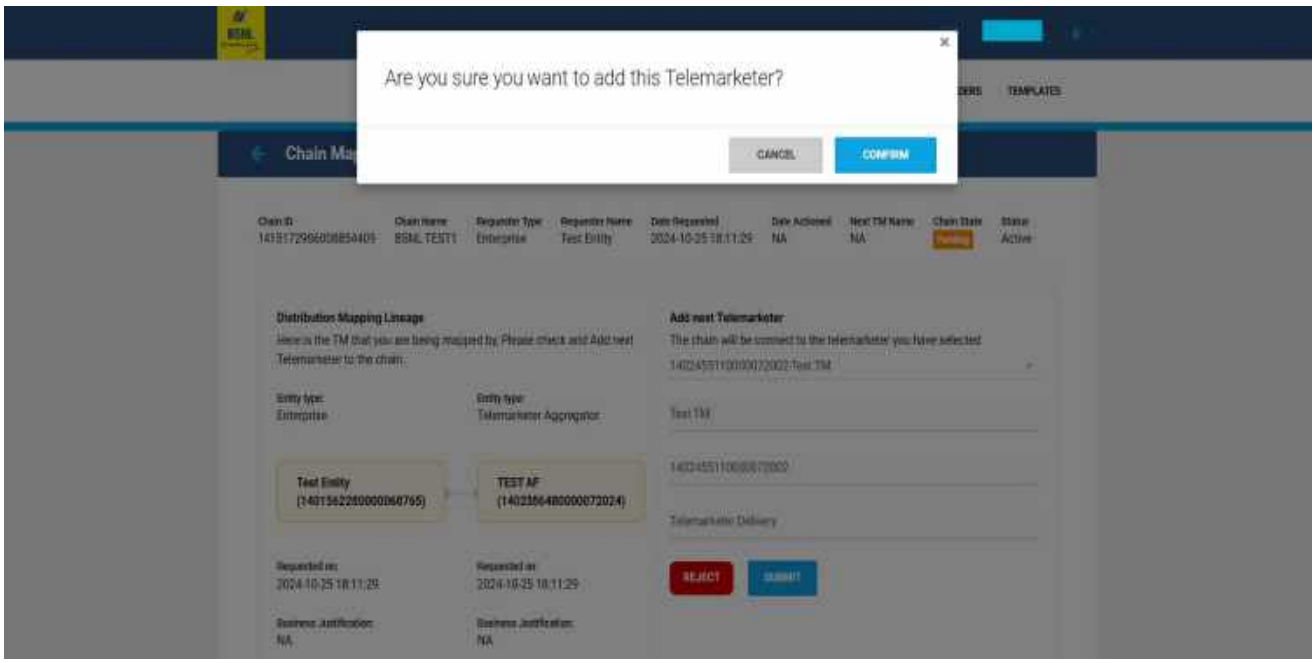
6. Verify and login to the BSNL DLT Portal

7. Click on chain option on the home page & View all Pending and approved request on the Chain Home Page and click on Action to take next steps
   TM with only PE-TM Chain only option will only have access to view, declare, accept/reject chains.

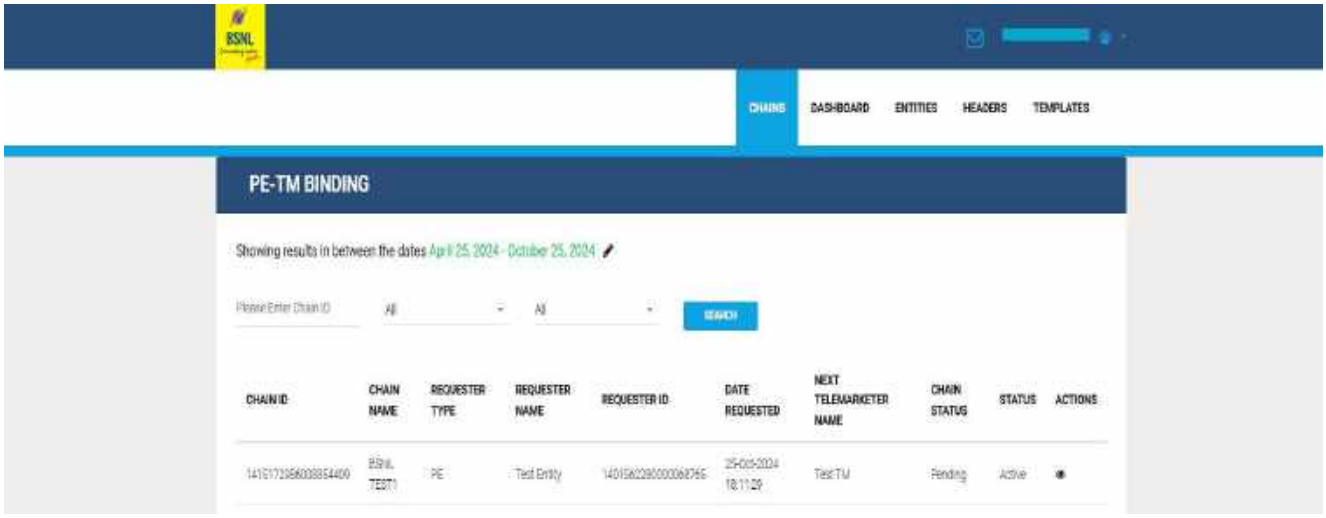


8. Check the request from PE or TM-AF & Choose next TM-AF or TM-DF to move the chain further. To Reject the request from PE, click on Reject





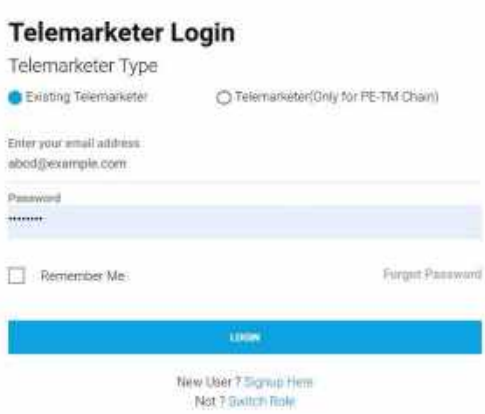
9. Only the TM-AF or TM-DF is chosen, it will show in pending state with Telemarketer name in Next TM Name.

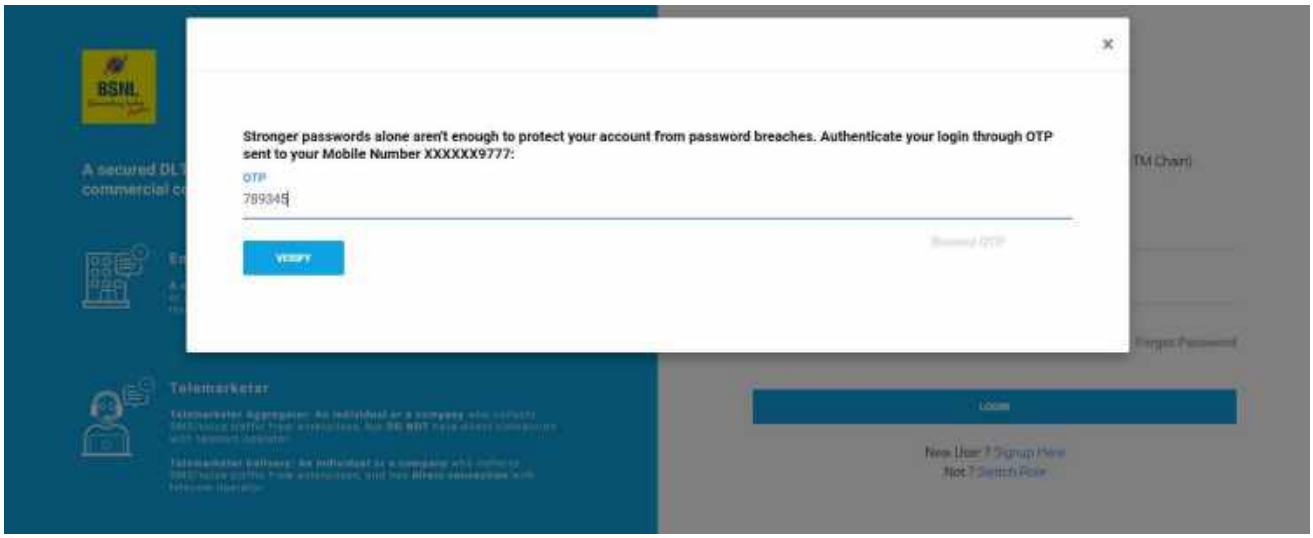


10. Suitable Justification is mandatory for adding more than 3 TM-AF in the chain

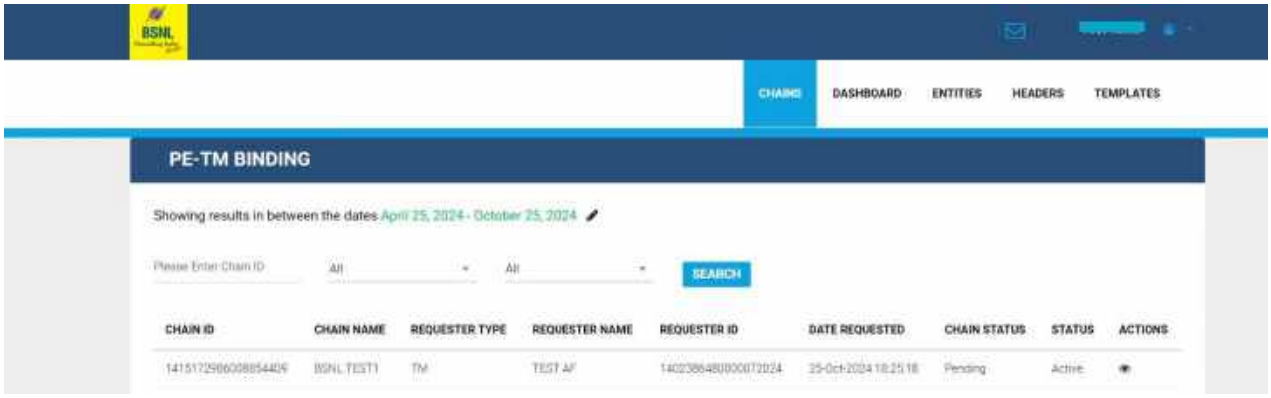
TM – Delivery Function Login

1. Login with existing credentials or with login only for PE TM Chain creation on the BSNL DLT portal

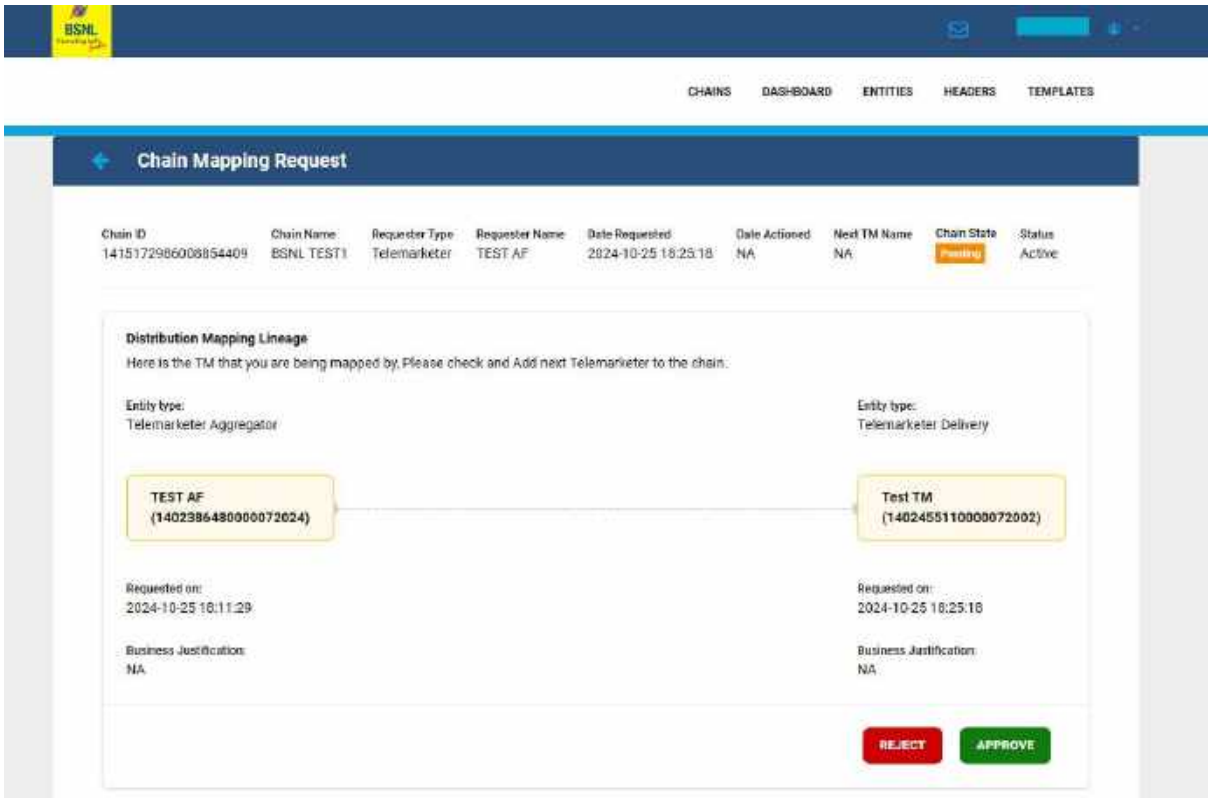


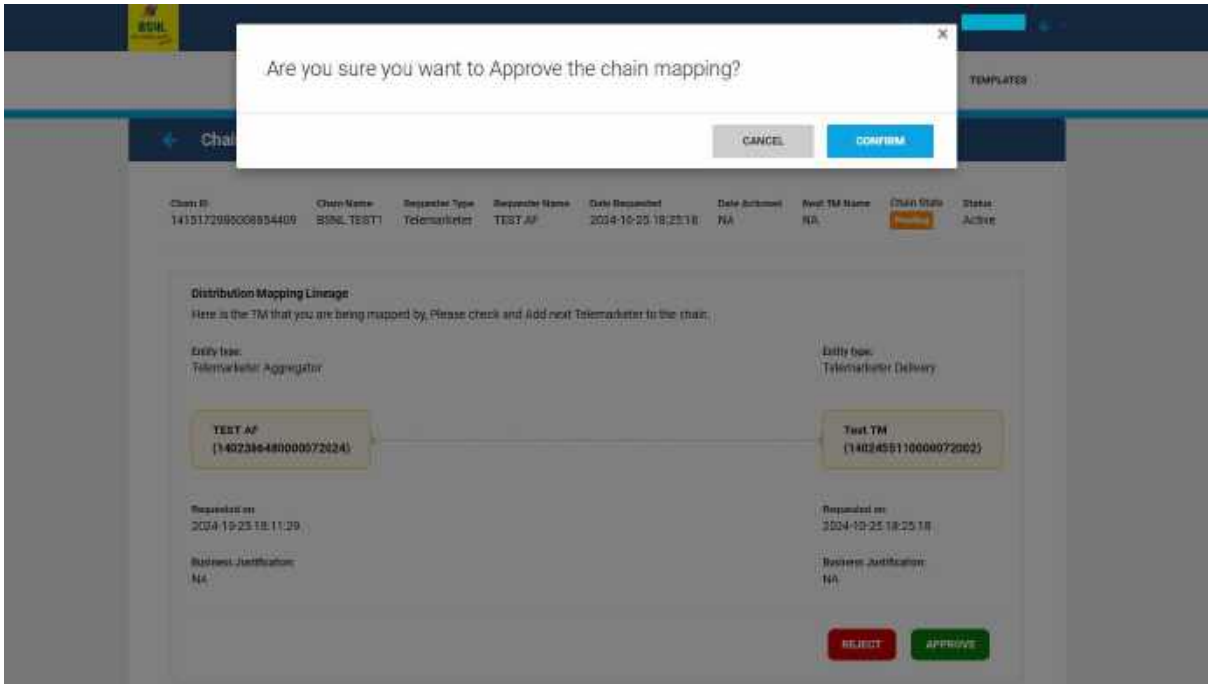


2. Click on chains option to view the active and pending chain requests and click on actions for taking action on chains.

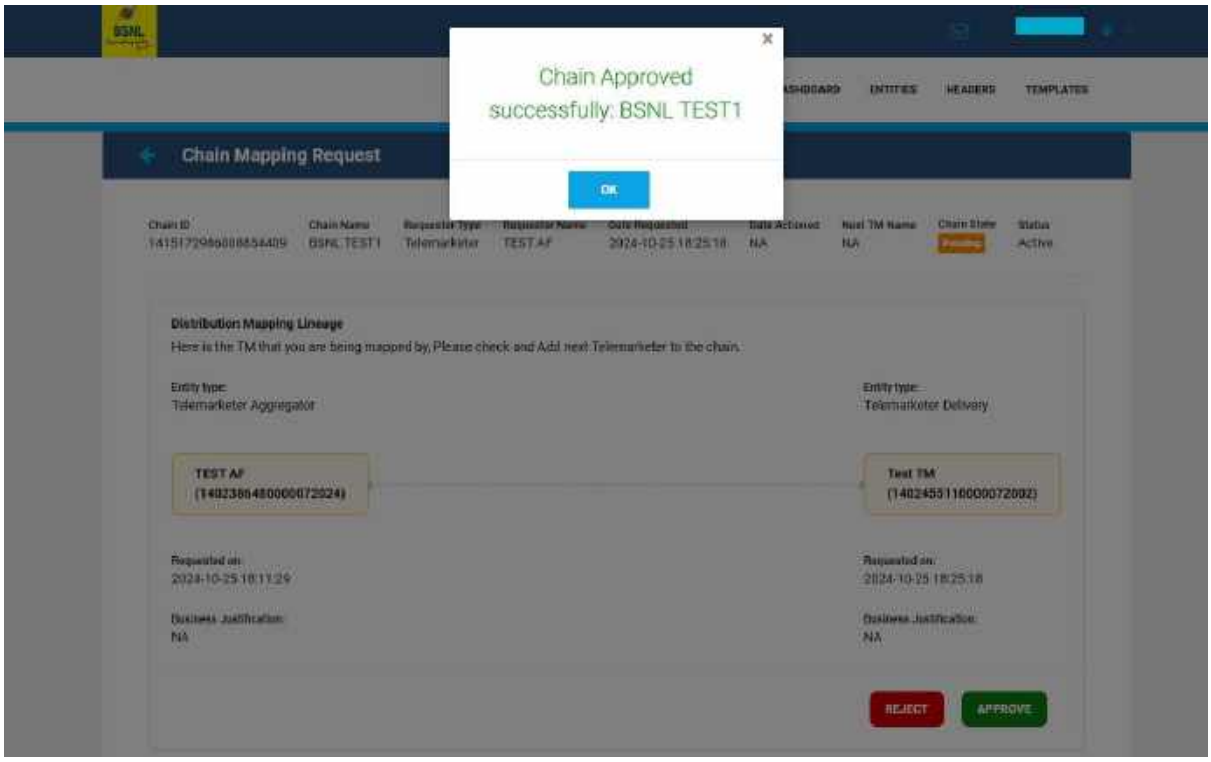


3. View the request and approve and reject the request.
    a. Pl note that TM DF will have no visibility of PE in case the request has been raised by TM-AF
    b. TM-DF cannot choose further TM-DF, as there is only single TM-DF allowed in the chain.



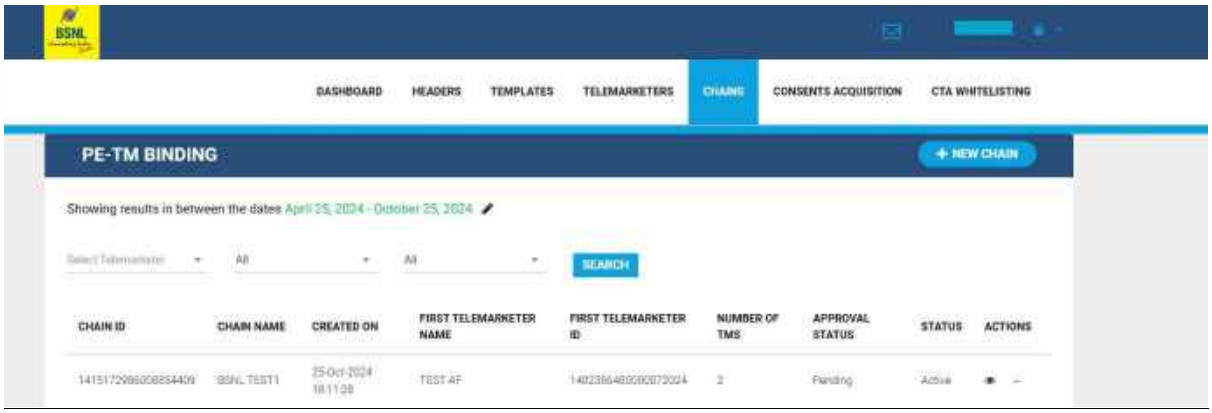


4. Post Chain approval, it will go to home page of chains in pending state where final approval will be given by PE for complete chain.

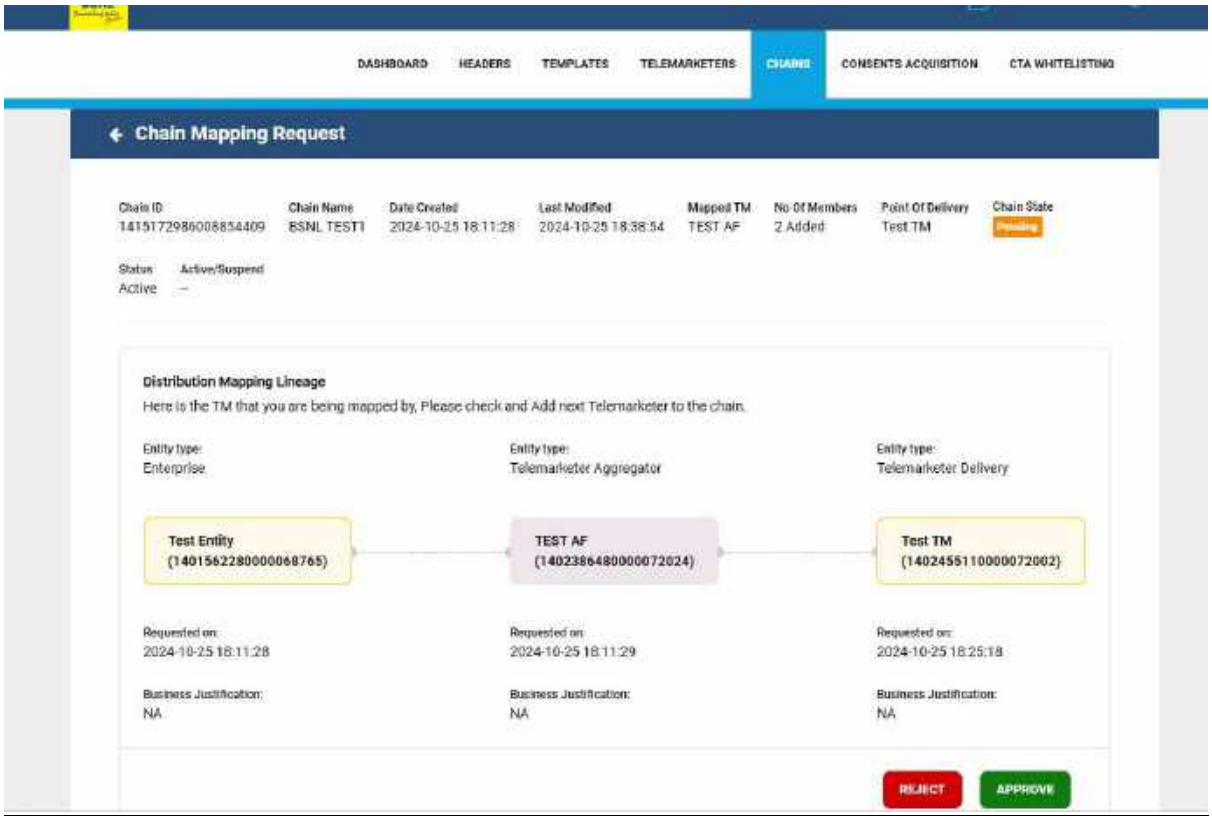


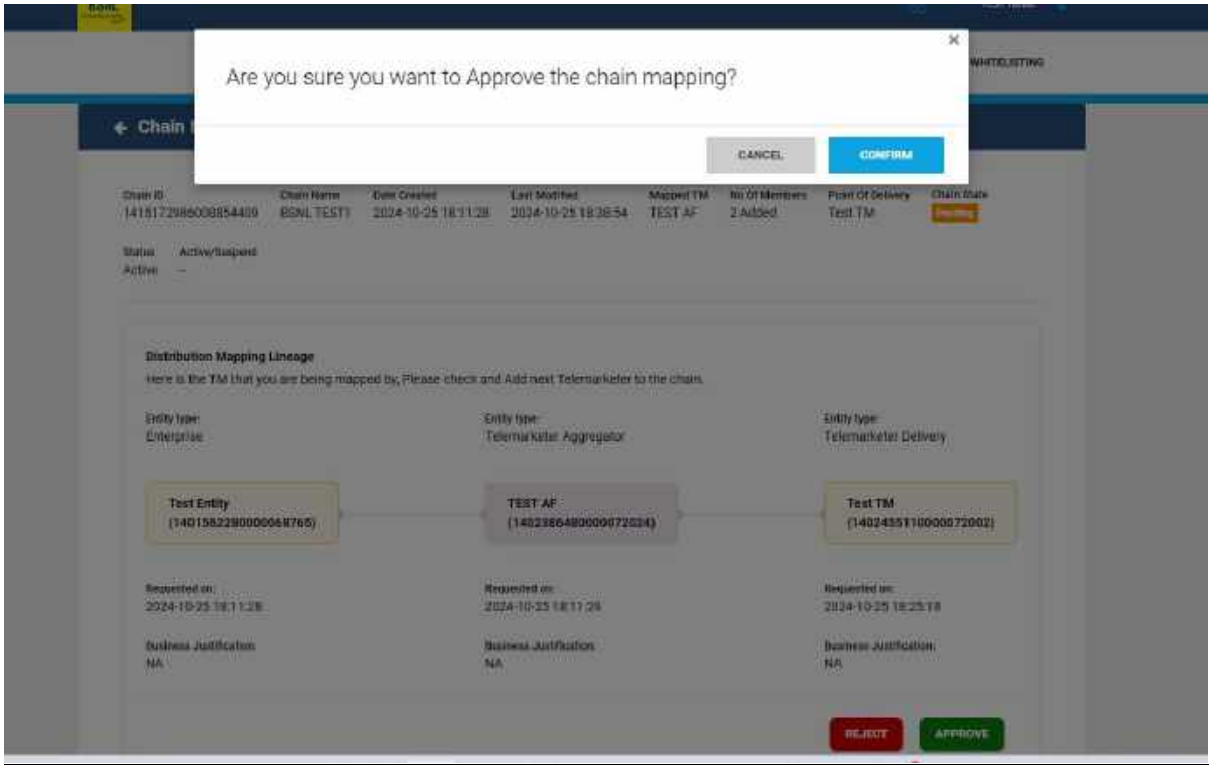
Enterprise Login

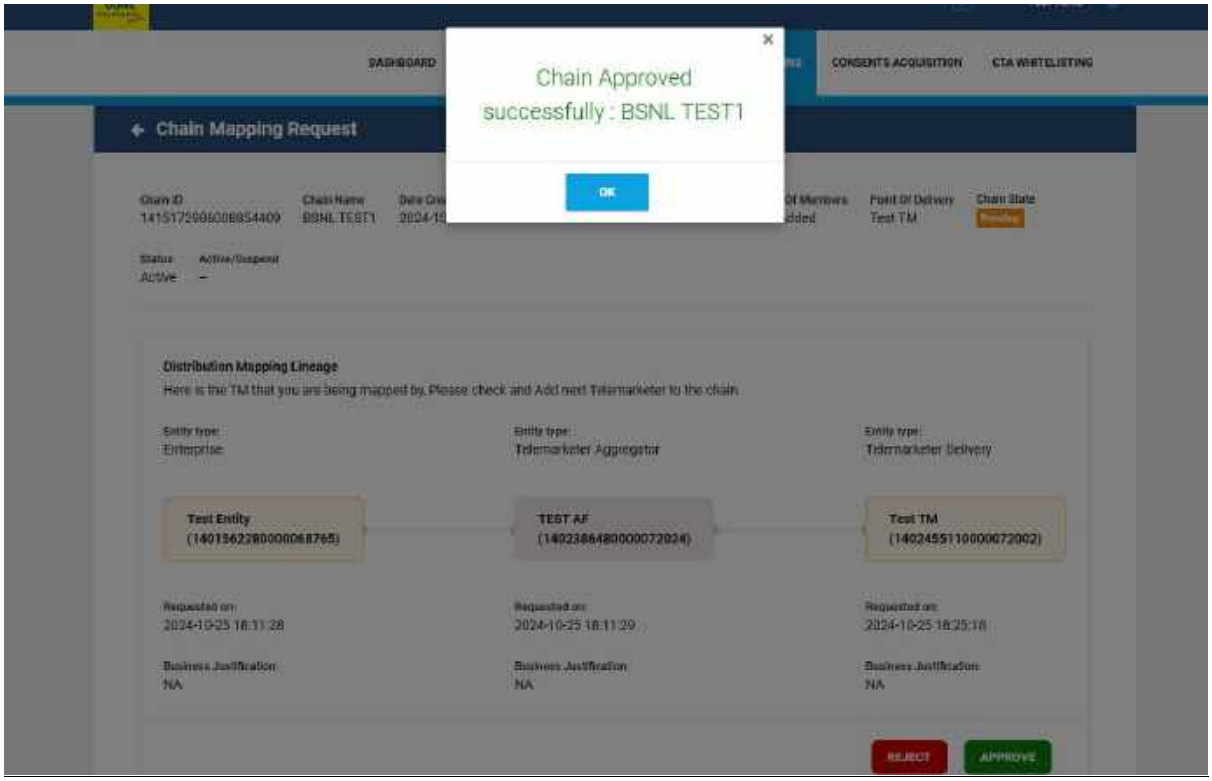
1. Click on actions to view pending chain requests



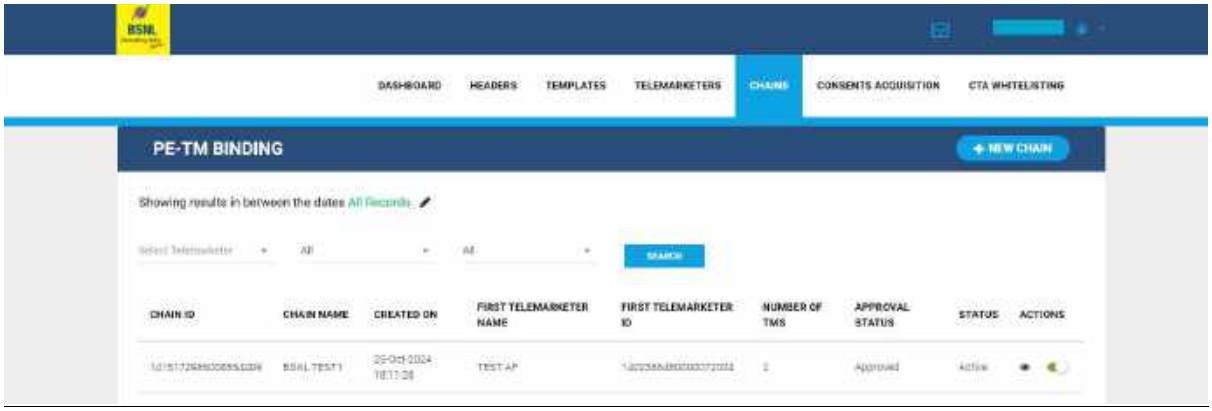
2. View the entire chain end to end and click to approve or reject




Are you sure you want to Approve the chain mapping?
CANCEL
CONFIRM
Chain
Distribution Mapping Lineage
Here is the TM that you are being mapped by, Please check and Add next Telemarketer to the chain.
Entity type: Enterprise
Entity type: Telemarketer Aggregator
Entity type: Telemarketer Delivery
Test Entity (1401562280000068765)
TEST AF (1402386480000072024)
Test TM (1402455110000072002)
Business Justification NA
REJECT
APPROVE


DASHBOARD
CONSENTS ACQUISITION
CTA WHITELISTING
Chain Approved successfully : BSNL TEST1
OK
Chain Mapping Request
Distribution Mapping Lineage
Here is the TM that you are being mapped by, Please check and Add next Telemarketer to the chain.
Entity type: Enterprise
Entity type: Telemarketer Aggregator
Entity type: Telemarketer Delivery
Test Entity (1401562280000068765)
TEST AF (1402386480000072024)
Test TM (1402455110000072002)
Business Justification NA
REJECT
APPROVE

3. Once the chain is approved, it will be available on the home page of Enterprise as a approved chain



PE TM Chain Hash Generation

User Manual
For Enterprises & Telemarketers

Overview

This document outlines the necessary steps required for TM-Delivery Function to generate the hash basis the Chain defined on the DLT portal.

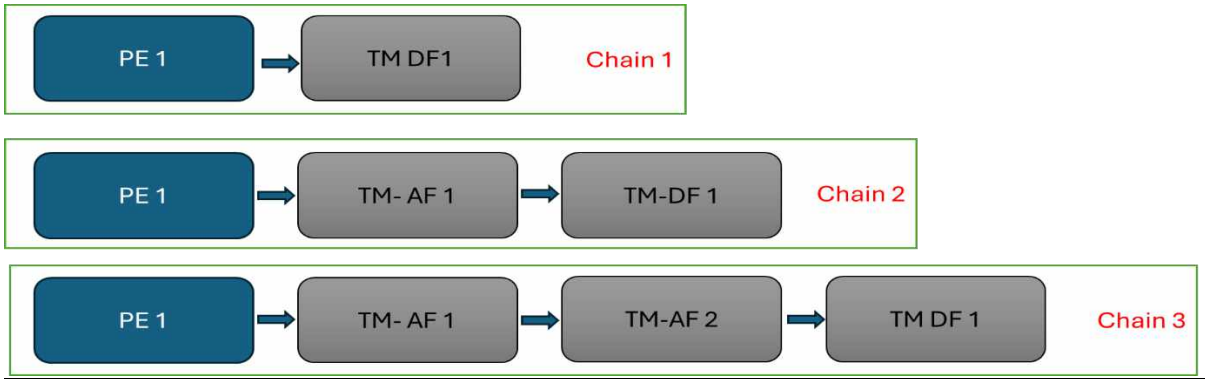
It is expected to generate the hash using SHA256.

Below steps for Hash Generation by TM-DF will be applied after the chain is approved at all stages by all respective stakeholders like TM-AF as well as TM-DF. The Selection of TM-DF will mark the end of chain and it will be assumed that traffic will be submitted by TM-DF to the Telco DLT Network. Once the TM-DF is marked in the chain and its accepted by the TM-DF, a final request will go to PE for the approval of end to end chain.

TM-DF are required to generate hash and submit the same in the TLV parameter, the process for which will be shared separately with all TM-DF.
All the stakeholders like PE, TM-AF and TM-DF will append their DLT ID in the live SMS traffic and TM-DF will be responsible to collate all ID's and generate hash before submitting to Telco DLT Network.

Hash Generation

Below illustration shows three different chains initiated by PE and approved on DLT after acceptance from respective TM-AF or TM-DF as applicable.



Following sample data is assumed as a illustration for Hash generation.
PE ID: 1101172974420810001 ;
TM AF1 ID: 1101172974420820002 ;
TM AF2 ID: 1101172974420820003 ;
TM DF1 ID: 1101172974420830004

Possible Chains and hash

Chain 1: PE to TMDF1,
Hash will be SHA256(PEID,TMDF1ID)

Chain 2: PE to TMAF1 to TMDF1,
Hash will be SHA256(PEID,TMAF1ID,TMDF1ID)

Chain 3: PE to TMAF1 to TMAF2 to TMDF1
Hash will be SHA256(PEID,TMAF1ID,TMAF2ID,TMDF1ID)

Hash generation logic will be SHA256 starting with PE and ending with TMDF with comma as a seperator in between with no space.

Program Example (Golang)

```
package main

import (
	"crypto/sha256"
	"encoding/hex"
	"fmt"
)

func GenerateSHA256Signature(input string) string {

	hasher := sha256.New()
	hasher.Write([]byte(input))
	hexHash := hex.EncodeToString(hasher.Sum(nil))
	return hexHash
}

func main() {

chain1 :=
"1101172974420810001,1101172974420830004"
	hashofpedf := GenerateSHA256Signature(chain1)
	fmt.Println("Chain1: ", hashofpedf)

chain2 := "1101172974420810001,1101172974420820002,1101172974420830004"
	hashofpetmdf := GenerateSHA256Signature(chain2)
	fmt.Println("Chain2: ", hashofpetmdf)
```

```
chain3 :=
"1101172974420810001,1101172974420820002,1101172974420820003,11011729744
20830004"
	hashofpetmtmdf := GenerateSHA256Signature(chain3)
	fmt.Println("Chain3: ", hashofpetmtmdf)
}
```

Output
Chain1
c0c951afca257c5b87c3da535c09112080483f35b7e6faf35e2428b3b526b694

Chain 2
ba38bbe4ab3780a70aad6071c006e720eed8efc1ff70b00691d3b6844e6497e2

Chain3
d3133e436040034d9e95932ea93a1f82c37e1d98803229f835d8f3124e77e07f

Program Example (Java)

```
import java.util.*;
import java.security.MessageDigest;

class CreateChainHash {
  public static void main(String[] args) {
        String chain1 = "1101172974420810001,1101172974420830004";
        String hashofpedf = getHash(chain1);
        System.out.println("hashofpedf: "+ hashofpedf);
        String chain2 =
"1101172974420810001,1101172974420820002,1101172974420830004";
        String hashofpetmdf = getHash(chain2);
        System.out.println("hashofpetmdf: "+ hashofpetmdf);
        String chain3 =
"1101172974420810001,1101172974420820002,1101172974420820003,11011729744
20830004";
        String hashofpetmtmdf = getHash(chain3);
        System.out.println("hashofpetmtmdf: "+ hashofpetmtmdf);
  }

    static String getHash(String input) {
        String hash = "";
        try {
            MessageDigest digest = MessageDigest.getInstance("SHA-256");
            byte[] valbyte = digest.digest(input.getBytes());
```

```
                StringBuilder hexString = new StringBuilder(2 * valbyte.length);
                for (byte b : valbyte) {
                    String hex = Integer.toHexString(0xff & b);
                    if (hex.length() == 1) {
                        hexString.append('0');
                    }
                    hexString.append(hex);
                }
                hash = hexString.toString();
            }
            catch (Exception e) {
                System.out.println("error" + e);
            }
            return hash;
        }
}
```

Output:

Chain 1
c0c951afca257c5b87c3da535c09112080483f35b7e6faf35e2428b3b526b694
Chain2
ba38bbe4ab3780a70aad6071c006e720eed8efc1ff70b00691d3b6844e6497e2
Chain3
d3133e436040034d9e95932ea93a1f82c37e1d98803229f835d8f3124e77e07f

TLV Parameter

Following TLV tagid will be used for publishing the generated hash.
TLV TagID: 5122

SMPP Error Codes

Following error codes will be generated from BSNL DLT for various permutations and combinations of errors on generated Hash.

ErrorCodes:
PE_TM_HASH_NOT_RECEIVED = 614
PE_TM_HASH_NOT_REGISTERED = 615
PE_TM_HASH_INACTIVE = 616
PE_TM_HASH_BLACKLISTED = 617
PE_TM_HASH_SUSPENDED = 618

TCCCPR 2018 TRAI Regulations

SMS PE-TM Binding

What is TCCCPR 2018 ?

The Telecom Commercial Communications Customer Preference Regulations (TCCCPR) 2018, introduced by the Telecom Regulatory Authority of India (TRAI), aims to reduce unwanted commercial communications and enhance consumer protection. It mandates telemarketers to register with Telecom Service Providers, obtain customer consent before sending messages/originating any Promotional, and adhere to stringent guidelines. The regulation also establishes a robust complaint management mechanism, enabling consumers to report violations easily. By promoting transparency and fair billing practices, TCCCPR 2018 seeks to safeguard consumer interests in the telecommunications sector effectively.

Agenda

- Definition
- Stakeholders
- Abbreviations & Key Participants
- Flow of Chain
- Chain Initiation by PE
- Role of TM – Aggregator & TM – Delivery (Registered with Jio & Not Registered with Jio)
- Acknowledgement of Chain by PE

Stakeholders

Principal Entity -
A company or individual that wants to send commercial communications to customers. This could be a business, sole proprietor, partnership firm, or government organization ensuring compliance with regulations, including customer consent. They must register on DLT platforms.

Telemarketer -
A company or individual that sends traffic from other businesses (Principal Entity) to customers through Telecom Service Providers (TSPs). They must register on DLT platforms and follow TRAI guidelines to obtain consumer consent and prevent unsolicited messages.

There are 2 types of Telemarketers-

- Telemarketer Aggregator (TMA) – Acts as the intermediary between the PE/ other TMA and TMA/TMD.
- Telemarketer Delivery (TMD) – who submits the traffic to TSP

Abbreviations

- TRAI – Telecom Regulatory Authority of India
- DLT – Distributed Ledger Technology
- SMS – Short Message Service
- PE – Principal Entity
- TMA – Telemarketer Aggregator, who receives traffic from PE and submits to TMD
- TMD – Telemarketer Delivery, receives traffic from PE/TMA and submits to Operator
- TSP – Telecom Service Provider
- OAP – Originating Access Provider

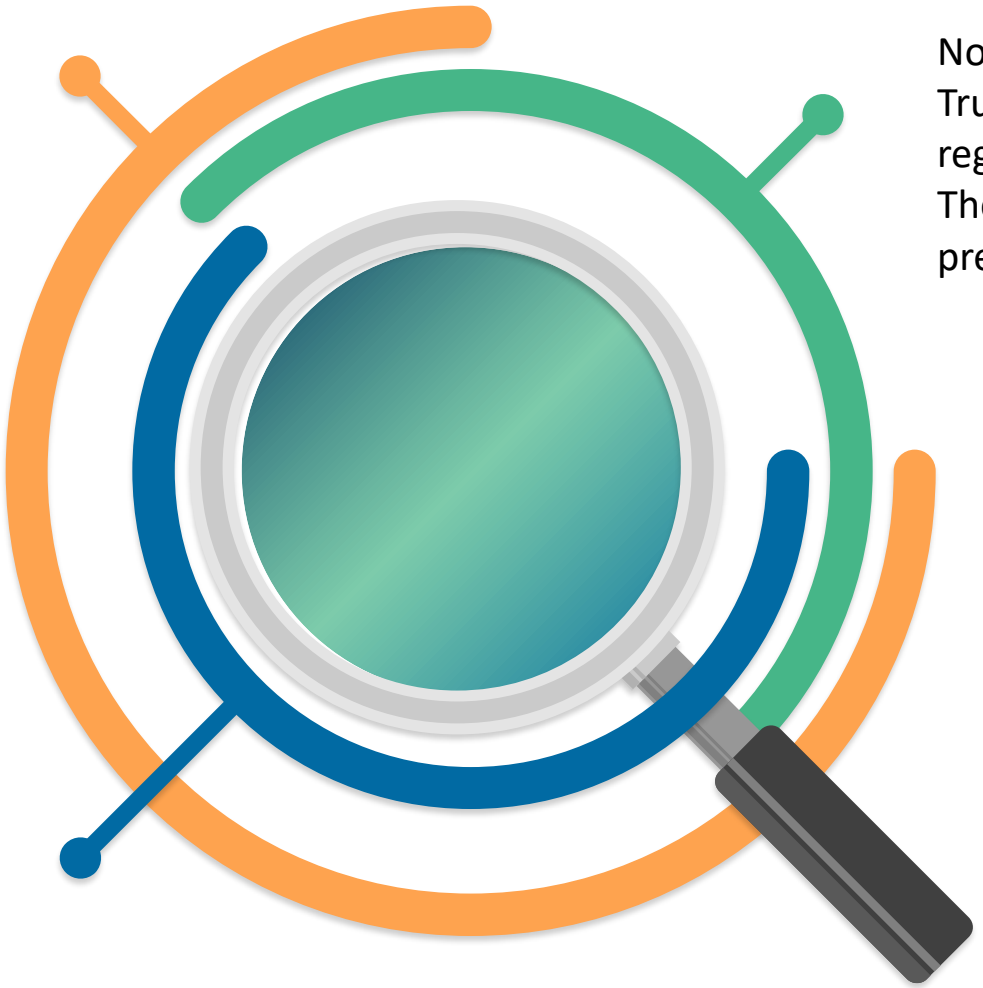
Key Participants

Principal Entity

Wants to send commercial communications to customers ensuring compliance with regulations, including customer consent. They must register on DLT platforms.

Jio Telemarketer

Must be registered as TM with Jio TrueConnect (DLT).
They must follow TRAI guidelines to prevent unsolicited messages.



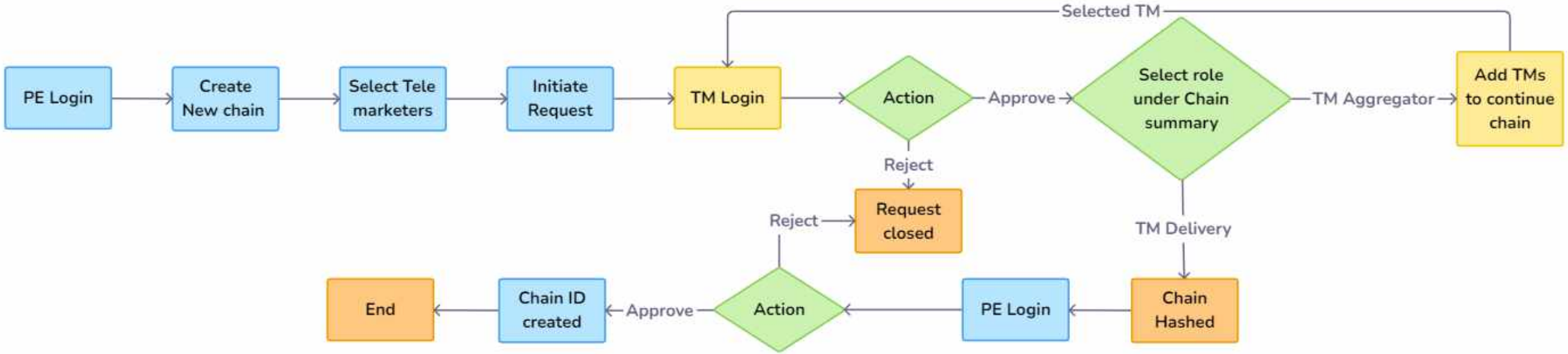
Non Jio Telemarketer

Not registered as TM with Jio TrueConnect (DLT), but they could be registered with other TSPs.
They must follow TRAI guidelines to prevent unsolicited messages.

Why PE-TM binding ?

- In India, 1.5-1.7 billion commercial messages are sent every day, taking the total to about 55 billion every month, according to industry data(Source). Such mass interaction leads to higher rate of spamming.
- In continuation of multi-pronged approaches for curbing spam, including measures to prevent misuse of PE data, PE-TM Chain Binding at DLT platforms of all TSPs are to be implemented.
- Currently, PE transmits SMS via the registered TMs who may further get it delivered by other TMs. This incapacitates the PE to have visibility over the SMS delivery Chain. It could also lead to misuse of their headers/templates. This also creates a blind sight for the Originating Access Service Provider (OAP).
- Now on, PE must also disclose their associated TMs, i.e., TMAs and TMD to the OAP ensuring transparency in the communication chain. TRAI Direction
- Commercial Relationship between the OAP and TMD should be legally enforceable, with appropriate penal provisions, against violations of the Telecom Commercial Communications Customer Preference Regulations, 2018 by TM Delivery

Process Flow



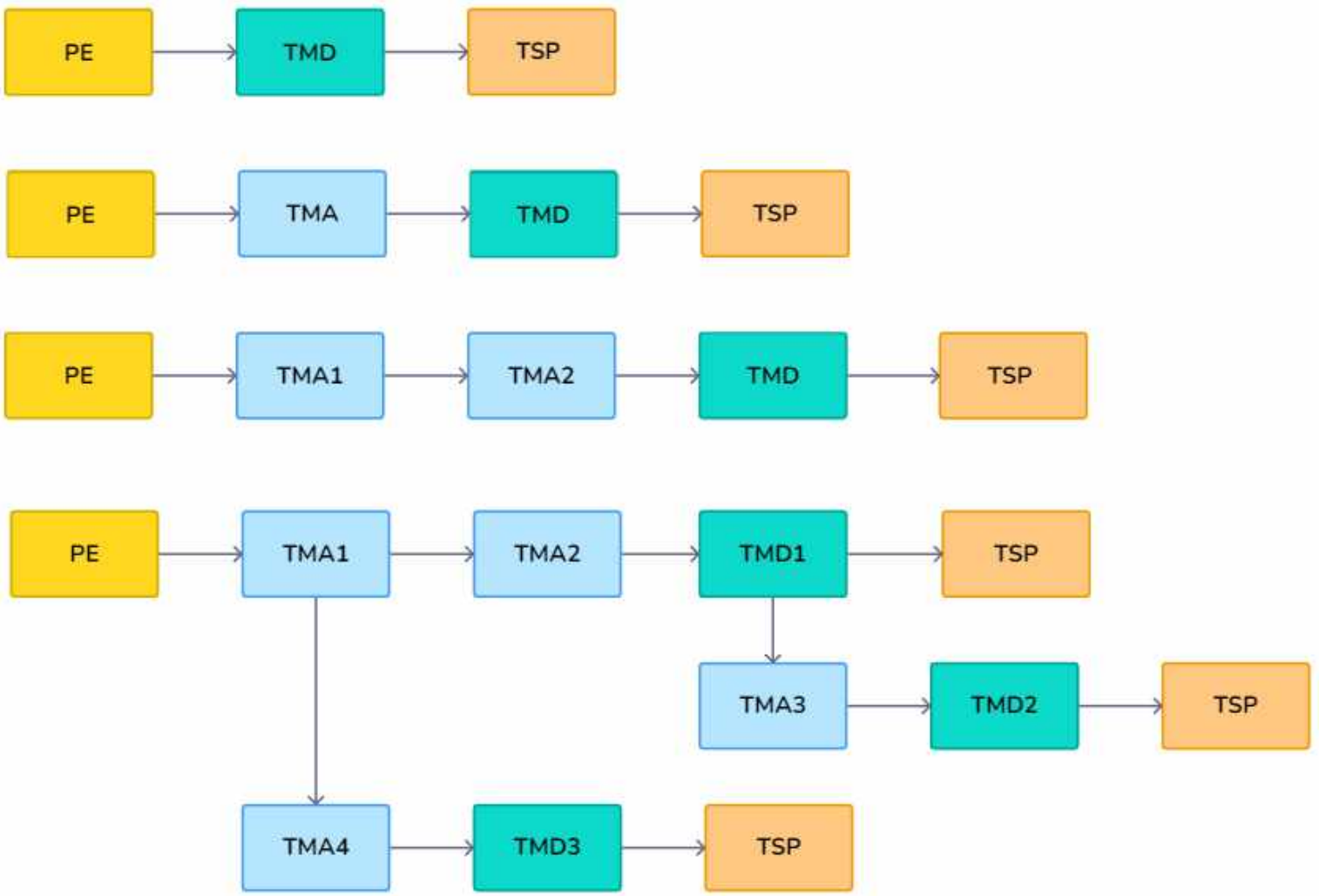
Use Cases

PE-Principal Entity – Initiates the Chain request for sending SMS traffic

TMA-Telemarketer (aggregator) – does not interact directly with TSP, is an intermediate. TMA can nominate another TMA/TMD in the chain

TMD-Telemarketer Delivery – sends the SMS traffic to the TSP,

TSP-Telecom Service Provider or OAP-Originating Access Provider or Telco



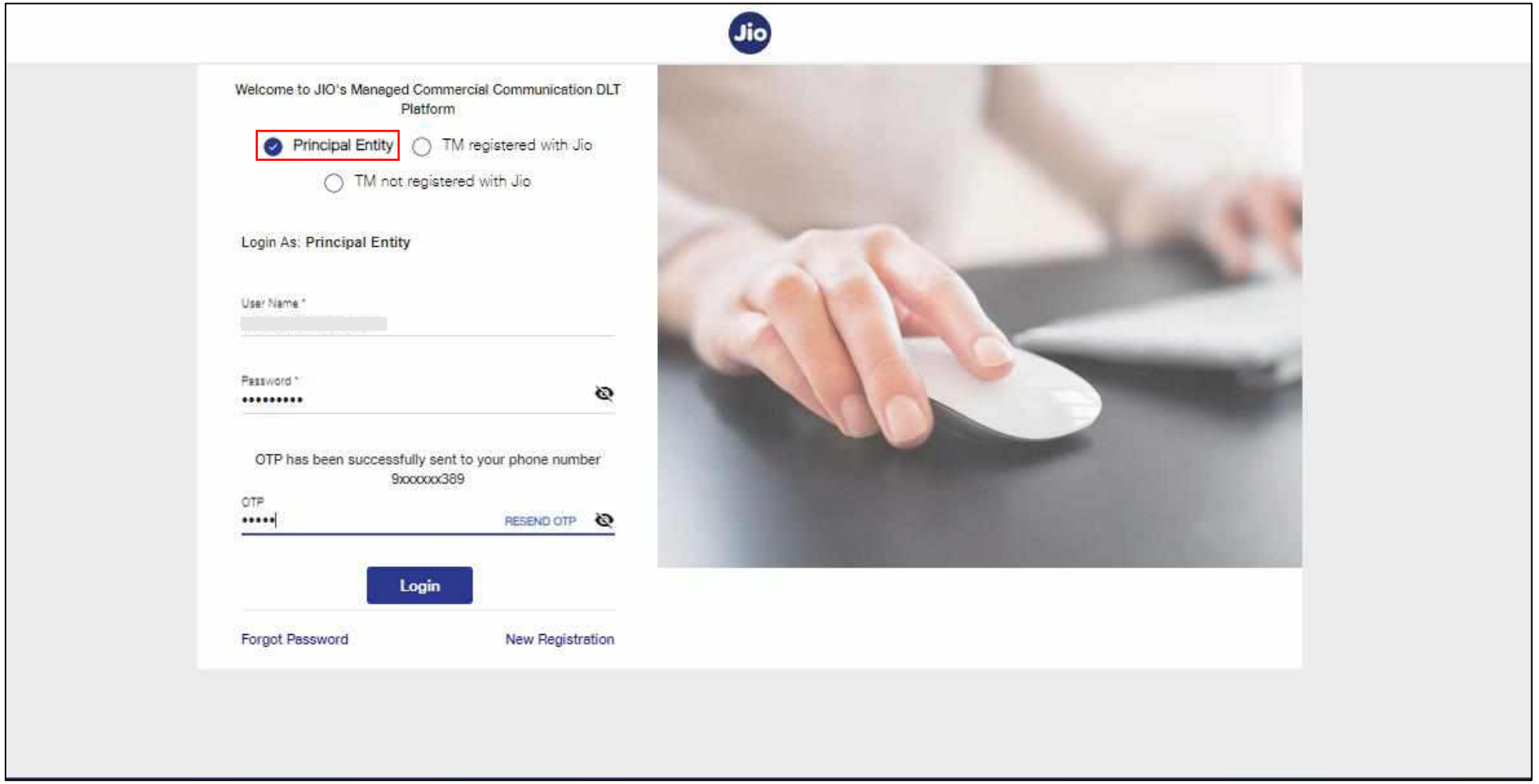
Chain Status

- Pending for Approval – Action to be taken by the PE/TM on the chain
- Requested – Action taken on the chain, chain binding is in progress
- Registered – Chain approved by PE and created
- Rejected – Chain rejected by PE/TM and closed

Note-Rejected chains are cancelled and have to be re-initiated by the PE, if needed.

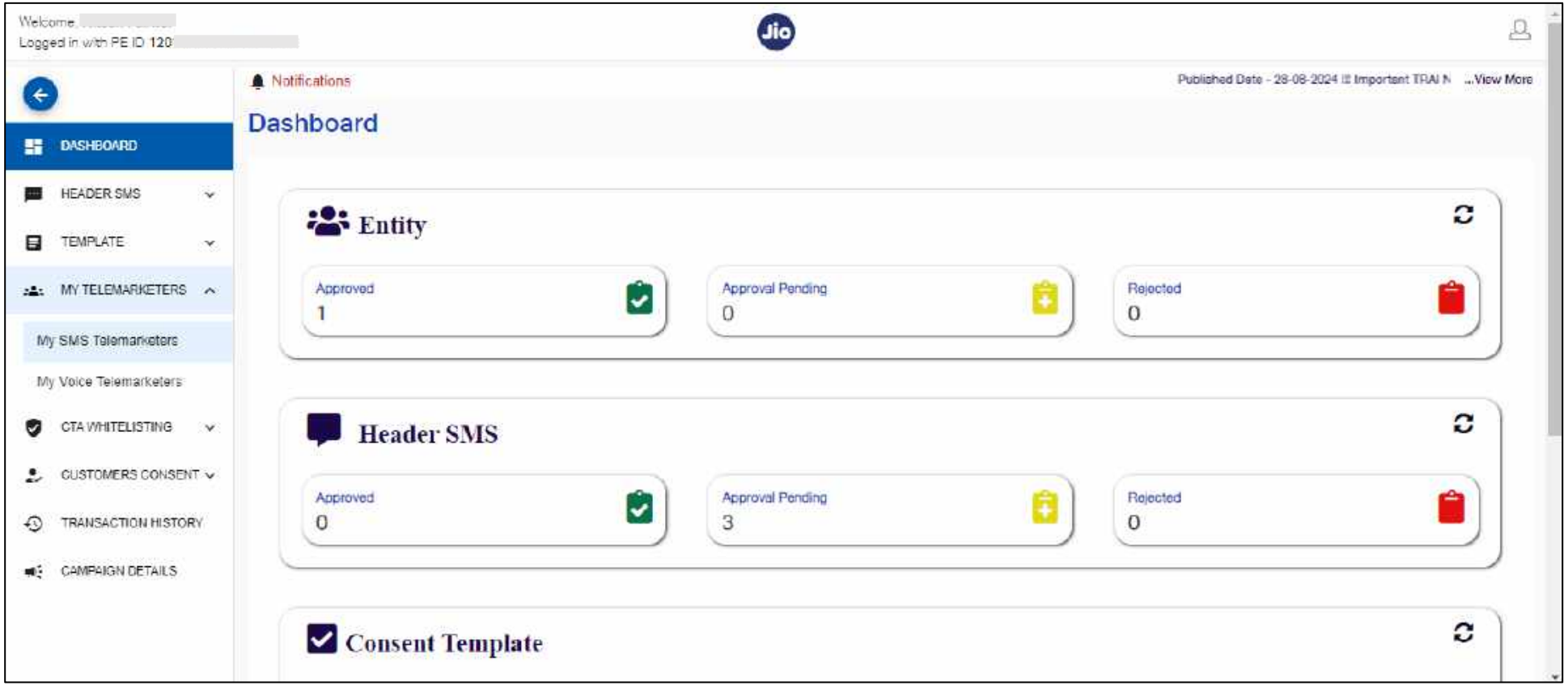
Principal Entity – Chain Initiation

TrueConnect → Jio registered PE Login → Username & Password → Mobile OTP

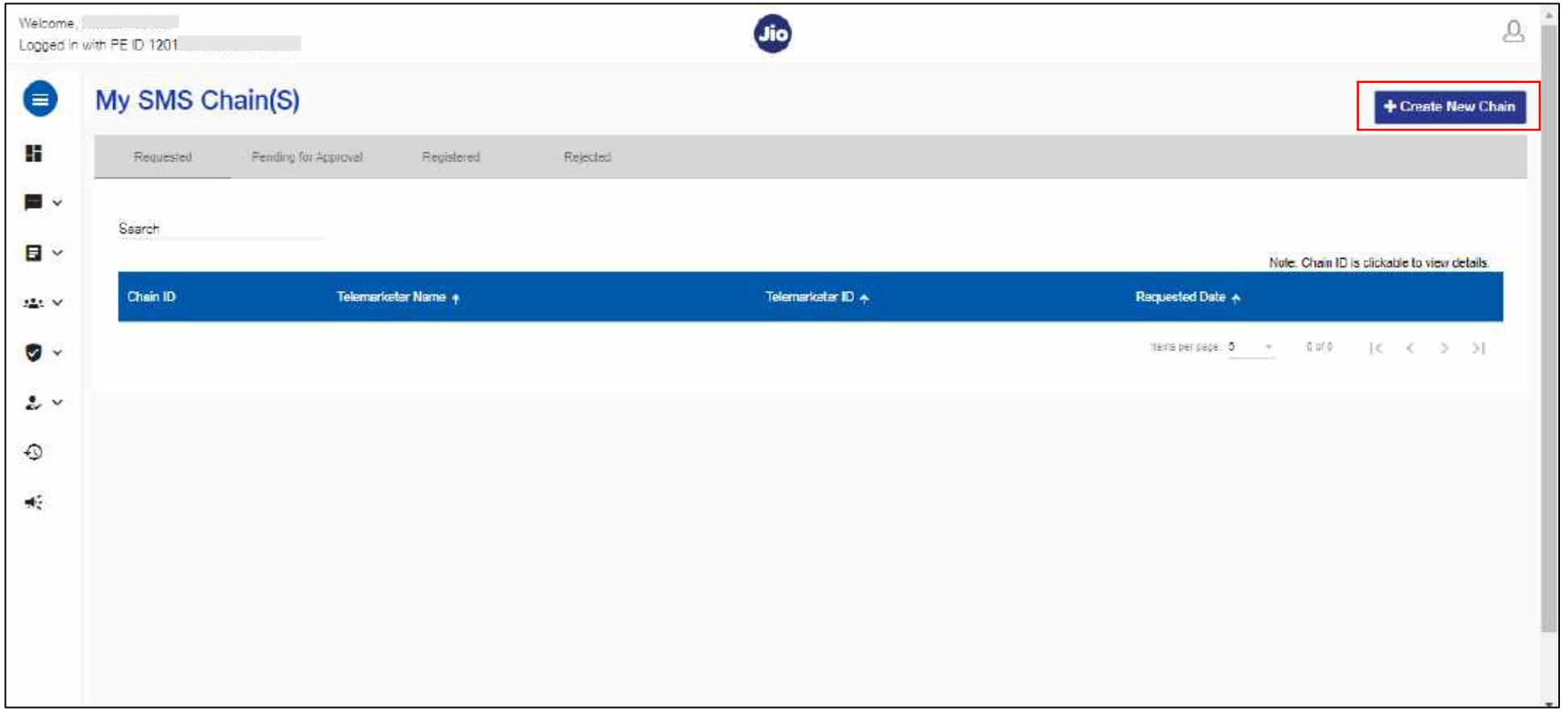


Principal Entity – Chain Initiation

MY TELEMARKETERS → My SMS Telemarketers



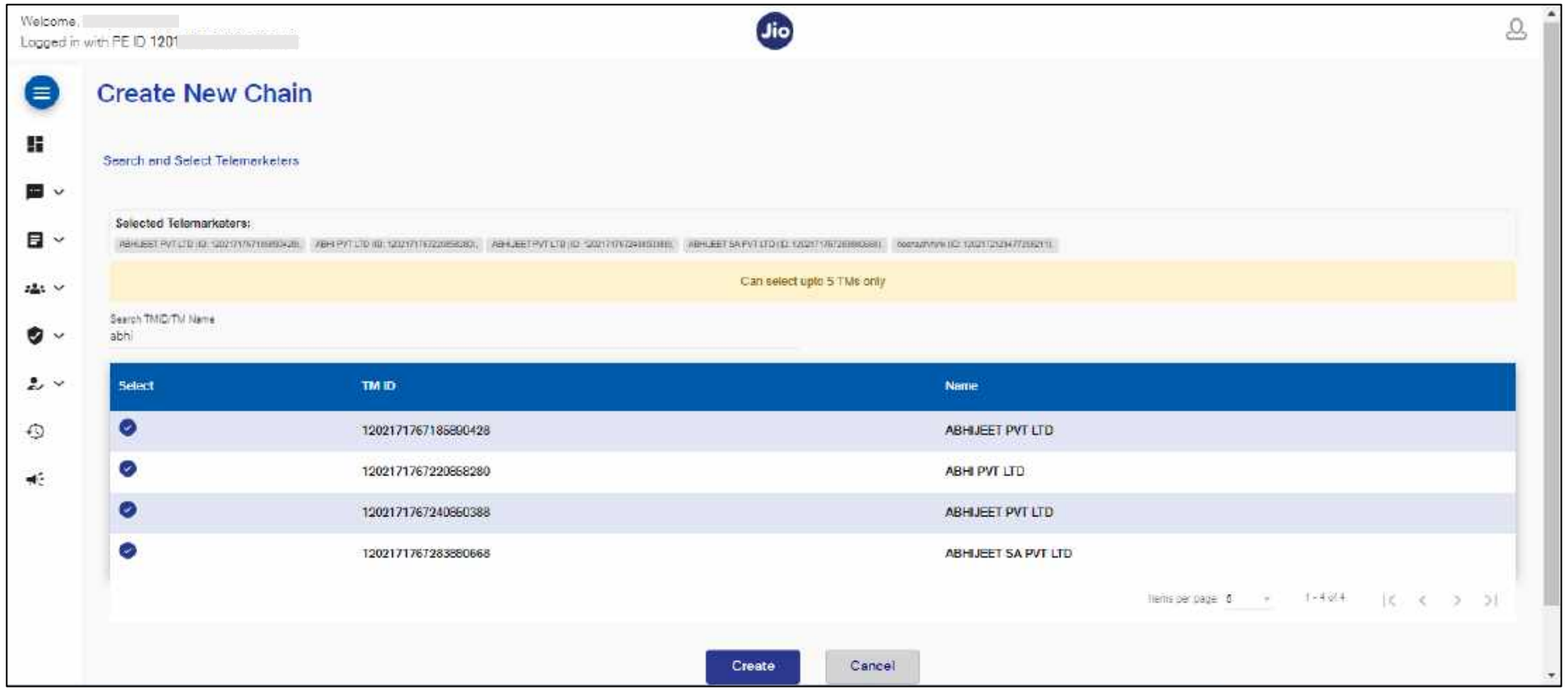
Principal Entity – Chain Initiation



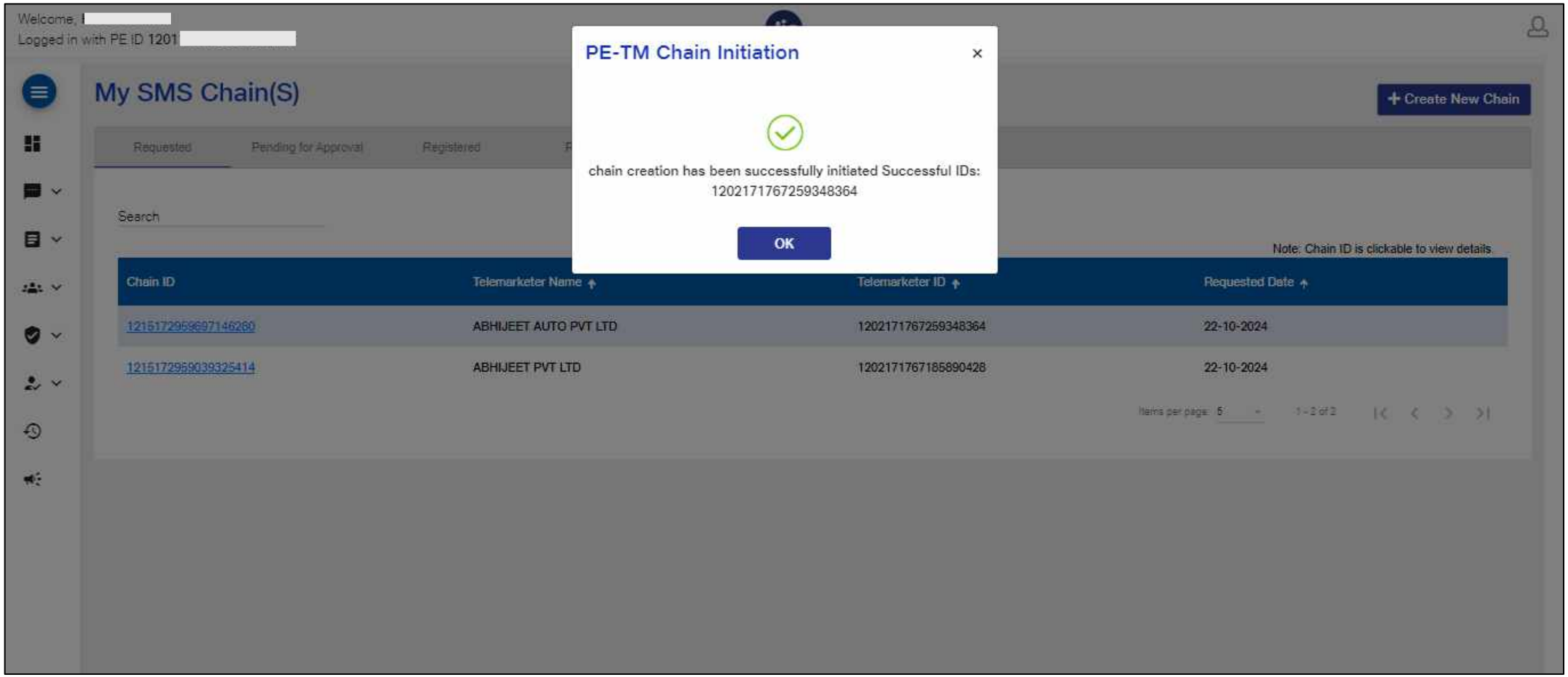
Principal Entity – Chain Initiation

Create New Chain → Search Telemarketers via Name/ID (must be registered on DLT) → Select and initiate Chain request

Can add upto 5 Telemarketers in creation request

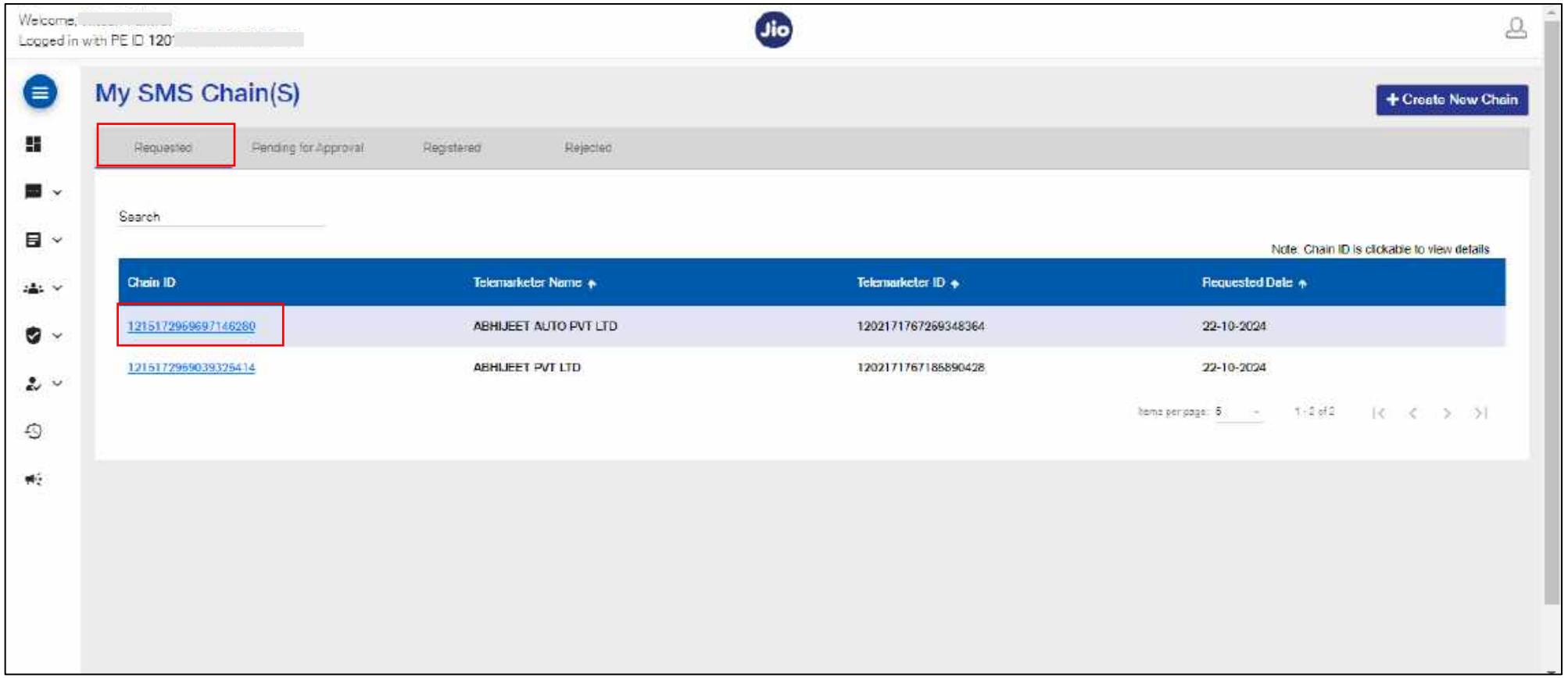


Principal Entity – Chain Initiation



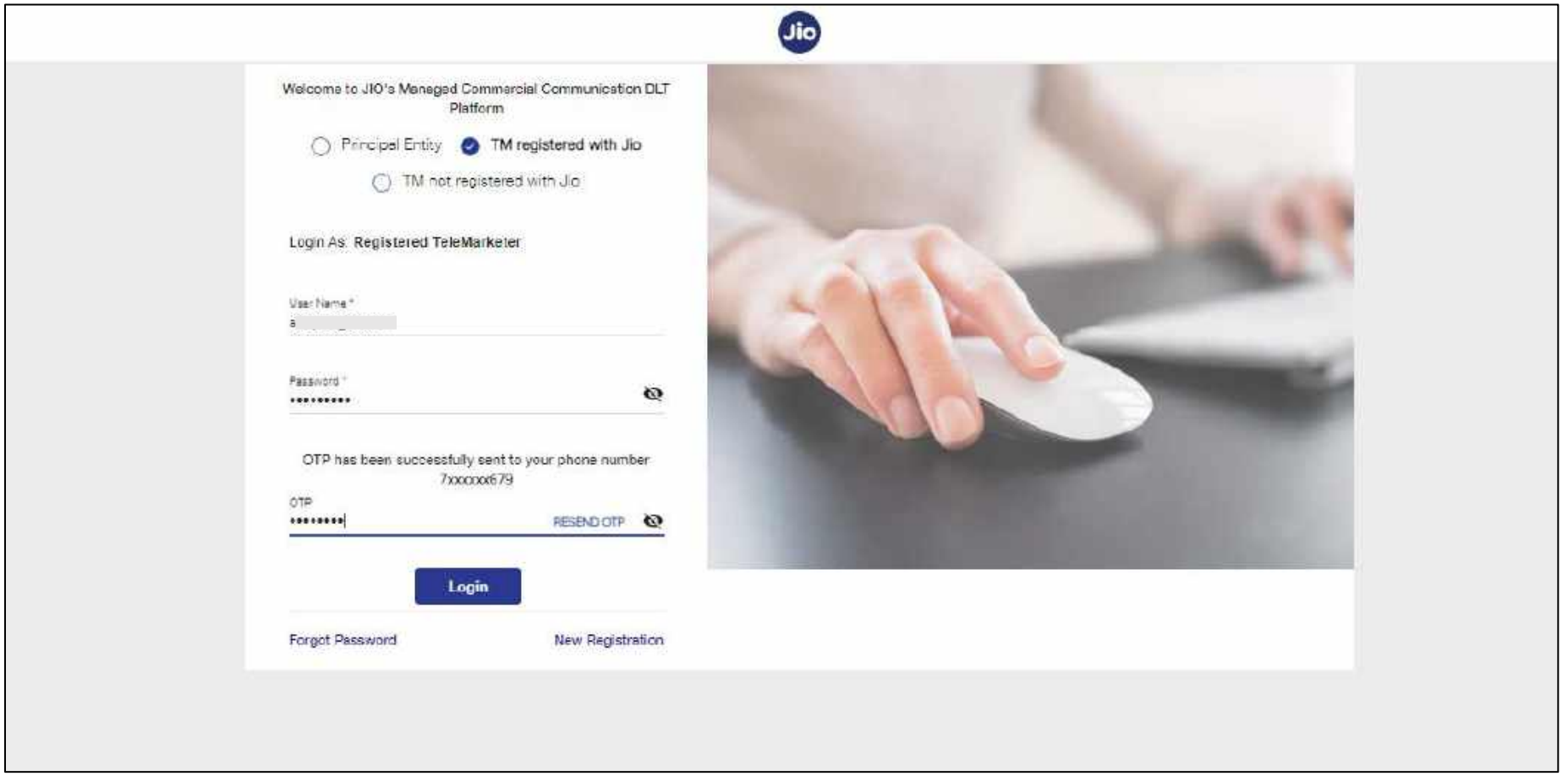
Principal Entity – Chain Initiation

Selected TMs are notified with an email to take further action on the chain request



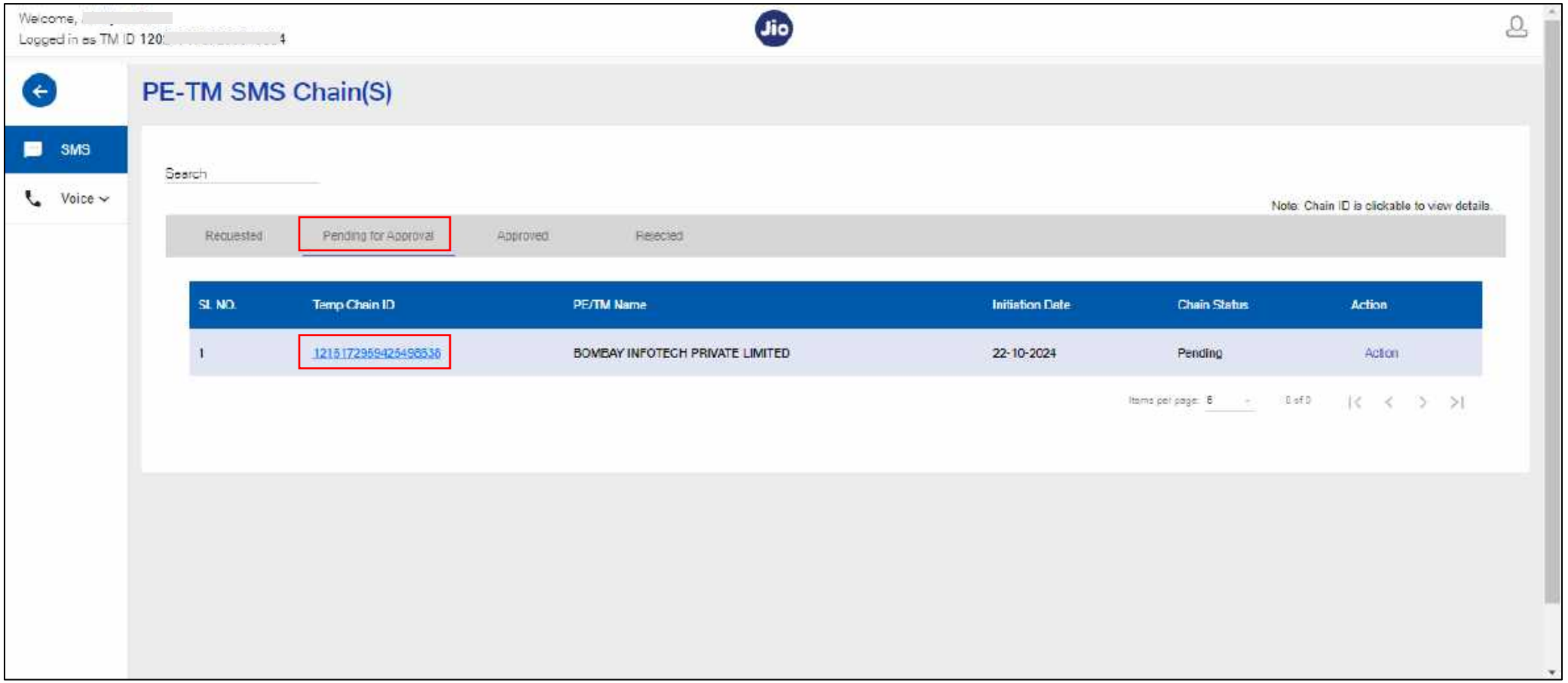
Telemarketer Login

- If TM is registered with Jio Trueconnect, please select 'Telemarketers registered with Jio' on Login Page.
- If TM is not registered with Jio but registered with another TSP (on DLT), please select 'Telemarketers not registered with Jio' on Login page



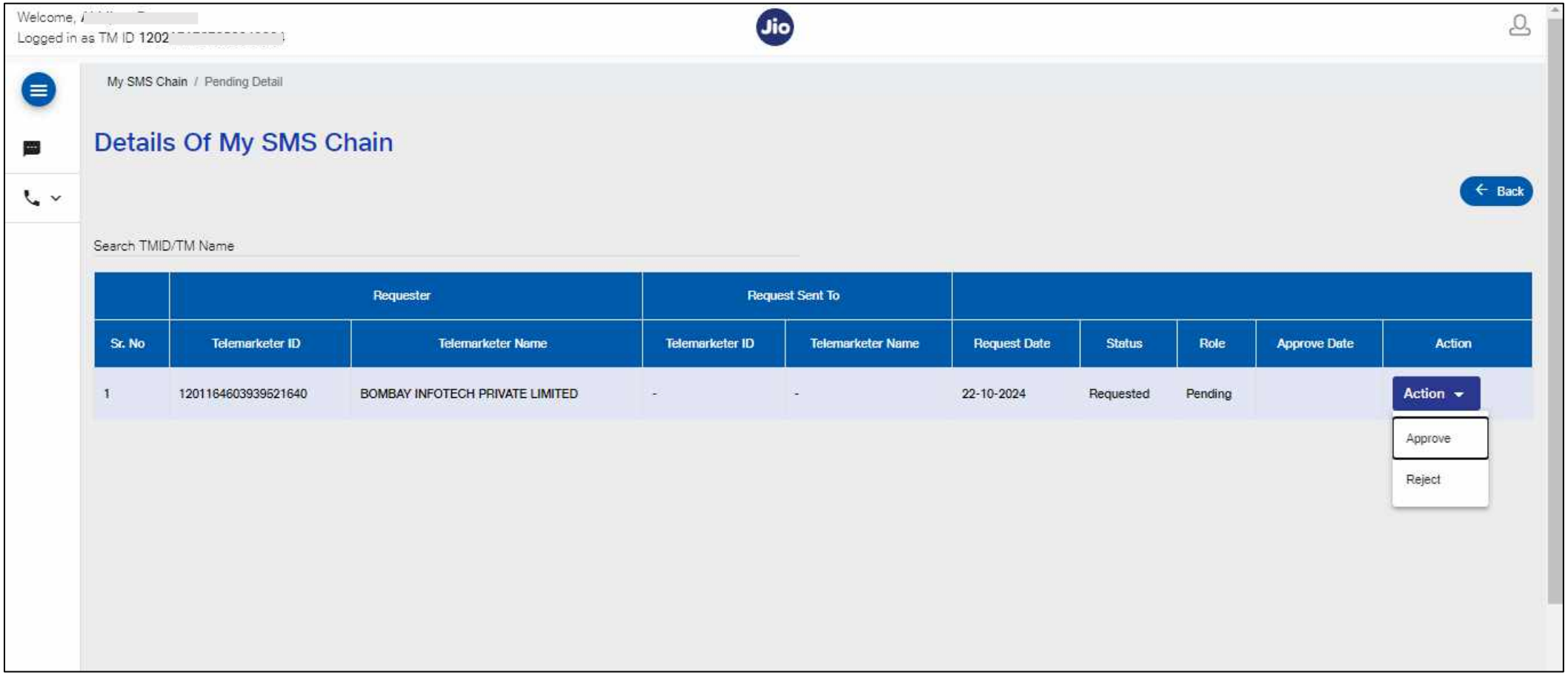
Telemarketer Aggregator Action

PE-TM SMS Chain→ Pending for Approval → Chain ID hyperlink



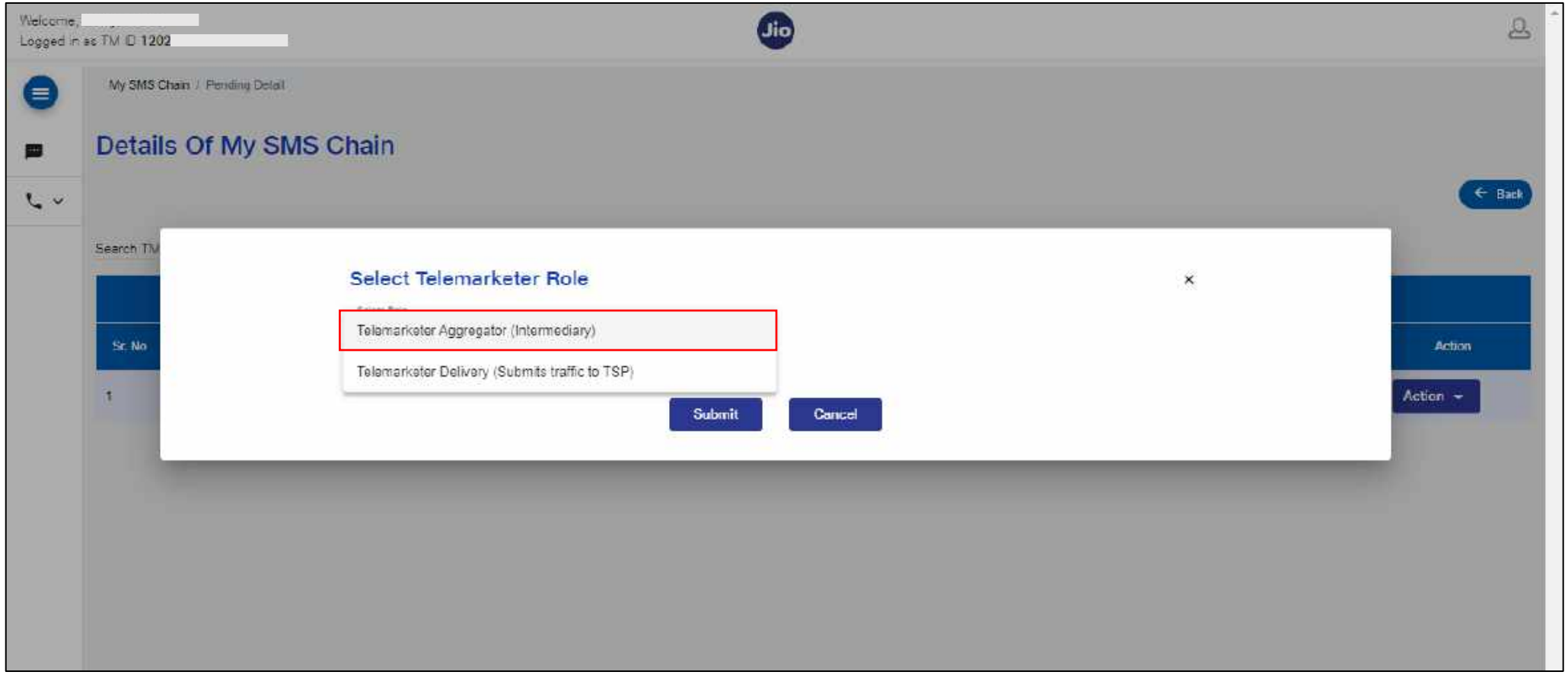
Telemarketer Aggregator Action

Action → Approve



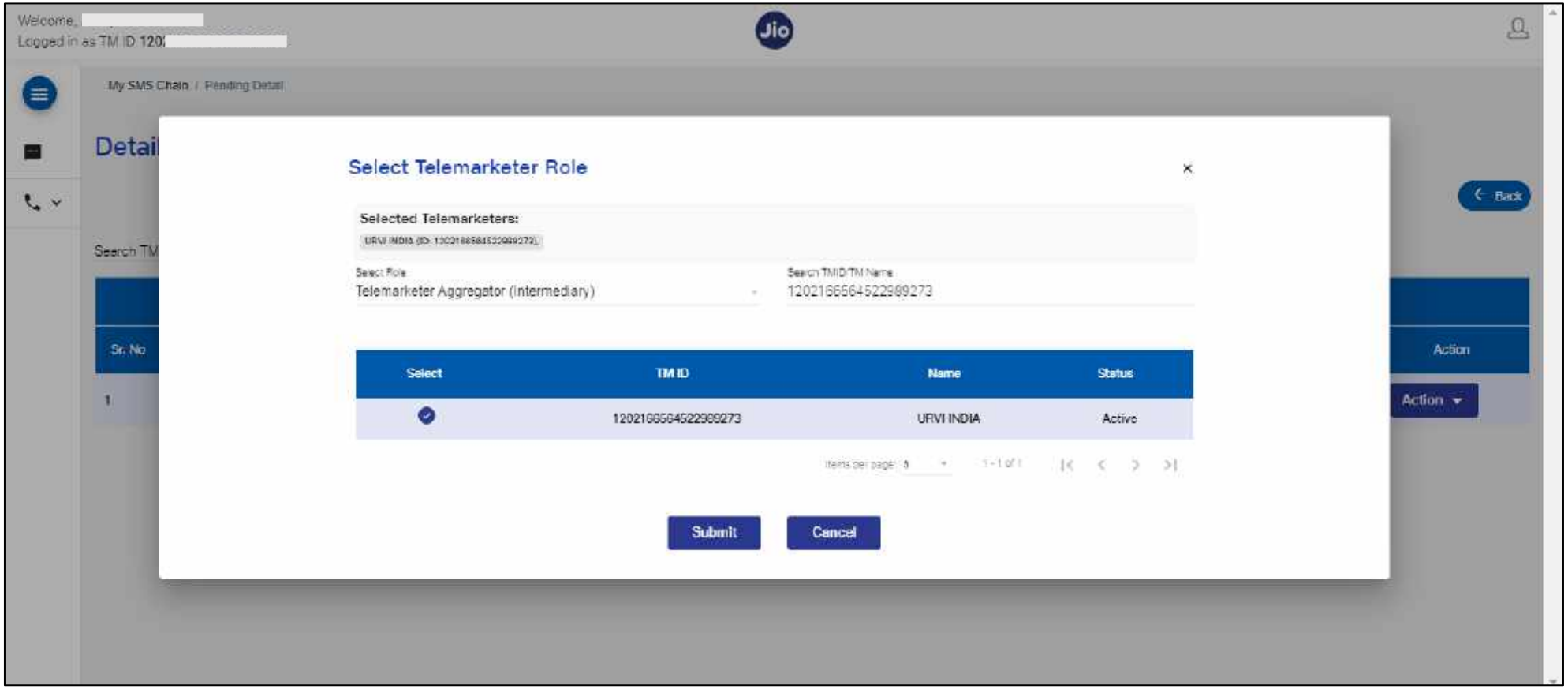
Telemarketer Aggregator Action

Select role (Telemarketer Aggregator) from drop-down

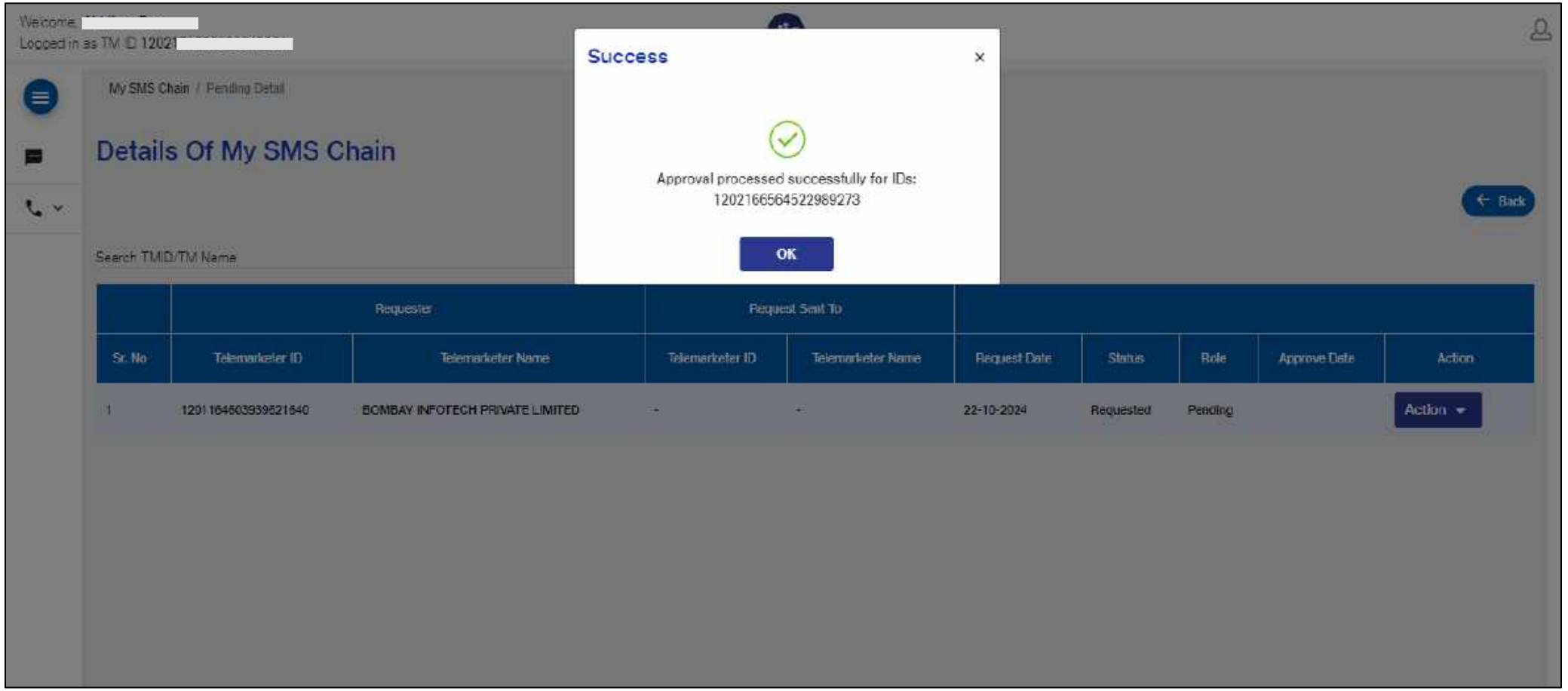


Telemarketer Aggregator Action

Search and select other TMs → Approve



Telemarketer Aggregator Action



Telemarketer Login

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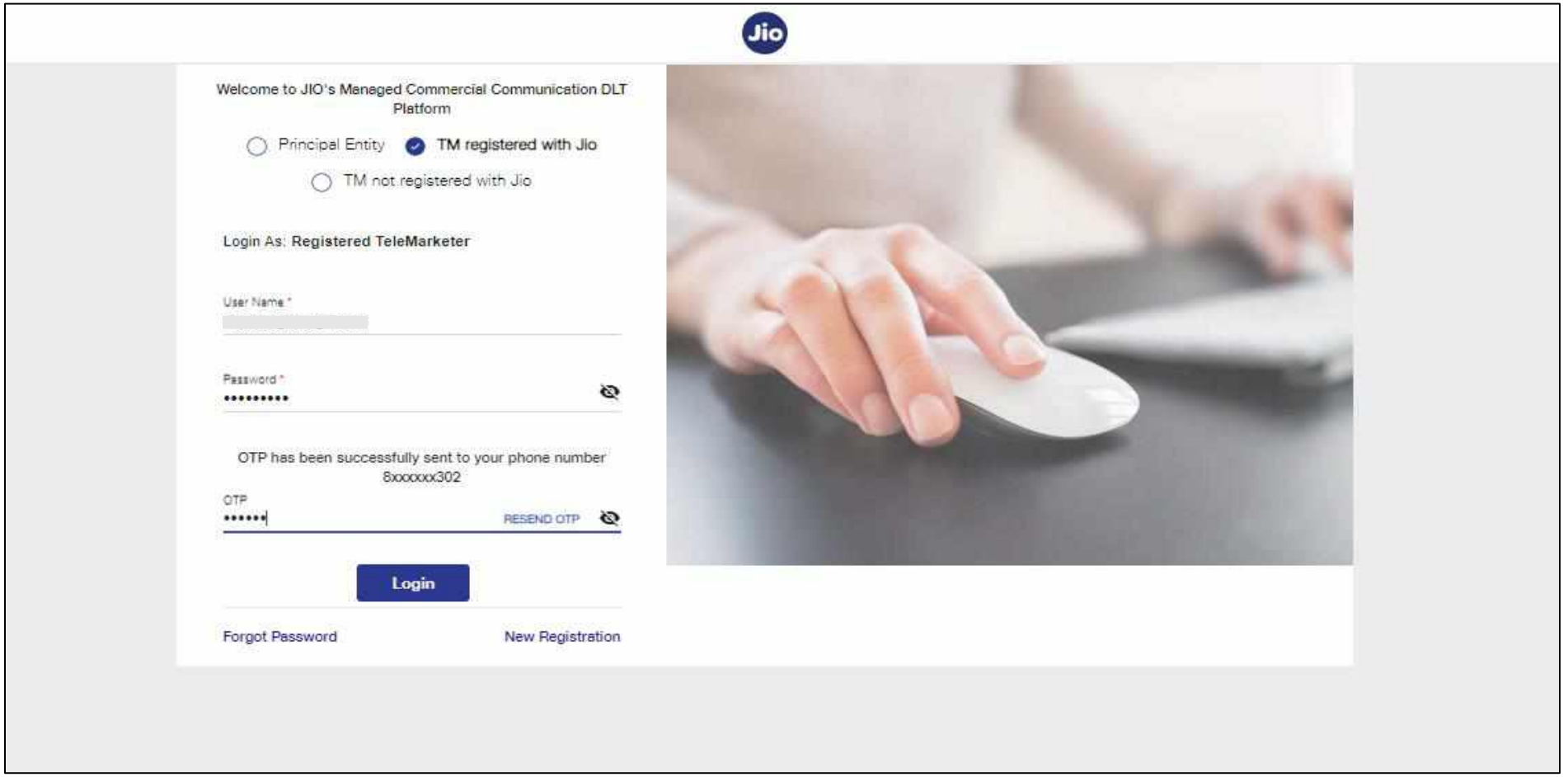
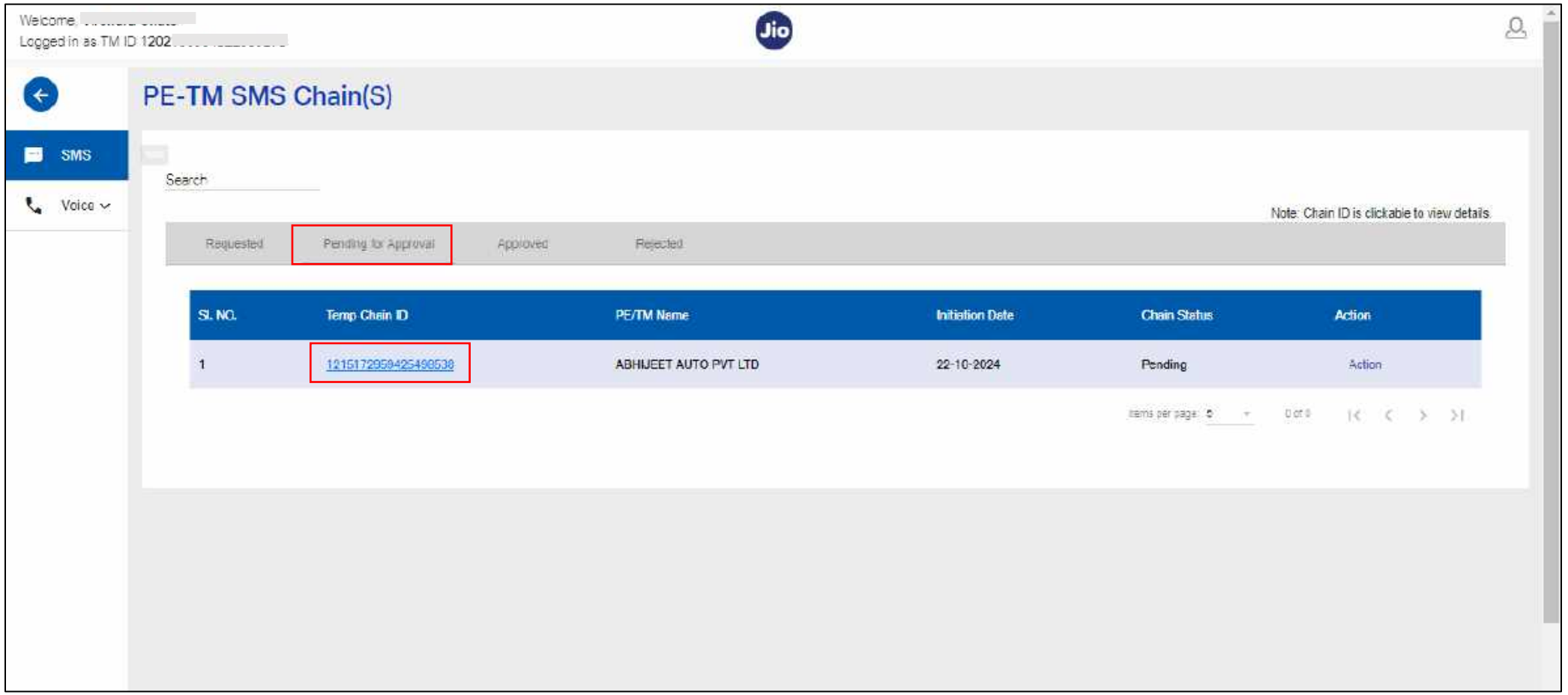


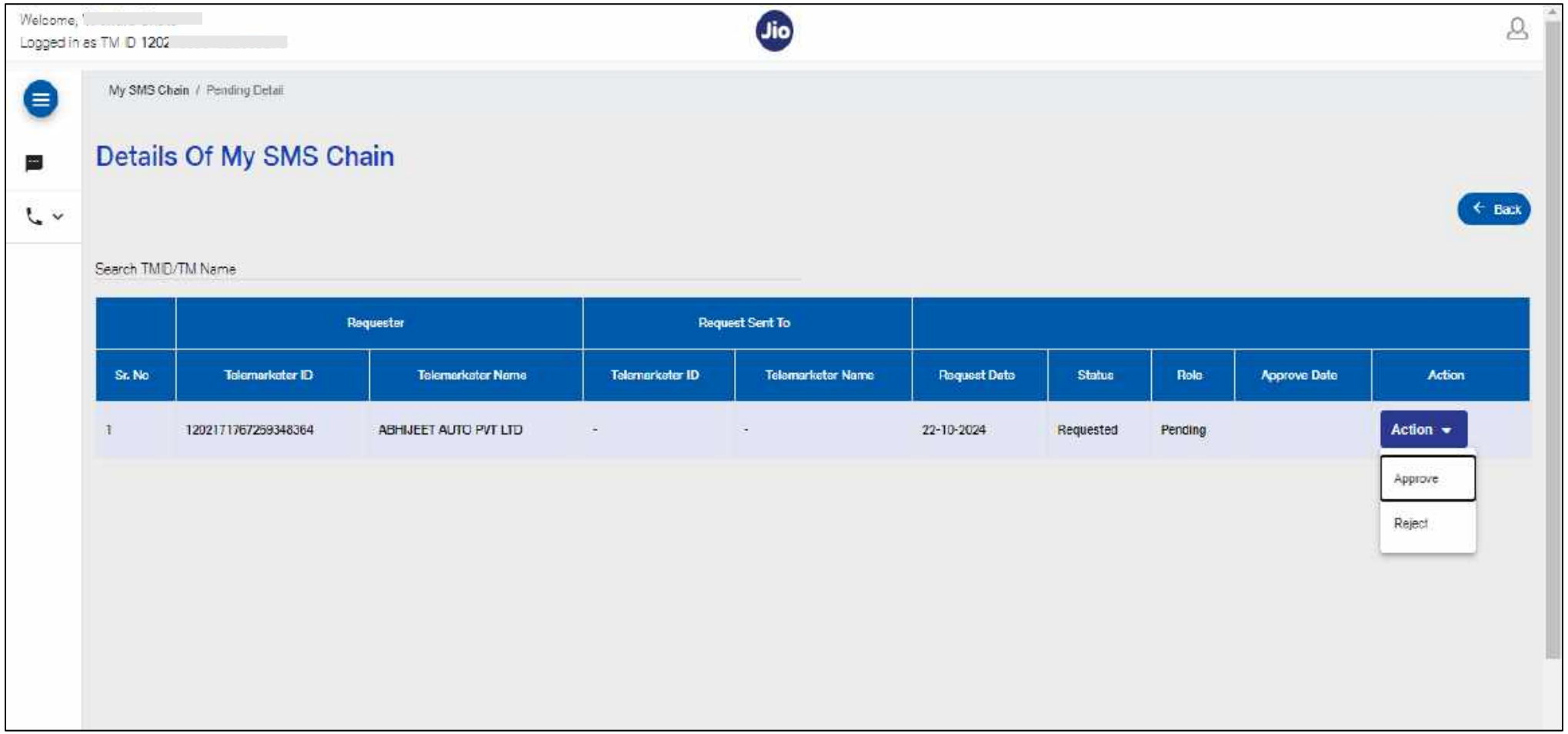
Telemarketer Delivery Action

My SMS Chain → Pending → Chain ID hyperlink



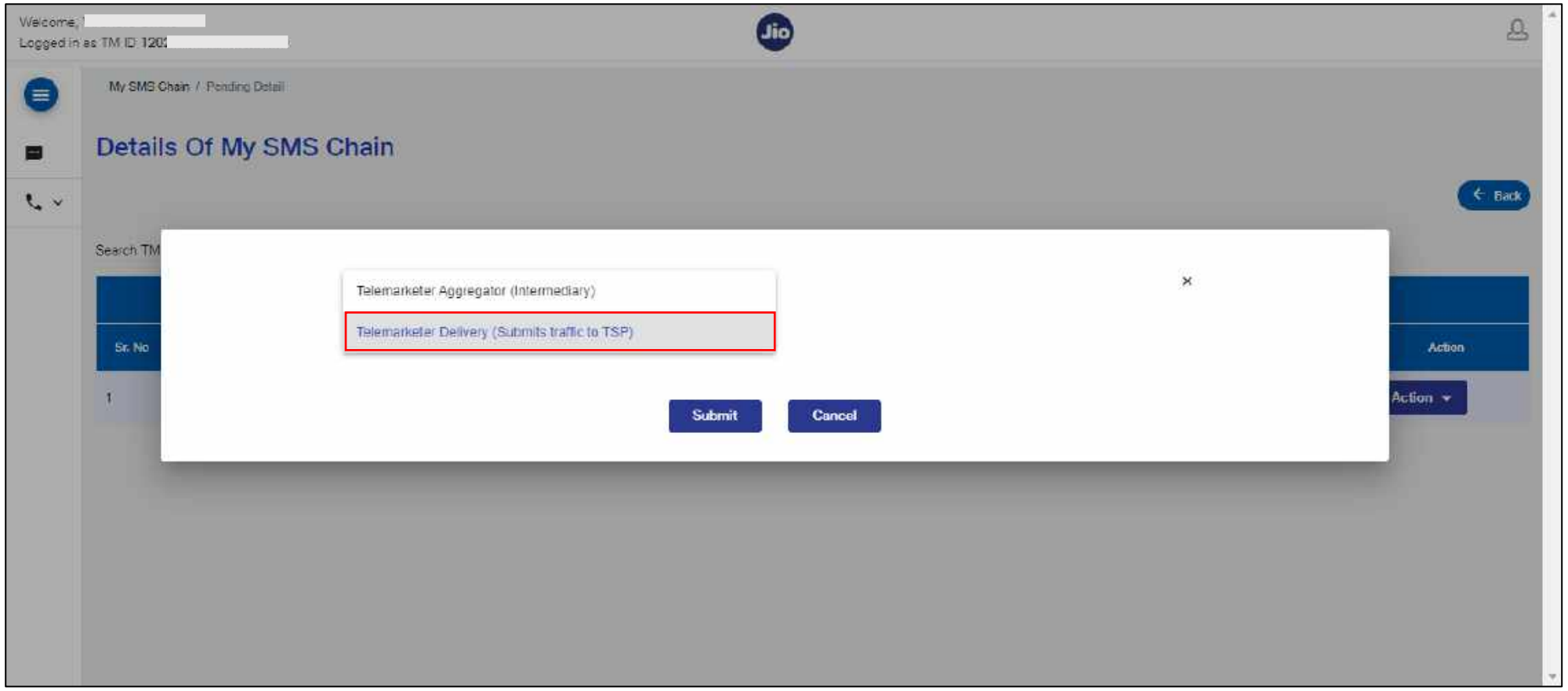
Telemarketer Delivery Action

Action → Approve

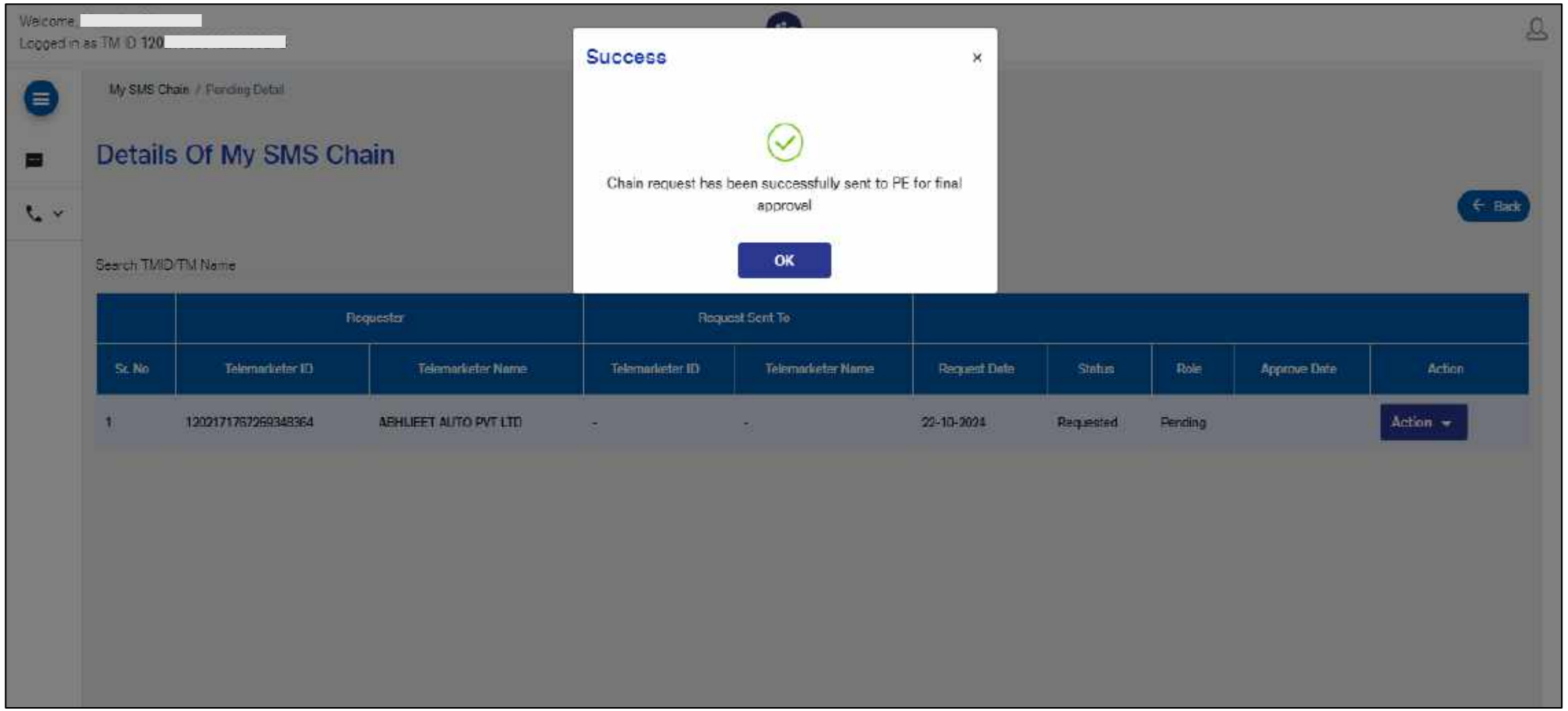


Telemarketer Delivery Action

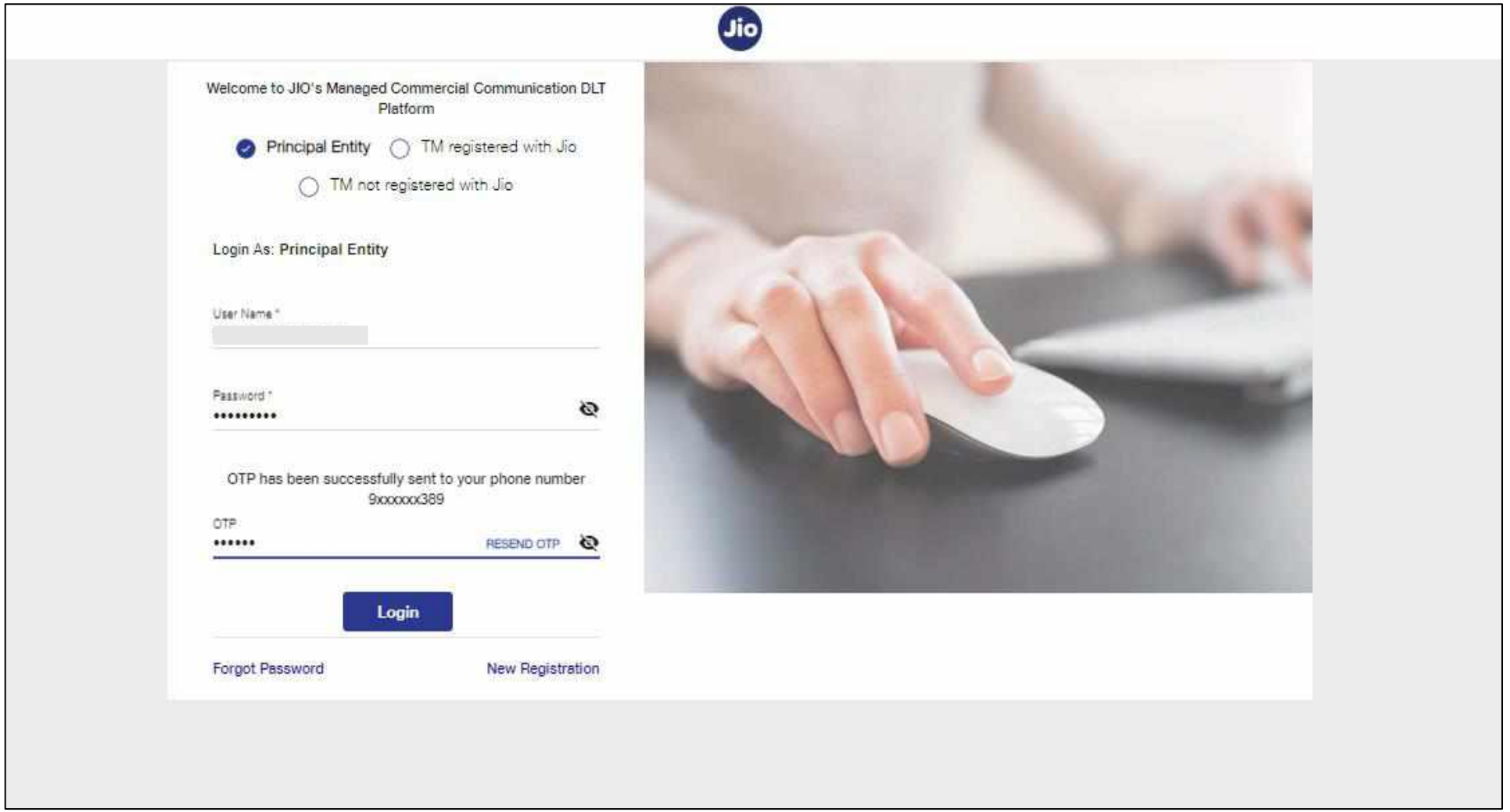
Select role (Telemarketer Delivery) from drop-down → Approve



Telemarketer Delivery Action

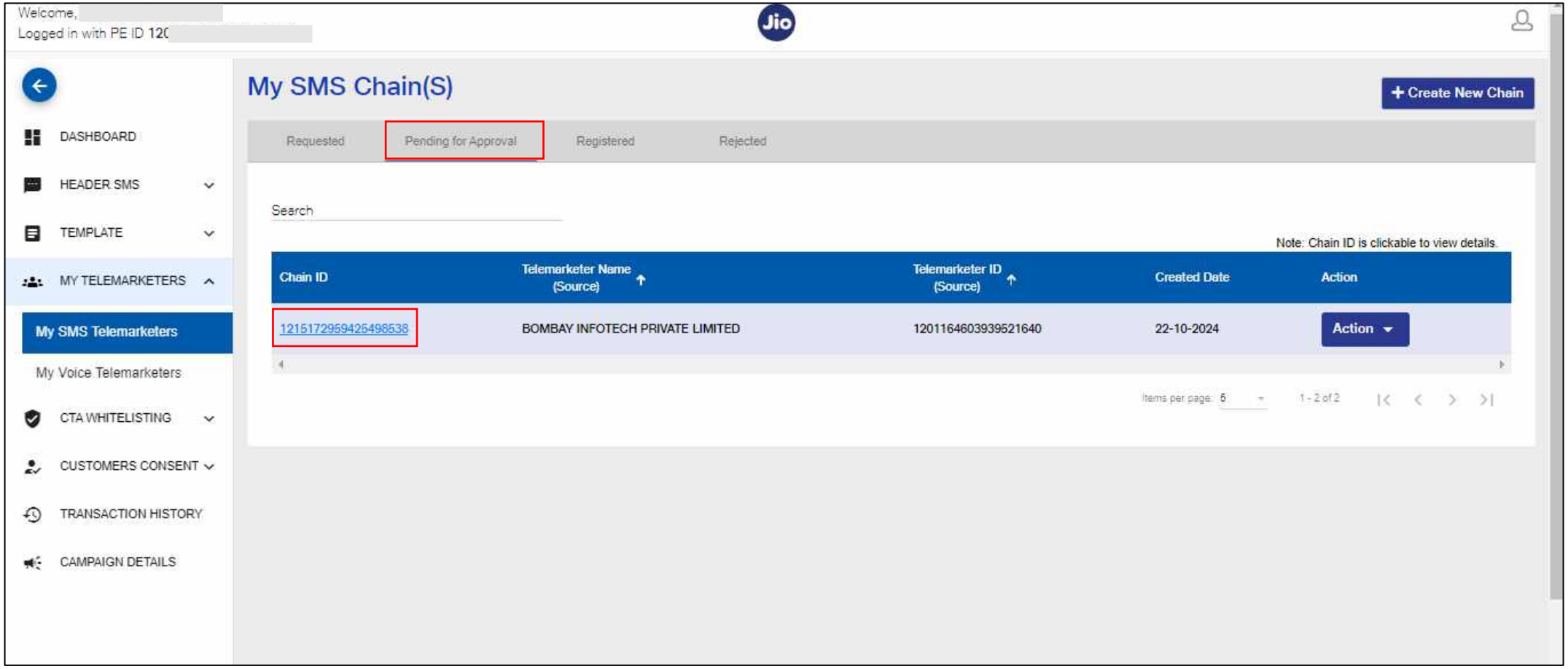


Principal Entity Login

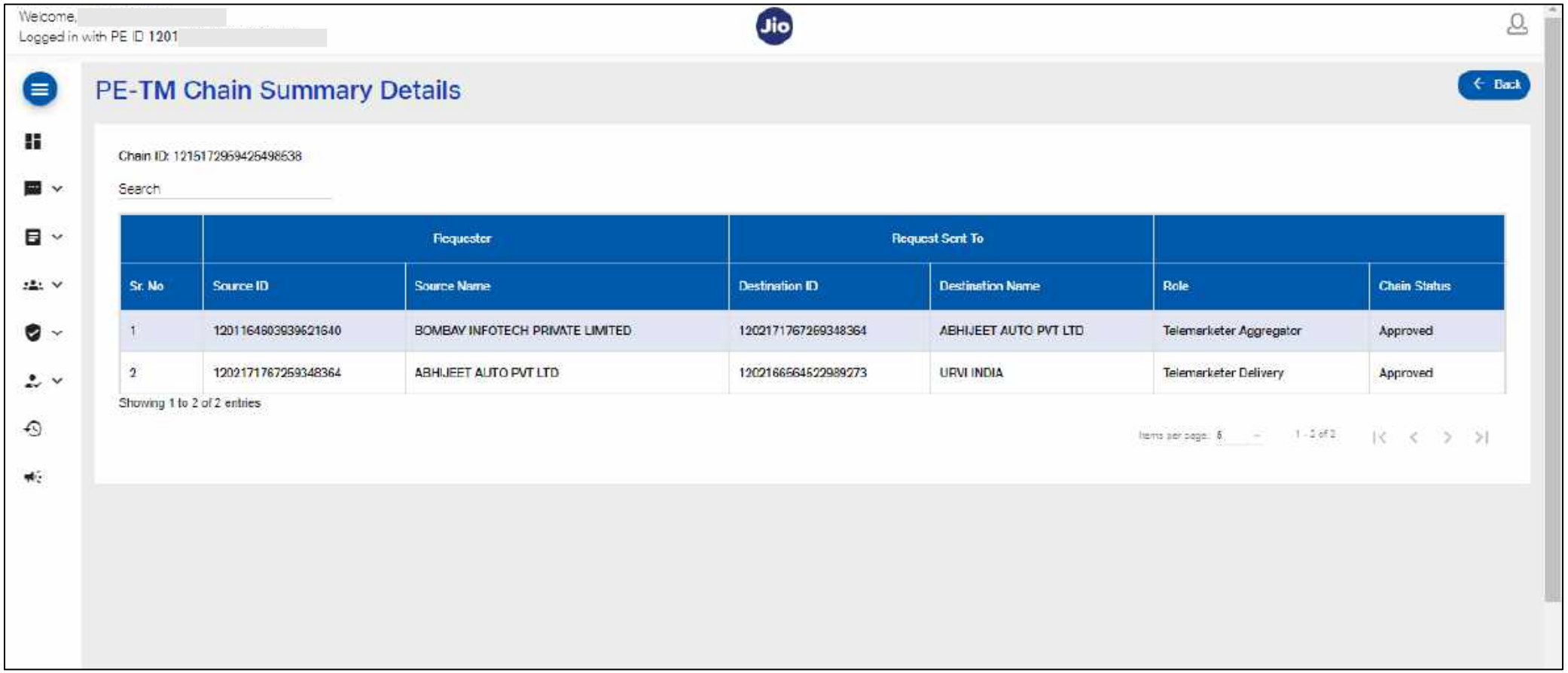


Principal Entity Action

MY TELEMARKETERS → My SMS Telemarketers → Chain hyperlink

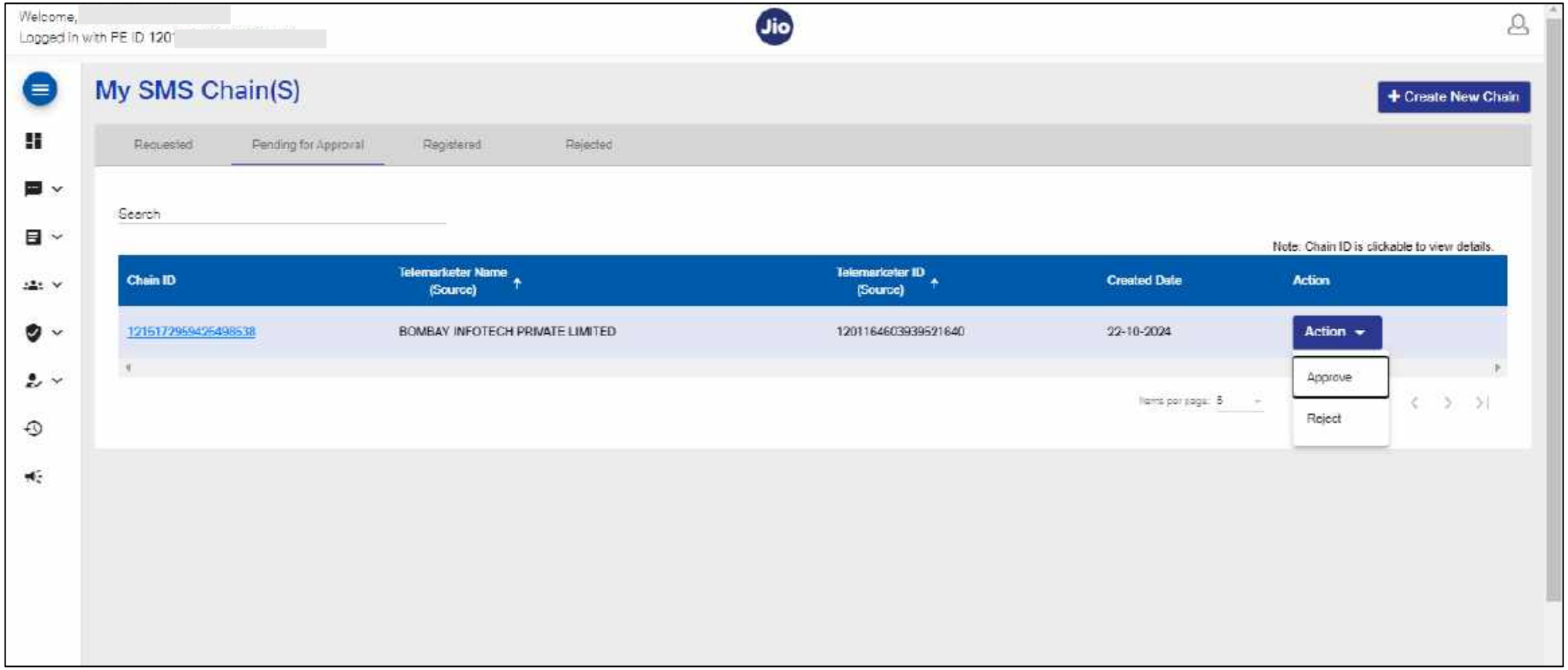


Chain Summary with associated TM(s) details



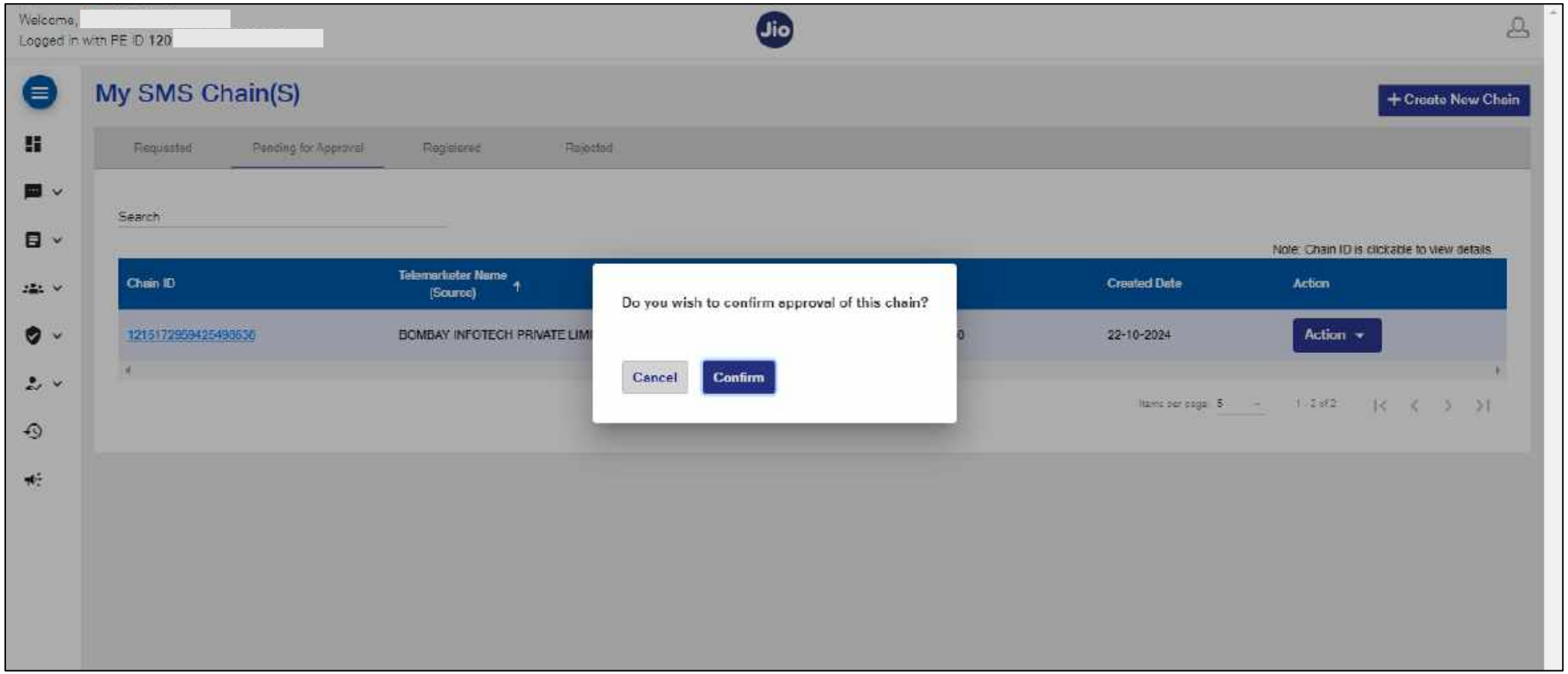
Principal Entity Action

Action → Approve

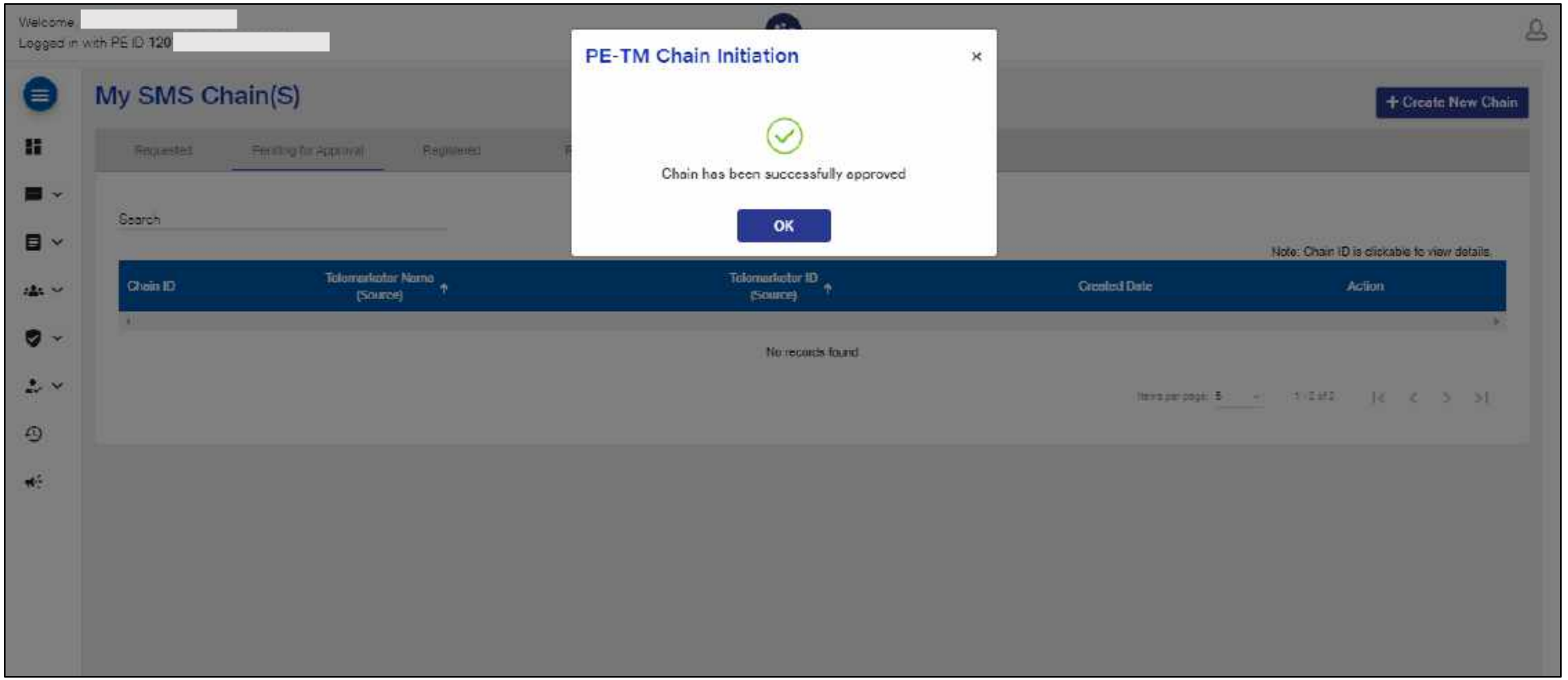


Principal Entity Action

‘Confirm’ to create chain on DLT

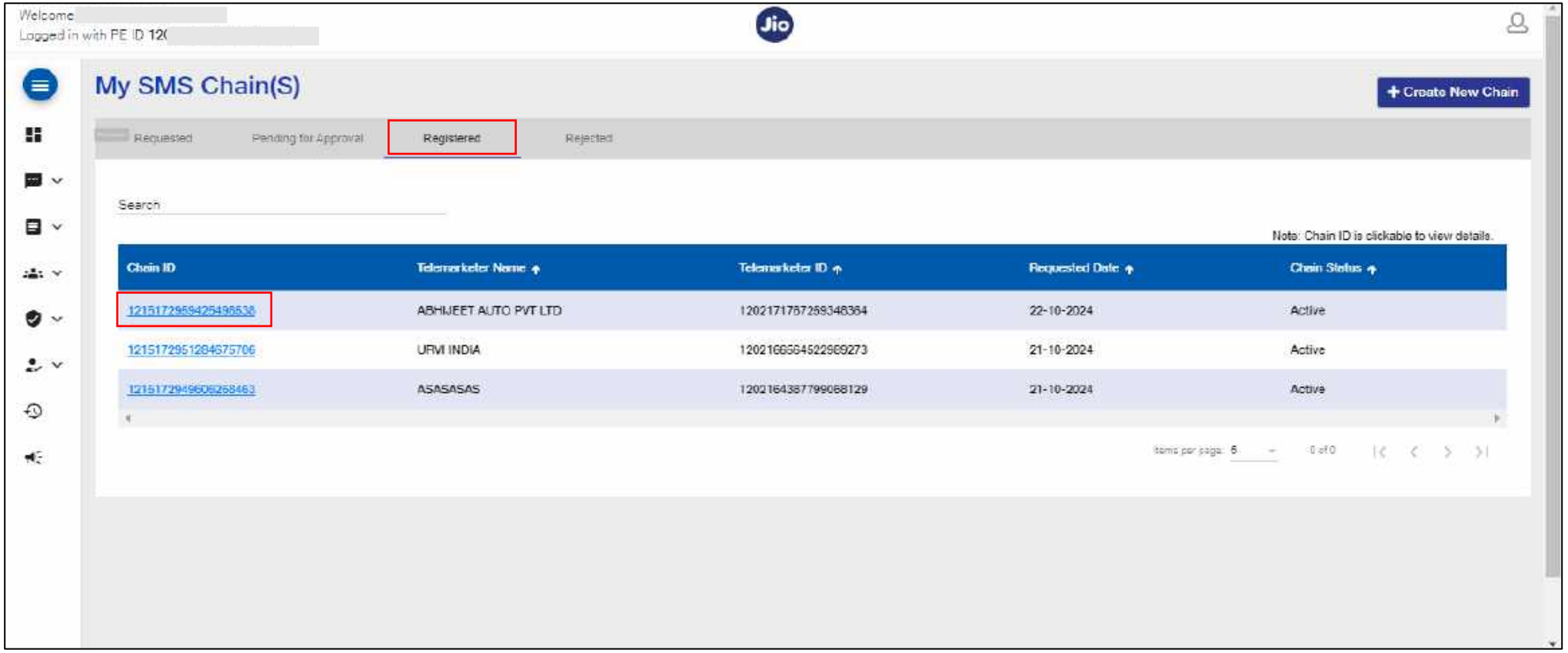


Principal Entity Action



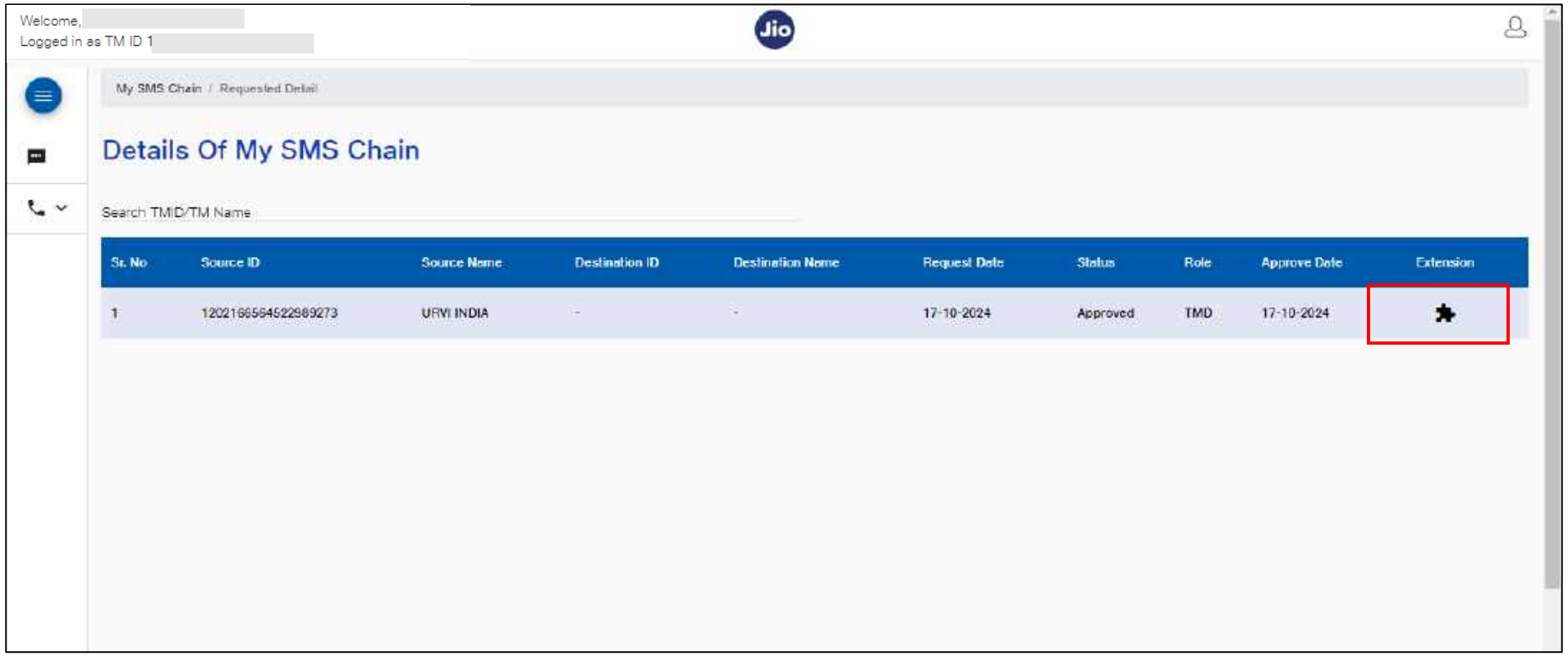
Principal Entity Action

The Chain request moves from ‘Pending’ to ‘Registered’ and Chain ID is created. It can be used for sending SMS traffic.



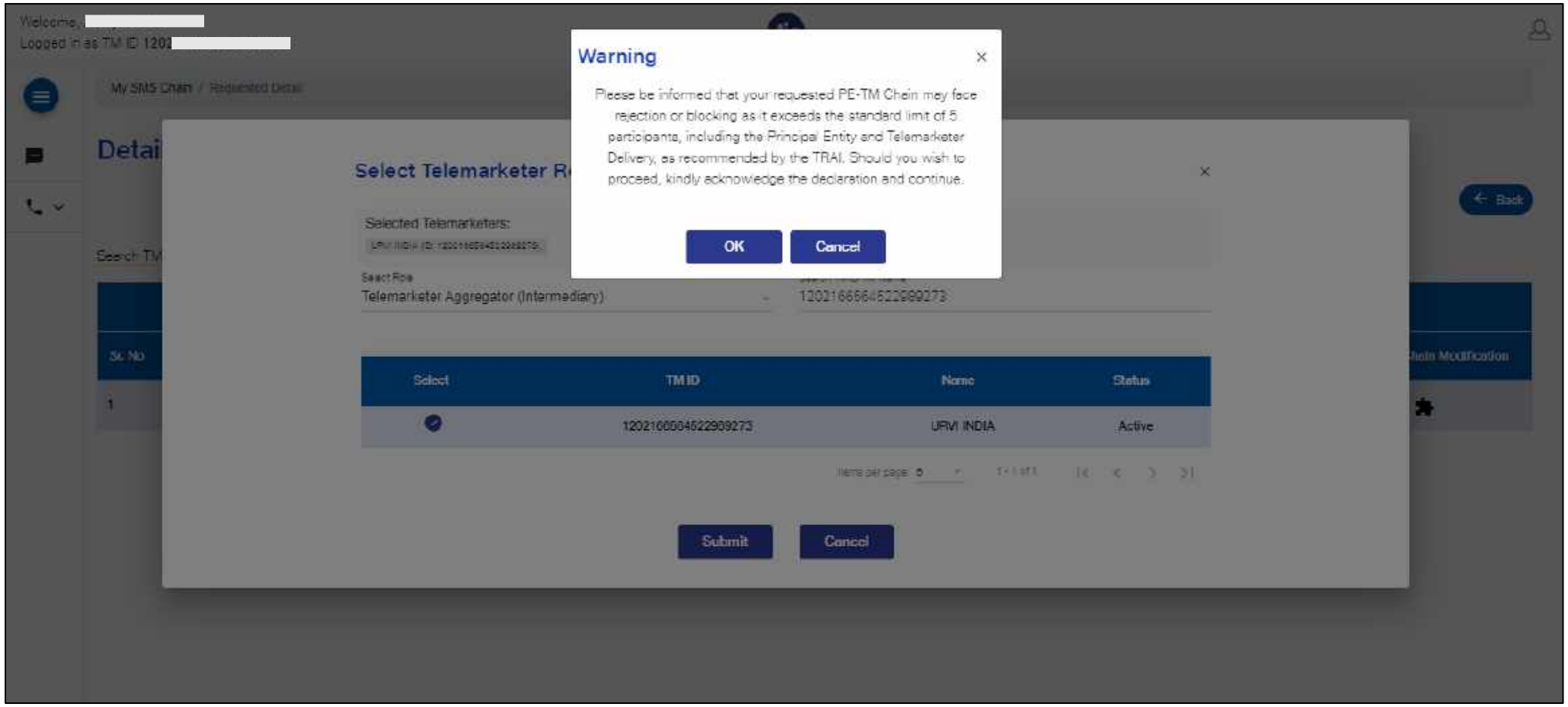
Telemarketer Extension

If the TM wants multiple chains (Requested, Pending, Registered),
Extension → Select Role (for another chain) → Approve
If Telemarketer Delivery then no further nomination
If Telemarketer Aggregator then nominate further TM(s)



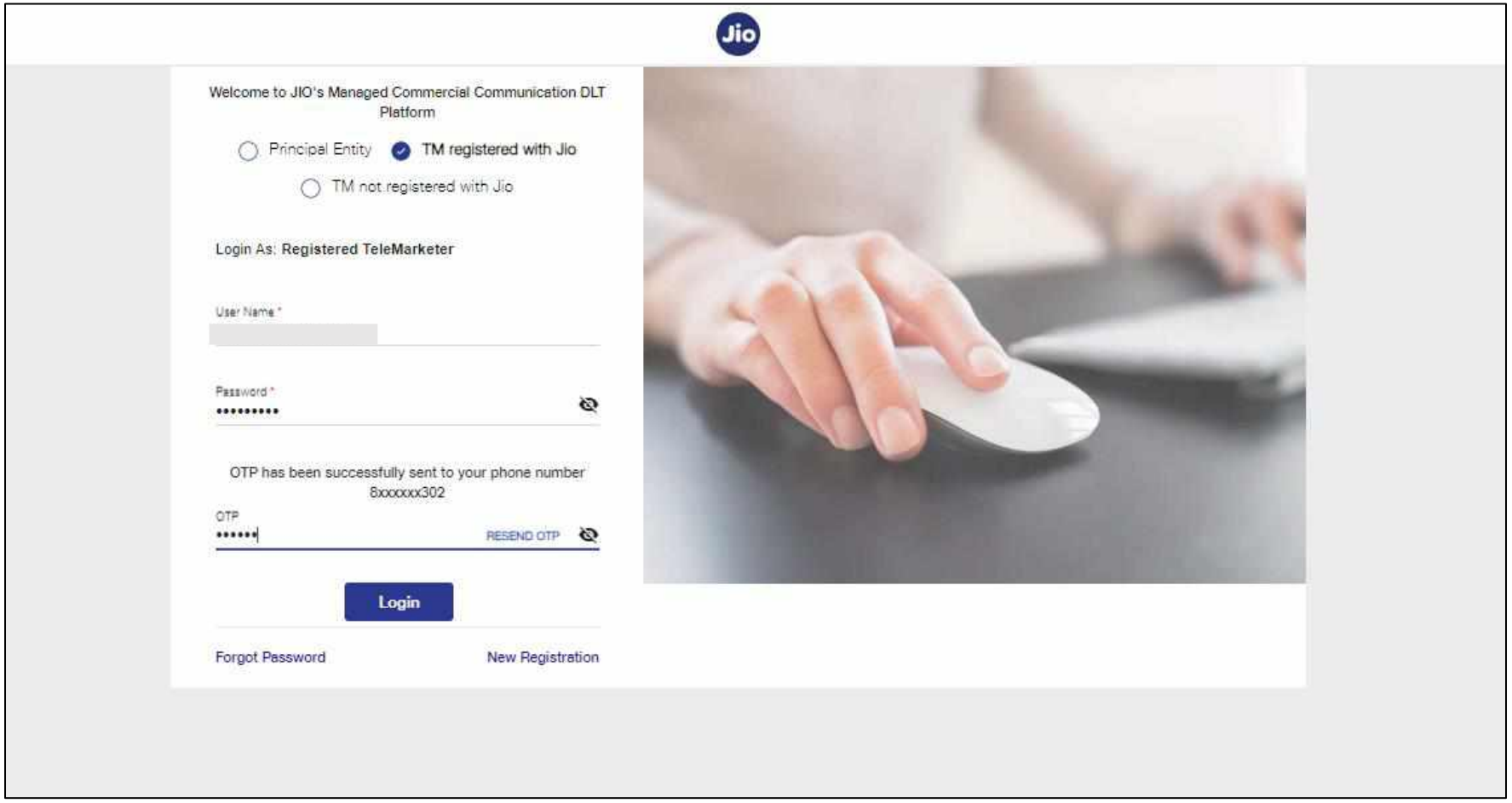
Telemarketer Aggregator (Exceptions)

If total number of chain participants exceed 5, TM & PE will have to acknowledge the same.



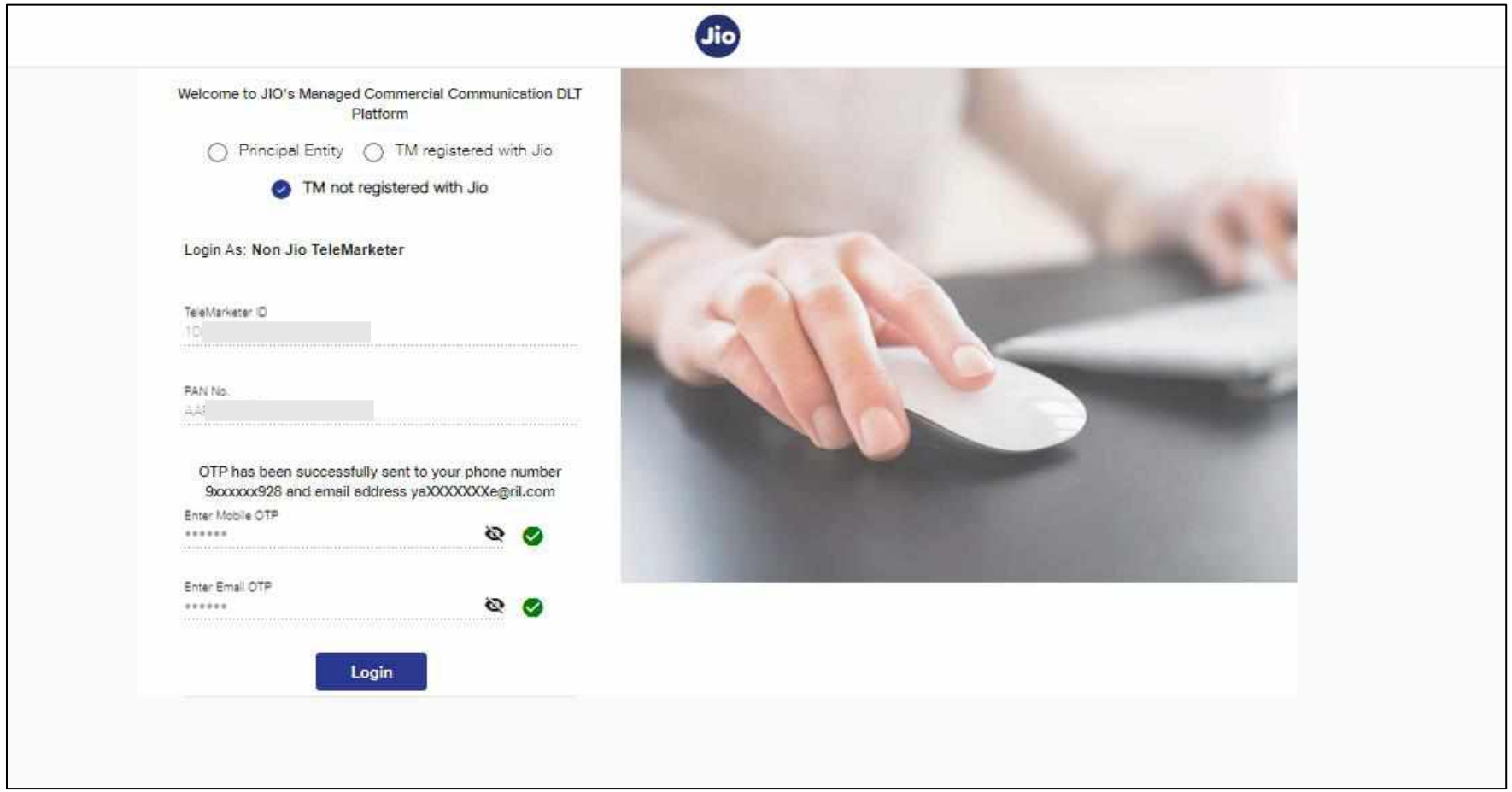
Login - Telemarketer registered with Jio

TM registered with Jio → User Name Password → Registered Mobile OTP



Login – Telemarketer not registered with Jio

Primary TM details are populated from DLT for authentication. If the TM has to get them modified, they must connect with the TSP they registered with first.



THANK-YOU

TCCCPR 2018 TRAI Regulations

SMS PE-TM Binding - FAQ

FAQs

- Is PE-TM Binding standalone or synchronized across all DLT platforms?
  PE-TM Binding shall be synchronized on DLT by all Operators
- Will the Telemarketer be able to submit traffic on Jio's SMSC, if the PE-TM chain binding created on portal of another operator?
  Yes, as the chain information is available in DLT, Telemarketer can submit traffic to Jio SMSC
- In case of failure traceability reports would be provided for traffic submitted to Jio SMSC?
  Separate Error Codes have been provided for traceability
- If the TM not registered with Jio, how will he act on the chain?
  TM would be notified, if the TM is not registered has to login using Jio separate login provided on portal, post authentication, they can act upon their chain.

- Will the submission be rejected if chain (e.g. PE-TMA1-TMA2-TMD) not in sequence?
  Yes, submission would be rejected by the scrubber
- Does the PE need to approve all the PE-TM chain binding?
  Yes, PE needs to approve all the chain binding where TM has acknowledged himself as TMD
- If any of the Telemarketer in the chain is blacklisted?
  All the chains available that TM shall be blacklisted/inactive
- Can Chain be suspended by PE?
  Yes, Chain can be suspended by PE

THANK-YOU

Principal Entity and Telemarketing Binding

TCCCPR-2018

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TATA Tele Business Services | DO B1g

Private & Confidential

Contents

- Objective
- List of Abbreviations used
- Prerequisites
- Registration Flow
- Exceptions
- DLT Registration Journey

Objective

Traceability

- To ensure the visibility of all entities involved in the SMS transmission starting from PE to the recipient.

Acknowledgement of PEs & TMs

- PEs to declare their corresponding Telemarketer, and/or Telemarketer Aggregator and/or Telemarketer Delivery

No engagement with UTMs

- Ensure that PEs or their authorised telemarketers in the chain do not engage with any unregistered telemarketers or

Control Untraceable communication

- Reject all messages where the chain of TMs is not defined or does not match.

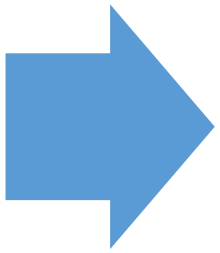
List of Abbreviations used

Abbreviations	Details
PE	Principal Entity – Business Owner
TM*	Telemarketer - Who is connected to PE and/or TA and/or TM and/or TD but not with Operator.
TA*	Telemarketer Aggregator - Who may be connected to PE or TM and Connected to Telemarketer Delivery but not directly with Operator
TTBS – UTM	A Telemarketers who is registered in DLT with other TSP but not with TTBS (Tata Tele Business Services)
TD	Telemarketer Delivery - Who may be is connected to TM/TA or PE and with Operator for SMS submission for delivery
Registrar	DLT Registrar (TSP) – who approves exception cases

**TM / TA can be used interchangeably

Prerequisites

PE to have Telemarketer ID of their respective TM



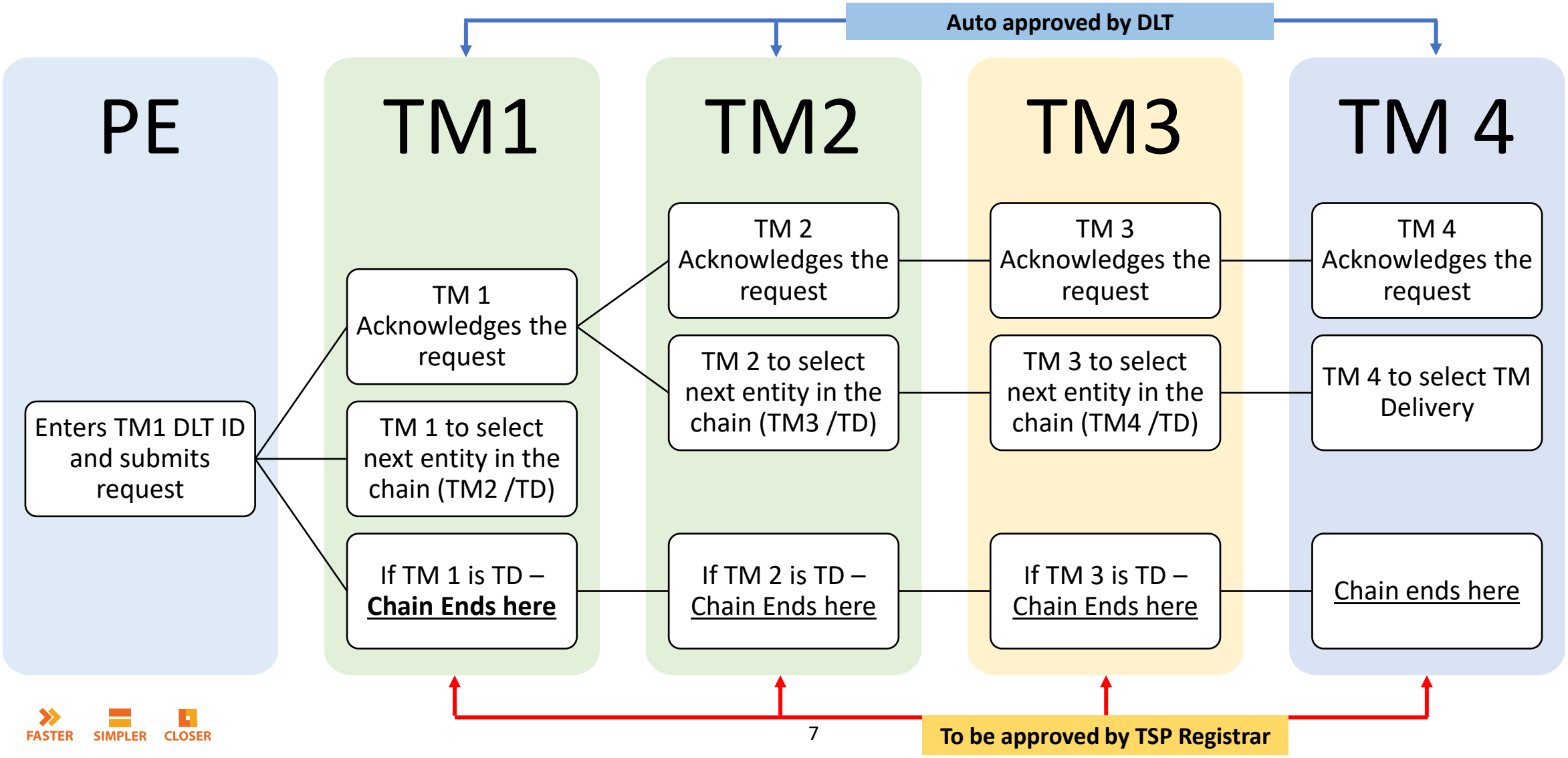
TM or TA to have DLT ID of their SMS Delivery Telemarketer (TD)

- PE's who are directly connected with TD, need to have DLT ID of their SMS Delivery Telemarketer (TD)
- Entities participating in the PE TM Binding process need to ensure the correct ID and validate the name on DLT before they proceed with request

Exceptions

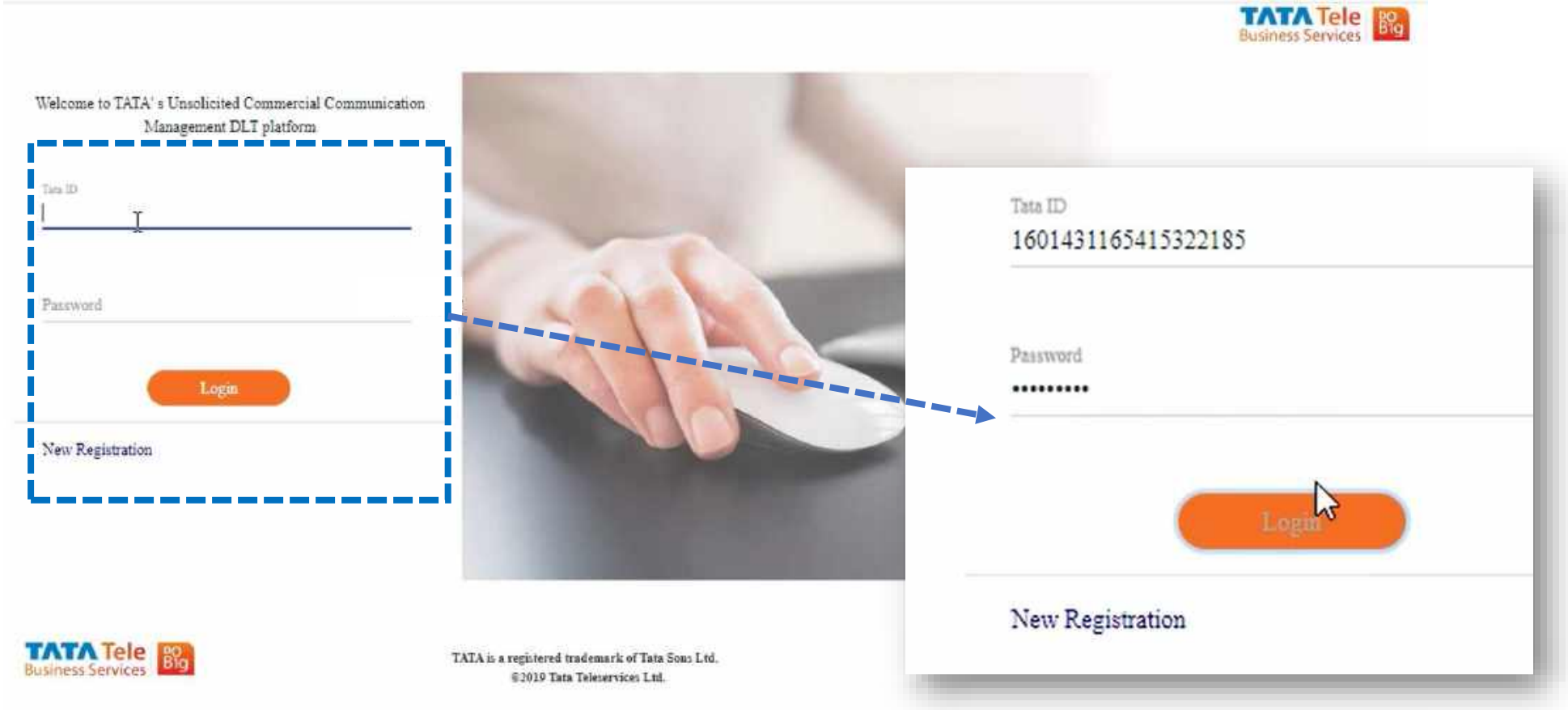
Initiate Request	End of PE – TM Chain	Visibility of Chain	Multiple Association of PE	Entities in one chain
• Only PE can initiate the request for PE – TM binding • Other entities (TM/TA/TD) in chain cannot initiate the request. • PE Must be registered on DLT with TTBS to initiate the request	• Chain can end only at Telemarketer Delivery (TD) • Till TD is not selected in the chain it won't complete the process, and SMS will not get submitted • TM Delivery must be registered on DLT with TTBS	• PE & TD can see all members and status of the chain • Other members can only see their previous and next entities in the chain	• In case a PE is associated with multiple TMs, separate bindings to be initiated by PE	• Minimum - 2 entities - PE & TM Delivery • Maximum 4 entities PE – TM 1 – TM 2 – TM D • If a chain has more than 3 entities, 4th entity will be approved by TSP's registrar

Registration Flow

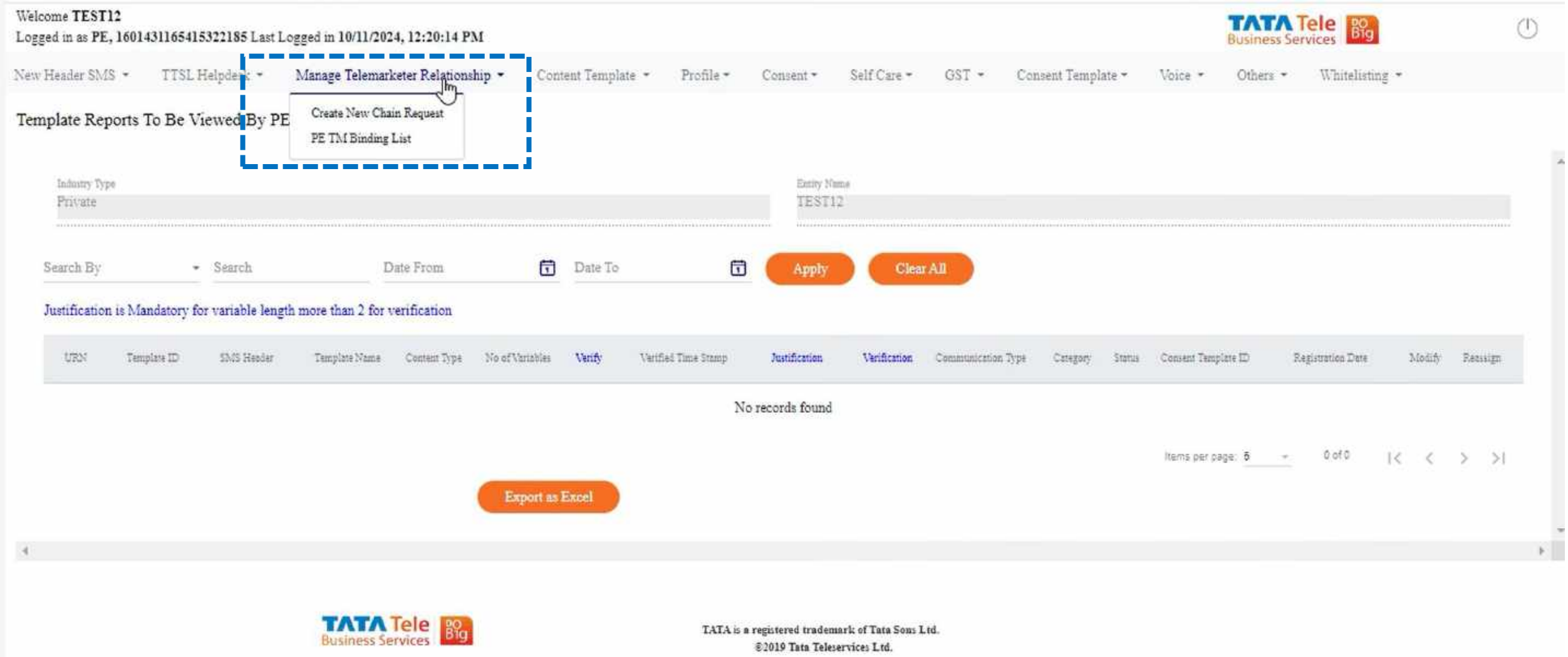


Principal Entity to Login to TTBS DLT Platform

https://telemarketer.tatateleservices.com/



Initiate PE – TM Binding Request



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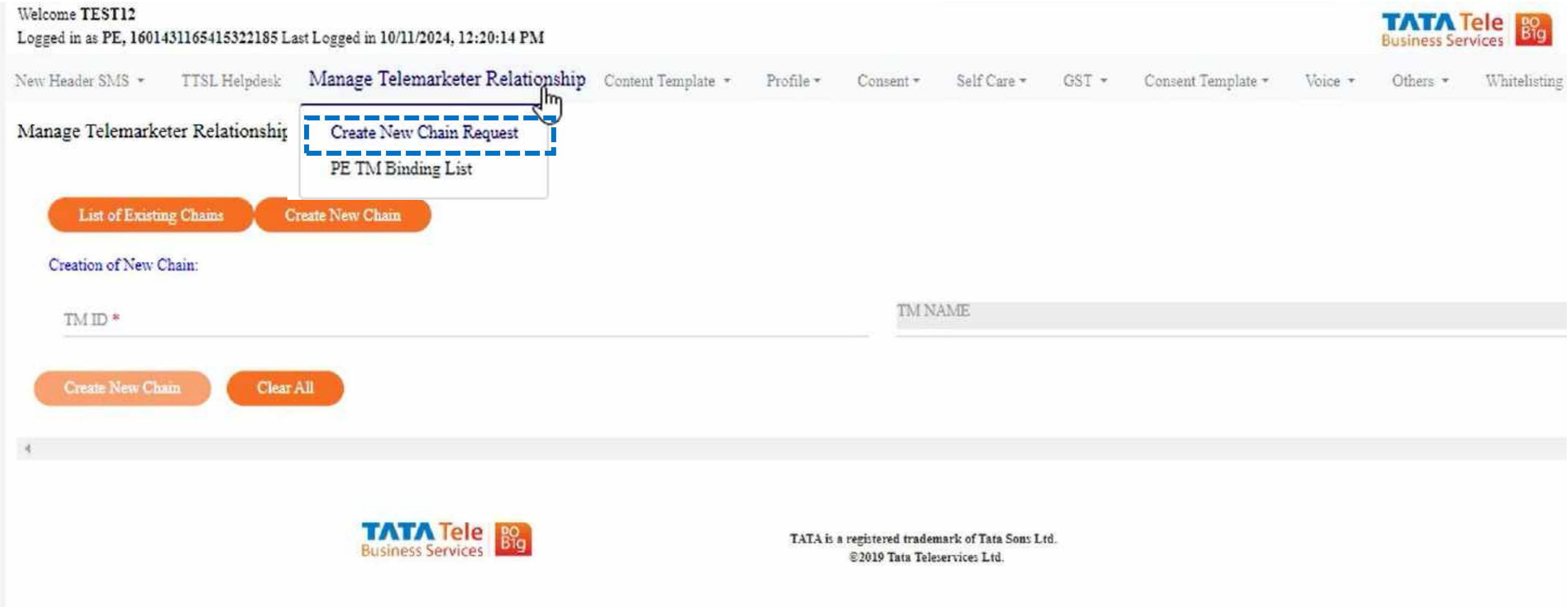
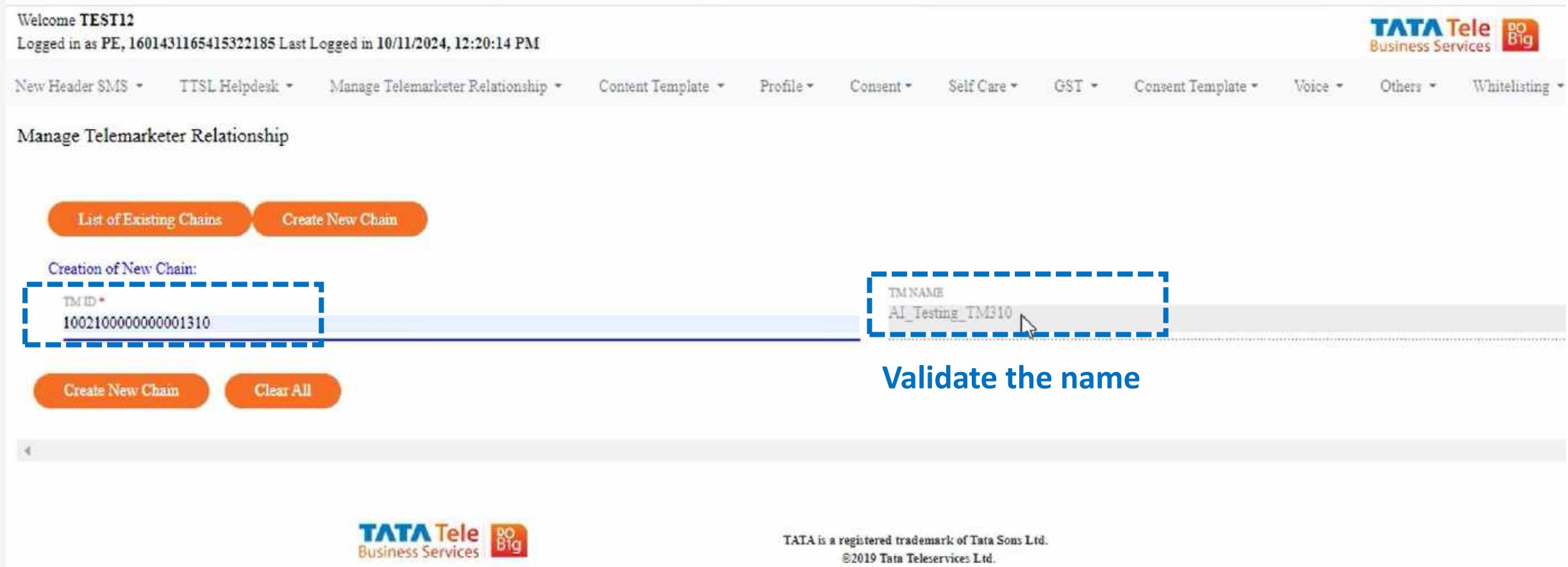
Create New Request– TM Binding Request



Enter Details – Telemarketer ID



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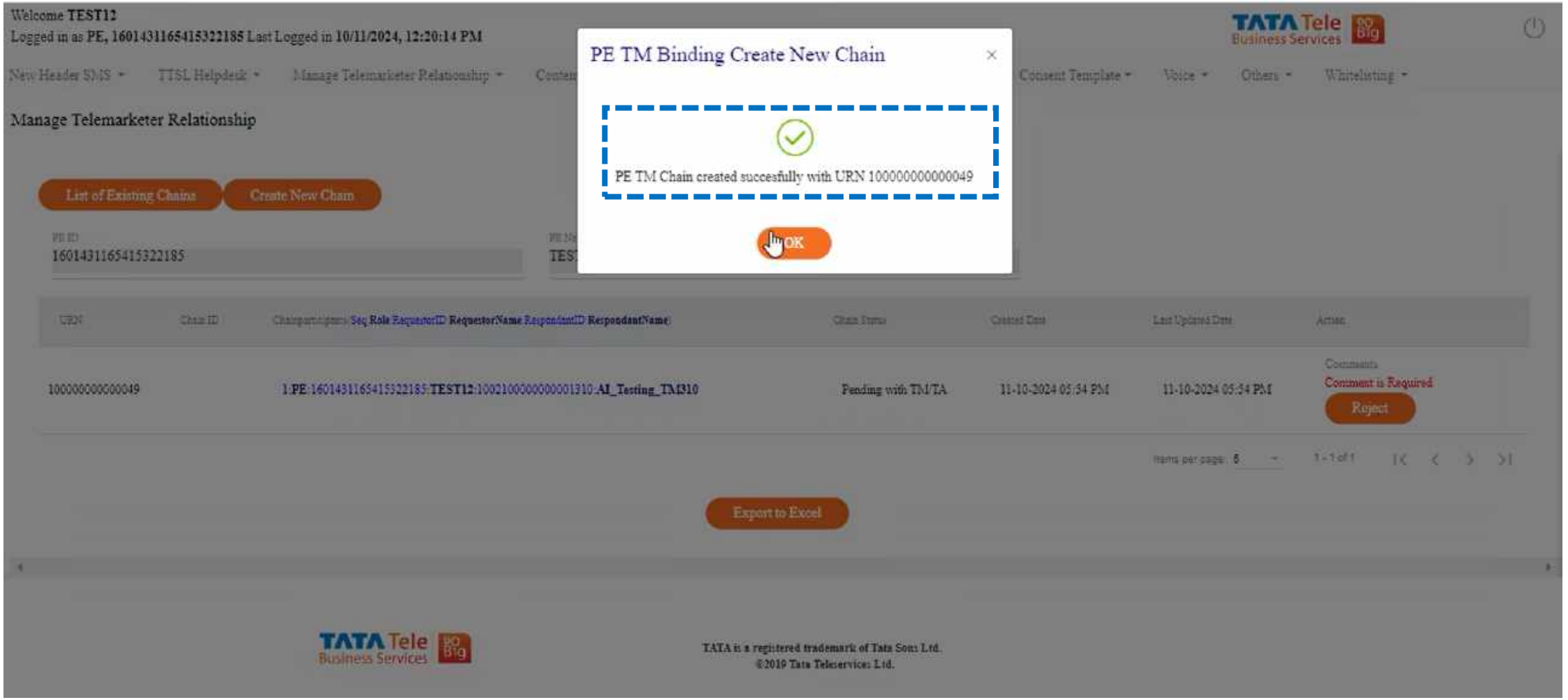
Request created for binding with Telemarketer



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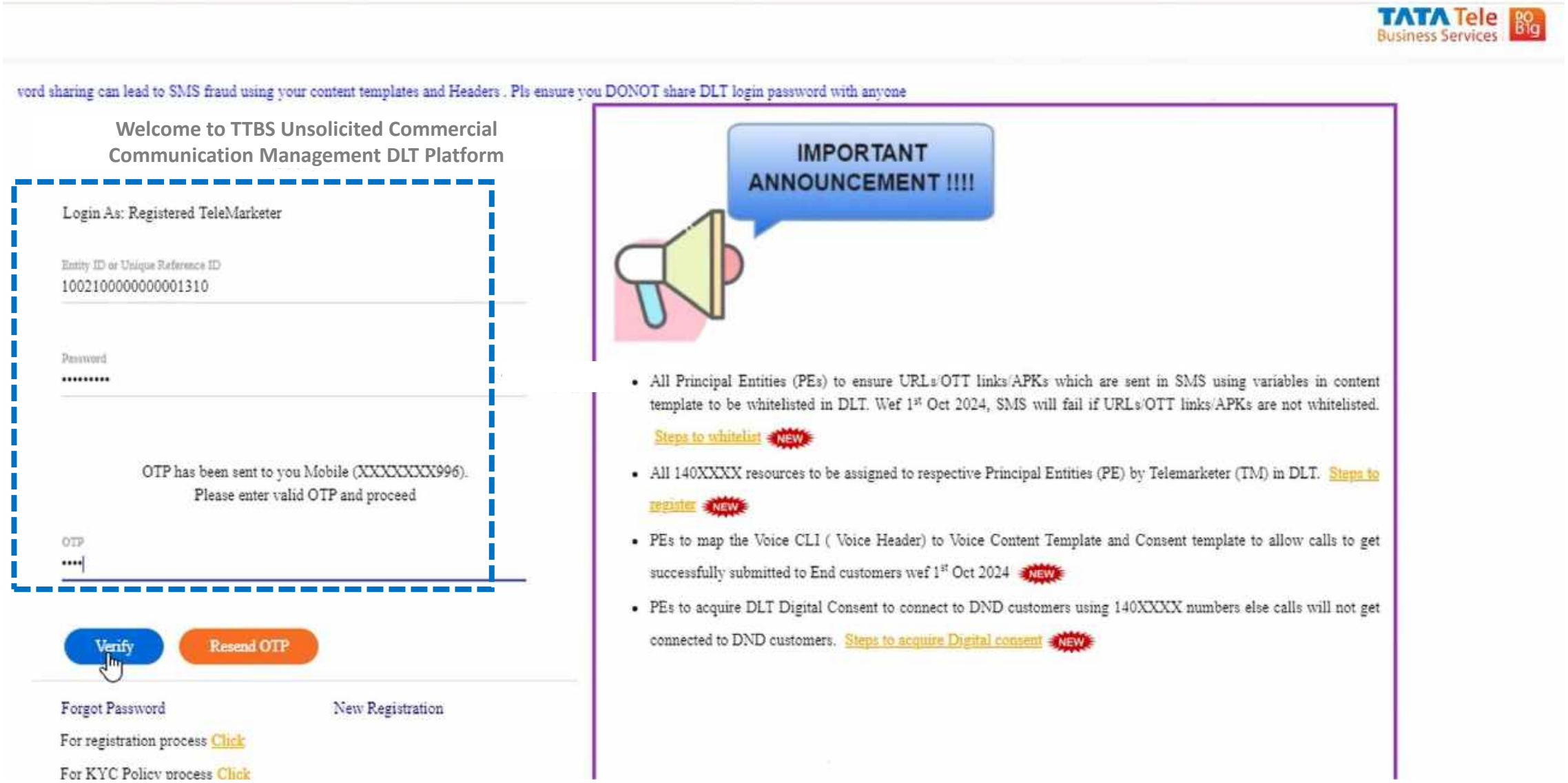
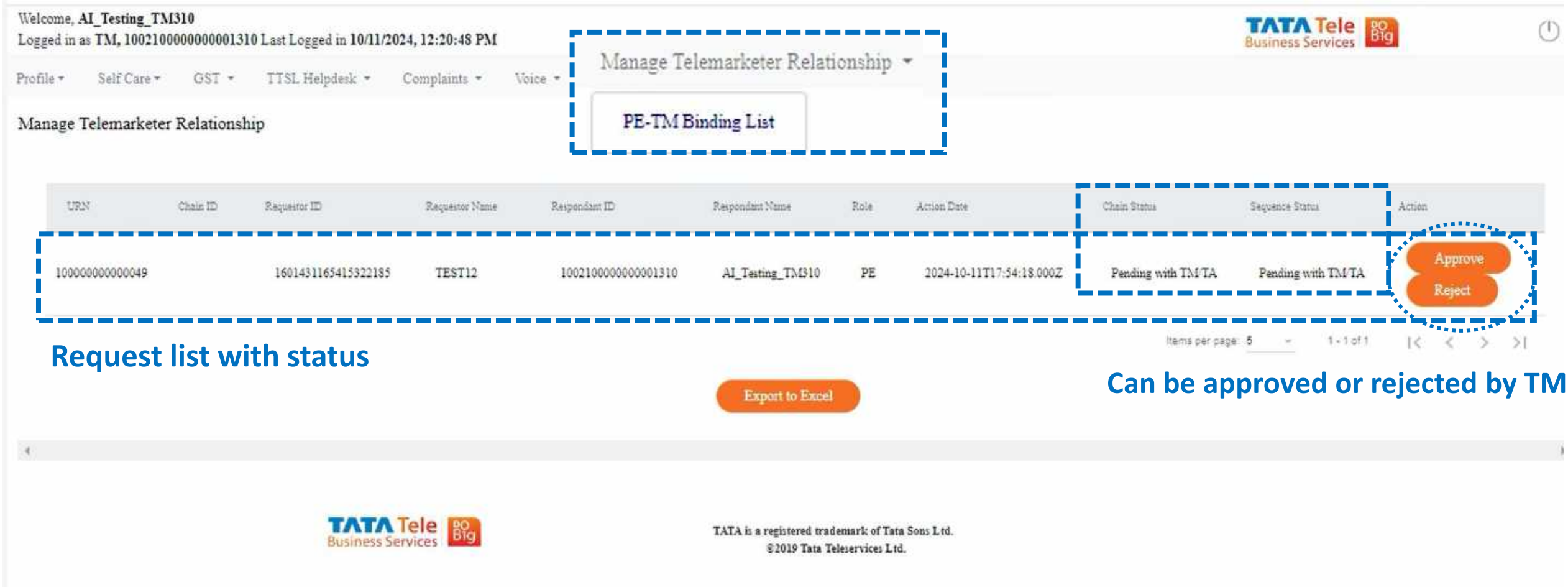
Login as Telemarketer to Approve Binding Request



Select Manage Telemarketer Relationship



Request list with status

Can be approved or rejected by TM

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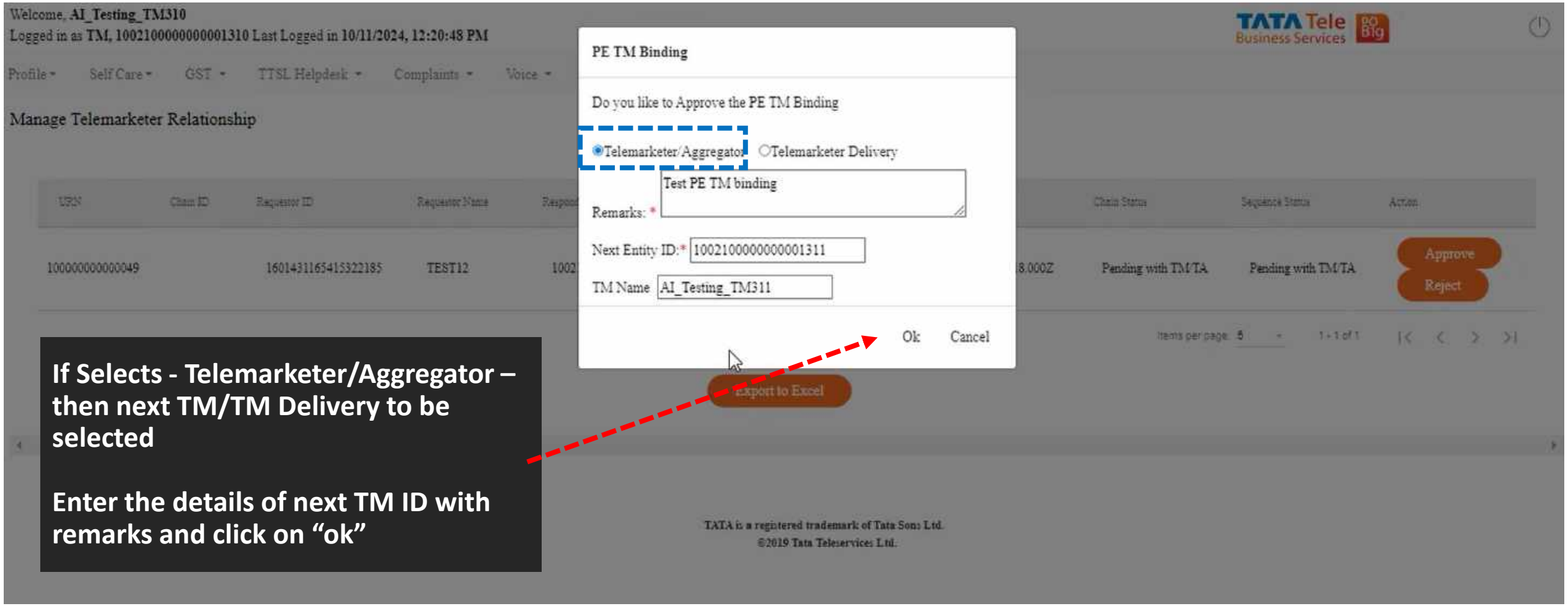
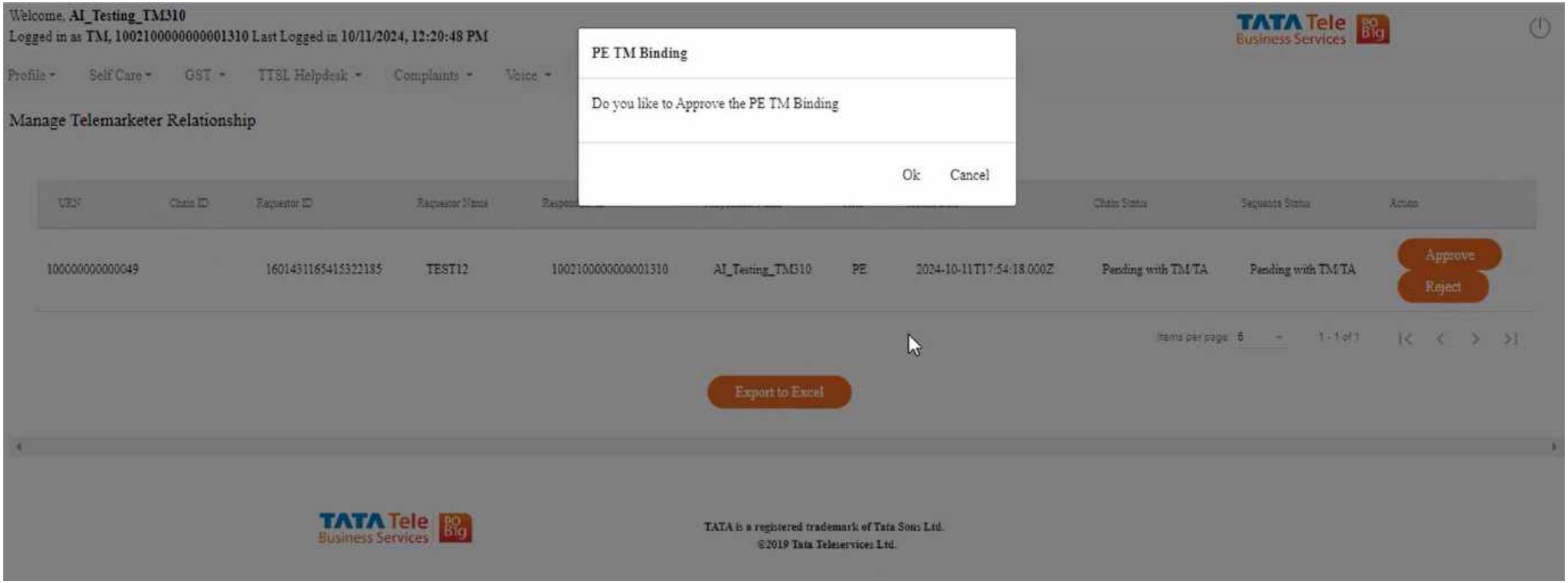
TM to Select Role in the Chain



If Selects - Telemarketer/Aggregator – then next TM/TM Delivery to be selected

Enter the details of next TM ID with remarks and click on “ok”

Click on Ok if sure to submit the request



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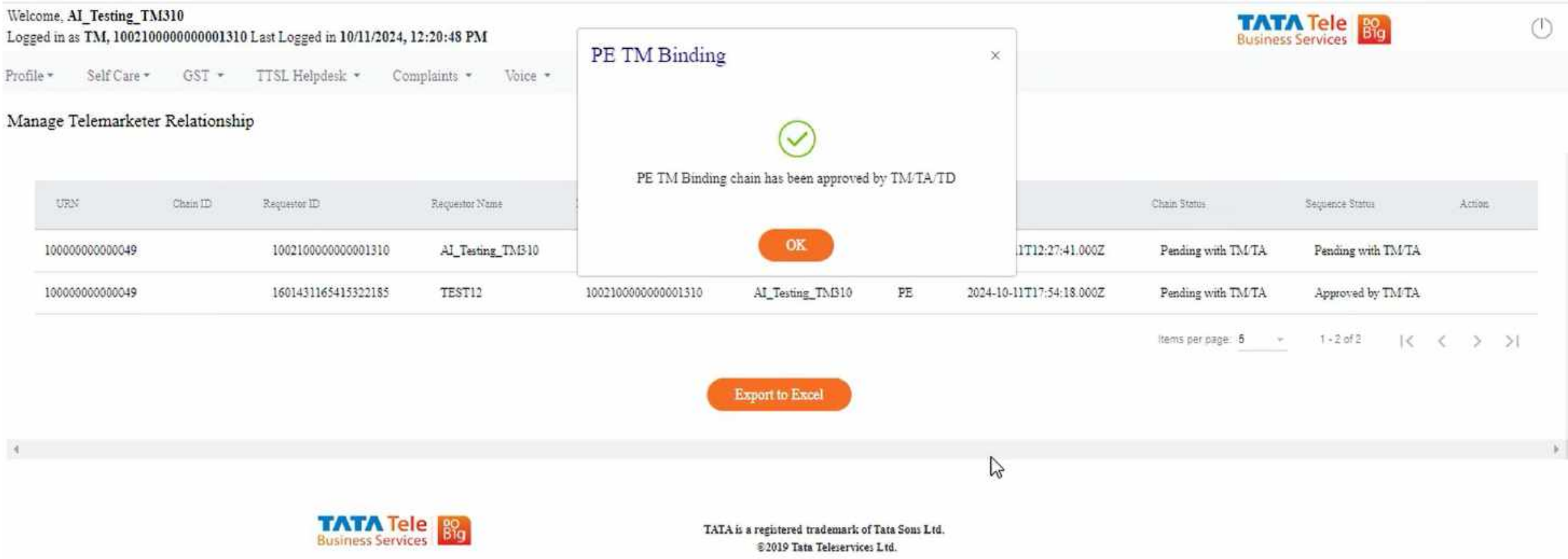
Request is saved and moved to Next TM for Approval



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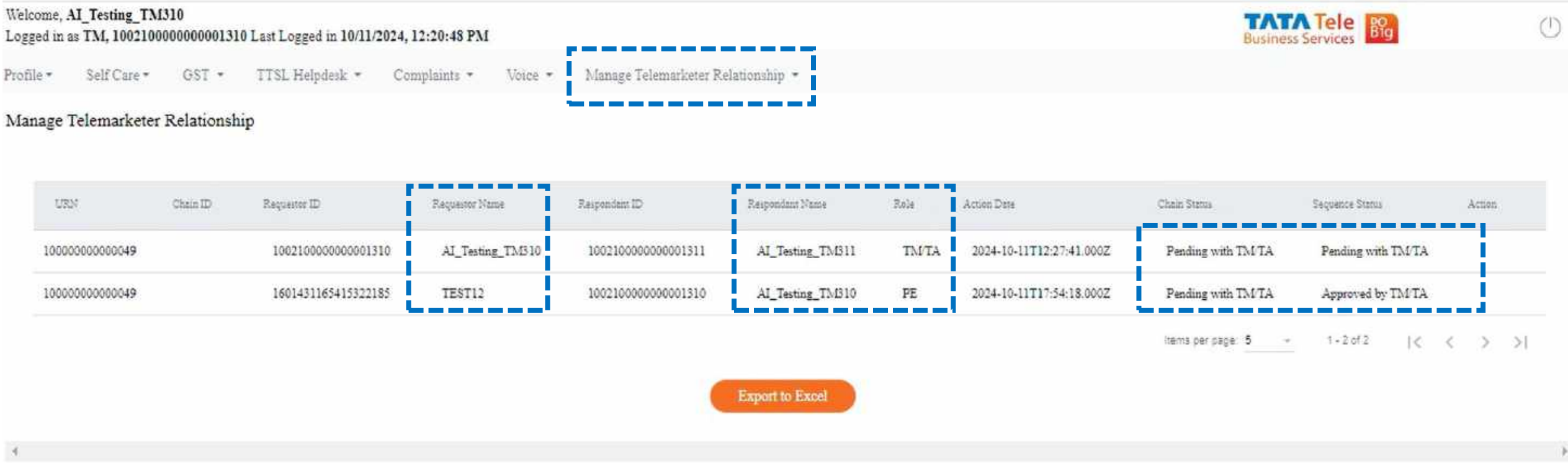
TM Can view the list and status



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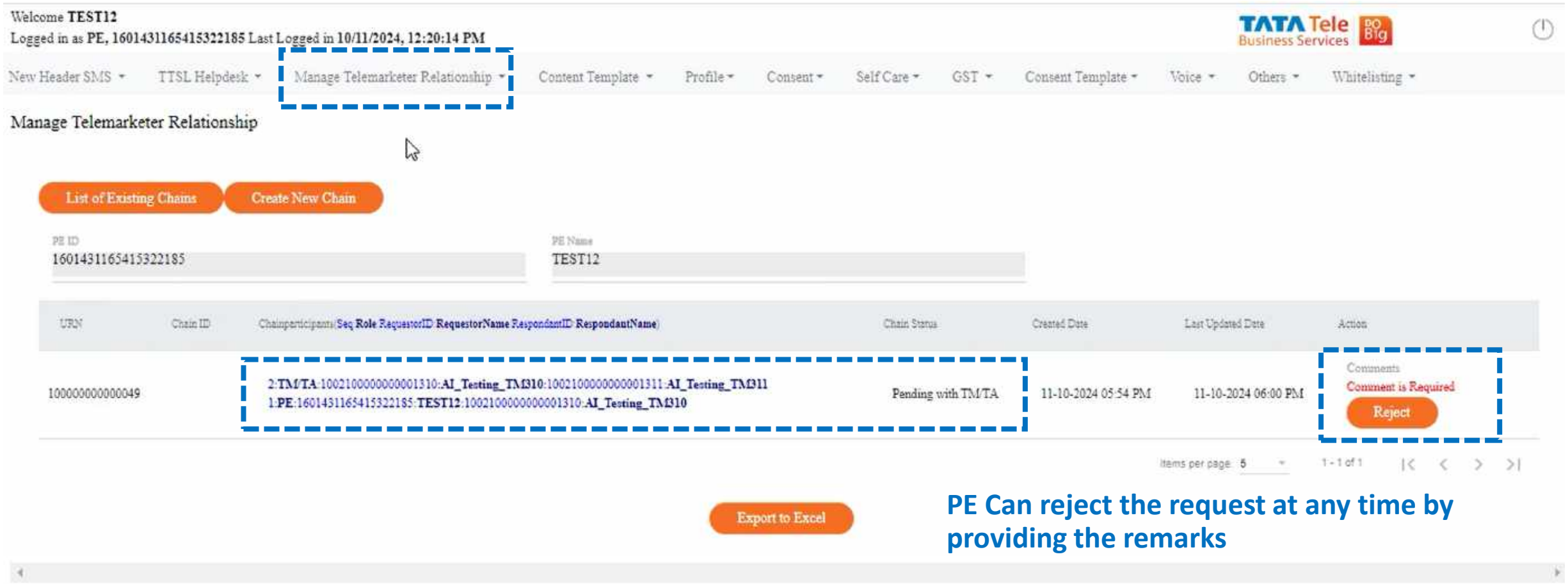
PE Can view the list and status



PE Can reject the request at any time by providing the remarks

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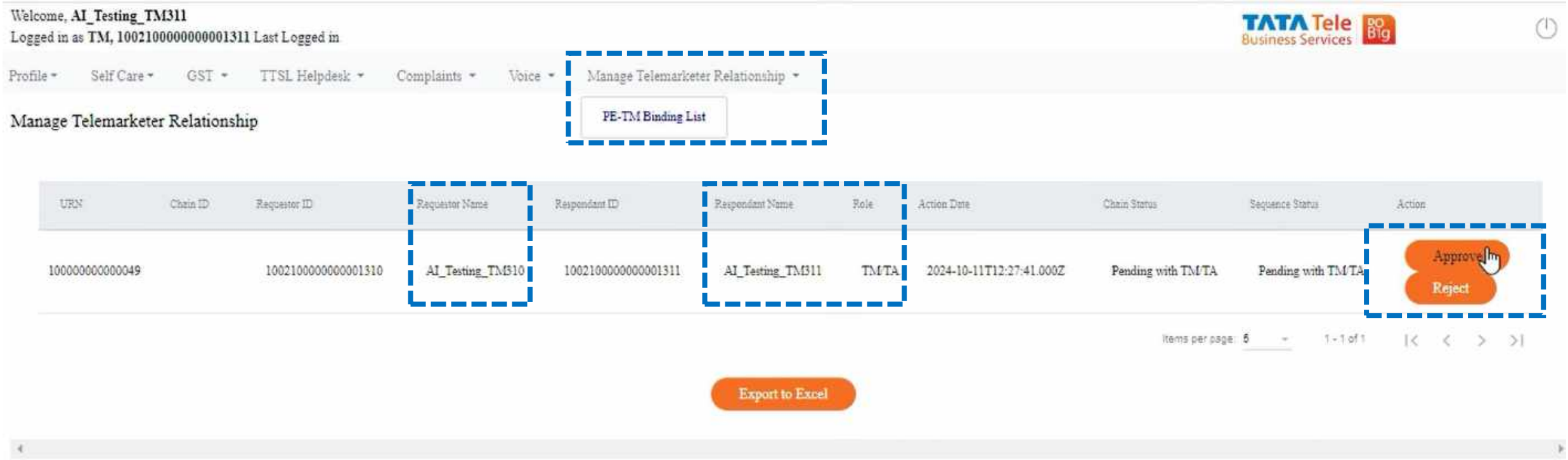
Next TM to Approve the Request



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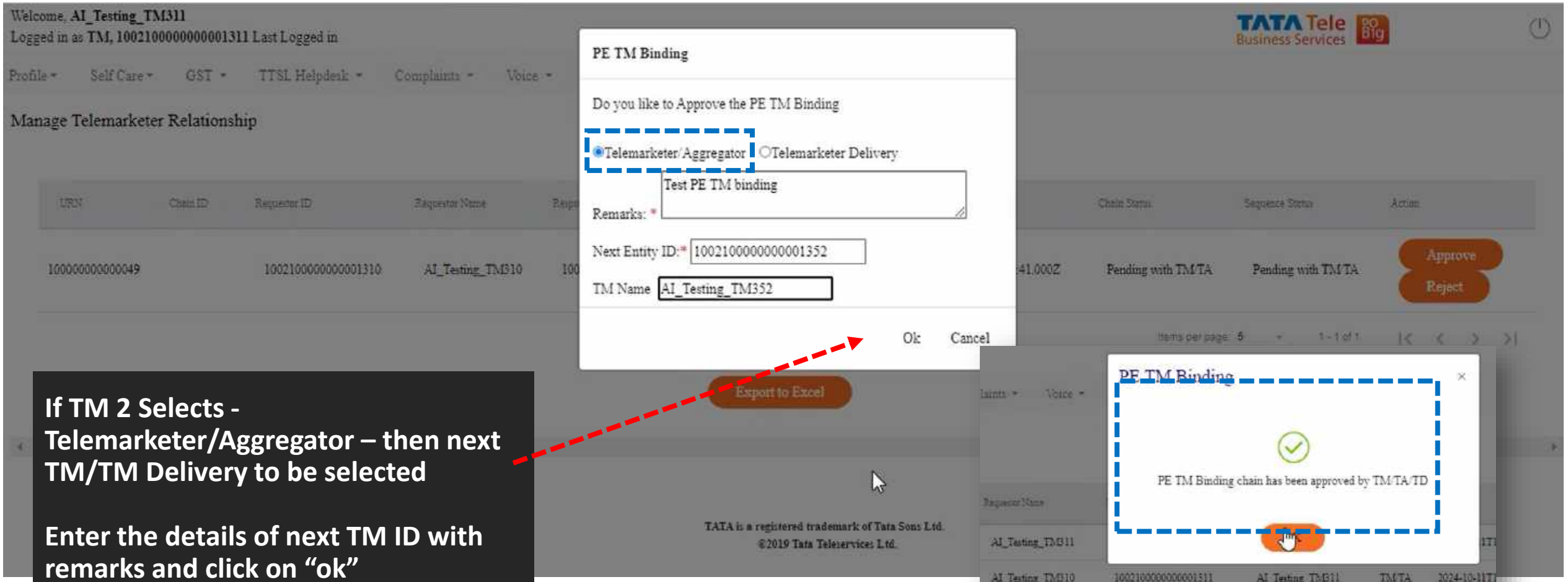
Next TM to Select Role in the Chain



If TM 2 Selects - Telemarketer/Aggregator – then next TM/TM Delivery to be selected

Enter the details of next TM ID with remarks and click on “ok”

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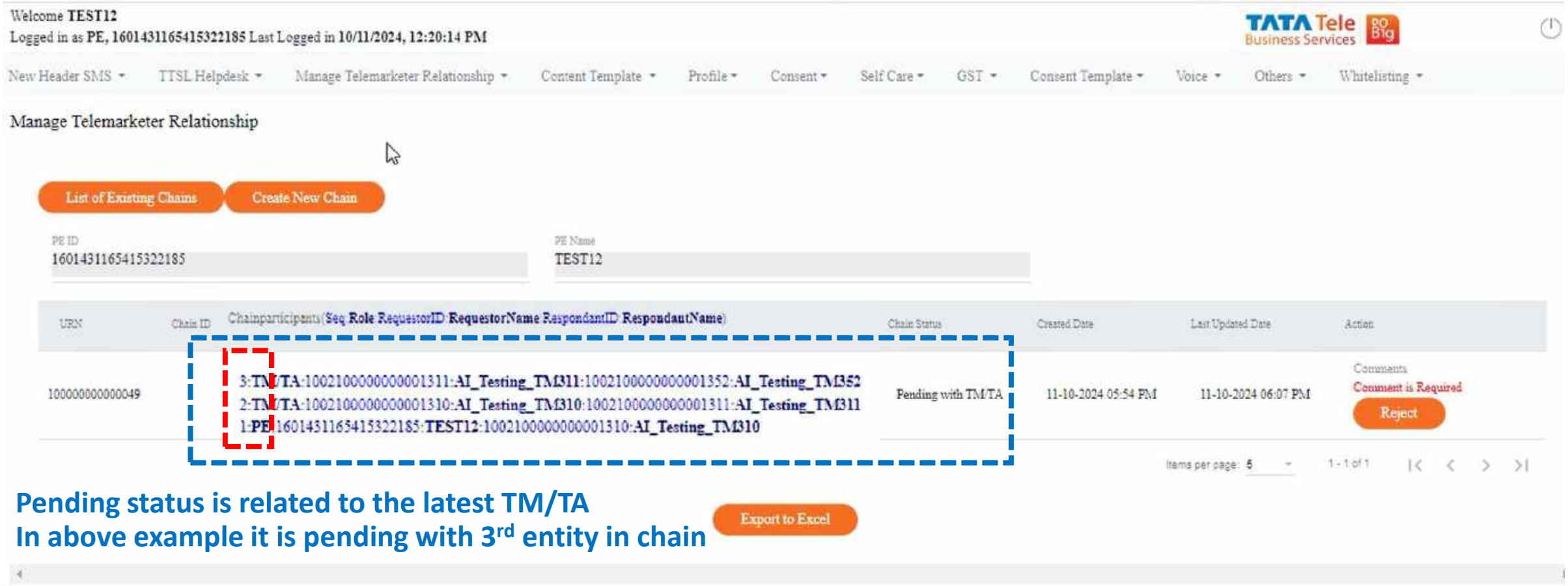
PE Can view the list and status



Pending status is related to the latest TM/TA
In above example it is pending with 3rd entity in chain

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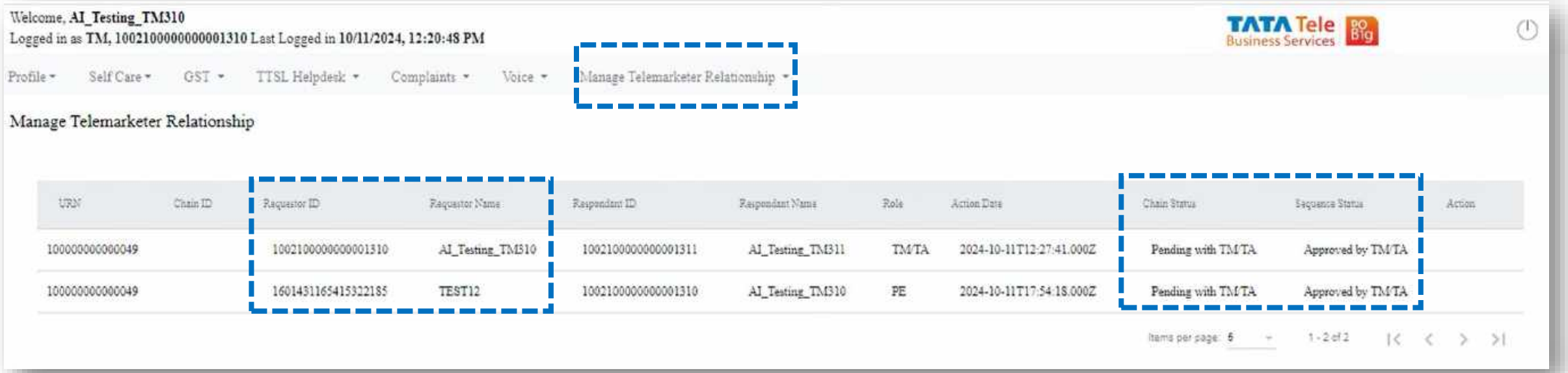
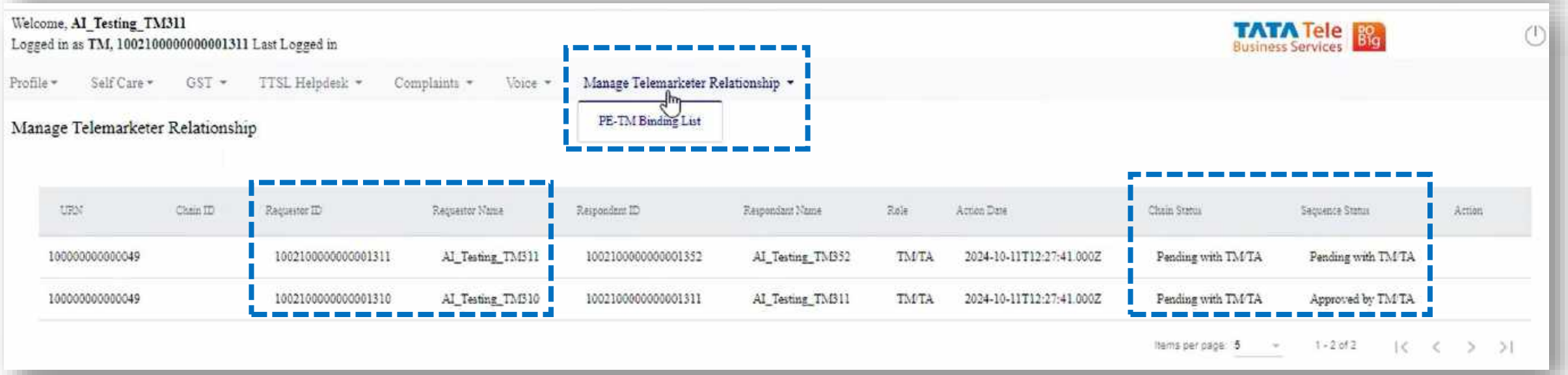
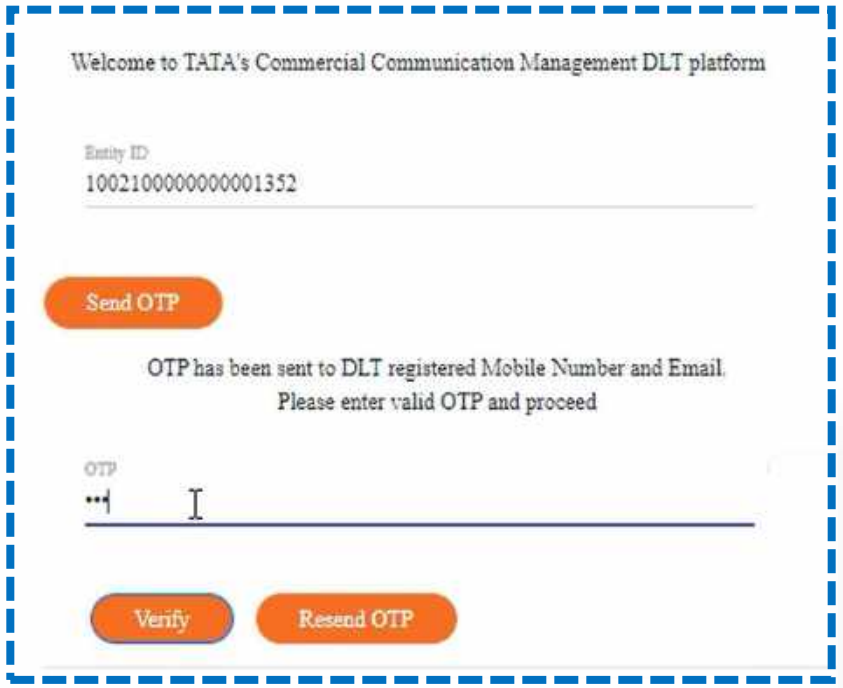
Other TM/TA Can view the list and status





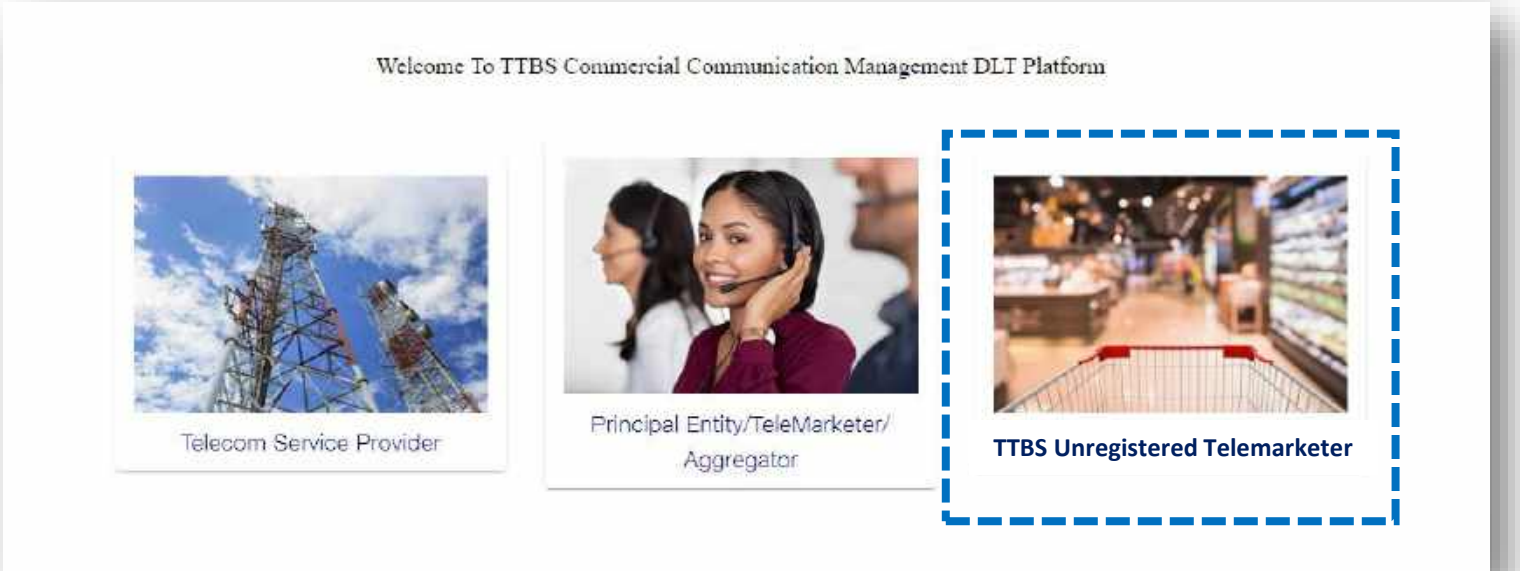
TM Not Registered with TTBS can login with OTP

https://telemarketer.tatateleservices.com/



TM selected in the chain who is not a registered TM with TTBS to use their DLT TM ID and DLT registered mobile & Email ID for login

Such TMs to select TTBS Unregistered Telemarketer option



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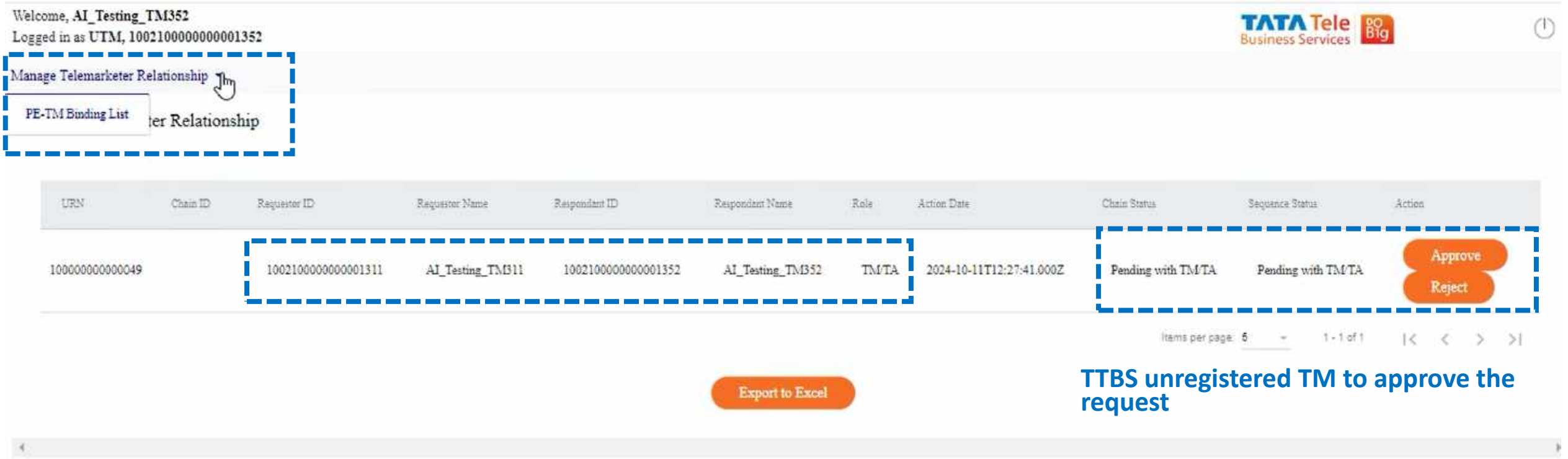
TTBS Unregistered TMs will get only one option



TTBS unregistered TM to approve the request

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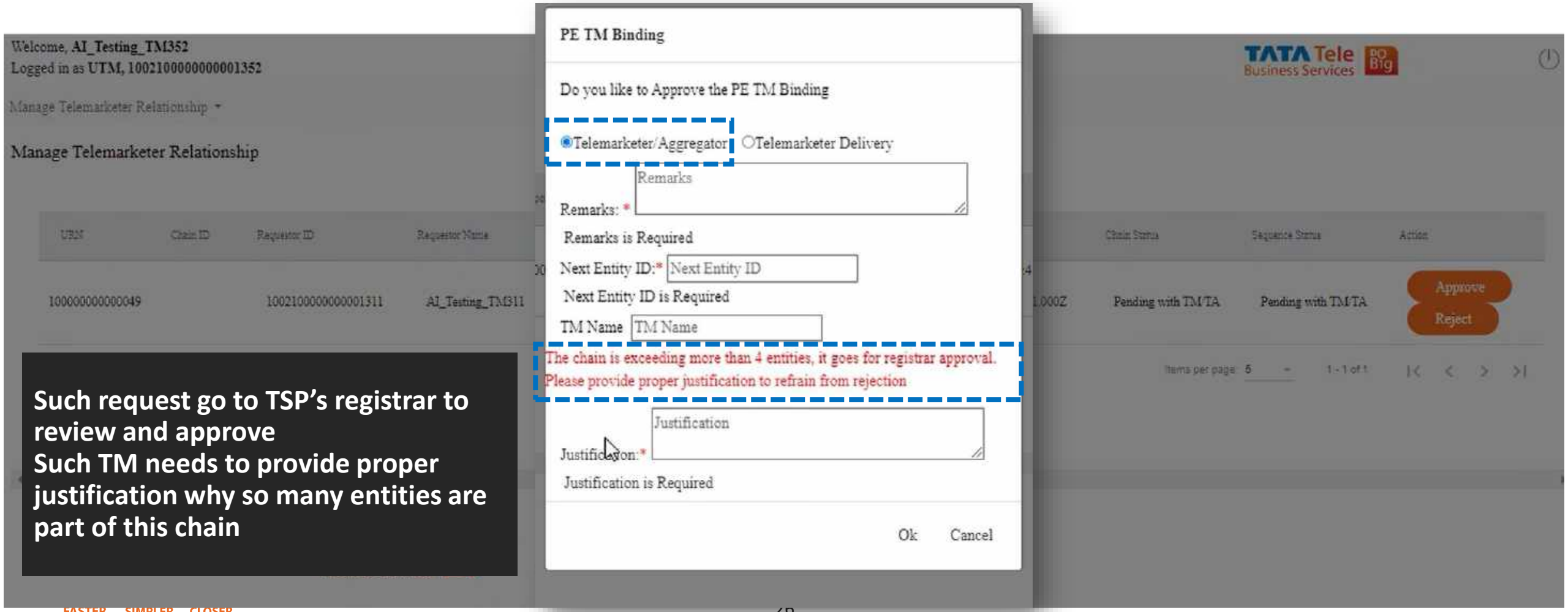
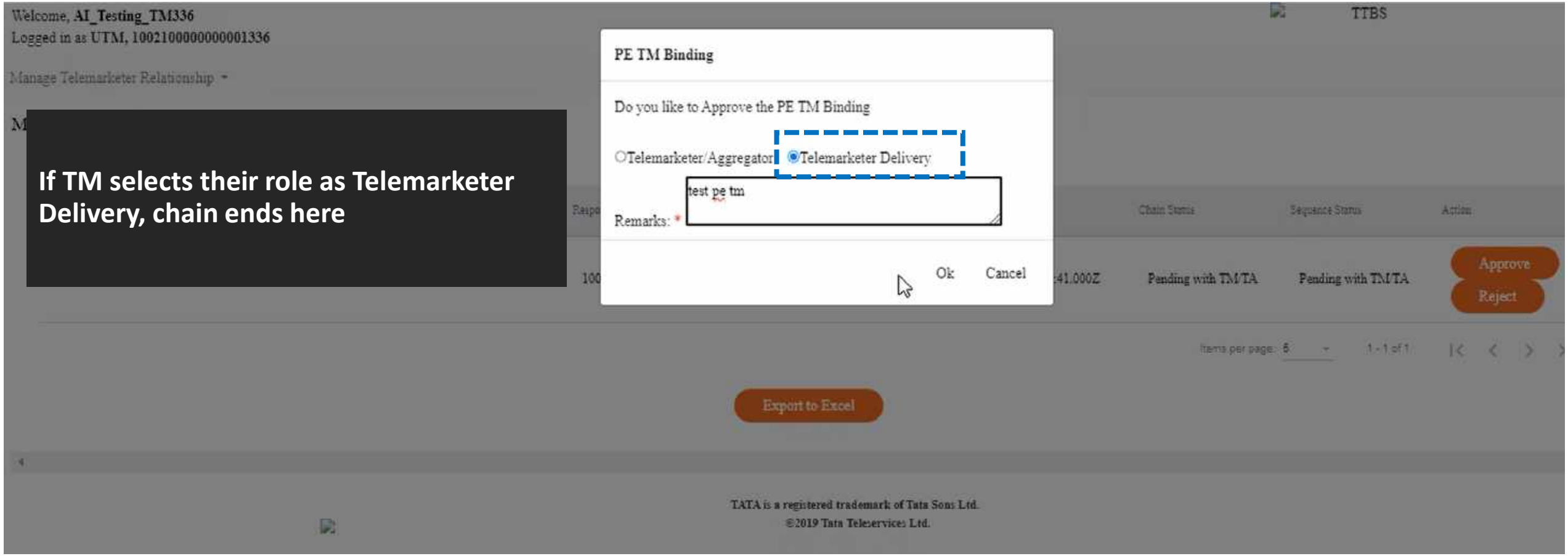
Exception - More Than 4 Entities in a Chain

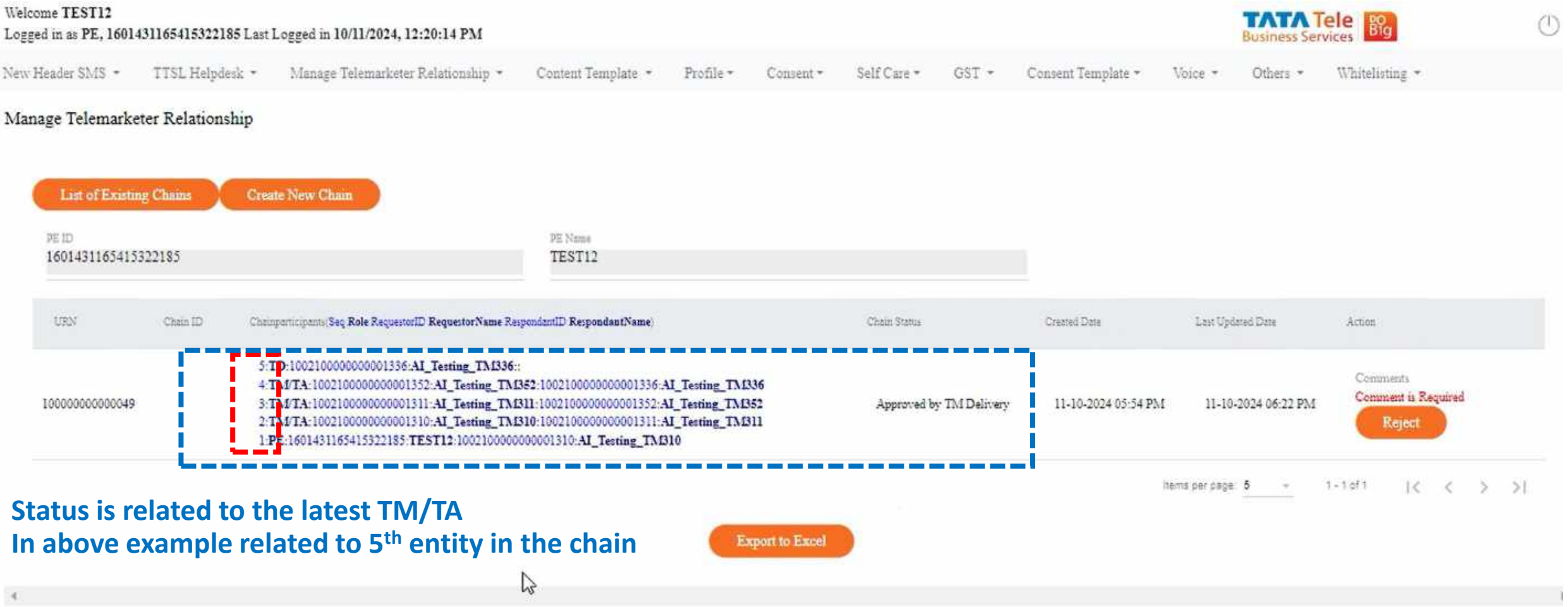


Such request go to TSP's registrar to review and approve
Such TM needs to provide proper justification why so many entities are part of this chain

Select Telemarketer Delivery



PE Can view the list and status



Status is related to the latest TM/TA
In above example related to 5th entity in the chain

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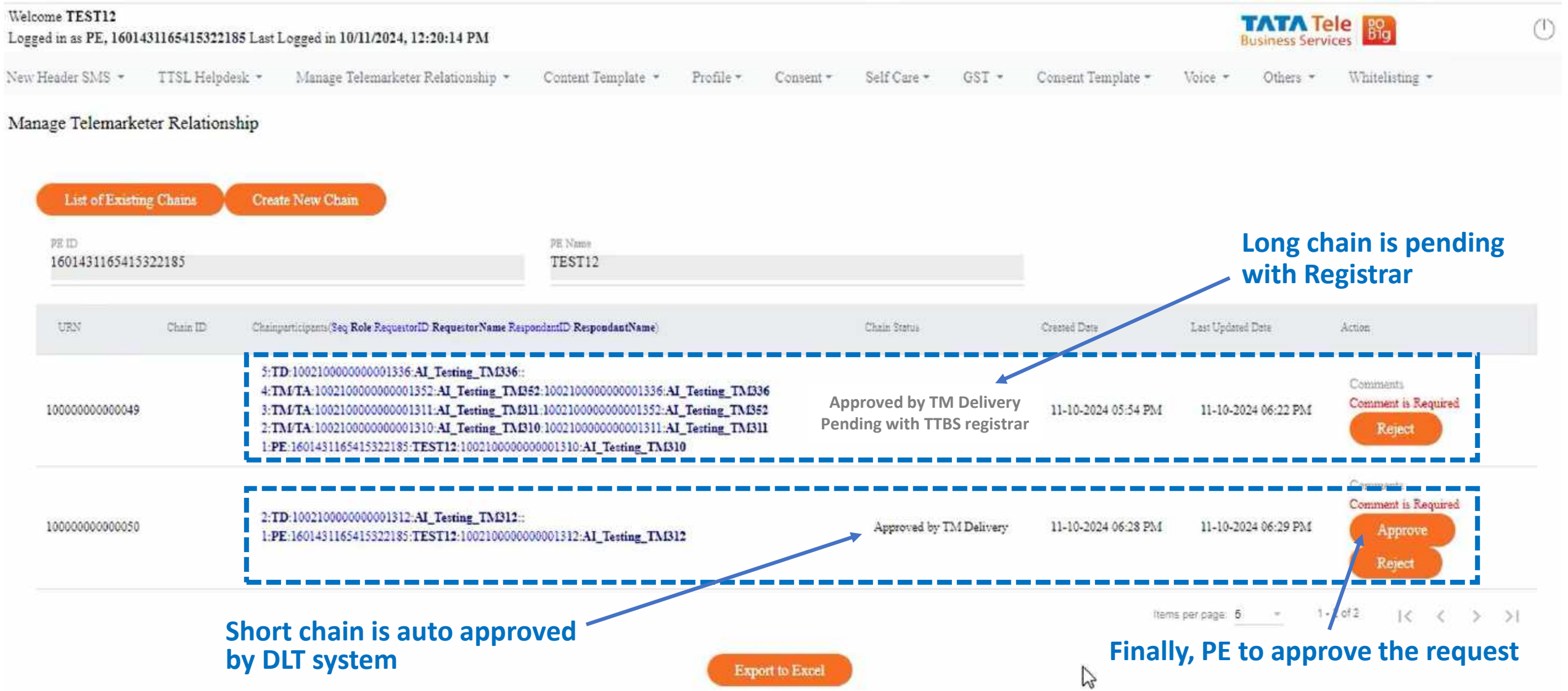
PE's Chain status and actions



Long chain is pending with Registrar

Short chain is auto approved by DLT system

Finally, PE to approve the request

Final Request Approved by PE With Remarks

Manage Telemarketer Relationship

List of Existing Chains | Create New Chain

PE ID: 1601431165415322185

PE Name: TEST12

URN	Chain ID	Chainparticipants(Seq:Role:RequestorID:RequestorName:RespondantID:RespondantName)	Chain Status	Created Date	Last Updated Date	Action
100000000000049		5:TD:1002100000000001336:AI_Testing_TM336:: 4:TM/TA:1002100000000001352:AI_Testing_TM352:1002100000000001336:AI_Testing_TM336 3:TM/TA:1002100000000001311:AI_Testing_TM311:1002100000000001352:AI_Testing_TM352 2:TM/TA:1002100000000001310:AI_Testing_TM310:1002100000000001311:AI_Testing_TM311 1:PE:1601431165415322185:TEST12:1002100000000001310:AI_Testing_TM310	Approved	11-10-2024 05:54 PM	11-10-2024 07:56 PM	
100000000000050		2:TD:1002100000000001312:AI_Testing_TM312:: 1:PE:1601431165415322185:TEST12:1002100000000001312:AI_Testing_TM312		11-10-2024 06:28 PM	11-10-2024 07:53 PM	
100000000000051		5:TD:1002100000000001336:AI_Testing_TM336:: 4:TM/TA:1002100000000001352:AI_Testing_TM352:1002100000000001336:AI_Testing_TM336 3:TM/TA:1002100000000001311:AI_Testing_TM311:1002100000000001352:AI_Testing_TM352 2:TM/TA:1002100000000001312:AI_Testing_TM312:1002100000000001311:AI_Testing_TM311 1:PE:1601431165415322185:TEST12:1002100000000001312:AI_Testing_TM312	Approved by Registrar	11-10-2024 07:38 PM	11-10-2024 07:50 PM	approved Approve Reject

Items per page: 6 1 - 3 of 3

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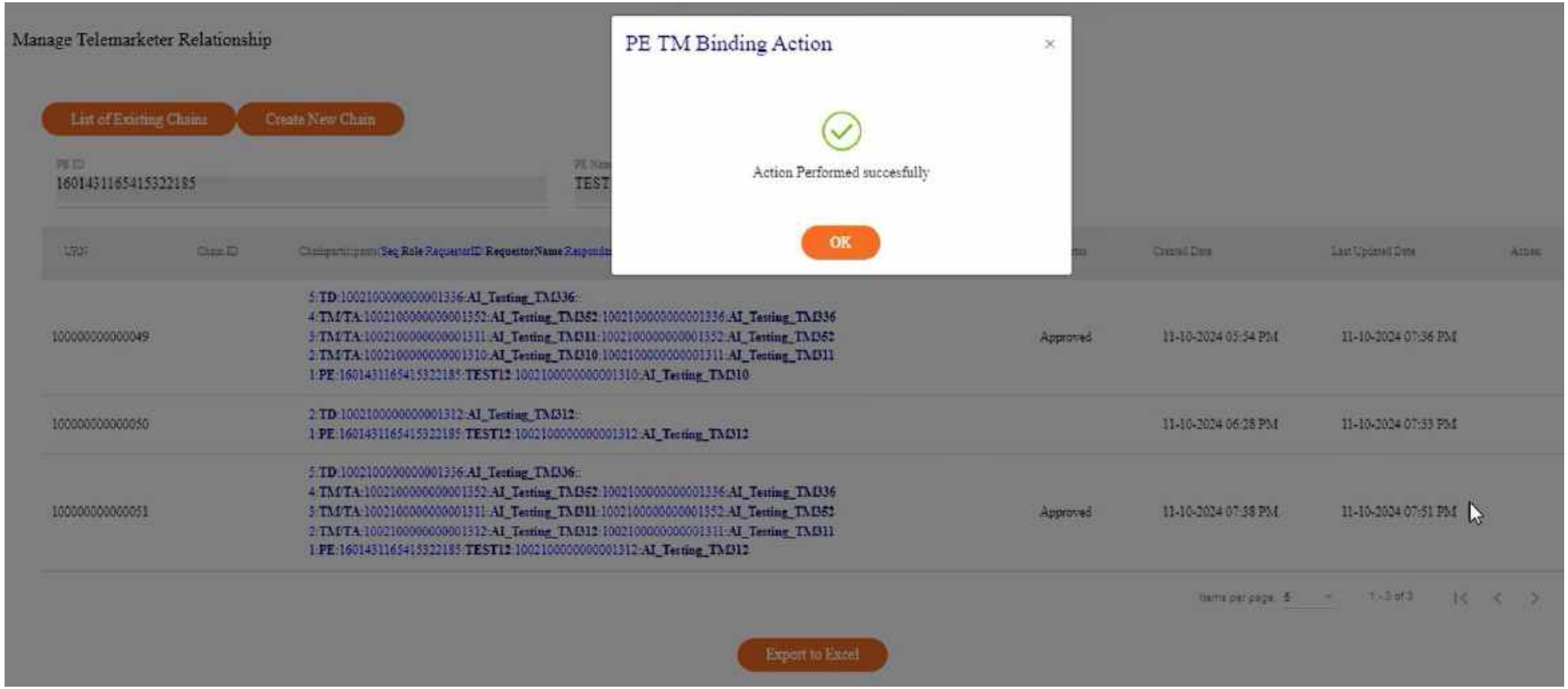
Final Request Approved by PE



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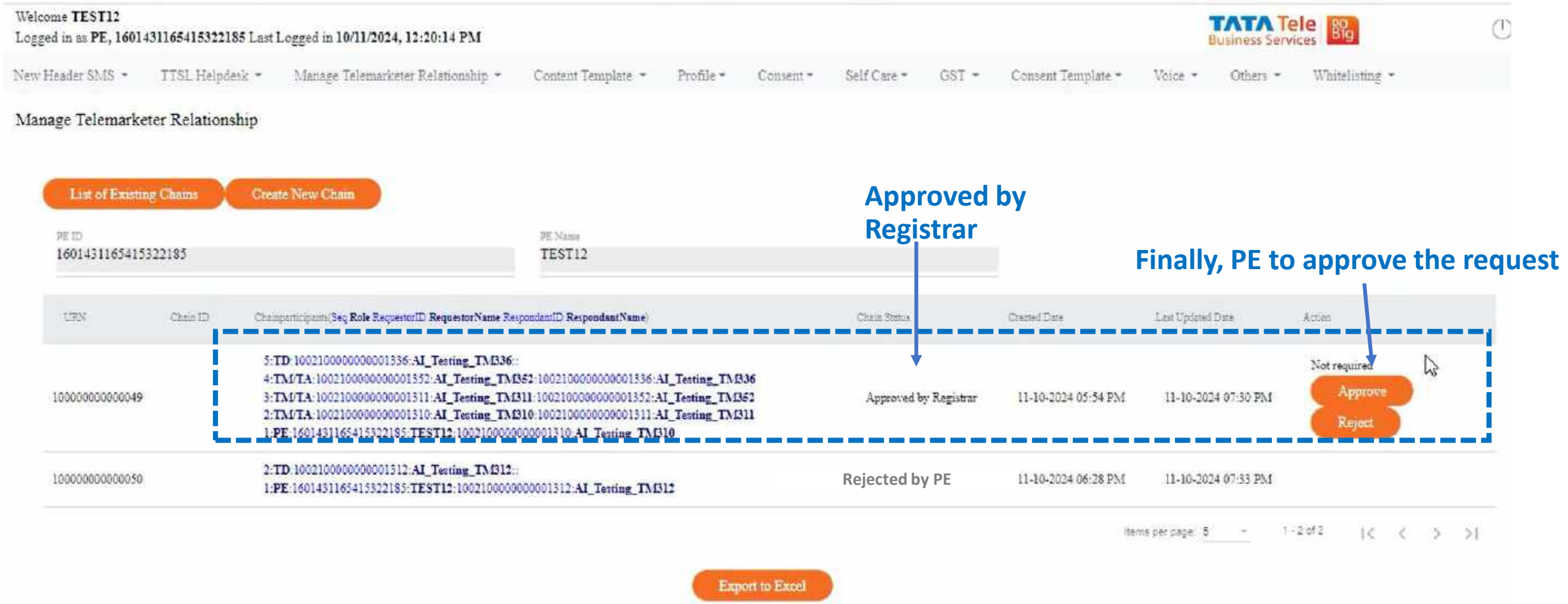
PE's Chain status and actions



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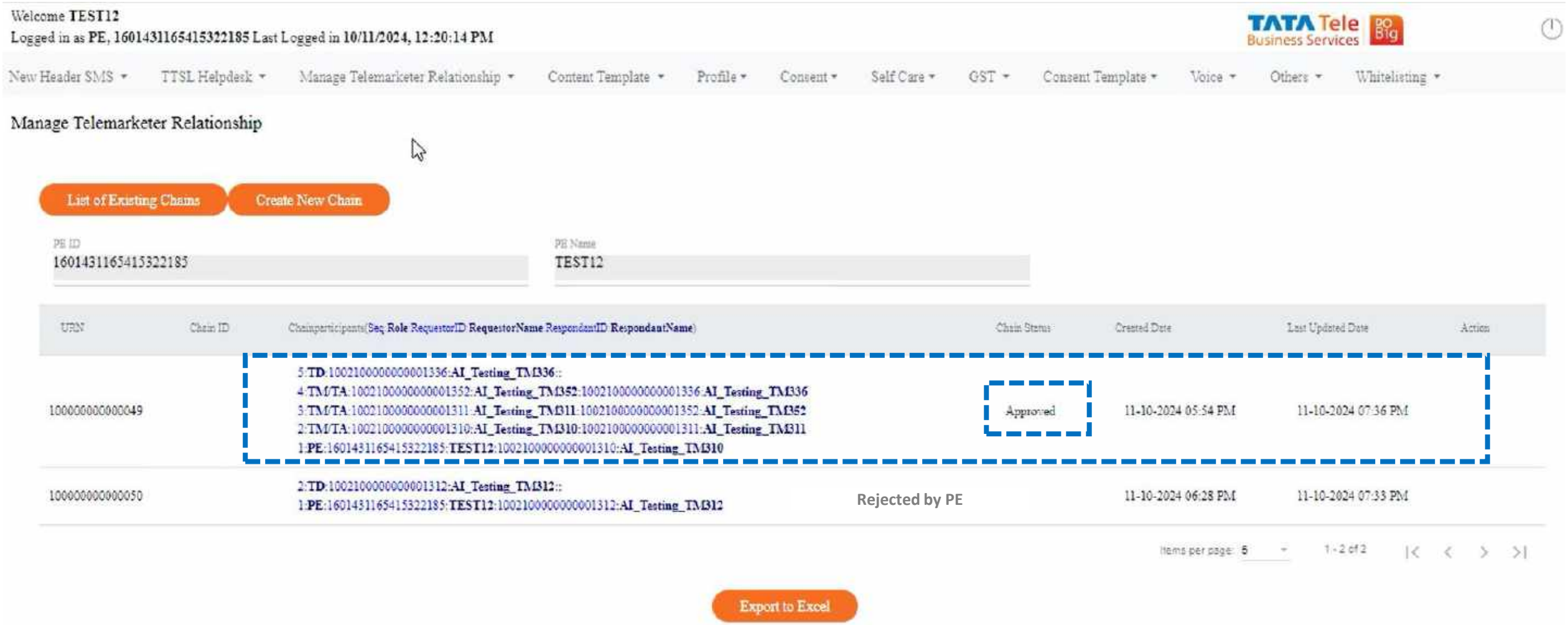
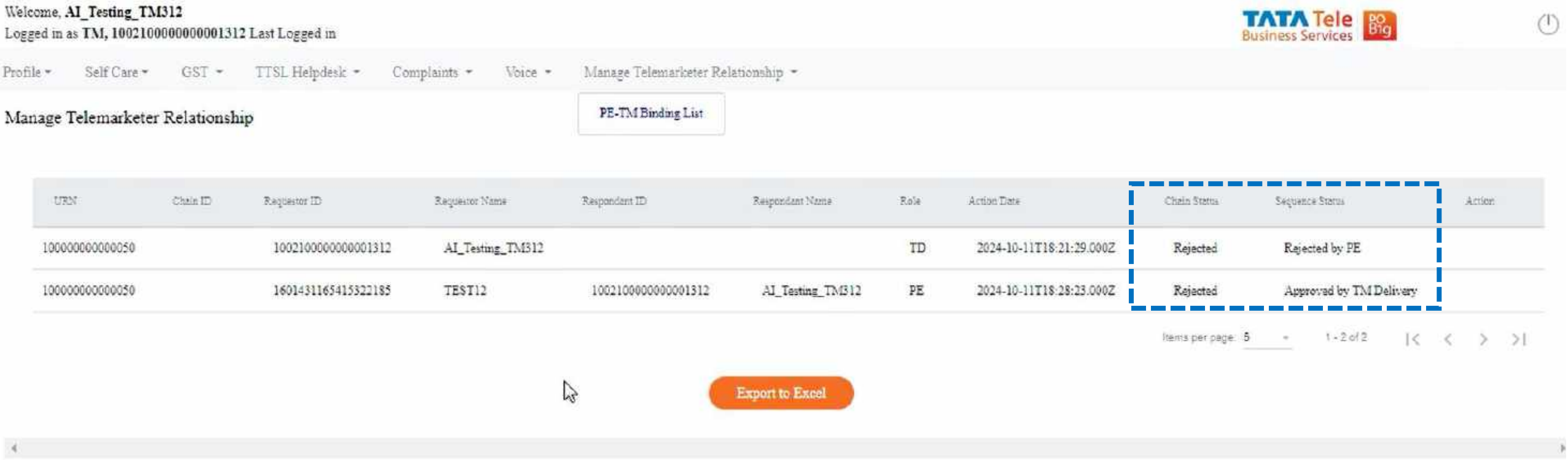
Final Status of PE's Chain – Ready to Submit SMS



Other TMs can only view status of immediate entities



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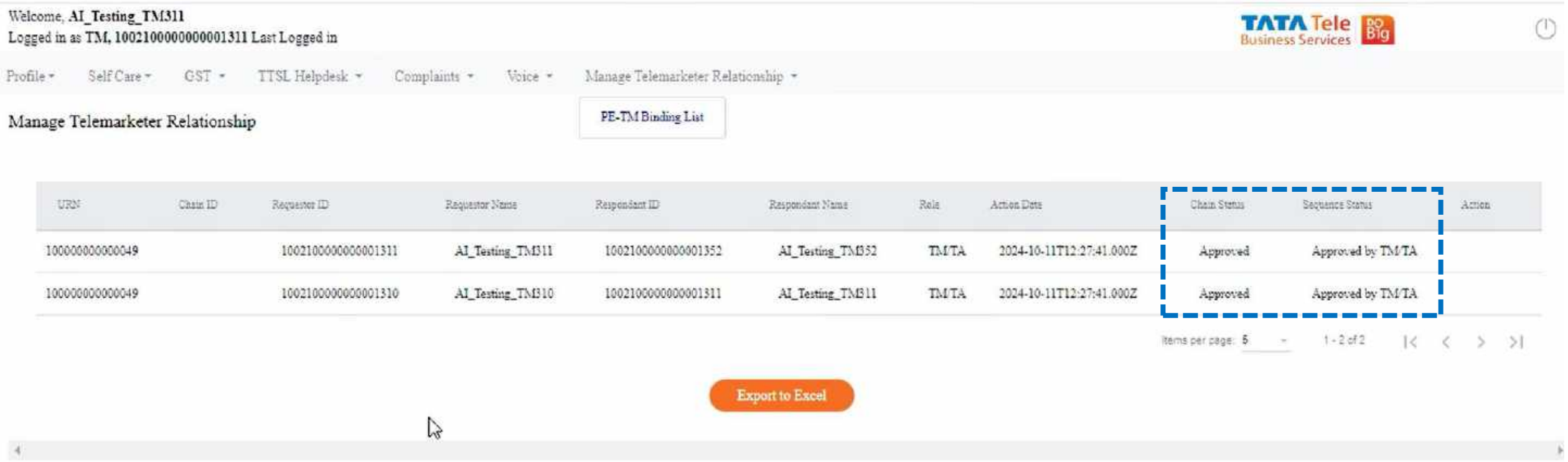
Other TMs can only view status of immediate entities



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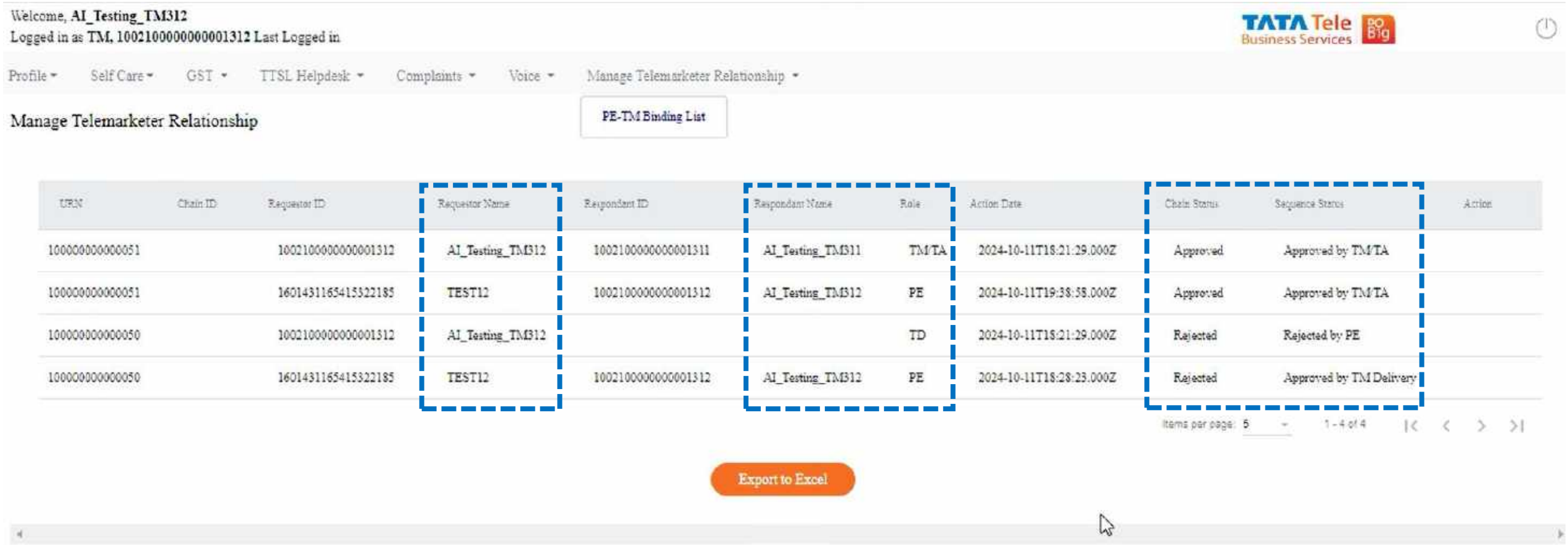
Final Request Status of Telemarketer Delivery



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Thank You!

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www.tatatelebusiness.com

PE TM Chain Creation

User Manual

For Enterprises & Telemarketers

Overview

This document outlines the necessary steps required for PE – TM chain creation on DLT for Enterprises, Telemarketers for Aggregation Function (TM-AF) as well as Telemarketers for Delivery Function

The Chain can be initiated on any DLT by an enterprise. The TM's will need to login to the respective DLT Portal to approve or reject the request. The TM's which are not directly mapped to the same DLT as enterprise, will be given option to login to the DLT portal with limited access to access PE – TM Chains.

The chain has to be approved at all stages by all respective stakeholders like TM-AF as well as TM-DF. The Selection of TM-DF will mark the end of chain and it will be assumed that traffic will be submitted by TM-DF to the Telco DLT Network. Once the TM-DF is marked in the chain and its accepted by the TM-DF, a final request will go to PE for the approval of end to end chain.

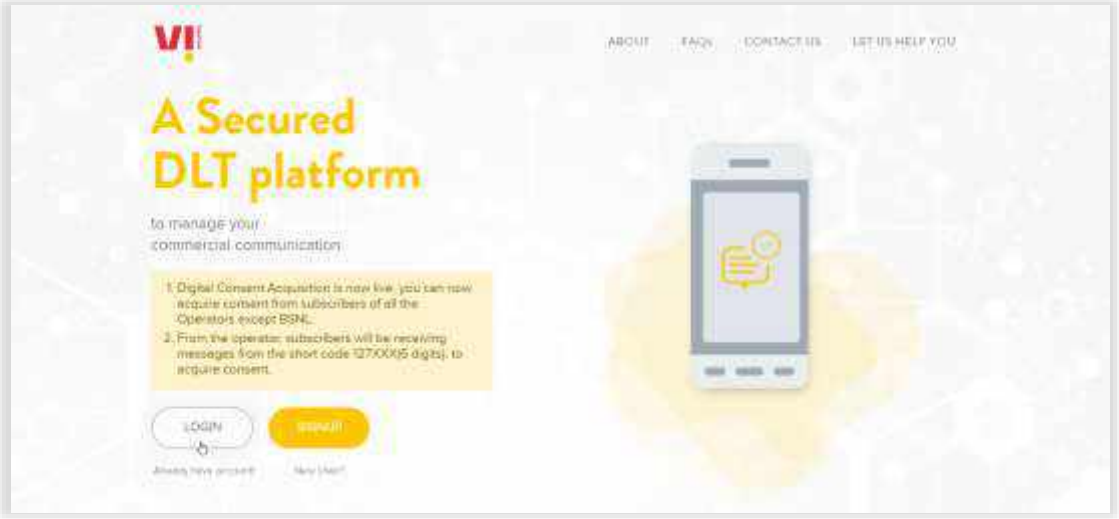
PE as well as TM-AF are required to choose only the next hop to whom the traffic is being directly submitted. TM-DF will have no option to choose any next hop.

PE shares its entity ID, and TM-AFs has to share TM ID with comma separated, and TM-DF will share it's TM ID with comma separated for that chain, while submitting the SMS.

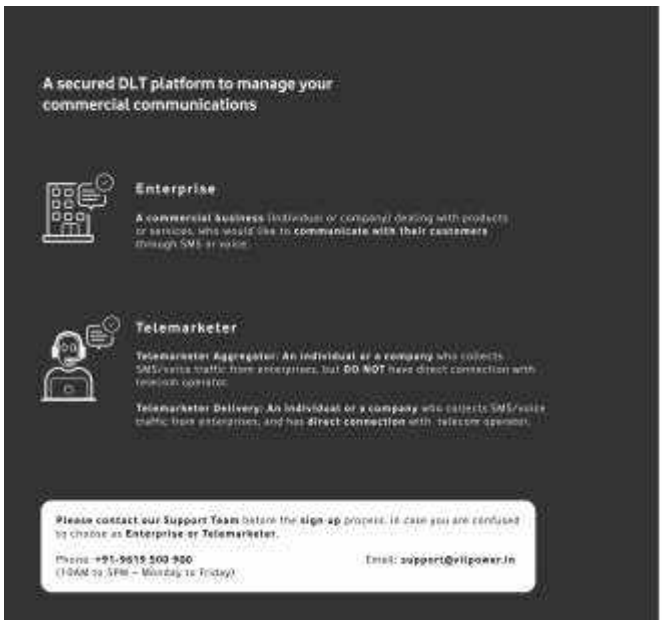
TM-DFs are required to generate hash and submit the same in the TLV parameter, the process for which will be shared separately with all TM-DF.

Enterprise Login

1. To initiate the chain, enterprise needs to login to DLT and initiate a chain on DLT Portal. Go to https://www.vilpower.in/ and Click on Login

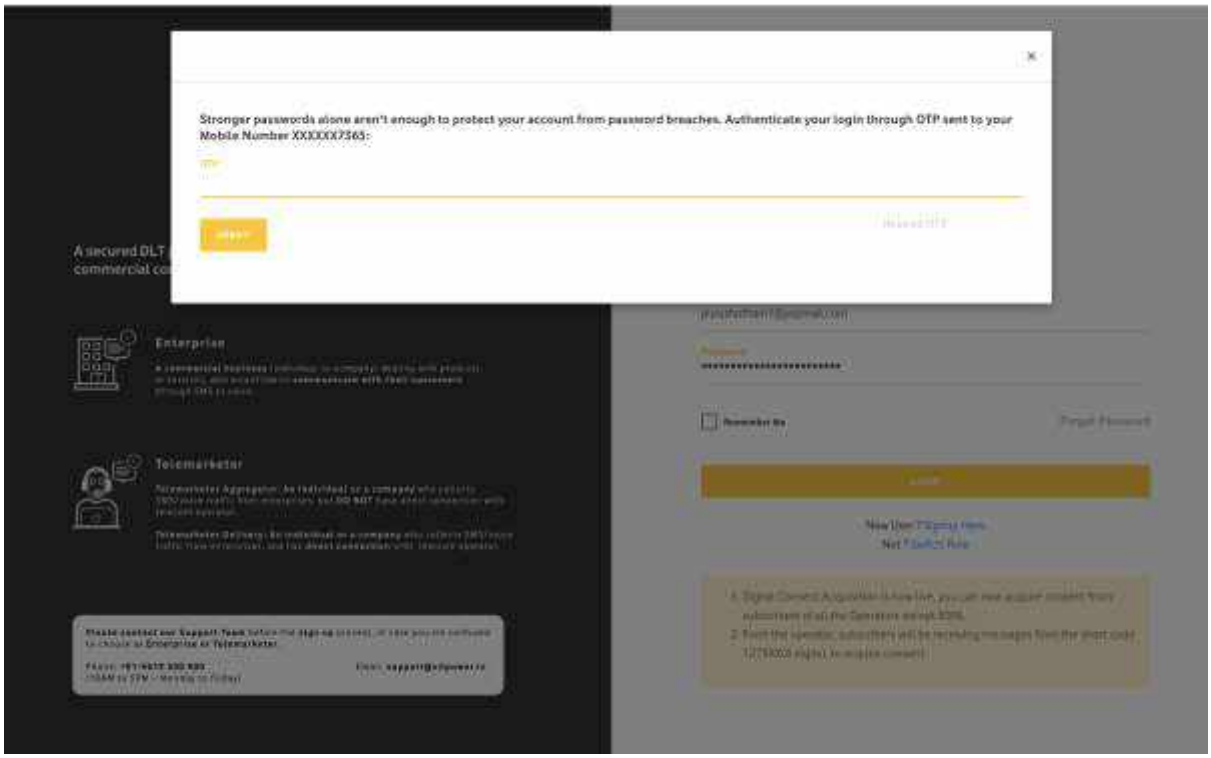


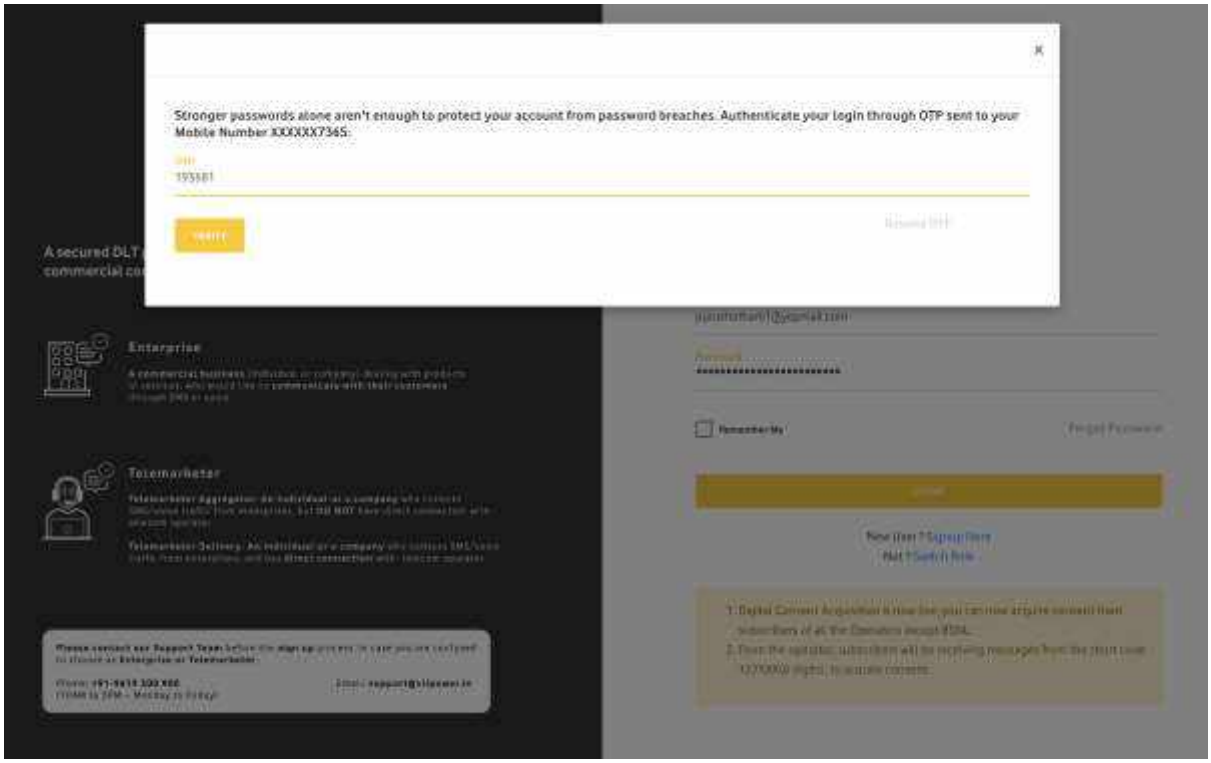
2. Select Login as Enterprise and Click on NEXT



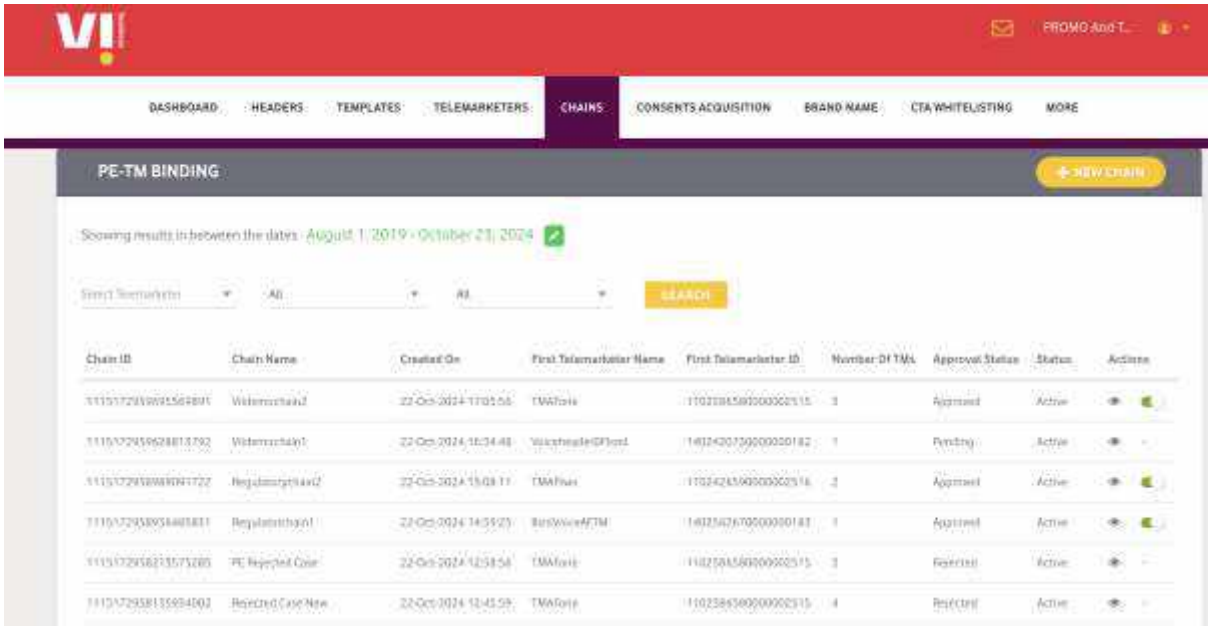
3. Enter your Email Address and password

4. Enter the OTP received on your registered Mobile number and click Verify

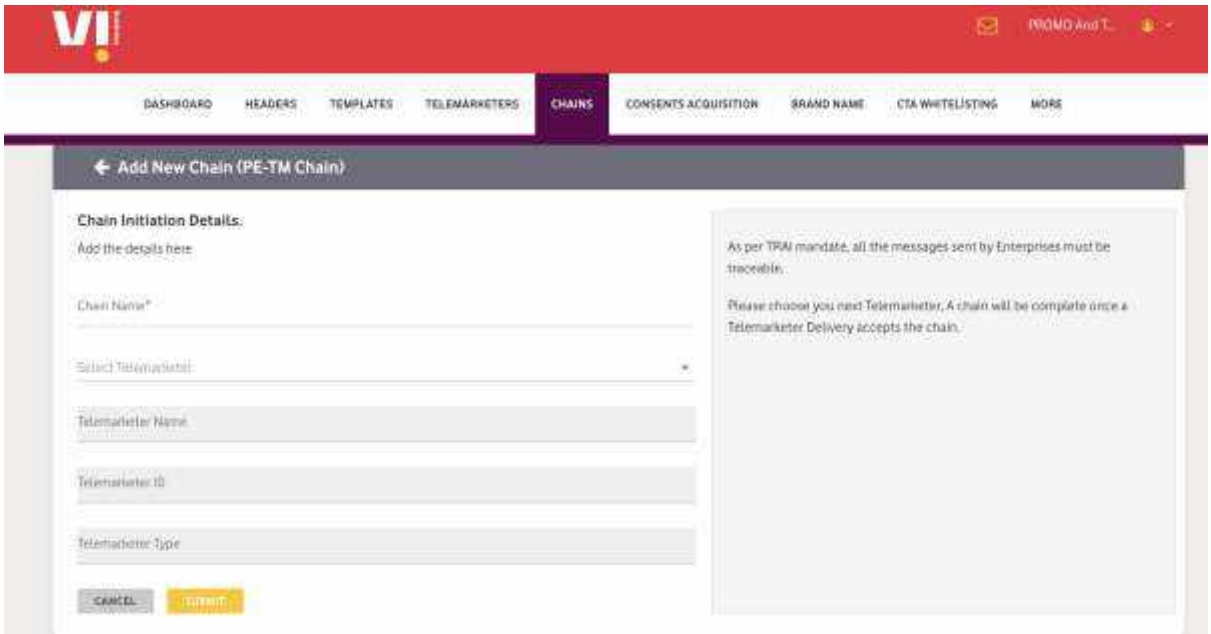




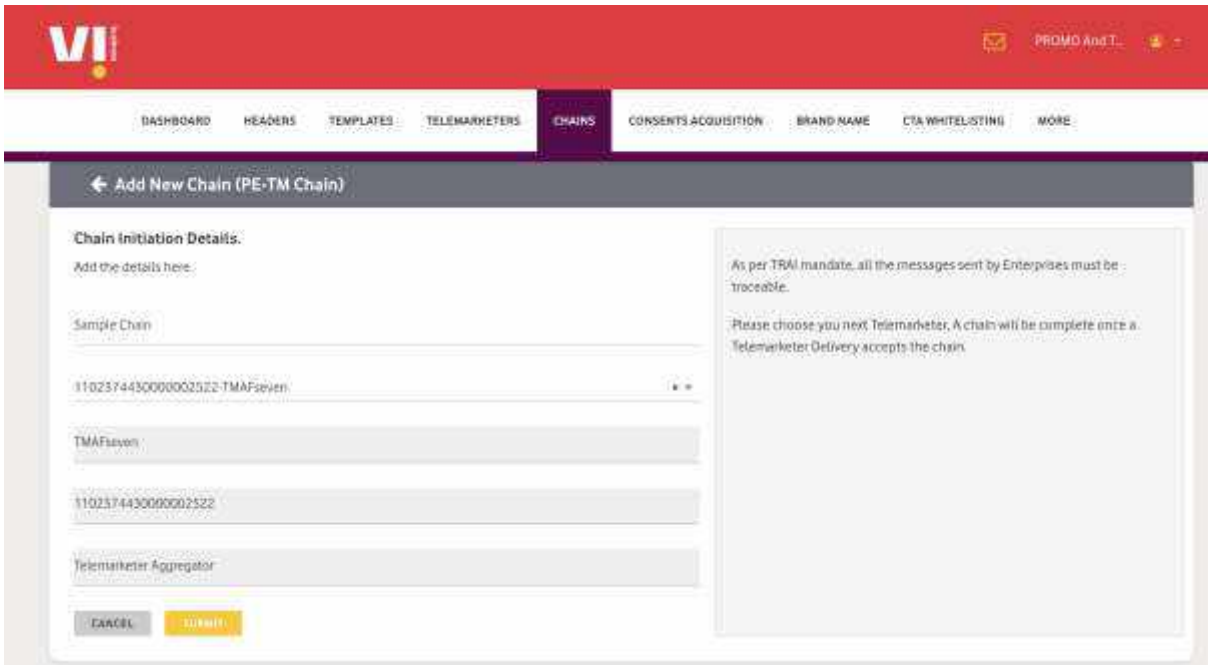
5. On the DLT Home page, you will see the option of Chains, Click on chains option and further click on “New Chain” tab



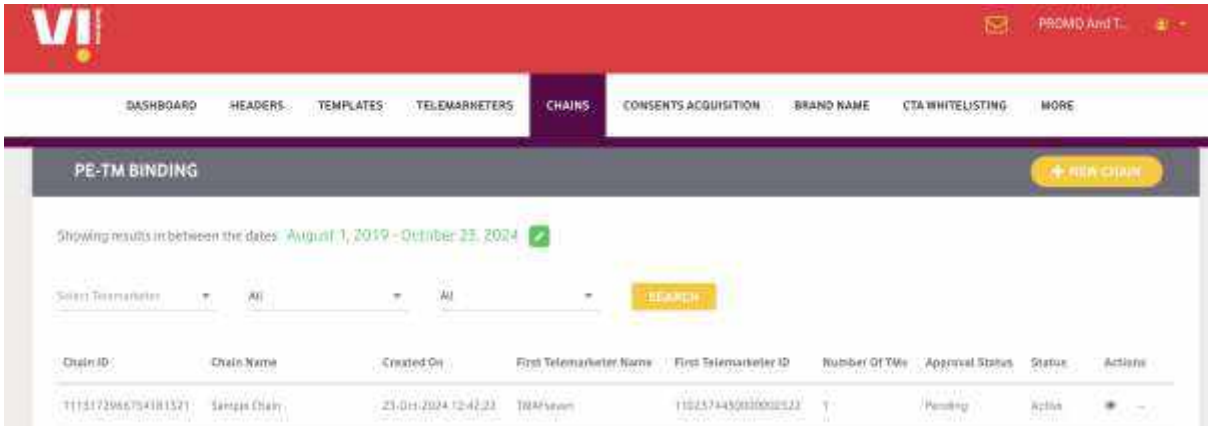
6. Chain initiation Page



7. Enter a name to the chain, search TM-AF or TM-DF (to whom the traffic is delivered directly by the Enterprise) and submit the request,



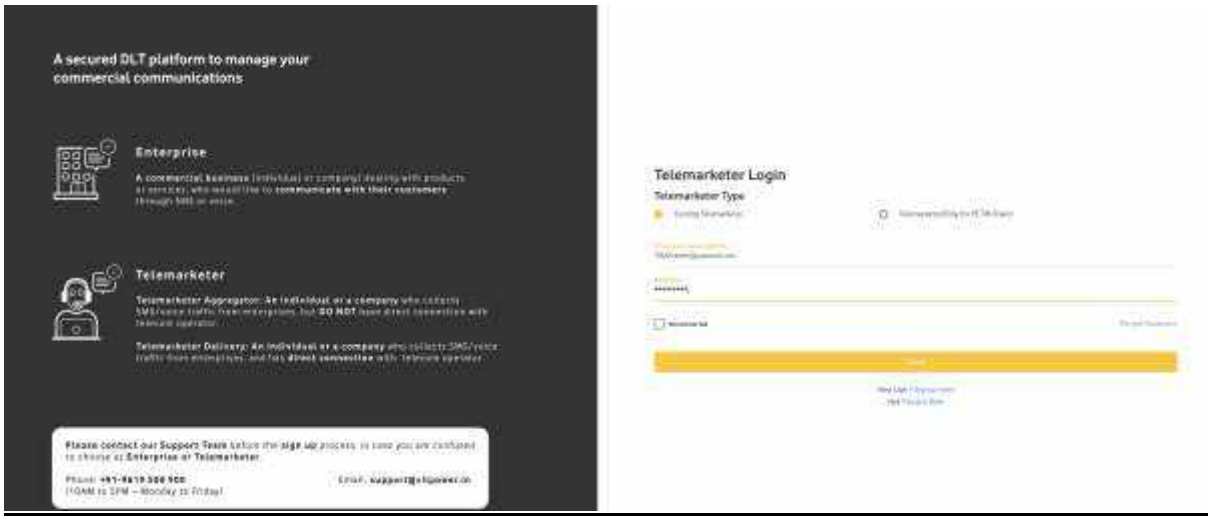
8. Chain Home page will show the request pending as its pending with the TM to approve chain initiation request.



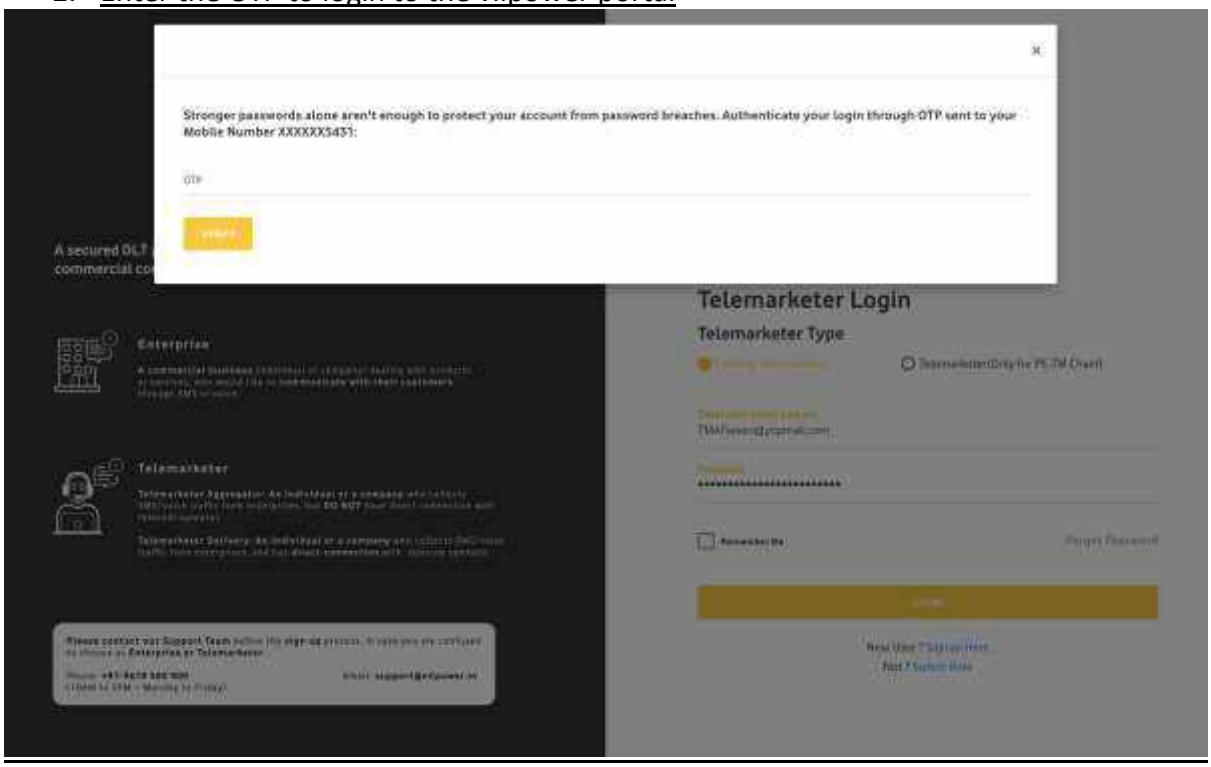
9. TM(who are registered on VILPOWER) will receive a mail notification to their registered mail ID, to act on the PE TM chain.

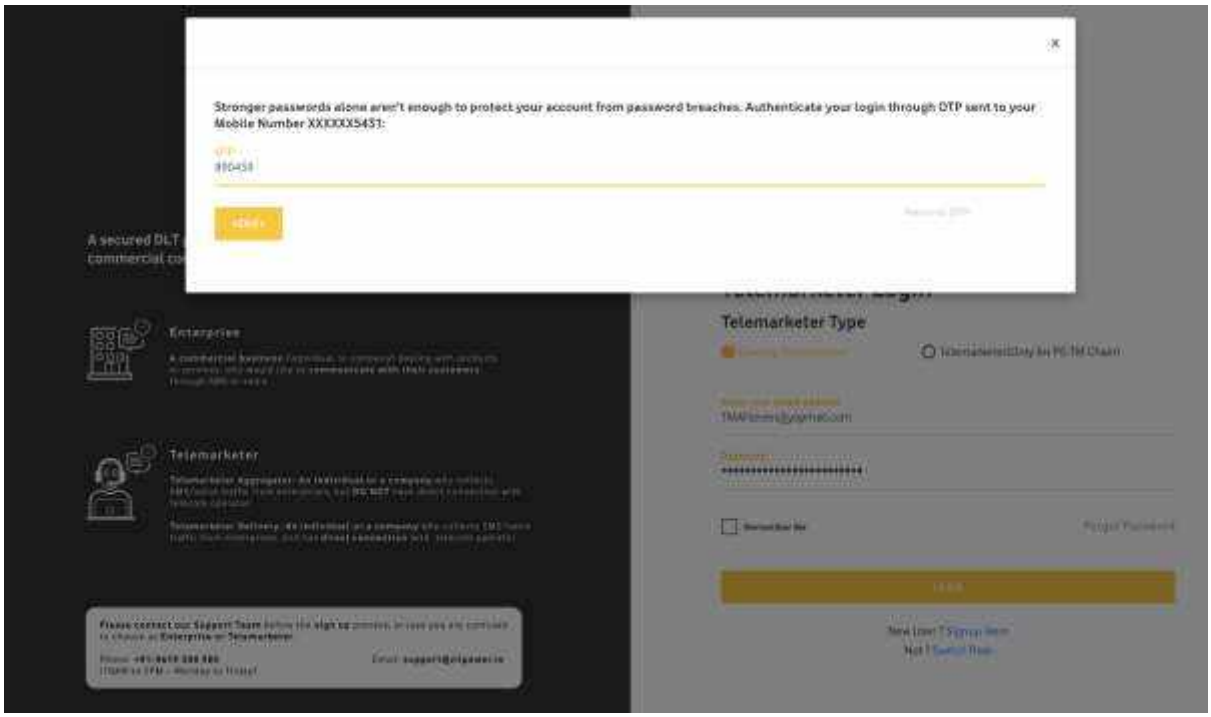
TM – Aggregator Login

1. For TM with existing credentials with vilpower, choose existing telemarketer for login and enter email and password. TM will receive a mail notification to their registered mail ID, to act on the PE-TM chain.
   TM with existing relation with have access via regular login, while TM with no relation to Vilpower will have limited access with Telemarketer (only for PE-TM chain)

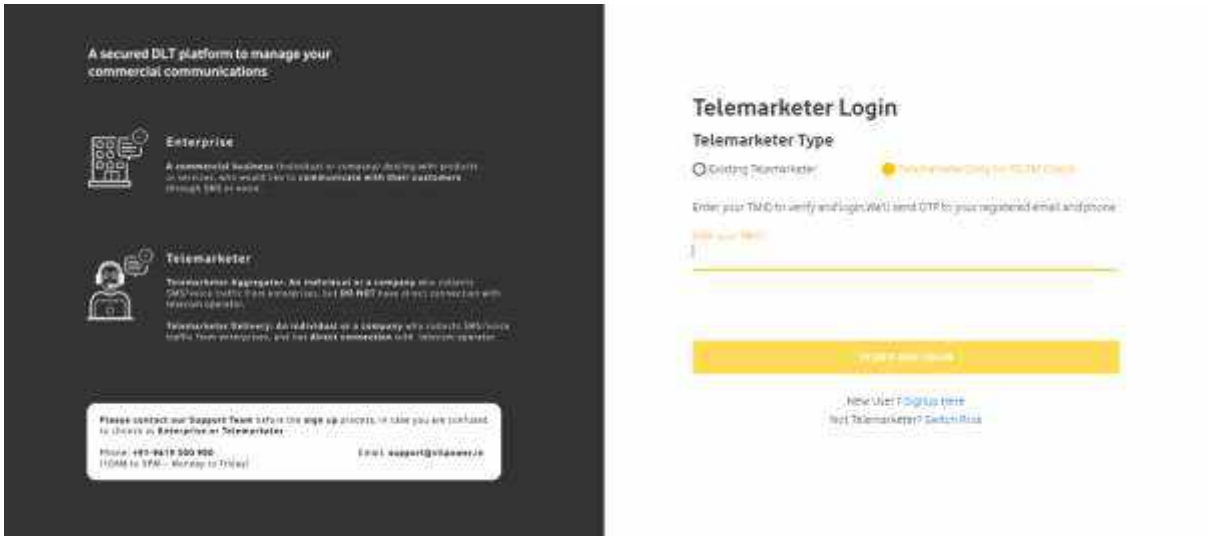


2. Enter the OTP to login to the vilpower portal





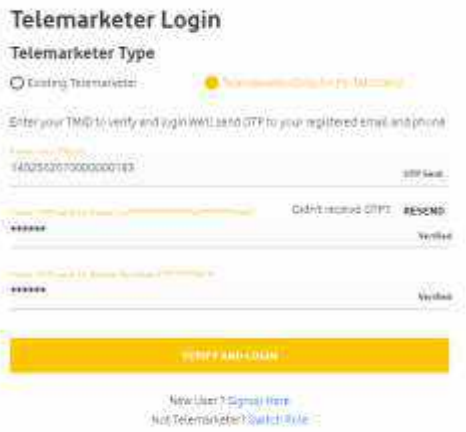
3. For TM with no existing relationship with vilpower portal, pl choose TM (only for PE-TM chain)



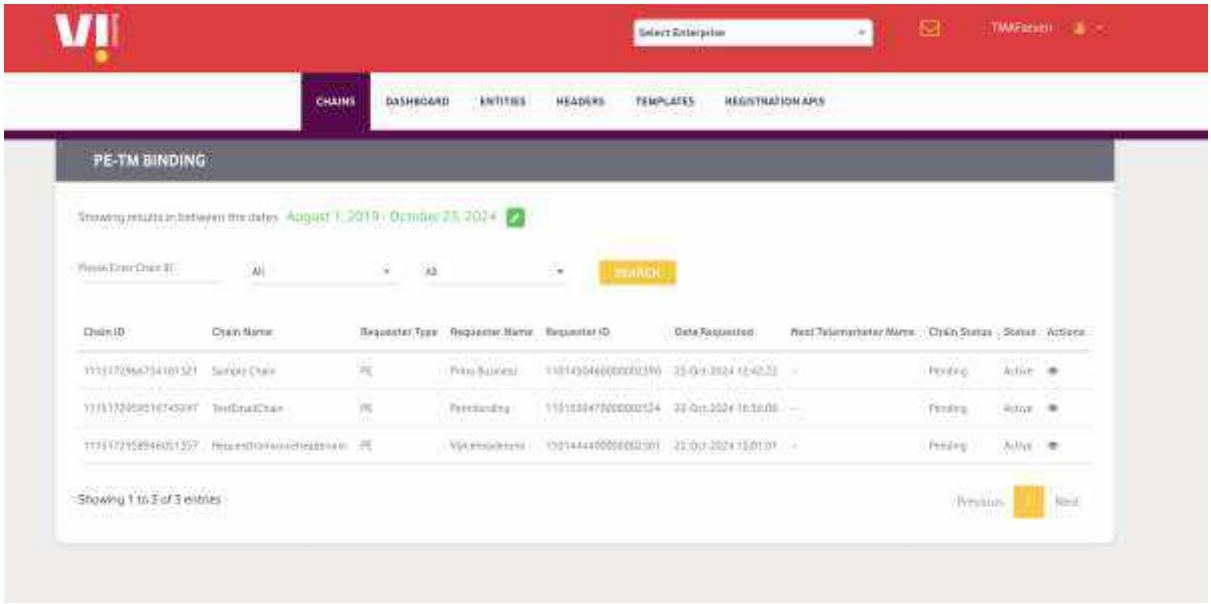
4. Pl enter the Telemarketer ID issued by the DLT eco system

5. Enter the OTP triggered to the both registered Mobile Number and Email id which will be used to two factor authentication to the Vilpower Portal

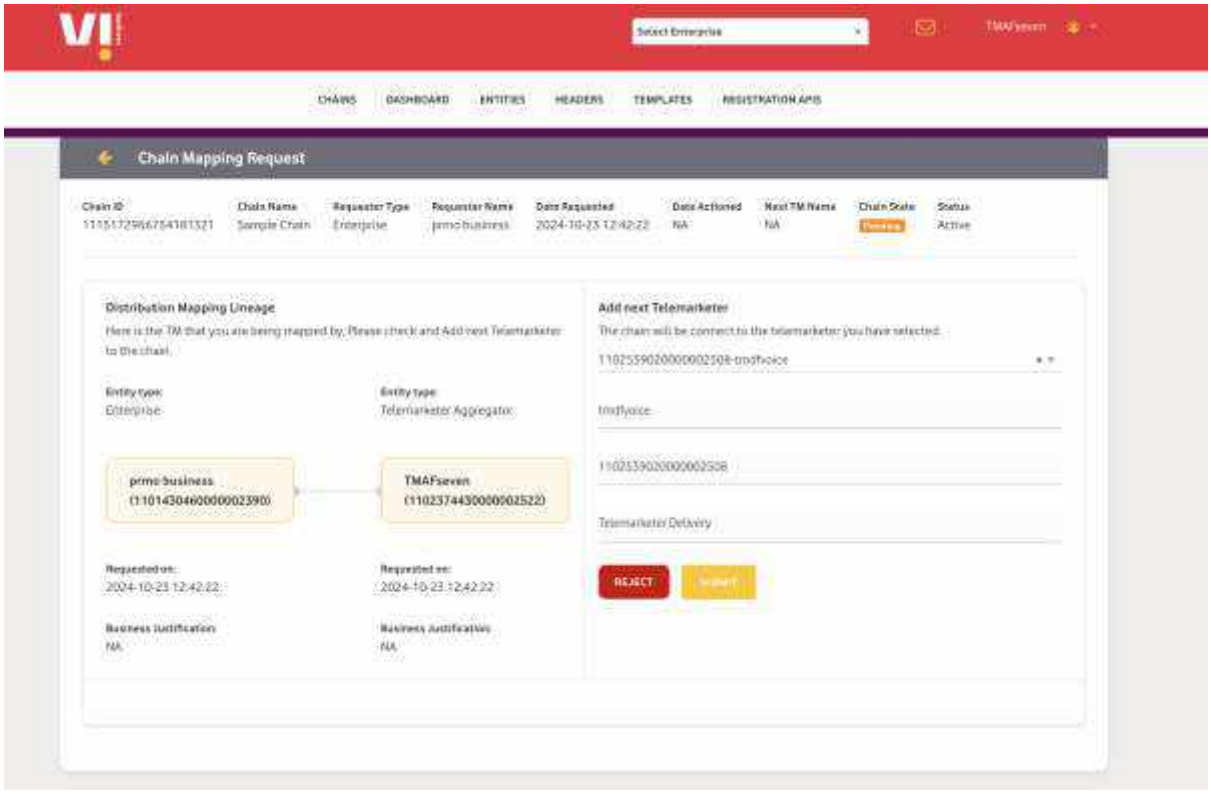
6. Verify and login to the vilpower Portal

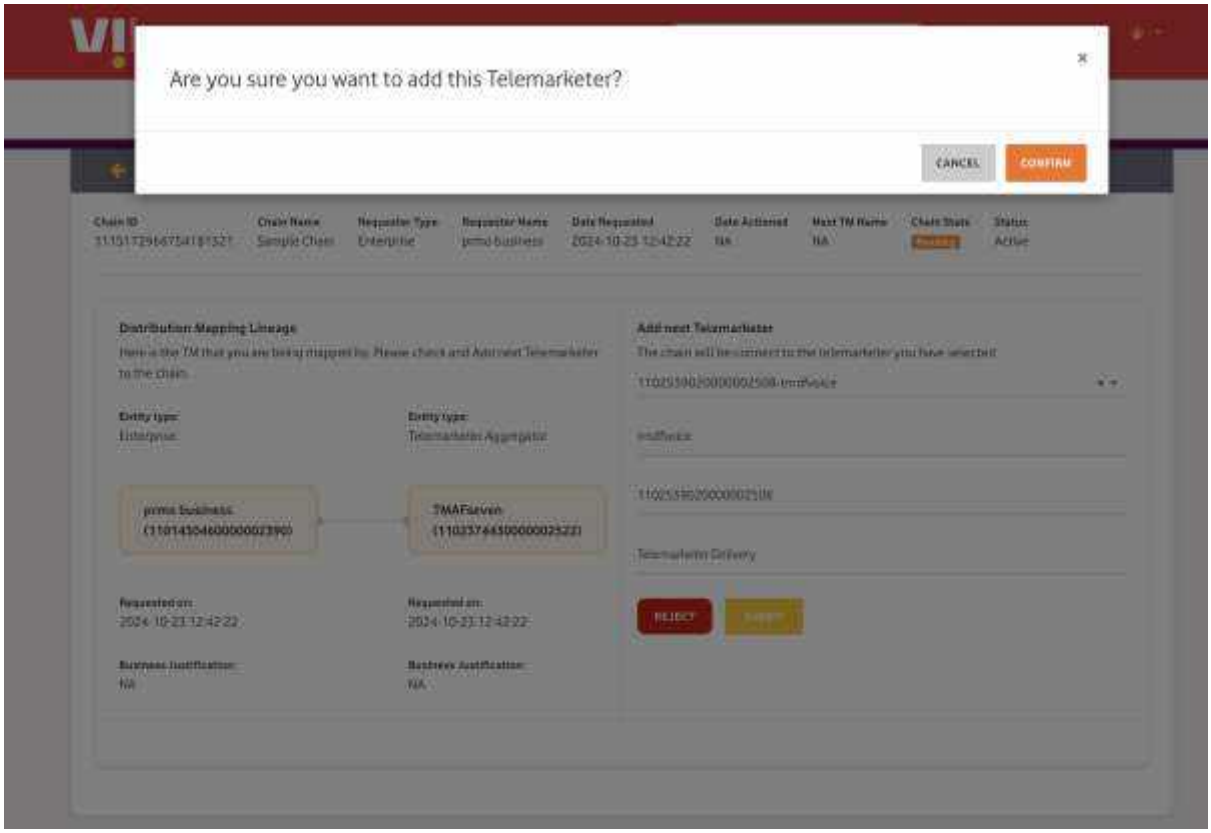


7. Click on chain option on the home page & View all Pending and approved request on the Chain Home Page and click on Action to take next steps
   TM with only PE-TM Chain only option will only have access to view, declare, accept/reject chains

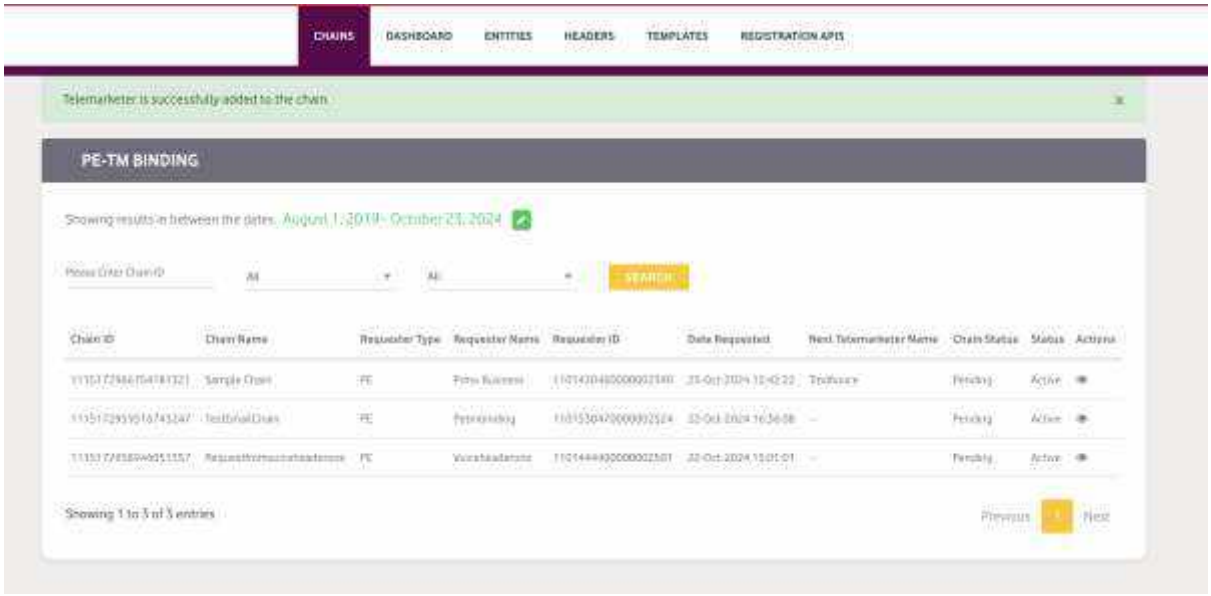


8. Check the request from PE or TM-AF & Choose next TM-AF or TM-DF to move the chain further. To Reject the request from PE, click on Reject





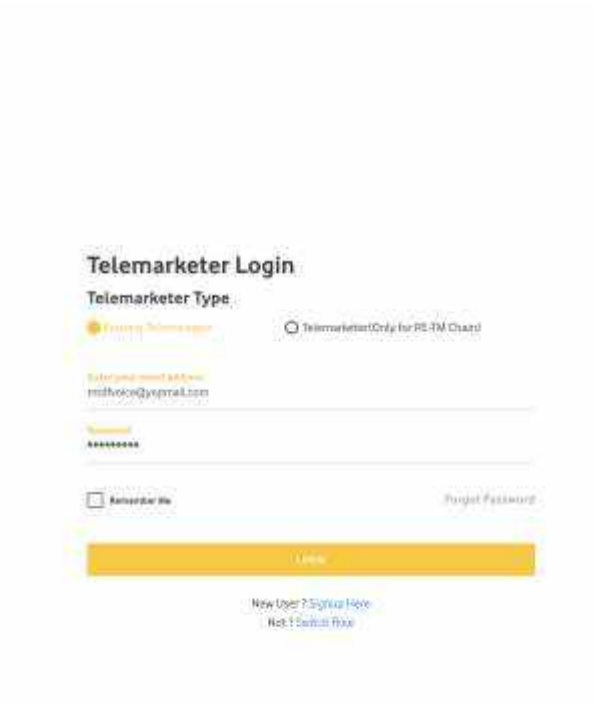
9. Only the TM-AF or TM-DF is chosen, it will show in pending state with Telemarketer name in Next TM Name.

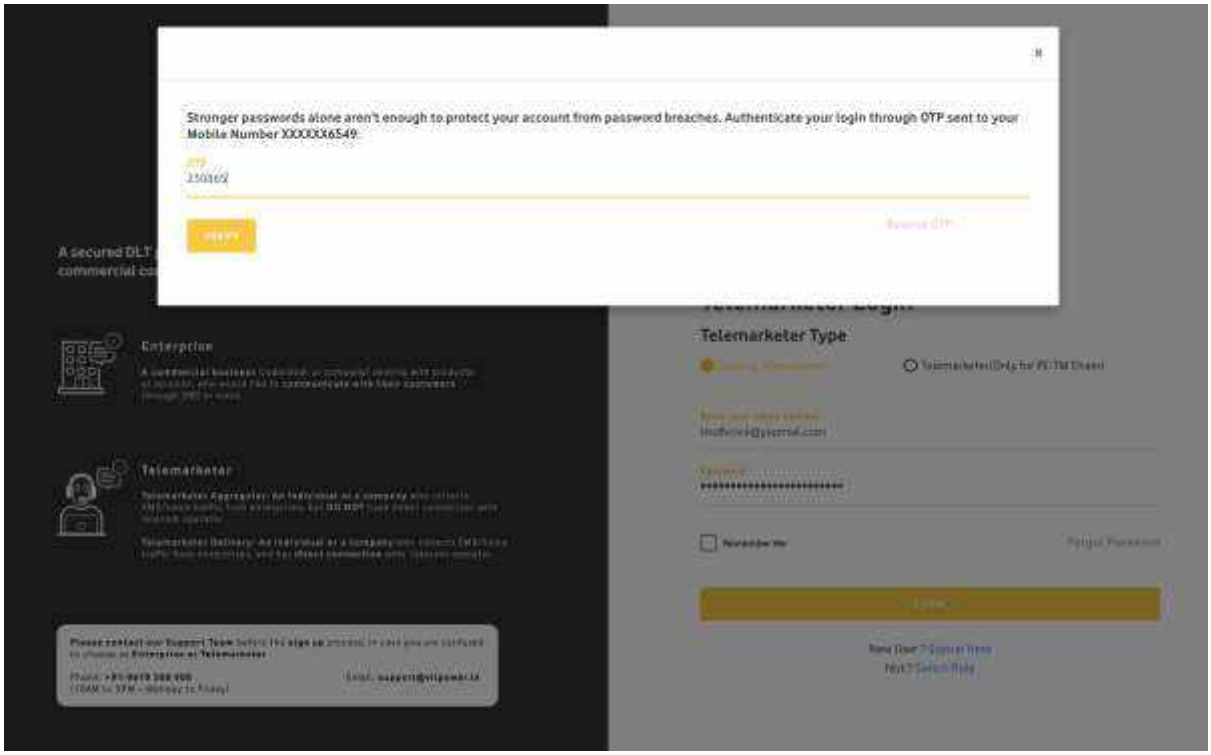


10. Suitable Justification is mandatory for adding more than 3 TM-AF in the chain

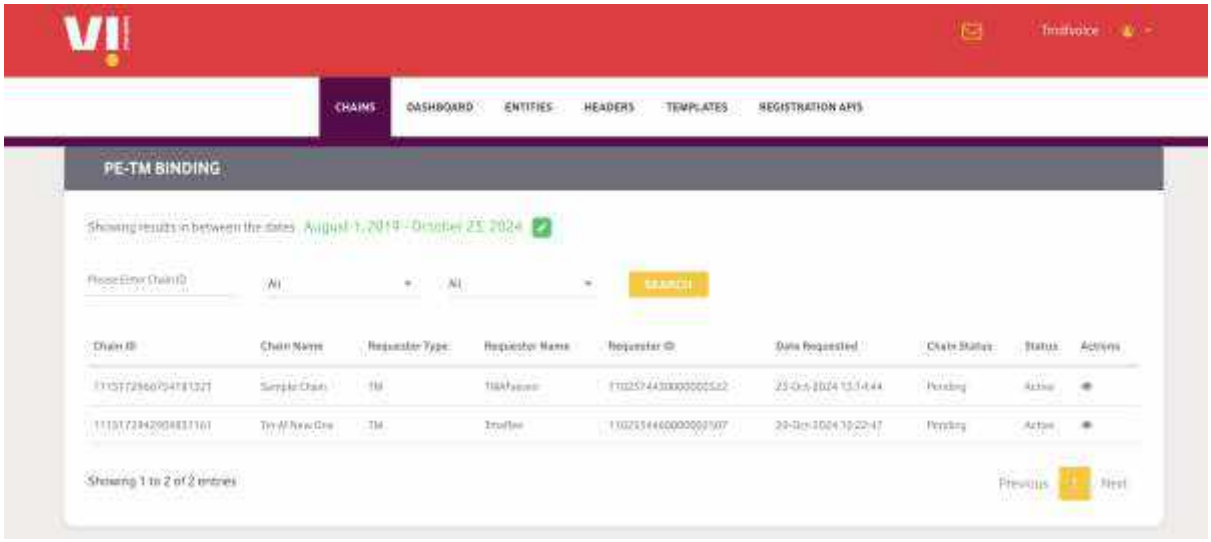
TM – Delivery Function Login

1. Login with existing credentials or with login only for PE TM Chain creation on the VILpower portal

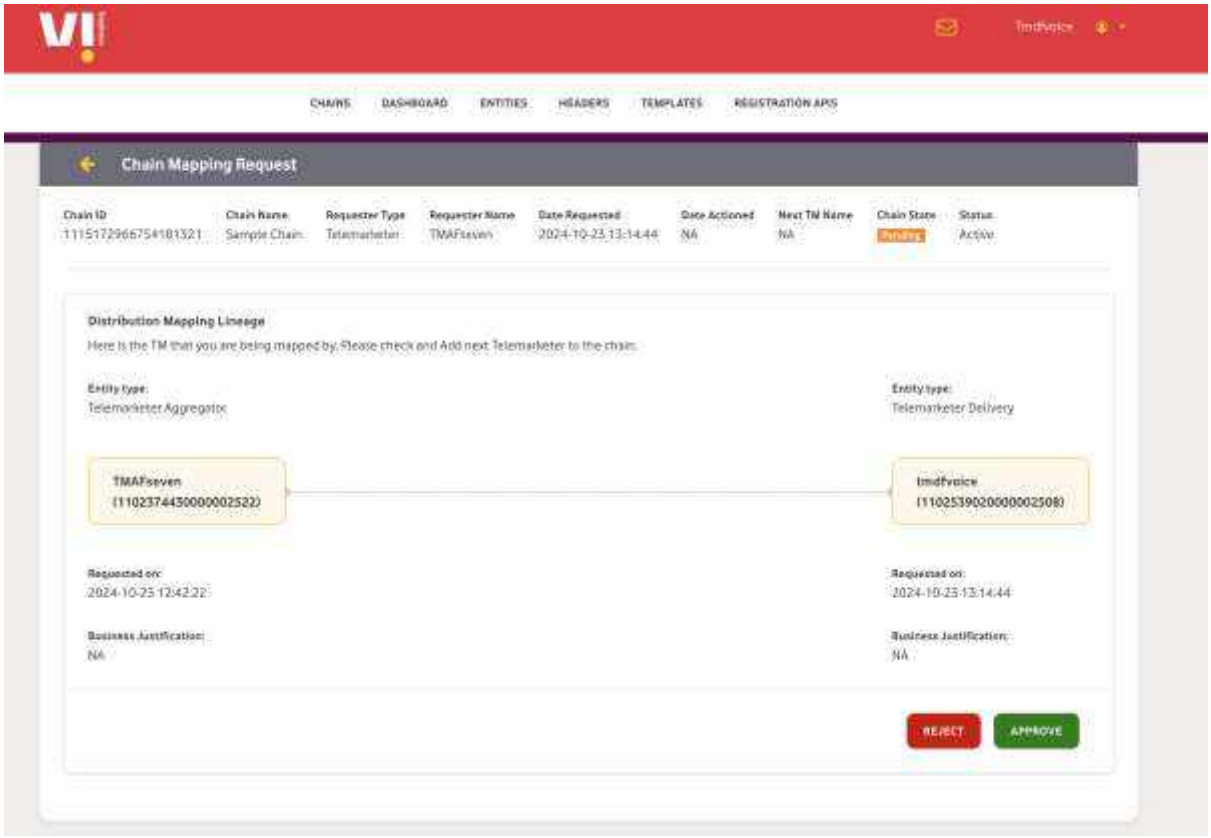


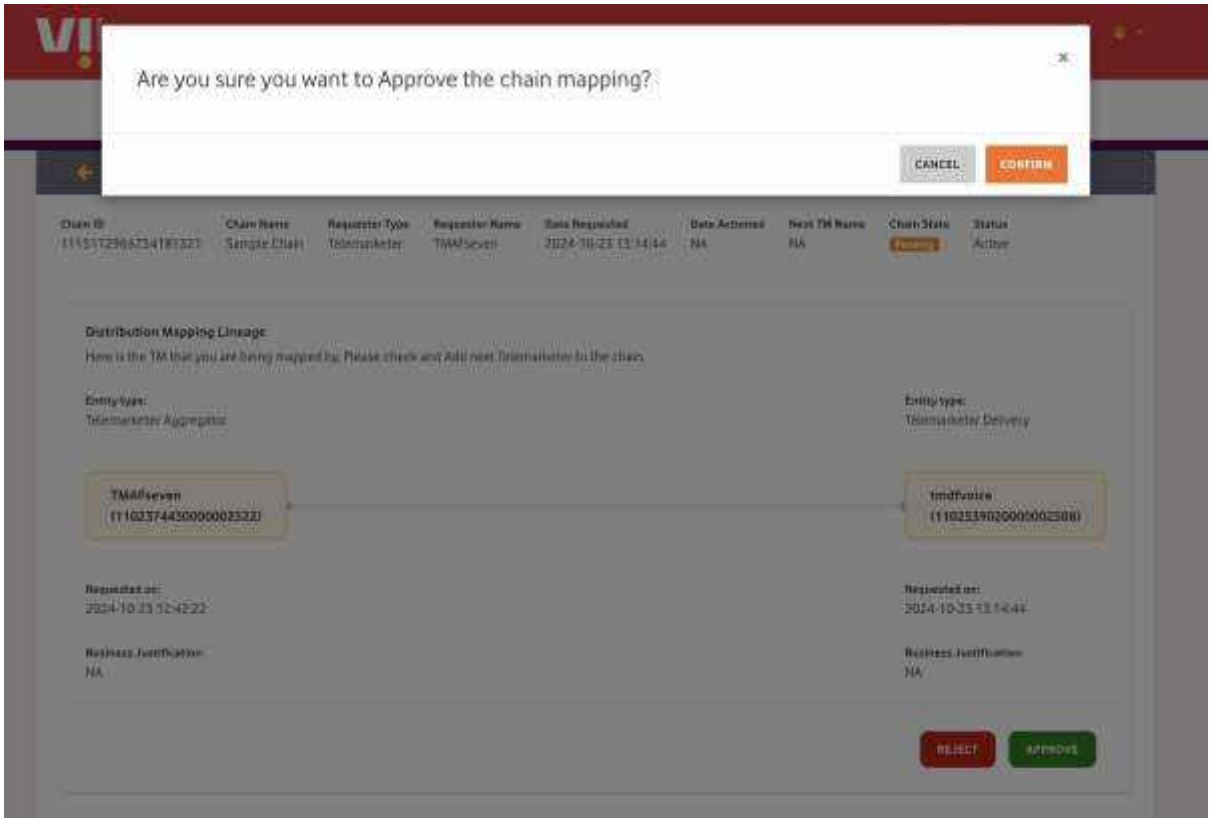


2. Click on chains option to view the active and pending chain requests and click on actions for taking action on chains.

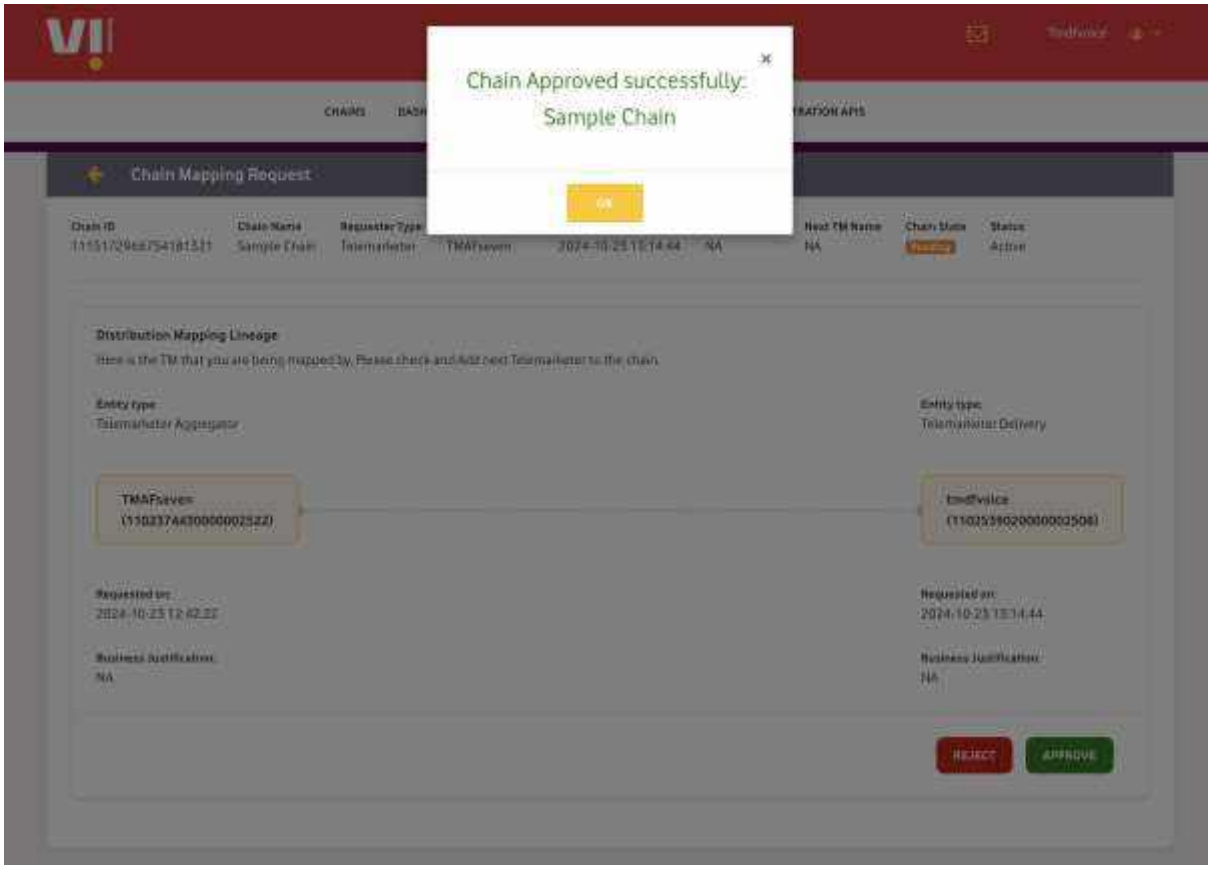


3. View the request and approve and reject the request.
    a. Pl note that TM DF will have no visibility of PE in case the request has been raised by TM-AF
    b. TM-DF cannot choose further TM-DF, as there is only single TM-DF allowed in the chain.



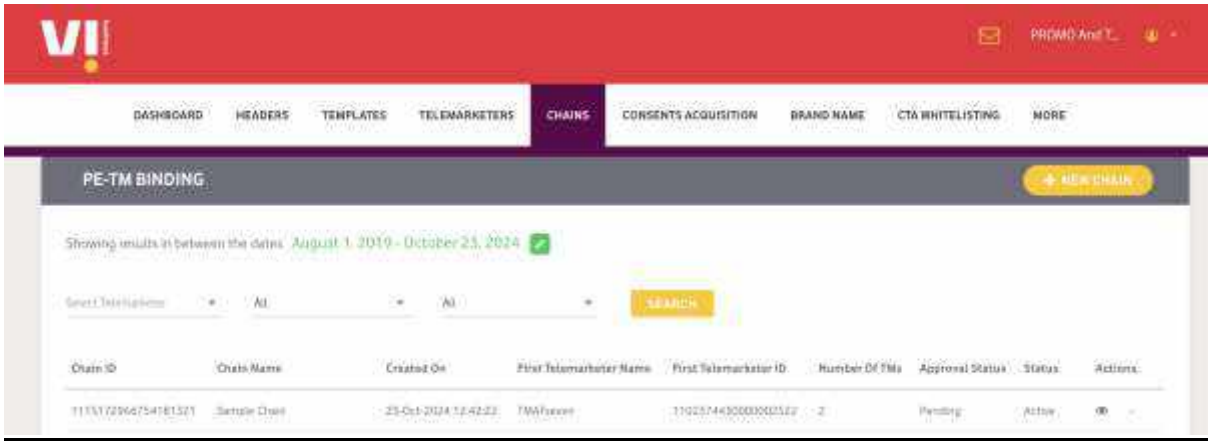


4. Post Chain approval, it will go to home page of chains in pending state where final approval will be given by PE for complete chain.

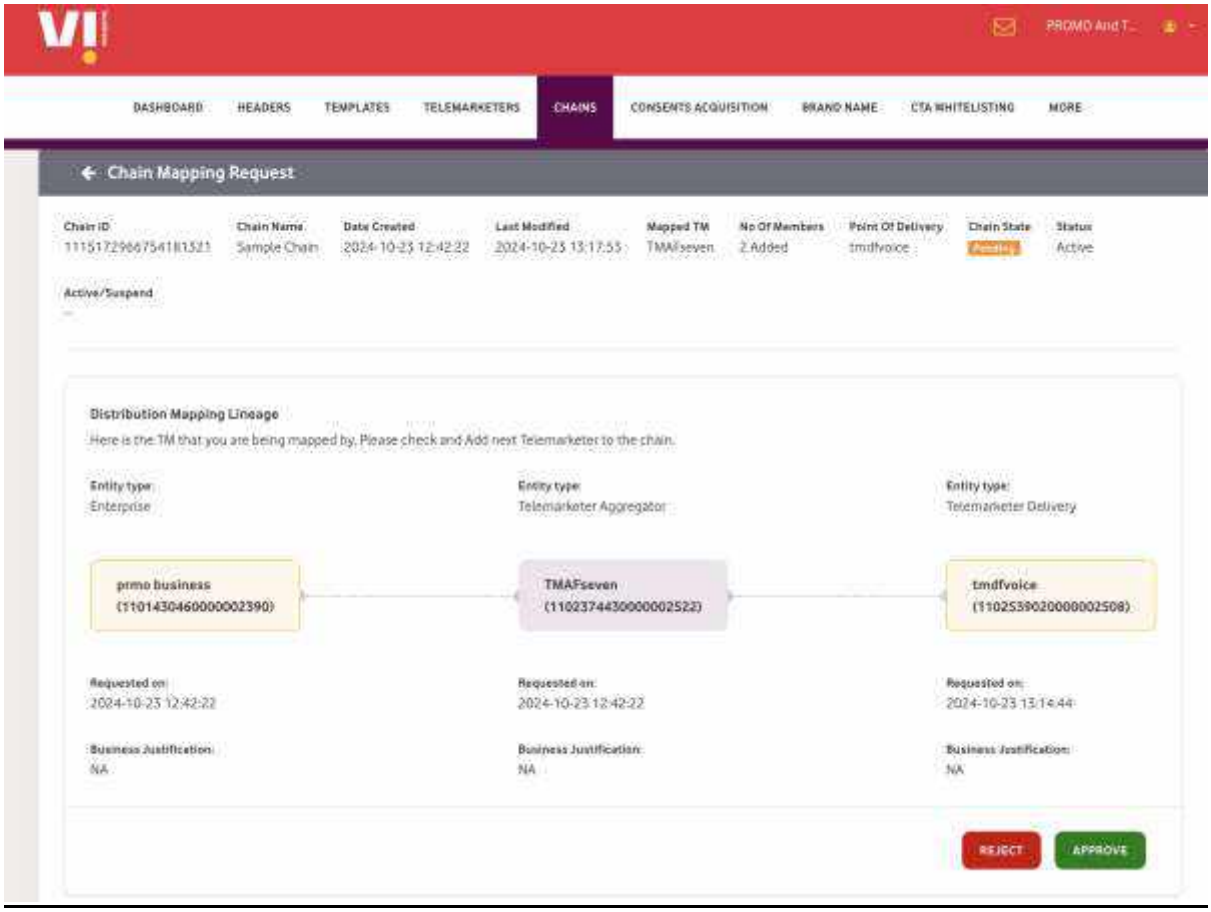


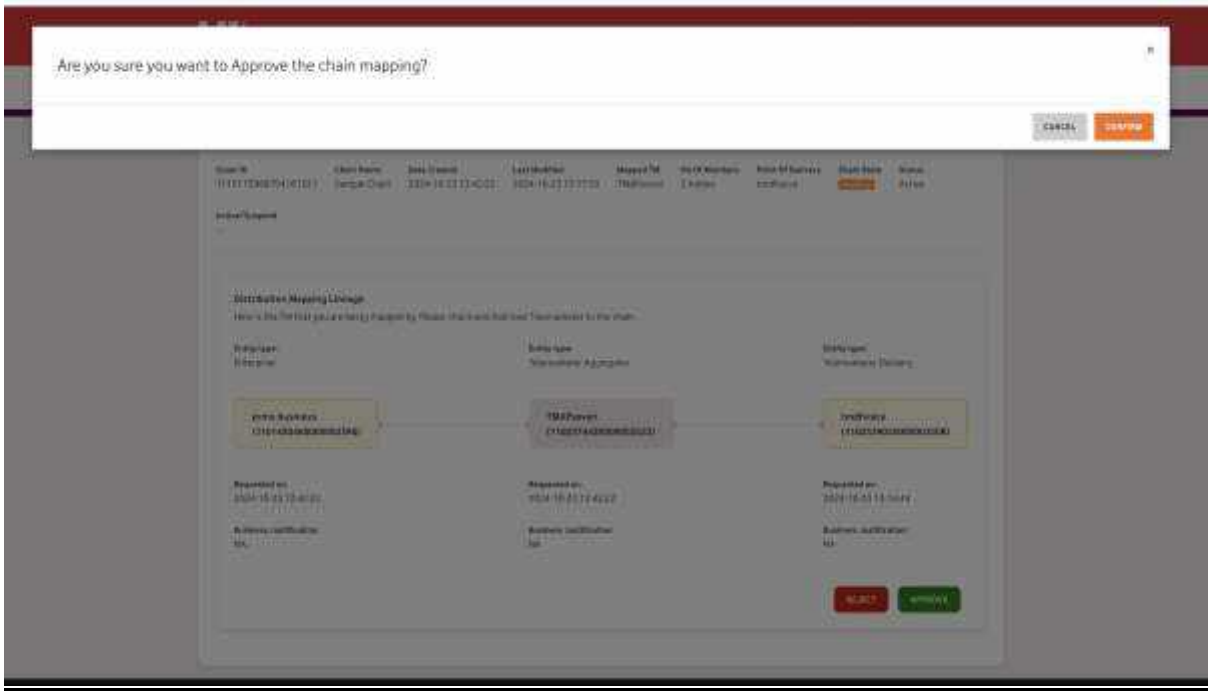
Enterprise Login

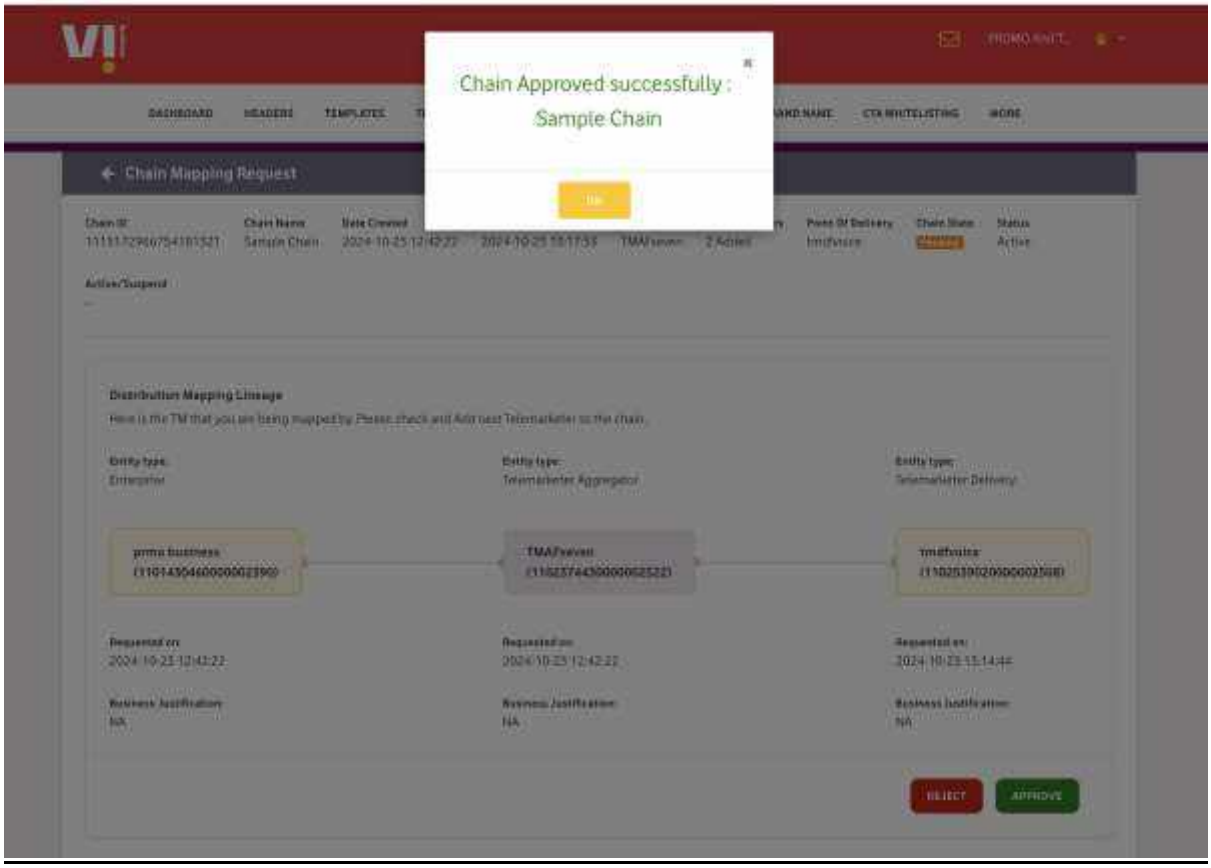
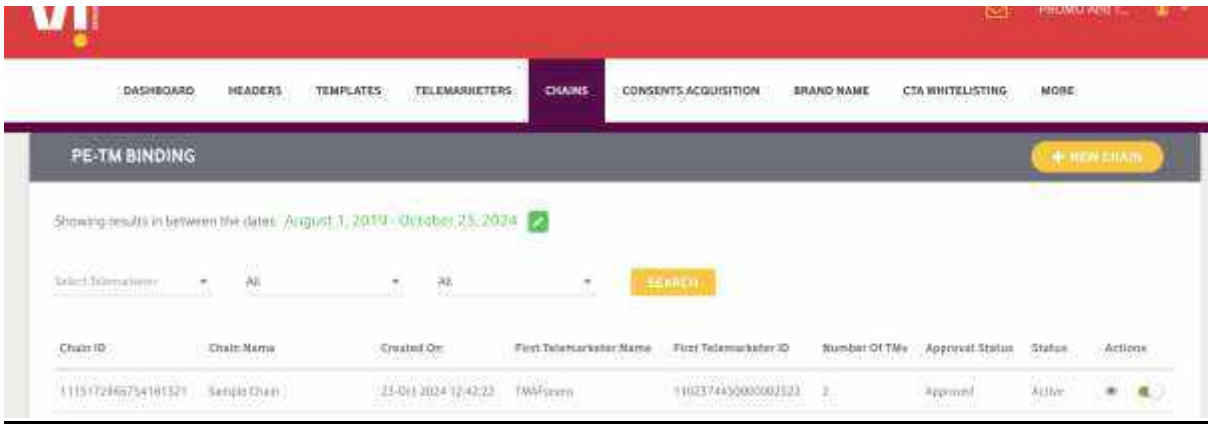
1. Click on actions to view pending chain requests



2. View the entire chain end to end and click to approve or reject




Are you sure you want to Approve the chain mapping?
CANCEL
CONFIRM


Chain Approved successfully :
Sample Chain
OK
DASHBOARD
HEADERS
TEMPLATES
CTA WHITELISTING
MORE
Chain Mapping Request
Distribution Mapping Lineage
REJECT
APPROVE

3. Once the chain is approved, it will be available on the home page of Enterprise as a approved chain