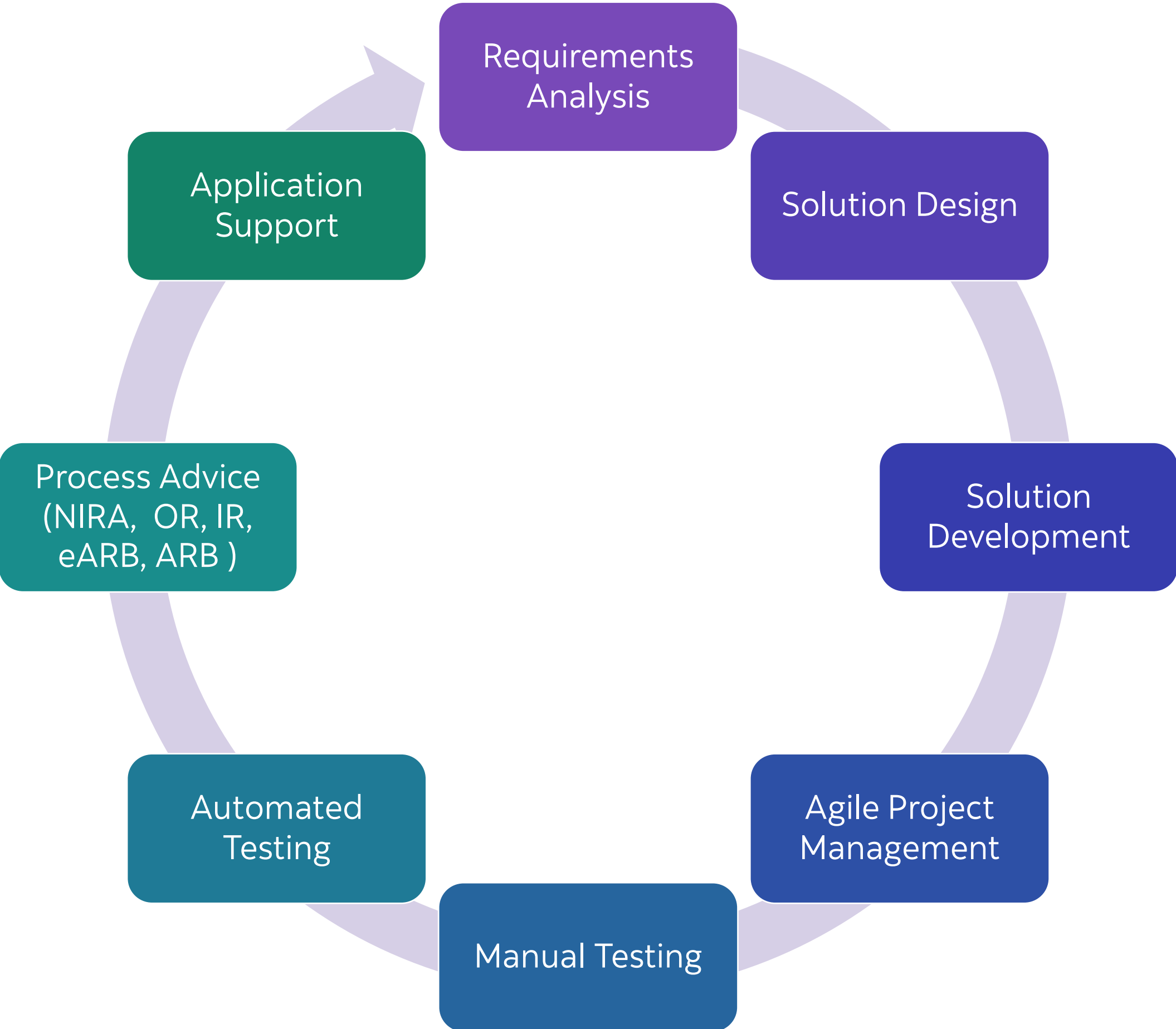


Customer Experience Technologies

2023

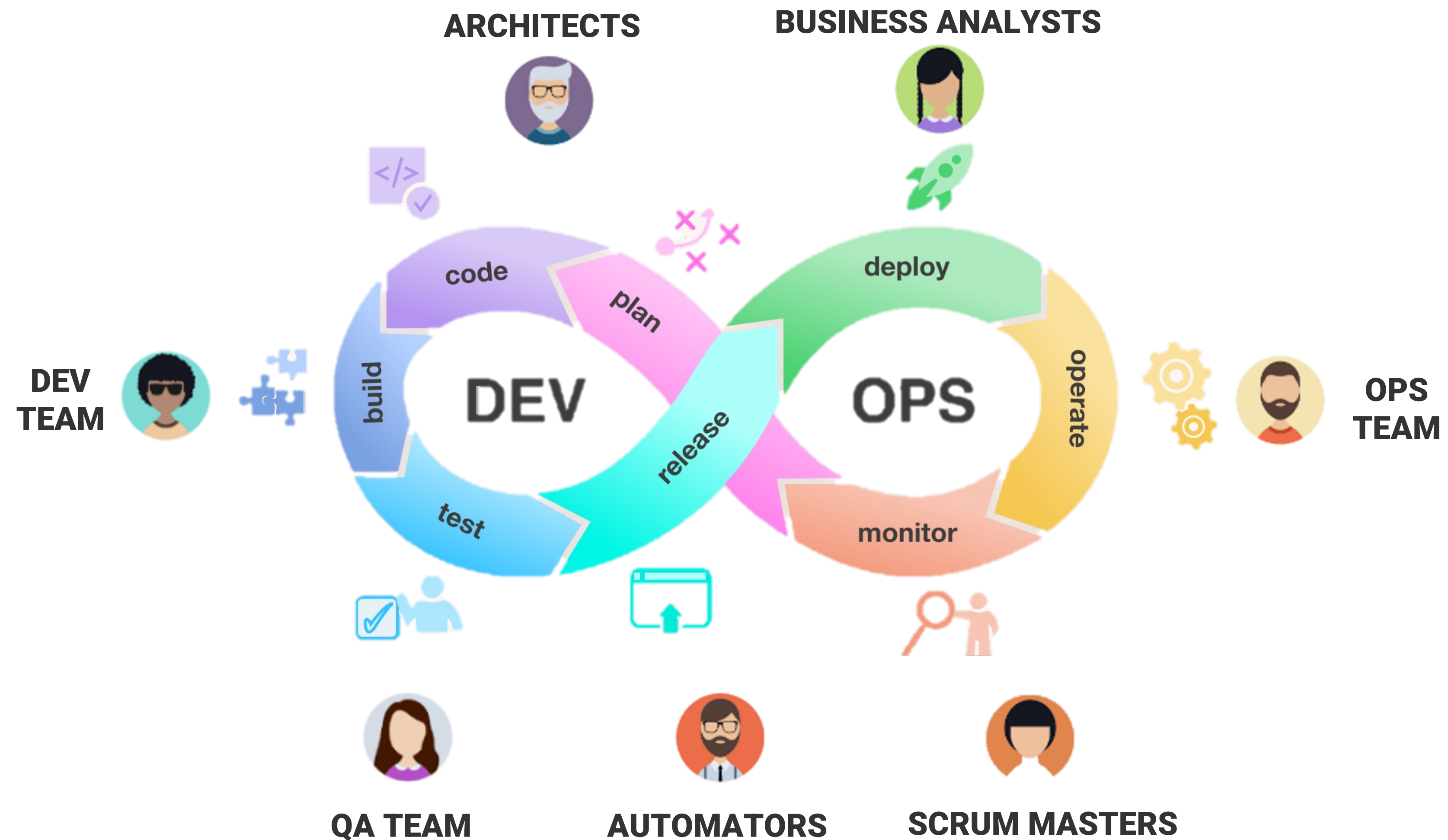
Productos y Servicios



Scotiabank Calculators



Winning Team





iCRM

Nueva Experiencia 360 Omnicanal

CRM Global



One Code
Multiple Countries



State of the Art
Technologies



Global
Governance

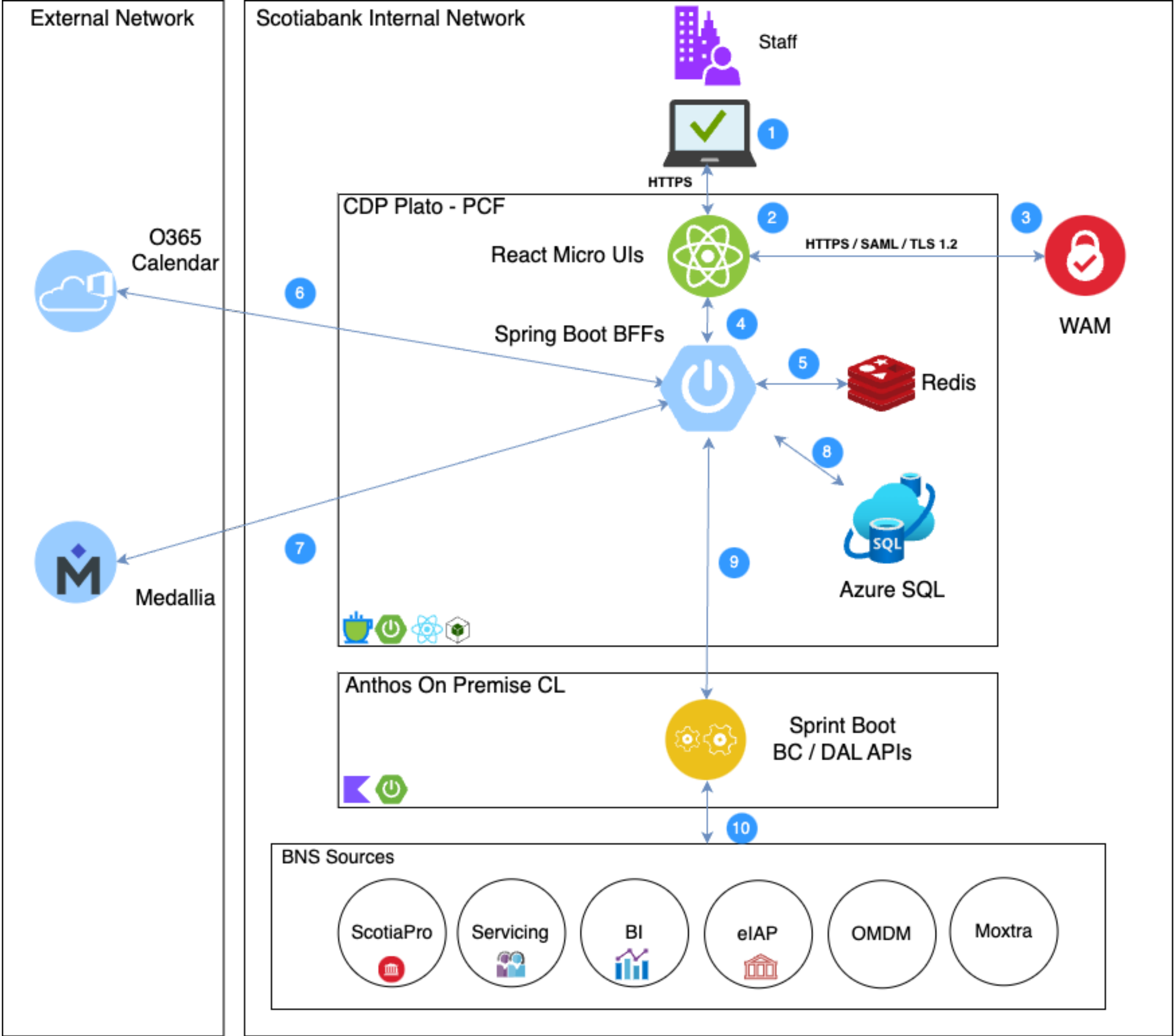


Customer Centricity

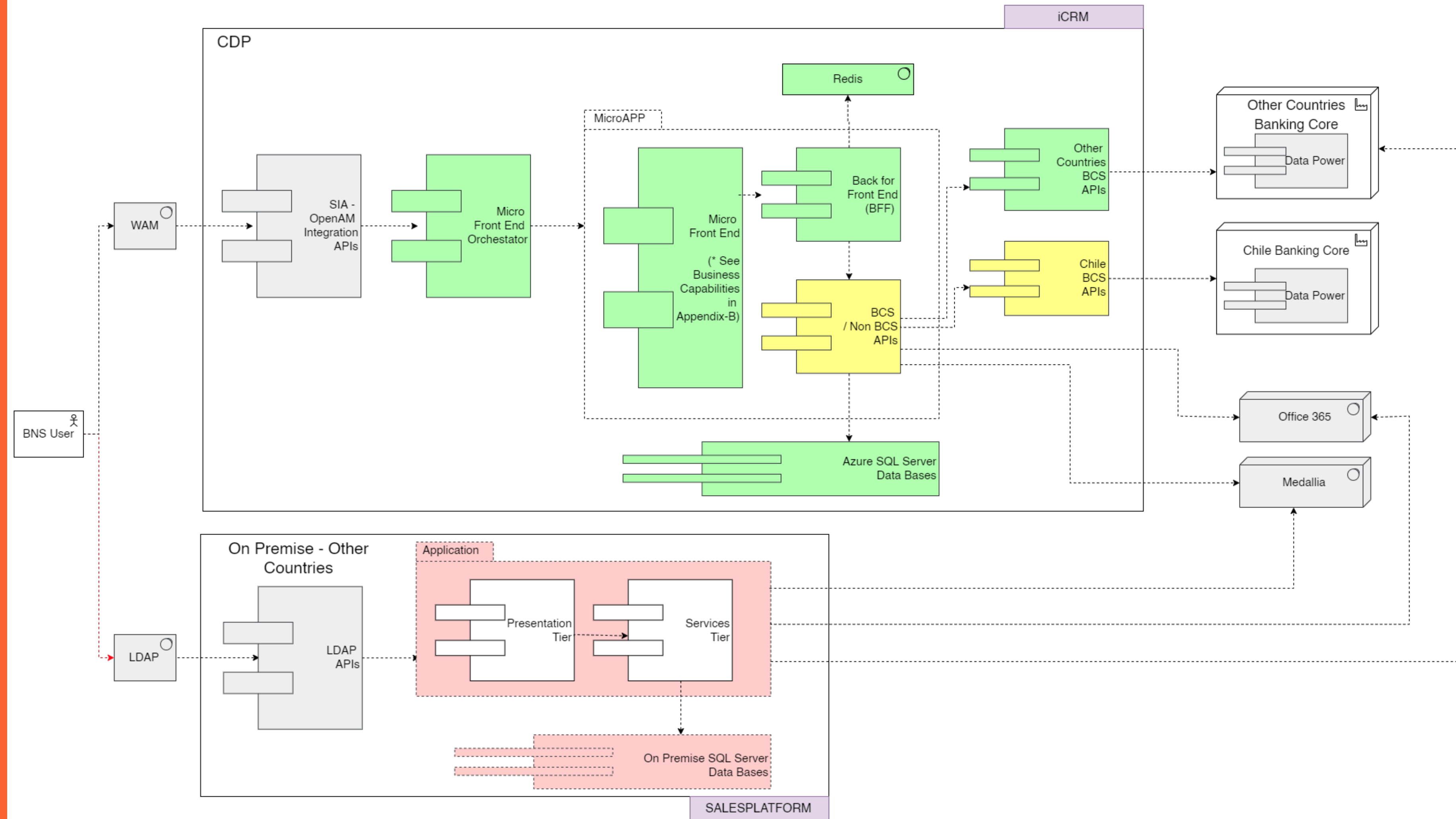


Powered by Analytics

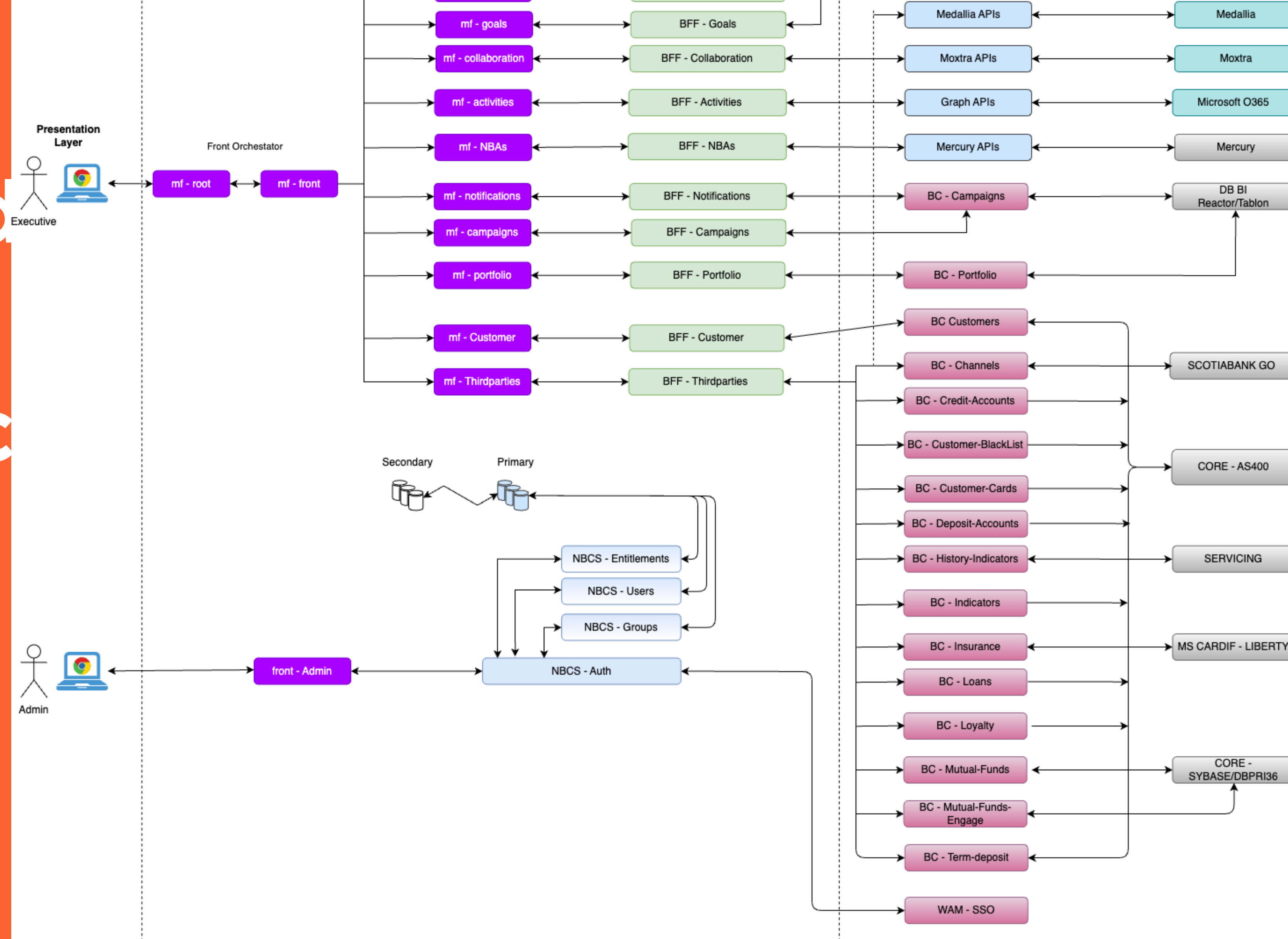
Tech Stack



Target Architecture



Detailed Digital Architec



Testing in CI / CD Pipeline

Unit Testing

Testing specific functionality at the source code level

Testing UI on a local machine / services with postman

Front: jest, testing-library, enzyme

Back: junit, mockito, jacoco

Q/A

Functional Tests: Testing system behavior using Jira artifacts.

Integration Tests: Ensuring correct function of application, components, and services using Cucumber, Selenium, and Postman.

Code Quality Tests: Static analysis with SonarQube to find and address bugs, vulnerabilities, and code smells.

User Acceptance

Smoke Testing: Basic functionality tests performed manually to ensure the initial sanity and viability of an application.

Disaster Recovery Tests:

Testing the application's ability to handle and recover from large-scale system failures effectively.

Development

Unit Tests

Local Tests



Q / A

Functional Tests

Integration Tests

Code Quality Tests



User Acceptance

Ad Hoc Smoke Tests



DR Tests

Disaster Recovery Tests



Security

Static scans

Dynamic scans

Third-party scans



Staging

Performance & Load Testing

System Testing



Release

Penetration Tests

System & Performance Monitoring

A/B Testing



Security Scans

The following type of scan are integrated in build / deployments pipeline:

Static Scans: Code vulnerability analysis with Fortify.

Dynamic Scans: Runtime application testing with Webinspect.

Third-party Scans: External software assessment with Blackduck.

Performance & Load Testing: Simulated user behavior and load tests to verify system performance and scalability. wit JMeter

System Testing: Ensuring proper integration and functionality of components and services within a system.

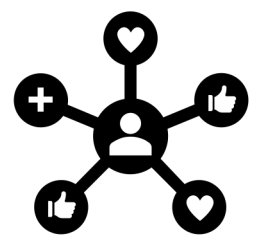
Release

Penetration Tests: Assessing an application for exploitable vulnerabilities, simulating an attacker's perspective, with external enterprises

System & Performance Monitoring: Evaluating application and core component performance in a live production environment with Dynatrace and Splunk

A/B Testing: Feature flagging allows for A/B testing by exposing new feature versions to different user groups.

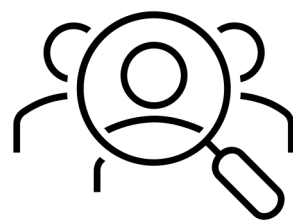
JOURNEY: SALE / INTERACTION THROUGH CAMPAIGNS



1

Campaigns

- Review KPIs
- Filter campaigns
- Select campaign list, and subcampaign according defined priorities.



2

Leads

- Review subcampaign KPIs
- Assess management current status
- Filter leads
- Select lead



3

Best Actions

- Review recommendations before engaging with the customer



4

360 View

Review:

- Valuable and relevant personal information , segment, NPS, Indicators, digital channels
- Preventive alerts, investments, interaction history, notes
- Profile information
- Products
- Customer request and claims history
- Smart Goals customer



5

Offer

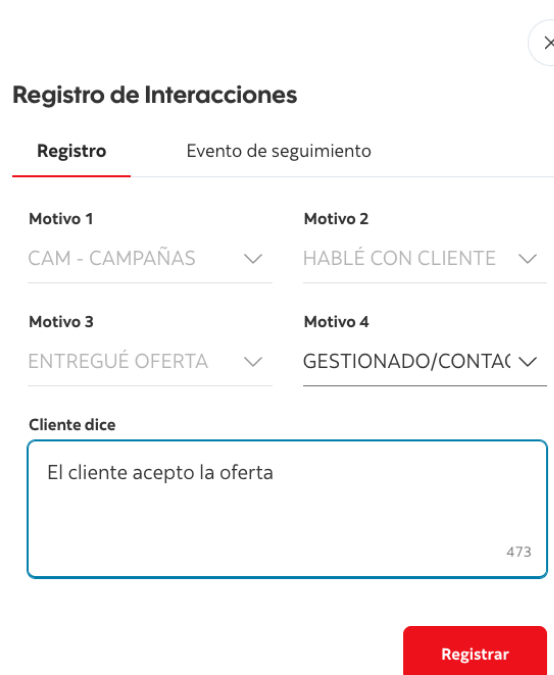
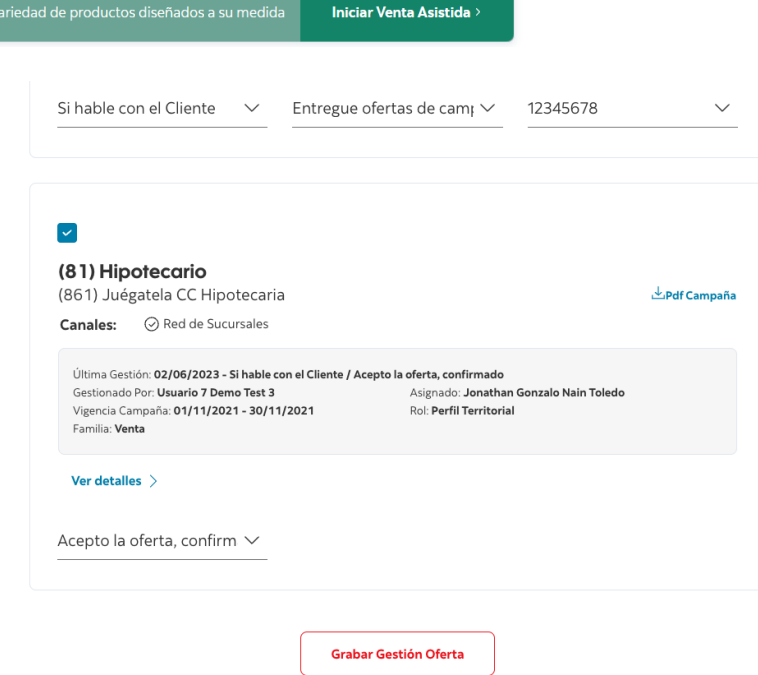
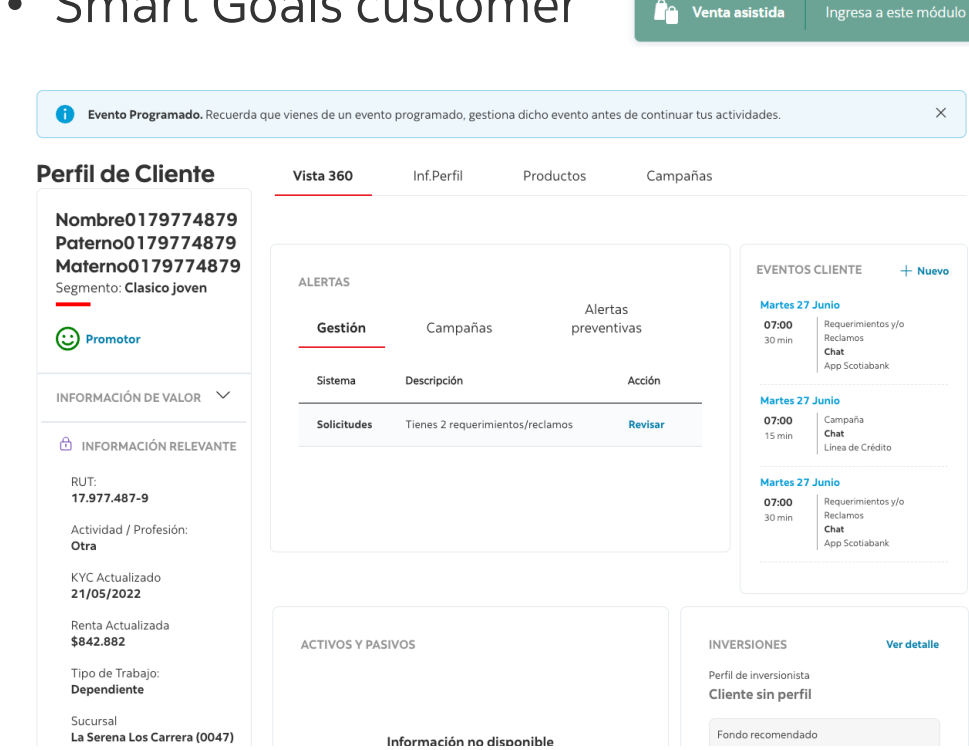
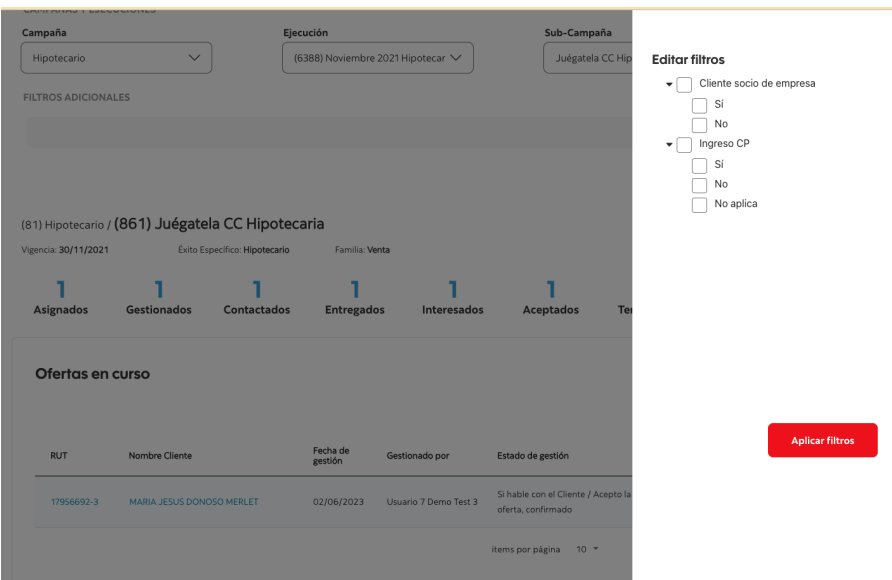
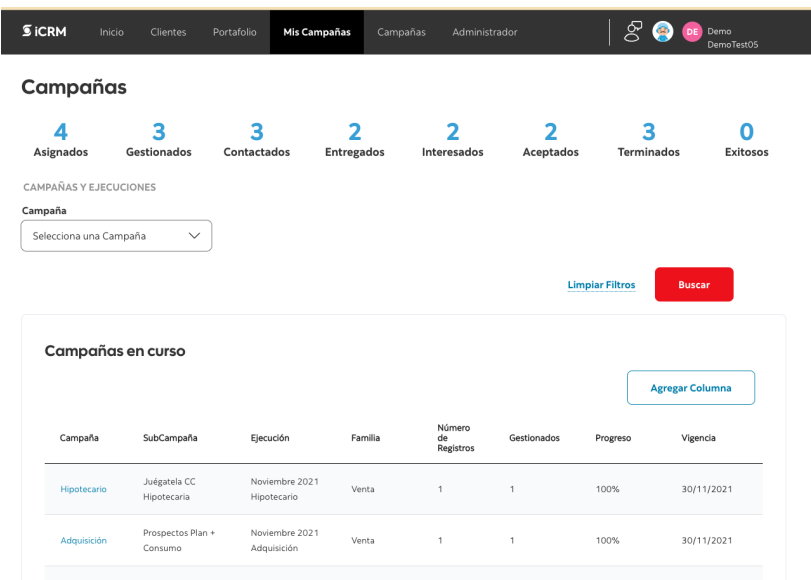
- Offer current campaign
- Cross-sell or upsell by utilizing recommended best actions or other available campaigns for the customer.
- Assisted Sell -Onboarding digital prospects



6

Register

- Capture the outcome of the customer interaction
- Take notes for follow-up purposes
- Arrange the next appointment.
- Trigger NPS

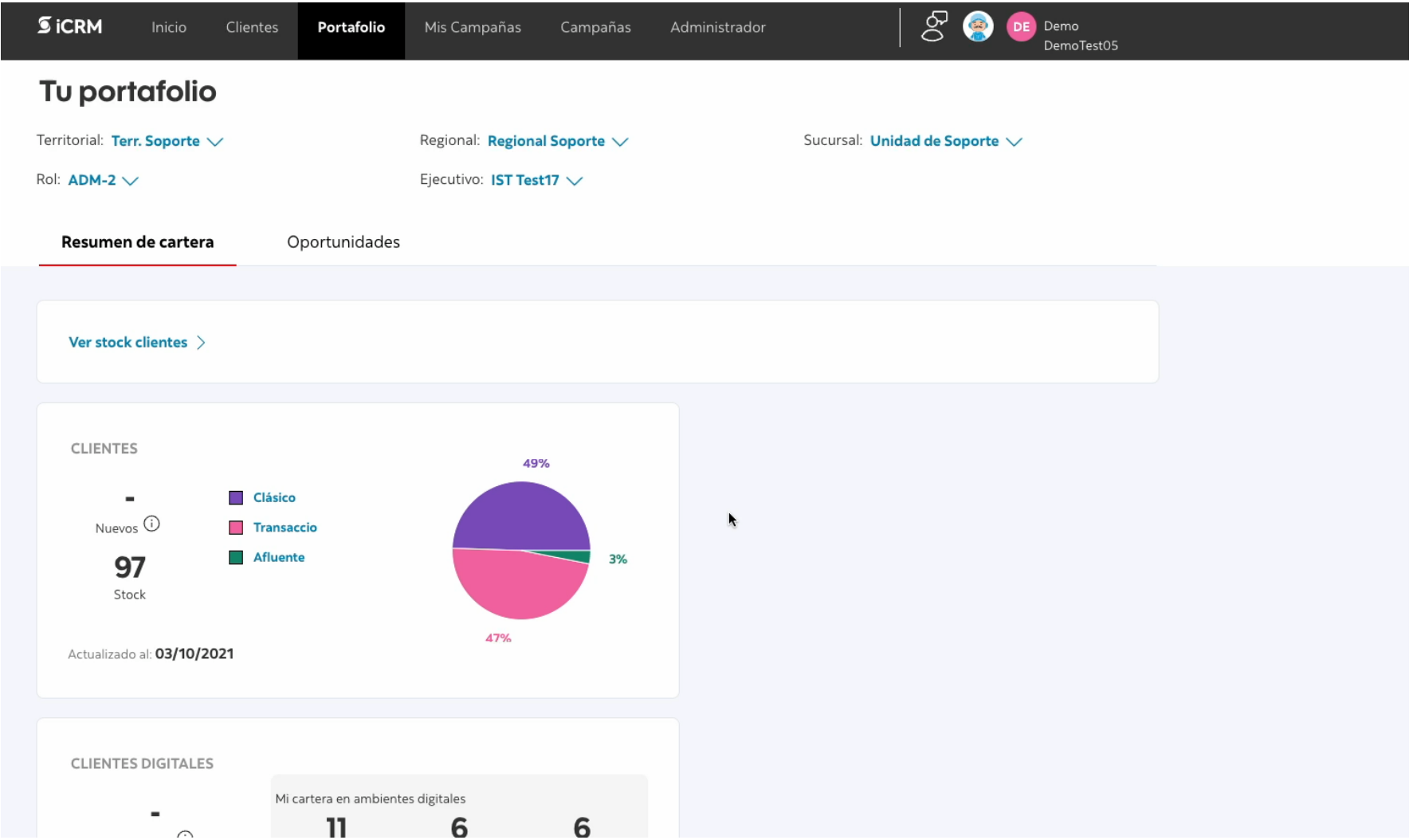
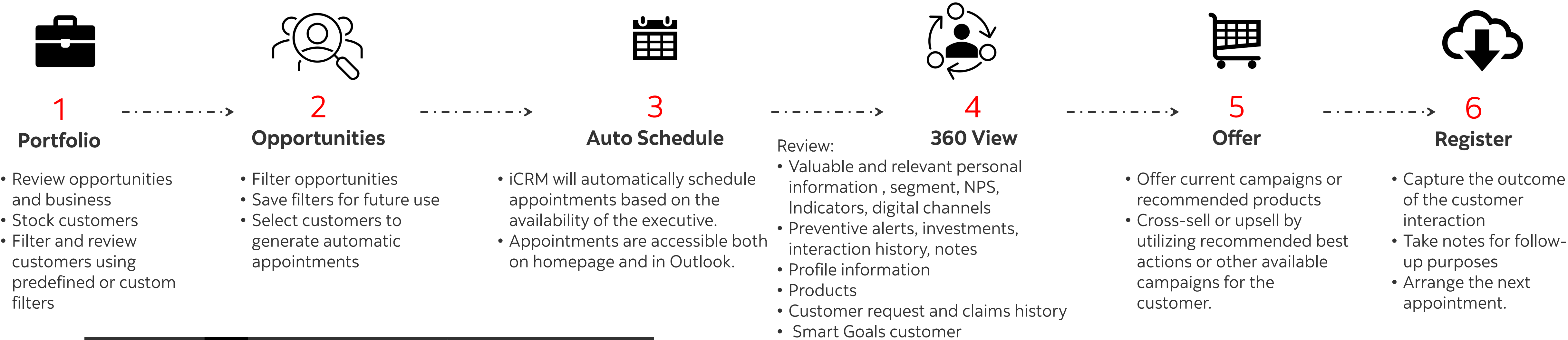


The primary source of information is BI databases, which are accessed through BC services (REST).

Internal and external sources are accessed in order to gather the maximum amount of customer information possible.

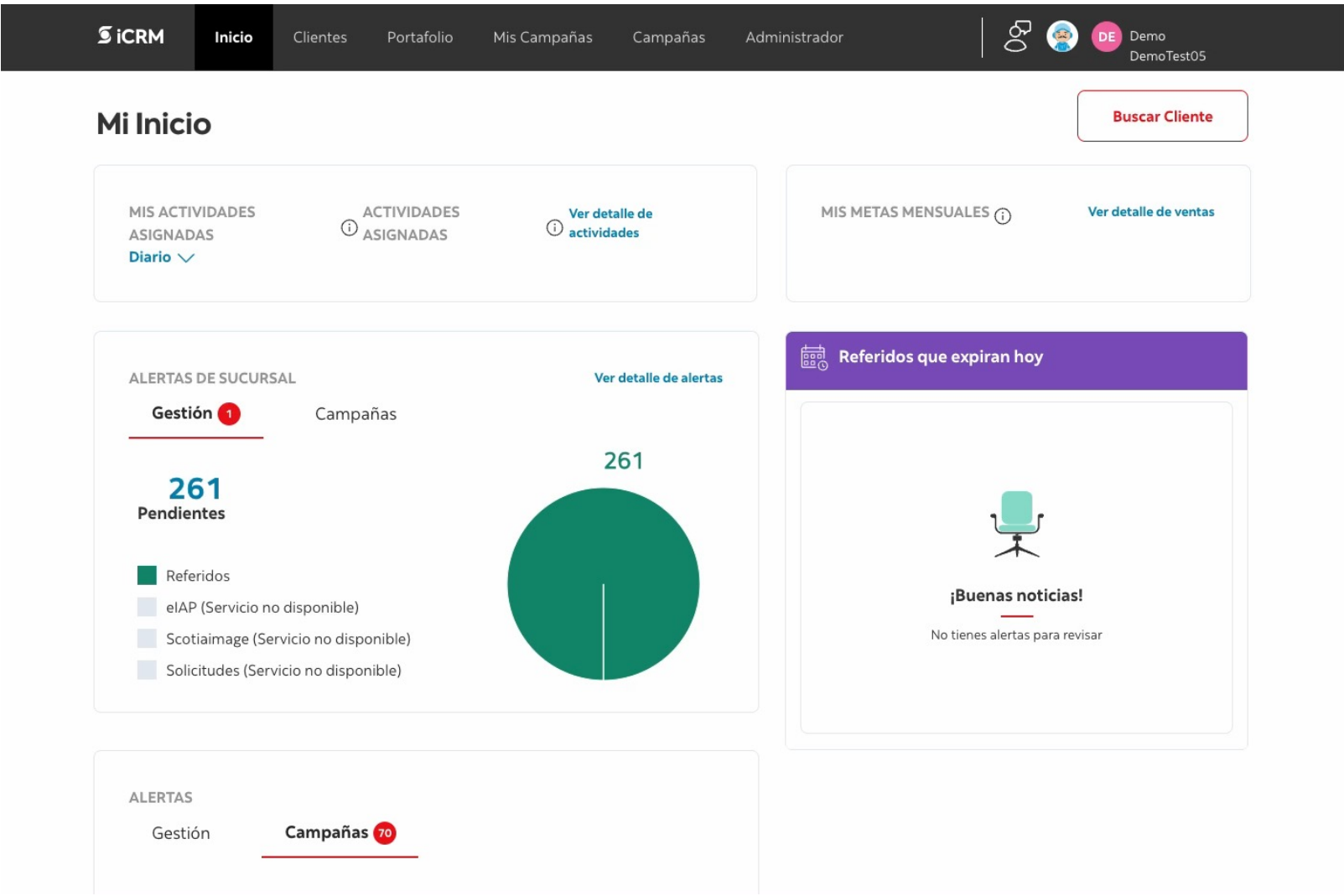
Currently, the completion of the sale is done in eIAP. However, it must also be registered in iCRM to update BI, Servicing and trigger additional events

JOURNEY: SALE / INTERACTION THROUGH PORTFOLIO



The primary source of information is BI databases, which are accessed through BC services (REST).

The executive's agenda is managed through integration with the executive's calendar using the O365 Graph API.

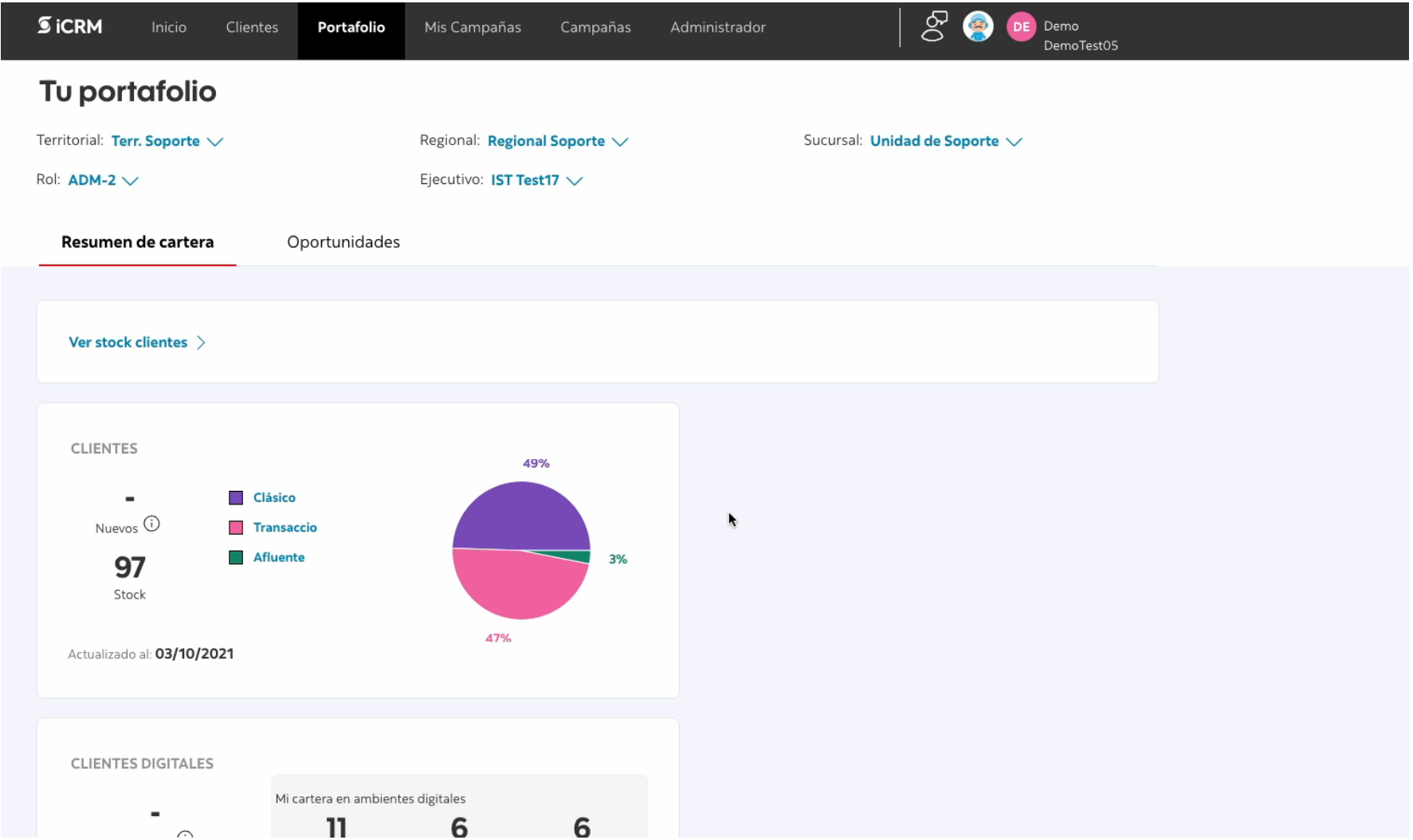
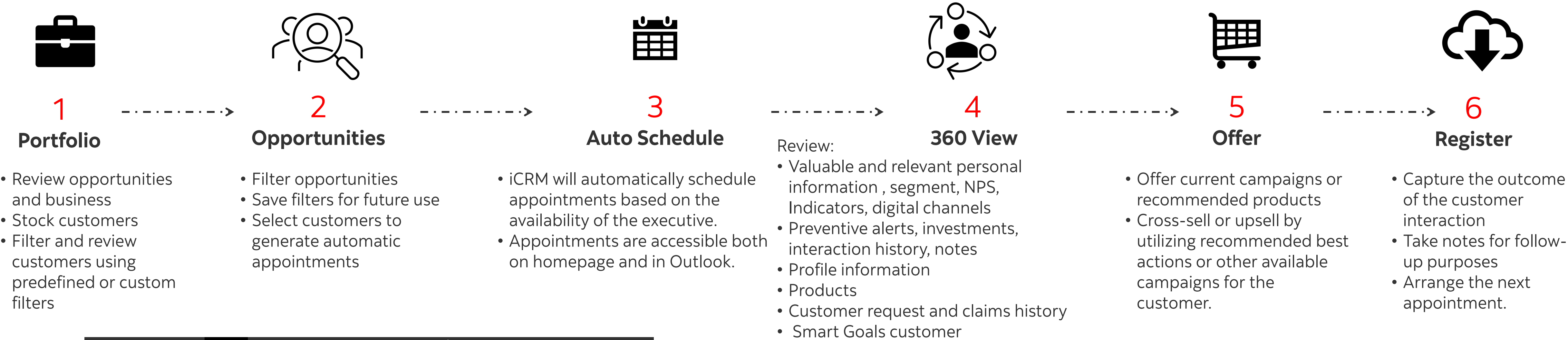


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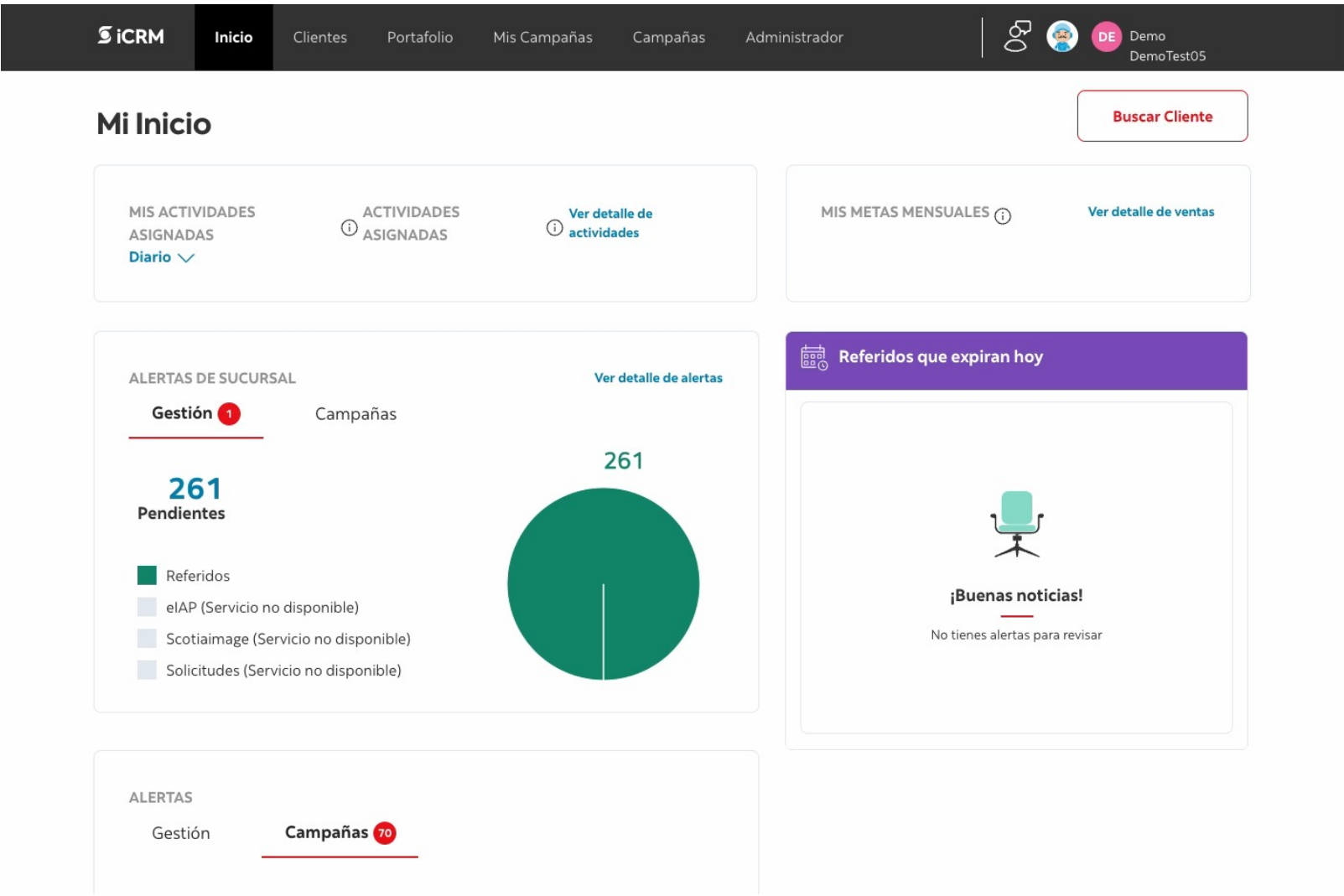
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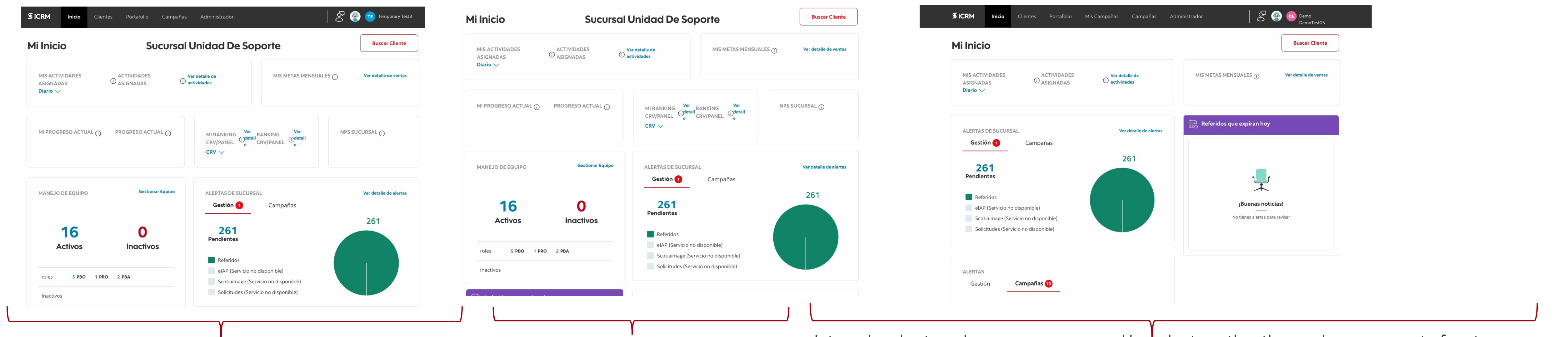
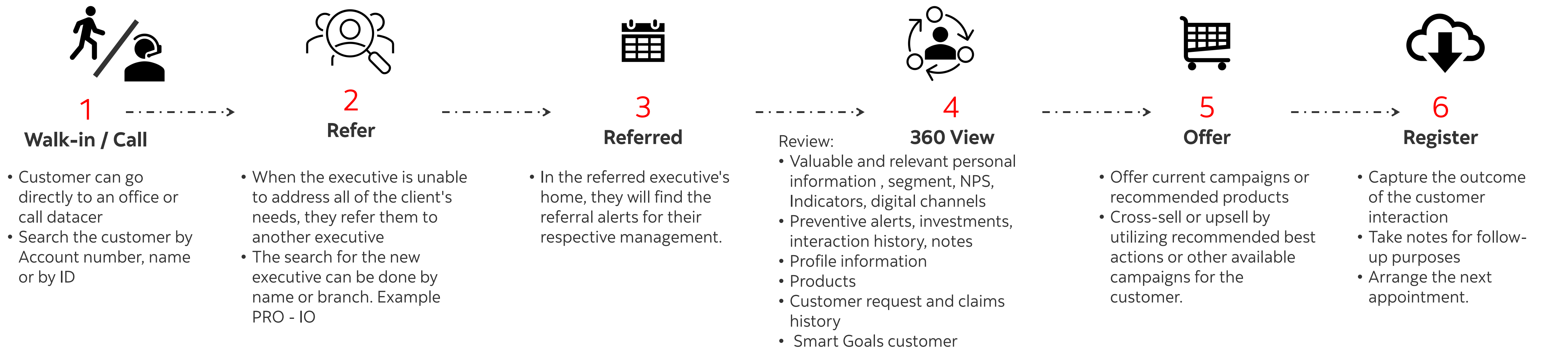


Internal and external sources are accessed in order to gather the maximum amount of customer information possible.

Currently, the completion of the sale is done in eIAP. However, it must also be registered in iCRM to update BI, Servicing and trigger additional events.



JOURNEY: SALE / INTERACTION THROUGH REFERRAL



The customer data source is the core, accessed through REST services in the BCS layer, and the executives are stored in iCRM database.

On the referred executive's homepage, referral alerts are available for their respective management.

Internal and external sources are accessed in order to gather the maximum amount of customer information possible.

Currently, the completion of the sale is done in eIAP. However, it must also be registered in iCRM to update BI, Servicing and trigger additional events.



JOURNEY: SALE / INTERACTION THROUGH WALK-IN OR CALL



1

Walk-in / Call

- Customer can go directly to an office or call datacenter
- Search the customer by Account number, name or by ID



2

360 View

Review:

- Valuable and relevant personal information , segment, NPS, Indicators, digital channels
- Preventive alerts, investments, interaction history, notes
- Profile information
- Products
- Customer request and claims history
- Smart Goals customer



3

Offer

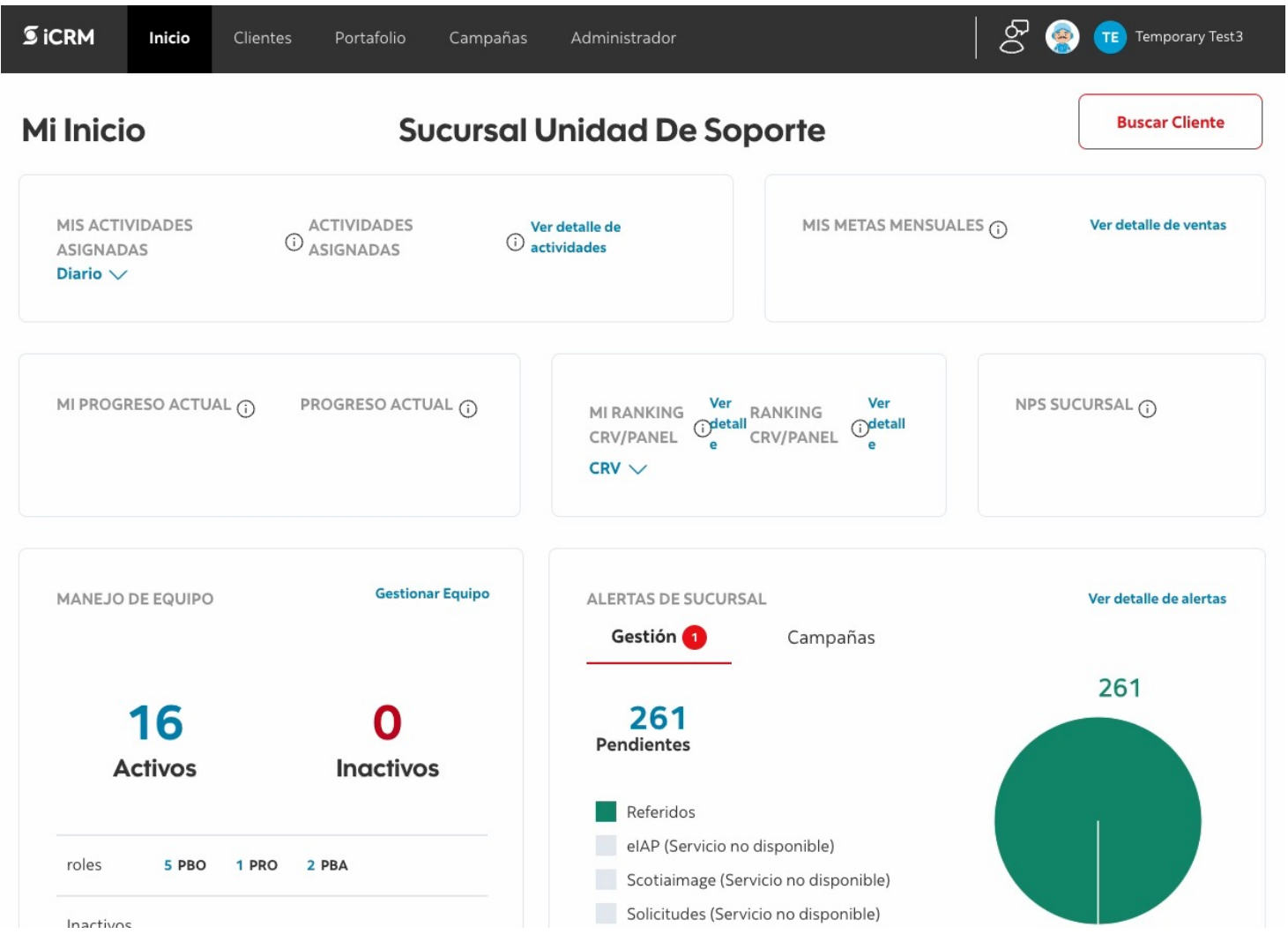
- Offer current campaigns or recommended products
- Cross-sell or upsell by utilizing recommended best actions or other available campaigns for the customer.



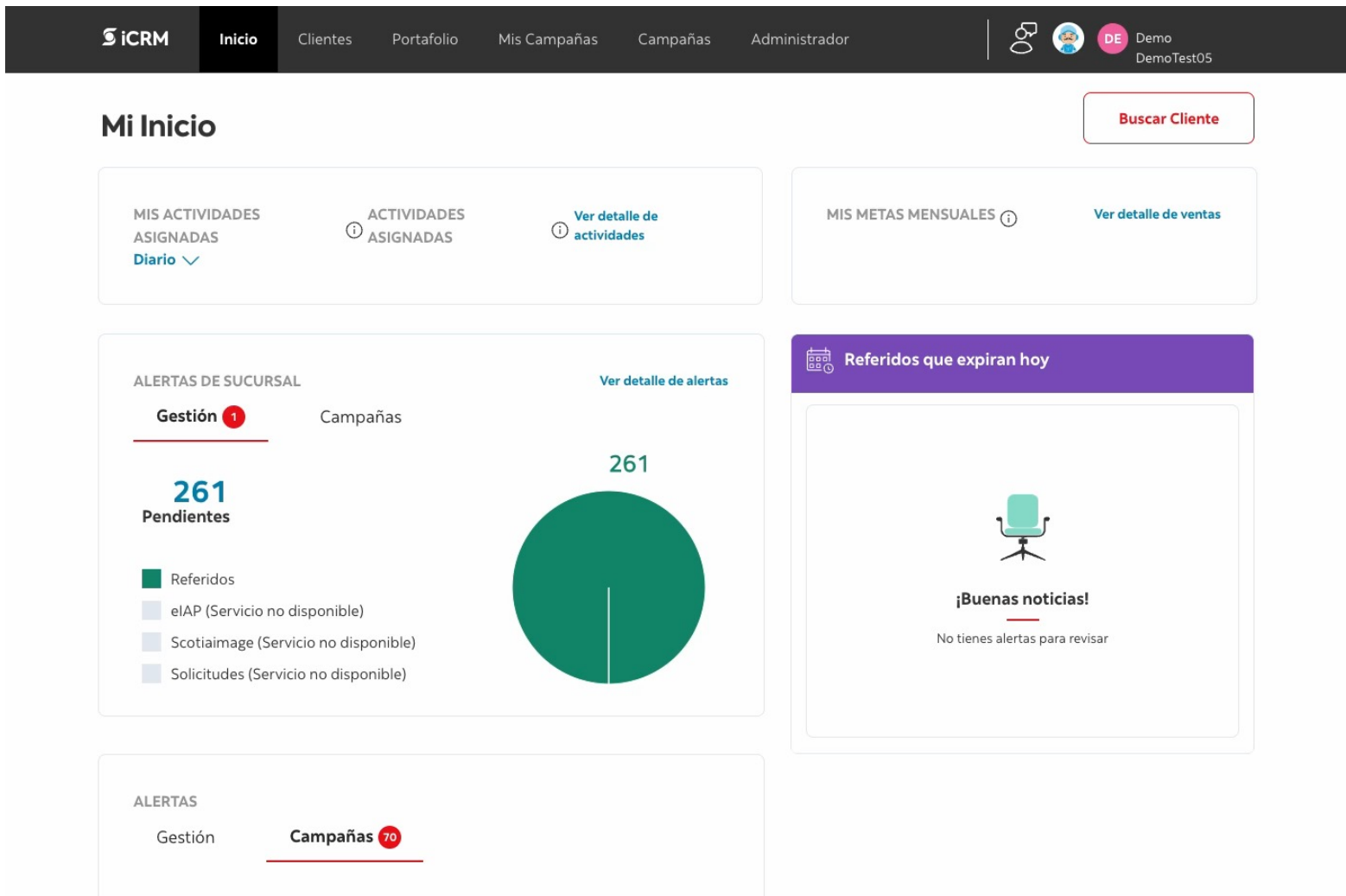
4

Register

- Capture the outcome of the customer interaction
- Take notes for follow-up purposes
- Arrange the next appointment.

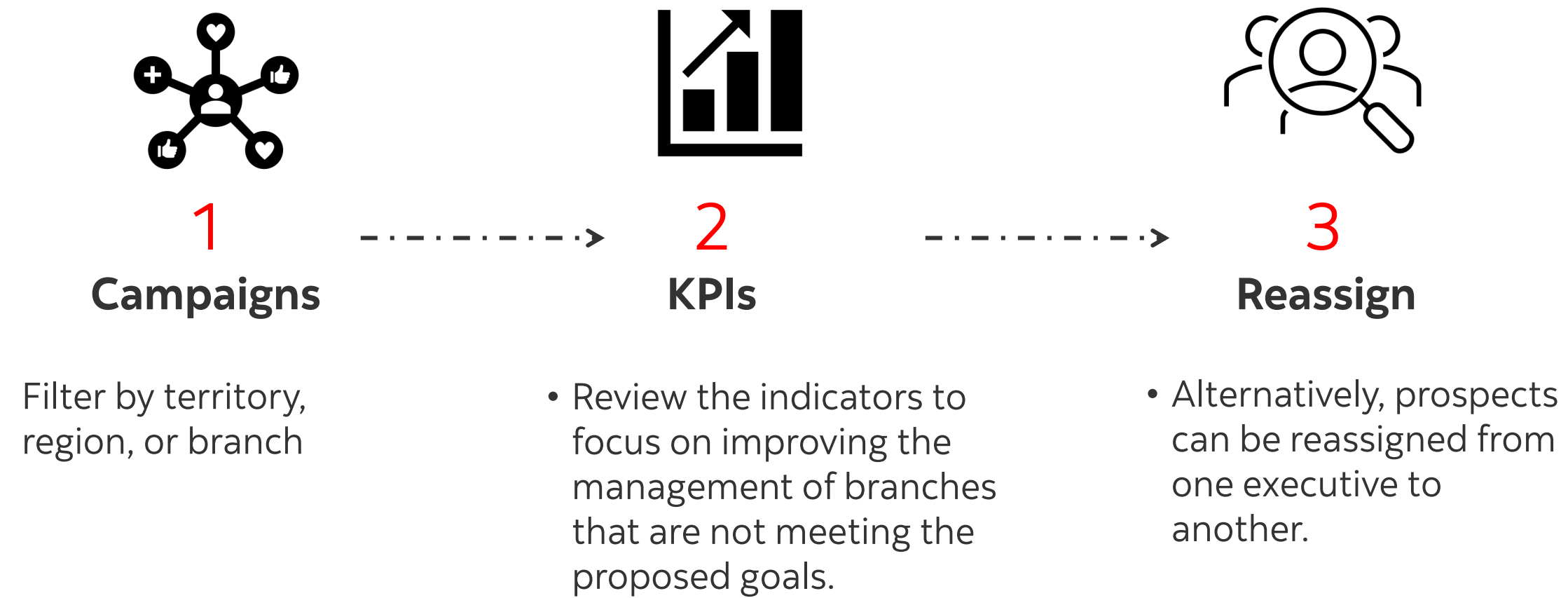


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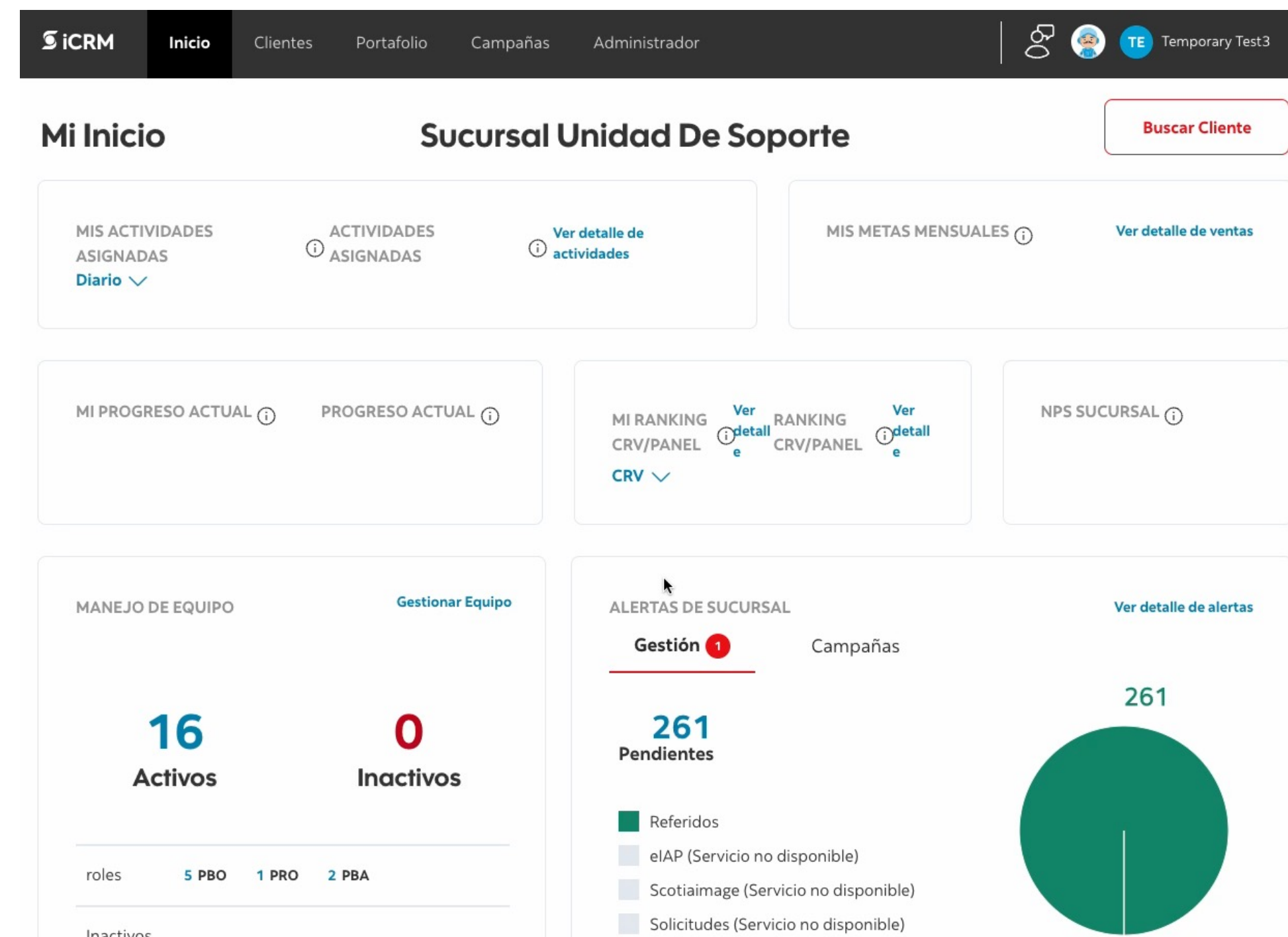
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JOURNEY: REVIEWING CAMPAIGN / REASSIGNING CAMPAIGN LEADS



Depending on the assigned profile, a user can access campaigns for an entire country, territory, region, or branch. And navigate or browse through each of the lower levels

The primary source of information is BI databases, which are accessed through BC services (REST).



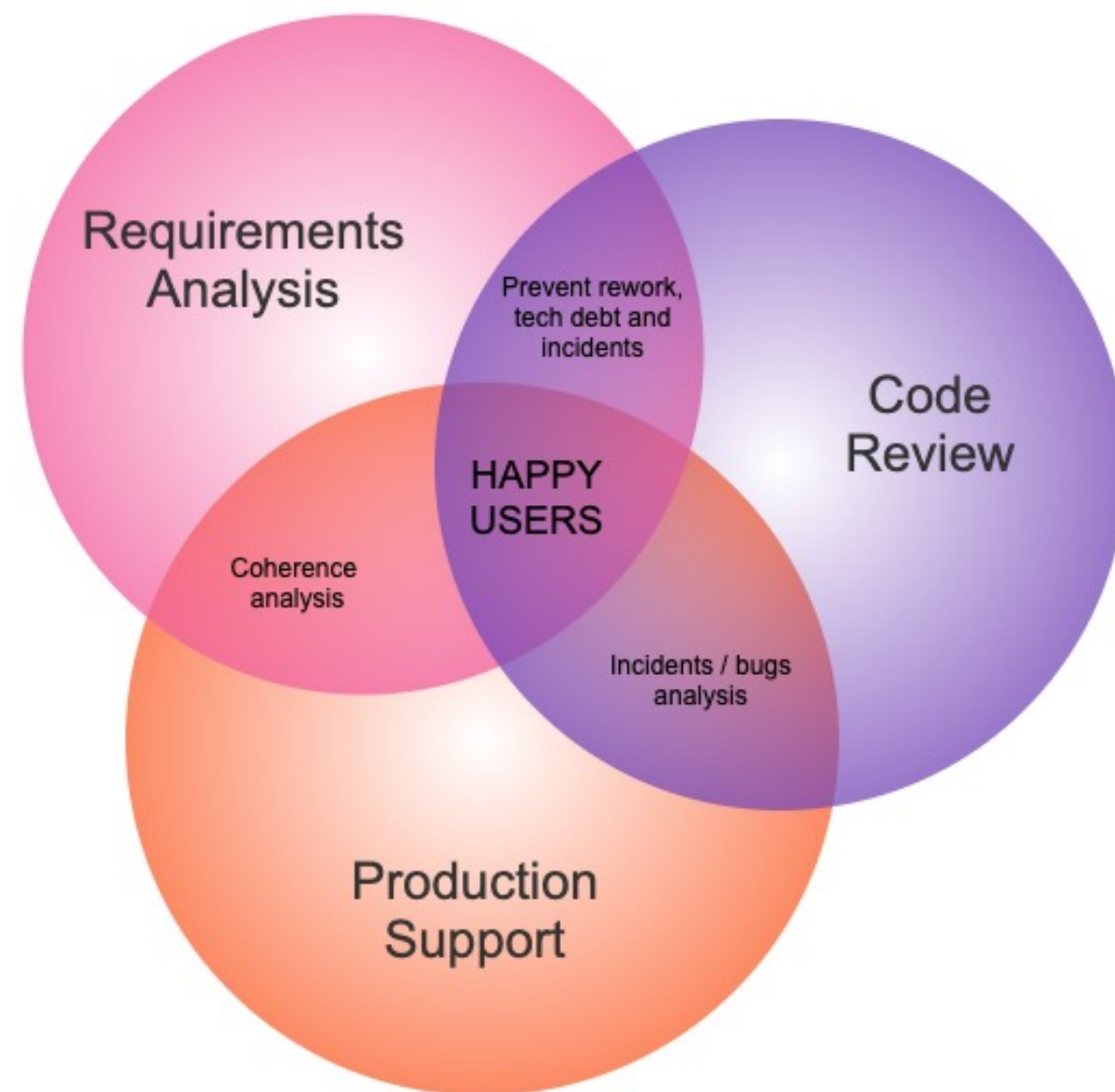
FEATURE FLAGGING



1

Global Review

- Requirement analysis
- General recommendations
- List of affected components (MFs, BFFs, BD)
- Modified flows if any
- List of actions (**Feature**) to be added
- List of queries to add tables, views, columns,

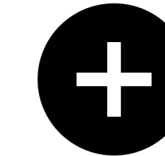


2

Coding

- Configure flags variables in the application's code

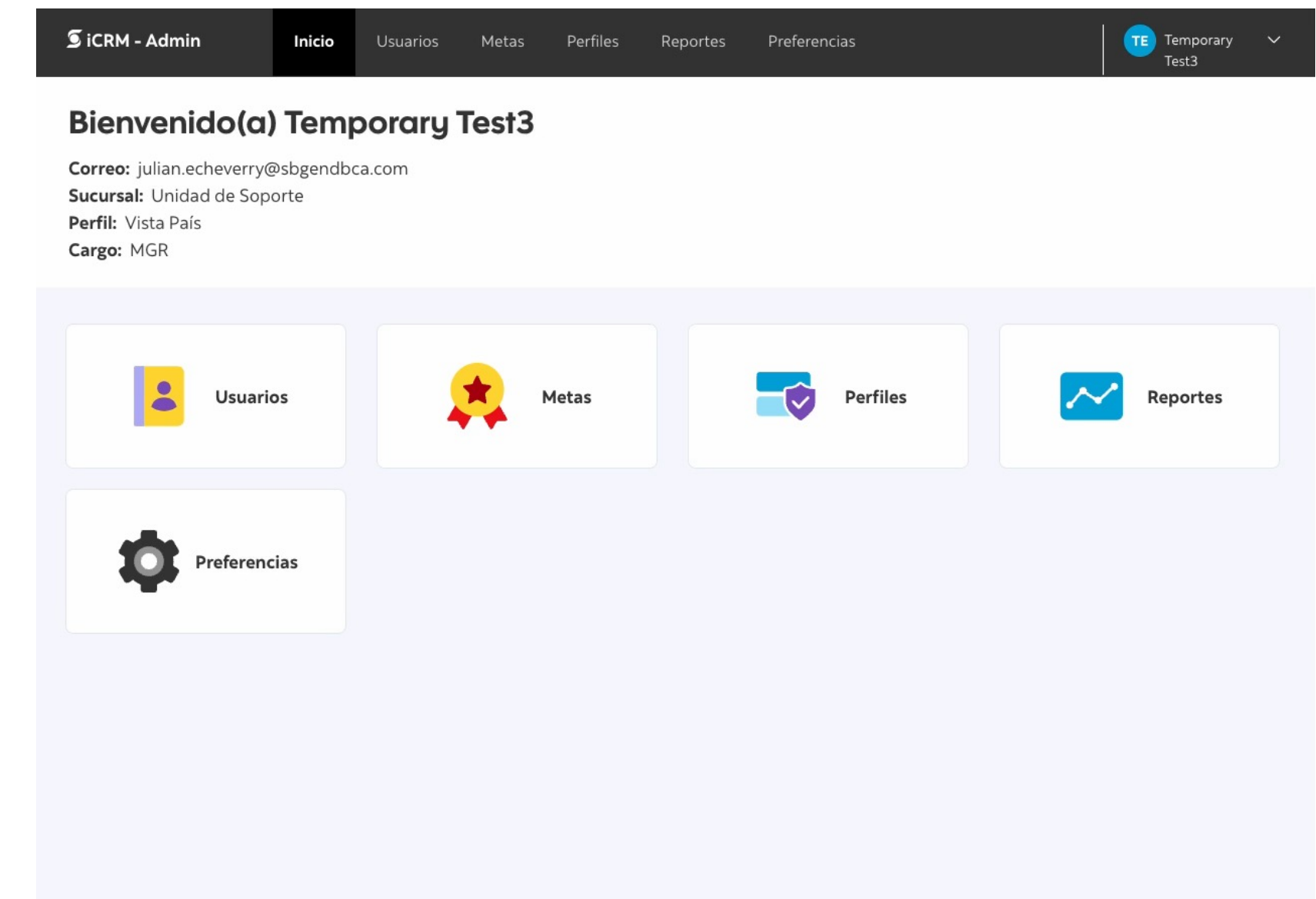
```
Kpis.jsx
icrm-mf-front > src > routes > Home > Kpis > Kpis.jsx > ...
1  import React, { useEffect, useState } from "react";
2  import { useTranslation } from "react-i18next";
3  import Column from "canvas-core-react/lib/Column.js";
4  import TextCaption from "canvas-core-react/lib/TextCaption";
5  import TextHeadline from "canvas-core-react/lib/TextHeadline";
6  import LinkBoldBlue from "icrm-icrm-front-core/lib/LinkBoldBlue";
7  import Indicators from "../../core/Indicators/Indicators";
8  import { useDispatch, useSelector } from "react-redux";
9  import { CardKpis, ColumnKpis, Header, RowKpis } from "../Kpis.Components";
10 import { getAssignedActivitiesManagerAction, getAssignedActivitiesOfficerAction } from "../../store/kpis/kpisActions";
11 import KpisTitle from "../KpisTitle";
12 import Dropdown from "icrm-icrm-front-core/lib/Dropdown";
13 import {
14   ASSIGNED_ACTIVITIES_BRANCH,
15   ASSIGNED_ACTIVITIES_DETAIL,
16   ASSIGNED_ACTIVITIES_EXECUTIVE,
17   ASSIGNED_GOALS_EXECUTIVE,
18   ASSIGNED_GOALS_EXECUTIVE_LINK,
19   CRV_RANKING_BRANCH,
20   CRV_RANKING_BRANCH_LINK,
21   CRV_RANKING_EXECUTIVE,
22   CRV_RANKING_EXECUTIVE_LINK,
23   CURRENT_PROGRESS_BRANCH,
24   CURRENT_PROGRESS_EXECUTIVE,
25   NPS_BRANCH,
26 } from "../../core/Actions";
27 import GenericAlert from "icrm-icrm-front-core/lib/GenericAlert";
28 import LoadingIndicatorSection from "icrm-icrm-front-core/lib/LoadingIndicatorSection";
29
30 const Kpis = () => {
31   const { t } = useTranslation();
32   const employeeId = useSelector(state => state.sessionReducer.employee.id);
33   const positionId = useSelector(state => state.sessionReducer.employee.position.id);
34   const branchId = useSelector(state => state.sessionReducer.employee.branch.id);
35   const actions = useSelector(state => state.sessionReducer.employee.actions);
36
37   const dispatch = useDispatch();
38   const assignedActivities = useSelector(state => state.kpisReducer.assignedActivities);
39   const loadingAssignedActivities = useSelector(state => state.kpisReducer.loadingAssignedActivities);
40   const errorAssignedActivities = useSelector(state => state.kpisReducer.errorAssignedActivities);
41
42   const [selectedTime, setSelectedTime] = useState("Diario");
```



3

Add new Feature

- Create Module (if needed)
- Create Submodule (if needed)
- Create Action
- Assign Action to Profile



Feature flagging enables selective enabling or disabling of software features for controlled rollouts and testing.

Flags act as switches to turn features on or off, allowing developers to control application behavior at runtime.

This technique facilitates gradual feature rollouts and testing, and it provides the ability to temporarily disable features in case of issues.

Feature flagging allows for A/B testing by exposing different feature versions to different user groups.



Thank you