



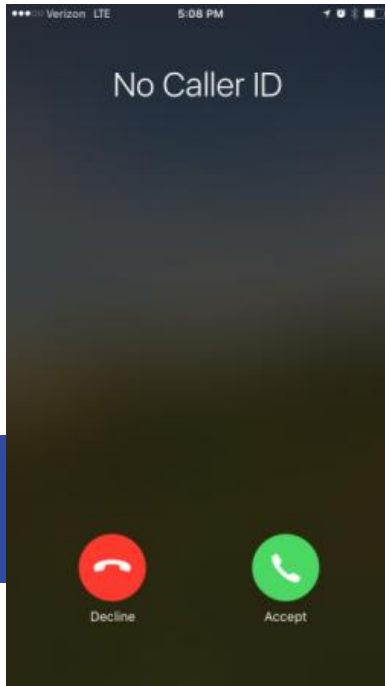
Radisys

Engage Call Branding

Without Engage

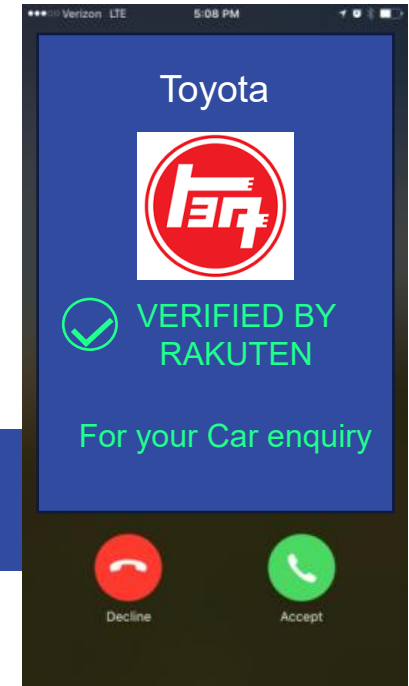


User may not answer thinking it's a spam/spoof call.



Calls Appear with
Branding Info &
Verified

Using Engage



- Provides enterprises new ways to identify themselves to their consumers
- Enables business to create verified business identities via operators
- Call purpose can be displayed along with the business identity/logo
- Enhances user trust and call answer ratio

Engage Call Branding

Call Branding can be enabled for either or both of following services:

- IMS Calls
- OTT Calls

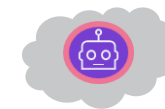
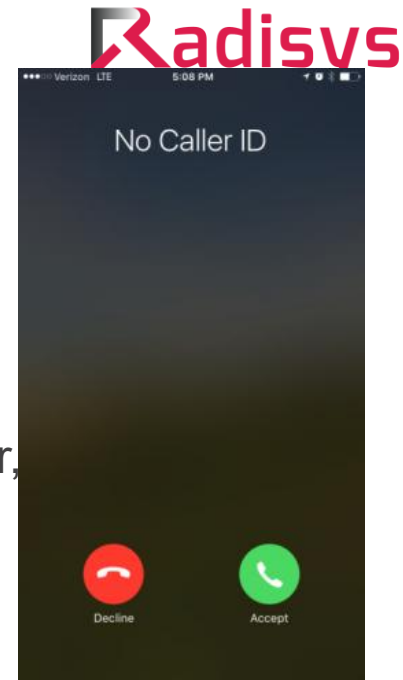
A mobile app must be provided to users to flash the caller details during an incoming call with information like business name, brand logo etc. or a brief introductory message.

If Telco or partner businesses already have their mobile app, it can use the Radisys SDK to enable these functionalities in existing app

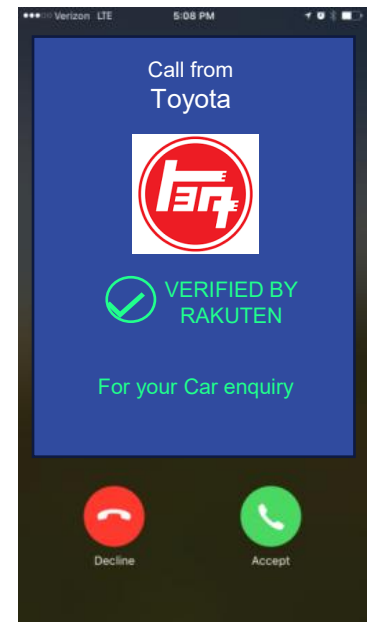
- ❖ Provides enterprises new ways to identify themselves to their consumers
- ❖ Enables business to create verified business identities via operators
- ❖ Call purpose can be displayed along with the business identity/logo
- ❖ Enhances user trust and call answer ratio
- ❖ Agnostic for Mobile and Fixed Line callers



User may not answer or may answer, but it's a spam/spoof call.

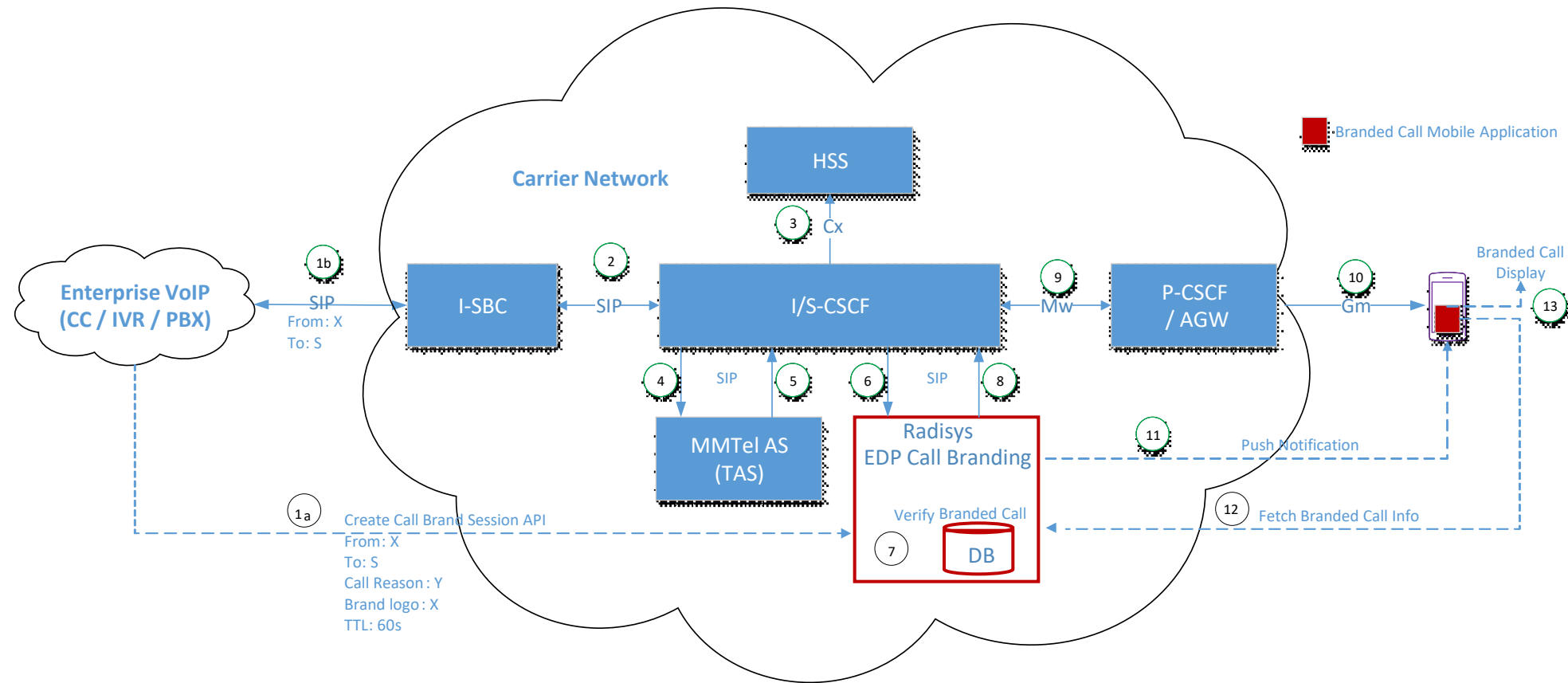


Engage



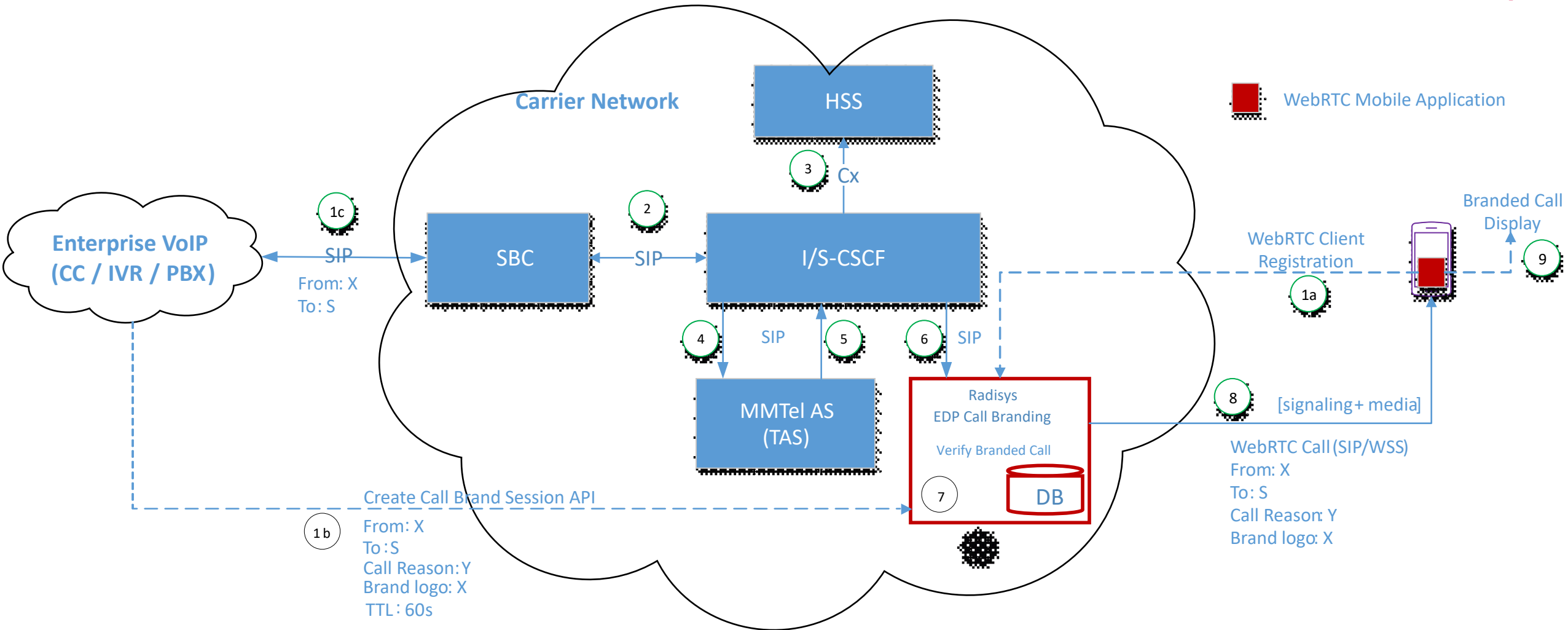
Calls Appear with Branding Info & Verified by Telco

Call Branding in IMS Calls

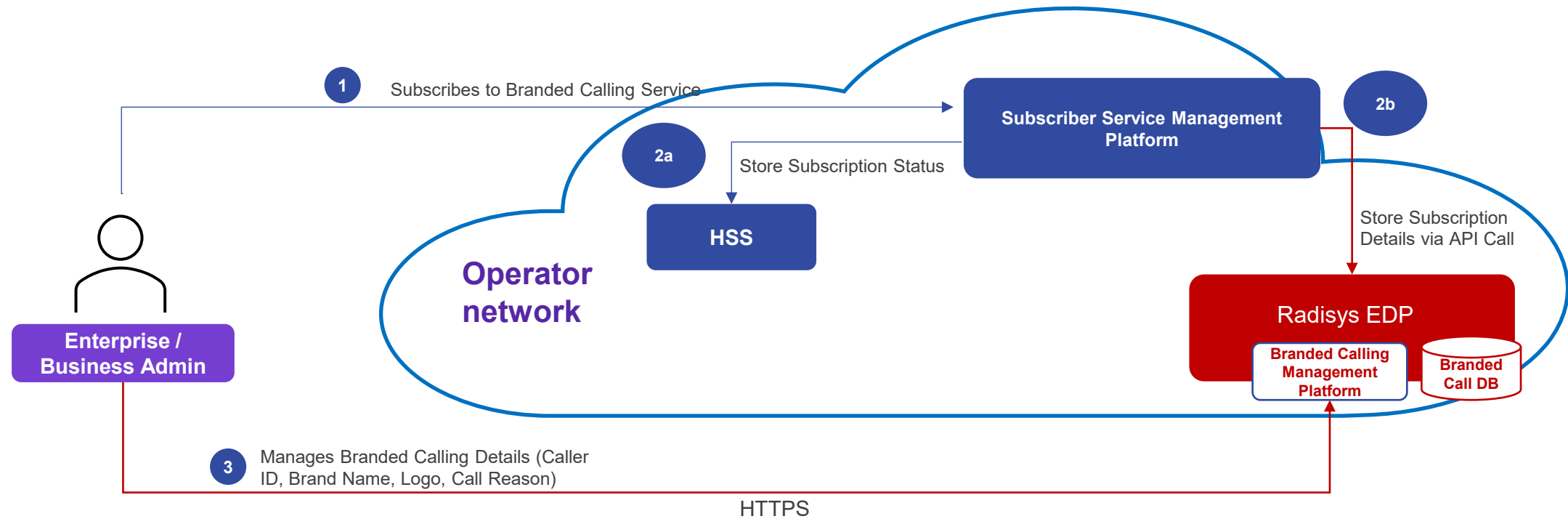


Service provider's or 3rd party mobile app connects to EDP SDK. On ringing, the mobile app queries EDP and retrieves the enterprise information based on their caller ID and flashes up along with the native dialler ringing. Optionally, calling business can also set call context before every call as described in Step-1b above. Additionally, Push or Gesture based triggers can also be used on the device to invoke call branding.

Call Branding in OTT Calls



OTT mobile app connects to EDP SDK. On ringing, the mobile app queries EDP and retrieves the enterprise information based on their caller ID and flashes up. Optionally, calling business can also set call context before every call as described in Step-1b above.



1. EDP maintains a database for tenant enterprises to store their brand information e.g. business name, logo, call reason etc.
2. Each tenant Enterprise can access this database via a GUI based Service Management Portal or Rest API.
3. This can be directly accessed by customers, or integrated with Telcos' service management platform, if needed

1. Mobile App

- a) Can be integrated into Telcos mobile app via Engage SDK(Android/iOS)
- b) Can also be delivered as separate app or integrated into Enterprise app

2. Discover

- Enterprise sales channels
- Advertisements via TV
- Store
- Super App
- Telcos Web Portal.

3. Subscribe

- Sign up via Telcos web portal for self-service management
- Call in to Telco sales/support line
- Visit a local Telco store

4. Add Enterprise/Business Information into Tenant Portal

- a) Tenant access with Web GUI login
- b) Add Business name, logo etc.
- c) Attached numbers / caller IDs

5. Push “Branded” calls (Call Routing)

Enterprise makes calls through Telco network, calls are enhanced with “Branding” information

There are two approaches documented to enable Call Branding in VoLTE network

1. **Caller Name Display**

The name (only caller name) can be displayed through existing SIP headers and is likely to be supported on network elements already, as an initial near-term solution.

1. **STIR/SHAKEN with Rich Call Data**

This requires STIR/SHAKEN standard to be supported on the network and UEs. Furthermore, while STIR/SHAKEN is an underlying verification framework, it requires additional Rich Call Data implementation as an extension to transport information like logo, context etc.

Name display in called Endpoint / UE is based on the below SIP headers (i.e., From and P-Asserted-Identity).

INVITE <sip:+12155551213@bloxi.com> SIP/2.0

Via: SIP/2.0/UDP pc33.atlanta.com;branch=z9hG4bK776asdhds

Max-Forwards: 70

To: "Bob" <sip:+12155551213@biloxi.com>;user=phone

From: "James Smith" <sip:+12155551212@atlanta.com>;user=phone;tag=1928301774

Call-ID: <a34b4c76e66710@pc33.atlanta.com>

CSeq: 314159 INVITE

Date: Thu, 03 Dec 2020 12:58:14 GMT

P-Asserted-Identity: "James Smith" <sip:+12155551212@atlanta.com>

The RCD is an extension of STIR / SHAKEN for displaying additional call related information. Please refer to the below specification for the requirement of Rich Call Data support in called Endpoint.

<https://access.atis.org/higherlogic/ws/public/download/58888/ATIS-1000094.pdf>

There are 2 options provided here for carrying the Rich Call Data to the UE.

- 1) The rich call data contained in a valid "shaken" or "rcd" PASSporT can be conveyed to the called endpoint protected in the PASSporT itself (contained in an Identity header field of the terminating INVITE request sent to the called User Equipment [UE]). In this case, the TSP shall ensure that any unprotected rich call data contained in the INVITE request does not conflict with the protected rich call data. Specifically, the TSP shall set the display name component in the From header field (and, if present, in the P-Asserted Identity header field) to match the "rcd" claim "nam" key value. If the INVITE request contains a Call-Info header field, then the TSP shall ensure that any rich call data item (e.g., company logo) in the Call-Info header field and the "shaken" or "rcd" PASSporT match.
- 2) Alternatively, the rich call data contained in a valid "shaken" or "rcd" PASSporT can be carried unprotected to the called endpoint in the following header field components of the terminating INVITE request as per RFC 3261, SIP: Session Initiation Protocol [Ref 8]; RFC 3325, Private Extensions to SIP for Asserted Identity within Trusted Networks [Ref 9]; and draft-wendt-sipcore-callinfo-rcd, SIP Call-Info Parameters for Rich Call Data [Ref 6]:
 - 1) The calling name is conveyed in the display name portion of the P-Asserted-Identity and/or From header field,
 - 2) The URI referencing additional rich call data is carried in the Call-Info header field (purpose = "jcard") and,
 - 3) The "crn" call reason text string is carried in the "call-reason" parameter of the Call-Info header field.

Engage Service Management Portal - Operations

Simplifies Lifecycle Management of Services

Service Provider Management

- White label software, documentation
- Provision Ph Nos, Service Limits & Quotas
- Onboard Tenants (Service Owners)
- View CDR report & analytics of its tenants

Self-Service to Tenants (Service Owners)

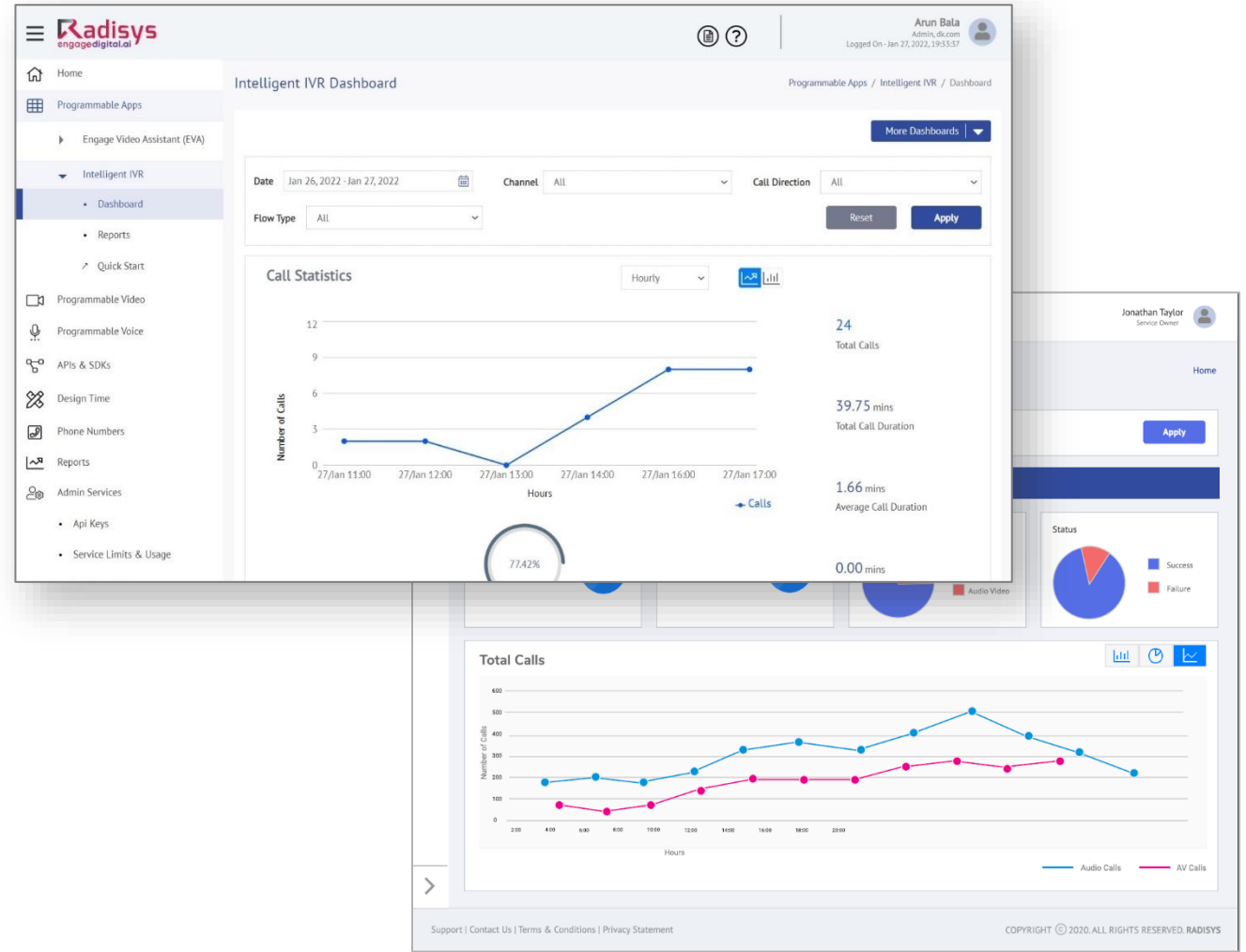
- Create/ Activate/ Deactivate (Manage lifecycle of) apps & services
- Assign/Manage phone numbers & developers
- View CDR reports & analytics

Security & Ease of Access

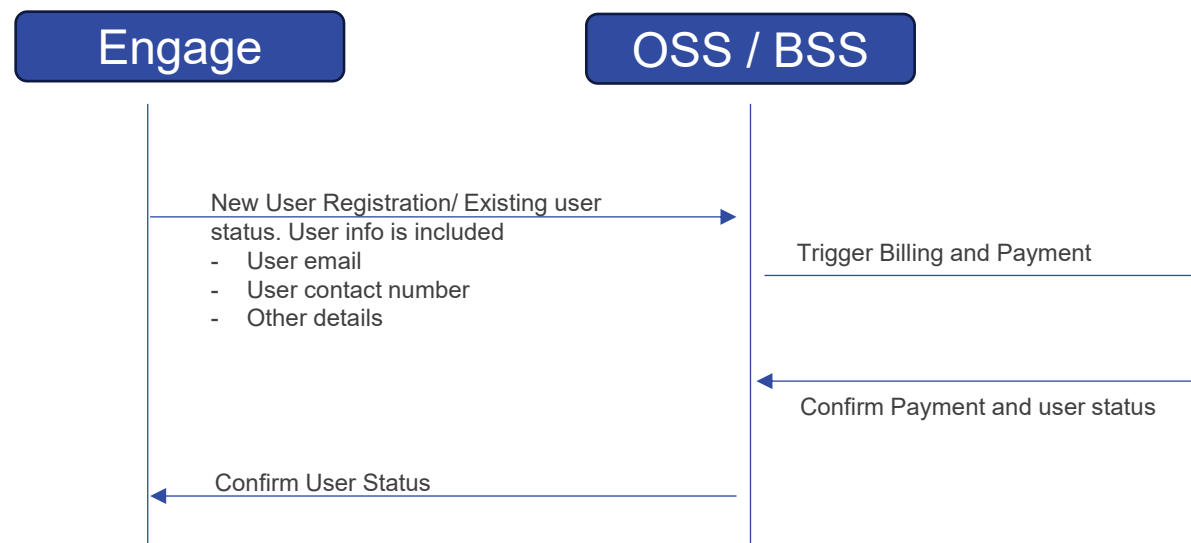
- Single Sign-On using your existing IAM systems
- HTTPS

Integration with your OSS/ BSS

- Integrate in your existing OSS/BSS through engage APIs



EDP will generate CDRs for each tenant and provide it at scheduled frequency to be consumed by BSS for raising and generating bills to Enterprise customers



Telcos Billing Engine can instruct EDP over Rest interface to keep users in any(or more) of following states, based on their payment status:

- Active
- Inactive
- Grace
- Unsubscribed



Thank You