

ringplus+

MODERN TELECOM  
AND  
THE INTERNET OF THINGS

# ringplus<sup>+</sup>

- An MVNO - Mobile Virtual Network Operator
- Leveraging Realtime & Web-scale Technologies: WebRTC, Docker, FreeSWITCH, Adhearsion, PostgreSQL, Redis, etc...
- Innovation & Member Focus



# IoT AND TELECOM TODAY



# HANDSETS

- U.S. Smartphone penetration is >65%
  - Mobile sensor platforms
  - A Robot In Every Pocket



# M2M

- Machine 2 Machine
  - Large deployments, large contracts



# DATA DEVICES

- 3G vs LTE vs WiFi
- Multiple Devices Per Family, Multiple Uses



# M2M Deployments



**WHISPERNET  
TELEHEALTH  
FLEET TELEMATICS**

**OIL & GAS  
INFRASTRUCTURE  
SECURITY**



# Agriculture



NO INDIVIDUAL CONSUMER FOCUS

Historically, working with cellular devices has been hard.

- Provisioning is difficult
- Device control is nonexistent
- Data is inaccessible
- MNOs are... bureaucratic

# MVNO INNOVATION

SMALL, FAST, FLEXIBLE

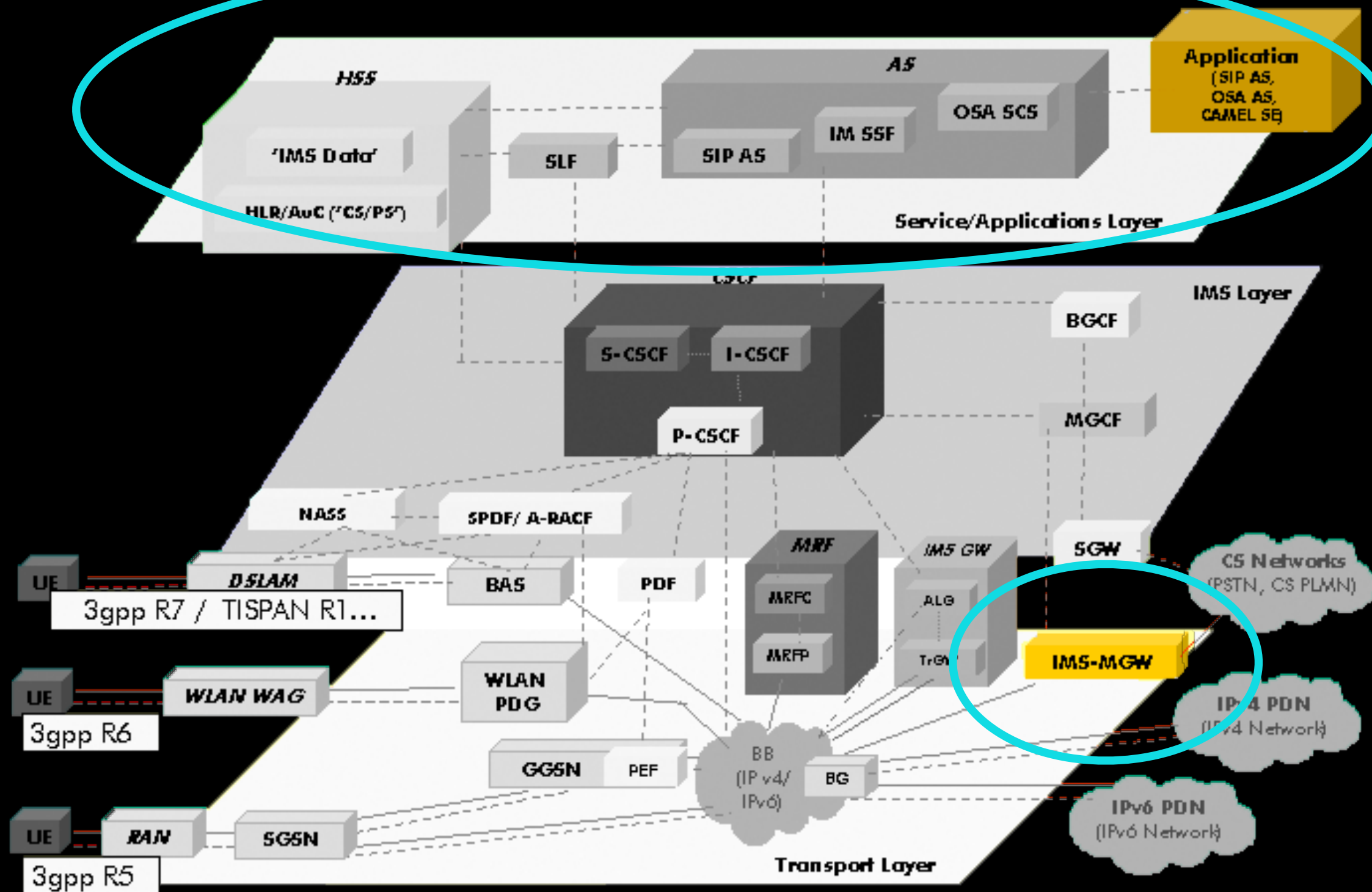
Wrap MNOs in a comfortable shell

Fail Fast

Leverage MNO Infra Stability







IMS Network Diagram

# REST DEVICE & ACCOUNT API



## GET STARTED

[Introduction](#)

[Libraries](#)

[Authentication](#)

[Versioning](#)

[Scopes](#)

[Errors](#)

[Dates and Times](#)

[Errata](#)

## API METHODS

[Accounts](#)

[Account Registrations](#)

[Change Devices](#)

## Introduction

Version 1.3.0

The RingPlus API is a new, powerful set of tools for interacting with mobile phones and the cellular network. The API is built around REST and allows you access virtually all aspects of your account - you can lookup call detail records, including inbound or outbound usage data on SMS, Data, MMS, and international minutes. You can change your phone number, or swap your current device with another, check your voicemail, and many more features that have traditionally been locked away behind carrier walls. We're excited to help bust open the silos!

Since the API is based on REST, interacting with it is very easy - you can even do it from your browser. We implement the OAuth2 protocol to help guarantee the security of the your account data, and will soon allow you to set permissions on what parts of your account an application can access.

We are proponents of [SemVer](#) and while this API is living and breathing, you can write your applications knowing we won't break existing functionality.

These documents will be updated frequently as we continue to add services to the RingPlus API.



- Billing, device registration, CDRs, Voicemails, etc...
- Location data
- OAuth and 3rd party access

```
curl https://api.ringplus.net/users/1/account_registration_requests
      -X POST
      -d access_token=...
      -d "account_registration_request[name]=John Smith"
      -d account_registration_request[billing_plan_id]=1
      -d account_registration_request[device_esn]=600ABCDEF123
      -d account_registration_request[credit_card_id]=1
```

# CONSUMER PRODUCTS



+



DATA SUBSCRIPTIONS COST MONEY.

## Different Levels of Connectivity

Bluetooth → WiFi → Cellular

Realtime data & device control



**PLANNED OBSOLESCENCE**

# LEVERAGE EXISTING DEVICE CONNECTIONS

## PREDIAL

- Calling card functionality
- Rate/presence announcement into app

## DIALING

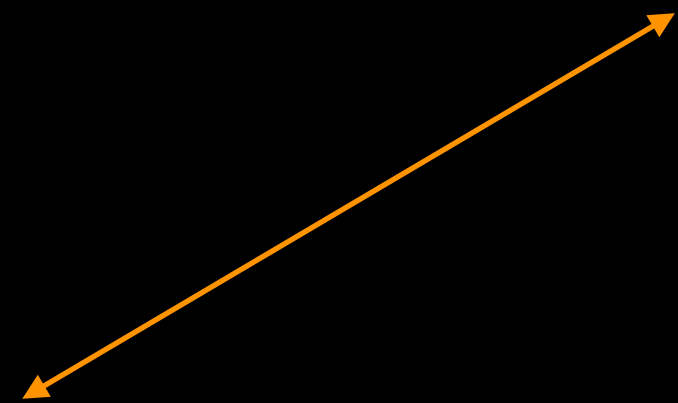
- Location-aware announcements and advertisements
- Interactive ringback tone radio stations

## CONNECTED

- Call recording
- Automated in-call translation
- Conversational support

## HANGUP

- Gamification
- Transcription of Call Recording
- Webhooks & CDR Analysis



INCALL APPS



Alice hears a private message from Bob in her RBT, followed by breaking news and an ad for Pepsi

Alice uses a \$0.99 InCall app to record, translate, and transcribe the call



ringplus+

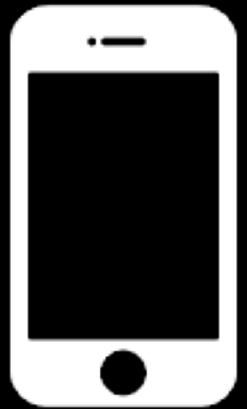


WebRTC

Bob



Alice



MNO

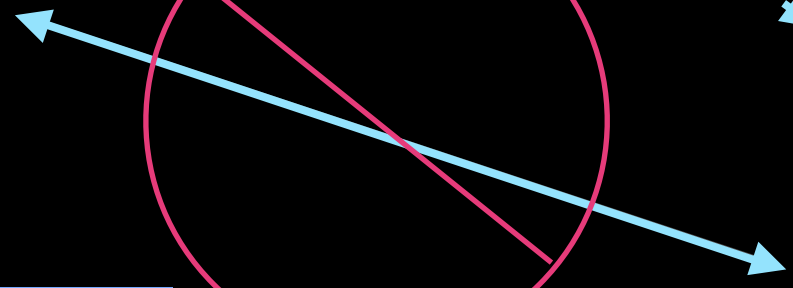
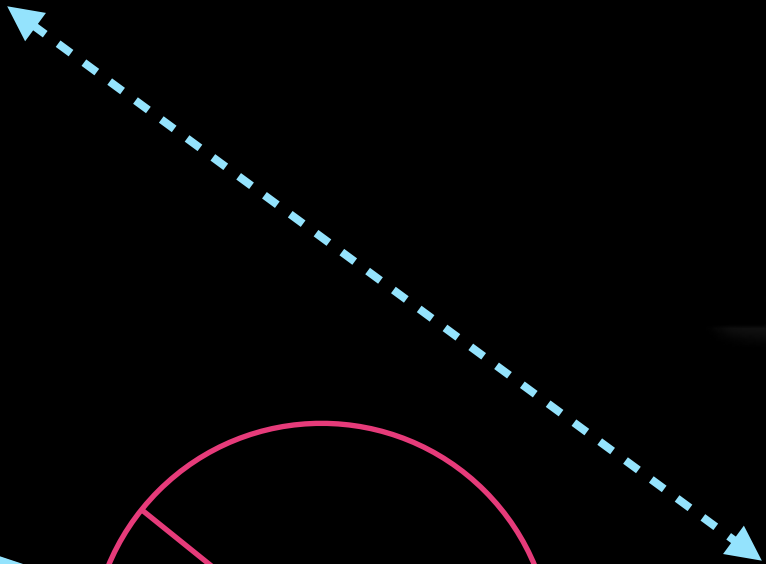
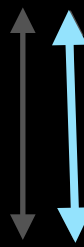
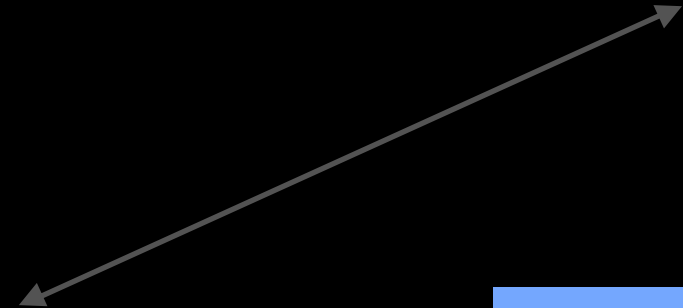
Billing

QoS

Alice calls Bob via MNO  
MNO forwards traffic to RingPlus  
RingPlus anchors the media and the call completes

**Bob's Coverage is Spotty and wants to quickly share his photos**

Bob escalates from his phone to his browser  
Bob can also reconnect from his phone via WiFi



# SPEAK YOUR LANGUAGE



## You've received a new voicemail message

A voicemail was received from (213) 407-6426 on Wednesday, August 13, 2014 at 06:46 PM PDT.

あなたが選択されているおめでとう間違つて、それはあなたが簡単なアンケートに参加するために、最後に変更のための調査を含めている二人と最もフリスのようなすべての経費最初バハマへのフルーズのようなものだ誠にバハマへの無料フルーズを受信する調査のあなたが警告するあなたのフルーズになります。プレス1は現在、調査を開始し、バハマ、最初の数へのフルーズの誤ったためにバハマお客様に無料でフルーズを受信するために選択されている9キーの規制を調査を拒否すると、私たちのリストのプレスから取り外すことが2つの相補フルーズのチケットを受信するあなたは簡単なアンケートに参加する人と最もフリスのすべての費用は変化のための調査を含めているようにしたいと、調査の終了時には、警告フルーズになります。プレス1は現在、調査を開始し、調査を拒否すると、私たちのリストプレス9から除去することが2つの相補フルーズのチケットを受信します。

The origin message is below:

*Congratulations you have been selected to receive a free cruise to the Bahamas you for incorrectly it's like cruise to the Bahamas first two people and like most Chris's all the expenses are included survey for change with for you to participate in a short survey and at the end of the survey you will be a warning your cruise. Press one now to start the survey and receive two complimentary cruise tickets to decline the survey and be removed from our list press nine key regulations you have been selected to receive a free cruise to the Bahamas you for incorrectly it's a cruise to the Bahamas first few people and like most Chris's all the expenses are included survey for change would like for you to participate in a short survey and at the end of the survey you will be a warning your cruise. Press one now to start the survey and receive two complimentary cruise tickets to decline the survey and be removed from our list press nine.*

A recording of your message has also been attached.



WebRTC

BIG DATA

# IoT AND TELECOM TOMORROW



ringplus+

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