



# COMMUNITY DAY

PUNE



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# Reach out to millions of users with Amazon Pinpoint and AWS Serverless

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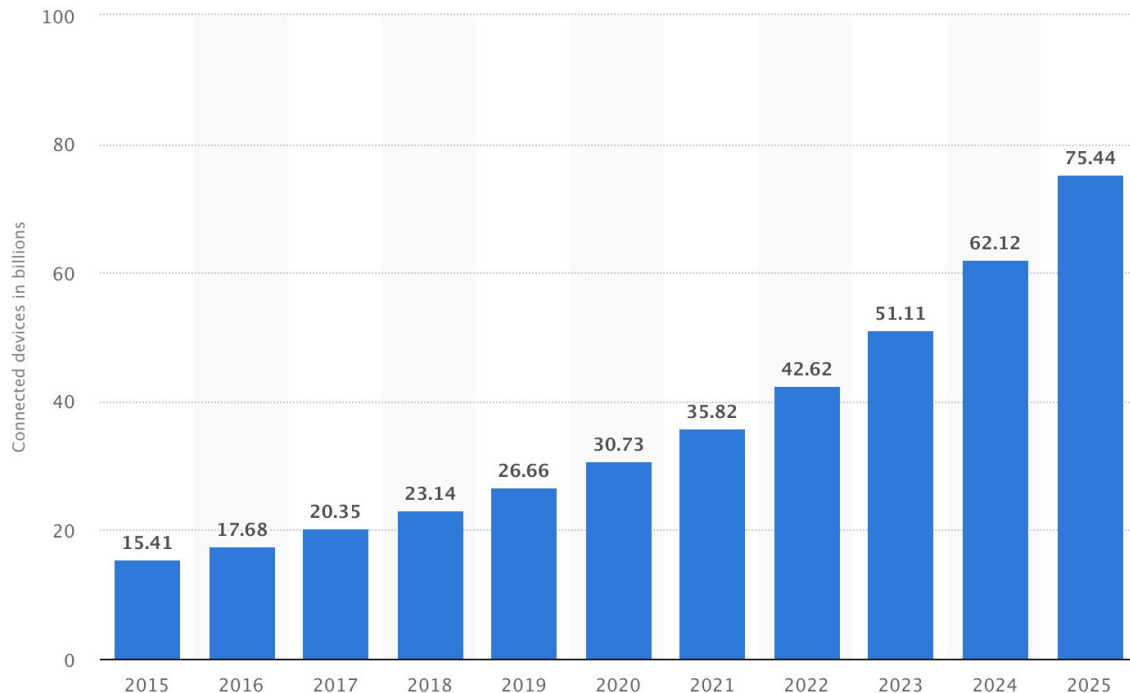


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Use engagement is rapidly increasing.

There will be approx.  
75 Billion Connected  
Devices by 2025





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# Growing demand for personalize notifications

- Social Media
- Streaming Apps
- Gaming
- News Apps
- Fintech
- Health Care
- Event Aggregators (like KonfHub)
- Many more...

Transactional Notifications

vs

Marketing Notifications





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## Growing demand for personalize notifications

- Application preferences are changing over time
- User interests are changing
- Global/Local events pouring in
- Consumers are everywhere





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## Challenges in in-house systems

- Availability (high or no)
- Scaling and managing systems with user base
- Scheduling the notifications
- Managing multiple channels and it's complexities
- Managing Dead Endpoints
- Analytics
- Managing data relationships





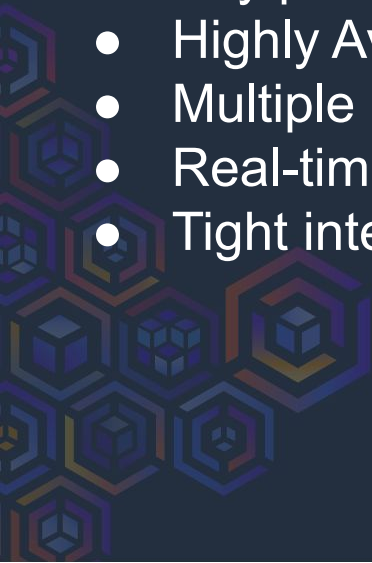


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## Amazon Pinpoint

- Serverless
- Pay per use
- Highly Available and Scalable
- Multiple Channels Support
- Real-time Analytics
- Tight integration with other AWS Services



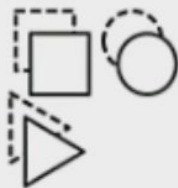


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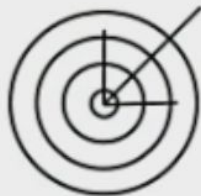
# Pinpoint Building Blocks



User  
management



Audience  
management



Targeting



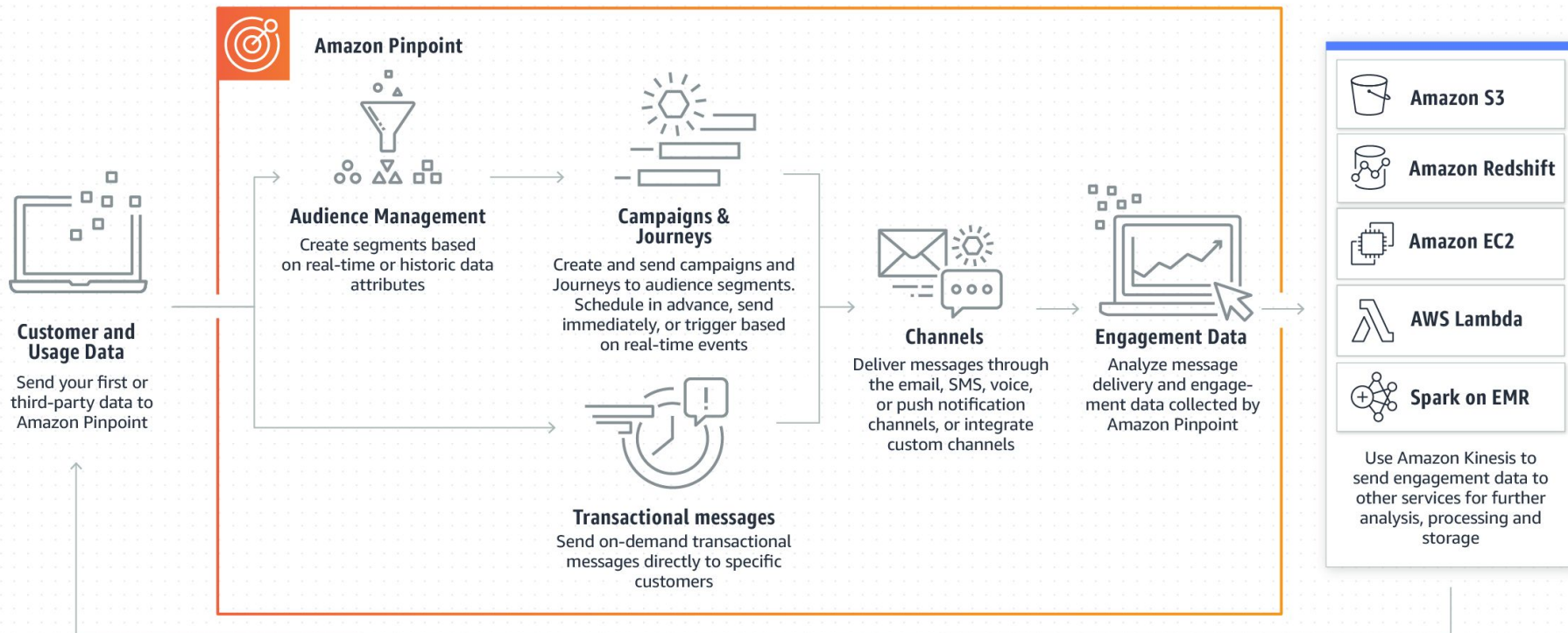
Channels



Campaign  
insights



# How Pinpoint works





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## Segments | Building User Base

- Base Segments to represent whole user base
- Dynamic Segments based on different parameters and filters
  - Create a Segment of Users who attended the event but not from Pune
- Integrate with Web/Mobile SDKs for Custom Attributes
  - like Favorite Team
- Import Segments with CSV or JSON (S3)
  - Easy to onboard and start using





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## Building Segments with Filters

Include endpoints that are in any of the following segments

All segments

pune\_community\_day - email\_endpoints ×  
Import

Endpoints that match any of the following filters:

Filter 1: User ×

City

is

Choose values

Pune ×

Add more attributes or metrics to this filter [Info](#)

[+ Add an attribute or metric](#)

OR

Add filters to refine your segment.

Add a filter

Add filters to refine your segment.

Add a filter

Filter by channel

Filter by endpoint

Filter by user



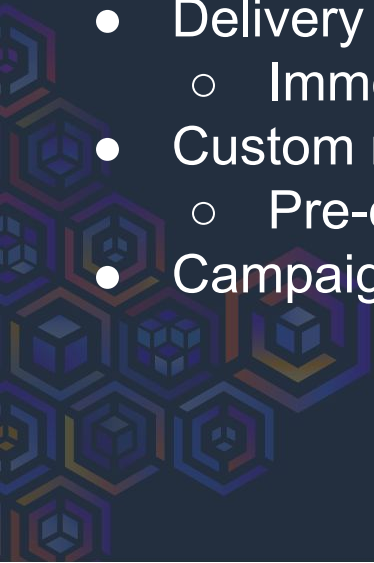
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## Campaigns | Targeting Users

- Based on Existing Segments or New segment
  - Filter all users who are from Pune or Not From Pune
- Delivery schedule
  - Immediately, Once, Daily, Weekly, etc
- Custom message or use existing template
  - Pre-defined templates to use
- Campaign specific analytics



Choose when the campaign should be sent

Immediately



Once



Hourly



Daily



Weekly



Monthly



Time zone

UTC+00:00 (UTC, GMT, WET)



☐ Use recipient's local time [Info](#)

## ▼ Quiet time settings - optional

Use this feature to prevent Amazon Pinpoint from sending messages during specific hours. [Info](#)

Start time

HH:MM

Specify times in HH:MM format using 24-hour notation.

End time

HH:MM

Specify times in HH:MM format

☐ **Override project-level setting**

Enable this option to use settings that are specific to this campaign, instead of using the default settings.



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## Channels | Reaching to Users

- Email
  - Dedicated IP Support
  - Tracking Open and Link Clicks
  - Deliverability Dashboard for IP Reputation, Bounce/Spam rate, other metrics
- SMS
- Push Notifications
  - Apple, Firebase, Baidu
  - Standard, Silent, and Raw
- Voice
- Custom channels using Lambda (EVERYONE LOVES LAMBDA)





## Messaging channels and response metrics

### Email

Send emails to targeted recipients in small or high volume basis. [Info](#)

✔ Enabled

[Manage](#)

### SMS and voice

Send text messages with a reserved phone number or sender ID. [Info](#)

SMS: Disabled  
Voice: Disabled

[Manage](#)

### Push notifications

Send notifications to your app users on any mobile devices. [Info](#)

Disabled

[Manage](#)

Lambda Channel you can configure via Pinpoint API only



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## Analytics | Collecting Usage Data

- Stream data to Kinesis Data Stream or Firehose
- Active endpoints
- Campaign analytics
  - Active Campaigns
  - Delivery Rate
  - Open, Click Rate
- Manage and Filter Dead Endpoints (potentially big problem when user base increases)
  - Email bounce can hamper Reputation
  - Push Notifications can be delayed
  - No one “notified”, but we still have to Pay



Stream campaign response and app event data for long-term storage and additional analysis.



## Stream to Amazon Kinesis

Stream events for email, SMS, push notifications and app analytics to Amazon Kinesis

### Choose a stream type

Amazon Kinesis offers services that you can use to load and analyze streaming data. Choose the type of stream you want to create. [Info](#)



### Send events to an Amazon Kinesis Data Stream

Build applications that process your data streams in real-time.



### Send events to an Amazon Kinesis Data Firehose stream

Transfer and load streaming data into Amazon S3, Amazon Redshift, or several other services.

Choose an Amazon Kinesis stream ▼



You can create new streams on the [Amazon Kinesis console](#) 





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## Pay-per-Use Pricing

### Email

- \$1 per 10,000

### Push Notifications

- \$0 for 1st Million
- \$1 for every million after that

### SMS

- \$0.00223 per message in India



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## Quotas

### Projects

- 100 Per Account

### Campaigns

- 200 Per Project
- 100 Million Messages per Campaign

### Endpoint

- 10 Endpoints per User
- 50 Custom Attributes
- 250K Imports Per Job



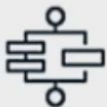
Amazon Pinpoint

Data lakes &  
profile storage

Amazon S3

Segment &  
analyze users

Amazon Kinesis

Messaging &  
AutomationAWS Step  
FunctionsEvents &  
predictions

AWS Lambda

Build & connect  
applications

AWS Amplify

Chatbots &  
contact center

Amazon Connect

Voice &amp; IoT



AWS IoT



Amazon DynamoDB



Amazon EMR



Amazon SNS



Amazon Personalize



AWS AppSync



Amazon Lex



Amazon Polly





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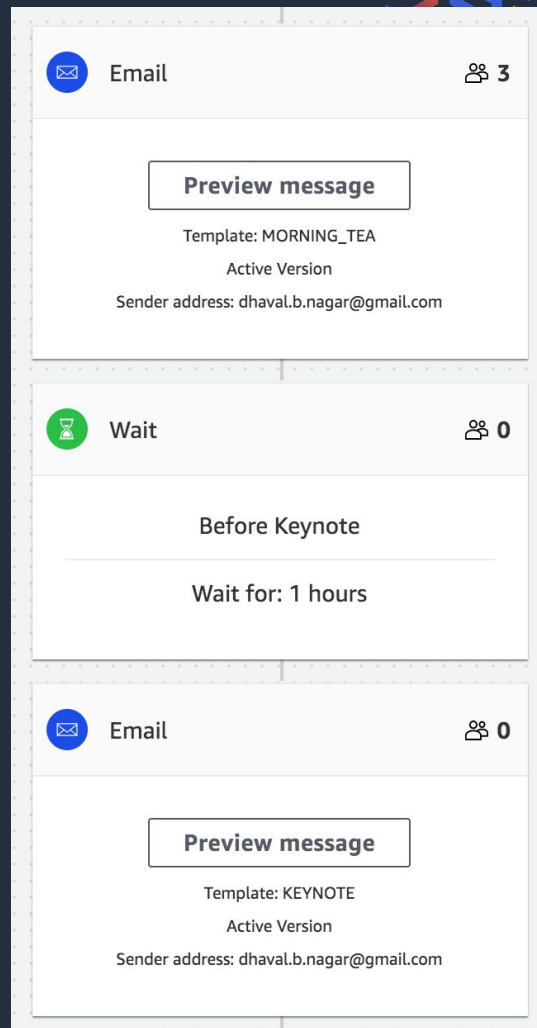
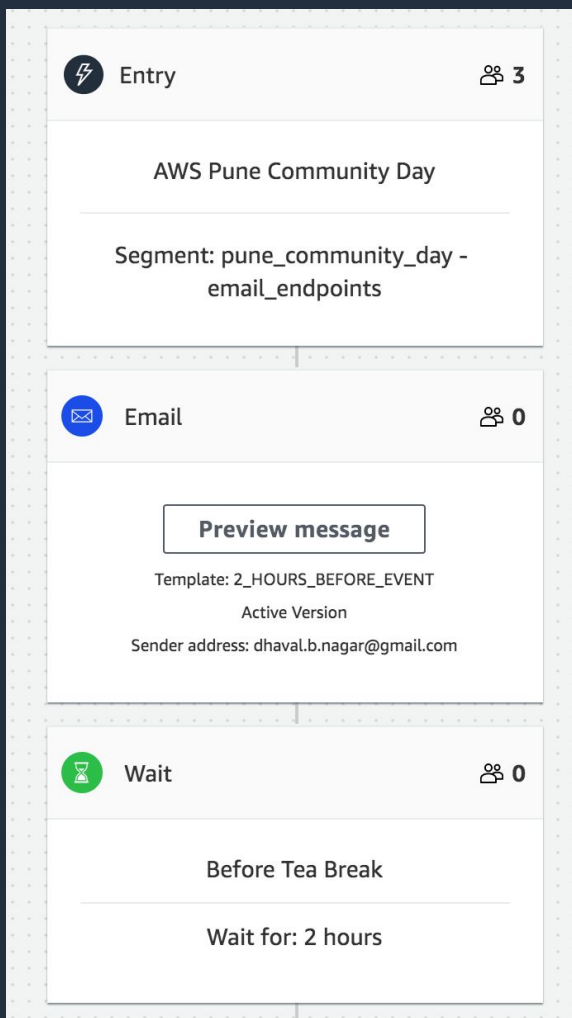
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## Integration Options

- Android/iOS SDKs
- JavaScript SDK
- APIs for Backend Integration
- Pinpoint Console



# Pinpoint Journeys



# Journey Analytics

## Journey metrics [Info](#)



Choose the type of journey metrics that you want to view

☐ Execution metrics

Journey execution metrics include data about the number of participants who entered into the journey, and information about messages sent throughout the journey.

☒ Engagement metrics

Journey engagement analytics include data about the ways that journey participants interacted with the messages that they received from the journey.

● Total messages sent

12

● Total deliveries

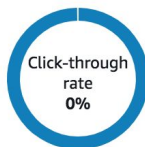
8

● Total opens

10

● Total clicks

0



Emails soft bounced

0

● Total messages sent

3

● Total deliveries

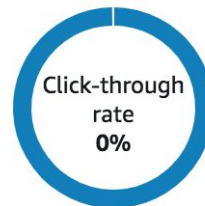
2

● Total opens

2

● Total clicks

0



Emails soft bounced

0

Emails hard bounced

1





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Finally, if you haven't **#goserverless**

- Every thing is either becoming Fully Managed or Serverless
- Fast and Agile
- Growing Ecosystem
- EVERYONE LOVES LAMBDAS



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Companies leveraging Pinpoint today with  
extremely large user base



streaming  
services

hulu

NETFLIX





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Q / A







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## Resources

### **Pinpoint User Guide and FAQs**

<https://docs.aws.amazon.com/pinpoint/latest/developerguide/welcome.html>

<https://aws.amazon.com/pinpoint/faqs/>

### **Hulu's Implementation of Pinpoint**

<https://www.slideshare.net/AmazonWebServices/game-on-building-hulus-realtime-notification-platform-for-live-tv-with-amazon-pinpoint-mob304-aws-reinvent-2018>

### **Disney Streaming Services using Pinpoint**

<https://www.youtube.com/watch?v=9Qz15ifiL3g>

### **Assigning A Lambda Functions to a Campaign**

<https://docs.aws.amazon.com/pinpoint/latest/developerguide/channels-custom.html>





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# Thank you and #GoServerless

