



High quality affordable internet for the bottom of the pyramid

RIPE 87, 27 Nov – 1 Dec 2023

Janata Wi-Fi

What we did so far



- Built Wi-Fi Cloud and Edge gateways that cost 1/10th of a big vendor enterprise WIFI system.
- Innovated in distribution, partnered with ISPs, DFS and Merchant networks.
- Innovated on Business Model, Advertisement Based Free Wifi.



CASE STUDY:

PERFORMANCE IN RAINKHOLA MIRPUR

- Operates 10 hours a day on average.
- Monthly 1000+ Ad views.
- Monthly 100+ Voucher Sold.
- Merchant gets EUR .005 per Ad view and EUR .01 per voucher.

Our Current Status



- Experimenting with free internet for anyone (Ad based wifi)
- Experimenting with AI automation
- Small Grant from APNIC(ISIF Asia Inclusion Fund Grant 2022)
- Part of Microsoft for Startups Founders Hub



Quality & Cost Problem



High Reliability Connections are Expensive.



Requires human interventions. Average issue solving time is 30 Hours.(From ISP Industry Survey in Bangladesh)



Power failure is rampant with high cost of fuel.



Expensive Access Points.



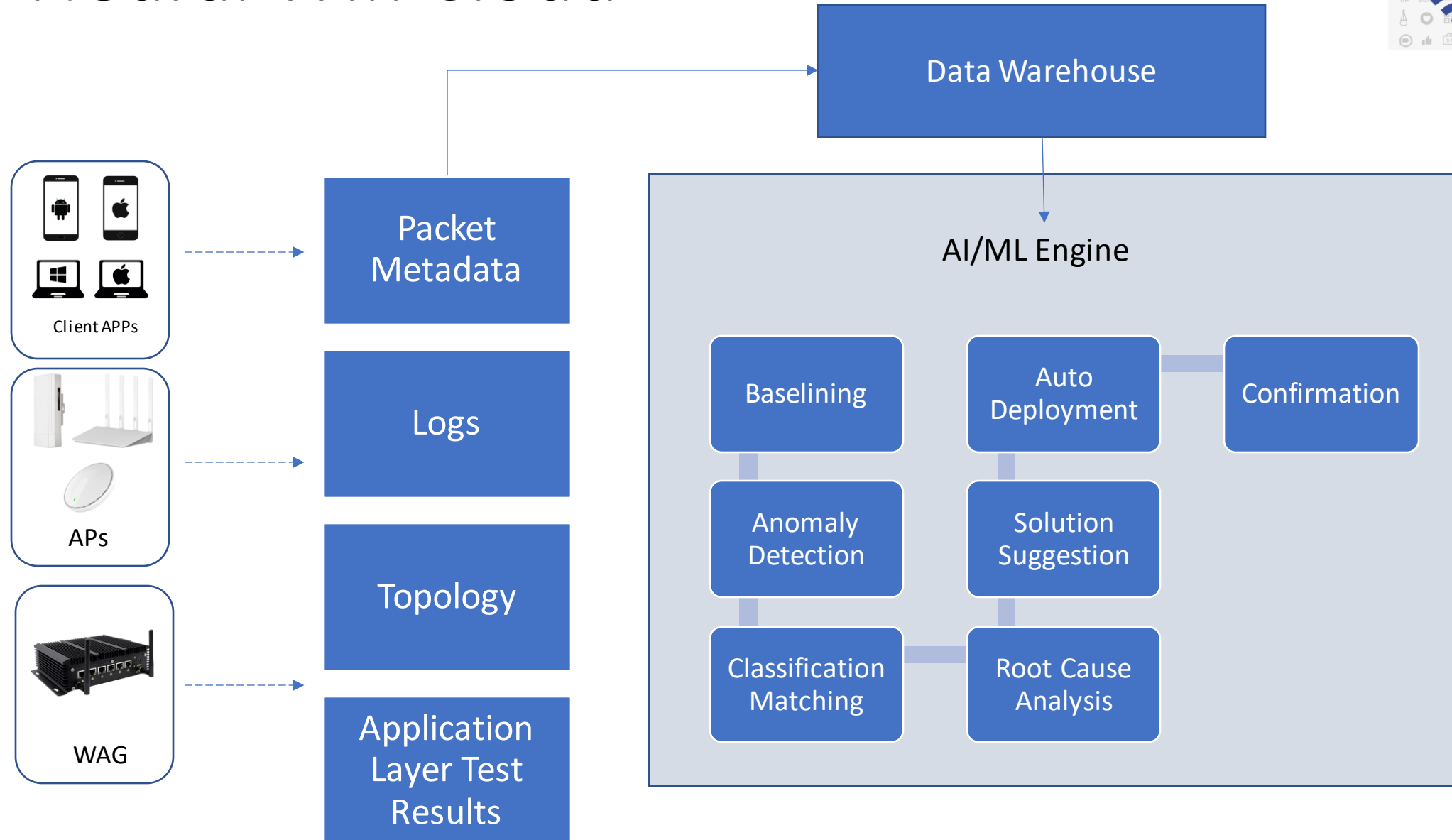
Operation & Management for hundreds of Wifi Zones.

Solutions

- Power Backup
 - Only Nodes with Power Backup in the Community
 - Locally, hand made
- O&M
 - Remote Provisioning, Monitoring & Control system
 - Agent mobile app



Neural Wifi Cloud



How Neural Wifi Cloud Works



- Collect data from client device using mobile app with their consent.
- As Isp are on board we collect data from their
 - Layer 2 devices.
 - Bras.
 - Routers and core network devices.

How Neural Wifi Cloud Works




- What data we collect:
 - Device health.
 - Interface stats.
 - Traffic stream metadata.
 - Uplink congestion status.
 - User connection point status.



How Neural Wifi Cloud Works

- What do we do with the collected data:
 - Store in the data warehouse
 - Creating a summary for level 1 tech support
 - Using AI to make the report more understandable to level 1 operators
 - Using AI to make automated solutions for certain problems.

Karigor AI Bot
Karigor AI Chat Bot V 1.0

 Based on the existing logs and diagnosis data, the following issues are identified:

1. User is at a far distance from the router
2. Ping delay is not optimal on BD ping server
3. Ping delay is not optimal on SG ping server
4. 2.4GHz channel width is invalid in TP-Link_FC39
5. 5GHz channel width is invalid in TP-Link_FC39_5G

Possible solutions for these issues:

1. User is at a far distance from the router
 - Move closer to the router or use a Wi-Fi extender to improve signal strength.
2. Ping delay is not optimal on BD ping server (22.67 ms) and SG ping server (22.67 ms)

Ask me anything...

Beta Pilot Program



Dashboard

Subscribers

Network pulse

Clear-sight

Logout

IP Information

IPv4 IP on internet: ::
IPv4 LAN : 192.168.1.1
LAN IP IPv6 : FE80::1227:F5FF:FE03:FC39/64
Link-local IPv6 : FE80::1227:F5FF:FE03:FC39/64
WAN Subnet Mask : 255.255.255.0
LAN Subnet Mask : 255.255.255.0
Default Gateway : 172.12.1.1

2.4GHz Information

SSID: TP-Link_FC39
BSSID: 10-27-F5-03-FC-39
Channel Width: 20 MHz
Mode: 802.11b/g/n mixed
DNS Status: Disabled
Channel: Auto (Current Channel 2)

5GHz Information

SSID: TP-Link_FC39_5G
BSSID: 10-27-F5-03-FC-39
Channel Width: 40 MHz
Mode: 802.11a/n/ac mixed
DNS Status: Disabled
Channel: 161

System Information CPU Load 11.875% Memory Usage 39%

IP Address	Host Name	Band	Mac Address
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Speed-Test

App Diagnosis

🕒 5:04 PM | Monday | 📅 November 20 2023



↓ 18.11 Mbps

↑ 17.81 Mbps

↻ Ping: 93.67ms

📉 Jitter: 25.86ms

↓ 18.51 Mbps

↑ 14.53 Mbps

↻ Ping: 119.53ms

📉 Jitter: 11.63ms

Future Directions



- Data Collection from Non Conventional Agents.
- Visualization Dashboards
- Machine learning
 - Automated Issue Detection
 - For Root Cause Analysis
 - Solution Recommendation
- Challenge: AI Talent is Expensive



Thank You

Contact us

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