## Dialogflow CX Request Cost

Understanding the cost associated with Dialogflow CX requests is crucial for budgeting AI chatbot development and deployment.

### Cost Per Request

Each user message is considered one request. The cost is structured as follows:

1 request = 1 user message

Cost per request = $0.007

Approximate cost in INR = ₹0.58

### Cost Formula

The total cost can be calculated using the following formula:

**Cost (₹) = Number of Requests × 0.58**

### Example Scenarios (Dialogflow CX)

Here are some examples illustrating the cost based on user volume and message frequency:

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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Users per Month | Avg. Messages per User | Total Requests | Cost in USD | Cost in INR |
| 100 users | 10 messages | 1,000 | $7 | ~₹580 |
| 1,000 users | 10 messages | 10,000 | $70 | ~₹5,810 |
| 10,000 users | 10 messages | 100,000 | $700 | ~₹58,100 |
| 100,000 users | 10 messages | 1,000,000 | $7,000 | ~₹5,81,000 |

### Cost Per User Session

A typical user session lasts 2-3 minutes, involving approximately 8-12 user messages. This leads to the following cost per session:

Cost per message: $0.007 (₹0.58)

For 8 messages: 8 × $0.007 = $0.056 ≈ ₹4.65

For 12 messages: 12 × $0.007 = $0.084 ≈ ₹6.95

**Therefore, 1 user session costs about ₹5–7 on average.**

### Audio Add-On Cost

If voice capabilities are used (Speech-to-Text and Text-to-Speech), an additional cost is incurred:

Cost: $0.001 per second of audio

For 120 seconds (2 minutes): 120 sec × $0.001 = $0.12 per user

**This adds approximately ₹10 per user extra for voice interaction.**

### Final Takeaway (Dialogflow CX)

**Text bot only:** ~₹5–7 per user session (8 to 12 req).

**Voice bot (STT+TTS):** ~₹15–17 per user session.

## Atlas Cluster Cost Estimate with Benefits

MongoDB Atlas offers various cluster tiers with associated costs and benefits, suitable for different application needs.

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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Cluster | RAM | Storage | Price/month (USD) | Approx INR | Benefits |
| M0 (Free) | 512 MB | 512 MB | $0 | ₹0 | - Free forever - Shared cluster - Good for development/testing - Manual backups only - Limited performance & storage |
| M2 | 2 GB | 10 GB | $9 | ₹750 | - Low-cost entry-level production - Shared cluster but better performance than M0 - Can handle small traffic (~5k bookings/month) - Manual snapshots - Great for testing real traffic |
| M5 | 5 GB | 20 GB | $25 | ₹2,100 | - Suitable for small production apps - Shared cluster with higher performance - Manual snapshots, supports basic replication - Can handle moderate traffic (~10–20k bookings/month) |
| M10 | 10 GB | 40 GB | $57 | ₹4,800 | - Dedicated cluster → better isolation & performance - Automated backups - Replica sets for high availability - Can handle high traffic and concurrent users (~50k bookings/month) |
| M20 | 20 GB | 80 GB | $114 | ₹9,600 | - High-performance dedicated cluster - Automated backups & point-in-time restore - Sharding supported for horizontal scaling - Best for enterprise-level usage, analytics, or heavy load |

## Abstract API Pricing

Abstract API provides pricing based on the number of requests per month.

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|  |  |  |  |
| --- | --- | --- | --- |
| Plan | Requests/Month | Price (USD) | Approx INR |
| Free | 500 requests | $0 | ₹0 |
| Starter | 10,000 requests | $9 | ₹750 |
| Professional | 50,000 requests | $39 | ₹3,250 |

Assumptions

OTP verification fee (Twilio Verify API) = $0.05 ≈ ₹4.15

SMS delivery fee = $0.0083 ≈ ₹0.69

Total per OTP = ₹4.15 + ₹0.69 = ₹4.84

Exchange rate ≈ ₹83 / $1

Calculations for 100, 500, 1000 OTPs per day  
  
 **Twillio**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| OTPs/Day | API Fee (₹) | SMS Fee (₹) | Total Cost/OTP (₹) | Daily Cost (₹) | Monthly Cost (30 days) (₹) |
| 100 | 4.15 | 0.69 | 4.84 | 484 | 14,520 |
| 500 | 4.15 | 0.69 | 4.84 | 2,420 | 72,600 |
| 1,000 | 4.15 | 0.69 | 4.84 | 4,840 | 145,200 |
| 2,000 | 4.15 | 0.69 | 4.84 | 9,680 | 290,400 |
| 5,000 | 4.15 | 0.69 | 4.84 | 24,200 | 726,000 |

## DLT Registration Cost (India)

This section details the one-time annual costs associated with DLT (Distributed Ledger Technology) registration in India, necessary for sending bulk SMS.

### One-Time Per Year Costs

Registration is required once per entity and works across all Indian telecom networks.

**Entity Registration:** ₹5,900 (including GST, valid for 1 year).

**Header (Sender ID):** ~₹1,000 each.

**Template Approval:** ~₹500 per template.

### Example Cost Breakdown (for a hospital)

Entity Registration: ₹5,900

Header (e.g., “ASAHLT”): ₹1,000

2 Templates (OTP + appointment alert): 2 × ₹500 = ₹1,000

**Total for the first year: ~₹7,900** 🌐 Public Web Hosting Costs (2025)

Hosting cost depends mainly on **size of your app/website, traffic, and type of hosting**.

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## 1. Shared Hosting (basic entry-level)

**What it is:** Your website sits on the same server as hundreds of other sites.

**Best for:** Small websites, landing pages, personal projects, very low traffic.

**Cost:**

**₹150–₹400/month** in India

**$2–$10/month** worldwide

**Pros:** Cheap, beginner-friendly, easy setup.

**Cons:** Slow, limited resources, not good for apps or high traffic.

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## 2. VPS (Virtual Private Server)

**What it is:** A server is split into virtual machines, you get dedicated CPU/RAM.

**Best for:** Medium apps, hospital systems, bots, moderate traffic.

**Cost:**

**₹1,000–₹3,000/month** (India)

**$10–$30/month** worldwide

**Pros:** More power, root access, better performance.

**Cons:** Requires technical knowledge, you manage updates & security.

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## 3. Cloud Hosting (AWS, Google Cloud, Azure, DigitalOcean, etc.)

**What it is:** Pay-as-you-go, scalable hosting on cloud servers.

**Best for:** Apps like your **Hey Doc! system** (appointments, SMS/email).

**Cost:**

Small instance (1 CPU, 1–2 GB RAM) → **$8–$15/month** (₹700–₹1200)

Medium instance (2 CPU, 4 GB RAM) → **$20–$40/month** (₹1600–₹3200)

**Pros:** Scalable, reliable, works with APIs (email/SMS).

**Cons:** More complex setup, costs increase with traffic/usage.

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## 4. Dedicated Server

**What it is:** You rent the whole physical server.

**Best for:** Very high traffic (10,000+ daily visitors).

**Cost:**

**₹7,000–₹20,000/month** (India)

**$80–$300+/month** worldwide

**Pros:** Maximum control, high performance.

**Cons:** Expensive, needs server admin.

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# ✅ Quick Recommendation for You (Hospital Bot & Appointment App)

Since your app:

Uses **FastAPI** + **MongoDB**

Needs **Cloud Run + Twilio (SMS) + Gmail (email)**

Will scale slowly (patients booking appointments)

👉 **Best choice = Google Cloud Run (serverless cloud hosting)**

**Free tier:** 2 million requests/month free.

**Paid:** After free tier, **₹700–₹1500/month ($8–$15)** for small scale usage.

**Scales automatically** (you don’t pay when nobody is booking).

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# 💰 Clear-Cut Cost Ranges

Small personal site → **₹150–₹400/month** (Shared)

Medium web app (like yours) → **₹700–₹3000/month** (Cloud/VPS)

Large traffic (hospitals across India) → **₹7,000+/month** (Dedicated/High Cloud)