

# WhatsApp Integration Guide

Complete setup guide for integrating WhatsApp Business messaging into your real estate lead automation workflow.

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## Why WhatsApp for Real Estate

### The Numbers

- **98% open rate** (vs 20% for email)
- **Average response in 90 seconds** (vs 90 minutes for email)
- **5x higher engagement** than SMS
- **90% of messages** read within 3 minutes

### Real Estate Specific Benefits

- ✔ **Instant reach** - Leads check WhatsApp constantly
- ✔ **Rich media** - Send property photos, videos, virtual tours
- ✔ **Two-way conversation** - Leads can respond immediately
- ✔ **International** - Works globally without extra cost
- ✔ **Read receipts** - Know when they've seen your message
- ✔ **Less spammy** - Feels more personal than SMS

### Demo Impact

When you show a prospect:

"Lead comes in → AI analyzes → WhatsApp message delivered in 60 seconds with personalized property info → Lead responds → Agent notified"

**That** is when they say **"I need this."**

## Setup Options Comparison

Feature	Twilio	360Dialog	WhatsApp Business App
Setup Time	30 min	45 min	5 min
Cost	\$0.005-0.02/msg	\$0.01-0.03/msg	Free
Automation	✔ Full	✔ Full	✗ Manual only
Scale	Unlimited	Unlimited	Low volume only
API Access	✔ Yes	✔ Yes	✗ No

<b>Official Badge</b>	✓ Yes	✓ Yes	✓ Yes
<b>Best For</b>	USA/Global	Europe/Asia	Testing/Manual backup

**Recommendation:** Start with **Twilio** (most documentation, best support, works everywhere).

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## Method 1: Twilio WhatsApp (Recommended)

### Overview

Twilio provides WhatsApp Business API access without needing Facebook Business approval. Fastest setup.

#### Costs:

- **Conversation-based pricing**
  - User-initiated (reply): \$0.005 per conversation
  - Business-initiated (first message): \$0.016-0.025 per conversation
  - **~\$1.50-2.50 per 100 leads** (very cheap!)
- 

### Step 1: Create Twilio Account

1. Go to: <https://www.twilio.com/try-twilio>
  2. Sign up (email + phone verification)
  3. You get **\$15 free trial credit** (enough for 500-1000 messages!)
  4. Verify your phone number
- 

### Step 2: Set Up WhatsApp Sandbox (Testing)

#### For immediate testing (before approval):

1. In Twilio Console, go to: **Messaging** → **Try it out** → **Send a WhatsApp message**
2. You'll see a WhatsApp number and join code like:

```
join <unique-code>
```

3. **On your phone:**
  - Open WhatsApp
  - Send message to: **+1 415 523 8886** (Twilio sandbox number)
  - Type: `join <your-unique-code>`

4. You'll get confirmation: **"You are now connected to Twilio Sandbox!"**

**Now you can test!** This number works for testing but shows "Twilio Sandbox" in messages.

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### Step 3: Get Production WhatsApp Number (Optional, for real use)

#### To send from YOUR business number:

1. In Twilio Console: **Messaging** → **Senders** → **WhatsApp senders**
2. Click **"Request WhatsApp Enabled Number"**
3. Choose a phone number (or port your existing number)
4. **Submit Business Profile:**
  - Business name
  - Business address

- Business description
- Website URL

5. **Wait for approval** (usually 1-3 days)

**Important:** You can keep using the sandbox while waiting for approval!

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## Step 4: Get Twilio Credentials

1. In Twilio Console, click "**Account**" in top right
2. Copy these values:
  - **Account SID** (starts with AC... )
  - **Auth Token** (click to reveal)

**Keep these secure!** You'll add them to n8n.

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## Step 5: Configure n8n Workflow

### Create Twilio Credential in n8n

1. Open n8n
2. Go to: **Credentials** → **New**
3. Search for: **HTTP Header Auth**
4. Configure:
  - **Name:** Twilio API
  - **Name (header):** Authorization
  - **Value:** Basic [BASE64\_ENCODED\_CREDENTIALS]

### To get BASE64\_ENCODED\_CREDENTIALS:

```
# Format: ACCOUNT_SID:AUTH_TOKEN
# Example: AC1234567890:abc123token

# Mac/Linux:
echo -n 'AC1234567890:abc123token' | base64

# Windows (PowerShell):
[Convert]::ToBase64String([Text.Encoding]::UTF8.GetBytes('AC1234567890:abc123token'))

# Or use online tool: https://www.base64encode.org/
```

Result will look like: QUMxMjM0NTY3ODkwOmFiYzEyM3Rva2Vu

So your header value is:

```
Basic QUMxMjM0NTY3ODkwOmFiYzEyM3Rva2Vu
```

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## Update Workflow Nodes

**In ALL 3 workflows, find WhatsApp nodes and update:**

### Main Lead Intake Workflow

**Node:** "WhatsApp to Lead (AI)"

1. Click the node

2. Update URL:

```
https://api.twilio.com/2010-04-01/Accounts/YOUR_ACCOUNT_SID/Messages.json
```

Replace `YOUR_ACCOUNT_SID` with actual SID (e.g., `AC1234567890` )

3. Update "From" number:

```
// Testing (sandbox)
"From": "whatsapp:+14155238886"

// Production (your number)
"From": "whatsapp:+15551234567" // Your Twilio WhatsApp number
```

4. Select credential: **Twilio API** (the one you just created)

#### Test it:

- Save workflow
- Execute manually with test data
- Check your phone for WhatsApp message!

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#### Follow-Up Drip Campaign Workflow

**Node:** "Send WhatsApp Follow-Up"

Same steps as above.

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#### Daily Agent Dashboard Workflow

**Node:** "Send WhatsApp Dashboard"

Same steps as above.

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### Step 6: Verify Phone Numbers (Important!)

**Twilio sandbox limitation:** Can only send to verified numbers.

**To verify agent phone numbers for testing:**

1. Have each agent send the join code to Twilio sandbox (Step 2 above)
2. Or, once you have production number, this restriction is lifted

**Production:** No verification needed, can send to anyone (with opt-in).

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## Method 2: 360Dialog WhatsApp Business API

### Overview

Alternative to Twilio, popular in Europe/Asia. Requires Meta Business verification.

#### Pros:

- Official WhatsApp Business API

- Green checkmark badge
- Better for international

#### Cons:

- Longer setup (Meta verification)
  - More complex
  - Slightly more expensive
- 

### Setup Steps

1. **Sign up:** <https://www.360dialog.com>
2. **Create WhatsApp Business Account:**
  - Business name
  - Business verification documents
  - Wait for Meta approval (3-7 days)
3. **Get API Key:**
  - Dashboard → API Keys
  - Copy the key
4. **Update n8n Workflow:**

```
// HTTP Request node
URL: https://waba.360dialog.io/v1/messages
Headers: {
  "D360-API-KEY": "YOUR_360DIALOG_API_KEY"
}
Body: {
  "to": "{{ $json.lead_phone }}",
  "type": "text",
  "text": {
    "body": "{{ $json.personalized_whatsapp }}"
  }
}
```

Full documentation: <https://docs.360dialog.com/>

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## Method 3: WhatsApp Business App (Manual)

### When to Use

- **Testing only** (no automation)
- **Backup channel** if API fails
- **Manual high-value leads** (personal touch)

### Setup

1. Download **WhatsApp Business** app (not regular WhatsApp)
  - iOS: App Store
  - Android: Play Store
2. Set up business profile:
  - Business name

- Category: Real Estate
  - Address, hours, website
3. Create quick replies:
- Settings → Business tools → Quick replies
  - Add templates for common responses

## Integration with n8n

Can't automate, but can use n8n to notify you:

```
// Instead of sending WhatsApp, send yourself a notification
"Send Slack message to agent with:
- Lead name, phone
- Suggested WhatsApp message (from AI)
- Agent copies and sends manually"
```

### Hybrid approach:

- Automated Slack notification with AI-generated message
- Agent copies message
- Sends via WhatsApp Business App
- Still faster than writing from scratch!

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## Testing Your Integration

### Test Checklist

#### ✅ Test 1: Basic Message Send

1. Import `lead-intake-ai-enhanced.json` workflow
2. Update WhatsApp credentials
3. **Manual test execution:**
  - Right-click workflow → Execute
  - Add test data:

```
{
  "body": {
    "name": "Test Lead",
    "email": "test@example.com",
    "phone": "+1234567890", // YOUR phone number
    "message": "Interested in 3BR house downtown",
    "source": "test"
  }
}
```

4. Check your phone - should receive WhatsApp message!

**Expected:** WhatsApp message within 30 seconds.

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#### ✅ Test 2: AI Personalization

Check that message is customized, not generic:

**Bad (template):**

"Hi Test Lead! Thanks for your inquiry. An agent will contact you soon."

**Good (AI-personalized):**

"Hi Test! Saw you're looking for a 3BR downtown - perfect timing, inventory just opened up! Calling you in 60 sec at (123) 456-7890. - Sarah"

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✅ **Test 3: End-to-End Flow**

1. Send a **real webhook request** (not manual execution):

```
curl -X POST https://your-n8n.com/webhook/realtor-lead-ai \
-H "Content-Type: application/json" \
-d '{
  "name": "Jane Doe",
  "email": "jane@example.com",
  "phone": "+1234567890",
  "message": "Looking for house, budget $500k, need ASAP",
  "source": "test"
}'
```

2. Verify **ALL channels** fire:

- ✅ Slack notification
- ✅ Email to lead
- ✅ WhatsApp to lead
- ✅ CRM entry created

**Timing:** All should complete within 10 seconds.

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✅ **Test 4: Follow-Up Workflow**

1. Manually trigger follow-up workflow
  2. Set a test lead in CRM with:
    - Last contact: 24 hours ago
    - Status: "new"
  3. Run follow-up workflow
  4. Verify Day 1 WhatsApp nudge sends
- 

✅ **Test 5: Daily Dashboard**

1. Set scheduled trigger to run in 2 minutes (for testing)
2. Wait for execution
3. Check WhatsApp for morning dashboard message

**Expected:**

🌞 Morning Briefing - Mar 12

Good morning Sarah! You have 12 active leads...

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# Best Practices & Compliance

## Legal Requirements (VERY IMPORTANT!)

### 1. Opt-In Required

You **MUST** have permission to message leads on WhatsApp.

How to get opt-in:

#### ✅ Website form:

```
<input type="checkbox" name="whatsapp_optin" required>
<label>
  I agree to receive property updates via WhatsApp.
  Standard message rates may apply.
</label>
```

#### ✅ Lead sources:

- Ensure Zillow, Facebook lead ads include WhatsApp consent
- Check "communication preferences" in lead payload

#### ❌ Never:

- Add random numbers to WhatsApp
- Message without explicit consent
- Buy lead lists and message them

**Penalty:** Account suspension, fines up to \$10,000/violation

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### 2. Provide Opt-Out

Every automated message should include:

"Reply STOP to opt out of WhatsApp messages."

**Handle STOP replies** (add to workflow):

```
// Add "Check for STOP" node in webhook
if (message.toLowerCase().includes('stop')) {
  // Update CRM: whatsapp_opted_out = true
  // Send confirmation: "You've been unsubscribed"
  // Do not send further WhatsApp messages
}
```

### 3. Timing Restrictions

Only send during business hours:

- ✅ 8 AM - 8 PM local time
- ❌ Never after 8 PM or before 8 AM

In n8n workflow, add:



```
// Check time before sending WhatsApp
const hour = new Date().getHours();
const isBusinessHours = hour >= 8 && hour < 20;

if (!isBusinessHours) {
  // Queue for next morning instead
  // OR send email as fallback
}
```

---

#### 4. Message Templates (For Promotional Messages)

**Meta requires pre-approved templates for:**

- Marketing messages
- Promotional offers
- Property listings sent to cold leads

**Does NOT apply to:**

- ☒ Reply to inquiry (within 24 hours)
- ☒ Follow-up to existing conversation
- ☒ Service notifications

**Our workflows** send inquiry responses, so templates NOT required.

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#### WhatsApp Best Practices

☒ **DO:**

- Keep messages under 160 characters
- Use emoji sparingly (1-2 max)
- Personalize with name, property specifics
- Include agent name/signature
- Respond to replies quickly
- Send property photos/videos
- Provide clear next steps

☒ **DON'T:**

- Send multiple messages in rapid succession
  - Use ALL CAPS
  - Send long paragraphs
  - Include too many links
  - Send at odd hours
  - Ignore replies
  - Use pushy sales language
- 

#### Message Tone Examples

**Bad:**

"URGENT! LIMITED TIME OFFER! This property won't last! Call NOW at 555-1234 or you'll MISS OUT!!!"

**Good:**

"Hi Sarah! Saw you're interested in downtown condos. I have 2 perfect matches I'd love to show you today. Free this afternoon? - Mike"

---

## Advanced: Rich Media Messages

### Sending Images (Property Photos)

```
// Twilio API - Send image
{
  "To": "whatsapp:+1234567890",
  "From": "whatsapp:+15551234567",
  "Body": "Check out this listing!",
  "MediaUrl": "https://yourdomain.com/property/123/image.jpg"
}
```

### Sending PDFs (Property Brochures)

```
{
  "To": "whatsapp:+1234567890",
  "From": "whatsapp:+15551234567",
  "Body": "Here's the detailed brochure",
  "MediaUrl": "https://yourdomain.com/brochures/property-123.pdf"
}
```

### Interactive Messages (Buttons)

Requires WhatsApp Business API (360Dialog):

```
{
  "to": "+1234567890",
  "type": "interactive",
  "interactive": {
    "type": "button",
    "body": {
      "text": "Interested in this property?"
    },
  },
  "action": {
    "buttons": [
      {
        "type": "reply",
        "reply": {
          "id": "schedule_viewing",
          "title": "Schedule Viewing"
        }
      },
    ],
  },
  {
    "type": "reply",
    "reply": {
      "id": "more_info",
    }
  }
}
```

```
        "title": "More Info"
      }
    }
  ]
}
}
```

Handle **button responses** in webhook with IF node.




---

## Troubleshooting

### "Failed to send message" Error

Possible causes:

#### 1. Invalid phone number format

-  Correct: whatsapp:+12345678901
-  Wrong: +1 (234) 567-8901
-  Wrong: 12345678901

**Fix:** Format all numbers as E.164 (+ country code, no spaces/dashes)

#### 2. Recipient not on WhatsApp

- Twilio will return error if number doesn't have WhatsApp
- **Fix:** Add fallback to SMS

#### 3. Sandbox not joined

- If using Twilio sandbox, recipient must join first
- **Fix:** Send join code or upgrade to production

#### 4. Rate limits exceeded

- Twilio: 200 messages/second
  - **Fix:** Add rate limiting or batching
- 

### "Insufficient funds" Error

**Cause:** Twilio account balance is \$0

**Fix:**

1. Go to Twilio Console → Billing
2. Add payment method
3. Set up auto-reload (recommended)

**Monitoring:**

- Set alert when balance < \$5
  - Estimate: \$1.50 per 100 messages
- 

## Messages Delayed

**Cause:** Twilio queuing during high volume

**Check:**

1. Twilio Console → Monitor → Logs → Messaging
2. Look for "queued" status

**Fix:**

- Upgrade Twilio account for higher throughput
  - Use messaging service (load balancing)
- 

## WhatsApp Account Suspended

**Causes:**

- Sending without opt-in
- High spam report rate (>0.1%)
- Sending promotions without templates
- Violating content policies

**Prevention:**

- Always get opt-in
- Don't buy lead lists
- Keep quality scores high (low block/report rate)
- Follow content policies (no illegal, misleading content)

**Recovery:**

- Contact Twilio support
  - May take 3-7 days to review
- 

## Phone Number Format Issues

**Use this code to clean phone numbers:**

```
// Add to workflow before WhatsApp send
function cleanPhoneNumber(phone) {
  // Remove all non-digits
  let cleaned = phone.replace(/\D/g, '');

  // Add country code if missing (assumes US)
  if (!cleaned.startsWith('1') && cleaned.length === 10) {
    cleaned = '1' + cleaned;
  }

  // Format for WhatsApp
  return `whatsapp:+${cleaned}`;
}

const formattedPhone = cleanPhoneNumber($json.lead_phone);
```

---

# Cost Calculator

## Twilio Pricing Breakdown

### Costs per message type:

- **User-initiated** (reply): \$0.005
- **Business-initiated** (first outreach): \$0.016-0.025
- **Average**: ~\$0.015 per message

### Scenario 1: 100 leads/month

Initial message:  $100 \times \$0.02 = \$2.00$   
Follow-ups (3 per lead):  $300 \times \$0.016 = \$4.80$   
Daily dashboards: 0 (sent to agent, not lead)

---

Total: \$6.80/month

### Scenario 2: 500 leads/month

Initial:  $500 \times \$0.02 = \$10.00$   
Follow-ups:  $1500 \times \$0.016 = \$24.00$

---

Total: \$34.00/month

### Compare to:

- SMS: \$0.0075 per message (~\$11.25 for 1500 messages)
- Email: \$0 but 20% open rate vs 98% for WhatsApp
- Phone calls: \$0.01-0.05 per minute + agent time

**ROI:** WhatsApp's 98% open rate means nearly guaranteed engagement. Worth every penny.

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## Next Steps

1. ☒ Choose provider (Twilio recommended)
  2. ☒ Sign up and get \$15 trial credit
  3. ☒ Join sandbox for testing
  4. ☒ Update n8n workflows with credentials
  5. ☒ Test with your phone number
  6. ☒ Request production number (optional)
  7. ☒ Add opt-in to lead forms
  8. ☒ Monitor message delivery and costs
- 

## Resources

- **Twilio WhatsApp Docs:** <https://www.twilio.com/docs/whatsapp>
  - **360Dialog Docs:** <https://docs.360dialog.com>
  - **WhatsApp Business Policy:** <https://www.whatsapp.com/legal/business-policy>
  - **n8n Twilio Node:** <https://docs.n8n.io/integrations/builtin/app-nodes/n8n-nodes-base-twilio/>
  - **Phone Number Formatting:** <https://en.wikipedia.org/wiki/E.164>
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🎉 **WhatsApp integration complete! Your leads now get instant, personalized responses where they actually check messages.**