

# Buffer Integration Guide

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## Overview

This service integrates with Buffer API to schedule and manage social media posts across multiple platforms.

## Prerequisites

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1. Buffer account (<https://buffer.com>)
  2. Buffer API access token
  3. Connected social media profiles in Buffer
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## Step 1: Create Buffer Account

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1. Visit <https://buffer.com>
  2. Sign up or log in
  3. Connect your social media accounts:
    - Twitter/X
    - Facebook
    - LinkedIn
    - Instagram
    - TikTok
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## Step 2: Get Buffer API Access Token

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### Option A: Using Buffer's Developer Portal

1. Visit <https://publish.buffer.com/profile>
2. Go to **Settings → API**
3. Click **Create New Access Token**
4. Copy the access token

### Option B: OAuth Flow (Production)

For production applications, implement OAuth 2.0:

1. Register your app at <https://buffer.com/developers>
2. Get your Client ID and Client Secret
3. Implement OAuth flow:  
`https://bufferapp.com/oauth2/authorize?  
client_id=YOUR_CLIENT_ID&  
redirect_uri=YOUR_REDIRECT_URI&  
response_type=code`
4. Exchange authorization code for access token

## Step 3: Configure Service

### Environment Variables

Add to `.env` file:

```
# Buffer Configuration
BUFFER_API_URL=https://api.bufferapp.com/1
BUFFER_ACCESS_TOKEN=your_buffer_access_token_here
```

### Test Configuration

```
# Start the service
./start.sh

# Test Buffer connection
curl -X GET "http://localhost:8007/api/v1/buffer/profiles" \
-H "Authorization: Bearer YOUR_JWT_TOKEN"
```

## Step 4: Connect Social Accounts

### Create Social Account in Service

```
curl -X POST "http://localhost:8007/api/v1/social-accounts" \
-H "Authorization: Bearer YOUR_JWT_TOKEN" \
-H "Content-Type: application/json" \
-d '{
  "platform": "twitter",
  "account_name": "@yourusername",
  "buffer_profile_id": "BUFFER_PROFILE_ID",
  "access_token": "BUFFER_ACCESS_TOKEN"
}'
```

### Get Buffer Profile IDs

```
curl -X GET "http://localhost:8007/api/v1/buffer/profiles" \
-H "Authorization: Bearer YOUR_JWT_TOKEN"
```

Response:

```
[
  {
    "id": "5f7c8b9a1e4f3a0001234567",
    "service": "twitter",
    "formatted_service": "Twitter",
    "formatted_username": "@yourusername"
  }
]
```

## Step 5: Schedule Posts

### Create Draft Post

```
curl -X POST "http://localhost:8007/api/v1/posts" \
-H "Authorization: Bearer YOUR_JWT_TOKEN" \
-H "Content-Type: application/json" \
-d '{
  "social_account_id": 1,
  "content": "Hello from Social Media Service! 🚀",
  "scheduled_time": "2025-12-25T10:00:00",
  "platform": "twitter"
}'
```

### Schedule via Buffer

```
curl -X POST "http://localhost:8007/api/v1/posts/1/schedule" \
-H "Authorization: Bearer YOUR_JWT_TOKEN"
```

## Buffer API Features Used

### 1. Get User Profile

```
GET /user.json?access_token=TOKEN
```

### 2. Get Profiles (Social Accounts)

```
GET /profiles.json?access_token=TOKEN
```

### 3. Create Update (Post)

```
POST /updates/create.json
{
  "profile_ids": ["PROFILE_ID"],
  "text": "Post content",
  "scheduled_at": 1640433600,
  "media": {"photo": "https://example.com/image.jpg"}
}
```

### 4. Get Update Statistics

```
GET /updates/{id}/statistics.json?access_token=TOKEN
```

## Platform-Specific Notes

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### Twitter/X

- Character limit: 280
- Supports images, GIFs, videos
- Hashtags recommended

### Facebook

- Character limit: 63,206 (but shorter is better)
- Supports links, images, videos
- Best times: 1-4 PM weekdays

### LinkedIn

- Character limit: 3,000
- Professional tone
- Best times: Tuesday-Thursday, 7-8 AM

### Instagram

- Requires image/video
- Character limit: 2,200
- First comment can include additional hashtags

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## Error Handling

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### Common Errors

#### 401 Unauthorized

```
{"error": "Unauthorized", "message": "Invalid access token"}
```

**Solution:** Refresh your Buffer access token

#### 403 Forbidden

```
{"error": "Forbidden", "message": "Profile not accessible"}
```

**Solution:** Reconnect the social account in Buffer

#### 503 Service Unavailable

```
{"error": "Buffer API unavailable"}
```

**Solution:** Wait and retry, Buffer may be experiencing issues

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## Rate Limits

- **Buffer API:** 60 requests per minute per access token
- **Service handles:** Automatic retry with exponential backoff
- **Best practice:** Cache Buffer profile data

## Security Best Practices

1. **Never commit tokens** to version control
2. **Use environment variables** for sensitive data
3. **Rotate tokens regularly** (every 90 days)
4. **Use OAuth in production** instead of personal access tokens
5. **Implement token encryption** in database

## Testing

### Test Buffer Connection

```
pytest tests/test_buffer_integration.py -v
```

### Manual Testing

```
# Get profiles
curl https://api.bufferapp.com/1/profiles.json?access_token=YOUR_TOKEN

# Test authentication
curl https://api.bufferapp.com/1/user.json?access_token=YOUR_TOKEN
```

## Troubleshooting

### Issue: “Buffer profile not found”

**Solution:** Sync profiles using `/social-accounts/{id}/sync-buffer`

### Issue: “Post scheduling failed”

#### Checks:

1. Verify Buffer access token is valid
2. Check social account is connected in Buffer
3. Ensure scheduled time is in the future
4. Verify content meets platform requirements

### Issue: “Analytics not syncing”

**Solution:** Use `/analytics/sync` endpoint to manually trigger sync

## Resources

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- **Buffer API Docs:** <https://buffer.com/developers/api>
  - **Buffer Status:** <https://status.buffer.com>
  - **Support:** <https://support.buffer.com>
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## Next Steps

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1. Create Buffer account and get access token
2. Configure service with Buffer credentials
3. Connect social accounts
4. Test post scheduling
5. Monitor analytics
6. Start scheduling posts!