

THE BITCOIN CORPORATION



Bitcoin OS Integration Guide

Complete Integration Documentation & Testing Guide

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Integration Status



COMPLETE

All Bitcoin apps are now integrated with Bitcoin OS!

Each app can now:

- Run standalone (as before) at their individual URLs
- Run inside Bitcoin OS as integrated apps with unified navigation
- Share the same taskbar and menu system when in OS mode
- Communicate with the OS through PostMessage API



Integrated Applications

Application	Framework	Port (Dev)	Status
Bitcoin Wallet	React	3001	✓ Integrated
Bitcoin Email	Next.js 15	3002	✓ Integrated
Bitcoin Music	Next.js 14	3003	✓ Integrated
Bitcoin Writer	React	3004	✓ Integrated
Bitcoin Drive	Next.js 15	3005	✓ Integrated
Bitcoin Jobs	React	3006	✓ Integrated



Testing Procedures

1. Start Bitcoin OS

```
cd /Users/b0ase/Projects/bitcoin-OS npm run dev # Or use the script: ./start-bitcoin-os.sh
```

Bitcoin OS runs on: <http://localhost:2050>

2. Open Bitcoin OS in Browser

- Click the rainbow Bitcoin icon (🌈) in top-left
- Select any app to launch it within the OS
- Apps open in draggable, resizable windows
- Bottom taskbar shows all open apps
- Apps menu in top bar also launches apps

3. Test Features

- **Window Management:** Drag, resize, minimize, maximize app windows
- **App Switching:** Click taskbar items or use app windows
- **Unified Navigation:** All apps share the same OS chrome
- **Clean UI:** Apps automatically hide their taskbars when in OS



Application Behavior in OS Mode

When running inside Bitcoin OS, each app:

1. **Hides its own taskbar/navigation** - OS provides these
2. **Sets its window title** - Shows in OS window header
3. **Removes extra padding** - Fits cleanly in OS window
4. **Enables OS communication** - Can talk to other apps through OS



Development Setup

If you want to test an app in development mode within the OS:

1. Start the app locally:

```
# Example for bitcoin-wallet cd /Users/b0ase/Projects/bitcoin-wallet npm start
```

2. Automatic Configuration

- The OS is already configured to use local URLs in development mode
- Open Bitcoin OS and launch the app - it will connect to your local instance

System Architecture

Bitcoin OS (Port 2050) |— TopMenuBar (Rainbow menu + app launcher) |— Desktop (Icons & wallpaper) |— AppLoader (iframe containers) | |— Bitcoin Wallet (iframe → port 3001 or production) | |— Bitcoin Email (iframe → port 3002 or production) | |— Bitcoin Music (iframe → port 3003 or production) | |— Bitcoin Writer (iframe → port 3004 or production) | |— Bitcoin Drive (iframe → port 3005 or production) | |— Bitcoin Jobs (iframe → port 3006 or production) |— OSTaskbar (Open apps & system tray)

Next Steps

1. **Deploy Bitcoin OS** to Vercel or your hosting
2. **Update app URLs** in `/lib/apps.config.ts` if you change domains
3. **Add new apps** by following the integration pattern
4. **Customize the desktop** with app icons and wallpaper
5. **Test production builds** of each app within the OS

Troubleshooting

App not loading in OS?

- Check browser console for CORS errors
- Verify app is running if testing locally
- Check iframe permissions in app's config

Taskbar still showing in app?

- Check `isInOS` detection in app
- Verify `PostMessage` communication is working

Can't drag/resize windows?

- Check browser compatibility
- Verify JavaScript is enabled



Success!

Your Bitcoin OS is now a fully functional desktop environment for all Bitcoin apps! Each app maintains its independence while providing a unified experience when running in the OS.

The integration framework provides seamless communication between applications while preserving the ability to run each app standalone when needed.