# CYPHER Dashboard Deployment Summary

## Deployment Package Created Successfully! 🎉

Your CYPHER Dashboard application has been successfully packaged and uploaded to AWS S3 for deployment on your existing RAS DASH EC2 instance.

## S3 Deployment Package Location

**Bucket**: cypher-deployment-20250806 **Region**: us-east-1

## Package Contents

### 1. Application Source Code

* **API Source**: cypher-dashboard/api/src/ - Complete Node.js/Express API source code
* **Client Source**: cypher-dashboard/client/src/ - Complete React/Vite client source code
* **Package Files**:
  + cypher-dashboard/api/package.json - API dependencies
  + cypher-dashboard/client/package.json - Client dependencies
* **Documentation**: cypher-dashboard/README.md - Project documentation

### 2. Deployment Automation

* **Deployment Script**: deploy-cypher.sh - Automated deployment script
* **Deployment Guide**: DEPLOYMENT\_GUIDE.md - Comprehensive deployment instructions

## Quick Deployment Steps

### Step 1: Connect to Your EC2 Instance

# Connect to your RAS DASH EC2 instance (i-04a41343a3f51559a)  
ssh -i your-key.pem ec2-user@your-ec2-public-ip  
# OR  
aws ssm start-session --target i-04a41343a3f51559a

### Step 2: Download and Execute Deployment Script

# Download the deployment script  
aws s3 cp s3://cypher-deployment-20250806/deploy-cypher.sh /tmp/deploy-cypher.sh  
  
# Make executable  
chmod +x /tmp/deploy-cypher.sh  
  
# Run deployment (as root)  
sudo /tmp/deploy-cypher.sh

### Step 3: Verify Deployment

# Check PM2 status  
sudo pm2 status  
  
# Test API  
curl http://localhost:3001/health  
  
# Test Client  
curl http://localhost:3000

## Application Configuration

### Ports

* **API Server**: Port 3001
* **Client Application**: Port 3000

### Database Connection

* **Host**: rasdash-dev-public.cexgrlslydeh.us-east-1.rds.amazonaws.com
* **Port**: 5432
* **Database**: rasdashdevo1
* **User**: rasdashadmin
* **Password**: RasDash2025$

### Process Management

* **PM2** is used for process management
* Services auto-restart on failure
* Services start automatically on system boot

## What the Deployment Script Does

1. **Prerequisites Check**: Verifies Node.js, npm, AWS CLI, and PM2
2. **Backup**: Creates backup of any existing installation
3. **Download**: Downloads application from S3
4. **Dependencies**: Installs all required npm packages
5. **Environment**: Creates production environment files
6. **Build**: Builds the client application for production
7. **PM2 Setup**: Configures PM2 ecosystem for both API and client
8. **Services**: Starts both API and client services
9. **Firewall**: Configures firewall rules (if UFW available)
10. **Health Check**: Verifies both services are running

## Security Groups Required

Ensure your EC2 security group allows: - **Port 3000** (Client) - Inbound TCP from 0.0.0.0/0 - **Port 3001** (API) - Inbound TCP from 0.0.0.0/0 - **Port 22** (SSH) - For management access

## Post-Deployment Access

Once deployed, you can access: - **CYPHER Dashboard**: http://your-ec2-public-ip:3000 - **API Endpoints**: http://your-ec2-public-ip:3001 - **Health Check**: http://your-ec2-public-ip:3001/health

## Service Management Commands

# View service status  
sudo pm2 status  
  
# View logs  
sudo pm2 logs  
  
# Restart services  
sudo pm2 restart all  
  
# Stop services  
sudo pm2 stop all  
  
# Monitor services  
sudo pm2 monit

## Log Locations

* **Deployment Log**: /var/log/cypher-deployment.log
* **API Logs**: /var/log/cypher-api.log
* **Client Logs**: /var/log/cypher-client.log
* **PM2 Logs**: ~/.pm2/logs/

## Troubleshooting

If you encounter issues:

1. **Check deployment log**: tail -f /var/log/cypher-deployment.log
2. **Check PM2 status**: sudo pm2 status
3. **Check service logs**: sudo pm2 logs
4. **Verify ports**: sudo netstat -tlnp | grep -E ':(3000|3001)'
5. **Test database connection**: Use the connection details above

## Support Files Available

All deployment files are available in the S3 bucket: - Download deployment guide: aws s3 cp s3://cypher-deployment-20250806/DEPLOYMENT\_GUIDE.md . - Download deployment script: aws s3 cp s3://cypher-deployment-20250806/deploy-cypher.sh .

## Next Steps

1. **Deploy**: Run the deployment script on your EC2 instance
2. **Test**: Verify both API and client are accessible
3. **Configure DNS**: Point your domain to the EC2 instance (optional)
4. **Setup SSL**: Configure SSL certificates for production use (optional)
5. **Monitor**: Set up monitoring and alerting for the services

## Backup Strategy

The deployment script automatically creates backups before deployment: - Backup location: /opt/cypher-dashboard-backup-YYYYMMDD-HHMMSS - To restore: sudo cp -r /opt/cypher-dashboard-backup-\* /opt/cypher-dashboard

## Updates

To update the application: 1. Upload new files to the S3 bucket 2. Re-run the deployment script 3. The script will automatically backup the current version before updating

**Deployment Package Created**: August 6, 2025 **S3 Bucket**: cypher-deployment-20250806 **Target Instance**: i-04a41343a3f51559a (RAS DASH EC2)

Your CYPHER Dashboard is ready for deployment! 🚀