# 🔧 Digital Twin SOC Dashboard - Troubleshooting Guide

## 🚨 **Common Issues & Solutions**

### **Dashboard Loading Issues**

#### **Problem**: Dashboard won’t load or shows blank page

**Symptoms**: - Blank white page - Loading spinner that never stops - “Page not found” error

**Solutions**: 1. **Wait 10-15 seconds** - Dashboard needs time to initialize 2. **Refresh the page** - Press Ctrl+F5 (Windows) or Cmd+Shift+R (Mac) 3. **Clear browser cache** - Go to browser settings and clear cache 4. **Try different browser** - Chrome, Firefox, Safari, or Edge 5. **Check internet connection** - Ensure stable internet access 6. **Try incognito/private mode** - Disable extensions temporarily

#### **Problem**: Dashboard loads but features don’t work

**Symptoms**: - Page loads but buttons don’t respond - No interactions possible - JavaScript errors in console

**Solutions**: 1. **Enable JavaScript** - Check browser settings 2. **Disable browser extensions** - Try incognito mode 3. **Update browser** - Use latest version 4. **Check console errors** - Press F12, look for red errors 5. **Try different device** - Test on another computer/phone

### **Performance Issues**

#### **Problem**: Dashboard is slow or laggy

**Symptoms**: - Delayed button responses - Choppy animations - Long loading times

**Solutions**: 1. **Close other browser tabs** - Free up memory 2. **Restart browser** - Clear memory and cache 3. **Check device memory** - Close other applications 4. **Use wired internet** - More stable than WiFi 5. **Try different browser** - Some browsers perform better 6. **Clear browser data** - Remove temporary files

#### **Problem**: Mobile performance issues

**Symptoms**: - Touch not responding - Layout problems - Slow scrolling

**Solutions**: 1. **Use Chrome or Safari** - Best mobile browsers 2. **Rotate to landscape** - Better viewing experience 3. **Zoom out** - See full dashboard 4. **Clear mobile cache** - Free up storage 5. **Restart mobile browser** - Refresh memory 6. **Check mobile data/WiFi** - Ensure good connection

### **Feature-Specific Issues**

#### **Problem**: Network nodes not clickable

**Symptoms**: - Clicking nodes does nothing - No tooltip appears - No status changes

**Solutions**: 1. **Wait for full load** - Nodes become interactive after load 2. **Try different node** - Some may be temporarily disabled 3. **Refresh page** - Restart interaction system 4. **Check browser zoom** - Reset to 100% 5. **Try different browser** - Compatibility issue

#### **Problem**: AI agents not switching

**Symptoms**: - Clicking agent cards does nothing - Reasoning doesn’t change - Agent stays the same

**Solutions**: 1. **Wait for reasoning to load** - Give AI time to process 2. **Click agent card directly** - Not just the text 3. **Refresh page** - Restart AI system 4. **Try Manual Mode** - More reliable than Auto Mode 5. **Check console errors** - Look for JavaScript issues

#### **Problem**: Attack simulation not working

**Symptoms**: - “Trigger Attack” button does nothing - No visual changes on network - No activity in logs

**Solutions**: 1. **Use Manual Mode** - Auto Mode may be disabled 2. **Wait for previous actions** - Let current actions complete 3. **Click “Reset” first** - Clear any stuck states 4. **Refresh page** - Restart simulation system 5. **Check internet connection** - Simulation needs connectivity

### **Browser-Specific Issues**

#### **Chrome Issues**

**Common Problems**: - Extensions interfering - Hardware acceleration issues - Memory usage

**Solutions**: 1. **Disable extensions** - Try incognito mode 2. **Disable hardware acceleration** - Settings → Advanced → System 3. **Clear browsing data** - Settings → Privacy → Clear data 4. **Update Chrome** - Check for latest version

#### **Firefox Issues**

**Common Problems**: - JavaScript disabled - Privacy settings blocking - Add-ons interfering

**Solutions**: 1. **Enable JavaScript** - about:config → javascript.enabled 2. **Disable strict privacy** - Settings → Privacy → Standard 3. **Disable add-ons** - Try safe mode 4. **Update Firefox** - Check for latest version

#### **Safari Issues**

**Common Problems**: - JavaScript disabled - Content blockers - Privacy settings

**Solutions**: 1. **Enable JavaScript** - Preferences → Security → Enable JavaScript 2. **Disable content blockers** - Temporarily disable 3. **Allow pop-ups** - Preferences → Websites → Pop-up Windows 4. **Update Safari** - Check for latest version

#### **Edge Issues**

**Common Problems**: - Tracking prevention - Extensions interfering - Compatibility mode

**Solutions**: 1. **Disable tracking prevention** - Settings → Privacy → Tracking prevention 2. **Disable extensions** - Try InPrivate mode 3. **Disable compatibility mode** - Settings → Default browser 4. **Update Edge** - Check for latest version

### **Network Issues**

#### **Problem**: Dashboard loads but data doesn’t update

**Symptoms**: - Static information - No real-time updates - Metrics don’t change

**Solutions**: 1. **Check internet connection** - Ensure stable connection 2. **Disable VPN** - May block real-time updates 3. **Check firewall** - Allow browser through firewall 4. **Try different network** - Test on different WiFi/mobile data 5. **Restart router** - Refresh network connection

#### **Problem**: Mobile data issues

**Symptoms**: - Slow loading on mobile data - Features not working on mobile - Intermittent connectivity

**Solutions**: 1. **Use WiFi when possible** - More stable than mobile data 2. **Check data limits** - Ensure sufficient data allowance 3. **Try different mobile browser** - Chrome or Safari recommended 4. **Clear mobile browser cache** - Free up storage 5. **Restart mobile browser** - Refresh connection

### **Access Issues**

#### **Problem**: Can’t access dashboard URL

**Symptoms**: - “Page not found” error - “Access denied” message - URL doesn’t work

**Solutions**: 1. **Check URL spelling** - Ensure correct URL 2. **Try different URL format** - Add/remove trailing slash 3. **Check GitHub Pages status** - May be temporarily down 4. **Try different device** - Test on another computer 5. **Contact administrator** - May need access permissions

#### **Problem**: Dashboard works but team can’t access

**Symptoms**: - You can access but others can’t - Different behavior for different users - Access restrictions

**Solutions**: 1. **Share correct URL** - Ensure everyone has right link 2. **Check browser compatibility** - Ensure modern browsers 3. **Verify internet access** - Check team’s connectivity 4. **Test from different locations** - Verify accessibility 5. **Contact IT support** - May need network configuration

## 🆘 **Emergency Procedures**

### **If Dashboard Completely Fails**

1. **Try different browser** - Chrome recommended
2. **Try different device** - Computer, tablet, phone
3. **Try different network** - WiFi, mobile data, different location
4. **Wait 30 minutes** - May be temporary server issue
5. **Contact technical support** - Escalate if needed

### **If Demo Must Continue**

1. **Use backup materials** - Screenshots, videos
2. **Explain concepts verbally** - Focus on benefits
3. **Reschedule demo** - Better to show working system
4. **Use local files** - If available offline
5. **Prepare alternative** - Have backup presentation ready

## 📞 **Support Escalation**

### **Level 1: Self-Service**

* Use this troubleshooting guide
* Try basic solutions first
* Check browser and network

### **Level 2: Team Support**

* Contact team technical lead
* Share specific error messages
* Provide browser and device details

### **Level 3: External Support**

* Contact GitHub support (if Pages issue)
* Contact browser support (if browser issue)
* Contact network administrator (if network issue)

## 📋 **Information to Provide When Seeking Help**

### **Technical Details**

* **Browser**: Chrome, Firefox, Safari, Edge (version)
* **Device**: Desktop, laptop, tablet, phone (model)
* **Operating System**: Windows, Mac, iOS, Android (version)
* **Internet Connection**: WiFi, mobile data, wired
* **Error Messages**: Exact text of any error messages

### **Problem Description**

* **What you were trying to do**: Specific action
* **What happened**: Actual result
* **What you expected**: Expected result
* **When it started**: Time and circumstances
* **Steps taken**: What you’ve already tried

**🔧 This troubleshooting guide should resolve most issues your team encounters with the Digital Twin SOC Dashboard.**

**For additional support, contact your technical lead with the specific details above.**