

# ***TFB*** Alarm Manager



## **Reference Guide**

For Technicians and Administrators

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**TFB** TECHNOLOGY  
FOR BUSINESS  
"We Open Systems."



TECHNOLOGY FOR BUSINESS CORP.

# Alarm Manager

## Reference Guide

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# SECTION 1

## Alarm Manager Overview

The TFB Alarm Manager is a recommended component for every new system installation. It runs independently of the TFB feature software, to provide redundant monitoring of mission critical connections and functionality.

TFB architecture is inherently redundant – Media Server and CTI Server functionality run on top of telephone system functionality, ensuring that calls get through to your agents, even if there is an issue with the LAN or server-based features. The Alarm Manager provides additional, proactive notification of such conditions via email messages sent to any group of addresses. Alarm components run on each server, broadcasting their condition and redundantly monitoring each of the other servers.

This Manual describes the built-in alarms available in the TFB *Alarm Manager*. It is intended primarily for technical MIS personnel, and the technicians charged with management of the *CTI Server* and *Media Server* platforms.

## SECTION 2

# Alarm Definitions

### Alarm 101 – Campaign Failure

#### Description

When an active outbound campaign is not generating outbound IVR calls for a predetermined duration, the system sends an email Alarm as configured. The timeout duration for outbound dialing activity is configured in *tfb.cfg*.

#### Should We Call Support?

Single campaign errors are not a reason for concern, only a string of repeated errors indicates a serious problem. Single errors are typically trapped and corrected by the system automatically.

#### Supported Actions

- Send Email

#### Definition Format

```
101,IVR Campaign Failure 1,EXTERNAL,1,EMAIL,300,Dan,  
IVR Campaign Failure,
```

### Alarm 102– Campaign Failure 2

#### Description

This is identical to 101 for an active outbound campaign that is not generating outbound IVR calls for a predetermined duration. The system restarts the IVR port drivers (VOS) as a precaution. The timeout duration for outbound dialing activity is configured in *tfb.cfg*.

#### Valid Actions

- Restart VOS

#### Definition Format

```
102,IVR Campaign Failure 2,EXTERNAL,1,RESTART_VOS,300,,, , ,
```

## **Alarm 103 – Database Access Error**

### **Description**

The Database Access Error alarm is designed to detect errors in the connection from a designated TFB application to an external database. When an active database connection returns an error, the system sends an email Alarm as configured. This is typically used in conjunction with database access for IVR applications.

### **Should We Call Support?**

Single database errors are not a reason for concern, only a string of repeated errors indicates a serious problem. Single errors are typically trapped and corrected by the system automatically.

### **Valid Actions**

- Send Email
- Restart CTI Server
- Log

### **Definition Format**

```
103,DB Access Desc,EXTERNAL,1,EMAIL,300,TFB,  
Database Access Error,
```

## Alarm 104 – Abandoned Call

### Description

When a call abandons after being queued to a monitored split, the system sends an email message and logs the event as configured. This alarm is available only with the TFB *Abandoned Call Notification* application installed.

The email message also contains an embedded URL link to the record of the call in *ACD Reports*. Users with access to *ACD Reports* can click this link to view call detail.

### Should We Call Support?

This error typically indicates a caller hanging up. Repeated and persistent abandons at a rate significantly higher than normal could be indicative of trunk, ACD, or other telephone system issue, and should be reported to your support contact immediately.

### Valid Actions

- Send Email
- Log

### Definition Format

```
104,Abandoned Call,EXTERNAL,1,EMAIL,0,TFB,Abandon list to,
```

### Sample Email Message

```
Module : TFBSYS  
Abandon list to TFB 05/11/2005 at 11:10:45.
```

```
Call arrived - 05/11/2005 at 11:10:41  
Abandoned - 05/11/2005 at 11:10:45  
ANI - 3807  
Pilot - 3803  
Split - 4  
Account - / /  
Client - 1/5/0
```

[http://mediaserver/reports/call\\_details.php?call\\_key=12005131000267](http://mediaserver/reports/call_details.php?call_key=12005131000267)

```
--- end of email ---
```

## **Alarm 105 – Infolink Failure Timeout**

### **Description**

*Infolink Failure Timeout* is designed to be a redundant check on the integrity of the CTI Server connection to the ACD. When an active Infolink connection does not send a valid message for a predetermined duration, the system sends an email message and logs the event. The timeout duration for Infolink inactivity is configured in *tfb.cfg*.

### **Should We Call Support?**

If this error is accompanied by service interruption to callers, it could indicate a problem with the ACD, the LAN, or a server. Contact your designated support representative immediately.

### **Valid Actions**

- Send Email
- Restart CTI Server
- Log

### **Definition Format**

```
105,Infolink Failure Timeout,EXTERNAL,1,EMAIL,0,TFB,  
Infolink data packet timeout to,
```

## Alarm 106 – Infolink Failure Connect

### Description

*Infolink Failure Connect* is designed to be a redundant check on the integrity of the initial connection to the ACD on CTI Server startup. When the connection attempt fails, the system sends an email message and logs the event.

### Should We Call Support?

If this error is accompanied by service interruption to callers, it could indicate a problem with the ACD, the LAN, or a server. Contact your designated support representative immediately.

### Valid Actions

- Send Email
- Restart VOS
- Restart CTI Server
- Log

### Definition Format

```
106,Infolink Failure Connect,EXTERNAL,1,EMAIL,600,TFB,  
Infolink connect failed to,
```

### Sample Email Message

```
Module : TFBSYS  
Infolink connect failed to TFB 05/01/2005 at 10:14:41.  
  
Unable to connect to ACD at 192.168.254.248 on 1039.
```

## **Alarm 107 – Infolink Failure Restart**

### **Description**

*Infolink Failure Connect* is designed to be a redundant check on the integrity of the initial connection to the ACD after a CTI Server restart. When the connection attempt fails, the system sends an email message and logs the event.

### **Should We Call Support?**

If this error is accompanied by service interruption to callers, it could indicate a problem with the ACD, the LAN, or a server. Contact your designated support representative immediately.

### **Valid Actions**

- Send Email
- Restart VOS
- Restart CTI Server
- Log

### **Definition Format**

107,Infolink Restart,EXTERNAL,1,EMAIL,0,TFB,  
Infolink restart to,

## Alarm 1001 – TCP Socket Error

### Description

TCP Socket Error monitors sockets messages send between TCP applications. The message specifies the message target as Module and the message sender along with the Port number. TFB architecture is modularized, and modules communicate with each other via TCP/IP sockets messages. This alarm is typically references communication between these modules.

### Should We Call Support?

Single socket errors are not a reason for concern, only a string of repeated errors indicates a serious problem. Single errors are typically trapped and corrected by the system automatically.

### Valid Actions

- Send Email
- Restart VOS
- Restart CTI Server
- Log

### Definition Format

```
1001,TCP Socket Error,EXTERNAL,1,EMAIL,300,TFB,  
TCP Socket Error,,,,
```

### Sample Email Message

```
Module : Node1  
TCP Socket Error TFB 05/02/2005 at 08:09:25.
```

```
TELECOM: (Port:2516) No connection could be made because the target  
machine actively refused it
```

## Alarm 1002 – Web Socket Error

### Description

The *Web Socket Error* alarm is designed to notify users when the primary page of a web-based application is not accessible. This alarm refers specifically to TFB *Agent eMail* and TFB *ACD Reports* only, which are thin-client applications hosted in IIS on the *Media Server*. The TFB ID application tests these applications continuously in 5 minute intervals to ensure they are available to users.

### Should We Call Support?

Single web socket errors are not a reason for concern, only a string of repeated errors indicates a serious problem. Single errors are typically trapped and corrected by the system automatically.

### Valid Actions

- Send Email
- Restart VOS
- Restart CTI Server
- Log

### Definition Format

```
1002,Web Socket Error,EXTERNAL,1,EMAIL,300,TFB,  
Web Socket Error,,,,
```

## Alarm 1101 – Operating System Violation

### Description

The *Operating System Violation* alarm checks for the presence of the minimum required service packs and licensing in the OS for both *CTI Server* and *Media Server*. OS requirements are set inside software and do not have to be configured at installation.

### Should We Call Support?

The end user or their vendor is responsible for routine maintenance of servers, including service pack installation, Microsoft updates, and disk defragging. Ensure that the OS is properly updated and that your standard troubleshooting procedures have been followed. You can service pack TFB Windows-based servers as you would any other server. Because OS maintenance procedures typically require a reboot, care should be taken to schedule service for minimal disruption of telephony applications.

### Valid Actions

- Send Email
- Restart VOS
- Restart CTI Server
- Log

### Definition Format

1101,Operating System Violation,EXTERNAL,1,LOG,0,,,,,

## Alarm 1102 – Service Pack Violation

### Description

The *Service Pack Violation* alarm is designed to monitor SQL Server for minimum service pack requirements. TFB uses SQL Server to hold configuration data on *CTI Server* and reporting data on *Media Server*. SQL Server instances not properly service packed are a security risk and should not be connected to your network until properly patched.

### Should We Call Support?

The end user or their vendor is responsible for routine maintenance of servers, including service pack installation, Microsoft updates, and disk defragging. Ensure that SQL Server is properly updated and that your standard troubleshooting procedures have been followed. Because OS maintenance procedures typically require a reboot, care should be taken to schedule service for minimal disruption of telephony applications.

### Valid Actions

- Send Email
- Restart VOS
- Restart CTI Server
- Log

### Definition Format

```
1102,Service Pack Violation,EXTERNAL,1,LOG,0,,,,,
```

## Alarm 1201 – Low Physical Memory

### Description

The *Low Physical Memory* alarm alerts users when the physical RAM in CTI Server or Media Server is below the recommended threshold. The minimum required RAM is set in software and not configurable by users. Repeated triggering of this alarm could indicate a memory leak in an installed application, or simply a transient high volume condition. It may or may not indicate a requirement to add more RAM to the system. Your MIS technician should follow appropriate troubleshooting procedures to determine the correct course of action.

### Should We Call Support?

Ensure that your standard troubleshooting procedures have been followed, and contact your support representative if rebooting the server does not restore available RAM to acceptable levels.

### Valid Actions

- Send Email
- Restart VOS
- Restart CTI Server
- Log

### Definition Format

```
1201,Low Physical Memory,EXTERNAL,1,EMAIL,86400,TFB,  
Low Physical Memory,,,,
```

## Alarm 1202 – Low Virtual Memory

### Description

The *Low Virtual Memory* alarm alerts users when the virtual RAM in CTI Server or Media Server is below the recommended threshold. The minimum required RAM is set in software and not configurable by users. Repeated triggering of this alarm could indicate a memory leak in an installed application, or simply a transient high volume condition. It may or may not indicate a requirement to add more RAM to the system or to adjust the virtual memory page size. The appropriate MIS technician should follow appropriate troubleshooting procedures to determine the correct course of action.

### Should We Call Support?

Ensure that your standard troubleshooting procedures have been followed, and contact your support representative if rebooting the server does not restore available RAM to acceptable levels.

### Valid Actions

- Send Email
- Restart VOS
- Restart CTI Server
- Log

### Definition Format

```
1202,Low Virtual Memory,EXTERNAL,1,EMAIL,86400,TFB,  
Low Virtual Memory,,,,,
```

## **Alarm 1203 – Low Visible Memory**

### **Description**

The *Low Visible Memory* alarm alerts users when the RAM available to CTI Server or Media Server applications is below the recommended threshold. The minimum required RAM is set in software and not configurable by users. Repeated triggering of this alarm could indicate a memory leak in an installed application, or simply a transient high volume condition. It may or may not indicate a requirement to add more RAM to the system or to adjust the virtual memory page size. The appropriate MIS technician should follow appropriate troubleshooting procedures to determine the correct course of action.

### **Should We Call Support?**

Ensure that your standard troubleshooting procedures have been followed, and contact your support representative if rebooting the server does not restore available RAM to acceptable levels.

### **Valid Actions**

- Send Email
- Restart VOS
- Restart CTI Server
- Log

### **Definition Format**

```
1203,Low Visible Memory,EXTERNAL,1,EMAIL,86400,TFB,  
Low Visible Memory,,,,,
```

## Alarm 1301 – Low Drive Space

### Description

The *Low Drive Space* alarm alerts users when the available hard drive space on CTI Server or Media Server is below the recommended threshold. The minimum required RAM is set in software and not configurable by users. Most of hard drive space is typically used by daily logs and reporting data. Voice prompts can also take up a large amount of space on the drive. If you own an older server, it likely has accumulated data in log files that can be archived or erased.

### Should We Call Support?

Ensure that your standard troubleshooting procedures have been followed, and contact your support representative if this alarm persists.

### Valid Actions

- Send Email
- Restart VOS
- Restart CTI Server
- Log

### Definition Format

```
1301,Low Drive Space,EXTERNAL,1,EMAIL,86400,TFB,  
Low Drive Space,,,,
```

## Alarm 1401 – SQL Server Error

### Description

The *SQL Server Error* alarm is triggered by any designated error generated by SQL. The email message generated specifies the exact error, and contains a dump of the related data. This alarm refers specifically to *TFB ACD Reports* only. Reporting data is inserted into the SQL database continually, and stored procedures are run at regular intervals. Should any of those activities generate an error in SQL, that error is logged and rebroadcast via email by this alarm.

### Should We Call Support?

Single SQL errors are not a reason for concern, only a string of repeated errors indicates a serious problem. Single errors are typically trapped and corrected by the system automatically.

### Valid Actions

- Send Email
- Restart VOS
- Restart CTI Server
- Log

### Definition Format

```
1401,SQL Server Error,EXTERNAL,1,EMAIL,300,TFB,  
SQL Server Error,,,,
```

### Sample Email Message

```
Module : Contact Center Reporting  
SQL Socket Error TFB 05/11/2005 at 14:19:50.  
  
Timeout expired. The timeout period elapsed prior to completion of  
the operation or the server is not responding.  
    at System.Data.SqlClient.SqlCommand.ExecuteNonQuery()  
    at acdrd.ACDRService.SQL(String Query)  
Return-Path: tfbcti@tempurpedic.com  
Message-ID: <TPUSA-TFBMEDIANeT1Z0000000a@TPUSA-  
TFBMEDIA.tpusa.twi.dom>  
X-OriginalArrivalTime: 11 May 2005 18:19:50.0434 (UTC)  
FILETIME=[05332020:01C55656]  
Date: 11 May 2005 14:19:50 -0400
```

## Alarm 1402 – Subscription Error

### Description

The *Subscription Error* alarm triggers when a connection attempt from Media Server to CTI Server fails. By default, this alarm is set to repeat every 5 minutes (300s), but a single occurrence is not a cause for concern.

### Should We Call Support?

These errors can happen occasionally, and the Media Server automatically retries when the error is detected, so a single occurrence is not a cause for concern. Multiple consecutive occurrences of 3 or more should be addressed promptly through your support contact.

### Valid Actions

- Send Email
- Restart VOS
- Restart CTI Server
- Log

### Definition Format

```
1402,Subscription  
Error,EXTERNAL,1,EMAIL,300,TFB,Subscription Error,,,,
```

## Alarm 1403 – SQL Agent Error

### Description

The *SQL Agent Error* alarm is triggered by any designated error generated by the SQL Agent service. The email message generated specifies the exact error, and contains a dump of the related data. The SQL Agent is automatically restarted also. This error is most commonly seen immediately after applying a new service pack to SQL Server and restarting.

### Should We Call Support?

Single SQL Agent errors are not a reason for concern, only a string of repeated errors indicates a serious problem. Single errors are typically trapped and corrected by the system automatically.

### Valid Actions

- Send Email
- Restart VOS
- Restart CTI Server
- Log

### Definition Format

```
1403,SQL Agent Error,EXTERNAL,1,EMAIL,300,TFB,  
SQL Agent Error,,,,
```

## Alarm 911 – System Restart RESERVED

### Description

The *System Restart* alarm is designed to notify IT staff when the TFB ID service itself has been restarted for any reason. This alarm is reserved for receipt by TFB technical support or authorized TFB dealers. Users do not typically subscribe to this alarm.

### Valid Actions

- Send Email
- Log

### Definition Format

911, System Restart, EXTERNAL, 1, LOG, 0, TFB, System Restart,

### Sample Email Message

---

#### TFB Alarm Condition

---

Event Time: 5/11/2005 11:50:12 AM  
Event ID: 632514090126718750@TFB-DEDE4SFKQUW  
Site:  
Domain: WORKGROUP  
Serial: 51876-007-5078233-05073  
Machine Date: 20050509092314.000000-240

This system has been rebooted.

---

Email: [support@tfbc.com](mailto:support@tfbc.com) · Phone: 877-612-4832  
<http://support.tfbc.com/>



## SECTION 3

### Sample Alarm Definitions File

```
# AlarmNo,Desc,Source,uLevel,Action,Frequency,Var1,Var2,Var3,Var4,Varn,
# 1-5000 Name,EXTERNAL,1-9 PAGE Seconds Var1 - Var(n) Based on Action
#           EMAIL Vars[0] = Email list name.
#           Vars[1] = message
#           eg. "Abandon list to "
#           puts Email list after this in
#           the message portion of email
#           Desc = subject of email
#           Userdata = body of email supplied by
#           caller at add alarm.
#           Max 1024 bytes.
#           LOG
#           RESTART_VOS
#           RESTART
#           REBOOT
#
# Max field lengths for desc and var fields is 50 bytes.
#
101,IVR Campaign Failure 1,EXTERNAL,1,EMAIL,300,Dan,IVR Campaign Failure,
102,IVR Campaign Failure 2,EXTERNAL,1,RESTART_VOS,300,,,
103,DB Access Desc,EXTERNAL,1,EMAIL,300,TFB,Database Access Error,
104,Abandoned Call,EXTERNAL,1,EMAIL,0,TFB,Abandon list to,
105,Infolink Failure Timeout,EXTERNAL,1,EMAIL,0,TFB,Infolink data packet
timeout to,
106,Infolink Failure Connect,EXTERNAL,1,EMAIL,600,TFB,Infolink connect
failed to,
107,Infolink Restart,EXTERNAL,1,EMAIL,0,TFB,Infolink restart to,
911,System Restart,EXTERNAL,1,LOG,0,TFB,System Restart,
#
#301,General Page,EXTERNAL,1,PAGE,60,3103725751,911,
302,General Restart,EXTERNAL,1,RESTART,60,,,,,
#303,GeneralReBoot, EXTERNAL,1,REBOOT,60,,,,,
#
# Reserved for System Alarms
#
1001,TCP Socket Error,EXTERNAL,1,EMAIL,300,TFB,TCP Socket Error,,,,
1002,Web Socket Error,EXTERNAL,1,EMAIL,300,TFB,Web Socket Error,,,,
1101,Operating System Violation,EXTERNAL,1,LOG,0,,,,,
1102,Service Pack Violation,EXTERNAL,1,LOG,0,,,,,
1201,Low Physical Memory,EXTERNAL,1,EMAIL,86400,TFB,Low Physical
Memory,,,,
1202,Low Virtual Memory,EXTERNAL,1,EMAIL,86400,TFB,Low Virtual Memory,,,,
1203,Low Visible Memory,EXTERNAL,1,EMAIL,86400,TFB,Low Visible Memory,,,,
1301,Low Drive Space,EXTERNAL,1,EMAIL,86400,TFB,Low Drive Space,,,,
1401,SQL Server Error,EXTERNAL,1,EMAIL,300,TFB,SQL Server Error,,,,
1402,Subscription Error,EXTERNAL,1,EMAIL,300,TFB,Subscription Error,,,,
1403,SQL Agent Error,EXTERNAL,1,EMAIL,300,TFB,SQL Agent Error,,,,
```



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