

## **BSW Available Alerts and Alarms**

Alert/Alarms are generated in real time based on User Defined scenarios, Event Duration and Number of Events per unit time interval. A “Leaky Bucket” mechanism is used to determine when an Alert or Alarm threshold has been exceeded. If a “Bad” event is detected, the “Leaky Bucket” count is incremented. If a good Call is detected, the “Leaky Bucket” count is decremented. The “Leaky Bucket” count is checked every 100 seconds to determine if the User Defined “Leaky Bucket” counts or event duration thresholds have been exceeded. If it has, the appropriate Alert or Alarm email is generated and an Alert/Alarm email is sent to the customer. A Pager message can also be generated if desired on all or some of the Alerts/Alarms.

Once the Alert or Alarm is generated, the “Leaky Bucket” is reset, ready to detect another Alert/Alarm condition.

BSW Technicians also receive the Alert or Alarm messages. These messages are then analyzed to determine if a serious condition or potential serious condition is present. BSW Technicians will contact the customer either by email or phone to see if any assistance can be rendered.

BSW Technicians constantly analyze result and report data to further identify new Alarm conditions or network trends that may need additional tracking. If a new Alarm condition is identified, the appropriate trap is created and tested against archive results. Once the Alert/Alarm has been tested, it is offered to the customer. The customer can either request the Alert/Alarm to be activated or disabled. If activated, the customer can determine what threshold setting should be used. Once Alert/Alarm settings are determined, BSW Technicians will enable the Alert/Alarm.

Customers can also request custom Alerts or Alarms be created and implemented. BSW Technicians will review the requests with the customer and determine if the requested “Event/Scenario Trap” can be created.

The following list of Alerts and Alarms are currently available and are included in the Alert/Alarm Package.

## Available Alerts and Alarms continued

Alarm	Type	Description	Real Time
<i>All Trunks Busy</i>	Major	<p><b>Trunk Group Alarm:</b></p> <p>If all trunks in a Trunk Group are busy for more than five minutes, this Alarm is generated. It will continue to be generated every five minutes until at least one trunk is idle.</p>	TRUE
<i>Busy Reorder</i>	Major	<p><b>PBX/ACD Alarm:</b></p> <p>The Busy/Reorder tone is generated by the PBX/ACD and indicates a citizen could not be served by the PSAP and identifies a potential hardware resource problem.</p> <p>If five calls get a Busy/Reorder (fast Busy) signal within 30 minutes this Alarm is generated. This Alarm will be generated for every 30-minute interval that five Busy/Reorders were detected.</p> <p>A future implementation of this Alarm will produce a report at the end of each day showing all Busy/Reorder calls for the day. If this problem persists, BSW technicians will implement a tracking report designed to alert PSAP Managers of a serious resource problem that needs to be corrected.</p>	TRUE
<i>CPE Did Not Answer Call</i>	Major	<p><b>PBX/ACD or Call Taker Alarm:</b></p> <p>If a call is presented to the PSAP and Audible Ringing is detected and the PSAP Equipment does not go off hook (Answer) before the Network drops the call, this Alarm is generated.</p>	TRUE
<i>Trunk Out of Service</i>	Major	<p><b>Trunk Alarm:</b></p> <p>If the CPE puts the trunk in a Busy state and the Network makes the trunk busy, this Alarm is generated. A "No Calls On Trunk" Alarm will be generated every hour until the trunk is released and starts taking calls.</p>	TRUE
<i>Never Idle by Trunk</i>	Major	<p><b>Trunk Alarm:</b></p> <p>If a call is presented to the PSAP and has not ended for two hours this Alarm is generated. This Alarm will be repeated every hour until the trunk goes Idle.</p>	TRUE

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## Available Alerts and Alarms continued

Alert	Type	Description	Real Time
<i>No Answer by Trunk</i>	Major	<p><b>Trunk Alarm:</b></p> <p>If a trunk is presented with five calls and none of them were answered, this Alarm is generated. This Alarm will be repeated for every subsequent set of five calls. It will be terminated when a call is answered on this trunk.</p>	TRUE
<i>No Calls All Trunks</i>	Major	<p><b>Trunk Group or Network Alarm:</b></p> <p>If no calls are detected on all trunks of a Trunk Group for an hour, this Alarm is generated. This Alarm will be repeated every hour until a call is detected on the Trunk Group.</p> <p>This Alarm is “Blacked Out’ from 02:00 to 08:00 (default) because during this time frame there may be legitimately no calls due to low traffic.</p>	TRUE
<i>No Calls by Trunk</i>	Major	<p><b>PBX/ACD or Network Alarm:</b></p> <p>If no calls are detected for five hours on a trunk, this Alarm is generated. A “No Calls On Trunk” Alarm will be generated every hour until a call is detected on the trunk.</p> <p>This Alarm is “Blacked Out’ from 02:00 to 08:00 (default) because during this time frame there may be legitimately no calls due to low traffic.</p>	TRUE
<i>No Wink – Stuck Sender</i>	Major	<p><b>PBX/ACD Alarm:</b></p> <p>If the Network seizes a trunk and has not received a Wink within 19 to 21 seconds and if the Network drops the call (goes Idle), then this Alarm is generated. A “No Calls On Trunk” Alarm will be generated every hour until a call is detected on the trunk.</p> <p>This Alarm indicates that the Network has made the trunk busy in the CO and it will not usually be released until the PASAP manager requests it.</p>	TRUE

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## Available Alerts and Alarms continued

Alert	Type	Description	Real Time
<i>ALI Modem Down</i>	Major	<p><b>PBX/ACD or Network Alarm:</b></p> <p>If there are no Queries and or Responses detected on the any of the ALI modems for 5 minutes, this Alarm is generated. It will be repeated every hour until queries and responses are detected on the modem.</p>	
<i>Busy Reorder</i>	Major	<p><b>PBX/ACD Alert:</b></p> <p>This Busy/Reorder tone is generated by the PBX/ACD and indicates a citizen could not be served by the PSAP and identifies a potential hardware resource problem.</p> <p>If a call gets a Busy/Reorder (fast Busy) signal this Alert is generated. This Alert will be generated for every Busy/Reorder call detected.</p>	TRUE
<i>No ANI</i>	Minor	<p><b>Network Alert:</b></p> <p>If a call is presented to the PSAP and a Wink is detected and the Network doe not send the ANI stream and the call is answered, this Alert is generated. This Alert will generated every time this scenario is detected.</p> <p>This conditions indicates a Network trunk translations or configuration problem.</p>	TRUE
<i>No Wink</i>	Minor	<p><b>PBX/ACD Alert:</b></p> <p>If a call is presented to the PSAP and No Wink is detected and the Network still sends the ANI stream and the call is answered, this Alert is generated. This Alert will be generated every time this scenario is detected.</p> <p>This conditions indicates a Network trunk translations or configuration problem.</p>	TRUE

## Available Alerts and Alarms continued

Alert	Type	Description	Real Time
<i>False Seizure</i>	Minor	<p><b>Network Alert:</b></p> <p>If the network goes Off Hook (seizure) and almost immediately goes Idle (On Hook) 16 times, then this Alert is generated. False Seizures are counted over time. It may take a few days or even weeks before 16 are detected.</p> <p>It is still unknown why this scenario occurs. It should not <b>ever</b> happen on good trunks.</p>	TRUE
<i>Caller Abandon</i>	Minor	<p><b>Network Alert:</b></p> <p>If a call is presented to the PSAP and the Network drops the call before the Wink, ANI or Audible Ringing can complete 16 times, this Alert is generated.</p> <p>This condition is not detectable on the CDR/CTI monitors since the call was never delivered properly.</p>	TRUE
<i>Long Call</i>	Minor	<p><b>PBX/ACD or Call Taker Alert:</b></p> <p>If a call lasts more then 30 minutes on a Life Line Trunk, this Alert is generated.</p> <p>A future implementation of this Alert will use the CDR/CTI data to Alert by Call Taker or position.</p>	TRUE
<i>Very Short Call</i>	Minor	<p><b>PBX/ACD or Call Taker Alert:</b></p> <p>If a call is detected whose call duration was less then 10 seconds and it was not identified as an Abandon Call or False Seizure, this Alert is generated if five occurred in five minutes. An Alert is generated every time this condition is detected.</p>	TRUE

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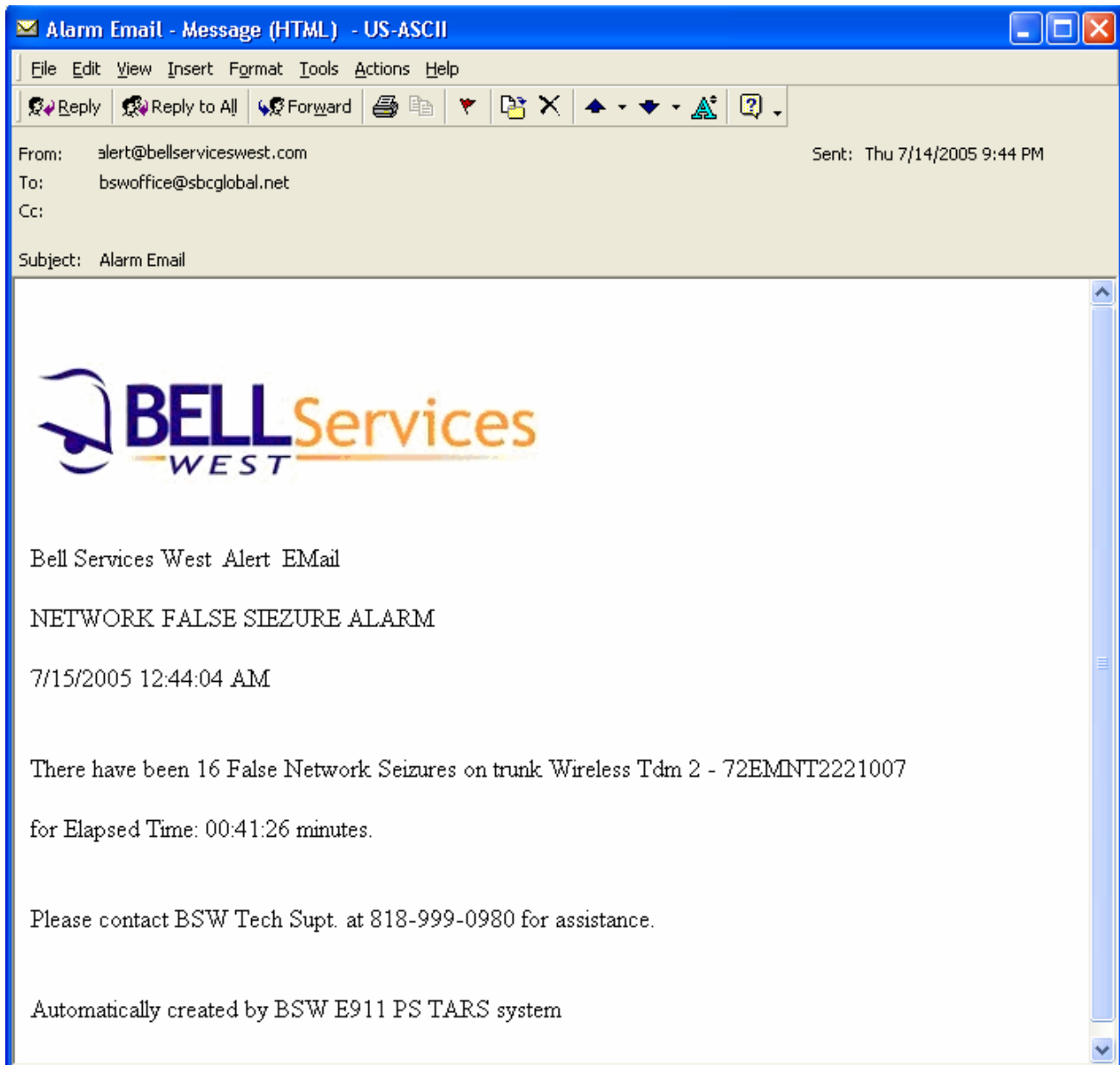
## Available Alerts and Alarms continued

<b>Alert</b>	<b>Type</b>	<b>Description</b>	<b>Real Time</b>
<i>Long Answer Time</i>	Minor	<p><b>PBX/ACD or Call Taker Alert:</b></p> <p>If a call is not Answered within 30 seconds, this Alert is Generated. An Alert is generated every time this condition is detected.</p> <p>A future implementation of this Alert will use the CDR/CTI data to Alert by Call Taker or position.</p>	TRUE
<i>Abnormal Trunk Utilization</i>	Minor	<p><b>PBX/ACD or Network Trunk Group Alert:</b></p> <p>If the Trunk Group utilization, number of calls per hour per trunk, differs more than <math>\pm 10</math> calls, this Alert is generated. An Alert is generated every time this condition is detected.</p>	TRUE
<i>Load Imbalance</i>	Minor	<p><b>PBX/ACD or Network Alert:</b></p> <p>If the Trunk Group Load, total Call Duration per hour per trunk, differs more than <math>\pm 60</math> minutes, this Alert is generated. An Alert is generated every time this condition is detected.</p>	TRUE
<i>ALI No Records Found</i>	Minor	<p><b>ALI Database Alert:</b></p> <p>If the response to an ALI Database query results in a “No Record Found” response, this Alert is generated.</p> <p>This is an optional Alert. A monthly Report is provided that lists all the “No Record Found” responses for the month.</p>	TRUE

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## Sample Alert/Alarm Email



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