WEC8500 (APC)

System Message Description

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INTRODUCTION

Purpose

This manual describes system messages occurring in the WEC8500 that is the wireless enterprise controller.

Document Content and Organization

This manual consists of 3 Chapters and a list of Abbreviations.

CHAPTER 1. System Message Overview

Describes the overview of the WEC8500 system messages.

CHAPTER 2. Alarm Message

Describes a detailed description of the alarm messages of the WEC8500 system messages, occurrence circumstances, actual system message occurrence logs, and recommended actions.

CHAPTER 3. Event Message

Describes the event messages of the WEC8500 system messages, occurrence circumstances, actual system message occurrence logs, and recommended actions.

ABBREVIATION

Provides explanations of the abbreviations used throughout this manual.

Conventions

The following types of paragraphs contain special information that must be carefully read and thoroughly understood. Such information may or may not be enclosed in a rectangular box, separating it from the main text, but is always preceded by an icon and/or a bold title.


NOTE

NOTE

Indicates additional information as a reference.

Console Screen Output

- The lined box with '`Courier New`' font will be used to distinguish between the main content and console output screen text.
- '**`Bold Courier New`**' font will indicate the value entered by the operator on the console screen.

Revision History

VERSION	DATE OF ISSUE	REMARKS
2.1	09.2013	Grammar, spelling, headers, footers and copyright info updated for the U.S. Same content as 2.0
2.0	06. 2013.	- Add ・2.12 DISK_FULL ・2.13 DISK_RATE ・2.14 SHORTTERM_DISK_RATE ・2.35 VQM_LOW_QUALITY ・2.36 VQM_EXCESS_DELAY ・2.37 VQM_EXCESS_BURST ・3.72 AP_BSS_CREATION ・3.73 AP_BSS_DELETION
1.0	03. 2013.	First Version

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CHAPTER 1. System Message Overview

The WEC8500 system messages are divided into two groups, alarm messages and event messages. Alarm messages manage the occurring and clearing of alarms and event messages notify system faults and transfer information generated during system operation.

1.1 Message Transfer Path

System messages are generated in each module and then transferred to the Event Manager (EVM) that processes system messages via IPC messages.

1.2 Message Monitoring

Check via CLI

As below, details about alarms and events can be checked via the CLI after connecting to the WEC8500.

- Check Alarm details

```
WEC8500# show alarm history all
```

- Check Active alarm details

```
WEC8500# show alarm list all
```

- Check Event details

```
WEC8500# show event
```

Check via UI

As below, details about alarms and events can be retrieved on the Web UI screen by going to Monitor → Summary → Latest Trap Lists.

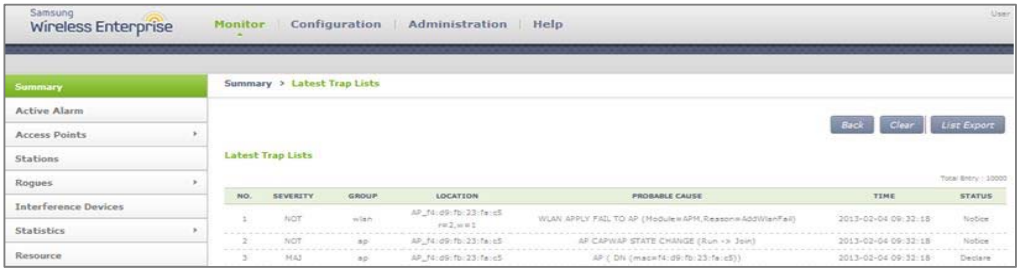

Figure 1. Latest trap lists

1.3 Message format

The alarm format of system messages is shown below.

```
<Format>
[Group] [Time] [Severity] [Location] [Name] [status] [Description]

<Log>
System  2012-12-20 12:49:50 MAJ APC SWM Software Down Declare process :
cm
```

The event format of system messages is shown below.

```
<Format>
[Group] [Time] [Severity] [Location] [Name] [Description]

<Log>
system    2012-12-26 09:49:58 NOT APC Package Upgrade Start process :
wec8500_1.0.0.R.bin
```

Group

Indicates information about system message groups. The system message groups are as follows.

Group	Description
system	System-related system messages
pm	Performance measuring-related system messages
ap	AP-related system messages
wlan	WLAN-related system messages
wifi	Wifi-related system messages
security	Security-related system messages
network	Network-related system messages
Interface	Interface-related system messages
se	Forwarding-related system messages

Time

Information about the time when a system message occurred.

Severity

Information about the severity of a system message.

Severity	Description
Critical	Critical condition
Major	Major error condition
Minor	Minor error condition
Warning	Warning condition
Notification	Normal but significant condition
Information	Information message only
Debug	Message that appears during debugging only

Location

Information about where a system message occurred.

Location	Description
APC	The system message is occurred from an APC.
AP	The system message is occurred from an AP. The following is an example of a message where an actual AP is specified. AP_f4:d9:fb:24:2d:c1
STA	The system message is occurred from a station. The following is an example of a message where an actual station is specified. STA_11:22:fb:24:2d:c2

Name

The name of a system message.

Status

Information about the status of an alarm message. Displays ‘Declare’ when an alarm is occurred and ‘Clear’ when the alarm is cleared.
Not included in event messages where occurrence/clearing statuses do not exist.

Description

Detailed information about a system message. Includes detailed circumstance information at the time of the occurrence.

CHAPTER 2. Alarm Message

This chapter describes alarm messages of the WEC8500 system messages, occurrence circumstances, actual system message occurrence logs, and recommended actions when messages occur.

2.1 SOFTWARE_DOWN

Generated when a specific process is down during system operation.

Alarm Message

```
system    2012-12-20 12:49:50 MAJ APC SWM Software Down Declare
process : cm
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

2.2 CPU_LOAD_ALM

Generated when the CPU load exceeds the threshold. Generated when the load of each CPU core is 90 % or higher than factory-default setting(90%), and the occurrence range can be set between 80 % to 100 %.

Alarm Message

```
system    2012-12-26 12:53:40 MAJ APC core3 CPU Load Alarm Declare
LOAD(100.00)
```

Recommended Action

No Action Required.

2.3 MEMORY_USAGE_ALM

Generated when the system memory usage exceeds the threshold. Generated when the system memory usage is 90 % or higher in factory-default setting, and the occurrence range can be set between 80 % to 100 %.

Alarm Message

```
system    2012-12-20 12:49:50 MAJ APC Memory Memory Usage Alarm
Declare Usage(90)
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

2.4 DISK_USAGE_ALM

Generated when the disk usage exceeds the threshold. Generated when the disk usage is higher than 90 %. The threshold value cannot be changed because it can affect system operation.

Alarm Message

```
system    2012-12-20 12:49:50 MAJ APC Disk Usage Alarm Declare DISK
Usage Alarm - Usage(92) Threshold(90)
```

Recommended Action

Remove unnecessary files to recover the write protection.

2.5 DISK_FULL

Generated when the system disk usage is higher than 99 %. The threshold value cannot be changed because it can affect system operation.

Alarm Message

```
system    2012-12-26 09:54:51 CRT APC Disk Full Declare Disk usage has
reached to disk full limitation. Remove unnecessary files to recover
the write protection
```

Recommended Action

Disk usage has reached to disk full limitation. Remove unnecessary files to recover the write protection

2.6 FAN_USAGE_ALM

Generated when the rpm level of the system fan is above or below the threshold. Generated when the rmp level of the system fan is 3 or higher. The threshold value cannot be changed because it can affect system operation.

Alarm Message

```
system    2012-12-20 12:49:50 MAJ APC Fan Rpm Alarm Declare Fan(0)
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

2.7 TEMP_USAGE_ALM

Generated when the system temperature exceeds the threshold. Generated when the system temperature is 88 degree Celsius or higher. The threshold value cannot be changed because it can affect system operation.

Alarm Message

```
system    2012-12-20 12:49:50 CRT APC System Temperature Alarm Declare
System temperature sensor and fan controller is not working properly.
Shutdown the system now!!!
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

2.8 THERMAL_RUNAWAY_ALM

Generated when the system temperature exceeds the temperature threshold in which the system is able to operate normally. Generated when the system temperature is 93 degree Celsius or higher, and the system changes into Technical Support (TS) mode to protect itself. The threshold value cannot be changed because it can affect system operation.

Alarm Message

```
system    2012-12-20 12:49:50 CRT APC Fan Controller System Thermal
Runaway Declare TEMP 88 82 81
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

2.9 FAN_FAIL

Generated when abnormal operation of the system fan is detected. Generated when the rpm of the fan in operation deviates from the accepted operating rpm range.

Alarm Message

```
system    2012-12-20 12:49:50 MAJ APC Fan Fail alarm Declare rpm 0 0 0 0
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

2.10 TEMP_SENSOR_FAIL

Generated when an abnormality of the system temperature sensor is detected.
Generated when an abnormality is found after the checking of the system temperature chip.

Alarm Message

```
system    2012-12-20 12:49:50 CRT APC Temperature Sensor Fail Declare
Temperature sensor is not working. System Will be shutdown in 24
Hours. Please contact Samsung Technical Support.
```

Recommended Action

Temperature sensor is not working. System will be shutdown in 24 Hours. Please contact Samsung Technical Support.

2.11 POWER_MODULE_FAIL

Generated when an abnormality in the power supply module of the system is detected. The power supply module of the system consists of two slots, Slot0 and Slot1.

Alarm Message

```
system    2012-12-20 12:49:50 MAJ APC Power Module Fail Declare POWER0
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

2.12 DISK_FULL

Generated when the system disk usage is higher than 99.5%. The threshold value cannot be changed because it can affect system operation.

Alarm Message

```
system    2012-12-20 12:49:50 MAJ APC Disk Full Declare Disk usage has
reached to disk full limitation. Remove unnecessary files to recover
the write protection
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

2.13 DISK_RATE

Generated when the disk write rate exceeds the threshold value, i.e., 1 MBytes/sec for 60 or more minutes. The threshold value cannot be changed because it can affect system operation.

Alarm Message

```
system    2012-12-20 12:49:50 CRT APC Disk Rate Declare write
rate(1000KBytes/sec)
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

2.14 SHORTTERM_DISK_RATE

Generated when the disk write rate exceeds the threshold value for a shorter time, i.e. 50 MBytes/sec for 5 or more minutes. The threshold value cannot be changed because it can affect system operation.

Alarm Message

```
system    2012-12-20 12:49:50 MAJ APC Short-term Disk Rate Declare
write rate(50000KBytes/sec)
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance

2.15 CAC_MINOR_CALLS

Generated when the call number exceeds the call number threshold set for minor alarm. It is not generated when the call number threshold is 0.

Alarm Message

```
wifi      2012-12-26 15:21:28 MIN AP_f4:d9:fb:24:cc:40 CAC Minor Calls
Declare Radio(802.11bg)
```

Recommended Action

Accordingly reduce the maximum allowed call number or the maximum user number per radio.

2.16 CAC_MAJOR_CALLS

Generated when the call number exceeds the call number threshold set for major alarm. It is not generated when the call number threshold is 0.

Alarm Message

```
wifi      2012-12-26 15:21:28 MAJ AP_f4:d9:fb:24:cc:40 CAC Major Calls
Declare Radio(802.11bg)
```

Recommended Action

Accordingly reduce the maximum allowed call number or the maximum user number per radio.

2.17 APC_CONNECTION_LOST

Generated during cluster operation when the connection to an APC that is part of cluster is lost. The information about the disconnected APC is displayed in such form as ‘APC #1’.

Alarm Message

```
wifi      2012-12-26 11:02:10 MAJ APC CLUSTER CLUSTER APC Lost
Connection Declare APC #2
```

Recommended Action

Make sure that the cluster configurations are right and the remote APC is alive.

2.18 AP_DUPLICATED_IP

Generated when an IP conflict is detected in an AP.

Alarm Message

```
ap        2013-02-04 19:32:46 CRT AP_f4:d9:fb:24:ce:40 Duplicated IP
Declare IP=100.100.100.119)
```

Recommended Action

Check when the same IP address is allocated to other devices near the AP in question.

2.19 AP_NO_RADIO

Generated all BBSes in an AP are deleted so the wireless service is not available.

Alarm Message

```
ap        2013-02-04 19:32:46 CRT AP_f4:d9:fb:24:ce:40 No Radio Declare
r=1,w=15 -
```

Recommended Action

Check if the deletion of BBSes in the AP in question is caused by the operator’s mistakes.

2.20 AP_BSS_DN

Generated when the beacon of a particular BSS is not detected for a certain amount of time.

Alarm Message

```
ap       2013-02-04 19:32:46 MAJ AP_f4:d9:fb:24:ce:40 BSS INTERFACE DN
Declare r=1,w=15 Declare radio(1)/wlan(15)
```

Recommended Action

Check the surrounding environment and abnormalities of the AP in question.

2.21 AP_CPU_LOAD_HIGH

Generated when the CPU load of an AP exceeds the threshold value of 90 %. The threshold value cannot be changed.

Alarm Message

```
ap       2013-02-04 19:32:46 MAJ AP_f4:d9:fb:24:ce:40 AP CPU Load High
Declare load=00.67%,threshold=91%,cause=AP
```

Recommended Action

Find out the cause of the CPU usage increase and take appropriate measures.

2.22 AP_MEM_USAGE_HIGH

Generated when the memory usage of an AP exceeds the threshold value of 70 %.
The threshold value cannot be changed.

Alarm Message

```
ap       2013-02-04 19:32:46 MAJ AP_f4:d9:fb:24:ce:40 AP MEM Usage
High Declare usage=71.12%, threshold=70%
```

Recommended Action

When it keeps occurring for a certain amount of time, find out the cause of the memory usage increase and take appropriate measures. When the abnormality is found in a certain processor, restart the processor in question or the AP.

2.23 AP_DISK_USAGE_HIGH

Generated when the usage of an AP user disk (configs) exceeds the threshold value of 70 %. The threshold value cannot be changed.

Alarm Message

```
ap       2013-02-04 19:32:46 MAJ AP_f4:d9:fb:24:ce:40 AP Disk Usage
High Declare usage=73.48%, threshold=70%
```

Recommended Action

Connect to the AP and check the files under the configs directory. Delete any unnecessary files.

2.24 AP_MONITOR_DEVICE_FAIL

Generated when the communication with the RF monitor device is halted for a certain amount of time.

Alarm Message

```
ap       2013-02-04 19:32:46 MAJ AP_f4:d9:fb:24:ce:40 AP Monitor
Device Fail Declare cause=keep alive fail
```

Recommended Action

Device restore is performed automatically. If the same fault occurs continuously, find out additional causes in terms of s/w and h/w.

2.25 AP_RADIO_CARD_TX_FAILURE

Generated when a fault occurs in a particular radio (2.4G or 5G) so the tx function of the affected channel is not available.

Alarm Message

```
ap       2013-02-04 19:32:46 MAJ AP_f4:d9:fb:24:ce:40 AP RADIO CARD TX
FAIL r=1 Declare radio(1)
```

Recommended Action

Find out the cause of the fault and take appropriate actions.

2.26 AP_CHANNEL_BUSY

Generated when a beacon stuck occurs by the interference of adjacent channels so the tx function of the affected channel is not available.

Alarm Message

```
ap       2013-02-04 19:32:46 MIN AP_f4:d9:fb:24:ce:40 AP_CHANNEL_BUSY
r=1 Declare radio(1)
```

Recommended Action

Check the AP cell environment and adjust it.

2.27 RADIUS_SERVERS_FAILED

Generated when communications with all RADIUS servers fails during the operation of UE authentication and accounting. Cleared when RADIUS servers start to receive messages again.

Alarm Message

```
security  2012-12-31 14:25:38 CRT APC Radius Servers Failed Declare
```

Recommended Action

Check if RADIUS servers are available for service.
Check if there are any faults in the network communication between the APC and RADIUS servers.

2.28 AP_DN

An AP down message is occurred when the connection to an AP is lost and the connection link to an AP is shut down by force, and cleared when the connection to an AP is restored. AP DN message is generated when the capwap status is not RUN (5) because in which case the connection to an AP is judged lost.

Alarm Message

```
ap       2013-01-02 10:17:31 MAJ AP_20:11:22:33:5b:40 AP  Declare  DN
(mac=20:11:22:33:5b:40)
```

Recommended Action

- Check if there are any faults in the network communication between the APC and AP.
- Check the capwap management interface.

2.29 ROGUE_AP_DETECTED

Generated when a rogue AP is detected.

Alarm Message

```
security      2013-01-02 10:17:31 MIN AP_20:11:22:33:5b:40 Rogue AP
Detected Declare mac=f4:d9:fb:35:56:ca, ClassType=1, Ch=149, Radio=0,
SSID=mass_up9
```

Recommended Action

No Action Required.

2.30 AP_ON_ILLEGAL_CHANNEL

Generated when an AP is detected on the illegal channel.

Alarm Message

```
security      2013-01-02 10:17:31 MAJ AP_20:11:22:33:5b:40 AP Detected
on illegal Channel Declare mac=f4:d9:fb:35:56:ca, ClassType=1, Ch=149,
Radio=0, SSID=mass_up9
```

Recommended Action

No Action Required.

2.31 NET_LINK_DN

Generated when the interface link is down.

Alarm Message

```
network   2013-01-03 02:33:32 MAJ APC ge3 NET Link dn Declare
AdminStatus[up] OperStatus[down]
```

Recommended Action

Make sure that the Interface Link is alive.

2.32 IP_APP_DHCP_SERVER_CONNECT_FAILURE

Generated when there is a fault in the communication between the DHCP server and system.

Alarm Message

```
system    2013-01-03 03:20:39 MAJ APC dr_ge4 DHCP Sever Connect
Failure Declare Can't connect DHCP Server
```

Recommended Action

- Check the DHCP server services.
- Using ‘show ip dhcp proxy’ command, can find out what is DHCP server IP.

2.33 IP_APP_DNS_SERVER_CONNECT_FAILURE

Generated when there is a fault in the communication between the DNS server and system.

Alarm Message

```
system    2013-01-03 03:23:05 MAJ APC DNS_PROXY DNS Server Connect
Failure Declare Can't connect DNS Server
```

Recommended Action

- Check the DNS server services.
- Using ‘show ip dns nameserver’ command, can find out what is DNS server IP.

2.34 IP_APP_NTP_SERVER_CONNECT_FAILURE

Generated when there is a fault in the communication between the NTP server and system.

Alarm Message

```
system    2013-01-03 03:20:39 MAJ APC ntpd NTP Sever Connect Failure
Declare  8.8.8.8 connect failure!!
```

Recommended Action

- Check the NTP server services.
- Using ‘show ntp’ command, can find out what is NTP server IP.

2.35 VQM_LOW_QUALITY

The event is generated to check the quality status when the value is less than the R-Factor value set by the manager at a call.

Alarm Message

```
1 se        2013-04-18 08:29:52 WRN APC SE VQM Low Mos ::
[90.90.9.9:64272]→[20.20.20.21:16228]
2 se        2013-04-18 08:29:39 WRN APC SE VQM Low Mos ::
[90.90.9.9:64272] →[20.20.20.21:16228]
```

Recommended Action

Check AP and Station status and Check network condition using network analysis tool.

2.36 VQM_EXCESS_DEALY

The event is generated to check the quality status when the value is more than the RTP packet delay time set by the manager at a call.

Alarm Message

```
1 se        2013-04-18 08:29:52 WRN APC SE VQM Excess Delay ::
[90.90.9.9:64272] →[20.20.20.21:16228]
2 se        2013-04-18 08:29:39 WRN APC SE VQM Excess Delay ::
[90.90.9.9:64272] →[20.20.20.21:16228]
```

Recommended Action

Check AP and Station status and Check network condition using network analysis tool.

2.37 VQM_EXCESS_BURST

This warning message will get generated when rtp packet in call are getting lost or discarded because of delay in burst period. Burst Period is defined as if packet get lost or discarded without receiving n (16) consecutive packet.
If R-factor value configured as burst rate is lower than that burst period, warning message will get generated.

The event is generated to check the quality status when the packet loss is consecutively generated at a call.

Alarm Message

```
1 se       2013-04-18 08:29:52 WRN APC SE VQM Excess Burst ::
[90.90.9.9:64272] →[20.20.20.21:16228]
2 se       2013-04-18 08:29:39 WRN APC SE VQM Excess Burst ::
[90.90.9.9:64272] →[20.20.20.21:16228]
```

Recommended Action

Check AP and Station status and Check network condition using network analysis tool.

2.38 NFM_RESTART_SE

When the Simple Executive (SE) engine crashes or falls into infinite loops and resultantly incurs an operational problem, the NFM module restarts the SE engine. In this case, this event occurs.

Alarm Message

```
se  2013-01-02 17:07:10  APC  Clear NFM SE RESTARTED,CLEARING ALARM
se  2013-01-02 17:07:08  APC  Declare NFM GOING TO RESTART SE
APPLICATION
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

CHAPTER 3. Event Message

This chapter gives a detailed description of the event messages of the WEC8500 system messages and describes occurrence circumstances, actual system message occurrence logs, and recommended actions when messages occur.

3.1 SWM_INIT_DONE

Generated when the SWM process is initialized. Generated when the SWM process is reset after system rebooting or a process-related problem occurred.

Event Message

```
system    2012-12-26 09:52:22 NOT APC SWM Init Done
```

Recommended Action

No Action Required.

3.2 PKG_UPGRADE_START

Generated during system package upgrade. Generated when a package upgrade starts.

Event Message

```
system    2012-12-26 09:49:58 NOT APC Package Upgrade Start process :
wec8500_1.0.0.R.bin
```

Recommended Action

No Action Required.

3.3 PKG_UPGRADE_DONE

Generated during system package upgrade. Generated when the package upgrade is finished.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Package Upgrade Reboot process :
wec8500_1.0.0.R.bin
```

Recommended Action

No Action Required.

3.4 PKG_UPGRADE_REBOOT

Generated during system package upgrade. Generated when the system reboots during system package upgrade.

Event Message

```
system    2012-12-26 09:50:41 NOT APC Package Upgrade Done process :
wec8500_1.0.0.R.bin
```

Recommended Action

No Action Required.

3.5 PKG_UPGRADE_FAILED

Generated during system package upgrade. Generated when the system upgrade fails.

Event Message

```
system    2012-12-27 15:41:25 WRN APC Package Upgrade Failed process :
wec8500_1.0.0.R.bin(fail to save the configuration (time-out))
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.6 LRADIF_CURRENT_CHANNEL_CHANGED

Notification about channel changes. A notification is generated when the channel is changed by the user or RRM DCS algorithm. The RRM DCS algorithm selects the optimal channel by analyzing the RF environment of an AP such as RSSI, channel utilization, and network utilization.

Event Message

```
wifi      2012-12-26 13:13:22 NOT AP_f4:d9:fb:23:bf:79 Current Channel
Changed channel=xx→xx, radio=xGHz, reason=xxx
```

Recommended Action

No Action Required.

3.7 LRADIF_CURRENT_TXPOWER_CHANGED

Notification about Tx power changes. A notification is generated when the channel is changed by the user or RRM DPC algorithm. The RRM DPC algorithm allocates the optimal Tx power by analyzing the RF environment of an AP such as RSSI.

Event Message

```
wifi      2012-12-26 10:21:25 NOT AP_f4:d9:fb:23:cd:39 Current TxPower
Changed TxPower=xx→xx, radio=xGHz, reason=xxx
```

Recommended Action

No Action Required.

3.8 RRM_DPC_RUN

Notification occurring when the DPC algorithm is executed. This notification is generated when the DPC algorithm is periodically executed. The RRM DPC algorithm allocates the optimal Tx power by analyzing the RF environment of an AP such as RSSI.

Event Message

```
wifi      2012-12-26 10:21:25 NOT  RRM DPC RUN Dynamic power control
done [xGHz]
```

Recommended Action

No Action Required.

3.9 RRM_DCS_RUN

Notification occurring when the DCS algorithm is executed. This notification is generated when the DCS algorithm is periodically executed. The RRM DCS algorithm selects the optimal channel by analyzing the RF environment of an AP such as RSSI, channel utilization, and network utilization.

Event Message

```
wifi      2012-12-26 10:21:15 NOT  RRM DCS RUN [Normal Run] Dynamic
channel selection done [xGHz]
```

Recommended Action

No Action Required.

3.10 SAM_INTERFERER_EVOKE

The Spectrum analyzer transmits information about the detected interferer to the Location tracking and the Location tracking module notifies it to the WEM with the addition of location information.

Event Message

```
wifi      2012-12-26 10:21:15 NOT AP_f4:d9:fb:23:d0:49 Interferer
Detected Type=ZigBee, RSSI=-56, MIN_Freq=2444, MAX_Freq=2444, X=7781,
Y=4311, FromAP=16.8m, APID=3, FloorID=1, DetectedAPs=3
```

Recommended Action

No Action Required.

3.11 CLUSTER_CREATED

Cluster setting-related event. Generated when a new cluster is created.

Event Message

```
wifi      2012-12-26 12:49:41 NOT APC CLUSTER CLUSTER Created -
```

Recommended Action

No Action Required.

3.12 CLUSTER_CONFIG_INFO_CHANGED

Cluster setting-related event. Generated when the existing cluster setting information is changed. When of setting information of the OWN APC ID is changed, disconnect all APCs and attempt to re-setup.

Event Message

```
wifi      2012-12-26 12:49:41 NOT APC CLUSTER CLUSTER Config Info
Changed -
```

Recommended Action

No Action Required.

3.13 APC_ADDED

Cluster setting-related event. Generated when a new APC is added to the cluster. When this event occurs, information about the added APC is displayed in such form as ‘APC #1’.

Event Message

```
wifi      2012-12-26 12:49:44 NOT APC CLUSTER CLUSTER APC Added APC #1
```

Recommended Action

No Action Required.

3.14 APC_DELETED

Cluster setting-related event. Generated when an APC is deleted. When this event occurs, information about the deleted APC is displayed in such form as ‘APC #1’. When deleting an APC if it is the same as OWN APC ID, disconnect all APCs, and if different, disconnect only the APC in question.

Event Message

```
wifi      2012-12-26 12:49:44 NOT APC CLUSTER CLUSTER APC Deleted APC #1
```

Recommended Action

No Action Required.

3.15 APC_CONFIG_INFO_CHANGED

Cluster setting-related event. Generated when the cluster's APC setting information is changed. When this event occurs, information about the changed APC is displayed in such form as ‘APC #1’. When the APC ID or IP address is changed, disconnect it from other APCs.

Event Message

```
wifi      2012-12-26 12:49:44 NOT APC CLUSTER CLUSTER APC Config Info
Changed APC #1
```

Recommended Action

No Action Required.

3.16 RC_HW_WATCHDOG

Generated when the system is rebooted. Generated when the reboot cause is HW watchdog.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - hardware watchdog
expired
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.17 RC_HW_DDR02_PWR

Generated when the system is rebooted. Generated when the reboot cause is the detection of DDR 0/2 power failure.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - DDR_0/2 power
fail detected
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.18 RC_HW_DDR13_PWR

Generated when the system is rebooted. Generated when the reboot cause is the detection of DDR 1/3 power failure.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - DDR_1/3 power
fail detected
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.19 RC_CDR_PANIC

Generated when the system is rebooted. Generated when the reboot cause is CDR panic.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - panic event occurred
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.20 RC_CDR_DIE

Generated when the system is rebooted. Generated when the reboot cause is CDR die.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - die event occurred
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.21 RC_CDR_OOM

Generated when the system is rebooted. Generated when the reboot cause is CDR Out of Memory.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - out of memory
event occurred
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.22 RC_CDR_WATCHDOG

Generated when the system is rebooted. Generated when the reboot cause is CDR watchdog.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - core watchdog
event occurred
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.23 RC_CDR_SOFTDOG

Generated when the system is rebooted. Generated when the reboot cause is CDR softdog.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - softdog event
occurred
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.24 RC_SYS_SYSV_REBOOT

Generated when the system is rebooted. Generated when the reboot cause is reboot or shutdown command by the system.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - SYSV
reboot/poweroff/halt/shutdown command of linux OS
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.25 RC_UPG_PKG_UPGRADE

Generated when the system is rebooted. Generated when the reboot cause is package upgrade.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - restart system
after package upgrade
```

Recommended Action

No Action Required.

3.26 RC_CM_FACTORY_RST

Generated when the system is rebooted. Generated when the reboot cause is factory reset.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - tirgger reset-to-
factory progress
```

Recommended Action

No Action Required.

3.27 RC_CM_IMPORT

Generated when the system is rebooted. Generated when the reboot cause is import of external user data.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - import external
user data
```

Recommended Action

No Action Required.

3.28 RC_SWM_UNRECOVERABLE

Generated when the system is rebooted. Generated when the reboot cause is unrecoverable application crash.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - detect
unrecoverable application crash
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.29 RC_SWM_SCHED_REBOOT

Generated when the system is rebooted. Generated when the reboot cause is scheduled reboot.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - scheduled reboot
command
```

Recommended Action

No Action Required.

3.30 RC_SWM_REBOOT

Generated when the system is rebooted. Generated when the reboot cause is reboot CLI.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause -  explicit reboot
command
```

Recommended Action

No Action Required.

3.31 RC_EQM_THERMAL_SHUTDOWN

Generated when the system is rebooted. Generated when the reboot cause is thermal shutdown.

Event Message

```
system    2012-12-26 09:50:41 WRN APC Reboot Cause - thermal shutdown
condition
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.32 PKG_UPGRADE_FAILED_NO_FILE

Generated when the system upgrade file does not exist.

Event Message

```
system    2012-12-27 15:41:25 WRN APC Package Upgrade Failed process :
wec8500_1.0.0.R.bin(no package file)
```

Recommended Action

Check the name and location of the package file to be upgraded.

3.33 PKG_UPGRADE_FAILED_MD5SUM_ERR

Generated when an upgrade fails because MD5 checksums do not match.

Event Message

```
system    2012-12-27 15:41:25 WRN APC Package Upgrade Failed process :
wec8500_1.0.0.R.bin(fail to get md5sum)
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.34 PKG_UPGRADE_FAILED_CHANGE_PART

Generated when an upgrade fails due to a partition change.

Event Message

```
system    2012-12-27 15:41:25 WRN APC Package Upgrade Failed process :
wec8500_1.0.0.R.bin(Get partition error)
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.35 PKG_UPGRADE_FAILED_INTERNAL

Generated when an upgrade fails due to an internal fault.

Event Message

```
system    2012-12-27 15:41:25 WRN APC Package Upgrade Failed process :
wec8500_1.0.0.R.bin(pkg hdr error)
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.36 SWM_RC_SWM_REBOOT

Generated during rebooting process when booting is completed.

Event Message

```
system    2012-12-27 15:47:34 WRN APC Boot Complete process : system
```

Recommended Action

No Action Required.

3.37 CLEAR_ACTALARMLOG

Generated when the system performs the clearing of an active alarm using CLI/SNMP.

Event Message

```
system    2012-12-27 20:34:09 NOT APC EVM Clear Active Alarm Log
```

Recommended Action

No Action Required.

3.38 CLEAR_ALARMLOG

Generated when the system performs the clearing of an alarm log using CLI/SNMP.

Event Message

```
system    2012-12-27 20:32:53 NOT APC EVM Clear AlarmEvent Log
```

Recommended Action

No Action Required.

3.39 SWM_APPLICATION_CRASH

Generated when the system is rebooted due to application crash. Generated when the application that has to be system-rebooted crashes during application monitoring or the normal operation of the application is not detected during rebooting process.

Event Message

```
system    2013-06-03 12:01:21 WRN APC SWM Application Crash SWM
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.40 RC_SWM_APPLICATION_CRASH

Generated when the system is rebooted due to application crash. Generated when the application that has to be system-rebooted crashes during application monitoring or the normal operation of the application is not detected during rebooting process.

Event Message

```
system    2013-06-04 12:01:21 WRN APC SWM Application Crash SWM
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.41 SAVE_LOCAL

Generated when the save local request by CLI/WEC is performed successfully.

Event Message

```
system    2012-01-01 01:00:00 NOT CM Save Local Success
```

Recommended Action

No Action Required.

3.42 SAVE_LOCAL_FAIL

Generated when the save local request by CLI/WEC is not successfully performed.

Event Message

```
system    2012-01-01 01:00:00 NOT CM Save Local Fail [reason]
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.43 FACTORY_RESET

Factory reset is a function that performs the factory reset of the system configuration and the system is automatically rebooted in the process. Generated before the system reboot is performed by the factory reset command of CLI/SNMP.

Event Message

```
system    2012-01-01 01:00:00 NOT CM Factory Reset The system is
rebooting and it will reset the configuration to factory-default.
```

Recommended Action

No Action Required.

3.44 FACTORY_RESET_FAIL

Generated when the factory-reset command fails to perform.

Event Message

```
system    2012-01-01 01:00:00 NOT CM Factory Reset Fail [reason]
```

Recommended Action

Try again. If it fails again, reset the controller.

3.45 EXPORT_FILE

Export is a function needed to back up the system configuration. Generated when the export command is performed successfully by CLI/SNMP.

Event Message

```
system    2012-01-01 01:00:00 NOT CM Export Config File Success: file
name=test.wec8500.config
```

Recommended Action

No Action Required.

3.46 EXPORT_FILE_FAIL

Generated when the export command is not performed successfully by CLI/SNMP.

Event Message

```
system    2012-01-01 01:00:00 NOT CM Export Config File Fail file
name=test.wec8500.config
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance

3.47 IMPORT_FILE

Import is a function needed to restore the system configuration and the system is automatically rebooted in the process. Generated before system rebooting after the import command is performed successfully by CLI/SNMP.

Event Message

```
system    2012-01-01 01:00:00 NOT CM Import Config File Success: file
name=test.wec8500.config
```

Recommended Action

No Action Required.

3.48 IMPORT_FILE_FAIL

Generated when the import command is not successfully performed.

Event Message

```
system    2012-01-01 01:00:00 NOT CM Import Config File Fail file
name=test.wec8500.config
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance

3.49 MGMT_USER_LOGIN

Generated when a registered user is remotely logged in the system.

Event Message

```
system    2012-01-01 01:00:00 NOT APC MGMT User Login ID=samsung,
IP=1.1.1.1
```

Recommended Action

No Action Required.

3.50 MGMT_USER_LOGIN_FAIL

Generated when an unregistered user tries to log in to CLI or the password does not match.

Event Message

```
system    2012-01-01 01:00:00 NOT APC MGMT User Login Fail ID=samsung,
IP=1.1.1.1, REASON=[reason]
```

Recommended Action

No Action Required.

3.51 MGMT_USER_LOGOUT

Generated when a registered user remotely logs out.

Event Message

```
system    2012-01-01 01:00:00 NOT APC MGMT User Logout ID=samsung,
IP=1.1.1.1
```

Recommended Action

No Action Required.

3.52 MGMT_USER_TOO_MANY_LOGIN_ ATTEMPTS

When logging in to CLI, a registered ID and password is needed. Generated when attempts to log in to CLI fail 5 times or more.

Event Message

```
system    2012-01-01 01:00:00 NOT APC MGMT User Too Many Login
Attempts ID=samsung, IP=1.1.1.1
```

Recommended Action

No Action Required.

3.53 AP_HOST_CRASH_CREATE

Generated when a core file for debugging is created because a particular S/W module of an AP is terminated abnormally.

Event Message

```
ap       2013-02-04 19:56:00 WRN AP_f4:d9:fb:24:ce:40 AP HOST Crash
Create crash module=wumx,cause=AP
```

Recommended Action

Collect the core file of the module in question by executing tech-support command and transmit it to the relevant department.

3.54 AP_RF_MONITOR_CRASH_CREATE

Generated when a core file for debugging is created because a particular S/W module of the RF monitor device is terminated abnormally.

Event Message

```
ap       2013-02-04 19:32:46 WRN AP_f4:d9:fb:24:ce:40 AP RF MONITOR
Crash Create crash module=wmonx
```

Recommended Action

Collect the core file of the module in question by executing tech-support command and transmit it to the relevant department.

3.55 AP_ETH_FRAME_ERROR

Generated when the auto negotiation action is not successfully performed due to a physical error of the Ethernet (Set the auto-negotiation to off and change the transmission rate to 100 M).

Event Message

```
ap       2013-02-04 19:32:46 WRN AP_f4:d9:fb:24:ce:40  AP ETH Frame
Error AP_f4:d9:fb:24:ce:40
```

Recommended Action

Check if there are any physical problems in the AP connection cable. Change the cable if necessary.

3.56 RADIUS_SERVER_WLAN_DEACTIVATED

Generated when a certain set Radius server is deactivated so it cannot provide the UE authentication and accounting services because it became unavailable to communicate.

Event Message

```
security  2012-12-31 14:26:31 NOT APC Radius Server WLAN Deactivated
Authentication : 1.1.1.1 wlan=1
```

Recommended Action

- Check if RADIUS servers are available for service.
- Check if there are any faults in the network communication between the APC and RADIUS servers.

3.57 RADIUS_SERVER_WLAN_ACTIVATED

Generated when a certain set Radius server is activated so it can provide the UE authentication and accounting services.

Event Message

```
security  2012-12-31 14:26:31 NOT APC Radius Server WLAN Activated
Authentication : 1.1.1.1 wlan=1
```

Recommended Action

No Action Required.

3.58 RADIUS_SERVER_TIMEOUT

Generated when attempts to communicate with a certain set Radius server failed so the next set Radius server is attempted for connection.

Event Message

```
security  2012-12-31 14:26:31 WRN APC Radius Server Timeout AUTH
Radius Servers 1.1.1.1 Failover (1→2). Wlan[1]
```

Recommended Action

No Action Required.

3.59 STATION_AUTHENTICATED

Generated when the UE authentication is completed successfully.

Event Message

```
security  2012-12-31 14:26:31 NOT APC Station Authenticated Station
11:22:33:44:55:66 Authenticated
```

Recommended Action

No Action Required.

3.60 STATION_DEAUTHENTICATED

Generated when the UE authentication connection is terminated.

Event Message

```
security  2012-12-31 14:26:31 NOT APC Station Deauthenticated Station
11:22:33:44:55:66 Deauthenticated
```

Recommended Action

No Action Required.

3.61 STATION_INVALID_MIC

Generated when an error occurs while processing the Message Integrity Check (MIC) of the EAP packet during the UE authentication.

Event Message

```
security  2012-12-31 14:26:31 WRN APC Station Invalid MIC Station
11:22:33:44:55:66 MIC Verification Failed
```

Recommended Action

Check if the WLAN security setting of the APC and that of the UE match.

3.62 AP_CAPWAP_STATE_CHANGE

Shows the changing statuses of the connection between the AP and Capwap protocol. The capwap statuses are divided into Idle (0), Dtls (1), Join (2), Configure (3), DataCheck (4), Run (5), and nApgCwImageUpdate (6), and a message occurs when each status is changed.

Event Message

```
ap       2013-01-02 10:17:31 NOT AP_20:11:22:33:5b:40 AP CAPWAP STATE
CHANGE Run → Idle
```

Recommended Action

No Action Required.

3.63 AP_UPGRADE_STATUS

Shows the download statuses of an AP, when the firmware of the AP is upgraded. The download statuses are divided into 8 different statuses, None (1), Init (2), DownloadStart (3), SuccessfulDownload (4), FailDownload (5), ApRequest (6), Holding (7), and ManualRequest (8).

Event Message

```
ap       2013-01-02 19:24:47 NOT AP_f4:d9:fb:24:2d:c1 AP UPGRADE
STATUS status=SuccessfulDownload, reason=Success
```

Recommended Action

No Action Required.

3.64 AP_DEBUG_FILE_TRANSFER

Generated when the transfer status is changed when the debug file is transferred from an AP to an APC. The download statuses are divided into 12 different statuses, None (1), Init (2), DownloadStart (3), SuccessfulDownload (4), FailDownload (5), ApRequest (6), Holding (7), ManualRequest (8), Downloading (9), Rebooting (10), UpgradeSucess (11), and UpgradeFail (12).

Event Message

```
ap       2013-01-02 19:30:09 NOT AP_f4:d9:fb:24:2d:c1 AP DEBUG FILE
TRANSFER file=AP_f4d9fb2Tech_support_20130102193008.tar
```

Recommended Action

No Action Required.

3.65 AP_CONFIG_CREATION

Generated when a new AP setting is added.

Event Message

```
ap       2013-01-02 19:33:07 NOT AP_00:00:00:00:00:00 AP CONFIG
CREATION ID=1
```

Recommended Action

No Action Required.

3.66 AP_CONFIG_DELETION

Generated when an AP setting is deleted.

Event Message

```
ap       2013-01-02 19:33:03 NOT AP_20:11:22:33:7f:20 AP CONFIG
DELETION -
```

Recommended Action

No Action Required.

3.67 AP_NEW_REGISTER

Generated when an AP that is not set up is registered by automatic detection.

Event Message

```
ap       2013-01-02 19:43:09 NOT APC AP AUTOMATIC REGISTERED
mac=f4:d9:fb:24:2d:c1, id=2
```

Recommended Action

No Action Required.

3.68 AP_DEFAULT_GRP_FAILURE

Generated when the default group is deleted due to abnormal operation of the system.

Event Message

```
ap       2013-01-02 19:33:19 NOT AP_DEFAULT_GRP_FAILURE Default Ap-
group is not exist abnormally. All of ap config will be clear.
```

Recommended Action

Create the AP-group default.

3.69 AP_BSS_UPDATE_FAILURE

Generated when the down/up functions of the BSS interface is not performed normally due to abnormal operation of the AP.

Event Message

```
ap       2012-12-28 18:49:31 NOT AP_20:11:22:33:57:60 r=1,w=1 BSS
ADMIN UP STATUS FAILURE
```

Recommended Action

- Restart the AP in question.
- Disable/enable the WLAN in question.
- Down/up the radio in question.

3.70 AP_MAC_ASSIGNED

Generated when a MAC address is allocated to an AP after the initial setting of the AP.

Event Message

```
ap       2013-01-02 19:33:19 NOT APC AP MAC ASSIGNED BY ADMIN
ID=1,Mac=20:11:22:33:7f:20
```

Recommended Action

No Action Required.

3.71 AP_CONFIG_UPDATED

Notifies changes in the AP setting values (AP Name, IP address, Mode, etc).

Event Message

```
ap       2013-01-02 19:43:14 NOT AP_f4:d9:fb:24:2d:c1 AP CONFIG
UPDATED ID=2,IP=100.100.100.23
```

Recommended Action

No Action Required.

3.72 AP_BSS_CREATION

The event is generated when the relevant BSS MAC address has been known to APC after WLAN service configuration is provided to AP and the concerned BSS interface has been generated in AP.

Event Message

```
ap       2013-04-17 11:49:08 NOT AP_00:00:aa:26:26:26 r=2,w=1 BSS
Creation radio(2)/wlan(1)
```

Recommended Action

No Action Required.

3.73 AP_BSS_DELETION

The event is generated when specific WLAN or whole WLAN service is deleted or disabled in AP and BSS is deleted in APC.

Event Message

```
ap       2013-04-17 11:49:01 NOT AP_00:00:aa:26:26:26 r=1,w=1 BSS
Deletion radio(1)/wlan(1)
```

Recommended Action

No Action Required.

3.74 AP_BSS_CONFIG_FAILURE

Generated when the BSS service is not successfully uploaded due to an error in the setting of either WMM, DTI or Security.

Event Message

```
ap       2012-12-28 18:49:31 NOT AP_20:11:22:33:57:60 r=1,w=1 BSS
CONFIG FAILURE  MODULE: DTIM WMM
```

Recommended Action

- Restart the AP in question.
- Disable/enable the WLAN in question.
- Down/up the radio in question.

3.75 WLAN_CREATE

Generated when a new APC setting is created for WLAN service.

Event Message

```
wlan      2013-01-02 19:44:10 NOT APC WLAN Create wlan11
```

Recommended Action

No Action Required.

3.76 WLAN_DELETE

Generated when a setting is deleted by the WLAN service operator.

Event Message

```
wlan      2013-01-02 19:44:13 NOT APC WLAN Delete wlan11
```

Recommended Action

No Action Required.

3.77 TRUSTED_AP_INVALID_ENCRYPTION

Generated when the security of a managed AP is ‘Open’.

Event Message

```
security   2013-01-02 19:44:13 NOT AP_f4d9fb3556ca Trusted AP Invalid
Encryption  mac=f4:d9:fb:35:56:ca, ClassType=1, Ch=149, Radio=0,
SSID=mass_up9
```

Recommended Action

No Action Required.

3.78 ROGUE_AP_AUTO_CONTAINED

Generated when a rogue AP is auto contained.

Event Message

```
security   2013-01-02 19:44:13 NOT AP_f4d9fb3556ca Adhoc Rogue Auto
Contained mac=f4:d9:fb:35:56:ca, ClassType=1, Ch=149, Radio=0,
SSID=mass_up9
```

Recommended Action

No Action Required.

3.79 ROGUE_AP_ON_NETWORK

Generated when an AP's connection to a wired network is found during rogue AP detection.

Event Message

```
security   2013-01-02 19:44:13 NOT AP_f4d9fb3556ca Rogue AP On Network
mac=f4:d9:fb:35:56:ca, ClassType=1, Ch=149, Radio=0, SSID=mass_up9
```

Recommended Action

No Action Required.

3.80 ADHOC_ROGUE_AUTO_CONTAINED

Generated when a adhoc rogue AP is auto contained.

Event Message

```
security-NOT: Adhoc Rogue Auto Contained f4d9fb3556ca Declare
mac=f4:d9:fb:35:56:ca, ClassType=1, Ch=149, Radio=0, SSID=mass_up9
```

Recommended Action

No Action Required.

3.81 FTP_PREPARE

Generated when file transmitting/receiving via FTP begins.

Event Message

```
system    2013-01-03 02:07:34 NOT APC FtpClient FTP Prepare
file_name=a.sh, file_type=0
```

Recommended Action

No Action Required.

3.82 FTP_DOWNLOADING

Generated when file downloading via FTP is in progress.

Event Message

```
system    2013-01-03 02:07:34 NOT APC FtpClient FTP Downloading
file_name=a.sh, file_type=1
```

Recommended Action

No Action Required.

3.83 FTP_UPLOADING

Generated when file uploading via FTP is in progress.

Event Message

```
system    2013-01-03 02:13:35 NOT APC FtpClient FTP Uploading
file_name=test, file_type=3
```

Recommended Action

No Action Required.

3.84 FTP_COMPLETE

Generated when file transmitting/receiving via FTP is completed.

Event Message

```
system    2013-01-03 02:07:34 NOT APC FtpClient FTP Complete
file_name=a.sh, file_type=1
```

Recommended Action

No Action Required.

3.85 FTP_ERROR

Generated when an error occurs during file transmitting/receiving via FTP.

Event Message

```
system    2013-01-03 02:13:35 WRN APC FtpClient FTP Error
file_name=test, file_type=3
```

Recommended Action

No Action Required.

3.86 SFTP_PREPARE

Generated when file transmitting/receiving via SFTP begins.

Event Message

```
system    2013-01-03 02:15:57 NOT APC SftpClient SFTP Prepare
file_name=a.sh, file_type=0
```

Recommended Action

No Action Required.

3.87 SFTP_DOWNLOADING

Generated when file downloading via SFTP is in progress.

Event Message

```
system    2013-01-03 02:15:58 NOT APC SftpClient SFTP Downloading
file_name=a.sh, file_type=1
```

Recommended Action

No Action Required.

3.88 SFTP_UPLOADING

Generated when file uploading via SFTP is in progress.

Event Message

```
system    2013-01-03 02:19:16 NOT APC SftpClient SFTP Uploading
file_name=test, file_type=3
```

Recommended Action

No Action Required.

3.89 SFTP_COMPLETE

Generated when file transmitting/receiving via SFTP is completed.

Event Message

```
system    2013-01-03 02:15:58 NOT APC SftpClient SFTP Complete
file_name=a.sh, file_type=1
```

Recommended Action

No Action Required.

3.90 SFTP_ERROR

Generated when an error occurs during file transmitting/receiving via SFTP.

Event Message

```
system    2013-01-03 02:20:17 WRN APC SftpClient SFTP Error
file_name=ftp_4, file_type=3
```

Recommended Action

No Action Required.

3.91 PING_RESULT

Notifies ping results.

Event Message

```
system    2013-01-03 02:29:35 NOT APC Ping Result IP=192.168.101.1,
transmit=5, received=5, loss=0, min=0.220, max=7.957, avg=1.898
```

Recommended Action

No Action Required.

3.92 IF_ADMIN_SHUTDOWN

Generated when the interface is shutdown by the user using CLI/SNMP.

Event Message

```
interface  2013-01-03 02:32:47 NOT APC ge1 IF Admin Shutdown
AdminStatus[down] OperStatus[down]
```

Recommended Action

No Action Required.

3.93 IF_ADMIN_NO_SHUT

Generated when the interface is no-shutdown by the user using CLI/SNMP.

Event Message

```
interface  2013-01-03 02:32:49 NOT APC ge1 IF Admin No Shut
AdminStatus[up] OperStatus[down]
```

Recommended Action

No Action Required.

3.94 IF_CREATE

Generated when the VLAN/LAG interface is created.

Event Message

```
interface  2013-01-03 02:51:01 NOT APC vlan1.100 IF Create
AdminStatus[up] OperStatus[down]
```

Recommended Action

No Action Required.

3.95 IF_DELETE

Generated when the VLAN/LAG interface is deleted.

Event Message

```
interface  2013-01-03 02:51:41 NOT APC vlan1.100 IF Delete
AdminStatus[up] OperStatus[down]
```

Recommended Action

No Action Required.

3.96 IP_APP_SSH_SERVER_ENABLE

Generated when the SSH service is enabled.

Event Message

```
system    2013-01-03 02:55:44 NOT SSH:SSH SSH Server Enable -
```

Recommended Action

No Action Required.

3.97 IP_APP_SSH_SERVER_DISABLE

Generated when the SSH service is disabled.

Event Message

```
system    2013-01-03 02:55:50 NOT SSH:SSH SSH Server Disable -
```

Recommended Action

No Action Required.

3.98 IP_APP_SFTP_SERVER_ENABLE

Generated when the SFTP service is enabled.

Event Message

```
system    2013-01-03 02:58:53 NOT SSH:SFTP SFTP Server Enable -
```

Recommended Action

No Action Required.

3.99 IP_APP_SFTP_SERVER_DISABLE

Generated when the SFTP service is disabled.

Event Message

```
system    2013-01-03 02:58:50 NOT SSH:SFTP SFTP Server Disable -
```

Recommended Action

No Action Required.

3.100 IP_APP_SSH_ADD_SESSION

Generated when a connection to the SSH service is detected.

Event Message

```
system    2013-01-03 03:01:23 NOT sshserver SSH Add Session ssh client
session 192.168.0.156
```

Recommended Action

No Action Required.

3.101 IP_APP_FTP_ADD_SESSION

Generated when a connection to the FTP service is detected.

Event Message

```
system    2013-01-03 03:02:08 NOT ftpserver FTP Add Session
192.168.101.1
```

Recommended Action

No Action Required.

3.102 IP_APP_SFTP_ADD_SESSION

Generated when a connection to the SFTP service is detected.

Event Message

```
system    2013-01-03 03:02:44 NOT sftpserver SFTP Add Session sftp
session add 192.168.101.1
```

Recommended Action

No Action Required.

3.103 SE_IPv4_ACL_DROP

When applying ACL to an IPv4 packet, if this packet does not meet the ACL rule or meets the drop rule, it is dropped and this event is generated.

Event Message

```
se  2013-01-02 16:40:47 NOT APC SE IPv4 ACL Drop
MAC=00:00:00:00:03:00, RULE=NO_MATCH
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.104 SE_IPv4_ADMIN_ACL_DROP

When applying ADMIN ACL to an IPv4 packet, if this packet that is to be received in the control layer (Linux) does not meet the ACL rule or meets the drop rule, it is dropped and this event is generated.

Event Message

```
se  2013-01-02 16:40:47 NOT APC SE IPv4 Admin ACL Drop
MAC=00:00:00:00:03:00, RULE=NO_MATCH
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.105 SE_L2_ACL_ING_ACL_DROP

When applying MAC ACL to an ingress packet, if this packet meets the drop rule, it is dropped and this event is generated.

Event Message

```
system  2013-01-02 18:17:02 NOT SE L2 ACL ING ACL DROP APC Notice
MAC=00:00:00:00:03:00, RULE=DROP
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.106 SE_L2_ACL_ENG_ACL_DROP

When applying MAC ACL to an egress packet, if this packet meets the drop rule, it is dropped and this event is generated.

Event Message

```
system  2013-01-02 18:30:23 NOT SE L2 ACL ENG ACL DROP APC Notice
MAC=00:00:00:00:02:00, RULE=DROP
```

Recommended Action

Copy the system message being logged to the console, terminal or syslog server, and contact Samsung Technical Support for assistance.

3.107 GUEST_USER_ADDED

Guest service is a service available for guest users and this event is generated when a new guest user is added. Generated when a guest user is updated to the DB.

Event Message

```
wifi    2013-01-02 18:30:23 NOT APC Guest User Added User Name=James
```

Recommended Action

No Action Required.

3.108 GUEST_USER_REMOVED

Guest service is a service available for guest users and this event is generated when a guest user is removed. Generated when a guest user is updated to the DB.

Event Message

```
wifi    2013-01-02 18:30:23 NOT APC Guest User Removed user James:
```

Recommended Action

No Action Required.

3.109 GUEST_USER_AUTHENTICATED

Guest service is a service available for guest users and this event is generated when the authentication of a guest user succeeds. Generated in each station when authentication for guest service is completed.

Event Message

```
wifi    2013-01-02 18:30:23 NOT APC Guest User Authenticated Station
MAC Addr=00:00:00:00:00:01
```

Recommended Action

No Action Required.

3.110 HAPD_TRAP_WEBPASSTHROUGH

Generated when web policy is conflict among Web authentication, Web passthrough, and conditional web redirection during WLAN L3 security setting.

Event Message

```
wifi    2013-01-02 18:30:23 NOT APC WebAuthentication and
WebPassthroughPolicy cannot be configured together –

wifi    2013-01-02 18:30:23 NOT APC WebAuthentication and
conditionalWebRedirectPolicy cannot be configured together APC Notice
–

wifi    2013-01-02 18:30:23 NOT APC WebPassthroughPolicy and
conditionalWebRedirectPolicy cannot be configured together APC Notice
–
```

Recommended Action

No Action Required.

3.111 CAC_CALL_REJECT

Generated during call attempts or handover of a call when the current call number reaches the maximum accepted call number.

Event Message

```
wifi    2013-01-07 20:09:31 WRN 70.1.1.50 CAC Call Rejects APC Reject
Mode
```

Recommended Action

No Action Required.

3.112 RADAR_DETECT

Generated when a radar is detected in the AP-operated 5 GHz channel.

Event Message

```
wifi    2013-01-07 20:09:31 WRN AP_f4:d9:fb:23:69:e0 Radar detect
Channel(149)
```

Recommended Action

No Action Required.

3.113 STATION_ASSOCIATE

Generated when a station connects to the system (when it receives an association frame).

Event Message

```
wifi      2012-12-11 01:04:52 NOT STA_50:cc:f8:d2:e0:db Station
Associate mac=50:cc:f8:d2:e0:db Bssid(f4:d9:fb:23:c4:04) Assoc
```

Recommended Action

No Action Required.

3.114 STATION_ASSOCIATE_FAIL

Generated when an attempt by a station to associate with an AP fails. Descriptions vary by fail reason.

Event Message

```
wifi     2012-12-11 01:04:52 WRN STA_50:cc:f8:d2:e0:db Station
Associate Fail mac=50:cc:f8:d2:e0:db No WLAN

wifi     2012-12-11 01:04:52 WRN STA_50:cc:f8:d2:e0:db Station
Associate Fail mac=50:cc:f8:d2:e0:db Fail to add DB

wifi     2012-12-11 01:04:52 WRN STA_50:cc:f8:d2:e0:db Station
Associate Fail No Resource in APC
```

Recommended Action

No Action Required.

3.115 STATION_AUTHENTICATION_FAIL

Generated when a station that makes attempts at the initial connection or handover fails to obtain authentication. Authentication is performed via 802.1x.

Event Message

```
wifi     2012-12-11 01:04:52 WRN STA_50:cc:f8:d2:e0:db Station
Authentication Fail Station Failure in Security
```

Recommended Action

No Action Required.

3.116 STATION_DEAUTHENTICATE

Generated when a station attempts to terminate service by transmitting a deauthentication frame to an AP.

Event Message

```
wifi     2012-12-11 01:04:52 NOT STA_50:cc:f8:d2:e0:db Station
Deauthenticate mac=50:cc:f8:d2:e0:db Bssid(f4:d9:fb:23:c4:04) deauth
DEAUTH_LEAVING
```

Recommended Action

No Action Required.

3.117 STATION_DISASSOCIATE

Generated when a station attempts to terminate service by transmitting a disassociation frame to an AP.

Event Message

```
wifi    2012-12-11 01:04:52 NOT STA_50:cc:f8:d2:e0:db Station
Disassociate mac=50:cc:f8:d2:e0:db Bssid(f4:d9:fb:23:c4:04) disassoc
DISASSOC_DUE_TO_INACTIVITY
```

Recommended Action

No Action Required.

3.118 STATION_REASSOCIATE

Generated when a station carried out handover.

Event Message

```
wifi    2012-12-11 01:04:52 NOT STA_50:cc:f8:d2:e0:db Station
Reassociate mac=50:cc:f8:d2:e0:db Previous BSSID= f4:d9:fb:23:b4:01
Bssid=f4:d9:fb:23:c4:04 Previous Channel=36 SSID=TEST Reason=Reassoc
```

Recommended Action

No Action Required.

3.119 STATION_REASSOCIATE_FAIL

Generated when a station fails to carry out handover.

Event Message

```
wifi    2012-12-11 01:04:52 WRN STA_50:cc:f8:d2:e0:db Station
Reassociate Fail mac=50:cc:f8:d2:e0:db Station No Resource
wifi     2012-12-11 01:04:52 WRN STA_50:cc:f8:d2:e0:db Station
Reassociate Fail mac=50:cc:f8:d2:e0:db Fail to do validation check

wifi    2012-12-11 01:04:52 WRN STA_50:cc:f8:d2:e0:db Station
Reassociate Fail mac=50:cc:f8:d2:e0:db No Resource in BSS
```

Recommended Action

No Action Required.

3.120 HO_BUFFWD_ENABLE

Generated when the buffered forwarding function of NCHO (Network Controlled Handover) is enabled. Buffered forwarding is a function that preserves packets that have the risk of being dropped during handover by buffering them in order to prevent the packet droppings in the previous handovers from occurring again.

Event Message

```
wifi    2012-12-11 01:04:52 NOT APC NCHO HO BUFFWD Enable Buffered
forwarding Enabled.
```

Recommended Action

No Action Required.

3.121 HO_BUFFWD_DISABLE

Generated when the buffered forwarding function of NCHO (Network Controlled Handover) is disabled. Buffered forwarding is a function that preserves packets that have the risk of being dropped during handover by buffering them in order to prevent the packet droppings in the previous handovers from occurring again.

Event Message

```
wifi    2012-12-11 01:04:52 NOT APC NCHO HO BUFFWD Disable Buffered
forwarding Disabled.
```

Recommended Action

No Action Required.

3.122 HO_SCAN_CHANNEL_CHANGE

Generated during NCHO when the setting of the channel that is to be scanned by the station is changed. Channel values in the description vary by setting.

Event Message

```
wifi    2012-12-11 01:04:52 NOT APC NCHO HO Scan Channel Change The
number of channel is 2.
```

Recommended Action

No Action Required.

3.123 HO_SCAN_PROBE_REQ_CHANGE

Generated during NCHO when the setting of the station's probe request transfer is changed.

Event Message

```
wifi    2012-12-11 01:04:52 NOT APC NCHO HO Scan Probe Req. Change The
number of probe request is 2.
```

Recommended Action

No Action Required.

3.124 HO_OPERATION_MODE_STA

NCHO supports Station mode and VoIP mode and this event is generated when Station mode is set to for support.

Event Message

```
wifi    2012-12-11 01:04:52 NOT APC NCHO HO Operation Mode STA NCHO
Station Mode.
```

Recommended Action

No Action Required.

3.125 HO_OPERATION_MODE_APP

NCHO supports Station mode and VoIP mode and this event is generated when VoIP mode is set to for support.

Event Message

```
wifi    2012-12-11 01:04:52 NOT APC NCHO HO Operation Mode APP NCHO
APP Mode
```

Recommended Action

No Action Required.

3.126 HO_SCAN_REPORT_LEVEL_CHANGE

When forwarding RSSI results on the station's probe request to the APC, NCHO decides whether to carry out forwarding according to level values. This event occurs when the standard level value is changed.

Event Message

```
wifi    2012-12-11 01:04:52 NOT APC NCHO HO Scan Report Level Change
Level is -100.
```

Recommended Action

No Action Required.

3.127 HO_SCAN_TIME_CHANNEL_CHANGE

Generated during NCHO when the scanning time value for 1 channel is changed. Means the scanning time taken for each channel.

Event Message

```
wifi    2012-12-11 01:04:52 NOT APC NCHO HO Scan Time Channel Change
Scan time is 20.
```

Recommended Action

No Action Required.

3.128 HO_SCAN_TIME_INTERVAL_CHANGE

Generated during NCHO when the setting of the scan time interval value is changed. Means the idle time taken from one all-channel scanning to the beginning of the next.

Event Message

```
wifi    2012-12-11 01:04:52 NOT APC NCHO HO Scan Time Interval Change
Scan Interleave time is 1000.
```

Recommended Action

No Action Required.

3.129 HO_SCAN_TRIGGER_LEVEL_CHANGE

Generated during NCHO when the setting of the trigger level value is changed. Whether or not to scan a station is decided according to this level value.

Event Message

```
wifi    2012-12-11 01:04:52 NOT APC NCHO HO Scan Trigger Level Change
Level is -70.
```

Recommended Action

No Action Required.

3.130 HO_SCAN_SERVICE_TIME_CHANGE

Generated during NCHO when the service time value is changed in the scanning and service time value setting.

Event Message

```
wifi    2012-12-11 01:04:52 NOT APC NCHO HO Scan Service Time Change
Scan Service time is 100.
```

Recommended Action

No Action Required.

3.131 STATION_EXCEED_NUM

Generated when a station making attempts for connection reaches the max station capacity of the APC system and consequently the connection of the station gets denied.

Event Message

```
wifi    2012-12-11 01:04:52 WRN APC Station Exceed Number Reached the
max number of stations in an APC
```

Recommended Action

No Action Required.

3.132 STATION_EXCEED_NUM_AP

Generated when a station exceeds the maximum number of the AP and consequently the connection of the station gets denied.

Event Message

```
wifi    2012-12-11 01:04:52 WRN AP_50:cc:f8:d2:e0:db Station Exceed
Number AP MAC=f2:12:34:e1:81:2e
```

Recommended Action

No Action Required.

3.133 STATION_KICKOUT

Generated when a station is forcibly removed from the AP by kickout, which is carried out according to WiFi conditions.

Event Message

```
wifi    2012-12-11 01:04:52 WRN STA_50:cc:f8:d2:e0:db Station KICKOUT
Station Kicked out
```

Recommended Action

No Action Required.

3.134 STATION_IDLE_TIMEOUT

During idle timeout, AP removes inactive stations and this event is generated in this case.

Event Message

```
wifi     2012-12-11 01:04:52 WRN STA_50:cc:f8:d2:e0:db Station IDLE
Timeout Station Idle Timeout
```

Recommended Action

No Action Required.

3.135 STATION_IAHO_ENABLED

Generated when inter APC handover is enabled. Shows whether the inter APC handover function is available or not.

Event Message

```
wifi     2012-12-11 01:04:52 NOT APC Inter APC Handover enabled Inter
APC Handover Enabled
```

Recommended Action

No Action Required.

3.136 STATION_IAHO_DISABLED

Generated when inter APC handover is disabled. Shows whether the inter APC handover function is available or not.

Event Message

```
wifi    2012-12-11 01:04:52 NOT APC Inter APC Handover disabled Inter
APC Handover Disabled
```

Recommended Action

No Action Required.

3.137 STATION_KICKEDOUT_BYIPACL

Generated when an existing associated station is kicked out according to the IP ACL rule.

Event Message

```
wifi    2012-12-11 01:04:52 NOT STA_50:cc:f8:d2:e0:db Station kicked
out by IP ACL ACL applied
```

Recommended Action

No Action Required.

3.138 SIP_CALL_FAILURE

Generated when a SIP-based VoIP call fails.

Event Message

```
wifi    2013-01-22 10:14:20 WRN STA_d4:88:90:1b:3c:e2 SIP Call Failure
sysUpTime=245672,reason=4,caller=9905,callee=9904,AP_MAC=f4:d9:fb:23:6
9:e0,AP_NAME=AP_f4d9fb2369e0,radio=2
```

Recommended Action

Take appropriate measures based on the station and AP information, and fail reason provided in the event message.

3.139 MAX_ROGUE_COUNT_EXCEEDED

Generated when the rogue AP count exceeds the max number of 500.

Alarm Message

```
security     2013-01-22 10:14:20 NOT APC Max Rogue Count Exceeded WIDS
Maximum Limit of Rogue Devices Reported by WIDS is Reached!
```

Recommended Action

No Action Required.

ABBREVIATION

A

ACL	Access Control List
AES	Advanced Encryption Standard
AP	Access Point
APC	Access Point Controller

C

CAC	Call Admission Control
CAPWAP	Control and Provisioning Wireless Access Point
CCM	Counter mode encryption with CBC-MAC
CCMP	Counter mode encryption with CBC-MAC Protocol
CCTV	Closed Circuit Television
CLI	Command Line Interface
CSMA/CD	Carrier Sense Multiple Access/Collision Detect

D

DDR	Double Date Rate
DDR3	Double Data Rate Type 3
DECT	Digital Enhanced Cordless Telecommunications
DHCP	Dynamic Host Configuration Protocol
DMZ	Demilitarized Zone
DTLS	Datagram Transmission Layer Security
DU	Digital Unit

E

EAP	Extensible Authentication Protocol
EEPROM	Electrically Erasable Programmable Read-Only Memory
EMI	Electro-Magnetic Interference
EVM	Event Manager

F

FFT	Fast Fourier Transform
FIFO	First-In-First-Out

FMC	Fixed Mobile Convergence

G

GbE	Giga Bit Ethernet
GI	Guard Interval

H

HO	Handover

I

IGMP	Internet Group Management Protocol
IP	Internet Protocol
IV	Initial Vector

L

LACP	Link Aggregation Control Protocol
LAN	Local Area Network
LED	Light Emitting Diode

M

MAC	Medium Access Control
MCS	Modulation and Coding Scheme
MIB	Management Information Base
MIMO	Multiple Input Multiple Output
MLT-3	Multi-Level Transmission-3
MMF	MultiMode Fiber
MSTP	Multiple Spanning-Tree Protocol

N

NAT	Network Address Translation
NMS	Network Management System
NTP	Network Time Protocol

O

OKC	Opportunistic Key Caching
OSPF	Open Shortest Path First

P

PC	Personal Computer
PHY	Physical layer
PIM-SM Protocol	Independent Multicast-Sparse Mode
PoE	Power over Ethernet
POST	Power On Self-Test

PPDU	Physical layer protocol data unit
PSDU	Physical layer service data unit
PSE	Power Sourcing Equipment
PSK	Pre-Shared Key

Q

QoS	Quality of Service

R

RADIUS	Remote Authentication Dial-In User Service
RF	Radio Frequency
RPM	Revolution Per Minute
RSSI	Received Signal Strength Indication
RU	Radio Unit

S

SDS	Samsung Downlink Scheduler
SE	Simple Executive
SNMP	Simple Network Management Protocol
SNR	Signal to Noise Ratio
STP	Signaling Transfer Point
SWM	Software Manager

T

TKIP	Temporal Key Integrity Protocol

U

USB	Universal Serial Bus
UTP	Unshielded Twisted Pair

V

VAP	Virtual Access Point
VATS	Voice-Aware Traffic Scheduling
VLAN	Virtual Local Area Network
VoIP	Voice over IP
VPN	Virtual Private Network
VQM	Voice Quality Monitoring
VRRP	Virtual Router Redundancy Protocol

W

WAN	Wide Area Network
WDS	Wireless Distribution Service

WEM	Wireless Enterprise WLAN Manager
WEP	Wired Equivalent Privacy
Wi-Fi	Wireless Fidelity
WIPS	Wireless Intrusion Prevention System
WLAN	Wireless Local Area Network
WPA	Wi-Fi Protected Access
WPA2	Wi-Fi Protected Access Version 2

WEC8500 (APC)

System Message Description