

Advantech AE Technical Share Document

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Category	■FAQ □SOP	Related OS	N/A
Abstract	EKI-6333, EKI-136X, How to do troubleshooting for AGV application?		
Keyword	EKI-6333, EKI-136X, AGV troubleshooting ,roaming		
Related Product	EKI-6333, EKI-136X		

■ **Problem Description:**

How to do the troubleshooting when the EKI device couldn't roam seamless on AGV application?

■ **Answer:**

Step 1: Check the log (Figure 1) on wireless client to see if the roaming is trigger or not in your environment.

- If the log didn't show information like *"Signal strength threshold: -XX, short scan interval: XX, long scan interval: 120"*. Please go back to Roaming setting page to enable roaming function and reboot the device. (Please refer the document *"how to do site survey for AGV application"*)
- If the log keep showing the following information *"Signal level is lower than threshold"* and *"Trigger immediate scan"* during the AGV stop duration, It means the EKI device couldn't find the suitable AP to roam. This problem possibly caused by the poor AP signal strength and wrong roaming parameters. (Refer the step 2 for roaming parameter setting)

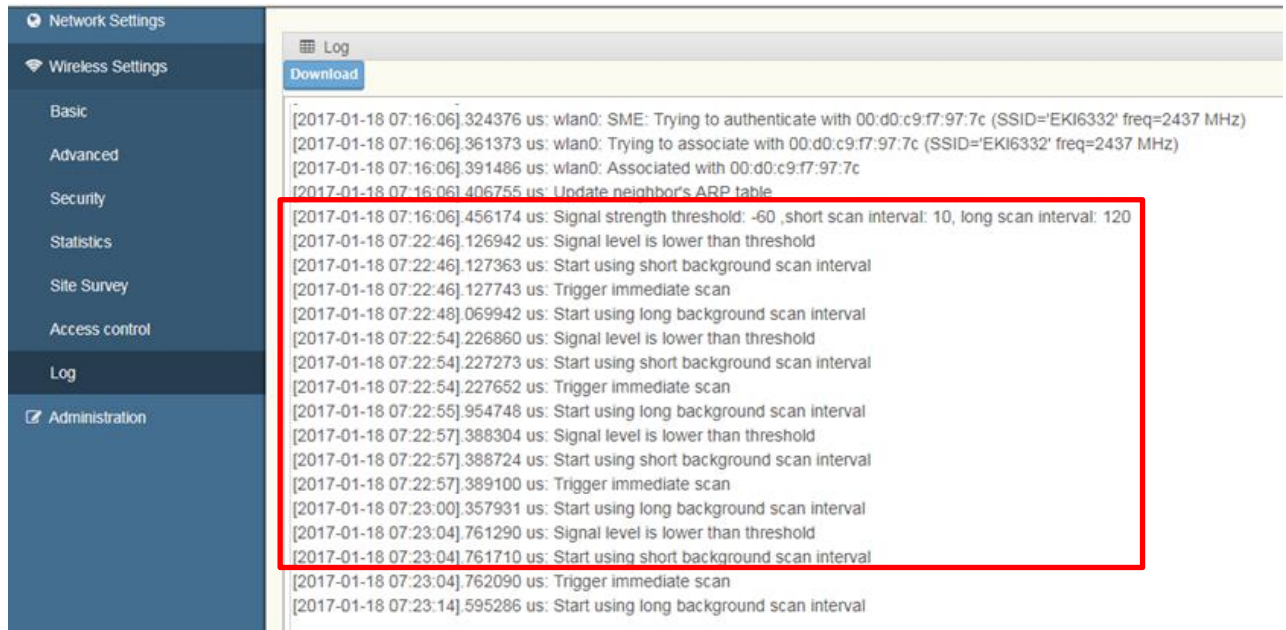


Figure 1 EKI device log

Step 2: First, record the 2nd AP signal strength on the AGV stop location. Normally, we'd suggest the signal should higher than -60dbm for AGV application. If the signal is lower than -60dbm, please adjust the AP position to fulfill this requirement. (Please refer the document *"how to do site survey for AGV application"*)

Then adjust the RSSI threshold at the -60dbm (Figure 2 showing the roaming parameter). Then, rerun the AGV to see the problem is solved or not.

If the AGV still couldn't roam seamless, it may cause by higher speed of AGV. Adjust the scan interval (LOW) for more constantly scanning. The default value it 15s. Set the lower value and test again to see if the roaming has been improved or not. However, please do not set the value lower than 5s. Over scanning may cause serious packet loss.

Figure 2 roaming parameter

- **RSSI Threshold:** trigger scanning when main AP signal is lower than the value_
- **RSSI Hysteresis** :If client finds the new AP signal with 3dbm greater than main AP. Then, disconnect with main AP and reassociate with new AP.
- **Scan interval (LOW):** Scan each 15s, if the main AP signal is lower than -60dbm