POLYCOM®

KIRK® Release Notes

KIRK® Wireless Server 2500 & KIRK® Wireless Server 8000

Firmware version PCS06A_
Q4, 2011

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1. Introduction

These release notes apply to the released firmware versions for the KIRK Wireless Server 2500 & KIRK Wireless Server 8000 (Hereinafter referred to as KWS2500 and KWS8000). This version specifically applies to version PCS06A_ of the firmware. The release is a main release that replaces the PCS06__ release as the latest generally available (GA) release.

2. Distribution Files

Click here >> to find the firmware image of the KWS2500 & KWS8000.

3. Changes

3.1 Version PCS06A_ – Q4, 2011

WEB interface tested on:
Internet Explorer 8.0
Firefox 6.0

For this and future software releases, please only use the web GUI for configuration of your system. However, if you have to use the OAM Administration Program, please use Software version 0.4.0.88, and note that creation of new users will not function.

3.1.1 Added or Changed Features

- The Service Report page has now become the start page. The purpose is to advertise on the advantage or sometimes necessity to run a service report. The installer/user is encouraged to run the service report with the four following points:
    - Run a Service Report as the first step in any service session in order to document the start configuration.
    - The Service Report includes text files with an overview of system configuration, statistics, detected errors and problems.
    - Run a Service Report as the last step in any service session in order to document the configuration.
    - A Service Report is always required if you need any support on this product from the Polycom Support team (Please include the description of observed and expected behavior).
- Added start and stop of "capture scenario". Function automatically sets all trace levels to high, when started. When stopped, the trace levels are set back to previous settings. The function is used when a certain scenario (most likely an error situation) has to be captured in the service report. The first step would be to start the "capture scenario", then reproduce the scenario/error situation. Finally, press the "stop scenario" button or just run the service report (starting the service report will automatically stop the "capture scenario").
- Added option for 9600 bps on RS232 on CPU card in Primary shelf.
- Previously, SIP calls have automatically been disconnected when ended on far end call release (e.g. If a call between 2 handsets is terminated from one handset, the other handset will automatically disconnect). This behavior is not always suitable for all the users. Also, if the far end release is not intended – the user needs some kind of audible feedback about the terminated call. In this software release a 2500 ms

delayed release timer has been added - When a call is normally or abnormally released from far end, the handset plays internal busy tone in 2500 ms before being released automatically. The user can also choose to go on hook by himself.

- Added simple handling of 305 Use Proxy response (this was required by Coral UGW).
- Added SIP user domain. Every SIP user can now subscribe to own proxy.
- Reset of chosen parameters to factory defaults.
- Files with "Erlang statistics" and "Traffic distribution" have been added to email- and service report. The Erlang statistics is calculated on RFP level and includes both voice and messaging traffic. Statistical counter values for each 15 minutes of a week are written in the "Traffic distribution" file.
- Busy hour is calculated if there has been any traffic.

3.1.2 Known issues

- WEB interface does NOT and will never work correctly on Windows Internet Explorer 7 or older versions.
- Remember to clear the browser cache.
- When using the OAM Administration program for system configuration the creation of new users does not function. Instead use the web GUI.

3.1.3 Corrections and Improvements

- XML_RPC: Supporting persistent http version 1.1.
- The text length in an MSFdisplayReq is changed from 36 characters to 72.
- Default blocking trace level for Master RS232 port is reduced from 5 to 3. This is done to prevent flooding of the RS232 port.
- Now it is possible to have a more flexible dial plan (previously it was not possible to have local number 200 and 2100 at the same time. It is still not possible to have local number 200 and 2000 at the same time).
- Longer trace messages were previously truncated; today they are split into two separated trace messages.
- The problems with calls between handsets subscribed as "DECT to DECT" and handsets subscribed as Analogue or SIP have been fixed. Call was not properly released in case of abnormal releases from the far end handsets. Furthermore the "DECT to DECT" handsets could not make proper connection handover in some situations.
- When the KIRK Wireless Server indicates DTMF support in outgoing SDP offers, DTMF events 1-15 are indicated. Previously 1-11 were indicated. The KIRK Wireless Server will actually send only 1-11 events. However CUCM 8.6.x apparently needs the offer to indicate 1-15 to be able to handle DTMF correctly.
- The "Daylight saving" error when changing time from NTP to manual time setting has now been corrected.
- WEB interface: DTMF Tx "level offset", Gain FSK and DTMF in Analogue settings was previously not shown as signed values.
- A risk of getting a negative SIP Subscription Expire timer values if IPBX responded with short re-registration time value is now prevented (Registration could be lost).

- Some third party KIRK handsets sometimes send DETACH when subscribing causing previous release to reboot.
- The problem when using automatic DNS has now been fixed. Previously, only the static DNS settings were working.

3.1.4 Configuration File Parameter Changes

None.

3.2 Version PCS06__ – Q3, 2011

Please use OAM SW 0.3.0.88 or newer.

3.2.1 Added or Changed Features

- Central supervision of dummy-bearers to ensure better handover possibilities in places with several DECT systems has been implemented.
- XML-RPC application interface has been added.
  The new XML-RPC based application interface uses open standards and it's easy to use. This interface has almost the same functionality as the existing MSF interface. The existing MSF interface will not be affected. The interface is now (probably in the future, as well) working the same way as KWS300/KWS6000. See how to interface in the document "KIRK Wireless Server 300 and 6000/XML-RPC SDK 1.5.1" or newer.
- From web GUI, XML_RPC can be enabled and user name and password can be entered.
- "click to dial" has been implemented (see the latest version of EMD PA-1411 0629). It enables a 3rd party application to control voice calls (establish, dial, connect and release calls).
- SetUserDetachStatus and GetPPStatus have been implemented (see the latest version of EMD PA-1411 0629). Depending on the handset implementation, it is possible to see if the handset has been turned off or on.
- Added the possibility to handle HTTPS (Built in certificate), both web and XML-RPC.

3.2.2 Known issues

- It is not possible to change timeslot (odd, even or follow RFP) on a RFP4 from the web GUI.

- MSF format 3 does not have the correct format on the web GUI "MSF demo" tab. Message ID is only using the low byte in 16 bit value. The callback number can only be 4 digits long. Furthermore in the "PP hardware extension" tab, the action field can be set to "Activate" and "Deactivate". These settings are not supported by any handsets.

- The IPEI of a user cannot be changed in the web GUI.

3.2.3 **Corrections and Improvements**

- System, configuration, trace file and the email report have been improved/extended.
- Handle incoming SIP INFO, rfc2976 has been implemented (Astra 5000 uses SIP INFO for keep-alive).
- SystemRestartReq was improved with the following 4 options:
  1. Now.
  2. when idle. (no MSF & no voice calls).
  3. when no voice calls.
  4. block new voice calls and wait until all voice calls are released.
- Ensuring that unused DN in broadcast (to All PP) request (MSFClmsFixedReq, SMSSetupReq and ExtenHwReq) is not inserted in MSFClmsFixedCfm.
- The possibility to set separate master RS232 TraceMessageLevel has been implemented. This is used to prevent the overflow on the RS232 port.
- SW has been made more robust to faulty MSF events (such as missing local number).
- If SIP username is marked in update or create user data event and the string is empty, then the use of local number as SIP user name is insured.
- Statistics for page time on incoming voice calls and for some types of Supplementary Services have been added (they can only be seen in service report).
- Age to detection of each alien RFPI has been added (it can only be seen in service report).
- A wildcard subscribed handset can now use the servicekeys ***999*00-03 (ex. to see the IP address or MAC of the system).
- The Call Forward Unconditional (CFU) issues have been fixed. Now it can also be changed or added from the web GUI.

3.2.4 **Configuration File Parameter Changes**

None.

3.3 *Version PCS05A – Q2, 2011*

Please use OAM SW 0.3.0.88 or newer.

3.3.1 **Added or Changed Features**

- A web server has been implemented. The web GUI allows the user to maintain and operate the same functions and features as the OAM tool.
- Service codes for users on all interfaces are retrieved by typing the following codes and then press the hook key:
  IP_addr: ***999*00
  MAC_addr: ***999*01
  FW_version: ***999*02
- MSF events to write directly to PP EEPROM have been reinvented.
- A phone book application has been implemented. This feature offers a centralized phone book. The formats supported for the phone book are csv-file and LDAP. It

should be noted, that while retrieving phone book data from a remote LDAP-server, the phone book will be inaccessible. This means that the refresh interval (the interval in which the central phone book data is being copied from the LDAP to the KWS) should be chosen with care. The combination of a slow LDAP-server/slow LDAP-server connection and a large number of entries in the corporate phone book (> 10,000) should be configured with a long refresh interval, e.g. once a day.

- Local call forward (unconditional) is now supported. The number to forward to is configurable through the web GUI (or OAM program) as well as directly from the handset. Using the GUI, the local call forward number can be viewed/edited directly from the user entry of the user in question. The feature code for enabling/disabling local call forward from the handset can be configured through the GUI menu. The default code is "*21*$#" where "$" denotes the number to forward to. If has call forward is enabled in a handset, the standby text will be pre-ended (with CFU) to give the user an indication that the handset is forwarded.
- It is now possible to receive the time from an NTP server.
- In SW PCS04F_ "internal routing" was presented and only accessible from trace mode. Today it can be reached from the GUI and is called DECT Call Configuration.
- New embedded RFP5 firmware, PCS03G_, has been introduced to be used for RFP5 update.
- "SIP username" has been added. To create a SIP user both "local number" and "SIP username" must be programmed. In many installations, "local number" and "SIP username" will be the same.

3.3.2 Known issues

None.

3.3.3 Corrections and Improvements

- Reset of web server password when pushing the default button has been added.
- An error that caused MSF_REL_REQ with forced release reason NOT to release msf session/instance has been corrected.
- Default value of SendMailAllowed has been changed from true to false. New default: Sending e-mail report is disabled.
- After restore of backup of user data, the KWS will automatically reboot.
- Trace mode has undergone a small makeover.
- A trace level 5 containing "all trace messages + debug messages" has been introduced. The old level 4 is now "level 3 + sip messages".
- System, configuration and trace file (and of cause the e-mail report) have been improved/extended. This function has also had its name changed to "Service report" in the web GUI.
- Network status has been improved.
- A bug regarding analogue users has been fixed. If dial tone timer expires (i.e. if the analogue interface card could not recognize the dial tone,) a faulty text would sometimes be sent to the handset "ABxx card in slot x is not present".
- A bug regarding systems configured with MR interface has been fixed. Each time a handset made a location registration, a SIP endpoint was created (sending SIP

REGISTER towards SIP PBX). This is only a potential problem if default domain or proxies are configured.

3.3.4 Configuration File Parameter Changes

None.

3.4 Version PCS04F_ Q1, 2011

Please use OAM SW 0.3.0.81 or newer.

3.4.1 Added or Changed Features

- If a SIP PBX sends a CANCEL with the reason header "Call Completed Elsewhere", the message "Missed call" will no longer be displayed in the handset (50-, 60-, or 70-Handset series). This feature requires a recent firmware for the handsets.
- An auto-answer feature which can be used for intercom and loudspeaker calls has been implemented. If an INVITE with an Alert-Info header, a Call-Info header or an Answer-Mode header is received, it is possible to make a Polycom handset automatically answer the call, mute the microphone and turn on the speakerphone. The reason why several headers are needed to handle this feature is that different SIP-PBX's have different default implementations. The following list of headers will activate auto answer:
  - Alert-Info: Auto Answer
  - Alert-Info: info=alert-autoanswer
  - Alert-Info: Ring Answer
  - Alert-Info: info=RingAnswer
  - Alert-Info: Intercom (*This is the default setting on Trixbox*)
  - Alert-Info: info=intercom
  - Call-Info: =\;answer-after=0
  - Call-Info: ;answer-after=0
  - Answer-Mode: Auto (*This is according to RFC 5373*)

  The feature is implemented in the 50-, 60- and 70-Handset series (except in 7010 which does not have speakerphone). The feature requires a recent firmware for the handsets.
- It is now possible to update the RFP software via the KWS8000/KWS2500 server. RFP update is only supported on RFP5 and RFP4 (Infineon RF, SW PCS >= PCS09_). The latest RFP code is embedded in the server software.
- When a handset is subscribed as a SIP user, it is now possible to add RX gain (receiver gain for the handset).

3.4.2 Known issues

None.

3.4.3 Corrections and Improvements

- Now valid system information is available when no interface card has been inserted.
- Internal routing between "DECT to DECT and Analog" and "DECT to DECT and SIP" has been made possible. The feature is set from "Trace mode".
- When a handset is turned off/on, a SIP registration is sent to the server (if user is SIP and user is not registered on an IPBX).
- An error in SIP configuration events (codec priority list) has been corrected. Also a problem when typing a URI in proxy domain like sip:example.com:5555 has been solved. The port number 5555 was not used/stored correctly.
- System, configuration and trace files (and of course the email report) have been improved/extended. P-ID (KIRK-ID) for backplane, (AB16 and AB08) card, BIF08 card and MR32 card are all stored in files.
- Timestamp and priority have been added to MSF3.

3.4.4 Configuration File Parameter Changes

None.

3.5 Version PCS04D_ (October 2010)

3.5.1 Added or Changed Features

- Supporting MWI for KIRK produced handsets.
- Built in a RS232 log facility on Master shelf (controlled from trace mode).

3.5.2 Known issues

None.

3.5.3 Corrections and Improvements

- In the previous firmware version PCS04C_, it was not possible to make connection handover when a user was subscribed as analog user. This has been corrected.
- Call waiting can now be turned off.
- Problems with noise at the beginning and end of a SIP call have been solved.
- Setting of DHCP in server and MR32 card is now working.
- System, configuration and trace files (and of cause the email report) have been improved/extended; including decoding of more KIRK handset types, added production serial number for interface cards, CPU and backplane and SIP username in system log.

3.5.4 Configuration File Parameter Changes

None.

3.6 Version PCS04C_ (September 2010)

3.6.1 Added or Changed Features

- Support for MR32 interface card.

- o When MR32 card is inserted in the KWS8000 backplane the SW version in the MR32 card is verified by the KWS8000 server. If SW version on MR32 card is not matched by KWS8000 server the MR32 card will by down- or upgraded to correct version.
- o MR32 and Analog interface card can coexist in a KWS8000 system.
- o SIP stack is inherited from the KWS6000 project.
  - ▪ Note: Provisioning is not a part of SIP! – it is a configuration tool for KWS6000. KWS8000 still need the OAM PC software for configuration.
  - ▪ XML-RPC is not a part of SIP, but a messaging protocol for KWS6000. KWS8000 still support the EMD specification on both RS232 and LAN.

- Added possibility to block and unblock all calls.
- Added more information when receiving none supported FSK clip.
- Implemented setting of ringing mode for analog calls (Exchange ringing or System ringing).

3.6.2 Known issues

1) MWI envelope will not be shown in handset.

3.6.3 Corrections and Improvements

1) System, configuration and trace file (and of course the email report) have been improved/extended.
2) Error in handling old KWS1500/500 protocol format has been fixed. (Still only supporting basic MSF).

3.6.4 Configuration File Parameter Changes

None.

3.7 Version PCS03N (Q3/2010)

3.7.1 Added or Changed Features

1) Implemented exchange/system ringing for analog trunks. (Until OAM support is possible, the function can be controlled in Command mode.) Exchange ringing is selected by default. When set to exchange ringing, the ringing of the handset follows the ringing cadence of the analog line. When set to system ringing, the handset follows its own ringing pattern.
2) Every time a handset is subscribed or switched on (location registration), an EMD message is sent to the serial or IP interface.

3.7.2 Removed Features

None.

3.7.3 Corrections and Improvements

3) System, configuration and trace file (and of course the email report) have been improved/extended.
4) Handling of EMD events with wrong length has been improved. The EMD developer will now get more and better feedback.

3.7.4 Configuration File Parameter Changes

None.

3.8 Version PCS03M_ (Q2/2010)

3.8.1 Added or Changed Features

1) Driver support for BIF02 cards.
2) Support for depopulated backplane (KWS8000-light backplane).

3.8.2 Removed Features

None.

3.8.3 Corrections and Improvements

1) Increased stability for some EMD events.
2) Added content to log file generation from OAM program / email report.

3.8.4 Configuration File Parameter Changes

None.

3.9 Version PCS03K_ (Q2/2010)

3.9.1 Added or Changed Features

1) Added email report content.
2) From Command mode it is possible (via the T command) to see the last 3000 trace messages.

Implemented EMD access to the following features: (This will be available from OAM program in next version 0.1.0.5x)

3) Enable or disable "MSF between PP" functionality.
4) Change temporary standby text via MSF.
5) Alien DECT systems seen by RFP5. This is used to indicate how many other DECT systems (ARI code and RSSI) the RFP can see.
6) Get system report (like email report - or an extended version of "Save configuration statistics on PC".
7) Get Cable Delay Values (CDV) statistics (every 64 sec. the CDV is read on every connected RFP). If too many different values are read, it can indicate (together with sync errors from the RFP) that the cable or connector needs some extra attention.
8) Added more debug info when receiving an "unsupported clip / message type".

9) Supporting clip in POLYCOM 2010 DECT handset. When clip is received with only DN and no NAME, the content of DN is copy to NAME field.
10) Improved RFP interface robustness.
11) Removed not relevant functions from Trace mode.
12) New messaging and hardware extension facilities for use with 60- and 70-Handsets.

3.9.2 Removed Features

None.

3.9.3 Corrections and Improvements

Fixed bug introduced in PCS03G_ regarding mails in single shelf system.

3.9.4 Configuration File Parameter Changes

None.

3.10 Version PCS03G_ (February/2010)

3.10.1 Added or Changed Features

1) Can now read HW_PCS from RFP5. (Available from Command mode – until OAM SW supports the facility). Also available in email report.
2) Allows setup of different baud rates on the serial port (default is 115200 baud).

3.10.2 Removed Features

None.

3.10.3 Corrections and Improvements

1) Corrected error that caused Clip name not to be shown in PP, when clip info was sent during ringing.
2) Updated MAC capabilities to comply with WRFP SW PCS24_ requirements.

3.10.4 Configuration File Parameter Changes

None.

3.11 Version PCS03E_ (December/2009)

3.11.1 Added or Changed Features

Software support for the following items are only supported from CPU HW PCS05_ (CPU HW PCS05_ is not released yet).

1) The power LED morses the IP address. The morse cycle for the power LED is as follows:
    1) Steady green 30 seconds.
    2) Blinking blue 3 seconds (get ready sequence starts).
    3) Green blink represents digits (zero is a long blink). Red means dot between digits.

1) Reset of SIO password. To reset the SIO password, press the Reset button on the CPU card.

1) Short press (2-5 seconds) power LED blinks red – reset system.
2) Long press (5-9 seconds) power LED blinks blue – reset SIO password + reset of system.

Pressing longer than 9 seconds (or until power LED is steady green) will leave the system as it is. (No reset of the system.)

3.11.2 Removed Features

None.

3.11.3 Corrections and Improvements

1) Mail system not working correctly - could load system heavily and make system hang.

3.11.4 Configuration File Parameter Changes

None.

3.12 Version PCS03D_ (November/2009)

3.12.1 Added or Changed Features

1) New mail client.
2) Support for new Analog card types with full wave detector and new AB08 cards.
3) Support for CPU cards with no link facilities.

3.12.2 Removed Features

None.

3.12.3 Corrections and Improvements

1) Cleanup of Command mode.
2) In a linked system, RFP sync and reset errors were stored in statistics only if the RFP card was in the first shelf.
3) Added receiver gain for clip module (FSK) and receiver gain for DTMF gain.
4) The RFP's could reset due to a few sync errors. The sensitivity has been decreased.
5) Improved handling of telnet EMD connection (requires KWS8000 OAM program - 0.1.0.44 or later).
6) Corrected error that could cause RFP to hang (power on, but not able to restart).
7) More engineering debugging.
8) Improved stability and performance.
9) Corrected error that caused system to reset. When an incoming call was made on an analog line where no user was created, the system could either reset or go into a non-defined mode (and a number of undefined things could happen).
10) New engineering debug file(s) is attached to mail.
11) Corrected bug that caused only one ringing when handset was signed up as dect2dect user.
12) Changed format on LID in trace messages when using analog lines.

3.12.4 Configuration File Parameter Changes

None.

3.13 Version PCS02C_ (August/2009)

3.13.1 Added or Changed Features

1) Support for AB08 cards.
2) Support for Clip - DTMF, FSK Bellcore 202 and FSK_V23

   a) The clip type is set from Command mode. (When the next version of the OAM program is available it can be done from the Analog settings tab.)

      Go to Command mode, go to the Trace tab, and then click the Send button at the bottom of the screen (the Main menu appears.)

   b) Place the cursor in the Command field and type A to go to the Analog menu (the Analog menu appears). Make sure that internal clip is disabled by typing D in the Command field.

   c) Type :

      - S1 (to enable FSK Bellcore 202 clip)

      - S2 (to enable DTMF clip)

      - S3 (to enable FSK_V23 clip)

3.13.2 Removed Features

None.

3.13.3   Corrections and Improvements

1) Enhanced security. Possible to calculate new encryption key for every new call.
2) Error when disconnecting RFP during call.
3) Another manufacturer's GAP DECT handsets were not allowed to subscribe.
4) When no analog or base station card was inserted in the system, the system configuration was not shown properly and valid.

3.13.4 Configuration File Parameter Changes

None.

3.14 Version PCS02_ (Q3/2009)

3.14.1 Added or Changed Features

- Encryption of voice in the air.

  Not all RFP's support encryption. If a negative acknowledgement is received on an attempt to enable encryption, it is probably because some or all RFP's do not support encryption.

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If a "none encryption supporting" RFP is added while encryption is enabled, the RFP is rebooted and a trace message can be viewed in the OAM program.

Encryption can be set to 3 levels.
1) Encryption turned off.
2) Encryption enabled – in case of encryption reject (PP or RFP can or will not cipher the call), the call will be allowed to continue.
3) Encryption enabled – in case of encryption reject (PP or RFP can or will not cipher the call), the call will be released.

Encryption is turned off by default. We recommend that you use RFP5 (SW part number: 14170201) SW PCS03C_ or newer.

- Authentication of incoming and outgoing calls.

  In older SW versions authentication is only done when a PP is turned on (doing a location registration – and receiving standby text). With the current SW release, it is also possible to authenticate a PP when starting or receiving a call.

- Configuration of IP addresses gateway and netmask.

3.14.2 Removed Features
None.

3.14.3 Corrections and Improvements
- In analog configurations, the PP's display is cleared before the calling party number is shown.
- In analog configurations, the PP will - in case of a incoming call - follow the ring voltage on the analog line more precisely than before.
- Automatic configuration of a modem is working again.
- When connecting via telnet, the service would some time hang.
- Faster generation of email reports.
- Setting the DTMF pulse, pause and level had no effect.
- The AB default command is now working as it should.

3.14.4 Configuration File Parameter Changes
None.

3.15 Version PCS01N_

3.15.1 Added or Changed Features
None.

3.15.2 Removed Features
None.

3.15.3 Corrections and Improvements

5) An error in analog call handling sometimes caused a restart of the system.

3.15.4 Configuration File Parameter Changes

None.

3.16 Version PCS01M__

3.16.1 Added or Changed Features

None.

3.16.2 Removed Features

None.

3.16.3 Corrections and Improvements

1) Now supports pause digit in MSF (call back number).
2) Corrected error regarding manual restart of RFP's. When a single RFP was reset from OAM program, it did not come up again.
3) Automatic restart/reboot on SW crash. If the KWS8000 SW crashed, the system needed manual power cycle.

3.16.4 Configuration File Parameter Changes

None.