



POLYCOM®

*KIRK Release Notes*  
KIRK® IP Base Station

Firmware Version PCS07\_\_  
Q1, 2011



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## 1. Revision History

Date	Description
2008-06-16	First draft.
2008-09-24	Release Notes for PCS02A_
2008-11-13	Release Notes for PCS02B_ and PCS02C_
2009-06-10	Release Notes for PCS02D_
2009-09-09	Release Notes for PCS04_
2009-10-19	Release Notes for PCS04A_
2009-12-10	Release Notes for PCS05_
2010-01-27	Release Notes for PCS05A_
2010-03-31	Release Notes for PCS05B_
2010-06-21	Release Notes for PCS05C_
2010-09-15	Release Notes for PCS06_
2010-10-13	Release Notes for PCS06A_
2010-12-15	Release Notes for PCS07_

## 2. General

### 2.1 Release

These release notes apply to the released versions of the KIRK IP Base Station firmware. This version specifically applies to version PCS07\_\_ of the KIRK IP Base Station. The release replaces the PCS06A\_ release as the latest generally available (GA) release.

### 2.2 References

KIRK Release Note: KWS6000 Firmware Version PCS07\_\_ Q1 2011.

### 2.3 Important Notes

- The communication protocol between the KWS, the Media resources and the base stations is not backward compatible starting with PCS06A\_ of the KWS and PCS06A\_ of the base station. This means that base stations or media resources with firmware version older than PCS06A\_ will not connect to a KWS running firmware PCS06A\_ or newer. To minimize downtime, update base stations, media resources and KWS6000 to firmware PCS06A\_ before rebooting any of these. This will ensure that no pre-PCS06A\_ firmware will try to connect to a PCS06A\_ or newer firmware.

### 2.4 Feature License and Platform Limitations

None

### 2.5 System Requirements

Hardware Platform	Description
KIRK Base Station 12 HW PCS 10 or newer	KIRK IP Base Station 12

## 3. Distribution Files

Click [here >>](#) to find the firmware image of the KIRK IP Base Station.

## 4. Changes

### 4.1 Version PCS07\_\_ – Q1, 2011

#### 4.1.1 Added or Changed Features

- The flash update process has been improved. It will no longer update the firmware if the new firmware is identical to the current firmware.
- Trigger dumps used to persist debug information in case of a fatal error have been rewritten. Previously the latest 10 trigger dumps were stored in the flash, but now only the first trigger dump made since last boot will be stored. This is to eliminate the possibility of excessive flash wear in the case of a repeated error scenario. Theoretically the former implementation could lead to flash corruptions.

- Status/debug information with regard to RTP handling has been added. When an RTP session is destroyed/closed, the current length of the RTP queue can now be logged.

#### **4.1.2 Removed Features**

- None.

#### **4.1.3 Corrections**

- None

#### **4.1.4 Configuration File Parameter Changes**

- None.

### **4.2 Version PCS06A\_ - October 13, 2010**

This release replaces the PCS05C\_ release as the latest generally available (GA) release.

#### **4.2.1 Added or Changed Features**

- Base station side of KWS redundancy implemented.  
If a redundancy license is installed on the KWS it is now possible to configure a redundant setup of KWS. For more information refer to the application note regarding redundancy.
- Remote syslog improvements.  
It is now possible to send DEBUG messages via remote syslog. Furthermore it is possible to configure which log levels to send via remote syslog. All of the changes to the remote syslog can be made without restarting the KWS. This means that e.g. in a hosted environment the provider can increase or decrease the level of logging from a specific KWS without affecting the users of the KWS. In e.g. a troubleshooting scenario the provider/administrator can increase the log level while debugging and subsequently decrease the level again.
- More robust flash upgrade process. Reboot is now handled centrally to ensure that the base station is not rebooted while flashing the firmware.
- Statistics is now handled locally in base stations.
- More elaborate logging concerning connection establishment towards KGAP(s). If problems are logged in the base station concerning the connection to the KWS (KGAP), it is now logged which KGAP it is (to handle a redundancy setup with several KGAPs).

#### **4.2.2 Removed Features**

- Removed debug log level from the message filter on the status logs page in the GUI. The debug messages were not available through the GUI anyway.
- If the rfp crashes a crash log is no longer written to the flash. This could in some rare conditions result in corruption of the flash file system.

#### **4.2.3 Corrections**

- RTP check that data is coming through the jitter buffer and if not reset the session. Addresses DECTESC-204 which is an issue with one-way voice in the second of two subsequent calls to the same number on an Aastra PBX.

- Bug fixed. May cause configuration daemon to crash if no network.domain is defined.
- Corrected error concerning handling of time zones on base station.

#### **4.2.4 Configuration File Parameter Changes**

- None

### **4.3 Version PCS05C\_ Q3, 2010**

#### **4.3.1 Added or Changed Features**

- Added ping and traceroute to the Web GUI (by popular demand from several customers).  
For network diagnostics, a ping and traceroute feature has been added. It is accessible through the Status menu.
- Added DHCP syslog server support.  
A syslog server can be assigned via DHCP option 7.
- Added reboot required banner to the Web GUI.  
When a configuration parameter requiring a reboot is changed, a yellow reboot required banner is shown until next reboot. This is to eliminate situations when administrators have updated configuration settings which require a reboot to become active and subsequently have forgotten to reboot the KWS.

#### **4.3.2 Removed Features**

None

#### **4.3.3 Corrections**

Removed RFPI scanner CSV file error from log.

#### **4.3.4 Configuration File Parameter Changes**

None

### **4.4 Version PCS05B\_ Q2, 2010**

#### **4.4.1 Added or Changed Features**

- NTP support: In earlier versions of the firmware, the base station retrieved time from the KWS when connected. The time from the KWS was not updated later on and the base station time could drift. It is now possible to use NTP to maintain a precise time. If no NTP server is configured, the base station will continue to retrieve time from the KWS.  
The NTP server can be configured either through the GUI or via DHCP option 42.
- Added syslog facility configuration: This makes it possible to configure the source facility used for syslog messages. The default is local0. For further details on remote syslog facilities refer to RFC5424.
- Reduced production time: Due to increasing demand and increasing amount of delivered devices the initial creation of an empty file system has been optimized. This only impacts the production process and has no impact on devices in the field.

#### 4.4.2 Removed Features

None

#### 4.4.3 Corrections

None

#### 4.4.4 Configuration File Parameter Changes

config.xml	Added	log.syslog.facility	Used to specify the remote syslog facility used for log messages. Refer to RFC5424 for details. Values: The facility number to be used for the device. An integer between 0 and 23. Default: 16 (“local 0”)
config.xml	Added	network.ntp	Specifies the hostname or IP address of the NTP server for retrieving time. Default: Empty

### 4.5 Version PCS05A\_ January 27, 2010

#### 4.5.1 Added or Changed Features

None

#### 4.5.2 Removed Features

None

#### 4.5.3 Corrections

Fixed problem that made the base station lock when flooded with DECT page requests from the KWS.

#### 4.5.4 Configuration File Parameter Changes

None

### 4.6 Version PCS05\_ Q1, 2010

#### 4.6.1 Added or Changed Features

- Introduced remote syslog (RFC5424) via UDP. The remote syslog allows using a PC to receive messages/logging from the device.
- Added packet capture.
- When exporting logs, the message log is stored in clear text. The message log can now be read with standard software.
- Improve log export speed.

- Create a KSF log on RFP crash.

#### 4.6.2 Removed Features

None

#### 4.6.3 Corrections

- Fixed problem with device not falling back to static IP address when DHCP fails.
- Validate configuration keys when setting them. This avoids malforming the config.xml.
- Removed a few large buffers from the stack. These may have caused sporadic failures.
- Removed a lot of unnecessary writes to the flash. These induced unnecessary tear on the flash, especially during boot.
- Fixed bug that prevented enabling UPnP from the GUI.
- Fixed problem with UPnP UUID not being unique. If more devices on the network have the same UUID only one of them will be shown when UPnP devices are listed.

#### 4.6.4 Configuration File Parameter Changes

config.xml	Added	log.syslog.host	Specifies the remote syslog server host address. Default: Empty
config.xml	Added	log.syslog.port	Used to specify the remote port of the syslog server. Values: The port number on a remote syslog server. Default: Empty which defaults to 514

### 4.7 Version PCS04A\_ October 20, 2009

#### 4.7.1 Added or Changed Features

None

#### 4.7.2 Removed Features

None

#### 4.7.3 Corrections

- Removed potential RFP problem present in firmware PCS04\_. This problem would result in the loss of all active calls on the base station and a subsequent restart of the RFP process.
- Corrected handling of voice connection creation and termination. Creation and deletion of a voice connection could cause voice problems in other connections on the same base station.

#### 4.7.4 Configuration File Parameter Changes

None

## 4.8 Version PCS04\_\_ (Q4/2009)

### 4.8.1 Added or Changed Features

- Added UPnP for discovery of devices.  
UPnP is an acronym for Universal Plug and Play. If for some reason the IP-address of the device is unknown (e.g. forgotten or DHCP-assigned), UPnP can be utilized to easily identify the IP-address of the device. If “My Network Places” in Windows is setup to show icons for networked UPnP devices, every KWS300/6000, Media-resource and Base station will be present in “My Network Places”.
- Added method for manipulating settings by requesting an URL.
  - http[s]://<host>/config/get?<key> –  
http://192.168.0.1/config/get?sip.proxy.domain
  - http[s]://<host>/config/set?<key>=<value> –  
http://192.168.0.1/config/set?sip.proxy.domain=example.com
- Improved jitter buffer.  
The sound quality on IP-connections experiencing jitter issues is improved considerably.
- Added HTTP/1.1 persistent connections support to the built-in HTTP server. This is mainly done to increase performance on the XML-RPC interface when using HTTPS.
- Improved security measures. Formerly every time a dect device would enter the range of the system (making a location registration) the device was authenticated. Starting with this release additional authentication is performed every time a call is established. Furthermore it is now possible to enable dect encryption of voice sent over the air. In previous firmware revisions all dect communication in the air is scrambled, enabling encryption will additionally encrypt voice with an encryption key. A new key will be calculated for each new call.  
IMPORTANT NOTICE!! If dect encryption is enabled it is NOT possible to use repeaters on the system.  
IMPORTANT NOTICE!! If dect encryption is enabled it requires KWS6000 firmware version PCS04\_ or higher.

### 4.8.2 Removed Features

None

### 4.8.3 Corrections

Drop RTP packages with unexpected payload without trying to play them.

### 4.8.4 Configuration File Parameter Changes

File	Action	Parameter	Description
config.xml	Added	upnp.enable	Specifies if UPnP support is enabled. If enabled the device will respond to UPnP broadcasts.  Values: true/false  Default: true
config.xml	Added	upnp.broadcast	Specifies if UPnP announcements are

			<p>broadcasted. If enabled the device will periodically broadcast announcements.</p> <p>Values: true/false</p> <p>Default: false</p>
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## **4.9 Version PCS02D\_**

### **4.9.1 Added or Changed Features**

None

### **4.9.2 Removed Features**

None

### **4.9.3 Corrections**

- BMC fix, allow dummy bearer setup in test mode (needed by production).
- Various bug fixes.

### **4.9.4 Configuration File Parameter Changes**

None

## **4.10 Version PCS02D\_ Q3, 2009**

### **4.10.1 Added or Changed Features**

None

### **4.10.2 Removed Features**

None

### **4.10.3 Corrections**

Various bug fixes

### **4.10.4 Configuration Parameter Changes**

None

## **4.11 Version PCS02C\_ Q1, 2009**

### **4.11.1 Added or Changed Features**

- Improved handling of lost sync. Rewrote synchronization over the air. Implemented new algorithm for handling loss of synchronization to make it more resilient towards a hostile rf-environment e.g. over-deployment and reflections.
- Added debug handles for synchronization over the air.

- BMC Allow dummy bearer on neighbor slot.
- BMC Do not scan RSSI - only move dummy bearer based on timer.
- BMC Do not ask RFP IP process for dummy bearer.
- BMC Added BMC/radio configuration.

#### **4.11.2 Removed Features**

None

#### **4.11.3 Corrections**

- BMC EEPROM read bug fixed.
- BMC Remove bug stopping dummy bearer.
- BMC Do not print from interrupt.

#### **4.11.4 Configuration File Parameter Changes**

None

### ***4.12 Version PCS02A\_ (Q4/2008)***

#### **4.12.1 Added or Changed Features**

- Implemented support for DECT Frequency SWAP (license required, KWS6000 SW PCS 02A\_ or later required).
- Implemented Type-of-Service/DiffServ handling. Replaced old Quality-of-Service approach with new Type-of-Service/DiffServ approach (KWS6000 SW PCS 02A\_ or later required).
- Encrypt Admin GUI password

#### **4.12.2 Removed Features**

None

#### **4.12.3 Corrections**

None

#### **4.12.4 Configuration File Parameter Changes**

None

### ***4.13 Version PCS02\_***

Initial KIRK IP Base Station release.

## **5. Outstanding Issues**

The following issues will be fixed in a subsequent release

- None identified.