



*KIRK Release Note*  
**KWS6000**

**Firmware Version PCS03\_**  
Q1/2009



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## 1. General

This release note applies to released versions of the KWS6000 Firmware. This version specifically applies to version PCS03\_ of the kWS6000 Firmware. This release replaces the PCS02A\_ release as the latest generally available (GA) release.

## 2. References

KIRK Release Note: KIRK Base Station IP, Firmware Version PCS02C\_, Q1/2009.

### 2.1 Important Notes

Some features require specific versions of the firmware loaded into the base stations or media resources.

### 2.2 Feature License and Platform Limitations

The following table summarizes features that require a particular hardware platform and / or a license key for activation.

Feature	Comment
DECT frequency swap	License required.

### 2.3 System Requirements

Hardware Platform:	Description
KWS6000 HW PCS 3C or newer	KWS6000 Server

## 3. Terms and Definitions

WCAG      Web Content Accessibility Guidelines. W3C Recommendation. These guidelines explain how to make Web content accessible to people with disabilities.

## 4. Distribution Files

Click [here >>](#) to find the firmware image of the KWS6000.

## 5. Changes

### 5.1 *Version PCS03\_ (Q1/2009)*

#### 5.1.1 Added or Changed Features

- Optional individual ports per handsets for SIP signaling. Extend support to SIP PBXs using per port registration.
- Cisco Unified Call Manager 6.1 support.
- Provisioning: Possible to centralize configuration and maintenance.
- Users export to XML and CSV format: Decrease installation and maintenance cost.
- Allow adding users with unspecified IPEI: Option of adding handsets without knowing the IPEI of the handset. Decrease installation and maintenance cost by allowing field subscription of handset(s) and possibility for remote configuration.
- Added system wide DECT access code: Possible to create a default DECT access code for all users – instead of per user (access code in user will overrule the system default value).
- Added automatic standby text update. When the standby text is updated (either through the GUI or through auto-provisioning) the change appears instantly on the handset (no power-cycle of the handset is needed).
- In overlap dialing send digits when # is pressed. Optional: Default is disabled.
- When a user is deleted, unsubscribe the handset: When user is deleted, the handset removes the subscription to the system.
- Added RFC3896 Referred-By handling.
- Offered rfc2833 payload type (DTMF payload type) can now be configured default is 96.
- Add refresh and clear button in base station administration.
- CLI / Name display for complete call duration for incoming calls.
- Base station lost sync. Ratio / percentage added.
- Added BMC/radio configuration.

#### 5.1.2 Removed Features

- No longer possible to use local number – the SIP user name is now used for MSF.

#### 5.1.3 Corrections

- Fix base station lost sync. ratio calculation.
- Fix DTMF payload type.
- Fix order in route sets for SIP dialogs.
- Fix statistics for failed MSF calls.
- Fix handling of escaped SIP URI parameters.
- Pass all parameters and headers from REFER to the sent INVITE.
- Remove http server crash when downloading rfps.xml.
- Remove crash on re-INVITE when collecting digits.
- Remove crash on INVITE with long From header.

### 5.1.4 Configuration File Parameter Changes

File	Action	Parameter	Description
config.xml	Added	provisioning.server.method	<p>Specifies how the KWS6000 will obtain the boot server address.</p> <ul style="list-style-type: none"> <li>• dhcp – obtain from DHCP option 66.</li> <li>• static – use static configured.</li> <li>• disabled – do not check for updates.</li> </ul> <p>Default: dhcp</p>
config.xml	Added	provisioning.server.url	<p>Specifies the static boot server URL from where the KWS6000 will retrieve configuration information. The format is &lt;protocol&gt;://[&lt;user&gt;:&lt;password&gt;@]&lt;host&gt;/&lt;path&gt;. Protocol can be either tftp, ftp or http.</p> <p>Example: ftp://kws:ip6000@boot.example.com/phones</p> <p>Default: Empty</p>
config.xml	Added	provisioning.check.interval	<p>Specifies an interval for checking for updates.</p> <p>0 – do not check for updates periodically. &gt;1 – interval in minutes.</p> <p>Default: 0</p>
config.xml	Added	provisioning.check.time	<p>Specifies a specific time for checking each day. The format is HH:MM.</p> <p>00:00 – 23:59</p> <p>Default: Empty</p>
config.xml	Added	provisioning.check.check_sync	<p>Specifies how the KWS6000 will react to SIP NOTIFY check-sync events.</p> <ul style="list-style-type: none"> <li>• disabled – do nothing if a check-sync event is received.</li> <li>• reboot – reboot and check for updates.</li> <li>• update – check for updates and reboot if necessary.</li> </ul> <p>Default: disabled</p>
config.xml	Added	provisioning.users.check	<p>Specifies if the KWS will try to download and import users from the provisioning server.</p> <ul style="list-style-type: none"> <li>• false – do not check for users.</li> <li>• true – check for users.</li> </ul> <p>Default: false</p>

File	Action	Parameter	Description
config.xml	Added	provisioning.firmware.kws	<p>Specifies the name of the firmware image to use for the KWS6000. The KWS6000 will check for a version file and a binary file. They must be located as &lt;URL&gt;/&lt;firmware&gt;.ver and &lt;URL&gt;/&lt;firmware&gt;</p> <p>Example: kws300-flash.bin</p> <p>Default: Empty</p>
config.xml	Added	sip.send_to_current_registrar	<p>Specifies how requests outside a dialog are sent if a list of SIP servers is received via DNS SRV.</p> <ul style="list-style-type: none"> <li>• false – perform a DNS SRV lookup for each request and determine the destination from this.</li> <li>• true – send each request to the server currently holding the registration.</li> </ul> <p>Default: false</p>
config.xml	Added	sip.separate_endpoint_ports	<p>Specifies if each user should use an individual UDP for its signaling or all users should use the local port defined in the SIP configuration.</p> <ul style="list-style-type: none"> <li>• false – use one UDP port for all users.</li> <li>• true – use individual UDP ports for each user.</li> </ul> <p>Default: false</p>
config.xml	Added	sip.pound_dials_overlap	<p>Specifies if pressing # while off hook dialing will dial the entered extension.</p> <ul style="list-style-type: none"> <li>• false – do not dial when # is pressed.</li> <li>• true – dial when # is pressed.</li> </ul> <p>Default: false</p>
config.xml	Added	dect.accesscode	<p>Specifies a system wide DECT access code required for subscribing handsets. The access code is from 0 to 8 decimal digits. Access codes assigned for specific users will override this setting.</p> <p>Example: 1234</p> <p>Default: Empty</p>
config.xml	Added	Sip.dtmf.rtp_payload_type	<p>Offered rfc2833 payload type (DTMF payload type) default is 96.</p>



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

### **5.2.1 Added or Changed Features**

- Added cluster handling. This is only relevant for de-centralized installations.
- Added support for DECT frequency swap (requires license and base station with firmware PCS02a\_ or later).
- Added phonebook application. This feature offers a centralized phonebook. The formats supported for the phonebook is csv-file and LDAP.
- Added enable/disable send date and time to handsets. This feature makes it possible to select whether the date/time should be visible in the handset or not.
- Add distinctive alerting by interpreting the Alert-Info SIP header. Use external ring tone as default. If distinctive ring is supported by the IP PBX, different ring tones can be set for the handset to differ between internal and external calls.
- Update MWI when a handset subscribes or makes a location registration.
- Always respond with 200 OK when a MWI NOTIFY is received. This is done to avoid terminating an existing MWI subscription.
- Added automatic MWI retransmission.
- Allow for special characters like &\_ in SIP authentication user/password.
- Allow alphanumeric SIP username.
- Implement RFC4235 Dialog state event package. Used for e.g. call pickup support.
- Allow for receiving asymmetric RTP (optional, requires media resource with firmware PCS02A\_ or later). This is required to operate with e.g. a Mitel NuPoint voice mail server.
- Detect merged invites after a fork and respond with “482 Loop Detected”.
- Added full system backup facility. Instead of separate backups of configuration, users etc. everything is now in one backup and it is optional how much is restored.
- Standby text length increased from 16 to 24 characters.
- Implemented Type-of-Service/DiffServ. Replaced old Quality-of Service approach with new Type-of-Service approach.

### **5.2.2 Removed Features**

None

### **5.2.3 Corrections**

- Corrected error in subscription statistics (subscriptions which failed due to e.g. wrong or missing DECT access code was logged as a success).
- Release MSF-call correctly when no CR is assigned.

- Fix reversed time zones. GMT time zones were reversed – GMT+2 meant GMT-2. This has now been fixed.

### **5.3 Version PCS02\_**

Initial KWS6000 version.

## **6. Outstanding Issues**

The following issues will be fixed in a subsequent release

- None identified.