6900 SIP UPGRADE FAQ

Contents

1   Document Scope

This FAQ is intended for external partners and internal Mitel staff to help understand the firmware upgrade options for converting 6900 models from Minet firmware (installed at factory) to SIP firmware.

2   Background

Mitel launched the 6900 series of IP Phones initially with MiVoice Business Solution which utilises the Minet protocol to communicate between phones and the Call Manager. For MiVoice MX-ONE, MiVoice 5000 and MiVoice 400 platforms the 6900 models required SIP based firmware to be installed.
The current version of Minet firmware supports all current methods to upgrade to the SIP firmware. However, some GA production units of 6900 models will have a version of Minet firmware that supports only a subset of these upgrade methods.

This document is states what hardware revisions have what versions of firmware and what upgrade options are available for each version for SIP.based solutions. This way partners can take appropriate actions in advance to avoid inconveniences.

It should be noted that as soon as all 6900 phones are delivered with Minet 01.00.01.152 or later firmware, this document will become irrelevant, as all existing SIP upgrade methods are supported in 01.00.01.152. This document is only relevant for a short period of time and only if partners or customers receive phones with Minet firmware that pre-dates 01.00.01.152.

3   Hardware Revisions Supporting All Upgrade Options

6900 phones ship with a version of Minet firmware (specific to MiVoice Business solutions). All 6900 phones will need to be upgraded to SIP R5.0 to become interoperable with Mitel's SIP-based solutions. All phones with Minet release 01.00.01.152 or later support all existing methods of SIP (6800 R4.3.x)upgrade (i.e. several DHCP options, HTTP(s), FTP, TFTP, mDNS etc.). 6900 phones with a Minet release prior to 01.00.01.152 have restricted upgrade methods but can be still be upgraded directly to SIP R5.0.

6900 phone labelling defines a revision level (Rev:) which can be used to identify phones pre-installed with build 01.00.01.152 or later. Any revision greater than or equal to these values supports all existing SIP upgrade methods. Revisions below these values have subset of upgrade methods supported.
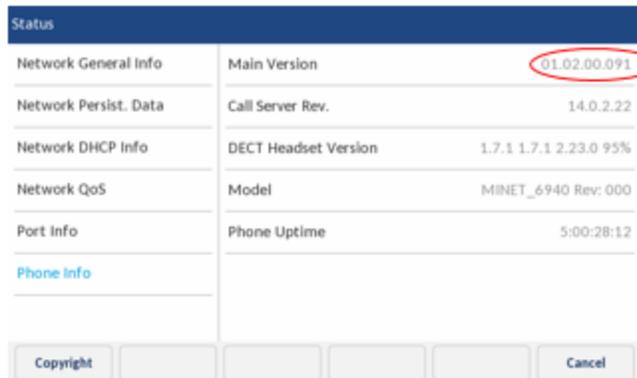
6920 IP PHONE (50006767) - Rev 16 or greater
6930 IP PHONE (50006769) - Rev 14 or greater
6940 IP PHONE (50006770) - Rev 12 or greater

4   Identifying the Firmware Version on 6900 Phones

There are two methods available to determine what firmware is running on your phones.
Either check the revision number of the device from the "Rev" field on the label on the back of the phone or shipping carton; or if the phone is powered on, view the firmware version via the options menu.

Press Options (gear key), then Status, then Phone Info and review the Main Version field.
The firmware version format is 01.00.00.179 where 01.00.00 identifies stream 1.0 and 179 is the build.
01.00.01.152 would represent build 152 of stream 1.1

5   Upgrade Process Options for Phones pre Minet 01.00.01.152

As all phones with 01.00.01.152 or later offer upgrade processes to any existing SIP firmware release, there is no need to carry out upgrade options for those phones. If unfamiliar with our methods, please refer to the administrator guide for R5.0 6800/6900 phones or to the installation guides of the appropriate Call Manager solution you have.

Specifically, for phones with firmware that pre-dates this, the following options are available.

Method 1: use static settings for a TFTP server
1. Place the SIP firmware files on the TFTP Server (ensure that no MiNet files are present).
2. Press the Gear button to go into Settings on the 6900 IP phone.
3. Select Advanced Settings (default password is 73738).
4. Select Network and Static Settings.
5. Enter the IP address of the TFTP server (ensure your IP phone has an IP address assigned)
6. Select Restart through the Settings App.
7. The pPhone will attempt to download MiNet firmware from the TFTP server. When not found, it will subsequently download the SIP firmware.
8. Once the 6900 phone is upgraded to the SIP build, optionally remove the files from the TFTP directory.

Method 2: use DHCP option 43
1. Place the SIP firmware files on the TFTP Server. Alternatively an FTP Server can be used (ensure that no MiNet files are present).

2. Configure DHCP option 43 parameter sw_tftp tag for location of the firmware files (e.g. id:ipphone.mitel.com; tftp://10.30.102.91/firmwarefilesDIR; ftp://test:Aastra123@10.30.102.91/5.0.0.143)
3. Power up the phone.
4. The phone will attempt to download MiNet firmware from the TFTP/FTP server (not found), and will subsequently download the SIP firmware. Note that the config file will not download.
5. Reboot the phone – it will follow existing SIP procedures for configuration and firmware upgrades.

Method 3: use DHCP option 66
1. Place the SIP firmware files on the TFTP Server . Alternatively an FTP Server can be used (ensure that no MiNet files are present).
2. Configure DHCP option 66 with tftp server URL (e.g. tftp://10.30.102.91/firmwarefilesDIR; ftp://test:Aastra123@10.30.102.91/5.0.0.143)
3. Power up the phone.
4. The phone will attempt to download MiNet firmware from the TFTP/FTP server (not found)- It will subsequently download the SIP firmware. Note that the config file will not be downloaded.
5. Reboot the phone – it will follow existing SIP procedures for configuration and firmware upgrades.

Method 4: use RCS
1. SIP 5.0 firmware will be available at RCS at GA time.
2. Add the MAC address for the phone to RCS.
3. Configure RCS to use SIP 5.0 firmware for the phone's MAC.
4. Power up the phone.
5. The phone will contact RCS and if its MAC is found on RCS it will download the firmware.
6. Reboot the phone – it will follow existing SIP procedures for configuration and firmware upgrades.

6   Frequently Asked Questions Relevant To Upgrade Processes

6.1.1   **Where do I get the SIP R5.0 GA firmware files from?**

The firmware will be posted in locations relevant to the MiVoice MX-ONE, MiVoice 5000 and MiVoice Office 400 platforms. Please consult your Call Manager specific contact for more information.

6.1.2   **What is the format of SIP and Minet firmware files**

Typically, the files are 6940.st (for SIP) and MINET_6940-enc.st (for Minet).

6.1.3   **What upgrade will happen if both Minet and SIP firmware are on the TFTP server?**

A Minet firmware image will first look to upgrade to a Minet firmware file. If there is no Minet firmware available, then a Minet firmware will subsequently look for a SIP firmware image. Partners should be aware of this fact and not leave unwanted firmware images on servers – i.e. if in a SIP environment, only SIP firmware images should be present on servers.

6.1.4 Is a6900 firmware upgrade required for SIP solutions?

Yes. The 6920/30/40 phones ship with Minet (MiVB) firmware installed. Before they can be used in a SIP environment the phone must be upgraded with the appropriate SIP 69x0.st firmware. The upgrade process is very similar to SIP firmware options we have today (refer to release notes or admin guide for details). The Minet upgrade from 1.1.0.152 (or later) follows the existing SIP upgrade methods (i.e. HTTP(s), FTP, TFTP, many DHCP options, mDNS etc.). The upgrade from Minet 1.0.0.179 is limited to TFTP or the DHCP option 66 or option 43 (providing FTP, HTTP(S) as well as TFTP). In both cases the upgrade is direct to R5.0 from whatever Minet firmware is pre-installed on all 6900 models.

6.1.5 Does the upgrade to R5.0 depend on which Minet release you start from?

Yes, but only until 1.0.1.152 or later is shipped as standard in all 6900 models.
If you upgrade from Minet 1.0.0.179 (1.0 GA build) then the upgrade methods are limited compared with what's available with 1.0.1.152. The R5.0 release notes explain the various methods. Basically once 1.0.1.152 ships from the factory then all upgrade methods that exist within 6800 SIP R4.3.x will be supported from the Minet firmware. This will mean that the upgrade is like any other SIP upgrade and all partners will be familiar with the process.
There is one other difference specific to the BT Handset on the 6940 – this may need pairing. If the upgrade to the R5.0 is from Minet 1.0.0.179 then the BT pairing of the cordless handset to the 6940 phone may be lost. If the upgrade is from Minet 1.0.1.152 or later, then the pairing should remain. To pair the handset again simply go to options (gear button), select BT menu and then available devices – press to select and pair the handset.

6.1.6 How do I know what version of firmware I have?

To determine what firmware is running on a phone you can select the options menu (gear button), then status then phone info. Main version 1.0.0.179 indicates version 1.0 build 179.

6900 phone labelling defines a revision level (Rev:) which can be used to identify the phone's revision level. The revision level changes for many reasons but is relevant to the firmware level and relevant release (e.g. pre-installed with build 1.0.1.152 or later), any revision greater than these values also supports all existing SIP upgrade methods.

6920 IP PHONE (50006767) - Rev 16 or greater
6930 IP PHONE (50006769) - Rev 14 or greater
6940 IP PHONE (50006770) - Rev 12 or greater

6.1.7 Can 6900 phones be used with any Call Manager?

No. The 6900 firmware is locked so that it will only work with Mitel platforms. If a user attempts to configure and connect to a third-party server (e.g. Broadsoft) then the SIP accounts will not register.

6.1.8   Are 6800 phones locked if we install R5.0 or still open to all Call Managers?

The 6800 series phones are sold into Open Standards market (Broadsoft, Asterisk etc.) as well as behind Mitel solutions (MX-ONE, 5000, 400, Telepo, etc.). They will continue to be open and R5.0 does not lock them to Mitel platforms.

6.1.9   Is the software feature set of 6900 with R5.0 the same as 6800 with R5.0?

No. There are some differences to be aware of:
Firstly all the 6900 and 6800 share the same code base, so 98% is common. The 6900 has some additional features – like mobile integration, but it also does not have some that are supported on 6800 – for example TR069. This is because the 6900's are sold only with Mitel solutions versus 6800 into Mitel and third party solutions. So 6900 does not need to support Broadsoft specific features as an example.

6.1.10   Are 6900 and 6800 with R5.0 firmware the same to configure and manage?

Yes. Whilst there are some differences in supported features that phones share common configuration and management methods – same config files, same config options, same config syntax etc. If you know 6800 phones, you know 6900 phones!

6.1.11   What's the Default "admin" user password for SIP and Minet phones?

For R5.0 on 6800 or 6900 firmware the admin password is "22222".
For Minet firmware its "73738" - i.e. (RESET)

6.1.12   Will the 6900 phones be dual mode?

Yes. Once SIP R5.0 has been released, customers who purchased the Minet versions will be able to convert them to SIP for use on Mitel's SIP-based platforms. Upgrade to/from SIP to/from Minet is supported.