Time Settings since Version V5 R2.36.4

Directory

Summary

The phone effectively runs two clocks, synchronised together, providing Display & Trace Time and Security Time.
The Display & Trace Time is used to control what time is displayed on the phone and in trace log files.
The Security time is used in H235 security and Encryption.
These are detailed further in the next slides.

Display & Trace Time: used for the phone display and time-stamping trace logs. For Display & Trace Time, there is the option of the clock being sourced from the System (ie, HiPath) or from SNTP.
If the source is the system, the time will be taken as provided with no further timezone offset or daylight saving adjustments being performed by the phone. The system supplies the time in the **BA_PHONE_INIT_BAS** message at logon.
It is subsequently updated by **TS_DSP_STD_LOCAL_TIMER_SET** messages: this should occur at least once every day, keeping the phone in sync with the system.

The phone derives the date from the **TC_TEST_TMS** message.

If the source is SNTP, then Timezone and Daylight saving settings will be applied to the UTC time provided by the SNTP server. The TC/TS messages above do not affect the Display & Trace Time when SNTP is selected.
It will also be possible to select whether the SNTP Server is provided by DHCP or manually configured: only the source selected will be used, even if that source is temporarily unavailable.

If the source is SNTP, then Timezone and Daylight saving settings will be applied to the UTC time provided by the SNTP server. The TC/TS messages above do not affect the Display & Trace Time when SNTP is selected.

It will also be possible to select whether the SNTP Server is provided by DHCP or manually configured: only the source selected will be used, even if that source is temporarily unavailable.

Security Time: used for H235 security and encryption
For Security Time, UTC time is used without any adjustment for timezone or daylight saving. The source will be SNTP and as such an available SNTP server must configured in the phone for Security to function correctly.
If connection to the SNTP server is not possible (eg, server is temporarily out-of-service) at startup the phone will use the time stamp provided by the TC_TEST_TMS (TC-time) message from the HiPath, until communication with the SNTP server is re-established.

It is assumed that the TC-time provided in the TC_TEST_TMS message is UTC time and synchronised to SNTP. If this is not the case security may not function correctly.

SNTP

Server Configured:

It will be possible to configure the phone with an SNTP Server IP, either via DHCP or manually.
Although the phone can effectively have two SNTP sources configured (DHCP and Manual), only one will be used, with DHCP overriding the manual setting. Also, if both are configured but the server is provided by DHCP is not available the phone will not fallback to the manually configured one.
When the phone is configured with an SNTP Server IP (either by DHCP or manually) the phone will attempt to contact the server every 20s until a response is received. Once synchronised to the SNTP Server, the phone will attempt to synchronise again every 12hrs.
In this mode the phone will ignore SNTP broadcasts.

Note that when SNTP is configured any Timezone offsets and Daylight saving, only affect the Display & Trace Time, Security Time is UTC time.

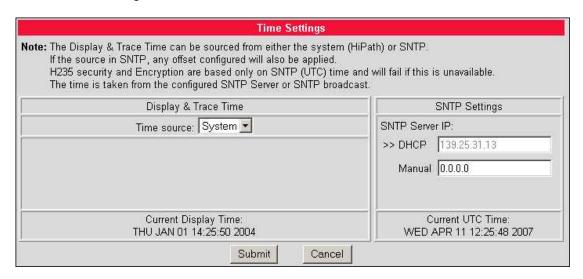## No SNTP Server Configured:

If an SNTP Server is not configured in the phone, the phone will listen for SNTP Broadcasts and synchronise to these if received.
The phone will not save the source of any such broadcast.

Configuration capabilities

Default settings: Time source = System, SNTP Server IP from DHCP

The Phone display will show the time as provided by the HiPath system, whilst the Security clock will use the UTC time supplied by the DHCP provided SNTP Server.
The Manual setting will still be editable in this mode.

Time Settings

Note: The Display & Trace Time can be sourced from either the system (HiPath) or SNTP.
If the source in SNTP, any offset configured will also be applied.
H235 security and Encryption are based only on SNTP (UTC) time and will fail if this is unavailable.
The time is taken from the configured SNTP Server or SNTP broadcast.

Display & Trace Time	SNTP Settings
Time source: System ▾	SNTP Server IP: >> DHCP 139.25.31.13 Manual 0.0.0.0
Current Display Time: THU JAN 01 14:25:50 2004	Current UTC Time: WED APR 11 12:25:48 2007

Submit   Cancel

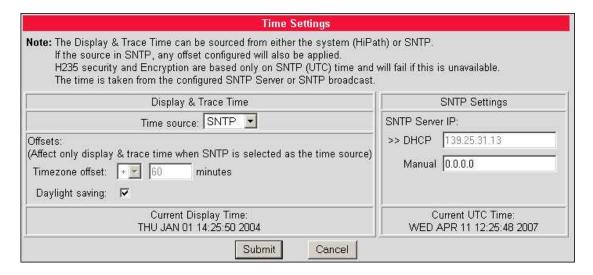### SNTP Server IP not delivered by DHCP, Manual address entered

If the SNTP server is not provided by DHCP the Manual setting is automatically selected, indicated by the ➤ symbol against the Manual setting box. The Server IP can be entered.
The Display will continue to use the time supplied by the HiPath system.

Time Settings

Note: The Display & Trace Time can be sourced from either the system (HiPath) or SNTP.
If the source in SNTP, any offset configured will also be applied.
H235 security and Encryption are based only on SNTP (UTC) time and will fail if this is unavailable.
The time is taken from the configured SNTP Server or SNTP broadcast.

Display & Trace Time	SNTP Settings
Time source: System ▾	SNTP Server IP: DHCP —.—.—.— >> Manual 139.21.31.13
Current Display Time: THU JAN 01 14:36:53 2004	Current UTC Time: WED APR 11 12:36:51 2007

Submit   Cancel

Time Source set to SNTP (from DHCP)

SNTP Server selection will default to DHCP. The IP provided by DHCP will be grayed out as it is un-editable. Similarly the Timezone offset will be un-editable if provided by DHCP. If the Time source is set to SNTP, the phone will check for a configured IP address when the Submit button is selected.

Time Source set to SNTP (Manually configured)

If DHCP does not provide the SNTP server IP, the manual setting will be selected and editable, including Timezone offset and Daylight saving.