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# IP7 Firmware Release Notes

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The Digital Acoustics IP7 Series - IP Audio Endpoints run Firmware that can be upgraded over the network to add new and/or update existing features. The IP7-MZC-FD Multi-Zone Controller runs additional Firmware that is used to manage zone switching and the 'hot phone" hook status.

Use the Firmware Management Console that is included with the TalkMaster FOCUS software to perform all Firmware updates.

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## IP7 Firmware Version 7 Release Notes

To upgrade from firmware V5 to V6 or V7, upgrade to V5.3.4.23 first. V7 Firmware is supported on IP7s manufactured after 01/01/2011. For IP7s made before 01/01/2011, use V6.3.4.23. To upgrade the firmware on IP7 Endpoints, use the Firmware Management Console that is included with the TalkMaster software

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### February 2024 - V7.4.1.60

TalkMaster FOCUS V6.0.2 or greater is required to support IP7 Endpoints running V7 Firmware (The latest release for endpoints manufactured after 2019)

- Added the ability to set a volume of ZERO to the firmware and the software
    - Works with all Non-MZC devices
    - TalkMaster Operator Console now will add a '0' volume to the combobox dropdown for devices with firmware > 7.4.1.60
    - Corrected Project Rates 16000 & 22050 for Music injection audio quality
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### November 2020 - V7.4.1.39

TalkMaster FOCUS V6.0.2 or greater is required to support IP7 Endpoints running V7 Firmware (The latest release for endpoints manufactured after 2011)

- Corrected an issue with the IP7-FX when used with SIP half duplex mode. If the ST-MIC switch was in the ST position, it could cause audio distortion
  - Corrected an issue that causes a device to be unavailable if an SIP call fails due to an unsupported codec
  - Corrected an issue when an SIP call received a 183 response. The device was sending an OK instead of waiting to receive one
  - Corrected an issue when a SIP call was used to record routes. The ACK was not routed to the proper destination which caused the ACK to be resent many times
  - Change the SIP Timeout so that if 0 was specified, the IP Endpoint would never timeout if no audio was being sent to it
  - The IP7-FX was changed so that pressing the Vol+ or Vol- buttons only makes the acknowledgment beep if the device is idle
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## August 2020 - V7.4.1.24

TalkMaster FOCUS V5.2.1 or greater is required to support IP7 Endpoints running V7 Firmware  
(The latest release for endpoints manufactured after 2011)

- Added support for updated ICC3 hardware
  - Fixed an issue where the SIP Call ID was changing after the IP7 had been powered on. Now it remains the same
  - Improved communication between the IP7 and TalkMaster so TalkMaster knows the IP7's SIP Status
  - Standardized the timing between SIP Registration attempts after registration timeout
  - Added a reason section to a SIP Bye command to identify the hangup reason
  - Improved the handling of SIP error conditions
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## January 2019 - V7.4.1.11

TalkMaster FOCUS V5.2.1 or greater is required to support IP7 Endpoints running V7 Firmware  
(The latest release for endpoints manufactured after 2011)

- Added support for updated hardware
  - Added support for IP7 models that support Wireless
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## December 2018 - V7.3.0.33

TalkMaster FOCUS V5.2.1 or greater is required to support IP7 Endpoints running V7 Firmware  
(The latest release for endpoints manufactured after 2011)

- Fixed an issue where the BYE would be issued without receiving an OK
  - Fixed an issue where if an INVITE did not receive a response, the SIP session would hang
  - Fix for PTT not ending RINGING if set to end a call
  - Fix for timeout waiting for ACK. After 3 seconds of waiting and resending the OK every second, the call is ended.
  - Fixed an issue where extraneous OKs were sent during a call
  - Fixed several issues where if the TCP socket received a bad response code, the device would hang due to a looping condition
  - Fixed an issue where an IP7-SE8 would not allow half-duplex switching
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## August 2018 - V7.3.0.22

TalkMaster FOCUS V5.2.1 or greater is required to support IP7 Endpoints running V7 Firmware  
(The latest release for endpoints manufactured after 2011)

- Corrected an issue where a SIP/TCP Keep-Alive null packet issue caused a bad response
  - Corrected an issue where a TCP Response Code caused a loop instead of indicating that an error occurred
  - Corrected an issue where the IP7-SE8 in SIP half-duplex mode would not switch on the Speaker
  - Added support for an updated audio codec chip
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## July 2018 - V7.3.0.22

TalkMaster FOCUS V5.2.1 or greater is required to support IP7 Endpoints running V7 Firmware  
(The latest release for endpoints manufactured after 2011)

- Added support for SPKR-IP-CS - 2x2 IP Ceiling Speaker
- Added support for INT-IP-2Gang - 2Gang IP Intercom Door Station
- Refactored UDP/RTP Audio playing
- Fixed an issue which prevented Registration with a Secondary SIP Server if the Primary SIP Server was not available
- For the IP7-MZC, added a response code for the success/failure of a Zone or Zone Group command
- Fixed an issue where changing a Full Duplex device to use Line In instead of Microphone did not work correctly
- Fix an issue for a missing SIP ACK after sending SIP OK during an INVITE sequence
- Fixed a Direct Mode issue for the IP7-EDx/ESx where in Server mode, pressing the Monitor button did not start listening to the remote end
- Fixed an issue with Reset to Factory Defaults for devices that do not have any volume buttons
- For Automatic Level Control, fixed several bugs:
  - ALC Detector would stop if the Server it was connected to was restarted
  - ALC Detector did not report the correct level on very loud sounds
- Changed IP7-SS40 volume steps to 5dB increments
- Added support for variable TCP Keep-Alive time (available in TalkMaster FOCUS V6 or greater)
- IP7-ESS is no longer supported for V7 Firmware
- Added DTMF volume commands for IP7s connected via SIP
  - #00 - Volume down one level
  - #01 - Volume Level = 1
  - #02 - Volume Level = 2
  - #03 - Volume Level = 3
  - #04 - Volume Level = 4
  - #05 - Volume Level = 5
  - #06 - Volume Level = 6
  - #07 - Volume Level = 7
  - #08 - Volume up one level

### March 2017 - V7.1.3.12

- Added a guard timer to ensure that an IP7-MZC command is finished processing before the next one is started
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### December 2016 - V7.1.3.7

- Improved the error checking and reporting on IP7-MZC Firmware updating
  - Corrected Direct Mode feature for Server Monitoring
  - In SIP mode, added logic to omit a DNS Lookup if the DNS Server is not specified
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### October 2016 - V7.1.3.1

TalkMaster V5.2.1 is required to support IP7 Endpoints running V7 Firmware

- Fixed an issue with the SIP where Record Routes were sometimes incorrectly parsed causing the device to try a DNS lookup
  - In SIP, added logic to omit a DNS Lookup if the DNS Server is not specified
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### October 2016 - V7.1.3.1

TalkMaster V5.2.1 is required to support IP7 Endpoints running V7 Firmware

- Fixed an issue with the SIP where Record Routes were sometimes incorrectly parsed causing the device to try a DNS lookup
  - In SIP, added logic to omit a DNS Lookup if the DNS Server is not specified
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## June 2016 - V7.1.2.1

- Please Note: TalkMaster V5.2.1 is required to support IP7 Endpoints running V7 Firmware
  - Added support for new hardware used in the IP7. Do not attempt to flash an earlier version of firmware to an IP7 running V7. It could fail the IP Endpoint connection to the network
  - Added support for the new IP7-MZC - Multi-Zone Controller. The IP7-MZC is an IP Endpoint that can support up to 48 zones of full-duplex audio and is designed for use in Central Station security environments
  - Added support for the IP Endpoint Security feature. IP Endpoint Security implements a Challenge Response Authentication process between an IP Endpoint and any software program that tries to access it. IP Endpoint Security requires IP7 Firmware V7.1.2 or greater. Please refer to the topic in the Admin Console on Using Endpoint Security for further details. Failure to back up the TalkMaster FOCUS Server settings could result in the need to reset IP Endpoints to factory defaults to access them
  - Only IP Endpoints manufactured in the last five years can be updated to V7. All other IP7 Endpoints can be upgraded to the latest V6 Firmware
  - V7 includes all features from V6
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## IP7 MZC Firmware Release Notes

IP7 MZC Firmware releases that have the same major version are equivalent. For example, V7.0 and 7.4 are functionally equivalent. V7.0 is flashed at the factory while V7.4 is used to field upgrade MZCs with a major version of 4, 5, or 6. Do not upgrade MZC firmware with an update file that has the same major version as the IP7-MZC that is being updated.

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## March 2017 - V7.0 / V7.4

- Please note: TalkMaster FOCUS Firmware Management Console V5.2.3 or greater must be used to apply this update
  - Corrected an issue that could cause firmware corruption while processing a zone command and controlling an LED at the same time
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## May 2016 - V6.0 / V6.2

- Corrected an issue where Zone Commands would occasionally be missed
  - Added new options to correspond with TalkMaster Admin Console → ZC → Options tab  
February
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## 2016 - V5.0 / V5.1

- Added the ability to report real-time “hot phone” hook status through a status change to the IP7 January 2016 - V4.0
- **Initial Release**