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# System Overview and Introduction

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Welcome to the installation manual for the NC465 Media Gateway. This manual is designed to guide you through adding an NC465 to an existing Tek-CARE®400 system. If a new Tek-CARE®400 is being installed and the NC465 Media Gateway is specified as part of the system, complete the installation process for the rest of the Tek-CARE®400 system before attempting to install the NC465 Media Gateway.

## ***System Overview***

The NC465 Media Gateway is designed to offer a VoIP integration for the Tek-CARE®400 system. The NC465 provides call and event notifications to facility VoIP extensions and delivers pertinent information on the telephone display. The NC465 also provides two-way voice communication between patient room stations and facility VoIP extensions.

The NC465 Media Gateway connects the Tek-CARE®400 system to the facility's IP PBX system via the facility's LAN.

## ***Important Customer Considerations:***

In order to function properly and consistently, the NC465 Media Gateway requires a reserved DHCP address on the facility LAN. Contact the facility's IT department for assistance in configuring a reserved DHCP address for the NC465 Media Gateway.

While TekTone® has designed the NC465 to communicate with IP PBX systems via SIP protocol, installations of IP PBX systems vary widely between facilities. To ensure the system functions as expected, it is critical to fully understand what capabilities the PBX installed in the facility has.

In order to use the NC465 in your facility, your PBX must support VoIP using standard SIP protocols. It must accept IP—based authentication to inbound calls and be able to route outbound calls destined for the NC465, using a dial prefix if required. The NC465 Media Gateway supports standard SIP signaling in a B2B arrangement with basic IP Authentication per RFC 3261 available at <http://tools.ietf.org/html/rfc3261>.

TekTone® requires that an experienced PBX technician be on-site to supervise PBX integration. Cooperation between the equipment installer, PBX technician, the facility's IT department, and TekTone® Technical Support is critical for a successful installation of the NC465 Media Gateway.

The NC465 Media Gateway is programmed to ring a PBX extension three times and then hang up. This prevents calls placed by patients from being sent to voicemail. TekTone® recommends that voicemail not be enabled for VoIP extensions that will be used with the NC465 Media Gateway.

## 3.4 Information about the Virtual Cards

### 3.4.1 Virtual Cards

#### Function

Virtual Cards are included with the IPCEMPR card and can be activated with the appropriate activation key (Only V-IPCS4 cards can be activated without activation keys). By installing Virtual Cards in the Virtual Slots of the IPCEMPR card using the Maintenance Console, IP CO lines, IP extensions, and IP-CSs can be used via the IPCEMPR card.

Virtual Card	Description
Virtual 16-Channel VoIP Gateway Card (V-IPGW16)	Virtual Card for 16-channel VoIP CO line. Compliant with VoIP H.323 V.5 protocol. Also supports T.38 protocol.
Virtual 16-Channel SIP CO Line Card (V-SIPGW16)	Virtual Card for 16-channel SIP CO line. Compliant with RFC 3261, 3262, 3264, 3311, 3581, 3960 and 4028 protocols, and ITU-T G.729A and G.711 codec methods. Also supports T.38 protocol.
Virtual 32-Channel VoIP Extension Card (V-IPEXT32)	Virtual Card for 32 VoIP extensions. Compliant with Panasonic proprietary protocol.
Virtual 32-Channel SIP Extension Card (V-SIPEXT32)	Virtual Card for 32 SIP Extensions. Compliant with RFC 3261, 3264, 3310, 2327, and 4028 protocol.
Virtual 4 IP Cell Station Interface Card (V-IPCS4)	Virtual Card for 4 IP-CSs. Compliant with ITU-T G.729A and G.711 codec methods.

#### Example: Virtual Cards in the Virtual Slots

