JERON electronic systems inc.

7501 N. Natchez Avenue
Niles, Illinois 60714
Phone: 773-275-1900 • 800-621-1903 • Fax: 773-275-0283
Email: sales@jeron.com • Web: www.jeron.com

ProVider® 790 Application Brief

Enterprise SIP Wireless Phone Integration Improves Caregiver Mobility and Patient Satisfaction

Application Overview:

Many acute care facilities are investing in facility-wide wireless phone systems which run on their VoWLAN (Voice over Wireless LAN) or over a proprietary network. These enterprise-wide wireless phone systems integrate with their desktop phones and outside phone access to facilitate direct communication among all staff regardless where they are located within the facility or if calling from outside. Often times the main driving force behind facility-wide wireless phone systems is to integrate wireless phones with nurse call so that mobile caregivers are notified of calls from their patients instantaneously and can answer these calls. High-end skilled and assisted living facilities are also investing in facility-wide wireless networks and wireless phone system to keep their mobile staff connected.

Caregivers in both acute-care and skilled-care facilities want to be as mobile as possible in a patient-focused care environment. Healthcare administration knows that patient satisfaction is directly affected by staff response time and the amount of time staff spends interacting with patients. Using SIP standard wireless phones integrated with the Provider 790 notifies caregivers of their patient's calls and able to talk to their patients over the wireless phone. The SIP wireless phone integration saves staff wasted trips back to the nurse's station to find out what their patient needs and keeps the unit quiet from unnecessary overhead pages to relay messages about patient calls to staff. At night, when the units 'staff down' and there may not be someone at the nursing station, SIP wireless phone integration lets the remaining staff efficiently respond to patient calls.

Facilities aren't just limited to the wireless enterprise SIP phones by Cisco, Polycom, Ascom, and Vocera. Both Android and IPhone Smartphones can use SIP applications to work SIP phones over the facility's VoWLAN. The SIP interface can also be used with SIP desktop phones allowing them to work as a remote/backup nurse consoles.

Feature/Benefits:

- **Remote Answering** – All patient calls assigned to a specific caregiver can be routed to the caregiver's SIP wireless phone from anywhere within the VoWLAN coverage area.

- **Parallel Operation** – patient calls annunciate at Nurse Console(s), Duty Station(s), and at the assigned caregiver's SIP wireless phone. If the mobile caregiver can't answer their patient's call, the multiple modes of notification go to other staff within the unit, making them aware of the call so they can respond.

- **Call Hunting** – If a patient call is not answered from the designated caregiver's wireless phone within a preprogrammed period of time, the call can be automatically forwarded to a backup caregiver's phone. A patient call may be forwarded sequentially to a preprogrammed series of up to four different handsets, ensuring that the patient's call is answered as quickly as possible.

- **Selective Patient to Staff Assignment** – Each caregiver's SIP wireless phone is assigned to only receive calls from specific rooms/beds assigned to them.

- **Patient Call Information Display** – The caregiver's SIP wireless phone will display the room number, bed (if applicable), and call priority. From the phone display, caregiver's can readily discern a patient call from other phone calls.

- **No Blocked Calls** – Multiple voice paths on the nurse call and multiple SIP trunk connections to the wireless phone system means if the caregiver's phone is ringing, when they press talk they will always be connected to their patient.

- **No Special Codes to Remember** – While communicating to their patient, pressing the "*" key brings up voice prompt menu of options such as setting service requirement or upgrading the patient call

- **Setting a Remote Service Requirement** – While communicating to their patient via the wireless phone, the caregiver may press the "1" key to set a "Green Service" reminder, the "2" key to set an "Orange Service" reminder, the "3" key to set a "Yellow Service" reminder, or the "4" key to set a "Stat Service" reminder. After pressing the key the system will give a voice prompt confirmation of the action. Setting a service reminder lights the Dome Light outside the patient room and can only be cleared by going to the patient room. In a team nursing application, this allows the Primary Caregiver to screen the patient call and set a Service Requirement if their patient requires a backup team member to go attend to the patient directly.

- **Call Upgrade for Team Nursing** – While communicating over the wireless phone with the patient, the caregiver may press the "5" key to upgrade the call to an "Urgent" call. After pressing the key the system will give a voice prompt confirmation of the action. This upgraded call will annunciate at the Dome Light, Nurse Console(s), Duty Station(s), and may even send out a group pocket page notification; all of these actions direct the caregiver team respond quickly to the urgent situation.

- **Initiate a Call from the Wireless Handset** – To talk to a Patient or Staff Station the staff member dials the room number of the intercom station, allowing them to communicate with patients or staff without having to physically go to the room.

- **Integration with Android and IPhone Smartphones** – Using a SIP application on the Smartphone, the phone works as a SIP phone over the facility's VoWLAN with all the same functionality as a wireless enterprise SIP phone.

- **Integration with SIP Desk Phone** – In addition to wireless phones, the SIP integration can support routing patient calls to a SIP desk phone. This allows a desk phone to function as a basic remote nurse console that can receive patient calls. A common application is for a Nurse Manager, at their desk phone, to receive patient calls that have not been answered within a set time period.

- **Voicemail Compatible –** To keep patient calls from accidentally going to the voicemail of the wireless phone, an option requiring the "#" key to be pressed by the caregiver after they answer their phone but before the patient call is answered. If voicemail accidentally picks up because the caregiver is busy, the call will time out and route to the next assigned caregiver. If the caregivers phone does not have voicemail, then the "#" to answer option can be turned off and as soon as the caregiver answers their phone they will answer the patient call.

Key Users and Managers:

Nurses/Caregivers - Caregivers can answer their patient's calls from anywhere within the coverage of the VoWLAN, which is often throughout the entire facility. Caregivers remain mobile and can spend more time on the floor interacting with their patients since they do not make needless trips back and forth to the nursing station. Missed calls are stored in the SIP phone's memory and staff can review the calls and go directly to the room or call the room to find out what the patient needs. At night, when staffing levels are reduced, they can leave the nursing station and still be instantly notified of any patient calls and can answer them remotely. If the caregiver is on the way to the patient room, previous communication via wireless phone helps prepare for the visit to the room. This saves both time and additional steps. The ability to set service reminders means they won't forget about a patient whose call they've answered but can't attend to immediately. When combined with pocket paging, setting a service requirement can automatically page the assigned caregiver that is part of the team assigned to the patient. Compatibility with voicemail means the caregiver doesn't need to drop everything to answer their ringing phone and allows outside calls, often from doctors, to go to voicemail instead of being missed entirely because the outside party hangs up in frustration.

Administration/Nursing Management - SIP phone integration supports timely responses to patient calls which improve patient satisfaction while keeping staff mobile which in turn supports staff satisfaction. Integration with desktop SIP phones lets managers monitor overtime service requests and patient calls. They can then alert staff of any response issues that need to be addressed before patient satisfaction is negatively affected. Fast response and call prioritization also lessen potential liability to the facility from a forgotten patient call.

IT/Biomed - IT is **always** involved in nurse call to SIP phone integration because the nurse call uses their VoWLAN infrastructure to route calls to the SIP phones. Integrating Provider 790 and a facility's SIP phone system (by using SIP trunking) provides advantages to IT including:
- Reduced Licensing Costs – Because the Provider 790 nurse call is seen as smaller collection of SIP trunks, instead of a collection of SIP endpoints, this means lower SIP licensing costs for the facility's phone system.
- Uncomplicated Configuration – SIP trunks (in contrast to SIP endpoints) simplifies tying the Provider 790 to the facility's SIP phone system
- Broad Choice of Phone Vendors – SIP Trunk integration allows the facility to choose the SIP phone system that best meets their needs.