

 **Provider**[®] 680 Application Brief

Centralized Code Blue for Optimal Response Times

Application Overview:

“Code Blue” is reserved for the most life threatening event when a patient in cardiac arrest and which demands the urgent response of the “Code Blue Crash Team” to save the patient’s life. Staff members on the Code Blue Crash Team may be located throughout the patient floor or even the facility and need to know immediately of both the Code Blue call and its exact location.

Jeron’s Centralized Code Blue features ensure that the Code Calls receive top attention and are relayed to the Crash Team as quickly as possible. Provider Centralized Code Blue supports different notification technologies, such as pocket pagers and automated PA announcements, ensuring that staff are notified nearly instantaneously of the event so that the patient in distress receives immediate care.

Feature/Benefits:

- **Local Provider 680 Nurse Call** – The following are standard features/options for each local Nurse Call system:
 - **Highest Call Priority**— Code Blue calls take precedence over any other calls that may be active on the Provider nurse call systems. To draw attention to the Code Blue calls they sound a unique call-in tone at nurse consoles and duty stations, have a unique dome light indication, and display at the top of the call-in display at nurse consoles
 - **Supervised Stations**— Code Stations and their Dome Light are continuously supervised to ensure they are available 24/7. If there is a problem the local Nurse Console(s) give an error indication so staff know to immediately contact the technician to service the system.
 - **Contact Closure Output**— When a Code Call is placed, the Provider nurse call can provide an isolated contact closure output to drive other devices such as strobe lights, sirens or other contact driven device; giving the facility additional notification options.
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- **Centralized Code Blue:**
 - **Centralized Code Blue Display**— Code Call information from every local system is displayed on one or more LCD/plasma screens located at the central operator’s position (or whoever may centrally dispatch the crash team). Additional Centralized Code Displays may be located in other key staff areas.
 - **Automated Announcements over PA System**— A contact closure and audio output from the centralized code blue Provider ties into the Public Address system. When a Code Call is placed, the PA system pages throughout the entire facility with the code call and its room of origin. Tones that have been designated to indicate a code call can also be automatically activated, providing an audible indication. Staff throughout the facility are informed of the code call event.
- **Wireless Messaging:**
 - **Pocket Paging** – When a Code Call is placed, the caregiver(s) assigned to the patient and the Code Blue Crash Team automatically receive a page telling them of the Code Blue call and its location. The pocket pages can go out to multiple staff at the same time and are completely silent as to not disturb other patients.

- **Wireless Phones**— Just like a pocket pager, Code Blue text messages can be sent to in-house wireless phones carried by staff members. Unlike a routine patient call where a staff member would want to talk to their patient, in a Code Blue situation text messages are the fastest way to get the information to multiple staff members.

Key Users and Managers:

Nursing Managers/Nurses/Caregivers- These caregivers know immediately where to go in the event of a Code Call so they can respond without delay. The multiple and simultaneous modes of Code Blue annunciation make sure that the entire crash team is aware of the call as soon as it is placed. The unique visual indication at the dome light and zone light(s) visually direct the team members to the correct room.

Admin/Nursing Management- The various ways to communicate a Code Call and the redundancy built into the system reduce the likelihood of a delayed response and in turn the liability of the facility because of a poor response.

IT/Biomed- Continuously supervised stations with pocket page notification of any problems means that if a problem occurs a technician is notified of it immediately and can address it as soon as possible. For the IT department, having the nurse call system (including the Code Blue functionality), on its own separate own network is important for a life safety system as other systems or issues with the data LAN cannot affect the ability to place Code Blue calls.

Implementation:

Required Equipment

Networking Systems

- Provider systems consisting of 4 or less interconnected Provider 680 6850 Controllers can report Code Blue calls to a central Nurse Console. Code Blue calls that are placed can also automatically routed to the caregivers' pagers or phones
(see the Pocket Page and Wireless Phone Application Briefs for information on the requirements for these wireless integrations).
- Larger Provider 680 networks of two or more groups of interconnected Provider 680 systems can be networked over a proprietary Provider network (supporting up to 16 local Provider 680 systems)
(see the Data Networking Application Brief for information on how to network Provider 680 systems)

Centralized Code Blue Annunciation

- Network multiple systems using the Proprietary Provider Network and a third-party Multiport Serial Card that connects multiple interconnected systems into the PC via one Comport.
- **One dedicated PC:**
 - Running Early Response Middleware – this software combines all the Code Call information from multiple systems into a single output to drive one or more LCD/Plasma displays
 - Multiport COM serial card xxx do we have an example/manufacturer/model?
 - UPS battery backup
- For Centralized Code Blue Display (at the Central Code Blue Dispatch Area):
 - **One (or more) large displays (LCD/Plasma)**
 - **One Duty Station (model 6817)** from *each* interconnected Provider 680 system. When a Code Call is placed, the 'Code' light illuminates and the corresponding alert tone sounds on the respective duty station. For redundancy, in case the LAN or PC should crash, the Duty Stations will continue to annunciate Code Calls.
- For Centralized Code Blue Public Address Audio Paging:
 - **One Early Response Voice Interface Module** – drives a dry contact closure (included with module) to initiate audio page on the PA system