

Digi SureLink™

Maintain persistent connections over cellular networks

Overview

Digi SureLink creates reliable persistent connections for devices connected to Digi cellular products, enabling rapid on-demand communications on cellular networks.

About Digi SureLink

Wireless connections may experience intermittence due to a number of factors, including RF signal loss caused by fading, interference and moving obstructions. Typically, the wireless device is not notified when a connection is terminated due to data inactivity.

Maintaining persistent mobile connections is important for multiple reasons. In host initiated (mobile terminated) applications, if the host tries to communicate with a remote device and the mobile link is down, the connection attempt will fail. The Digi SureLink “keep-alive” function ensures the connection will be there when needed.

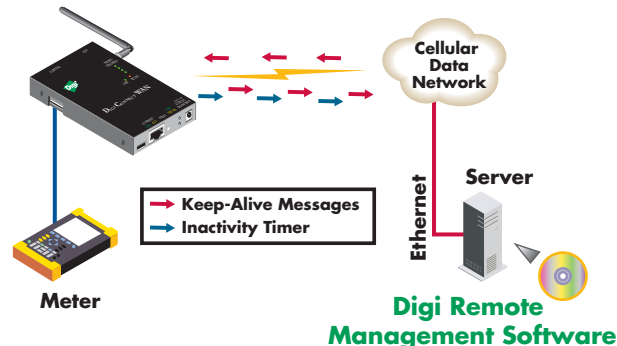
With mobile originated (remote device initiated) applications, an inactive mobile link may not appear to be as critical since a new link would be initiated when data is ready to be sent. However, the time needed to re-initiate the mobile PPP connection can take several seconds. A persistent connection means that data will be sent immediately.

Digi cellular products use the unique Digi SureLink capabilities to provide an “always-on” connection that helps mitigate these types of connection losses. A programmable “inactivity timer” and a pro-active link integrity function are available with the Digi cellular product family. Digi SureLink now also includes link integrity monitoring with three testing options.

Digi’s remote management software, which is used to manage many Digi cellular products, also adds enhanced keep-alive capabilities between the cellular device and the remote management software server. Digi’s software sends keep-alive packets, at a configurable interval, to the remote Digi cellular device in order to maintain a persistent connection.

Digi cellular products can also be configured to launch keep-alive packets from the remote device side to the network to ensure the connection stays open and available for instant communications. Keep-alive messages from the Digi cellular device also serve to inform Digi’s remote management software of the connection status of the cleanup. Additionally, Digi cellular products can be configured to expect keep-alive messages from the remote management software and can reestablish a connection a connection if the messages have not arrived for a specified period of time.

Digi Cellular Router



Features/Benefits

Always-on connections

- Rapid on demand communications
- Maximizes uptime across cellular networks
- User configurable control for optimum performance

Inactivity timer

- Ensures PPP connection is always available when needed
- Generally not chargeable on many wireless networks
- Device initiated

Keep-alive messages

- Small device initiated or Digi remote management software initiated packets that allow connection to stay up

Link integrity monitoring

- Test options include: Ping, TCP Connection, and DNS Lookup
- Ensures two-way communication is working over the mobile connection
- Option to test at regular intervals, or only when connection is idle



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