Remote Nat Traversal
IP Phone Support (MGCP)

Kagoor Networks Proprietary and Confidential

A recent development in deployment requirements is the desire to traverse remote NAT/Firewall devices without requiring changes to the remote NAT/Firewall. This approach attempts to preserve IP addresses while customer NAT/firewall devices catch up to the current voice transport technologies.

This approach circumvents the inherent protections provided by the NAT and attempts to maintain the NAT bindings to the phone. This approach is gaining momentum as it has been proven to work with many NAT devices. There are, however, some limitations with this approach. If the network is interrupted from some time or the remote NAT restarts, the NAT bindings are lost. Signaling messages to the phone cannot traverse the NAT until the phone initiates communication with the call agent.

To minimize the effects of a rebooted NAT or network outage, we are recommending that the behavior of the IP phones is altered to keep the NAT bindings active. We suggest that the IP phones send a new MGCP keep-alive message that will keep the bindings active. This will be the only purpose of this message.

We are recommending the following be supported:

**MGCP phone messages:**
RSIP
RM: X-keepalive

**Call Agent or intermediary action:**
200
OK

**Configuration:**
- Permit Enable/Disable
- Default to enable
- Interval Configurable
- Default of every 30 seconds. Min 10 seconds, Max as designed by the IP phone vendor.
- All options Parameter file settable
Behavior:

- After the IP phone has successfully registered, the phone will send out the keep-alive message at the configured interval (default to 30 seconds).
- The IP phone does not expect a call agent response, but will accept one if one is returned.
- No special action is expected if the IP phone message or call agent reply are not received.
- There is no retry logic for this message.
- The keep-alive message will be sent every interval time regardless of the hook state of the phone.
- You may choose to send the keep-alive based on an idle time since the last signaling message was sent and again on the interval time.
- The IP Phone will send this message to the last IP/Port it received MGCP signaling from.
- The Transaction ID should come from the MGCP “stack” to prevent conflicts with signaling.