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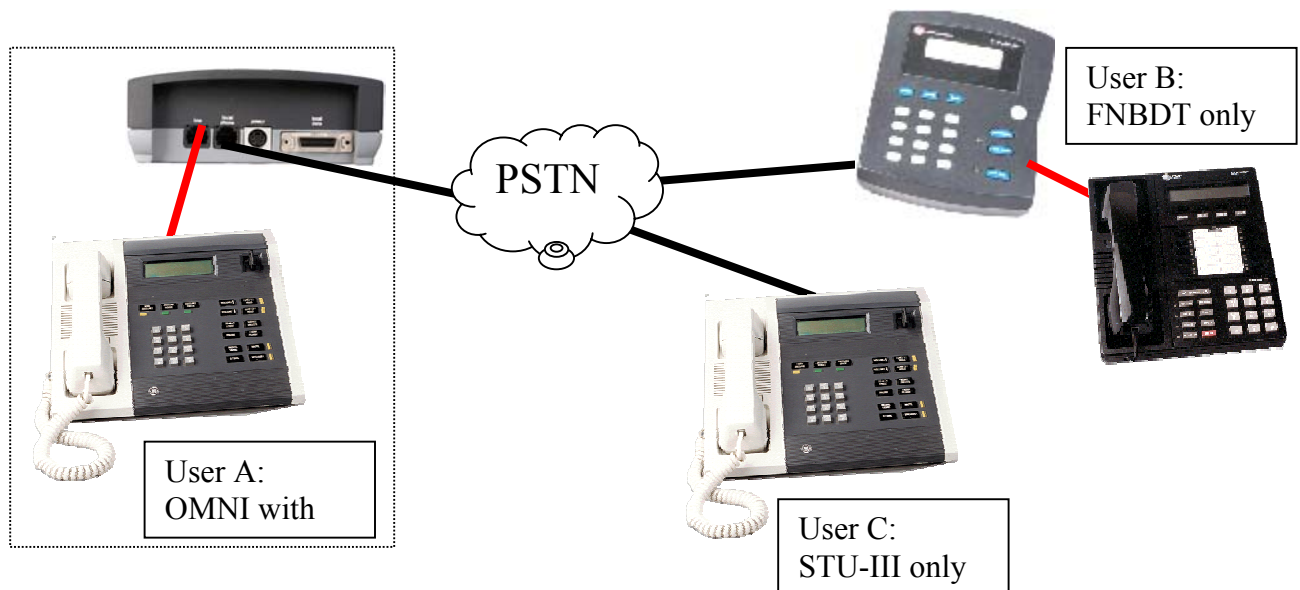
OMNI Application Note

Title: STU-III Bypass Mode
Date: February 18, 2004
Revision: 1

Overview

This note describes how to setup and use an OMNI and a STU-III together. This configuration allows users to add FNBDT capability using OMNI, while still retaining STU-III functionality. Once setup, the user will be able to go secure with either a far-end STU-III or a far-end FNBDT device with minimal effort.

In the diagram below, User A will be able to go secure with either User B or User C. User B cannot go secure with User C. This document describes the setup and operation for User A.



Prerequisites

- OMNI configured for PSTN operation, with appropriate cabling
- STU-III
- Telephone connection (PSTN)



Quick Start Guide

Installation

- The STU-III is installed as the telephone for the OMNI
- When using FNBDT, the STU-III will function in non-secure mode

STU-III call

- Place the OMNI in bypass mode by pressing **menu** once
- Establish STU-III secure call as usual

FNBDT call

- Establish an FNBDT call as usual
- The STU-III may begin to go secure when the OMNI does
 - Shortly, the STU-III will fail security negotiation
 - Place the STU-III into non-secure mode to continue the call
- The call is secured by OMNI

Detailed Instructions

Installation

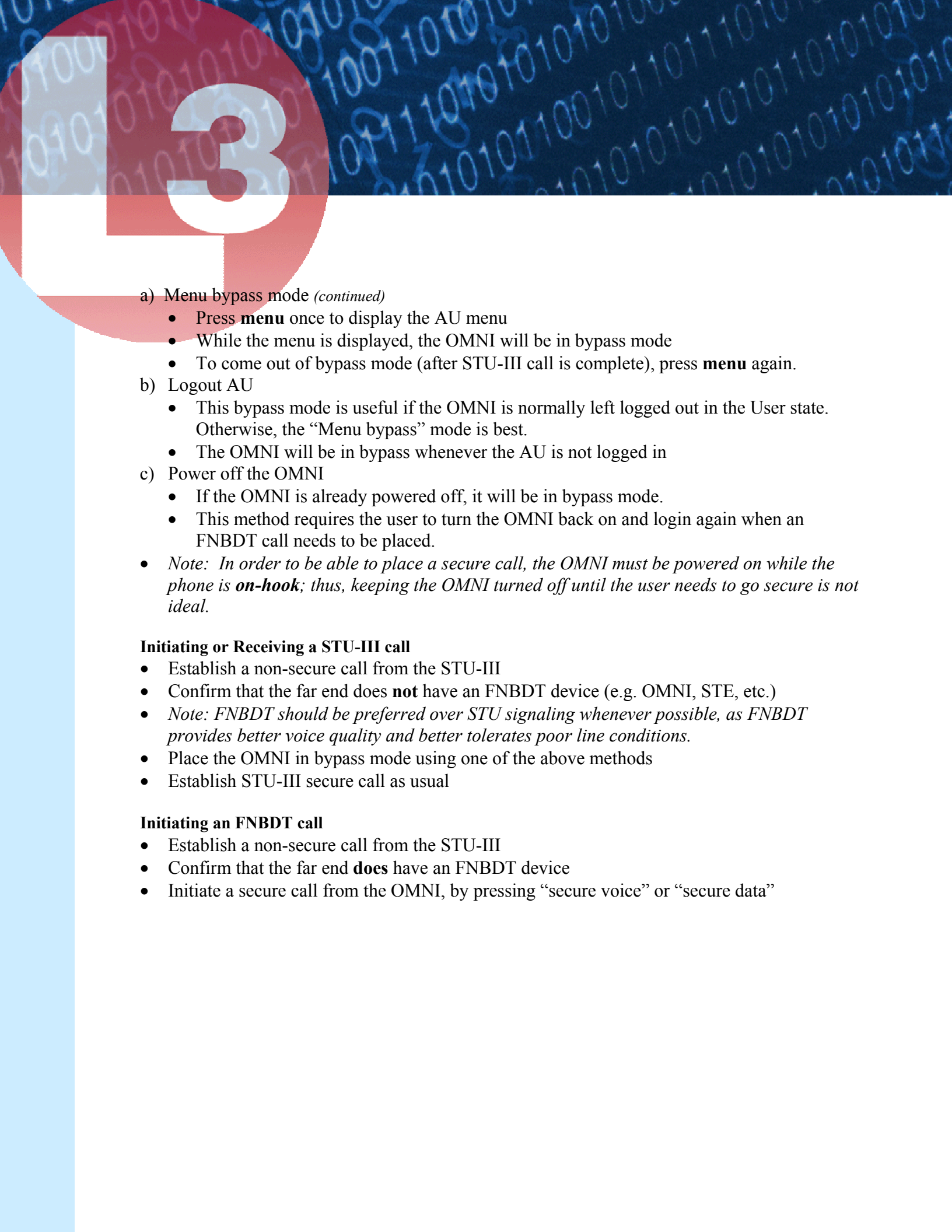
- The STU-III is installed as the telephone for the OMNI
- When non-secure, both the OMNI and the STU-III will be in a non-secure bypass mode
- When using FNBDT signaling, the STU-III will function in non-secure bypass mode and the OMNI will secure the connection.
- When using STU-III signaling, the OMNI will function in a non-secure bypass mode and the STU-III will secure the connection.

Bypassing the OMNI

In order to use the STU-III, the OMNI will need to be bypassed. This can be done in one of three ways:

a) Menu bypass mode

- This is the quickest way to bypass an OMNI that is already powered up and logged in
- When the OMNI is logged in as the AU, the screen displays “NON SECURE” or “NON SECURE AU”



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a) Menu bypass mode (*continued*)

- Press **menu** once to display the AU menu
- While the menu is displayed, the OMNI will be in bypass mode
- To come out of bypass mode (after STU-III call is complete), press **menu** again.

b) Logout AU

- This bypass mode is useful if the OMNI is normally left logged out in the User state. Otherwise, the “Menu bypass” mode is best.
- The OMNI will be in bypass whenever the AU is not logged in

c) Power off the OMNI

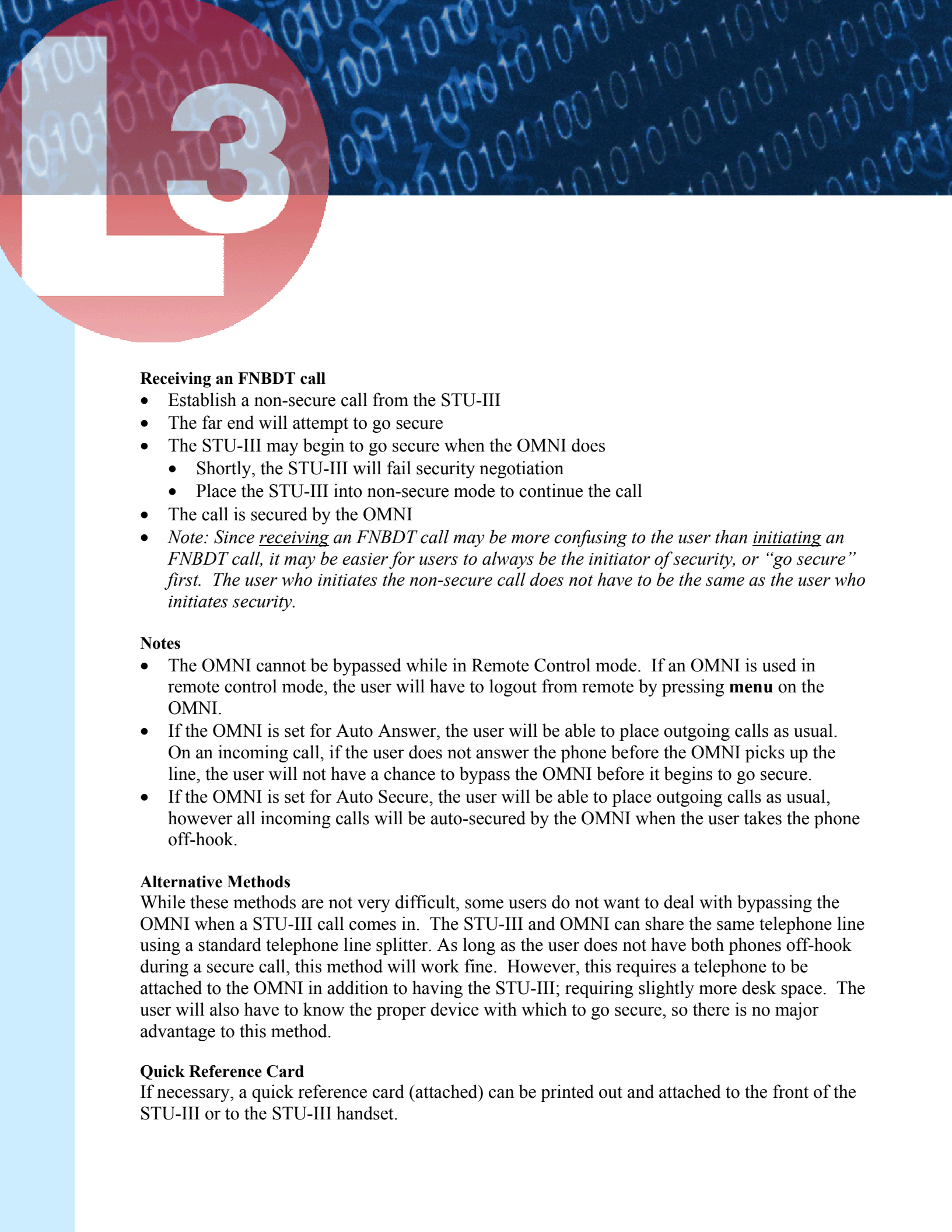
- If the OMNI is already powered off, it will be in bypass mode.
- This method requires the user to turn the OMNI back on and login again when an FNBDT call needs to be placed.
- *Note: In order to be able to place a secure call, the OMNI must be powered on while the phone is **on-hook**; thus, keeping the OMNI turned off until the user needs to go secure is not ideal.*

Initiating or Receiving a STU-III call

- Establish a non-secure call from the STU-III
- Confirm that the far end does **not** have an FNBDT device (e.g. OMNI, STE, etc.)
- *Note: FNBDT should be preferred over STU signaling whenever possible, as FNBDT provides better voice quality and better tolerates poor line conditions.*
- Place the OMNI in bypass mode using one of the above methods
- Establish STU-III secure call as usual

Initiating an FNBDT call

- Establish a non-secure call from the STU-III
- Confirm that the far end **does** have an FNBDT device
- Initiate a secure call from the OMNI, by pressing “secure voice” or “secure data”



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Receiving an FNBDT call

- Establish a non-secure call from the STU-III
- The far end will attempt to go secure
- The STU-III may begin to go secure when the OMNI does
 - Shortly, the STU-III will fail security negotiation
 - Place the STU-III into non-secure mode to continue the call
- The call is secured by the OMNI
- *Note: Since receiving an FNBDT call may be more confusing to the user than initiating an FNBDT call, it may be easier for users to always be the initiator of security, or “go secure” first. The user who initiates the non-secure call does not have to be the same as the user who initiates security.*

Notes

- The OMNI cannot be bypassed while in Remote Control mode. If an OMNI is used in remote control mode, the user will have to logout from remote by pressing **menu** on the OMNI.
- If the OMNI is set for Auto Answer, the user will be able to place outgoing calls as usual. On an incoming call, if the user does not answer the phone before the OMNI picks up the line, the user will not have a chance to bypass the OMNI before it begins to go secure.
- If the OMNI is set for Auto Secure, the user will be able to place outgoing calls as usual, however all incoming calls will be auto-secured by the OMNI when the user takes the phone off-hook.

Alternative Methods

While these methods are not very difficult, some users do not want to deal with bypassing the OMNI when a STU-III call comes in. The STU-III and OMNI can share the same telephone line using a standard telephone line splitter. As long as the user does not have both phones off-hook during a secure call, this method will work fine. However, this requires a telephone to be attached to the OMNI in addition to having the STU-III; requiring slightly more desk space. The user will also have to know the proper device with which to go secure, so there is no major advantage to this method.

Quick Reference Card

If necessary, a quick reference card (attached) can be printed out and attached to the front of the STU-III or to the STU-III handset.

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Reference

Refer to user manuals for OMNI and STU-III regarding setup procedures for typical PSTN operation

If unsuccessful in completeing a call using the STU-III/OMNI configuration, contact L-3 Communications Systems East Tech Support at 1-800-339-6197 (toll free) or 1-856-338-6207 (outside the US).

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