Using CallExtend on a Mitel SX phone system

For CallExtend to function on a Mitel phone system, the phone system must be programmed appropriately. Although we do not resell or support Mitel phone equipment, we have received information about these phone systems from a number of dealers in the field. We have put this information together in the rest of this document. We cannot guarantee that this list is complete or accurate, but hopefully it will help you program your phone system appropriately.

On an SX-50, program the following command settings as shown:

Command 100, register 6 - c = 1 (150-1500 ms) – This controls the system hook-flash timer.

Command 121-129, register 2 - b = 1 (flash for consultation hold) – This allows CallExtend to perform a hook-flash to place the caller on hold while it dials an extension.

Command 121-129, register 3 – l = 0 (no room status on COS for CallExtend extensions) – This ensures the phone system realizes the CallExtend extensions are not room phones and thus does not restrict activities from these extensions.

The following commands place the CallExtend extensions into a circular hunt group, so incoming calls can ring to whichever extension is available:

Command 361, register 1 - b = 0 (circular hunt)

Command 361, register 2 = first extension to be used with CallExtend

Command 361, register 3 = second extension to be used with CallExtend

Command 501-580, register 2 - c = 1 (disconnect supervision guaranteed)

Create a Class-of-Service (COS) for the CallExtend extensions (don't use the rooms' COS). Set up this COS to allow calls to be answered, a hook-flash performed, and calls transferred.

If incoming calls are to ring <u>only</u> to the CallExtend, and not to the console, additional programming may need to be completed in the phone system.

If CallExtend is to be used in Supervised Mode, set the Hold Recall Timer to a longer value than the number of rings CallExtend is set to supervise. If CallExtend is to be used in Unsupervised Mode, set the Transfer Recall Timer to a high value, or disable it, to prevent unanswered calls from ringing back to CallExtend and getting the main greeting again. (If the Transfer Recall Timer cannot be disabled, it is usually best to have the Mitel forward busy/unanswered call transfers to the console after the desired period of time.)

For additional settings, see the information at the end of this document.

<u>On an SX-100 or SX-200,</u> program the following settings as shown:

Disable System Option 189 (flash timing = .7), System Option 190 (flash timing = .9), and System Option 191 (flash timing = 1.1).

Set System Options 180, 181, 182, 183, & 188 as desired to allow hook-flashes to be performed on the appropriate types of calls.

Set up a hunt group with both CallExtend extensions in it, and assign the desired trunks to ring to this hunt group. If used in night mode, assign the hunt group to answer calls for the respective night number.

Create a Class-of-Service (COS) for the CallExtend extensions (don't use the rooms' COS). Set up this COS to allow calls to be answered, a hook-flash performed, and calls transferred. For most applications, we suggest <u>enabling</u> COS Option 98 (Transfer with Privacy) and <u>disabling</u> COS Options 44 (Originate Only), 45 (Receive Only), 46 (Flash Disable), 48 (Broker's Call), 49 (Station Conference), 62 (Flash for Attendant), and 99 (Handsfree Operation).

If CallExtend is to be used in Supervised Mode, set the Hold Recall Timer to a longer value than the number of rings CallExtend is set to supervise. If CallExtend is to be used in Unsupervised Mode, set the Transfer Recall Timer to a high value, or disable it, to prevent unanswered calls from ringing back to CallExtend and getting the main greeting again. (If the Transfer Recall Timer cannot be disabled, it is usually best to have the Mitel forward busy/unanswered call transfers to the console after the desired period of time.)

For additional settings, see the following information.

<u>If the commands shown for the SX-50 and the SX-100 / SX-200 do not work for your phone system or are not complete,</u> use the following guidelines to program your system appropriately:

1. The hook-flash in the Mitel <u>must</u> be set to the 150 (or 200 ms) - 1500 ms range. This is NOT the default hook-flash setting in the Mitel, so the phone system will have to be programmed specifically for this setting. In some phone systems, this is done by selecting this range instead of the default 150 ms - 750 ms range. In other systems, this is done by specifically turning off all other hook-flash settings (.7, .9, 1.1). Once the Mitel's hook-flash has been set, CallExtend should be programmed to use its 500 ms hook-flash setting (this is the default setting).

2. A number of Class-of-Service (COS) and system options in the Mitel must be programmed to allow BOTH of the extensions that are connected to CallExtend to answer and transfer calls. The Mitel must be programmed to allow the extensions to do the following:

   ■ answer extension calls
   ■ answer incoming trunk calls

- ■ seize a trunk (if off-premise transfers are desired)
- ■ perform a hook-flash on extension calls
- ■ perform a hook-flash on incoming trunk calls
- ■ perform a hook-flash on outgoing trunk calls (if off-premise transfers are desired)
- ■ transfer extension calls to any extension
- ■ transfer trunk calls to any extension
- ■ transfer extension calls to the receptionist/console
- ■ transfer trunk calls to the receptionist/console
- ■ retrieve calls from on hold

In addition, if CallExtend is to answer calls when the phone system is in <u>night mode,</u> the phone system must be set to allow the CallExtend extensions to perform the above functions in night mode.

3. If the "dial 0" receptionist that is programmed in the Mitel is a hunt group of extensions that includes the CallExtend extensions, then CallExtend should be programmed to use an actual extension number as its receptionist, rather than just dialing "0". If CallExtend sends a call to "0" and CallExtend's extensions are part of the "dial 0" hunt group, the caller could end up back at CallExtend's main greeting.

4. If CallExtend is to be used in Supervised Mode, the Hold Recall Timer in the Mitel should be lengthened or be turned off. If the Hold Recall Timer is set too short, the Mitel will re-ring the call that is on hold to CallExtend before CallExtend has a chance to retrieve it – this will cause it to look like a new call, so CallExtend will answer it with the main greeting.

5. If CallExtend is to be used in <u>Un</u>supervised Mode, the Mitel should be set to forward busy/unanswered call transfers to the console, and the Transfer Recall Timer should be lengthened or disabled. Otherwise, the Mitel will re-ring these calls to CallExtend, which will think they are new calls and will answer them with the main greeting.

6. For CallExtend to recognize when a caller hangs up during the main greeting, the Mitel must pass through a call abandon signal. Approximately half of the Mitel phone systems pass through this signal. If this signal is not present, CallExtend will not see any interruption in the call to let it know that the caller has hung up, so it will think that the caller is just silent on the line, and it will transfer the call to the console. There is no programming in CallExtend that can change this -- contact Mitel for information on upgrading older phone systems to provide call abandon pass-through.

7. The Class-of-Service (COS) settings for the extensions that CallExtend transfers calls <u>to</u> must NOT be set to "Never a Consultee" or "Never a Forwardee" or CallExtend won't be able to transfer calls to them. In the SX-100 & SX-200, these settings are controlled with COS Option Numbers 47 and 38.

An alternative way to supervise call transfers

There are many reasons to have CallExtend supervise call transfers, and many users select full supervision. However, it is important to be aware of two issues when calls are supervised:

1. In order to determine if the extension is answered or not, CallExtend must listen to it ring. While it is doing this, it places the caller on hold in the phone system, which means that the caller will hear whatever the phone system provides to callers on hold: music or silence. There is no way for CallExtend (or any other auto attendant) to provide ring-back to the caller, because the caller is on hold <u>in the phone system</u> and is not connected to CallExtend at that time. For this reason, we highly recommend you connect a music-on-hold device to the phone system if you plan to supervise call transfers.

2. If an extension answers a call that CallExtend is supervising, CallExtend must hear the answer. This means the person must answer with a verbal greeting that is loud enough for CallExtend to detect. At that point, CallExtend hangs up, which causes the phone system to connect the call that was on hold to the extension that just answered. This speech detection and cut-through process typically takes 1-3 seconds; during this time, the person who answered the extension cannot hear the caller, and the caller cannot hear the person who answered the extension.

There is an alternative way to supervise call transfers that often works better than the above scenario. This is accomplished by <u>setting CallExtend to Busy-Only Supervision Mode</u> and <u>setting the phone system</u> to do one of the following:

1. Forward unanswered call transfers to the receptionist. This can be done by setting each extension to forward unanswered calls or by setting system-wide call forwarding in the phone system. This allows the call to be handled by the receptionist if it is not answered at the desired extension. Typically, with this transfer method, the caller will hear ringing at the extension, a brief moment of silence or music-on-hold, followed by ringing at the receptionist extension. They will not hear CallExtend's Busy-Don't Answer Message, because CallExtend will no longer be involved in the call.

2. Send unanswered calls back to CallExtend after a long time of ringing. This is done by setting the phone system's Transfer Recall Timer to 45-60 seconds. The goal with this method is to set the time to a long enough value that most callers will have hung up by the time the Transfer Recall Timer sends the call back to CallExtend. CallExtend's job is to answer the call (with the Main Greeting, since it appears to CallExtend to be a new call), to allow the caller to dial again if they're still there, and to disconnect the call if there is no longer anyone there. For this to work, **CallExtend must usually be set to disconnect no-dial calls.** The reason for this is that many phone systems do not detect or pass through call abandon signals, meaning that calls will literally ring in the phone system forever unless they are answered and disconnected by an extension, in this case CallExtend.