Chapters

- Overview
- Overview Screen
- Configuring Parking Lots
- Parking Feature Codes
- Parking Pro’s “Park and Announce” Capability

Overview

This module creates and configures parking lots, sometimes referred to as parking orbits, where calls can be transferred in order to allow another extension to retrieve the calls. This ability is a form of putting a call on hold so that the intended party can retrieve the call from elsewhere. The standard module allows for the configuration of a single parking lot available to all phones on the system while the Parking Pro module allows multiple parking lots to be configured as well as other features discussed below.

When a call is parked, by transferring that call to the configured parking extension, the call is placed into one of the parking slots configured by this module and announced to the ‘parker.’ The slot can be dialed from other phones to retrieve the parked call or if the call times out and is not retrieved in a timely manner, the parked call can be configured to ring back to the parker or sent to other destinations configured in the system.

Parking can be greatly enhanced by programming a phone’s BLF buttons to the configured parking slots as well as when used in conjunction with visual tools like XactView operator panels and XML phone applications currently available on Aastra phones.

When combined with Paging Pro, Parking Pro offers a Park and Announce capability that provides a very powerful and automated way of parking a caller. Park and Announce allows for a call to be parked in conjunction with an automatic announcement sent to the configured Page Group. The parked call can then be announced to that page group with a configured message, the parking slot that the caller is parked in and an optional recorded message or name by the caller being parked. This ability can be manually triggered just like normal parking, by transferring a caller into a Park and Announce extension, or can be fully automated by directing a call flow, usually from an inbound route or IVR, to a Park and Announce destination.
Overview Screen

The Overview page simply provides some help information about parking and looks similar to below. All systems have a single default parking lot which appears on the right navigation bar and will always be proceeded by a [D]. With Parking Pro, there may be other parking lots listed as well as an option to add new lots in the right navigation bar.

Parking Lot

This module is used to configure Parking Lot(s) in Asterisk.

Simply transfer the call to said parking lot extension. Asterisk will then read back the parking lot number the call has been placed in. To retrieve the call simply dial that number back.

Example usage:
*2nn: Attended Transfer call into Park lot nnn (It will announce the slot back to you)
nn: Park Yourself into Park lot nnn (Annoucning your parked slot to you)

Configuring Parking Lots

Configuring a parking lot is substantially the same whether using the standard Parking module or with Parking Pro installed. The most important items to configure with parking are:

- **Parking Lot Extension:**
  number to transfer a call to have it parked

- **Parking Lot Starting Position:**
  first parking lot slot where a call will be retrieved

- **Number of Slots:**
  number of parking slots available in a parking lot

- **Parking Timeout:**
  how many seconds a call is allowed to be parked

- **Destination and Come Back to Origin configuration:**
  timeout call destination (device that parked the call or other destination)

These and others are further described below by way of an example. Since configuration is substantially the same between the normal Parking module and Parking Pro, we will run through the configuration of the Default Lot and at the end, we will refer to the additional configuration available with Parking Pro.

In the following example, we will configure the default parking lot with a parking extension of 70 and
8 slots starting at 71 – 78. For un-retrieved parked calls timing out at 180 second, we will have the calls returned to the device that originally parked the call with a fall back destination back to the front desk. We will go linearly down the list of options and explain how to configure them and what they do as part of this configuration.

For now, get started by clicking on the Default Lot presented in the right navigation bar:

The configuration is categorized into Parking Lot Options, Returned Call Behavior and Alternate Destination configurations, each of which are further explained as we go through the example.

- **Parking Lot Options**

  These are options associated with the configuration and operation of parking a call.

<table>
<thead>
<tr>
<th>Parking Lot Options</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking Lot Extension</td>
<td>70</td>
</tr>
<tr>
<td>Parking Lot</td>
<td>Default Lot</td>
</tr>
<tr>
<td>Parking Lot Starting Postion</td>
<td></td>
</tr>
<tr>
<td>Number of Slots</td>
<td>4</td>
</tr>
<tr>
<td>Parking Timeout (seconds)</td>
<td>45</td>
</tr>
<tr>
<td>Parked Music Class</td>
<td>default</td>
</tr>
<tr>
<td>BLF Capabilities</td>
<td>Enable, Disable</td>
</tr>
<tr>
<td>Find Slot</td>
<td>Next, First</td>
</tr>
</tbody>
</table>

- **Parking Lot Extension**
  This is the extension where a call is transferred to in order to send it to the parking lot.
  - Choose 70 for this example. This will allow you to transfer a call to extension 70 using your phone’s transfer button or other configured transfer codes on your phone. In doing such, when using an attended transfer, the parking slot where the call is to be parked is played back once successfully parked.
Parking Pro
User Guide

- **Parking Lot Name**
  This is a user-friendly name that will show up in the right navigation bar. With Parking Pro it allows you to identify different parking lots and is used in other parts of the system that may refer to parking lot information such as the Print Extensions module.

- **Parking Lot Starting Position**
  The extension or slot number of where the parked calls will be parked, in conjunction with the Number of Slots it will create a range of extensions for your parking lot. That range is displayed to the right of this extension number based on the configuration of Number of Slots.
  - Choose 71 for this example, once you have configured Number of Slots in the next option to 8 you should see the range 71-78.

- **Number of Slots**
  The total number of parking slots in this lot.
  - Choose 8 for our example.

- **Parking Timeout**
  The duration of time in seconds that a parked call will remain in the parking lot after which, if not first retrieved, the call will be automatically sent to the timeout destination configured in the Alternate Destination section.
  - Choose 180 seconds for this example.

- **Parked Music Class**
  This is the music class to play to callers while waiting in the parking lot. If a specific music class has been previously set for the caller prior to being parked, such as if the call came through a Queue that set the music, then this selection will be ignored in favor of the music class that was previously set for the call.

- **BLF Capabilities**
  Each parking slot can have an Asterisk BLF “hint” associated with the parking slot. This allows a phone to have buttons programmed to the parking slots and when a call is parked in that slot the BLF light will illuminate. If you want the hints generated you must enable this.

- **Use Next Slot**
  The typical behavior is to park the call in the first available slot. This might be particularly useful if you have 8 slots available but most phones only have BLF buttons programmed to the first couple of slots. This would maximize the frequency that all calls are parked in the first few slots. If you have a specific application where you would prefer that calls are parked into the ‘next’ available slot, such as you want to try and visualize the order that the calls were parked, you can change this value.
## Returned Call Behavior

### Returned Call Behavior

<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking Lot Extension:</td>
<td>Caller</td>
</tr>
<tr>
<td>Parking Lot:</td>
<td>Caller</td>
</tr>
<tr>
<td>Parking Lot Starting Position:</td>
<td>Caller</td>
</tr>
<tr>
<td>Number of Slots:</td>
<td></td>
</tr>
<tr>
<td>Parking Timeout (seconds):</td>
<td>Park</td>
</tr>
<tr>
<td>Parked Music Class:</td>
<td>Slot</td>
</tr>
<tr>
<td>BLF Capabilities:</td>
<td>None</td>
</tr>
</tbody>
</table>

If a call is not retrieved from the parking lot after the configured timeout duration, then the system will attempt to return the call either directly to the device that parked the call, or to a configured Destination as described below in the Alternate Destination section. The options configure both capabilities of the returned call, such as whether or not it can be parked again, as well as conditioning of the returned call such as Caller ID pre pending that may help identify the call as a timed out parked call. The options are:

- **Pickup Courtesy Tone**
  Whom to play the courtesy tone to when a parked call is retrieved.

- **Transfer Capability**
  Enables or disables the DTMF based transfer capability, usually configured as ‘#’, once the call has been picked up. This does not control the transfer capability of a phone’s transfer button unless that phone is programmed to send the DTMF code when transferring.

- **Re-Parking Capability**
  Controls whether or not either side is able to re-park a call after it has timed out.

- **Parking Alert-Info**
  Alert-Info to add to the call prior to sending the call back to the originator or alternate destination. Please see our wiki on Alert-Infos for more information on how they work and the options for different phones.
○ **CallerID Prepend**
  A string to pre-pend to the current Caller ID associated with the parked call prior to sending the call back to the originator or alternate destination. This is often used to identify where a call came from such as PRK to show us it was a Parked Call. If used in conjunction with the Auto CallerID Prepend below, this will be placed first followed by the configured Auto Caller ID.
  - In our example we will leave this blank and just use the Auto CallerID Prepend.

○ **Auto CallerID Prepend**
  This will automatically prepend specific identifying information about the parked call after a timeout. The options are:
  - **None**
    Do not auto populate a CallerID Prepend.
  - **Slot**
    The parking slot where the parked call was parked prior to the timeout.
  - **Extension**
    The user extension number who originally parked the call, if parked by a local extension on the PBX.
  - **Name**
    The name associated with the user extension number who originally parked the call, if parked by a local extension on the PBX.

○ **Announcement**
  A message that can be played to the caller prior to sending them back to the originator or alternate destination.

• **Alternate Destination**

**Alternate Destination**

<table>
<thead>
<tr>
<th>Come Back to Origin:</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Destination:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Extensions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;101&gt; 101</td>
<td></td>
</tr>
</tbody>
</table>

When a call times out, we need to configure where it should be sent. We can choose to have the call sent back to the device that parked the call, or we can choose to have it sent directly to a final destination. If we choose the former, and the device does not answer or is otherwise un-reachable, we will always resort back to the configured destination as a fall back plan and thus this should always be set to a reasonable target such as a receptionist, ring group, voicemail or similar. All the settings configured in Return Call Behavior (above) will be applied to this call prior to routing it.
Parking Pro Additional Features

Parking Pro adds a few additional features to parking lot configuration the primary one being the ability to create multiple parking lots. This can be used to create parking lots for different departments, different companies that may be sharing a PBX, private parking lots for an individual and their assistant, etc.

All the parking lots, including the default lot, can be configured as either private or public parking lots and every device is configured at the extension or device level to be associated with a specific parking lot. If not changed, they will default to belong to the default lot. When a parking lot is public, any extension may park a call to that lot by transferring the call to the configured Parking Lot Extension as already described. Furthermore, any extension on the PBX may retrieve that parked call by dialing the parking slot where the call is parked. If a lot is marked as private, then the Parking Extension and Parking Slots are ONLY usable if the given extension/device is configured with the given parking lot.

By way of example, we will configure a private parking lot for a CEO and her two assistants. This will assure that only these three people have access to this private parking lot.

There are special feature codes that can be used by any phone on the system to both park to and retrieve calls from private parking lots they are not assigned to. These are primarily designed to allow a receptionist phone to be configured to route calls to private lots or retrieve calls from private lots while generally discouraging other phones on the system from doing such.
Creating the Example Private CEO Parking Lot

- Click on the “New Parking Lot” option in the right navigation bar.

<table>
<thead>
<tr>
<th>Overview</th>
<th>General Settings</th>
<th>New Parking Lot</th>
</tr>
</thead>
</table>

- Configure this lot as we did the default lot above using 800 as our Parking Lot Extension, named CEO Park and configured as a Private Parking Lot Type.

**Parking Lot Options**

- **Parking Lot Extension:** 800
- **Parking Lot:** CEO Park

- **Parking Lot Type**

  As described, this is the type of parking lot and in this example we will make it a private lot so that only the configured phones will have access to it without using the bypass feature codes that allow it to be accessed by other phones such as a central receptionist who may need to access multiple private lots.

  **Parking Lot Type:** Private

- **Assigning Phones to the CEO Park**

  Now that we have created our CEO parking lot we need to go into the extension page of the 3 extensions who will be using this Parking Lot and assign them to this Parking Lot. This is found on the Extension or Device page:

  - **See the Device Options section**

    **Device Options**

    - **Locate the Parkinglot option and choose CEO Park**
Parking Feature Codes

Parking includes a feature code, Pickup ParkedCall Prefix, by default *85, used to retrieve ‘the next call’ from a specified lot, such as *8570 would pickup ‘the next call’ form the lot associated with parking extension 70. It can also be used with an explicit slot, such as *8571 would pickup a call from slot 71. This feature code will allow any extension to pickup the call even if the lot if a private lot and that extension is not part of the private lot. This is how a shared receptionist would have access to retrieve a call from a lot that is not theirs. If BLFs are enabled, they will be generated for each of the possible combinations. In the case of *8570 above, the BLF would be lit if there is any call available in the lot associated with pickup extension 70.

Parking Pro adds another feature code, Park Prefix, by default *86, that can be used in conjunction with the parking extension to forcefully park a call to the designated lot even if that phone normally does not have access to that lot such as a shared receptionist needing to park a call to the private CEO parkinglot. A BLF will be generated for each parking lot that has BLF enabled that will be lit if any call is parked in the associated lot.

Parking Lot

Pickup ParkedCall Prefix: 85

Please note these are global settings and not something you can enable on a per extension or per parking lot level.

Parking Pro’s “Park and Announce” Capability (requires Paging Pro)

With a licensed copy of both Park Pro and Paging Pro you gain the ability to create Park and Announce destinations. As summarized in the introduction, Park and Announce allows for a call to be parked in conjunction with an automatic announcement sent to the configured Page Group. The parked call can then be announced to that page group with a configured message, the parking slot that the caller is parked in and an optional recorded message or name by the caller being parked. This ability can be manually triggered just like normal parking, by transferring a caller into a Park and Announce extension, or can be fully automated by directing a call flow, usually from an inbound route or IVR, to a Park and Announce destination.

Park and Announce can be configured with either Public or Private parking lots but will always be publicly available for any extension to use.

Key features of Park and Announce include:
- Ability to target any configured Parking Lot
- Ability to use any configured Paging Pro page group
- Ability to override the configured parking lot’s timeout with a specific one
- Ability to automatically re-park a timeout call a set number of times
- Ability to play an announcement to the call being parked, prior to parking them, and to play a different announcement to the caller if they timeout and we automatically re-park them.
- Ability to override the parking lot’s timeout destination with a different destination
- Ability to configure a message to be played to the page group optionally including a personally recorded message by the caller being parked and the slot number where the caller is parked

An example use case of this feature is a school where you have a cleaning staff that works in the evenings but you want their family members to be able to dial into the PBX with either a special phone number or a hidden option in an IVR such as 9812. The caller would be prompted to say their name and who they are looking for. The caller would then be parked in the configured Parking Lot and a paged sent out to the configured page group announcing the call, the slot number they are parked on and the recorded message the caller created. This will allow the intended staff member who the call is for to pickup the parked call from any extension that has access to that parking lot.

Following are configuration descriptions of the Park and Announce options along with a walk through of our example.

- **Parking Pro Additional Features**

  **Park and Announce**

  This module allows you to setup and define a way to announce to a page group when callers enter a parking lot.

- **Park and Announce Options**

  **Park & Announce Options**

  | Park & Announce Extension: | 9800 |
  | Park & Announce Name: | After Hours Location Service |
  | Allow Parkee To Record a Message | Yes | No |
  | Recorded Message Length (seconds): | None |
- **Park & Announce Extension**
  Extension number used to manually transfer a caller to this Park and Announce destination.
  - Set this to 9800 for our example

- **Park & Announce Name**
  The name of this Park and Announce extension and destination. It will be displayed in the right navigation bar, the destination list of modules and other places on the system referring to this Park and Announce extension and destination.
  - Set this to After Hours Location Service for our example

- **Allow Parkee to record a Message**
  Set this to yes if you want the caller being parked to be able to record their name or other message. You can then configure the announcement to the page group to play this recorded message as part of the automated page generated under the Page Options section.
  - Set this to Yes in our example. This will allow the caller being parked to record their name and who they are looking for since so the paging staff will know who the caller is trying to reach.

- **Recorded Message Length**
  The maximum length in seconds of the recorded message described above. Although the caller can press ‘#’ to end their recording early, it is highly recommended to set a maximum recording length and indicate to the caller the maximum length as part of the announcement.
  - We set this to 10 second for our example.

### Park Options

#### Parking Lot Options

<table>
<thead>
<tr>
<th>Field</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking Lot:</td>
<td>Lot AAA</td>
</tr>
<tr>
<td>Announcement:</td>
<td>None</td>
</tr>
<tr>
<td>Enable Parking Timeout Override (seconds):</td>
<td>100</td>
</tr>
<tr>
<td>Retry Count:</td>
<td>1</td>
</tr>
<tr>
<td>Retry Announcement:</td>
<td>None</td>
</tr>
<tr>
<td>Timeout Destination:</td>
<td>Extensions &lt;1000&gt; name</td>
</tr>
</tbody>
</table>
Parking Lot
Which parking lot to send the caller to. This Park and Announce extension and destination will be available to ALL phones to park a call to, however, if the configured parking lot is a Private lot then only phones that have access to that private lot will be able to pickup the parked call.
  • We chose a lot called Lot AAA to in our example

Announcement
An optional announcement to play to the caller prior to parking them. This can be any system recording that you have setup on your PBX. This allows you to set expectations to the caller what is happening, or provide them information about what they are expected to record when prompted for a message.
  • In this example, a good option would be a message such as “please record your name and the person you are trying to reach after the beep, you will have a maximum of 10 seconds for this message or may hit # to end your recording early.”

Enable Parking Timeout Override
If un-checked, this will use the Parking Timeout configured with the chosen parking lot. If that timeout is changed, it will be reflected here. You can override that timeout by checking and configuring a unique timeout used just for this Park and Announce destination.
  • We leave this at the default in this example.

Retry Count
Configuring this to a value greater than 1 will allow the systems to automatically re-park the caller upon a timeout of the parked call. When this happens, you can play an optional Retry Announcement prior to re-parking the call. The previously configured Announcement will NOT be replayed at this time, nor will they be given a new opportunity to record another message. This will result in the parking announcement to be re-broadcast to the configured page group each time the call is re-parked.
  • Set this to 1 for our example, resulting in the Timeout Destination being called if the call is not picked up in the configured timeout period after one try.

Retry Announcement
When Retry Count is configured to 2 or more, this will play the specified system recording to the caller prior to the call being re-parked. You might configure this to a message such as: “We are still trying to locate someone for you please continue to hold”
  • We leave this blank in our example.

Timeout Destination
With Park and Announce, a timed out parked call is always sent to a destination. Unlike normal parking, the call is never ‘returned to originator.’ You can use this setting to override the configured destination of the configured Parking Lot or you can use what is configured there and if that is changed, this will track any such changes.
• In our example we will send this to extension 1000 configured on our system that has a voicemail box associated with it and will route to voicemail if not answered.

• **Park Options**

**Page Options**

<table>
<thead>
<tr>
<th>Parking Lot: Bradley</th>
<th>All Phones: Bradley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Announcement: Bradley</td>
<td>Attention-Cleaning: Bradley</td>
</tr>
<tr>
<td>Enable Parking Timeout Override (seconds): Bradley</td>
<td>Caller-Parked-In: Bradley</td>
</tr>
<tr>
<td>Retry Count: Bradley</td>
<td>None: Bradley</td>
</tr>
<tr>
<td>Retry Announcement: Bradley</td>
<td>None: Bradley</td>
</tr>
<tr>
<td>Timeout Destination: Bradley</td>
<td>PA 1</td>
</tr>
</tbody>
</table>

[Submit Changes]

- **Page Group**
  - Which page group to use to announce the Park and Announce parked call.
    - In our example we chose the All Phones page group we have already configured.

- **Page Announcement 1-3**
  - These are system recordings that can be used to assemble an automated message to be sent to the paging system. They are used in conjunction with the caller’s recorded message if configured, as well as the automatic announcement of the parking slot where the call is parked. These messages can be ordered in the Announce Order section along with the caller’s optional recording and the optional Parking Slot announcement.
    - In our example Page Announcement 1 (PA1 below) says: “Attention Cleaning staff we have parked” and Page Announcement 2 (PA2 below) says: “dial the following number from any phone to be connected with the caller”

- **Announce Order**
  - This allows the announcements (PA1, PA2 and PA3) to be assembled in conjunction with the optional Parkee Recorded message and the optional Slot number where the call is parked. You can drag and drop the components to set the order. PA1, PA2 and PA3 of the above announcements. Caller Message is the optional recorded message and Park Slot # is the slot where the call was parked.
    - In our example the resulting page will be “Attention Cleaning staff we have parked” [PA1] “this is Joe Smith trying to reach Johnny” “dial the following number from any phone to be connected with the caller” [PA2] <6001>. Where we have inserted an example recorded message of a caller being parked and <6001> is the parking slot the system parked the call on.