Call Routing with Active Directory Scripts

The following scripts are included with the Active Directory server. Performing specific functions, these scripts provide advanced call routing features based upon information contain within an Active Directory server.

### Active Directory Searchable Fields

<table>
<thead>
<tr>
<th>Function Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>control</strong></td>
<td>The control script permits the user to configure the Exchange Subscriber Access Number, the number of digit in the dialplan and enable various AD-integrated functions.</td>
</tr>
<tr>
<td><strong>fax</strong></td>
<td>Sends incoming faxes to a user's UMbox based upon information contained within AD</td>
</tr>
<tr>
<td><strong>pce4um</strong></td>
<td>For corporate-originated calls to telephone numbers listed within AD, send the caller to the appropriate UMbox is the phone call is not answered</td>
</tr>
<tr>
<td><strong>autoid</strong></td>
<td>Permits external callers to the Exchange to bypass the prompt for entering the UMbox number.</td>
</tr>
<tr>
<td><strong>pbxocs</strong></td>
<td>Permits automated routing to either OCS or PBX users based user being listed within AD.</td>
</tr>
</tbody>
</table>

### AD Entries

The Configurable Script function uses Active Directory properties to obtain user's telephone numbers. The fields that are searched include the below:

<table>
<thead>
<tr>
<th>Item</th>
<th>Script</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1</td>
<td>control</td>
</tr>
<tr>
<td>Item 2</td>
<td>fax</td>
</tr>
<tr>
<td>Item 3</td>
<td>pce4um</td>
</tr>
<tr>
<td>Item 4</td>
<td>autoid</td>
</tr>
<tr>
<td>Item 5</td>
<td>pbxocs</td>
</tr>
</tbody>
</table>
Active Directory Properties

<table>
<thead>
<tr>
<th>AD User Fields</th>
<th>Configurable Script Field Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone Number</td>
<td>telephoneNumber</td>
</tr>
<tr>
<td>E-mail</td>
<td>mail</td>
</tr>
<tr>
<td>Home</td>
<td>homePhone</td>
</tr>
<tr>
<td>Pager</td>
<td>pager</td>
</tr>
<tr>
<td>Mobile</td>
<td>mobile</td>
</tr>
<tr>
<td>Fax</td>
<td>facsimileTelephoneNumber</td>
</tr>
<tr>
<td>IP Phone Number</td>
<td>ipPhone</td>
</tr>
<tr>
<td>Communicator Number</td>
<td>msRTCSIP-Line</td>
</tr>
<tr>
<td>User Name</td>
<td>displayName</td>
</tr>
</tbody>
</table>

Enabling Configurable Scripting

The following Edit Trunk Group dialog box shows how to add a script to a Trunk Group.

Adding a Script to a Trunk Group
Adding a Script to a Trunk Group

Configuring Script Parameters

Set up each script as shown below and transmit the configuration to VX.

(see VXbuilder > General > Active Directory > Attributes for the required matching fields to search and return as shown below.

Control Script
The control script permits the user to configure the Exchange Subscriber Access Number, the number of digit in the dialplan and enable various AD-integrated functions.

FAX Script
The AD typical fields for the fax function are:

- facsimileTelephoneNumber
- telephoneNumber

pce4um Script
The AD typical fields for the pce4um function are:

- mobile
- telephoneNumber

Additional settings are for the Timer for unanswered calls and the Prefix to add to calls that use this function.

autoid Script
AD typical fields for the autoid function are:

- Mobile telephoneNumber

pbxocs Script
AD typical fields for the pbxocs function are:

- msRTCSIP-Line
- telephoneNumber

Also configured are the prefixes for calls to OCS and PBX.
When the Trunkgroup parameter is set to **Default**, the settings apply to every trunkgroup on which the Control script is installed. If the Control script, and any corresponding script, is set for a particular trunkgroup then the settings apply only to calls arriving on that trunkgroup.

### Script Details

<table>
<thead>
<tr>
<th><strong>Edit Control Script Dialog</strong></th>
<th><strong>Edit FAX Script Dialog</strong></th>
<th><strong>Edit pce4um Script Dialog</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Edit Control Script Dialog" /></td>
<td><img src="image2" alt="Edit FAX Script Dialog" /></td>
<td><img src="image3" alt="Edit pce4um Script Dialog" /></td>
</tr>
</tbody>
</table>
| 1. Removes @ip.address from Called and Calling Numbers  
2. Adds + to the Called and Calling Numbers, if not already present  
3. Process all modules, in order, if they are enabled  
   In the case of UM4Mobiles, on Ring No Answer, the control script executes a script (send2um) which forwards the caller to the appropriate UMbox.  | 1. Search AD for the Called Number using the field specified in AD Field to Search.  
2. If found, return the value stored in the field specified in AD Value to Return.  
3. Strip the returned phone number to the number of digits specified by the dial plan (Control | #DialplanDigits). This is the user's UM mailbox number.  
4. Set the diversion (redirecting number) to the UMbox number (above)  
5. Send the call to the Subscriber Access number (Control | SA#)  | 1. Search AD for the Called Number using the field specified in AD Field to Search.  
   a. If found, return the value stored in the field specified in AD Value to Return.  
      i. Obtain the user's mailbox number from the returned value.  
      ii. Set as the Redirecting/Diversion number  
2. Add the Call Route Prefix to the Called Number  
3. Set the No Answer Timeout as specified in the configuration  
4. Strip the user's UMbox number from  
5. Place the call  
6. If there is no answer within the No Answer Timeout  
   a. Initiate the send2um module  
   b. Removes @ip.address from called and calling numbers  
   c. Sends the call to the Exchange Subscriber's Access  
   d. Uses user UMbox number obtain by the pce4um script |
### Edit autoid Script

**Dialog**

1. Search AD for the Called Numbing using the field specified in AD Field to Search.
2. If found, return the value stored in the field specified in AD Value to Return.
3. Set the Calling Number to the returned value
4. Send the call to the Exchange Subscriber's Access Number

### Edit pbxocs Script

**Dialog**

1. The called number is adjusted to include telephone number
2. Search AD for the Called Numbing using the field specified in AD Field to Search.
   a. If found, return the value stored in the field specified in AD Value to Return.
      i. The specified OCS Call Route Prefix is added the calling number
         ### The call is placed to the OCS user
   b. If the Called Number is not found in AD
      i. The specified PBX Call Route Prefix is added to the calling number
      ii. The call is placed to the PBX (minus the tel:-/)

**Note:** For this module, the AD Field to Search must be set to msRTCSIP-Line.