



# **Avaya Contact Center Control Manager Visual Call Flow Designer User's Guide**

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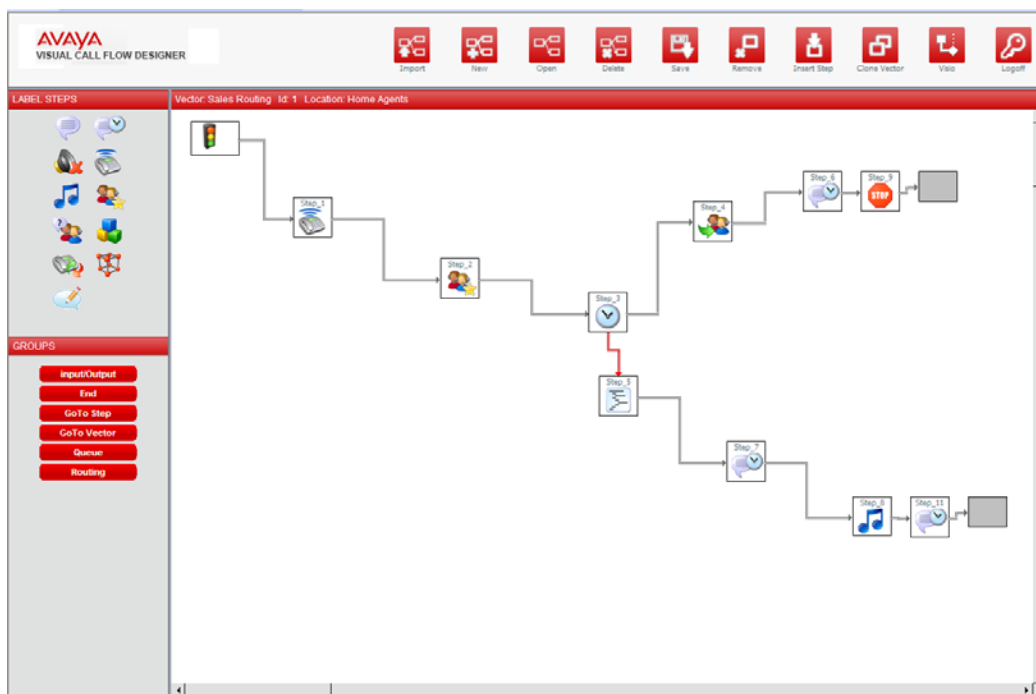
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## Visual Call Flow Designer

AVAYA CONTACT CENTER CONTROL MANAGER® Administration includes a visual call flow designer that allows users to design vectors that reside within the Call Center Software on an Avaya Communication Manager (CM) instance with a web based graphical tool that is wrapped by the AVAYA CONTACT CENTER CONTROL MANAGER security engine.



The call flow designer allows designing any vector that can be built through the AVAYA Site Administration (ASA) tool with an easy to use drag and drop interface.

Each one of the vectors commands (*queue-to*, *route-to*, *announcement* and etc) is managed through the AVAYA CONTACT CENTER CONTROL MANAGER internal security and engine and has “Insert/update/delete” permissions, a thing that allows providing users with permissions only to relevant steps/actions in specific vectors.

The call flow designer is accessible from the AVAYA CONTACT CENTER CONTROL MANAGER administrative screen or by a direct URL (Uniform Resource Locator). Simply use the same username and password for the visual call flow designer and for AVAYA CONTACT CENTER CONTROL MANAGER Administration.

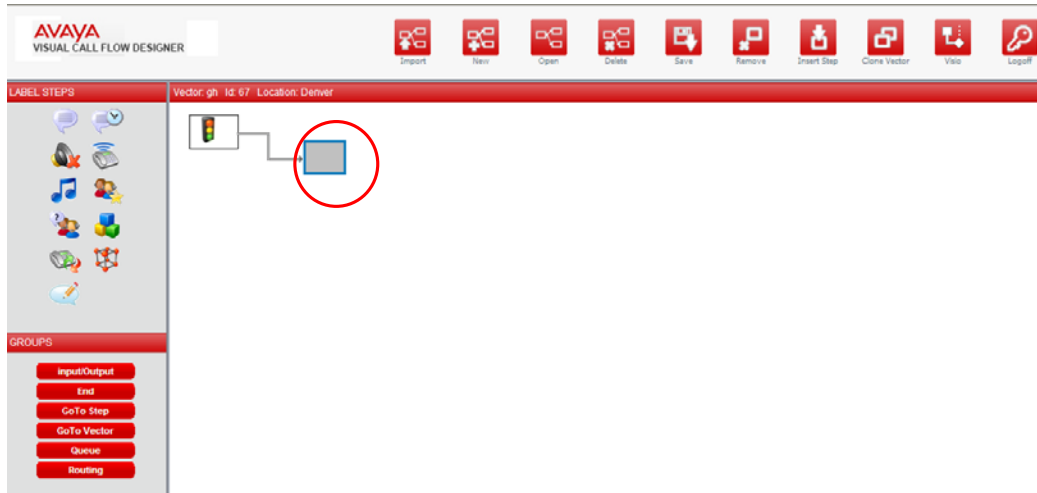
**Note: In some version of Microsoft Internet Explorer (I.E.) you might need to click on the F11 button after login process has complotted in order to be able to see the entire User Interface (U.I.). Some tabs and options may be hidden due to screen resolution.**

The top toolbar buttons allow you to:



- Import Vector
- Create a New Vector
- Open a Saved Vector from the ACCCM Database
- Delete a Saved Vector
- Save a Vector
- Remove a Vector Step
- Insert Step
- Clone Vector
- Export Vector to Visio
- Logoff

To create a new vector click on the “new” action button and simply drag and drop the vector step icons into the grey placeholder or placeholders available.



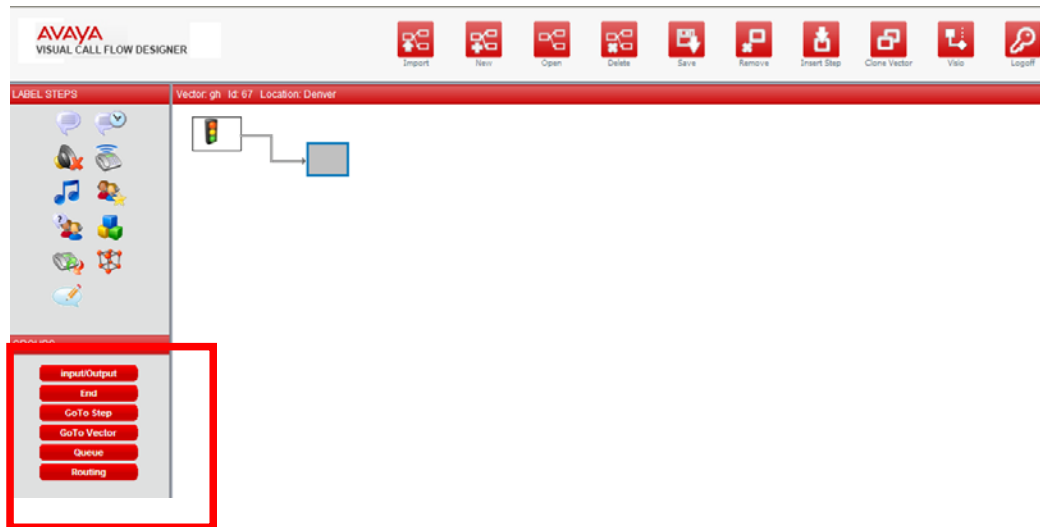
Subsequent placeholders will become available as the vector's flow is being constructed.

Also, by *right-clicking on a vector step* you can edit its properties.

## Step Groups

The different vector steps that might be used inside a vector are grouped into groups based on their characteristics.

In the left bottom side of the screen you can find the following groups:





















## Vector Step Types









Group	Step type	Icon	CM Vector step
Group Name	Description of Command Line Activity		
Input/output	Announcement		
End	The “end” group includes all steps that are closing a routing rule (such as <i>stop</i> )		
Test	The “test” group includes steps that require a decision in the vector. This creates a junction		
Queue	The “queue” group includes all the steps that queue the calls in the vector		
Routing	The “routing” group includes all the steps that performs the “ <i>route-to</i> ” and “ <i>messaging</i> ” commands		

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Input/Output	Announcement		<i>Announcement XXXXXX</i>
	Time Announcement		<i>Wait X seconds hearing XXXXX (announcement number) then _____</i>
	Silence		<i>Wait X seconds hearing silence</i>
	Ringback		<i>Wait X seconds hearing ringback</i>
	Music		<i>Wait X seconds hearing music</i>
	Reply		<i>Reply-best (disabled in version 2.1 of AVAYA CONTACT CENTER CONTROL MANAGER)</i>
	Consider		<i>Consider skill/location ____ pri X adjust by Y</i>
	Collect		<i>Collect X digits after announcement XXXXXX for ____ (variable)</i>
	Converse		<i>Converse on skill ____ pri _ passing ____ (parameter) and ____ (parameter)</i>
	Set		<i>Set ____ (variable) = ____ (variable/operator) ADD ____ (variable/operator)</i>
End	Stop		<i>Stop</i>

	Busy		<i>Busy</i>
	Disconnect		<i>Disconnect after announcement ____ (number/none)</i>
	Return		<i>Return</i>
Test	Caller Info		<i>Go to step X if ani/digits/iidigits ____(=,&lt;,&gt;...) ____ (number or variable)</i>
	Time of Day		<i>Go to step X if time of the day is X to Y</i>
	Holiday		<i>Go to step X if holiday in table ____ (number of holiday table)</i>
	Server		<i>Go to step X if server ____ (=,&lt;,&gt;) ____ -(main/ess/lsp)</i>
	Variable		<i>Go to step X if ____ (variable) ____(=,&lt;,&gt;,&lt;...) ____ (variable/numer)</i>  <i>Or</i>  <i>Go to step X if ____ (variable) ____ (in/not in) ____ (table number)</i>
	Media Gateway / Port- Network		<i>Go to step X if server ____ (=,&lt;,&gt;) ____ (Main/ESS/LSP)</i>

	Agent Activity		Go to step X if ____ ( available agents / staffed agents) ____ (=,<>,<... ) ____ (variable/number)
	Center Info		Go to step X if ____ ( count calls / expected wait / rolling asa) ____ (to/in) ____ (=,<>,<... ) ____ (variable/number)
	Queue Activity		Go to step X if ____ ( rolling-asa/calls queued/ interflow –qpos / oldest call waiting / wait imporved) ____ (=,<>,<... ) ____ (variable/number)
	Unconditional Go-To		Go to step X unconditionally
Queue	Agent Activity		Check skill X if ____ ( available agents / staffed agents) ____ (=,<>,<... ) ____ (variable/number)
	Unconditionally		Queue the call to a skill unconditionally
	Queue Activity Step		Check X if ____ ( rolling-asa/calls queued/ interflow –qpos / oldest call waiting / wait imporved) ____ (=,<>,<... ) ____ (variable/number)
	Center Info		Check skill X if ____ ( count calls / expected wait / rolling asa) ____ (to/in) ____ (=,<>,<... ) ____ (variable/number)

## Announcement step

Provides the caller with a recorded announcement.

Properties of Announcement -- Webpage Dialog

http://172.16.7.171/accmvv/(S(ywjuucnlghukn2q55qxt245))/PropertyP.

Announcement Step

Step\_1

Announcement: Extension

Extension: [ ] ?

Comment: [ ]

OK Cancel

- Enter a valid announcement extension that is within the CM's dial plan being aware that announcements extensions can range from 3 to 7 digits in length. This 7-digit maximum size is enforced if vectoring is active.

When the caller will reach this step they will hear the full announcement and only after the announcement finishes they will move to the next vector step. It is generally a good idea to denote within comments the length of the announcement used.

## Timed Announcement step

Provides the caller with a recorded announcement for the defined time period

Properties of Timed Announcement -- Webpage Dialog

http://172.16.7.171/accmvv/(S(ywjuucnlghukn2q55qxt245))/PropertyP.

Timed Announcement Step

Step\_2

Measure: secs

Time:

Announcement: Extension

Extension:

Treatment: continue

Comment:

OK Cancel

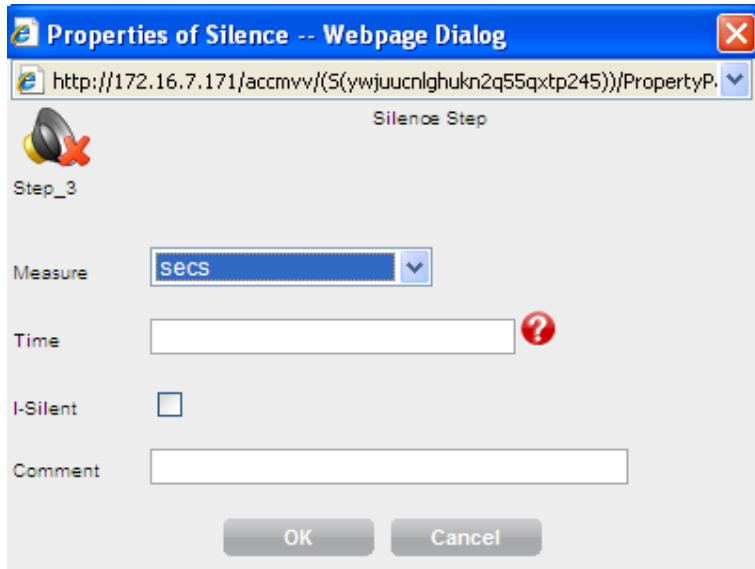
- Enter a valid announcement extension.
- Enter length of announcement in seconds
- Select the treatment (continue/music/ringback/silence)

When the caller reaches this step they will start to hear the announcement which will end after the defined time (the announcement will stop even in the middle) and

then the call will be treated based on the treatment selected. The use of continue will move the caller to the next step.

## Silence

Plays silence.

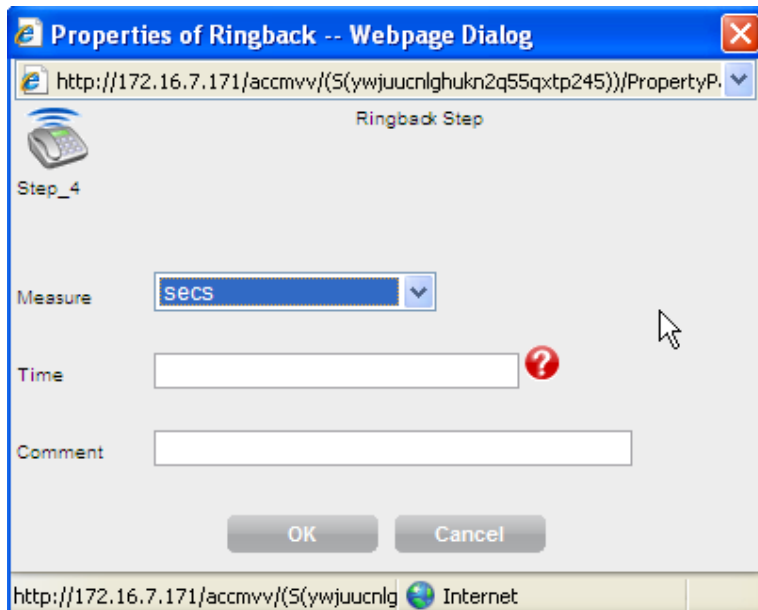


- Enter length in seconds

The caller will hear silence for the duration of the defined time.

## Ring back

Plays ringback tone.



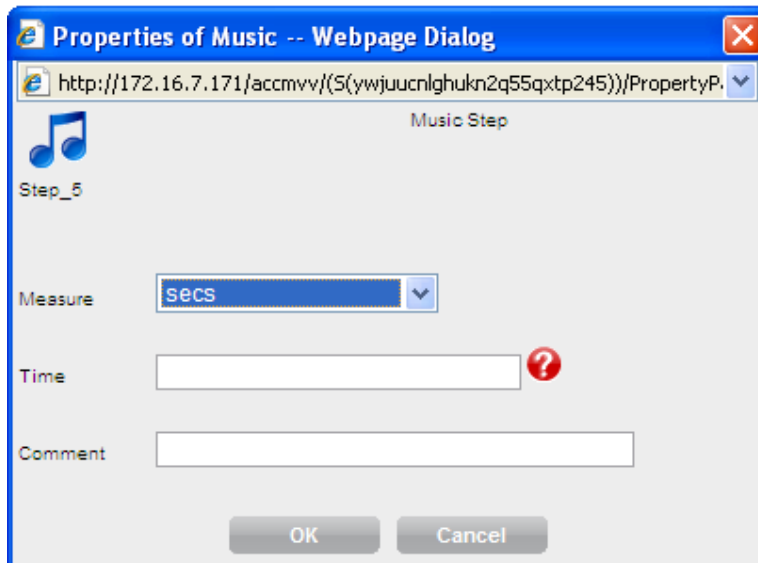
- Enter length in seconds

The caller will hear ringback for the duration of the defined time.



## Music

Plays music (as defined in the Communication Manager).



- Enter length in seconds

The caller will hear music for the duration of the defined time.

## Consider

The *consider* command defines the resource (skill or location) that is checked as part of a Best Service Routing (BSR) consider series and obtains the data that BSR uses to compare resources. After the consider series has been executed, a *queue-to best* or *check-best* command can queue the call to the "best resource" that has been identified (for more information please refer to the Avaya Call Vectoring Guide).

Properties of Consider -- Webpage Dialog

http://172.16.7.171/accmvv/(5(ywjuucnlghukn2q55qxtp245))/PropertyP.

Consider Step

Step\_7

Measure: Skill

Skill: First

Skill Id:

Priority: High

Location:

Adjustment:

Comment:

OK Cancel

Select Measure = skill or location

In case skill is selected:

- Select either 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> skill (VDN skills) or the direct Skill id
- If Skill ID is selected then you will have to select from the skill ID list (as defined in AVAYA CONTACT CENTER CONTROL MANAGER).
- Select the skill priority

In case location is selected:

- Select the location number

### Adjustment

You may have preferences as to which skills should answer certain types of arriving ACD calls. In Call Center Elite which includes both Single-Site Best Service Routing (BSR) and Multi-Site Best Service Routing BSR, the *adjust-by* portion of the *consider* command allows you to program these preferences into your vectors. (for more information please refer to the Avaya Call Vectoring Guide).

## Collect

The collect digits command allows the user to enter up to 16 digits from a touch-tone phone as well as allowing vector to retrieve Caller Information Forwarding (CINFO) digits from the AT&T network. CED is the acronym for Call Entered Digits and CDPD is the acronym for Customer Date Provided Digits.

Source - *digits /ced/cped*

CED is the acronym for Call Entered Digits and CDPD is the acronym for Customer Date Provided Digits.

Number of digits – the quantity of digits the system will store

Annulment = which announcement will be played before the digits collection. Enter a valid message extension from the CM's dial plan.

For – where to store the collected digits (none/variable)

## **Converse**

Voice Response Integration (VRI) allows integration of Call Vectoring with the capabilities of voice response units (VRUs), particularly the Avaya Interactive Response (IR) or a newer Avaya Voice Portal (AVP) system (for more information please refer to the Avaya Call Vectoring Guide).

**Properties of Converge -- Webpage Dialog**

http://172.16.7.171/accmvv/(5(ywjuucnlghukn2q55qxt245))/PropertyP.

Converge Step

Step\_9

Skill: First

Skill Id:

Priority: High

Passing: none

Data: ?

Variable: ?

Passing: none

Data: ?

Variable: ?

Comment:

OK Cancel

In case skill is selected:

- Select either 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> skill (VDN skills) or the direct Skill id (number).
- If Skill ID is selected then you will have to select from the skill ID list (as defined in AVAYA CONTACT CENTER CONTROL MANAGER).
- Select the skill priority

Passing Data with Converse-On:

Select what data to pass as part of the *converse-on* step in vectoring. There are several types of data that can be passed:

- VDN (Vector Directory Number)
- ANI (Automatic Number Identification)
- QPOS (Queue Position)
- WAIT

In case data is selected then you can enter manually the data required in the data field.

In case variable is selected you can enter which variable to pass



## Set

The *set* vector command can do the following tasks:

- ❑ Perform numeric and digit string operations
- ❑ Assign values to a user-assignable vector variable or to the digits buffer during vector processing

Properties of Set -- Webpage Dialog

http://172.16.7.171/accmvv/(5(ywjucnlghukn2q55q5xtp245))/PropertyP.

Set Step

Step\_10

Digits/Variable

Operand 1

Operator: ADD

Operand 2

Comment

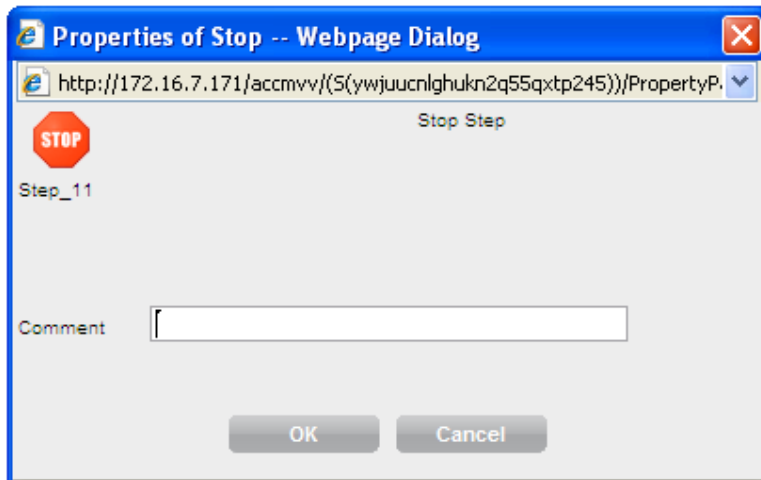
OK Cancel

- Digits/variable - enter a digit or a variable
- Operand 1 – enter *digits/none/variable*
- Operator (select action)

- Operand 2 – enter *digits/none/variable*

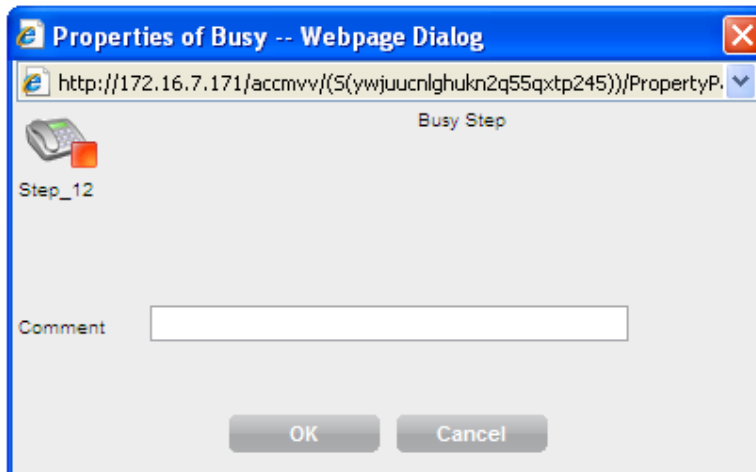
## Stop

The *stop* command halts the processing of any subsequent vector steps.



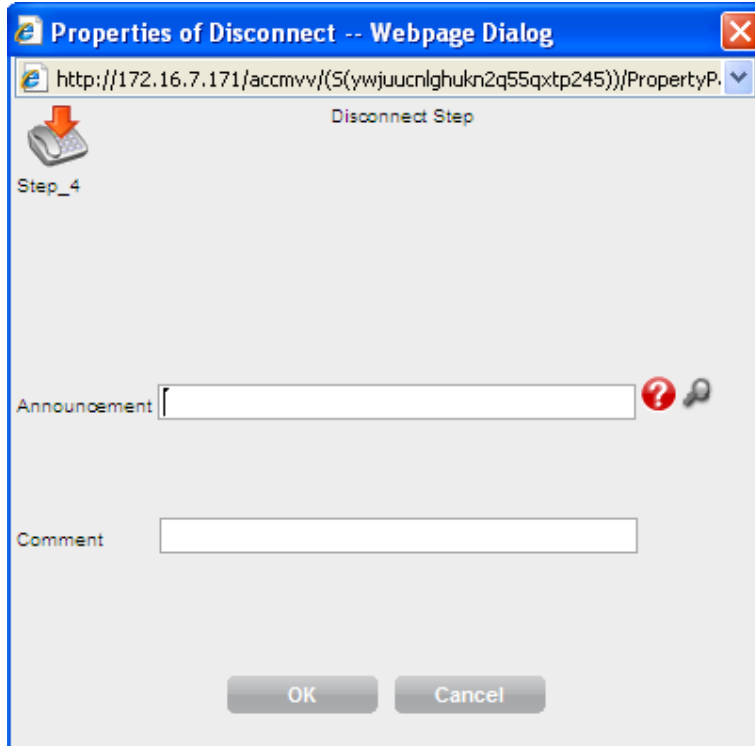
## Busy

The *busy* command gives the caller a busy signal and causes termination of vector processing.



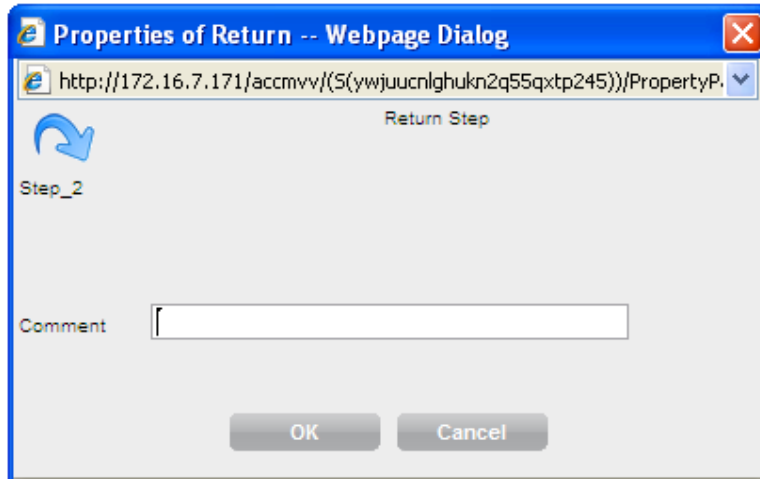
## Disconnect

The *disconnect* command ends treatment of a call and removes the call from the Avaya Communication Manager (switch). Also allows the optional assignment of an announcement that will play immediately before the *disconnect* command.



## Return

The *goto vector* command can invoke a subroutine call. After the subroutine has processed, the *return* command returns vector processing to the step following the *goto vector* command.

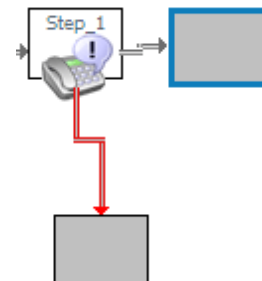


## Caller Info

Allows the user to make a decision in the vector based upon the caller info details.

This step generates a junction in the vector with an “IF” decision

- Measure – *ANI, Digits, Information Indicator (II) Digits*
- Compare – select an action
- Threshold - enter a threshold



## Caller Info – go to vector

Allows the user to make a decision in the vector based upon the caller info details.

This step generates a junction in the vector with an “IF” decision

- Measure – *ANI, Digits, II-Digits*
- Compare – select an action
- Threshold - enter a threshold
- Vector ID – the vector number that the call will be routed to

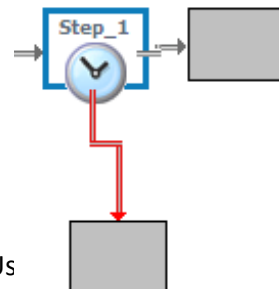


## Time of the day

Allows the user to make a decision in the vector based on the time-of-day.

This step generates a junction in the vector with an “IF” decision

- start day – select the *day-of-week* or “*all*” for all days
- Start time
- Finish day – select the *day-of-week* or “*all*” for all days
- Finish time







## Time of Day – go to vector

Allows the user to make a decision in the vector based upon time-of-day.

This step generates a junction in the vector with an “IF” decision

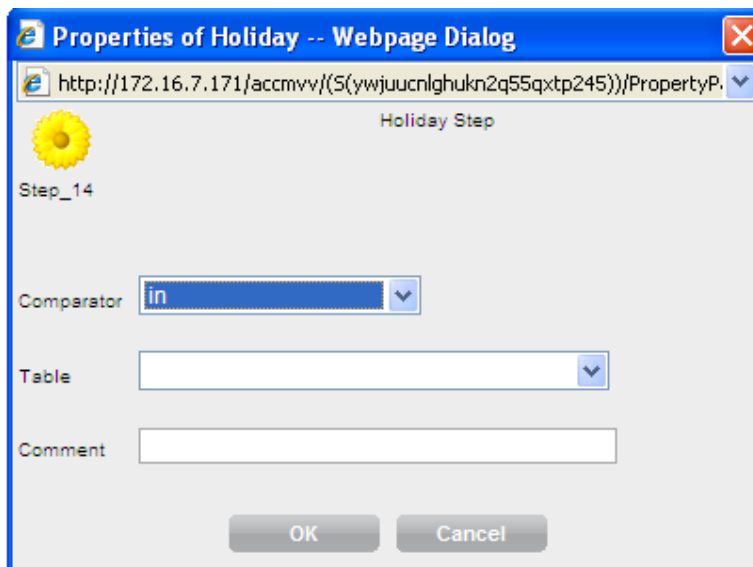
- start day – select the *day-of-week* or “*all*” for all days
- Start time
- Finish day – select the *day-of-week* or “*all*” for all days
- Finish time
- Vector id = the vector number that call will be routed



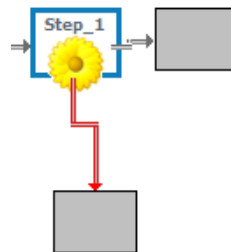
## Holiday

Allows the user to make a decision in the vector based contents in the Holiday Table based within the Communication Manager.

This step generates a junction in the vector with an “IF” decision



- Comparator – select either “in” or “not in”
- Table – CM Holiday Table number



## Holiday – go to vector

Allows the user to make a decision in the vector based upon contents in the Holiday Table within the Communication Manager.

This step generates a junction in the vector with an “IF” decision

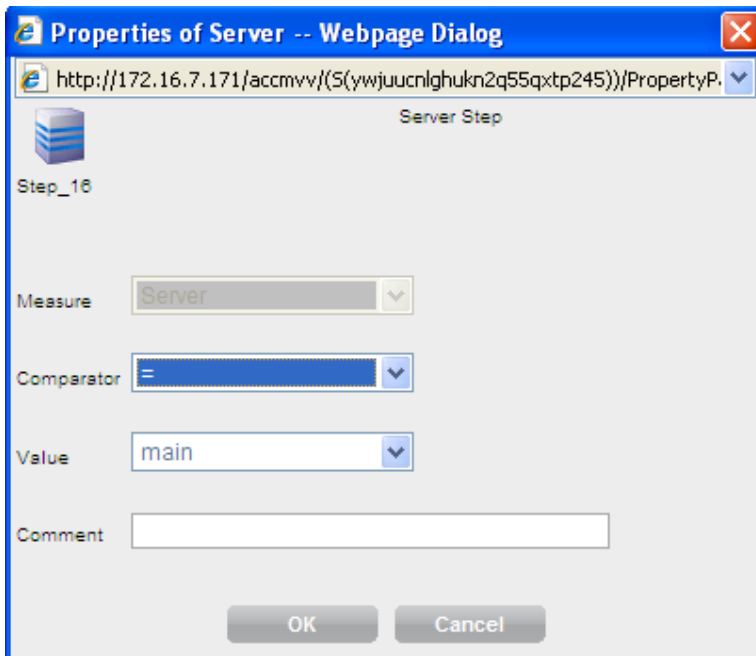
- Comparator – select either “in” or “not in” as in "in table" or " not in table"
- Table – CM holiday table number
- Vector id = the vector number that the call will be routed to



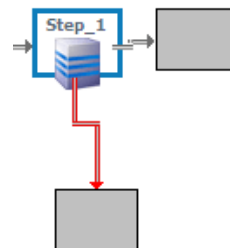
## Server

Allows the user to make a decision in the vector based on the type of Avaya Server that is actually handling the call.

This step generates a junction in the vector with an “IF” decision



- Comparator = either = or <>
- Value = *Main* / *ESS* (Enterprise Survivable Server) / *LSP* (Local Survivable Server)



## Server – go to vector

Allows the user to make a decision in the vector based on the type of Avaya Server that handles the call.

This step generates a junction in the vector with an “IF” decision

- Comparator = either = or <>
- Value = *Main / ESS / LSP*
- Vector id = the vector number that the call will be routed to

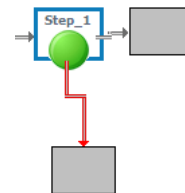


## Variable

Allows the user to make a decision in the vector based on the type of Avaya Server that is handling the call.

This step generates a junction in the vector with an “IF” decision

- Variable - is a variable within the Call Center Elite Software residing on the Avaya Communication Manager
- Comparator – select a comparator , in case “in” or “not in” are selected the table field will become active and a valid CM table should be selected (instead of a threshold)
- Threshold – select either a variable or a number



## Variable – go to vector

Allows the user to make a decision in the vector based on the type of Avaya Server that is handling the call.

This step generates a junction in the vector with an “IF” decision

- Variable - variable found within the Elite software on the CM
- Comparator – select a comparator , in case “in” or “not in” are selected the table field will become active and a valid CM table should be selected (instead of a threshold)
- Threshold – select either a variable or a number
- Vector id = the vector number that the call will be routed to





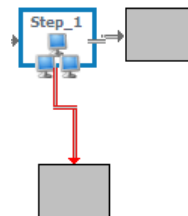


## Media gateway / port network

Allows the user to make a decision within the vector based on the media gateway or port network that handles the call.

This step generates a junction in the vector with an “IF” decision

- Measure = select either a *port-network* or a *media-gateway*
- Value = enter the number of a port-network or media-gateway
- Comparator = select a valid comparator



## Media gateway / port network – go to vector

Allows the user to make a decision within the vector based upon the media-gateway or the port- network that handles the call.

This step generates a junction in the vector with an “IF” decision

- Measure = select either a port network or a media gateway
- Value = enter the number of a port network or media gateway
- Comparator = select a valid comparator
- Vector id = the vector number that the call will be routed to

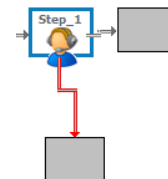


## Agent activity

Allows the user to make a decision in the vector based on the agent staffing activity.

This step generates a junction in the vector with an “IF” decision

- Measure – select either *available agents* or *staffed agents*
- Select either 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> skill (VDN skills) or the direct skill id
- If Skill ID is selected then you will have to select from the skill ID list (as defined in AVAYA CONTACT CENTER CONTROL MANAGER).
- Select the skill priority
- Comparator = select a valid comparator
- Select a threshold



- Vector id = the vector number that the call will be routed to

### Agent activity - go to vector

Allows the user to make a decision in the vector based on the agent staffing activity.

This step generates a junction in the vector with an “IF” decision

**Properties of Agent Activity -- Webpage Dialog**

http://172.16.7.171/accmvv/(S(rmkrcw31d5i54a45tb0fdojc))/PropertyPa

Agent Activity Step

Step\_8

Vector ID

Vector ID

Step

Measure available-agents

Skill First

Skill Id

Comparator =

Threshold

Comment

OK Cancel

- Measure – select either *available agents* or *staffed agents*
- Select either 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> skill (VDN skills) or the skill id
- If Skill ID is selected then you will have to select from the skill ID list (as defined in AVAYA CONTACT CENTER CONTROL MANAGER).
- Select the skill priority



- Comparator = select a valid comparator
- Select a threshold

## Center Info

Allows the user to make a decision in the vector based upon call center statistics.

This step generates a junction in the vector with an “IF” decision

**Properties of Center Info -- Webpage Dialog**

http://172.16.7.171/accmvv/(S(ywjuucnlghukn2q55qxtp245))/PropertyP.

Center Info Step

Step\_23

Measure: counted-calls

Skill:

Skill Id:

Priority: High

VDN: Active

Extension:

Compare: <

Threshold:

Comment:

OK Cancel

- Measure :

Measure Value	Required Field
---------------	----------------

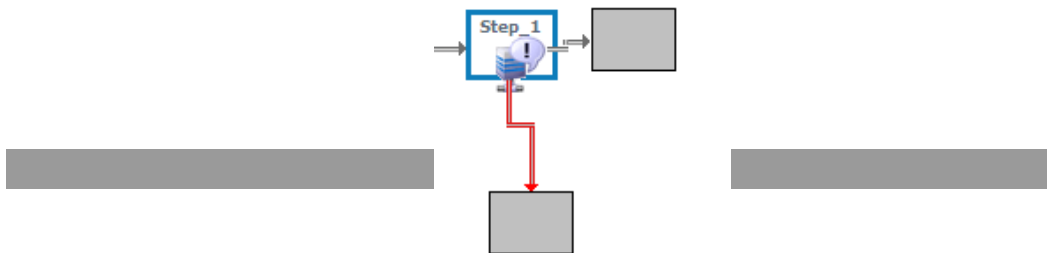
Counted calls	VDN
Expected Wait Time (EWT)	Skill
Rolling-VDN	VDN

Skill:

- Select either 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> skill (VDN skills) or the direct Skill Id
- If Skill ID is selected then you will have to select from the skill ID list (as defined in AVAYA CONTACT CENTER CONTROL MANAGER).

VDN:

- Active – current VDN
- Latest – the previous VDN
- Extension – enter an extension in the extension field



## Center Info – go to vector

Allows the user to make a decision in the vector based on call center statistics.

This step generates a junction in the vector with an “IF” decision

The screenshot shows a 'Properties of Center Info -- Webpage Dialog' window. The title bar indicates the URL: http://172.16.7.171/accmvv/(5(rmkrcw31d5154a45tb0fdojc))/PropertyPa. The dialog is for a 'Center Info Step' and contains the following fields:

- Vector: ID
- Vector ID: [dropdown]
- Step: [dropdown]
- Measure: counted-calls
- Skill: [dropdown]
- Skill Id: [dropdown]
- Priority: High
- VDN: Active
- Extension: [text field] (with a red question mark icon)
- Compare: <
- Threshold: [text field] (with a red question mark icon)
- Comment: [text field]

At the bottom are 'OK' and 'Cancel' buttons.

- Measure :

Measure Value	Required Field
Counted calls	VDN
Expected wait time (EWT)	Skill
Rolling-VDN	VDN



Skill:

- Select either 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> skill (VDN skills) or the Skill Id
- If Skill ID is selected then you will have to select from the Skill ID list (as defined in AVAYA CONTACT CENTER CONTROL MANAGER).

VDN:

- Active – current VDN
- Latest – the previous VDN
- Extension – enter an extension in the extension field



## Queue Activity

Allows the user to make a decision in the vector based on queue statistics.

This step generates a junction in the vector with an “IF” decision

Properties of Queue Activity -- Webpage Dialog

http://172.16.7.171/accmvv/(S(ywjucnlg hukn2q55q xtp245))/PropertyP.

Queue Activity Step

Step\_25

Measure: rolling-asa

Skill: First

Skill Id:

Priority: High

Comparator: >

Threshold:

Comment:

OK Cancel

- Measure – *Rolling asa, calls queued, interflow-qpos, oldest call waiting, wait improved*
- Select either 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> skill (VDN skills) or the skill id
- If Skill ID is selected then you will have to select from the skill ID list (as defined in AVAYA CONTACT CENTER CONTROL MANAGER).
- Comparator = select a valid comparator

- Select a threshold

## Queue Activity – go to vector

Allows the user to make a decision in the vector based on queue statistics.

This step generates a junction in the vector with an “IF” decision

**Properties of Queue Activity -- Webpage Dialog**

http://172.16.7.171/accmvv/(S(rmkrrwc31d5i54a45tb0fdojc))/PropertyPa

Queue Activity Step

Step\_1

Vector: ID

Vector ID: [empty]

Step: [empty]

Measure: rolling-asa

Skill: First

Skill Id: [empty]

Priority: High

Comparator: >

Threshold: [empty]

Comment: [empty]

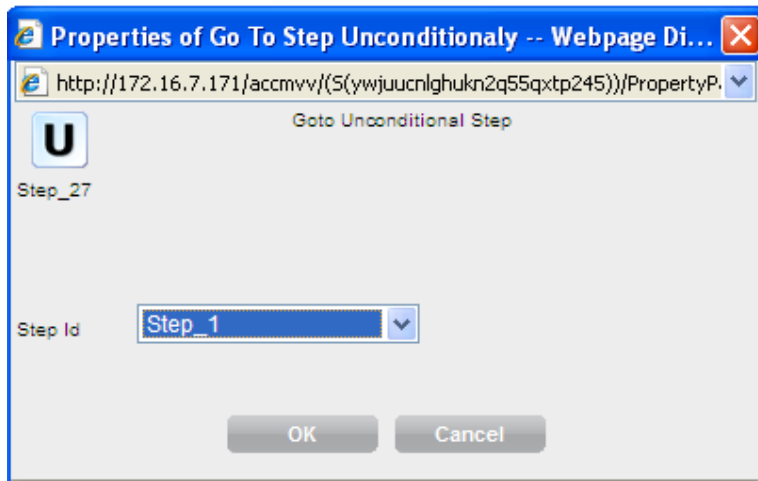
OK Cancel

- Measure – *Rolling asa, calls queued, interflow-qpos, oldest call waiting, wait improved*
- Select either 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> skill (VDN skills) or the skill id
- If Skill ID is selected then you will have to select from the skill ID list (as defined in AVAYA CONTACT CENTER CONTROL MANAGER).
- Comparator = select a valid comparator
- Select a threshold



## Go to step unconditionally

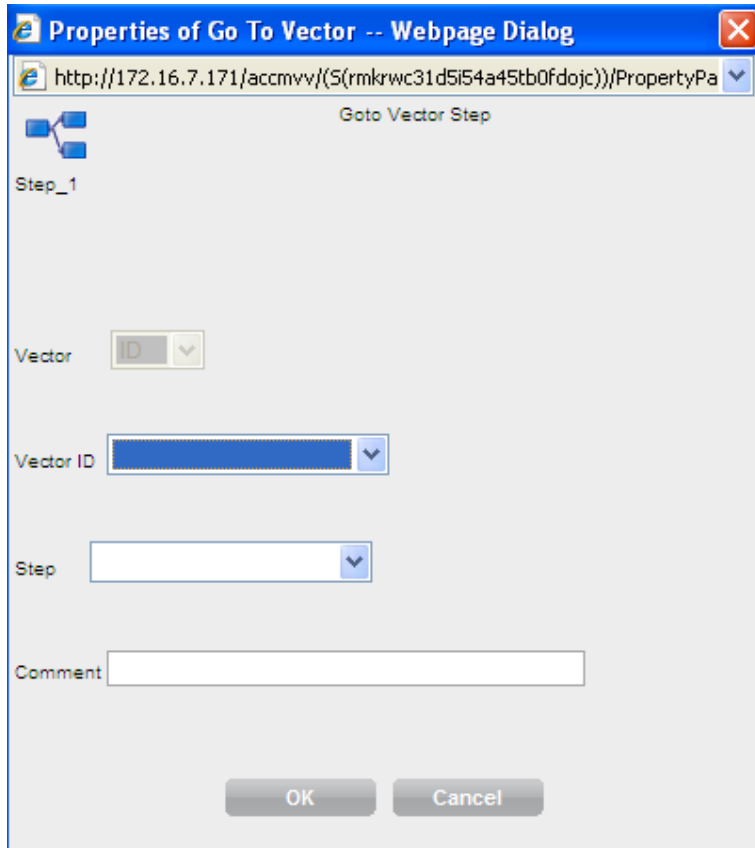
This step moves the call to another vector step *unconditionally*



Select a step from the selection menu.

## Go to vector unconditionally

This step moves the call to another vector step *unconditionally*



The image shows a dialog box titled "Properties of Go To Vector -- Webpage Dialog". The address bar at the top contains the URL "http://172.16.7.171/accmvv/((5(rmkrrwc31d5i54a45tb0fdojc)))/PropertyPa". Below the address bar, there is a small icon of two connected boxes and the text "Goto Vector Step". The main area of the dialog contains the following fields:

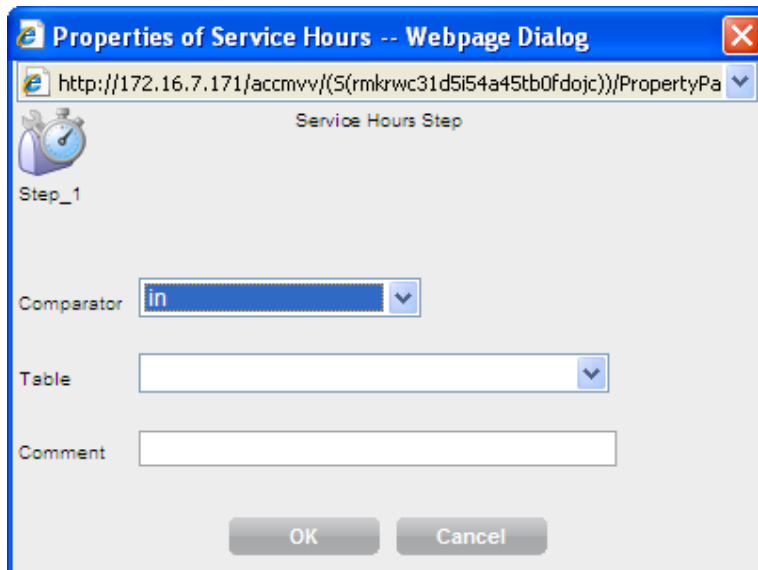
- Vector**: A dropdown menu with "ID" selected.
- Vector ID**: A text input field with a blue dropdown arrow on the right.
- Step**: A text input field with a blue dropdown arrow on the right.
- Comment**: A text input field.

At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

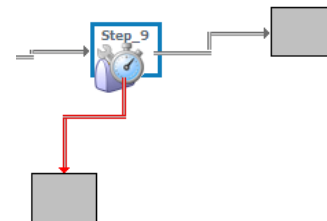
Select a step from the selection menu.

## Service hours

This step moves the call to another vector step based on information within the selected Service Hours Table.



- Comparator = select a valid comparator
- Select the appropriate *service hours table*



**Service hours – go to vector**

This step moves the call to another vector step based upon within the service hours table

Properties of Service Hours -- Webpage Dialog

http://172.16.7.171/accmvv/(S(rmkwrc31d5i54a45tb0fdojc))/PropertyPa

Service Hours Step

Step\_1

Vector ID

Vector ID

Step

Comparator in

Table

Comment

OK Cancel

- Vector id = The four digit number of the vector that the call will move to
- Step = The Step Number (ranging from 1-99) that the call will start from
- Comparator = select a valid comparator
- Select the desired *service hours table*



## Agent activity

Checks the status of a skill/split for possible termination of the call to that skill (or possibly, split).

**Properties of Agent Activity -- Webpage Dialog**

http://172.16.7.171/accmvv/(S(rmkrrwc31d5f54a45tb0fdojc))/PropertyPa

Agent Activity with skill level Step

Step\_13

Measure: available-agents

Skill: First

Skill Id:

Priority: Low

Comparator: >

Threshold: ?

Level Type: all-levels

Skill Level: ?

Comment:

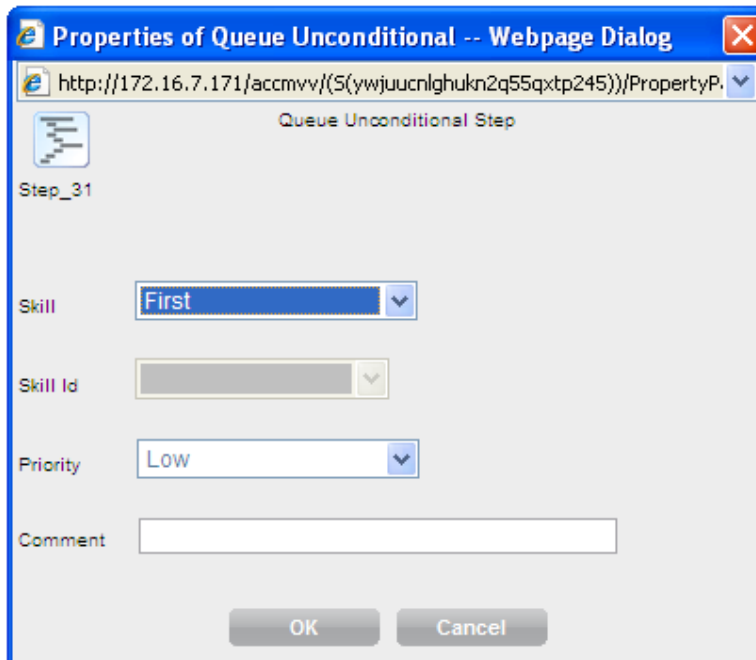
OK Cancel

- Measure – select either *available agents* / *staffed agents*
- Select either 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> skill (VDN skills) or the direct Skill Id
- If Skill ID is selected then you will have to select from the skill ID list (as defined in AVAYA CONTACT CENTER CONTROL MANAGER).
- Comparator = select a valid comparator
- Select a threshold



## Queue unconditionally

Inserts the call to a *queue unconditionally*.



- Select either 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> skill (VDN skills) or the direct Skill Id.
- If Skill ID is selected then you will have to select from the skill ID list (as defined in AVAYA CONTACT CENTER CONTROL MANAGER).
- Priority

## Queue activity

Checks the status of a skill or split for possible termination of the call to that skill or split.

**Properties of Queue Activity -- Webpage Dialog**

propertyPages/QueueAcc.aspx?id=Step\_32&readonly=false&location=16

Queue Activity Step

Step\_32

Measure: rolling-asa

Skill: First

Skill Id:

Priority: High

Comparator: <

Threshold:

Comment:

OK Cancel

- Measure – select either *rolling-asa*, *calls queued*, *oldest call waiting*, *wait improved*
- Select either 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> skill (VDN skills) or the Skill Id
- If Skill ID is selected then you will have to select from the skill ID list (as defined in AVAYA CONTACT CENTER CONTROL MANAGER).
- Comparator = select a valid comparator
- Select a threshold

## Center info

Checks the status of a skill or split for possible termination of the call to that skill or split.

Properties of Center Info -- Webpage Dialog

http://172.16.7.171/accmvv/(5(ywjucnlghukn2q55qxt245))/PropertyP

Center Info Step

Step\_33

Measure: available-agents

Skill: First

Skill Id:

Priority: High

Threshold:

Comment:

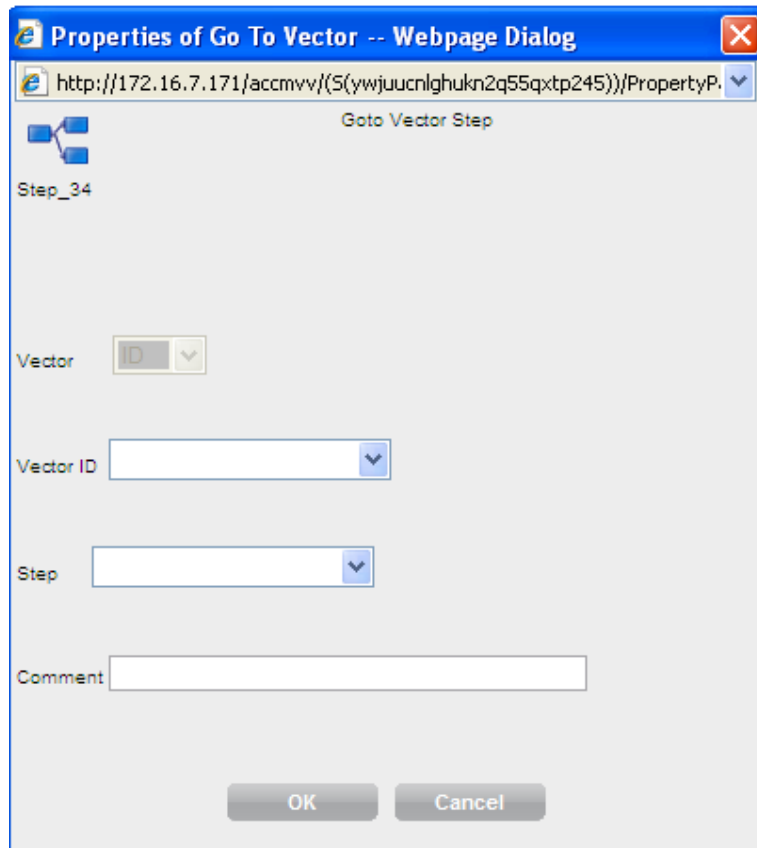
OK Cancel

- Measure – *expected wait time*
- Select either 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> skill (VDN skills) or the skill id
- If Skill ID is selected then you will have to select from the skill ID list (as defined in AVAYA CONTACT CENTER CONTROL MANAGER).
- Comparator = select a valid comparator
- Select a threshold



## Go to Vector Step

Moves the call to another vector.



- Vector ID – select a valid vector number
- Step – select to which step number (ranges from 1 to 99) in the vector that the call will start with

Show vector button- when editing a vector this button allows us to jump directly to a vector in the *route-to vector* command

## Route to number

Routes the call directly to another number (extension, vdn, skill/hunt group or any valid internal / external number)

The screenshot shows a web-based dialog box titled "Properties of Route To Number -- Webpage Dialog". It contains the following fields and controls:

- Number:** A text input field with a red question mark icon to its right.
- Coverage:** A dropdown menu currently set to "Yes".
- Condition:** A dropdown menu currently set to "Unconditionally".
- Comparator:** A dropdown menu.
- Threshold:** A text input field with a red question mark icon to its right.
- Comment:** A text input field.
- Buttons:** "OK" and "Cancel" buttons at the bottom.

Number – the number that the call will be routes to

Coverage – *yes / no*

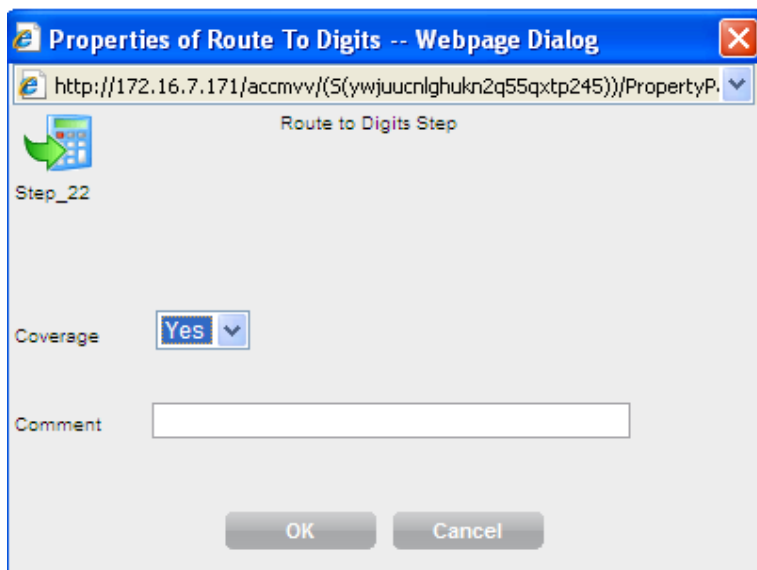
Condition:

Condition	Result
Unconditionally	The call will be routed when it arrives to this step in the vector
Digits	If digits are selected then a comparator can be applied and a threshold must be set.
Interflow-qpos	If Interflow-qpos (queue position) is selected then a comparator can be applied and a threshold must be set.



## Route to digits

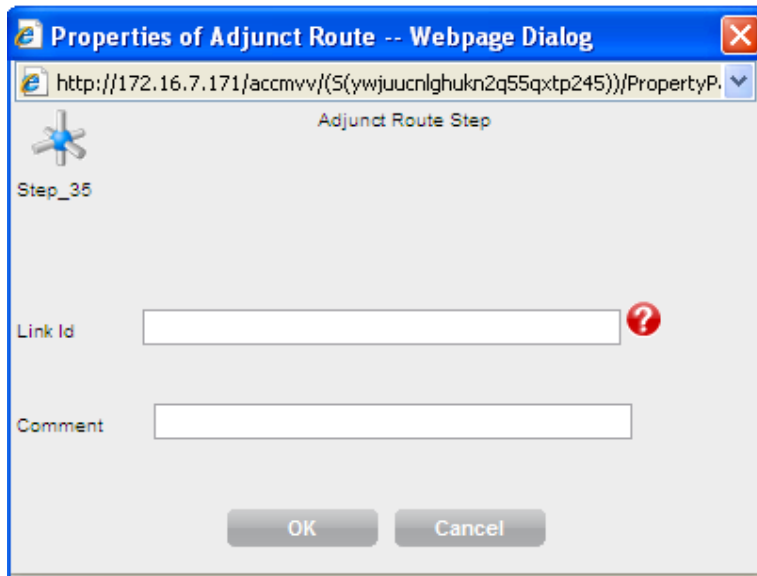
Routes the call directly to another number based upon the digits collected during the call.



Coverage – *yes/no*

## Adjunct route

Moves the call to be controlled by an *adjunct route* command within a vector.



Link id – the adjunct route link id

## Message skill step

The *messaging split/skill* command allows the caller to leave a message for the specified extension or the active or latest VDN extension (default). It's most typical use is with Intuity AUDIX or AUDIX to allow a VDN to have a "voice mailbox" and be supported by a Message Waiting Indication (MWI).

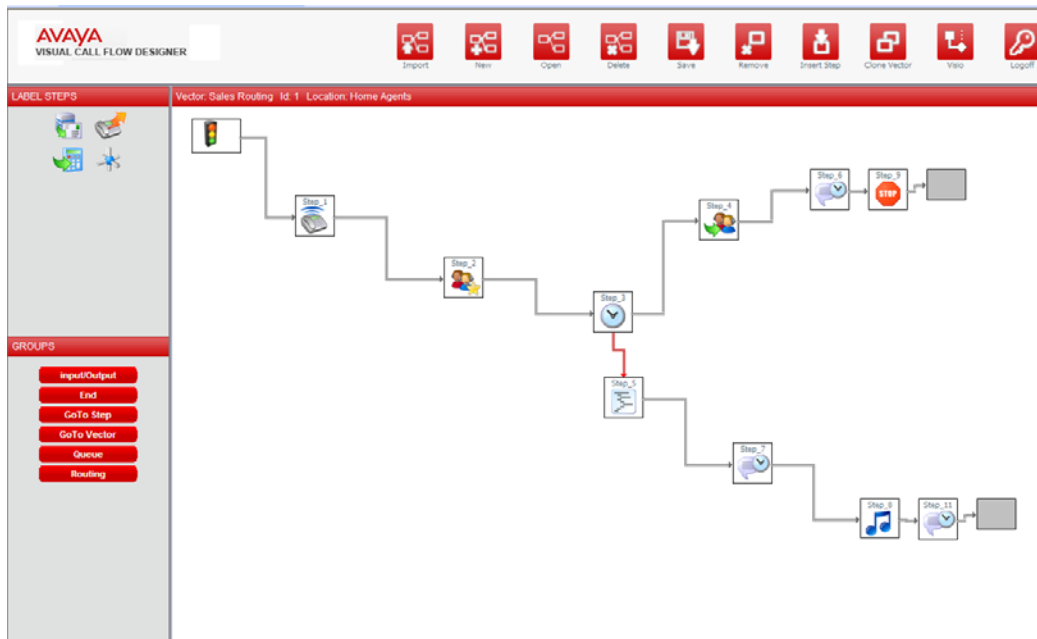
The screenshot shows a web-based dialog box titled "Properties of Messaging Skill -- Webpage Dialog". It contains several input fields: "Skill" (a dropdown menu with "First" selected), "Skill Id" (a text field), "Extension" (a dropdown menu with "Number" selected), "Number" (a text field with a red question mark icon), "Variable" (a text field with a red question mark icon), and "Comment" (a text field). At the bottom are "OK" and "Cancel" buttons. The URL bar at the top shows a long URL starting with "http://172.16.7.171/accmvv/(S(ywjuucnlghukn2q55qxtp245))/PropertyP...".

- Select either 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> skill (VDN skills) or the Skill Id
- If Skill ID is selected then you will have to select from the skill ID list (as defined in AVAYA CONTACT CENTER CONTROL MANAGER).
- Extension:

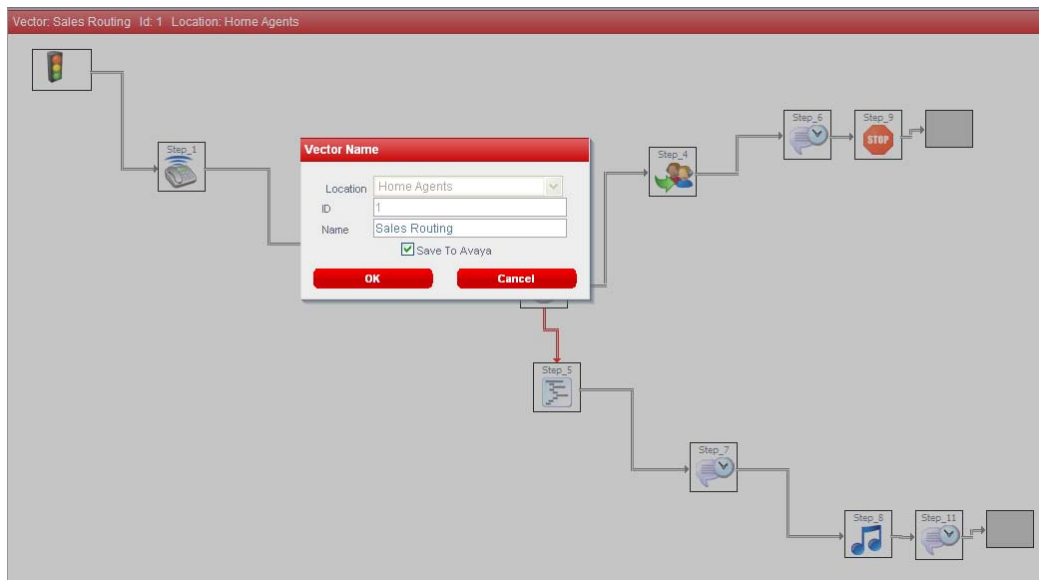
Extension	Required
Number	Enter a valid number with the Communication Manager's dial plan
Active	none

Latest	None
Variable	Enter a valid variable from the Elite software in this CM

## Saving a Vector



In the "save" operation, the system will save the vector by default to the AVAYA CONTACT CENTER CONTROL MANAGER database. In order to save to the AVAYA Environment for execution, the "Save to AVAYA" checkbox will need to be checked. Incomplete or inconsistent vectors will only be saved to the AVAYA CONTACT CENTER CONTROL MANAGER database.



Also when opening a saved vector, the system will inform which have been saved to AVAYA.

The 'Open Vector' dialog box features a red title bar and a search section with 'By Location' and 'Search' fields. Below is a table with four columns: ID, Vector Name, Location, and In Avaya. A red box highlights the 'In Avaya' column, which contains status icons (red 'x' or green checkmark). A 'Cancel' button is at the bottom.

ID	Vector Name	Location	In Avaya
67	gh	Denver	x
52	My Vector	Denver	✓
1	Sales Routing	Home Agents	x
11	Support	Denver	x

In case you are working in a multi-site enabled environment you will have to remember to select to exactly which location you desire that the vector should be saved to:

The 'Vector Name' dialog box has a red title bar and fields for 'Location' (set to Denver), 'ID' (52), and 'Name' (My Vector). It includes a 'Save To Avaya' checkbox which is checked. 'OK' and 'Cancel' buttons are at the bottom. A red box highlights the 'Location' field.

The list of locations available in the visual call flow designer depends on the users permissions in AVAYA CONTACT CENTER CONTROL MANAGER Admin (location to view section).

## Visual call flow designer permissions

The visual call flow designer permissions are managed from within the AVAYA CONTACT CENTER CONTROL MANAGER admin User Interface (UI).

In the permissions section you will be able to build different roles under the “visual vector” application.

Each role can include different types of permissions and each one of the vector steps can be controlled by insert/update/delete permissions.

Role	Description	Updated by	Last update date
<input type="checkbox"/> Administrator		mvv mvv	26/05/2010
<input type="checkbox"/> dasd	dasd	mvv mvv	27/05/2010
<input type="checkbox"/> my test role		mvv mvv	02/05/2010

**Permissions**

<input type="checkbox"/> Create GoTo Vector - Center Info	<input type="checkbox"/> Create GoTo Vector - Queue Activity	<input type="checkbox"/> Create adjunct route	<input type="checkbox"/> Create Agent Acct. With Skill Level
<input type="checkbox"/> Create agent activity	<input type="checkbox"/> Create agent activity test	<input type="checkbox"/> Create announcement	<input type="checkbox"/> Create busy
<input type="checkbox"/> Create caller info	<input type="checkbox"/> Create center info	<input type="checkbox"/> Create center info test	<input type="checkbox"/> Create collect
<input type="checkbox"/> Create Comment	<input type="checkbox"/> Create consider	<input type="checkbox"/> Create converse	<input type="checkbox"/> Create disconnect
<input type="checkbox"/> Create go to unconditional	<input type="checkbox"/> Create go to vector	<input type="checkbox"/> Create GoTo Vector - Agent Activity	<input type="checkbox"/> Create GoTo Vector - Caller Info
<input type="checkbox"/> Create GoTo Vector - Holiday	<input type="checkbox"/> Create GoTo Vector - MediaGateway	<input type="checkbox"/> Create GoTo Vector - Server	<input type="checkbox"/> Create GoTo Vector - Service Hours
<input type="checkbox"/> Create GoTo Vector - Time Of Day	<input type="checkbox"/> Create GoTo Vector - Unconditionally	<input type="checkbox"/> Create GoTo Vector - Unmatch	<input type="checkbox"/> Create GoTo Vector - Variable
<input type="checkbox"/> Create holiday	<input type="checkbox"/> Create media-gateway/port-network	<input type="checkbox"/> Create message skill	<input type="checkbox"/> Create music
<input type="checkbox"/> Create queue activity	<input type="checkbox"/> Create queue activity test	<input type="checkbox"/> Create queue unconditional	<input type="checkbox"/> Create reply
<input type="checkbox"/> Create return	<input type="checkbox"/> Create ring back	<input type="checkbox"/> Create route to digits	<input type="checkbox"/> Create route to number
<input type="checkbox"/> Create server	<input type="checkbox"/> Create set	<input type="checkbox"/> Create silence	<input type="checkbox"/> Create stop
<input type="checkbox"/> Create time announcement	<input type="checkbox"/> Create time of day	<input type="checkbox"/> Create variable	<input type="checkbox"/> Create vector
<input type="checkbox"/> Delete GoTo Vector - Agent Activity	<input type="checkbox"/> Delete GoTo Vector - Center Info	<input type="checkbox"/> Delete GoTo Vector - Queue Activity	<input type="checkbox"/> Delete adjunct route
<input type="checkbox"/> Delete Agent Acct. With Skill Level	<input type="checkbox"/> Delete agent activity	<input type="checkbox"/> Delete agent activity test	<input type="checkbox"/> Delete announcement
<input type="checkbox"/> Delete busy	<input type="checkbox"/> Delete caller info	<input type="checkbox"/> Delete center info	<input type="checkbox"/> Delete center info test
<input type="checkbox"/> Delete collect	<input type="checkbox"/> Delete Comment	<input type="checkbox"/> Delete consider	<input type="checkbox"/> Delete converse
<input type="checkbox"/> Delete disconnect	<input type="checkbox"/> Delete go to unconditional	<input type="checkbox"/> Delete go to vector	<input type="checkbox"/> Delete GoTo Vector - Caller Info
<input type="checkbox"/> Delete GoTo Vector - Holiday	<input type="checkbox"/> Delete GoTo Vector - MediaGateway	<input type="checkbox"/> Delete GoTo Vector - Server	<input type="checkbox"/> Delete GoTo Vector - Service Hours
<input type="checkbox"/> Delete GoTo Vector - Time Of Day	<input type="checkbox"/> Delete GoTo Vector - Unconditionally	<input type="checkbox"/> Delete GoTo Vector - Unmatch	<input type="checkbox"/> Delete GoTo Vector - Variable
<input type="checkbox"/> Delete holiday	<input type="checkbox"/> Delete media-gateway/port-network	<input type="checkbox"/> Delete message skill	<input type="checkbox"/> Delete music
<input type="checkbox"/> Delete queue activity	<input type="checkbox"/> Delete queue activity test	<input type="checkbox"/> Delete queue unconditional	<input type="checkbox"/> Delete reply
<input type="checkbox"/> Delete return	<input type="checkbox"/> Delete ring back	<input type="checkbox"/> Delete route to digits	<input type="checkbox"/> Delete route to number

For more information please refer to the AVAYA CONTACT CENTER CONTROL MANAGER Admin guide.

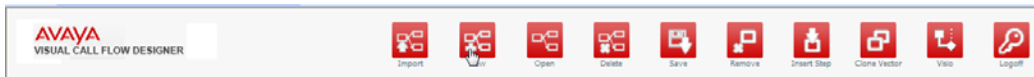
## Samples

### Designing a Vector

The following scenario will demonstrate how to build a simple vector that performs the following steps:

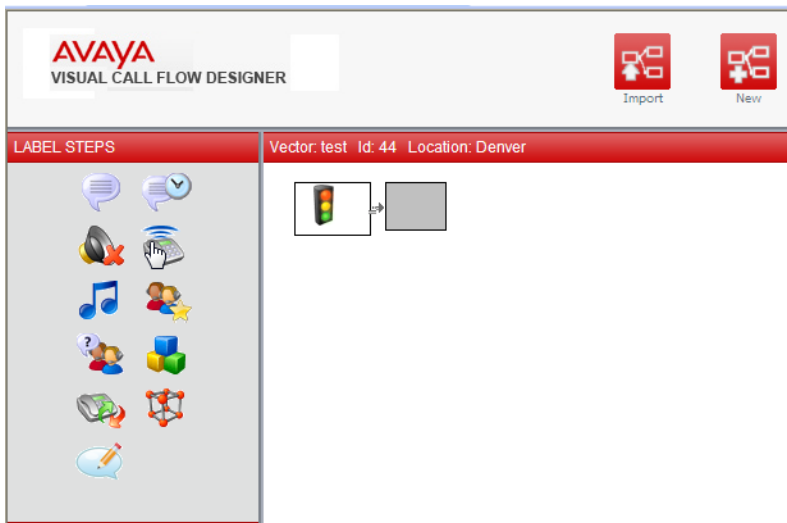
1. *the caller hears 2-seconds ringback*
2. *a timed announcement is played for 8-seconds*
3. *the call is queued to a skill*
4. *the caller hears music while waiting for the call to be answered by a staffed agent*

step 1: create a new vector – click on the “new” button

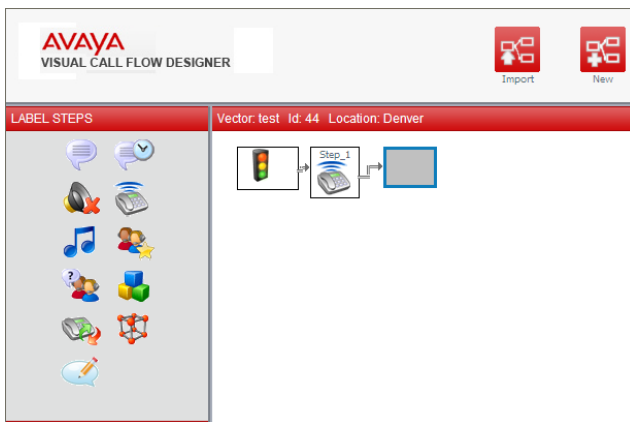


Step 2: Move the mouse to the ringback icon on the left side and drag it into the selected square.

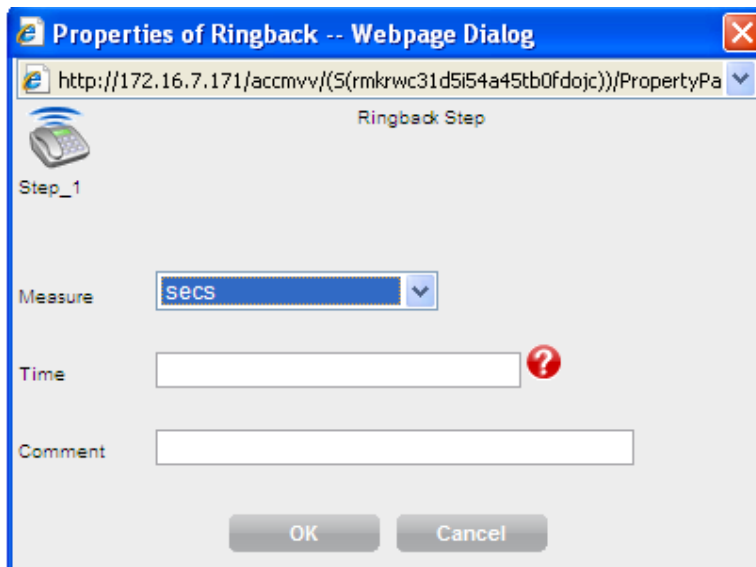




Result:

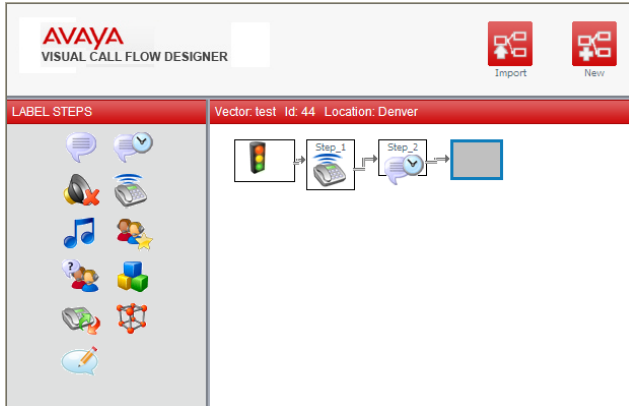


Step 3: Next double-click upon the “step1” icon

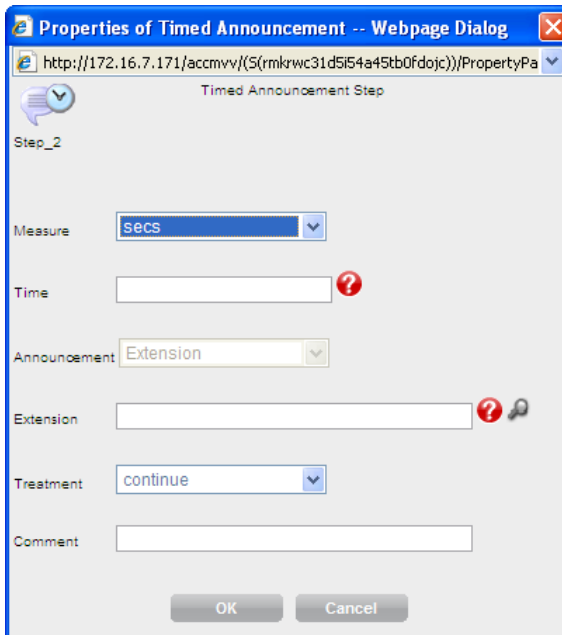


Step 4: enter the value "2" in the *seconds* field and next click *ok*.

Step 4: Move the mouse to the *time announcement icon* on the left side and drag it into the selected square.



Step 5: Next, double-click the “step 2” icon



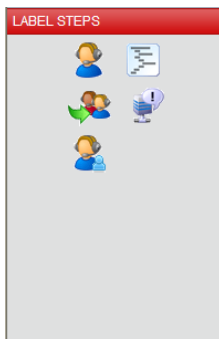
Enter “8” in the *seconds* field and the *announcement number* in the “*extension*” field.  
Select “*continue*” in the treatment and click ok.

**Note:** In some version of Microsoft Internet Explorer you might need to click on the F11 button after login process has complotted in order to be able to see the entire User Interface (UI). Some tabs and options may be hidden due to screen resolution.

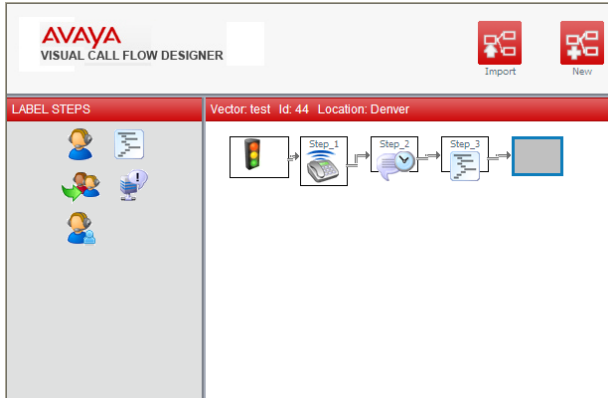
Step 6: Next, click on the “*queue*” group



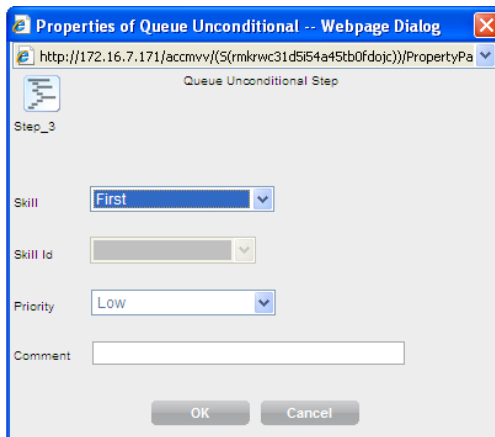
The vector step section is updated with new step types:



Step 7: Move the mouse to the *queue unconditionally* icon on the left side and drag it into the selected square.



Step 8: Double-click the “step 3” icon and select the Skill you want the call to be queued to

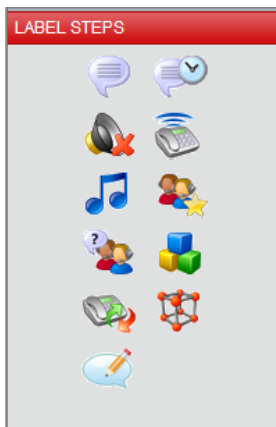


Click on save

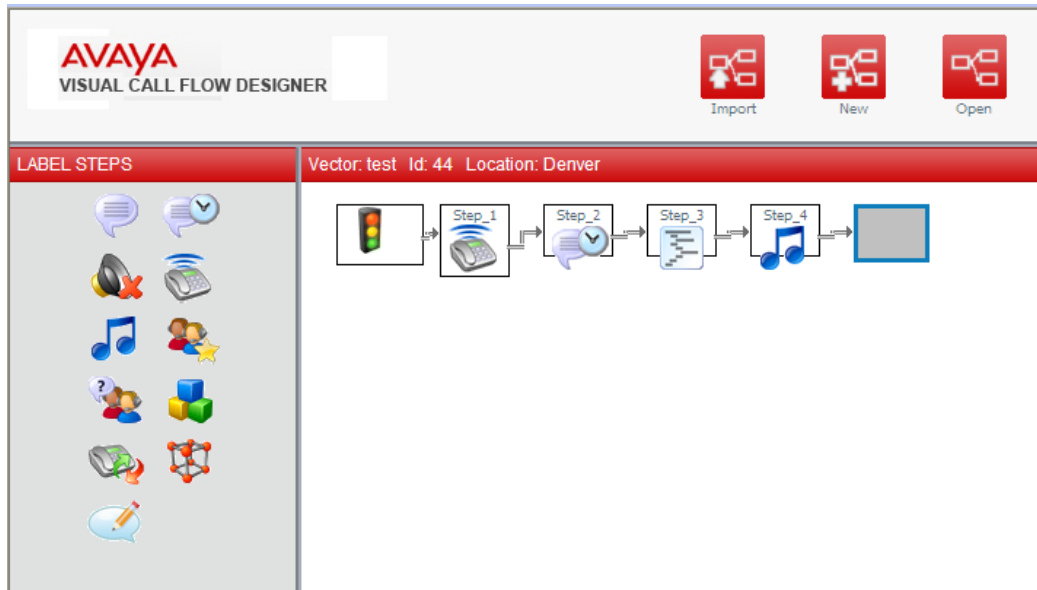
Step 9: Next, click on the “input” group



The vector step section is updated with new step types:

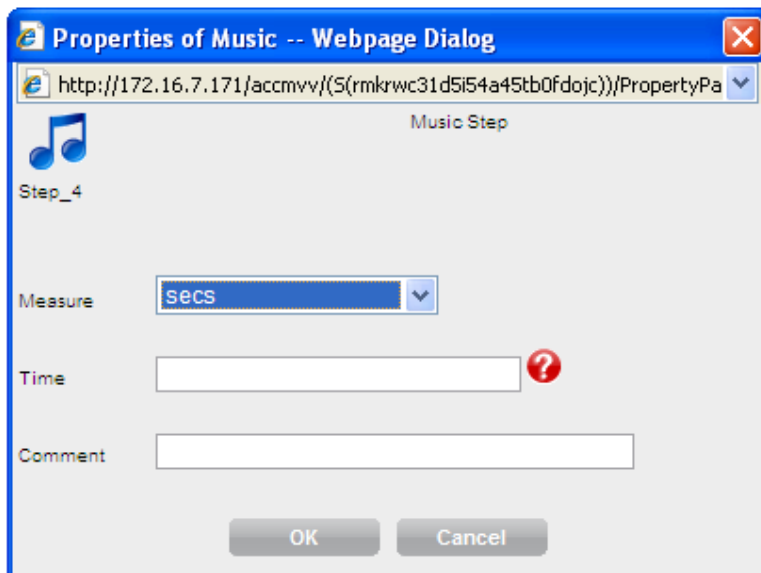


Step 10: Move the mouse to the *Music* icon on the left side and drag it into the selected square.



Step 11: double-click the “step 4” icon

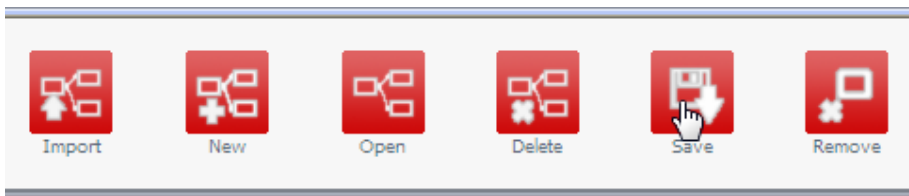




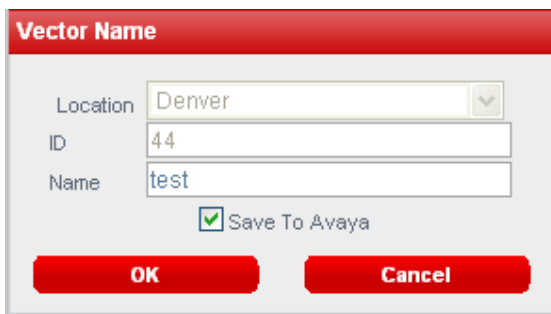
Enter the time, in seconds, that you want the customer to wait while they hear music.

Click ok.

Step 12: Now we need to save the vector. Go to the top bar and click on save



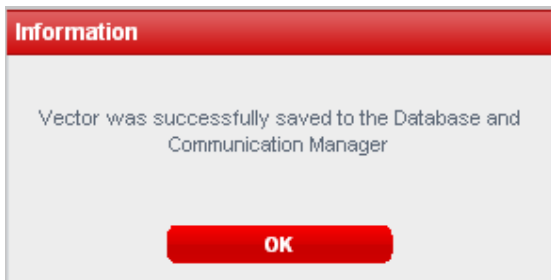
Step 13: Enter a vector number and a vector name and do not forget if you are working in a multi-site environment, select the appropriate location.



A dialog box titled "Vector Name" with a red header bar. It contains three input fields: "Location" with a dropdown menu showing "Denver", "ID" with the text "44", and "Name" with the text "test". Below these fields is a checkbox labeled "Save To Avaya" which is checked. At the bottom are two red buttons: "OK" and "Cancel".

Select the “save to Avaya” option in case you want the vector to be saved into the CM (by default it is saved to the AVAYA CONTACT CENTER CONTROL MANAGER Database).

Finish: The vector is saved successfully



An information dialog box with a red header bar titled "Information". The main text area contains the message: "Vector was successfully saved to the Database and Communication Manager". At the bottom is a single red button labeled "OK".

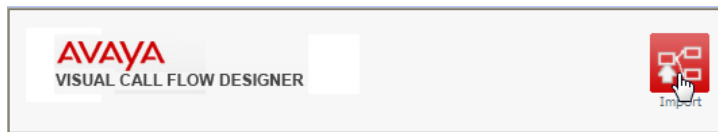
## Importing Existing Vectors

AVAYA CONTACT CENTER CONTROL MANAGER supports vector importing.

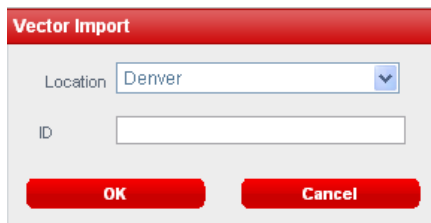
By default, the existing Communication Manager vectors are not imported in the AVAYA CONTACT CENTER CONTROL MANAGER Visual Call Flow Designer.

In order to import a Vector you will have to perform the following steps:

1. Click on the Import Vector Button



2. Select the Location and the Vector Number to import



3. The Vector will be imported (this process can take between several seconds and up to two (2) minutes, depending on the vector structure and size)



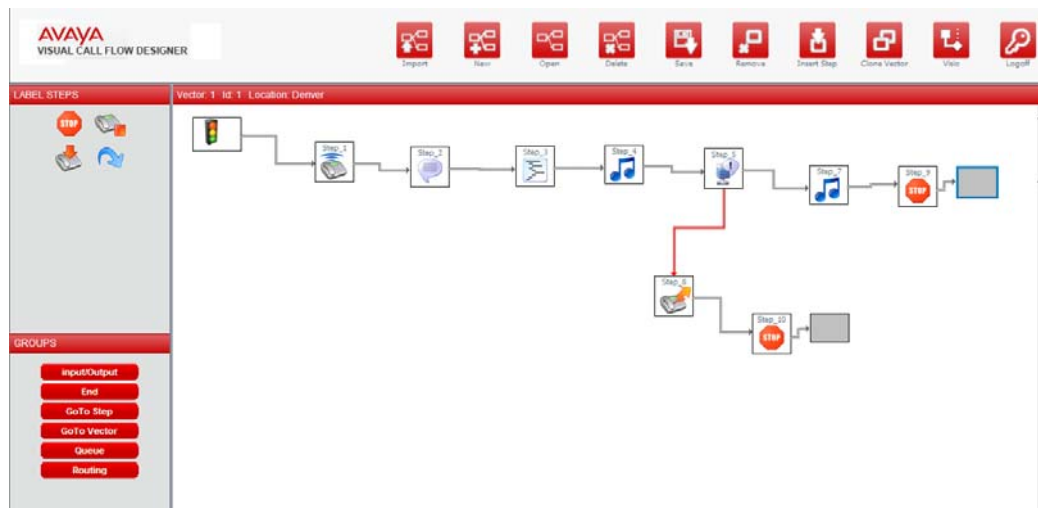
## Example

The following screenshots show an example of an imported vector from the Avaya Communication Manager to the Visual Call Flow designer.

```

display vector 1                                     Page 1 of 6
CALL VECTOR
Number: 1      Name: 1
Multimedia? n  Attendant Vectoring? n  Meet-me Conf? n  Lock? n
Basic? y      EAS? y  G3V4 Enhanced? y  ANI/II-Digits? y  ASAI Routing? y
Prompting? y   LAI? y  G3V4 Adv Route? y  CINFO? y  BSR? y  Holidays? y
Variables? y   3.0 Enhanced? y
01 wait-time   2 secs hearing ringback
02 announcement V1
03 queue-to    skill 1st pri 1
04 wait-time   20 secs hearing music
05 goto step   10 if expected-wait for skill 1st pri 1 > 60
06 check       skill 1st pri 1 if unconditionally
07 wait-time   999 secs hearing music
08
09
10 route-to    number 9999999          with cov n if unconditionally
11
12

```



The import process of the visual call flow designer tool might add automatically to your vector the “Stop” Command. This is done in order to make sure that you call flow logic remains as designed after the importing process.

You can disable this option through the System Parameter option under the CFG (Configuration) tab.

When the imported vector will be saved back to your communication manager his original visual structure might change, for example: empty vector steps will be removed. The call flow logic will remain the same.

```

display vector 1                                     Page 1 of 6
CALL VECTOR
Number: 1      Name: Sales Routing
Multimedia? n  Attendant Vectoring? n  Meet-me Conf? n  Lock? n
Basic? y      EAS? y  G3V4 Enhanced? y  ANI/II-Digits? y  ASAI Routing? y
Prompting? y  LAI? y  G3V4 Adv Route? y  CINFO? y  BSR? y  Holidays? y
Variables? y  3.0 Enhanced? y
01 wait-time  2 secs hearing ringback
02 announcement V1
03 queue-to   skill 1st pri 1
04 wait-time  20 secs hearing music
05 goto step  7 if expected-wait for skill 1st pri 1 > 60
06 wait-time  999 secs hearing music
07 route-to   number 9999999 with cov n if unconditionally
08
09
10
11
12
  
```

Important note: In the event that you are using vectors with more than 30 steps each for call processing we urge you to test the vector importing/saving process before actually using it in a production environment. The recommended steps are:

1. Import a Vector
2. Click on the Clone button and save the cloned vector to a new vector that is not used currently
3. Save the cloned vector to your Communication Manger
4. Compare the call flow **logic** of the existing vector and the new cloned vector (the visual structure of the original vector and the new vector might be different, but the call flow logic should remain the same)



## Exporting Vectors to Visio

AVAYA CONTACT CENTER CONTROL MANAGER Call Flow Designer provides you the ability to export vector to Microsoft Visio documents.

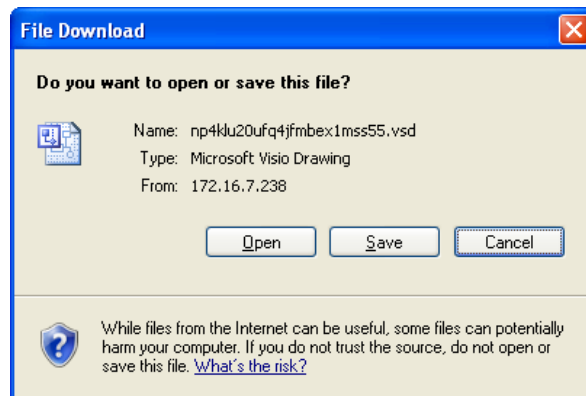
Vector exporting to Visio requires an installation of Microsoft Visio on the AVAYA CONTACT CENTER CONTROL MANAGER Server.

In order to export a Vector to Microsoft Visio you will need to perform the following steps:

1. Open the Vector in the Visual Call Flow Designer
2. Click on the “Visio” button



3. A Visio document will be generated and the following screen will pop up (if you are using a pop-up blocker then please make sure you disable it when you are using the Visual Call Flow Designer)



4. You can either save the Visio file to your machine or open the file

