

CROSS[®]

Vectors, Agents, and Skills...Oh My! Call Center 101

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Call Center Components

- VDN's (Vector Directory Numbers)
- Vectors
- Announcements
- Hunt Groups/Splits/Skills
- Agents
- Reporting



Basic: *Features bundled with Communication Manager Basic*

- ACD without Call Vectoring operation and related features.

Introductory: *Low entry with a maximum of 50 agents*

- Has all the existing features of the previously offered Deluxe Package including Basic Call Management System (BCMS) but it does not include Best Service Routing (BSR).

Elite: *Includes Expert Agent Selection (EAS), all of the features included with the previously offered Deluxe package and:*

- Local treatment for BSR (for Multi-site BSR)
- Variables in Vectors
- Service Level Maximizer (SLM)

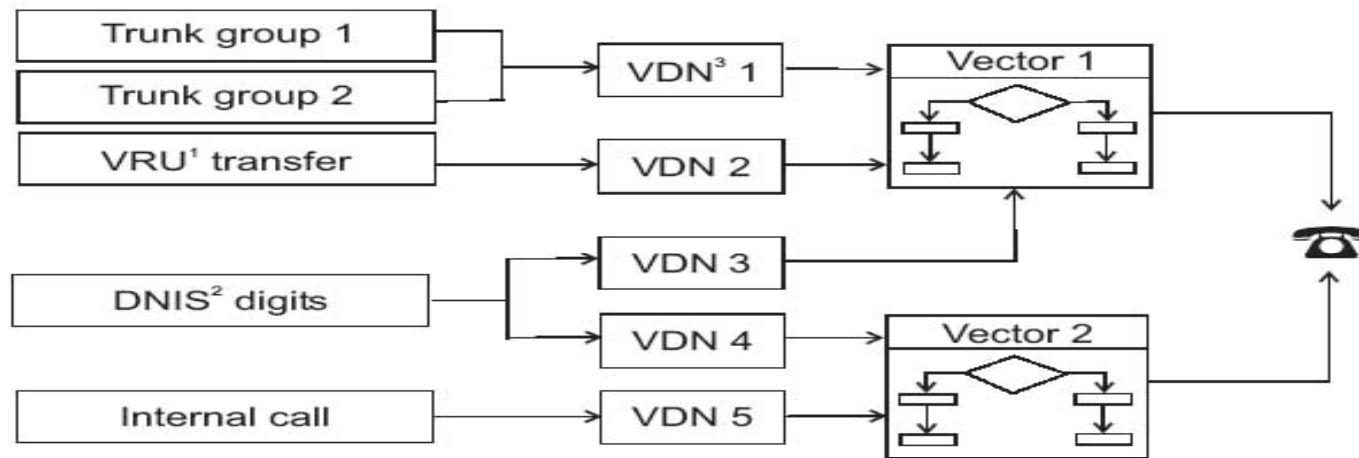
Benefits:

- Classification of agents according to their specific skills (skill number) and ranks them by ability or experience within each skill (skill level).
- Selection among available agents with the same skill (for instance most-idle versus most-skilled).
- Agent call handling based on either skill level or greatest need.
- Ability to compile detailed performance statistics at the VDN, Skill, and Agent Level.



- A VDN is an extension number used to access a vector.
- VDN's are extension numbers in the Communication Manager, however, they are not assigned to physical equipment.
- Each VDN can be mapped to one vector.

Use of Call Vectoring for incoming calls



1. Voice Response Unit
2. Dialed Number Identification Service
3. Vector Directory Number

VDN Variables provide more opportunities for VDN's to use a smaller set of vectors. You can:

- Assign up to five variable fields, V1 through V5, on the **VDN** form.
- Use the VDN Variables in all vector commands that support vector variables except as a **for** parameter with the **collect-digits** command.
- Use up to 16-digits to assign a number to the VDN variable and use up to 15 characters to describe the VDN variable.
- Use VDN Variables as indirect references to announcement extensions and other numerical values in vector commands.

```

display vdn 4020  send (return)  help (f5)  cancel (esc)  enter (f3)  schedule (f9)  next (f7)  previous (f8)
1 2 3
VECTOR DIRECTORY NUMBER

UDN VARIABLES*

Var  Description  Assignment
U1   Cust Svc Annc  3520
U2   Cust Svc MBox  2120
U3
U4
U5

UDN Time-Zone Offset*: + 00:00
Daylight Savings Rule*: system

* Follows UDN Override Rules
  
```

```

display vdn 4040  send (return)  help (f5)  cancel (esc)  enter (f3)  schedule (f9)  next (f7)  previous (f8)
1 2 3
VECTOR DIRECTORY NUMBER

UDN VARIABLES*

Var  Description  Assignment
U1   Sales Annc   3601
U2   Sales MBox   2121
U3
U4
U5

UDN Time-Zone Offset*: + 00:00
Daylight Savings Rule*: system

* Follows UDN Override Rules
  
```

VDN (extension=4020 name="Cust Serv" vector=20 V1=3520 V2=2120)

VDN (extension=4040 name="Sales" vector=20 V1=3601 V2=2121)

Vector 20:

1. wait 0 secs hearing silence
2. announcement V1
3. goto vector 29 at step 1 if time-of-day is all 17:00 to all 08:00
4. goto vector 29 at step 1 if time-of-day is fri 17:00 to mon 08:00
5. queue-to skill 1 pri m
6. announcement 3521 (*All agents are busy...*)
7. wait-time 45 seconds hearing music
8. announcement 3522 (*Thank you for holding...*)
9. goto step 7 if unconditionally
10. stop

Examples of announcements

- Forced recordings that callers hear as a greeting or thanking them for calling.
- Recordings that explain a delay in queue and encourage them to wait longer.
- Recordings that provide options for the callers to select from.

Prompting Announcements move callers through a specified call flow by asking them to select:

- Menu Options
- Leave Messages
- Enter Extensions

- A call vector is a series of commands that tell the system how to handle incoming calls.
- A vector can contain up to 99 steps which allow for specific call treatment based on current call center conditions.
- Once the call goes to a vector, call routing and treatment are determined by the commands in the vector.
- Steps can include playing an announcement, asking for caller input (prompted digits), queuing a call to a skill, redirecting callers to voice mail, forcing a busy if the call center is experiencing a flood of calls or even forcing a disconnect.

- Adjunct Routing
- Announcement
- Busy
- Check
- Collect Digits
- Consider Location
- Consider Split/Skill
- Converse-on Split
- Disconnect
- Goto step
- Goto Vector
- Messaging Split
- Queue-to unconditionally
- Queue-to attd-group
- Queue-to attendant
- Queue-to-hunt group
- Reply-best
- Route-to Digits
- Route-to Number
- Stop
- Wait-Time

VDN (extension=4020 name="Customer Serv" vector=20)

Vector 20:

1. wait 0 secs hearing silence
2. goto vector 29 at step 1 if time-of-day is all 17:00 to all 08:00
3. goto vector 29 at step 1 if time-of-day is fri 17:00 to mon 08:00
4. goto step 10 if calls-queued in skill 1 pri m > 10
5. queue-to skill 1 pri m
6. announcement 3521 (*All agents are busy...*)
7. wait-time 45 seconds hearing music
8. announcement 3522 (*Thank you for holding...*)
9. goto step 7 if unconditionally
10. busy

Call Prompting - Menu Options Example:

1. wait-time 0 seconds hearing ringback
2. collect 1 digits after announcement 3501 (*Thank you for calling the Widget Company. For a New Order, press 1. For an existing order, press 2.*)
3. route-to number 4031 with cov n if digit = 1
4. route-to number 4033 with cov n if digit = 2
5. route-to number 4033 with cov n if unconditionally
6. stop

Call Prompting – Routing Destination Example:

1. wait-time 0 seconds hearing ringback
2. collect 4 digits after announcement 3502 (*Thank you for calling the Widget Company. If you know your party's 4-digit extension, please dial it now or stay on the line for the operator.*)
3. route-to digits with coverage y
4. route-to number 0 with cov y if unconditionally
5. stop

(Note: Company's station extensions start with a 4.)

1. wait-time 0 seconds hearing ringback
2. collect 1 digits after announcement 3501 *(Thank you for calling the Widget Company. If you know your party's 4-digit extension, please dial it now. For a New Order, press 1. For an existing order, press 2.)*
3. route-to number 4031 with cov n if digit = 1
4. route-to number 4033 with cov n if digit = 2
5. route-to digits with cov y
6. route-to number 4033 with cov n if unconditionally
7. stop

Vector subroutines allow you to reuse common sets of vector commands. Subroutines can significantly decrease the number of steps and vectors required. Subroutines also:

- Free up more steps per vector by removing duplication.
- Allow unused steps at the end of vectors to be used for subroutines, thus expanding vector capacity.
- Reduces administration - you can make changes to only one vector subroutine that is referenced by many vectors, such as changing office hours or wait treatment.

VDN (extension=4020 name="Cust Serv" vector=20)

Vector 20:

1. wait 0 secs hearing silence
2. goto vector 29 at step 1 if unconditionally
3. goto step 10 if calls-queued in skill 1st pri m > 10
Note: calls will return here if they are within open hours.
4. queue-to skill 1st pri m
5. announcement 3521 (*All agents are busy...*)
6. wait-time 45 seconds hearing music
7. check skill 2nd pri m if available-agents > 0
8. announcement 3522 (*Thank you for holding...*)
9. goto step 6 if unconditionally
10. busy



No VDN

Vector 29:

1. wait 0 secs hearing silence
2. goto step 6 if time-of-day is all 17:00 to all 08:00
3. goto step 6 if time-of-day is fri 17:00 to mon 08:00
4. goto step 6 if holiday in table 1
5. return (*Note: Calls will only return if they are in open hours.*)
6. disconnect after announcement 3529 (Customer service is currently closed . . .)
7. stop

```
display vdn 4020  send (return)  help (f5)  cancel (esc)  enter (f3)  schedule (f9)  next (f7)  previous (f8)
1  2  3
VECTOR DIRECTORY NUMBER

Extension: 4020
Name*: Cust Svc
Vector Number: 20
Attendant Vectoring? n
Meet-me Conferencing? n
Allow UDN Override? y
COR: 91
TN*: 1
Measured: none

Service Objective (sec): 20
UDN of Origin Annc. Extension*:
1st Skill*: 20
2nd Skill*: 21
3rd Skill*:

* Follows UDN Override Rules
```

```
display vdn 4040  send (return)  help (f5)  cancel (esc)  enter (f3)  schedule (f9)  next (f7)  previous (f8)
1  2  3
VECTOR DIRECTORY NUMBER

Extension: 4040
Name*: Sales
Vector Number: 20
Attendant Vectoring? n
Meet-me Conferencing? n
Allow UDN Override? n
COR: 91
TN*: 1
Measured: none

Service Objective (sec): 20
UDN of Origin Annc. Extension*:
1st Skill*: 30
2nd Skill*: 31
3rd Skill*:

* Follows UDN Override Rules
```

Using the 1st Skill, 2nd Skill, 3rd, Skill Fields on the VDN Example:

VDN (extension=4020 name="Cust Serv" vector=20 1st Skill=20 2nd Skill=21)

VDN (extension=4040 name="Sales" vector=20 1st Skill=30 2nd Skill=31)

Vector 20:

1. wait 0 secs hearing silence
2. goto vector 29 at step 1 if time-of-day is all 17:00 to all 08:00
3. goto vector 29 at step 1 if time-of-day is fri 17:00 to mon 08:00
4. goto step 11 if calls-queued in skill 1st pri m > 10
5. queue-to skill 1st pri m
6. announcement 3521 (*All agents are busy...*)
7. wait-time 45 seconds hearing music
8. check skill 2nd pri m if available-agents > 0
9. announcement 3522 (*Thank you for holding...*)
10. goto step 7 if unconditionally
11. busy

No VDN

Vector 29:

1. wait 0 secs hearing silence
2. disconnect after announcement 3529
(customer service is currently closed)
3. stop

Depending on the variable type, you will specify some or all of the following parameters in the Variables for Vectors table:

- Description (phrase of up to 27 characters)
- Type
- Scope
- Length
- Start Position
- Assignment
- Variable Access Code

- ani
- asaiuui
- collect
- tod
- dow
- doy
- stepcnt
- value
- vdn
- vdntime

A Hunt Group is a group of extensions that receive calls according to the programmed call distribution method.

- Outside caller calls an advertised number or an internal caller calls the group extension number, the system connects the call to one of the extensions in the group.
- Associate an extension with a Hunt Group or an agent with an ACD split by adding their extension number to the Hunt Group form.

Split

A hunt group is referred to as a Split when it is set-up as an ACD Hunt group and EAS is not turned on.

Skill

A hunt group is referred to as a Skill when it is set-up as an ACD hunt group and EAS is turned on.

Distribution Method (group type)	Available with these packages
Direct Department Calling (DDC)	Non-EAS
UCD-MIA	Non-EAS, EAS Avaya Business Advocate
EAD-MIA	EAS, Avaya Business Advocate
UCD-LOA	EAS, Avaya Business Advocate
EAD-LOA	EAS, Avaya Business Advocate

Without EAS, the following call distribution methods are available:

- Direct Department Calling
- Uniform Call Distribution-Most Idle Agent (UCD-MIA)

When a call arrives and agents are available and the agent selection is:	Then the Communication Server selects:
EAD-MIA	The highest skill level, most idle agent
UCD-MIA	The most idle agent, without regard to skill level
EAD-LOA	The highest skill level agent with the lowest occupancy
UCD-LOA	The least occupied agent, without regard to skill level

Greatest Need Example

- An agent has “Greatest-Need” set as the Call Handling Preference on their Agent Login ID form.
- The agent is assigned 3 skills: Skill 1, Skill 2, Skill 3
- All 3 skills have calls in queue at the same priority.

AGENT LOGINID

Direct Agent Skill:

Call Handling Preference: Local

	SN	RL	SL		SN	RL	SL		SN	RL	SL
1:	<input type="text" value="1"/>	<input type="text"/>	<input type="text" value="1"/>	16:	<input type="text"/>	<input type="text"/>	<input type="text"/>	31:	<input type="text"/>	<input type="text"/>	<input type="text"/>
2:	<input type="text" value="2"/>	<input type="text"/>	<input type="text" value="1"/>	17:	<input type="text"/>	<input type="text"/>	<input type="text"/>	32:	<input type="text"/>	<input type="text"/>	<input type="text"/>
3:	<input type="text" value="3"/>	<input type="text"/>	<input type="text" value="2"/>	18:	<input type="text"/>	<input type="text"/>	<input type="text"/>	33:	<input type="text"/>	<input type="text"/>	<input type="text"/>

From the calls listed below, which call will the agent receive when he becomes available?

Call Queued to Skill	Current Wait Time
1	30 seconds
2	45 seconds
3	60 seconds

Skill Level Example:

- An agent has “Skill-Level” set as the Call Handling Preference on their Agent Login ID form.
- The agent is assigned 3 skills: Skill 1, Skill 2, Skill 3
- All 3 skills have calls in queue at the same priority.

AGENT LOGINID

Direct Agent Skill:

Call Handling Preference: Local

	SN	RL	SL		SN	RL	SL		SN	RL	SL
1:	<input type="text" value="1"/>	<input type="text"/>	<input type="text" value="1"/>	16:	<input type="text"/>	<input type="text"/>	<input type="text"/>	31:	<input type="text"/>	<input type="text"/>	<input type="text"/>
2:	<input type="text" value="2"/>	<input type="text"/>	<input type="text" value="1"/>	17:	<input type="text"/>	<input type="text"/>	<input type="text"/>	32:	<input type="text"/>	<input type="text"/>	<input type="text"/>
3:	<input type="text" value="3"/>	<input type="text"/>	<input type="text" value="2"/>	18:	<input type="text"/>	<input type="text"/>	<input type="text"/>	33:	<input type="text"/>	<input type="text"/>	<input type="text"/>
4:	<input type="text"/>	<input type="text"/>	<input type="text"/>	19:	<input type="text"/>	<input type="text"/>	<input type="text"/>	34:	<input type="text"/>	<input type="text"/>	<input type="text"/>

From the calls listed below, which call will the agent receive when he becomes available?

Call Queued to Skill	Current Wait Time
1	30 seconds
2	45 seconds
3	60 seconds

You define the following agent capabilities:

- Agent login and logout.
- ACD work modes: Auxiliary Work (AUX Work), auto-in, manual-in, or ACW.
- Timed ACW.
- Agent answering options: Automatic Answer (zip tone) or Manual Answer.
- Agent request for supervisor assistance.
- ACD call disconnect (Release button).
- Stroke counts.
- Call work codes.
- Forced entry of stroke counts and call work codes.

Call Management System

A call management system is applications software that helps monitor and manage a call center. Avaya offers two types of call management systems:

- Call Management System (CMS)
- AVAYA IQ
- Basic Call Management System (BCMS)

Real-Time Reports

BCMS provides three real-time reports:

- **Split Status** – for individual splits and the agents staffing them
- **System Status** – for a view of all splits that are administered for internal measurement
- **VDN Status** – all the VDNs that are administered for internal measurement

Historical Reports

BCMS also has historical reports as mentioned earlier. The historical reports present data for hourly and daily results for the following:

- Agent (individual and groups)
- Agent summary
- Split (individual and groups)
- Split summary
- Trunk group (individual and group)
- Trunk group summary
- VDN
- VDN summary

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