IAUG CONVERGE2013
POWERING GLOBAL COMMUNICATIONS

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Advanced Experience Portal, Proactive Outreach Manager & Orchestration Designer

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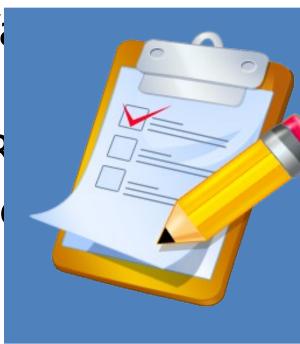Avaya

IAUG.

Conference Partner
AVAYA

·This session will build on the basic Avaya Aura® Orchestration Designer training and will cover more advanced topics, including: using Configurable Application Variables, using Avaya Aura® Experience Portal to provide differentiated wait treatment, Application Effectiveness Reporting, how to integrate with SIP, CTI and Avaya Aura® Contact Center and how to support outbound applications with Avaya Proactive Outreach Manager.

Agenda

- Pluggable Data Connectors
- Configurable Application Va
- SIP and CTI Integration
- Application Effectiveness R
- Proactive Outreach Manage

Pluggable Data Connectors

Extending the Avaya Aura® Orchestration Designer Framework

Avaya Aura® Orchestration Designer Pluggable Data Connector

Create Your Own Integration

·Simplifies integration for :

  ▸ Packaging complex web services

  ▸ Integrations for systems without web services,

  ▸ 3rd party systems

·Examples:

  ▸ Database & Web Services

  ▸ Connectors to Avaya IC, AES, POM, ICR, Context Store

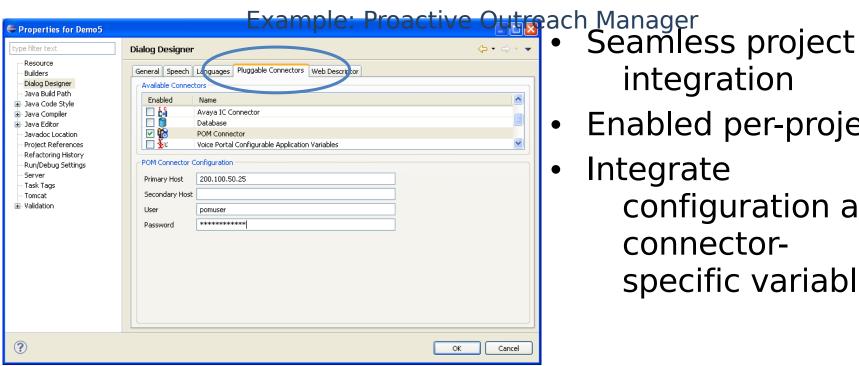 ▸ Connectors to 3rd party CTI or ACDs (i.e. Genesys, Cisco, etc).

  ▸ 3rd party backend services (MQ, 3270, SMS, Fax, Email. etc.)

Designer Application

OD-MQ Interface

MQ Connector

MQ

Developing Applications With a PDC

Example: Proactive Outreach Manager
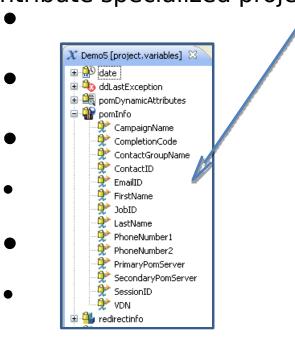
- Seamless project integration

- Enabled per-project

- Integrate configuration and connector-specific variables

Developing Applications With a PDC
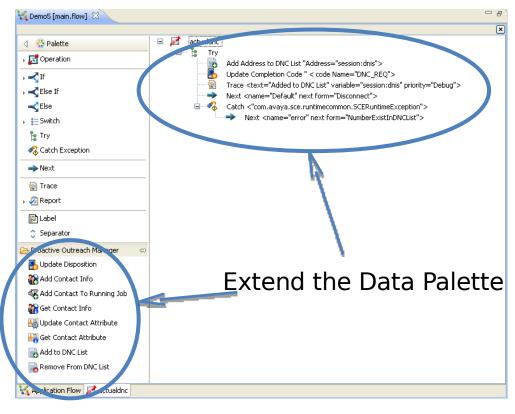
Using the Properties Editor

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Contribute specialized project variables

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Extend the Data Palette

Example: Proactive Outreach Manager

Developing Applications With a PDC

Using the Wizard Editor
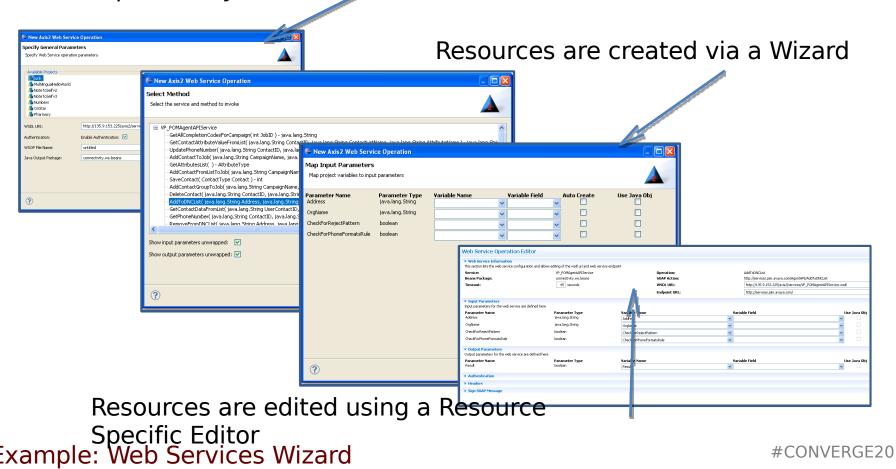
Uses the property editor to select from a set of previously defined resources

Resources are created via a Wizard

Resources are edited using a Resource Specific Editor

Example: Web Services Wizard

Developing Applications With a PDC

Using the Runtime Data Editor

Runtime configuration integration on application server

Allows plugging into variable handling for custom variable behavior

Example: AES Connector

Information Sources
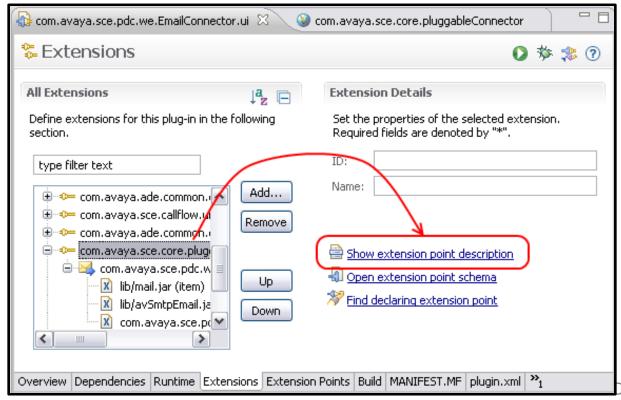
- Pluggable Data Connector (PDC) Reference
  - Contained in Avaya Aura® Orchestration Designer Documentation
- Pluggable Data Connector tutorial on DevConnect
- Example PDCs available to show design
  - SMS connector
  - Stock Variable
  - Email connector

Extension Point Documentation

- Refer to the built-in Eclipse extension point description for documentation on the Avaya Aura® Orchestration Designer extension points and examples.

  –

Configurable Application Variables
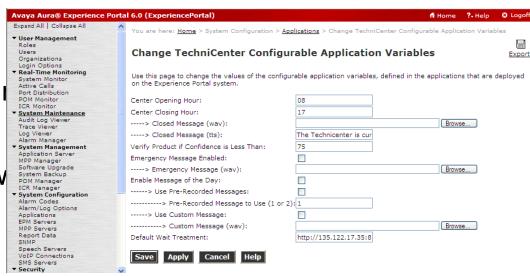
Admin Control of Applications

Administration of Application Data

Gives business users the ability to change applications

- Administrative model for application data
  - Custom data administration as part of EPM admin
  - Roles Based Access Control
  - Logging/Auditing
  - Backup
- Example Uses
  - Hours of operation
  - Emergency announcer
  - Routing
  - Contact Information
  - Holiday greetings/flow
  - New Products

Configurable Application Variables

Change TechniCenter Configurable Application Variables

Export

Use this page to change the values of the configurable application variables, defined in the applications that are deployed on the Experience Portal system.

Center Opening Hour:	08
Center Closing Hour:	17
-----> Closed Message (wav):	[Browse...]
-----> Closed Message (tts):	The Technicenter is cur
Verify Product if Confidence is Less Than:	75
Emergency Message Enabled:	☐
-----> Emergency Message (wav):	[Browse...]
Enable Message of the Day:	☐
------> Use Pre-Recorded Messages:	☐
-----------> Pre-Recorded Message to Use (1 or 2):	1
------> Use Custom Message:	☐
-----------> Custom Message (wav):	[Browse...]
Default Wait Treatment:	http://135.122.17.35:8

Save **Apply** **Cancel** **Help**

Configurable Application Variables

Change Sales/OutSourcers Configurable Application Variables

Export

Use this page to change the values of the configurable application variables, defined in the applications that are deployed on the Voice Portal system.

Outsourcer #1 Enabled: ☑
-----> Send Calls Only if Delay >:
-----> Minimum # Calls / Month:
-----> Maxiimum # Calls / Month:
Outsourcer #2 Enabled: ☐
-----> Send Calls Only if Delay >:
-----> Minimum # Calls / Month:
-----> Maxiimum # Calls / Month:

Save **Apply** **Cancel** **Help**
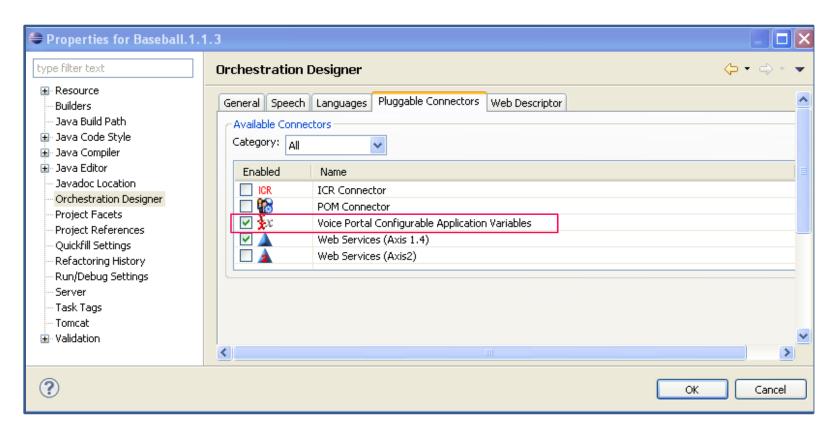
How to...
Use Configurable Application Variables

- In Avaya Aura® Orchestration Designer:
    - On **properties** page for application go to **Pluggable Connector** tab and enable **Experience Portal Configurable Application Variables.**
    - Create and use Configurable Variables in a manner similar to conventional Orchestration Designer variables.
        - *Note – Configurable Variables are read-only from OD app*
        -
- In EPM web application:
    - Go to **Applications** page.
    - For desired application, click on pencil icon in Configurable Application Variables column.
    - Enter desired values for variables retrieved from application.
    - Save changes.

Enabling in Avaya Aura® Orchestration Designer Project

‣ Project -> Properties -> Orchestration Designer

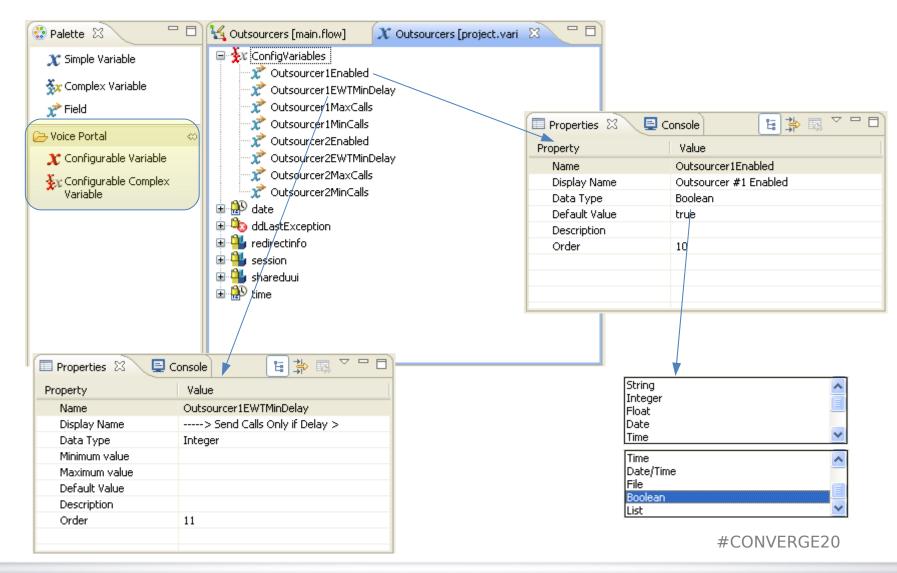# Configurable Application Variables

Project Variables Tab

Configurable Application Variables

Configurable Application Variables
Accessing from Experience Portal Manager
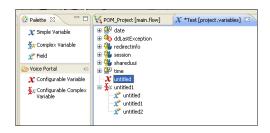
Name	Enable	MIME Type	URL	Launch	ASR	Languages	TTS	Voices	Configurable Application Variables
OutSourcers	Yes	VoiceXML	http://135.9.152.225:8080/Outsourcers/Start	Outbound	No ASR		No TTS		✏
Technicenter	Yes	CCXML/VoiceXML	http://135.9.152.180:8089/CCService/CCAServer? execute=CallControl, http://135.122.17.35:8080/TechCtrSalesSSA/Start	83810010	Nuance	English (USA) en-us	Nuance	English (USA) en-US Samantha F	✏

Change Sales/OutSourcers Configurable Application Variables

Export

Use this page to change the values of the configurable application variables, defined in the applications that are deployed on the Voice Portal system.

Outsourcer #1 Enabled: ☑

-----> Send Calls Only if Delay >: [   ]

-----> Minimum # Calls / Month: [   ]

-----> Maxiimum # Calls / Month: [   ]

Outsourcer #2 Enabled: ☐

-----> Send Calls Only if Delay >: [   ]

-----> Minimum # Calls / Month: [   ]

-----> Maxiimum # Calls / Month: [   ]

Save   Apply   Cancel   Help
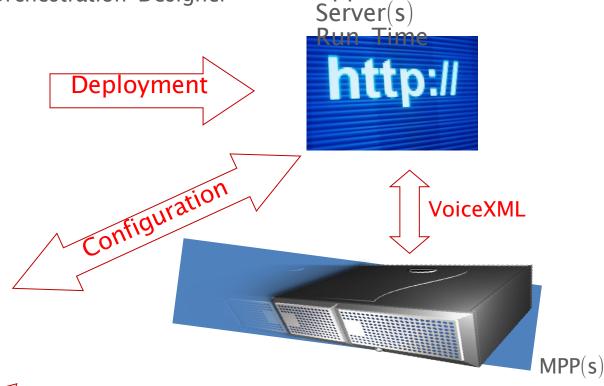
Life Cycle of Configurable Variables

Creation – Avaya Aura® Orchestration Designer
Design Time

Application
Server(s)
Run Time

Deployment

Experience Portal Manager
– RBAC Configuration

Configuration

VoiceXML

MPP(s)

Backup, Audits

EPM
Data

SIP and CTI Integration
Enabling Communication

Traditional TDM/H.323 CTI Architecture

CTI:
Enabling in Avaya Aura® Orchestration Designer Project

▸Project -> Projects -> Orchestration Designer

CTI:
Enabling in Avaya Aura® Orchestration Designer Project
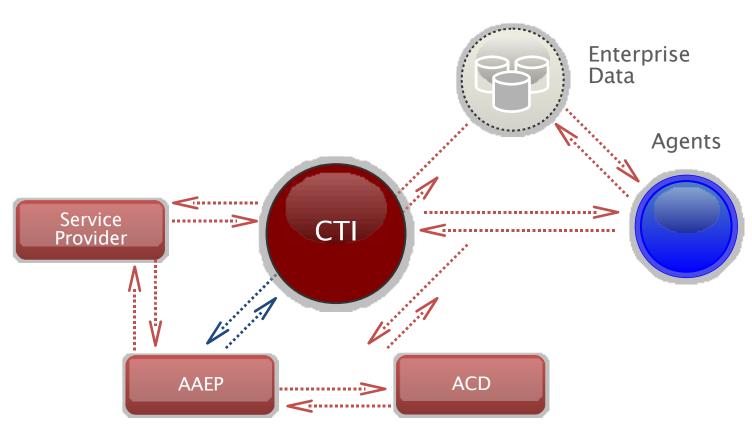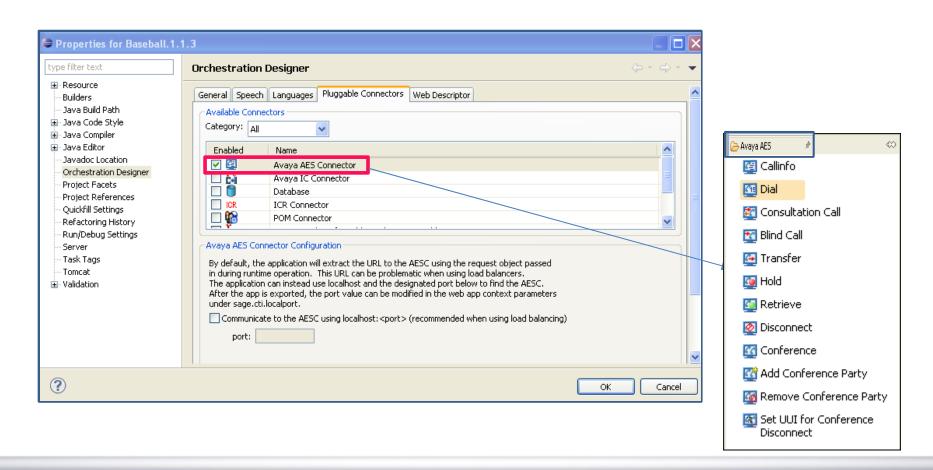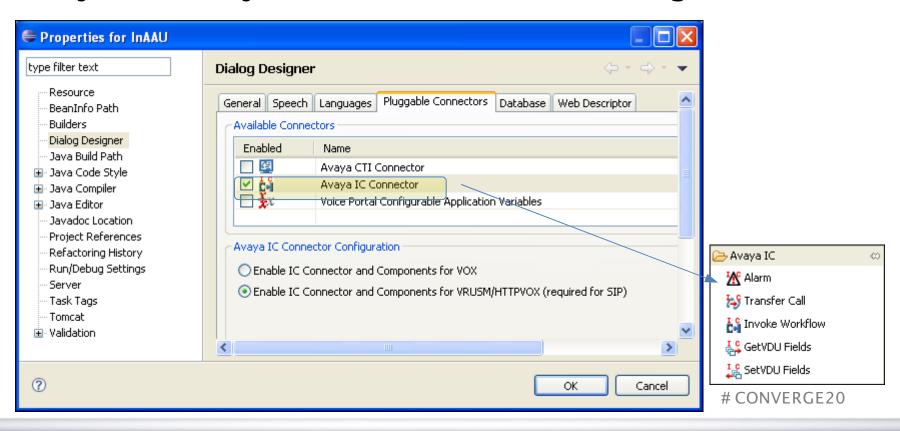
▸Project -> Projects -> Orchestration Designer

CTI –
Why Use It in a Avaya Aura® Experience Portal App?

	H.323	SIP
‣Collecting Information about Caller		
–Universal Call ID (UCID)*	√	√
–ANI	√	√
–DNIS	√	√
–User-to-User (UUI) Information		√
‣Populating Information for Screen Pops		√
–User-to-User (UUI) Information		

*CM 5.2 or greater

Caller Information Provided with H.323
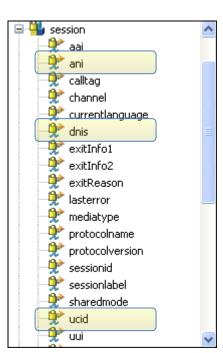
▸Collecting Information about Caller

- UCID
- ANI
- DNIS


```
TraceSessionVariables |   | session:protocolname : H323
TraceSessionVariables |   | session:ucid : 00001001551271709292
TraceSessionVariables |   | session:ani : 3035171421
TraceSessionVariables |   | session:dnis : 44346
TraceSessionVariables |   | session:uui : undefined
```

Caller Information – UCID (H.323)

▸VP Station (CM 5.2)
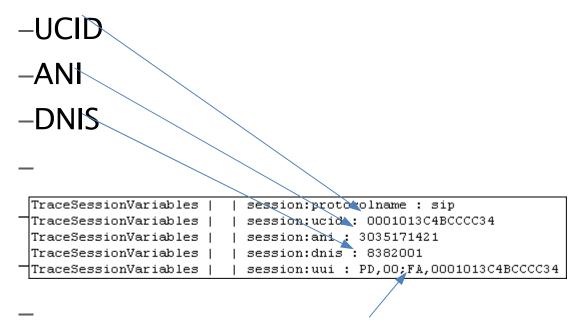
SIP Architecture
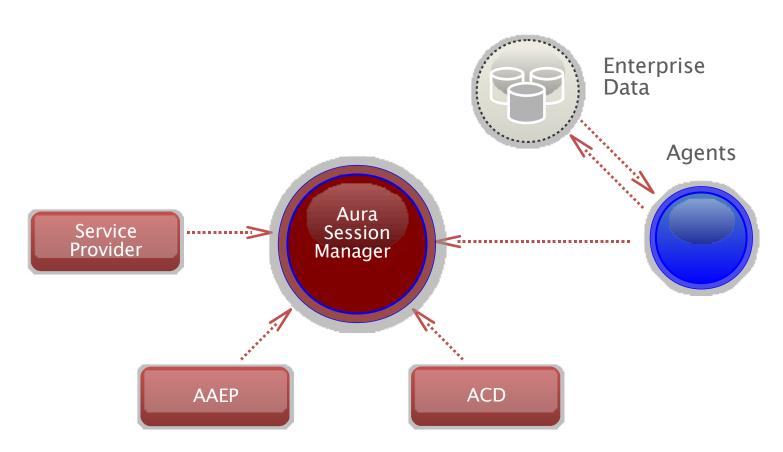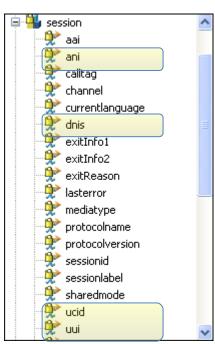
Caller Information Provided with SIP

▸Collecting Information about Caller

– UCID

– ANI

– DNIS

–

```
TraceSessionVariables |  | session:protocolname : sip
TraceSessionVariables |  | session:ucid : 0001013C4BCCCC34
TraceSessionVariables |  | session:ani : 3035171421
TraceSessionVariables |  | session:dnis : 8382001
TraceSessionVariables |  | session:uui : PD,00;FA,0001013C4BCCCC34
```

–

– User-to-User (UUI) Information

session
- aai
- ani
- calltag
- channel
- currentlanguage
- dnis
- exitInfo1
- exitInfo2
- exitReason
- lasterror
- mediatype
- protocolname
- protocolversion
- sessionid
- sessionlabel
- sharedmode
- ucid
- uui

Caller Information – UCID/SIP (SIP)

▸SIP Trunk-Group

Populating UUI (SIP)

- Applications -> <App Name> -> Advanced Properties

Advanced Parameters

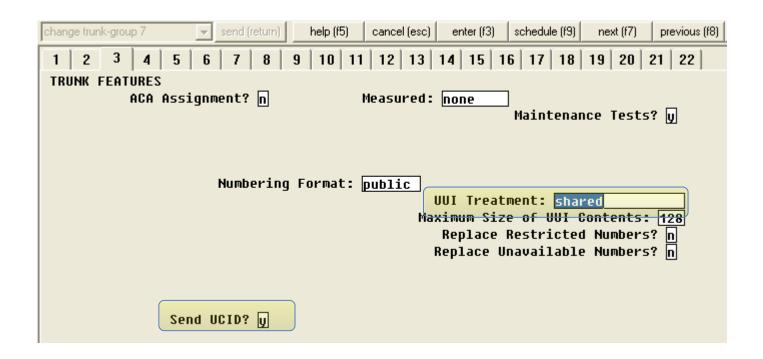|	
Support Remote DTMF Processing:	○ Yes ● No
Converse-On:	○ Yes ● No
Network Media Service:	○ Yes ● No
Dialog URL Pattern:	
VoiceXML Event Handler:	<Default>
CCXML Event Handler:	<Default>
Generate UCID:	○ Yes ● No
Operation Mode:	Shared UUI
Transport UCID in Shared Mode:	● Yes ○ No
Maximum UUI Length:	128
Fax Detection Enable:	○ Yes ● No
Fax Phone Number:	
Video Enable:	○ Yes ● No
Video Screen Format:	QCIF
Video Minimum Picture Interval:	2

Shared UUI
Service Provider
Shared UUI
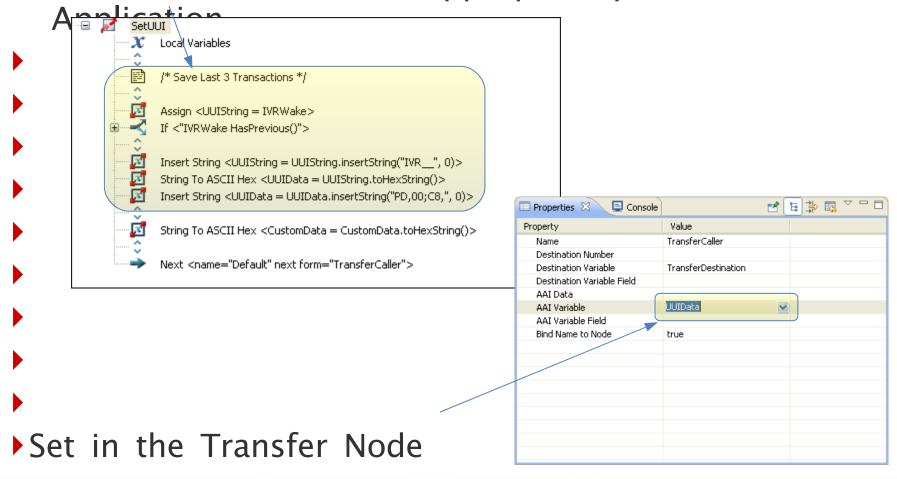
▸**Service Provider** – App Developer is responsible for formatting the UUI (session:aai).
▸**Shared UUI** – Avaya Aura® Experience Portal will try to "interpret" session:aai and format the UUI.

Passing Information to AACC using UUI

▸Format UUIData variable appropriately in OD Application

▸Set in the Transfer Node

Displaying UUI on Agent Phone

▸Station COR

Passing Information to AACC using UUI

▶ Data is used primarily for screenpops
▶ Can also display data on agent desktop
▶
▶
▶
▶
▶
▶
▶

Custom Fields
Customer | Contact | Intrinsics
☑ Display Raw Intrinsics

UUI data	IVR__3-Acct Bal-$67.85/1-Cust Svc
AAEP_FIRSTNAME	Jon
AAEP_SURNAME	Haich
AAEP_ADDRESS	8740 Lucent Blvd
AAEP_BALANCE	$67.85
AAEP_STATE	CO
AAEP_CITY	Highlands Ranch
AD_CDN	751551

▶ Data goes with the call if transferred

Avaya Aura® Contact Center Integration:
Avaya Aura® Experience Portal First

1 Call is routed to Avaya Aura® Experience Portal via SIP

2 Experience Portal performs initial interactions with caller, performs self service if applicable and collects required caller context information

3 AAEP transfers call to AACC, attaching collected data in SIP UUI (and optionally P-Intrinsics) headers

Experience Portal

2

1

Aura SIP Core

1

3

AACC

Passing Information to AACC using P-Intrinsics

▸ Information can also be passed from AAEP to AACC using a 'P-Intrinsics' SIP Header

▸ AACC will parse the header and create Contact Intrinsics and / or Attached Data accordingly

▸ Suitable for larger amounts of data than UUI

▸ Header is hex-encoded, XML formatted

```
–                    <cc>
                        <i>AAEP_FIRSTNAME=Jon</i>
                        <i>AAEP_SURNAME=Haich</i>
                        <i>AAEP_ADDRESS=8740 Lucent Blvd</i>
                        <i>AAEP_CITY=Highlands Ranch</i>
                        <i>AAEP_STATE=CO</i>
                        <i>AAEP_BALANCE=$67.85</i>
                     </cc>
```

Passing Information to AACC using P-Intrinsics

▸Format CustomData variable appropriately in OD Application
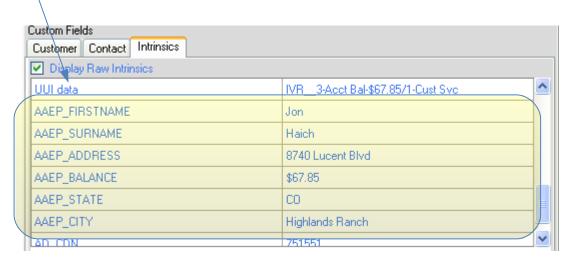
Passing Information to AACC using P-Intrinsics

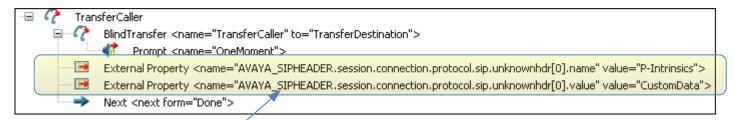▸Maximum amount of data varies depending on the initial call path (CM – 1K, SBC – 4K)
▸Can also display data on agent desktop
  –

Custom Fields

Customer	Contact	Intrinsics

☑ Display Raw Intrinsics

UUI data	IVR__3-Acct Bal-$67.85/1-Cust Svc
AAEP_FIRSTNAME	Jon
AAEP_SURNAME	Haich
AAEP_ADDRESS	8740 Lucent Blvd
AAEP_BALANCE	$67.85
AAEP_STATE	CO
AAEP_CITY	Highlands Ranch
AD_CDN	751551

Avaya Aura® Contact Center Integration: Avaya Aura® Experience Portal as Part of Call Flow

1 Call is routed to Avaya Aura® Contact Center initially

2 AACC performs applicable treatments (Ringback, RAN etc.)

3 AACC conferences AAEP with customer to provide advanced IVR functionality, optionally sending context data

4 AAEP returns any results to AACC via SIP INFO messages or web services

Experience Portal

Aura SIP Core

AACC   #CONVERGE2013

Application Effectiveness Reporting

Measuring Results

Four kinds of reporting

- Call Detail
  - Provides data on a Call basis
  - Generated in Media Server as part of call handling
- Session
  - Provides data on a VoiceXML/CCXML session basis
  - Generated in the Media Server as part of VoiceXML/CCXML session
- Application
  - Provides data on an Application basis
  - Generated by the VoiceXML/CCXML application
  - From Avaya Aura® Orchestration Designer <u>or</u> Application Reporting Web Service
- Performance
  - Platform performance data from Media Servers and Experience Portal Manager
-
- Each of these has detailed and summary views

Reporting Lessons

- A monolithic application provides no segmentation data
  - Use unique VDN's even if the app is the same
  - Think about what you want to report
- Tracing ≠ Reporting
  - Think about how items will aggregate to provide trends
- Privacy tag to mask customer data
- Capturing anomalies for analysis and improvement

Application Reporting
Where the interesting stuff is

- ## What are the application reporting requirements?
  - – You need understand requirements at the beginning
  - – What do they look like, and what do they show
  - – Anticipating the next level or questions
- ## Reporting all entry/exit points
  - – Start, hang-up, transfer, complete, disconnect, error
- ## Defining transactions
  - – Multiple transactions allow fine grained analysis

Using Session Data

- Captures a set of completion/status items for session reporting
  - exitReason
  - exitTopic
  - exitCustomerID
  - exitPrefferedPath
  - exitInfo1 - 10
- Can be summarized in Session Summary Report
- Exported to Avaya IQ/Avaya Performance Center

My Reports
Ability to define, save and schedule reports

Tailoring What is Collected
System Configuration -> Applications

Configuring the Retention Period

System Configuration > Report Data Configuration
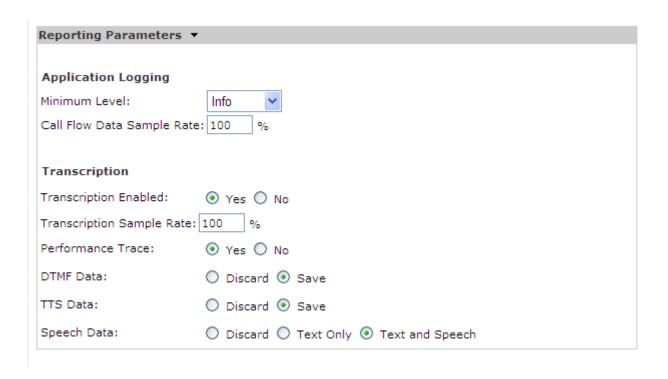
Report Data Configuration

Use this page to configure how often the VPMS collects report data from each MPP, and how long the VPMS keeps the report data in the Voice Portal database.

Download Session Detail Records: ⊙ Yes ○ No

Download VoiceXML Log Tags: ⊙ Yes ○ No

Download CCXML Log Tags: ⊙ Yes ○ No

Report Database Record Data

Purge Records:	⊙ Yes ○ No
Call/Session Retention Period:	30 day(s)
Application Retention Period:	30 day(s)
Performance Retention Period:	30 day(s)
Performance Report Aggregation Period:	5 minutes(s)

Download Schedules

Periodic Download: ⊙ Yes ○ No   Download Interval: 1 minutes(s)

On-demand Download: ⊙ Yes ○ No

New Schedule

☐ Sun ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ All

Start Time: 10:24   **Add**

Download Schedules

Sun,Mon,Tue,Wed,Thu,Fri,Sat--02:00

Remove

Monitoring Resource Usage

·**Primary EPM disk Usage**

- ➢ Root
- ➢ Avaya Home
- ➢ Application Server
- ➢ Database

➢ Generating minor and major alarms (low/high water mark)

➢ When exceeding High Water mark:

- ➢ all logging data, alarm data and report logs and application logs are stopped

- ➢ Audit logs, debug traces and syslog continues

➢

➢

Resource Alerting Thresholds (%)

	High Water	Low Water
Disk:	80	60

Resource Status ▼
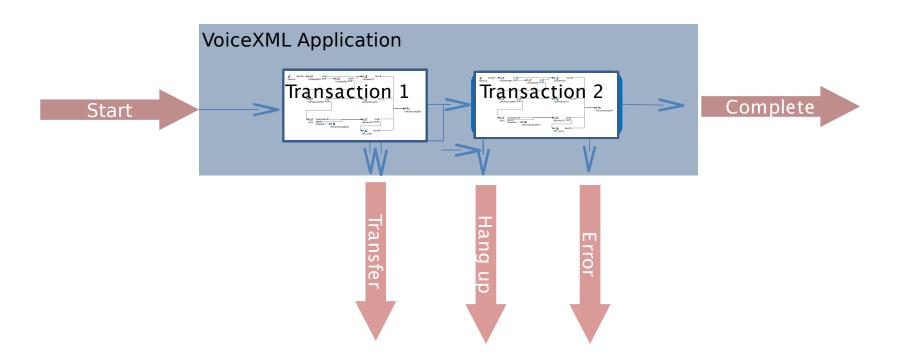
Partition that contains	Disk Usage (%)
/	19
Avaya Home	N/A
Application Server	19
Database	N/A

Database Status ▼

Database Version:	PostgreSQL 8.2.5
Database Size:	40,331,104 bytes

Show All

Table Name	Size (bytes)
vpperformance	9,175,040
cslog	3,571,712
vpmppauditlog	2,441,216
alarmrecord	1,466,368
vplastchangedate	1,220,608
vpappprompts	1,171,456
sdproperty	933,888
vpapppagelet	630,784
csadminauditlog	458,752
sdpropcntnr	393,216
Other tables	18,868,064

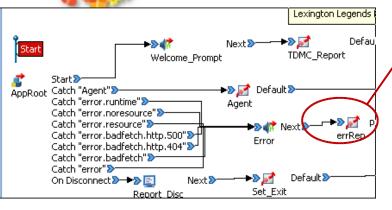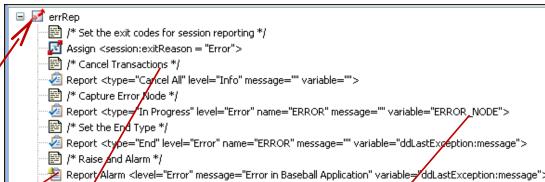# Reporting – What happened to the call

Error Reporting

- Wrap All External Applications in a try/catch
  - Error Reporting/Alarming
  - In-line recovery

- Capture all errors on AppRoot
  - Cleanup
  - Cancel transactions
  - Error reporting/alarming
  - Graceful handling of user

Error Reporting

How did I get here?

- Getting the last node
- Adding to reports

Transactions and Summarizations

Date_or_Oppenent
Report <type="Start" level="Info" name="Pick Game" message="" variable="">
Choice <name="Date" next form="By_Game_Date" DTMF="1">

Transaction

Collect_Adult_tickets
Report <type="End" level="Info" name="Pick Game" message="Team" variable="Team">

Activity Name	Duration (seconds)			Call Count	Total Count
	Minimum	Maximum	Average		
Baseball Ticket Application	5	151	64	8	8
Pick Game	19	44	33	3	3
Pick Tickets	16	25	21	2	2

Place_order
Report <type="In Progress" level="Info" name="Ticket Order" message="Team" variable="Team">
Report <type="In Progress" level="Info" name="Ticket Order" message="Date" variable="Date_for_Game">

Summary By Variable Name And Value   Exclude Single Occurrences

Variable Name	Variable Value	Call Count	Total Count
Date_for_Game	10	3	3
Date_for_Game	21	1	1
Date_for_Game	25	1	1
Team	Ashville	1	1
Team	Greensboro	1	1
Team	Haggerstown	3	3
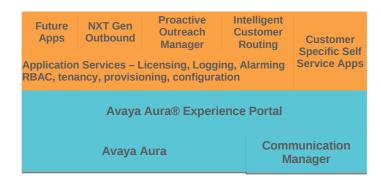
Avaya Proactive Outreach Manager

Multi-Channel Outbound Automation

Extend Outbound – Proactive Outreach Manager

- Multi channel support for voice, video, SMS, email

- Common management plug-in within the Experience Portal Management System

- Avaya Aura® Experience Portal as the outbound dialing and voice application platform

- Campaigns can consist of static announcements, dynamic text, or fully interactive voice dialogs.

- Pluggable data connector to provide interaction with Avaya Aura® Orchestration Designer

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Future Apps	NXT Gen Outbound	Proactive Outreach Manager	Intelligent Customer Routing	Customer Specific Self Service Apps
Application Services – Licensing, Logging, Alarming RBAC, tenancy, provisioning, configuration				

Avaya Aura® Experience Portal

Avaya Aura   **Communication Manager**

Proactive Outreach Voice Apps

- AvayaPOMAnnouncement – Plays up to 4 prompts in 4 languages with opt out
- AvayaPOMNotify – Plays/emails/SMS's customizable and configurable message
- AvayaPOMAgent – Transfers to a specified destination with a message
- Orchestration Designer Application –

POM Announce

- Set of messages to be played
- Multi-lingual
- Opt-out built i

Result (Answer Human)
  Application
    Custom

Property	Value
Name	
Description	
Application	AvayaPOMAnnouncement

Change AvayaPOMAnnouncement Configurable Application Variables

Use this page to change the values of the configurable application variables, defined in the applications that are deployed on the Experience Portal system.

|	
DNC Digit [0,1,2,3,4,5,6,7,8,9]:	
Default Prompt 1:	Choose File no file selected
Default Prompt 2:	Choose File no file selected
Default Prompt 3:	Choose File no file selected
Default Prompt 4:	Choose File no file selected
Default DNC Result Prompt:	Choose File no file selected
Language 1:	cs_cz / de_de / en_au / en_gb
Language 1 - Prompt 1:	Choose File no file selected
Language 1 - Prompt 2:	Choose File no file selected
Language 1 - Prompt 3:	Choose File no file selected
Language 1 - Prompt 4:	Choose File no file selected
Language 1 - DNC Result Prompt:	Choose File no file selected
Language 2:	cs_cz / de_de / en_au / en_gb
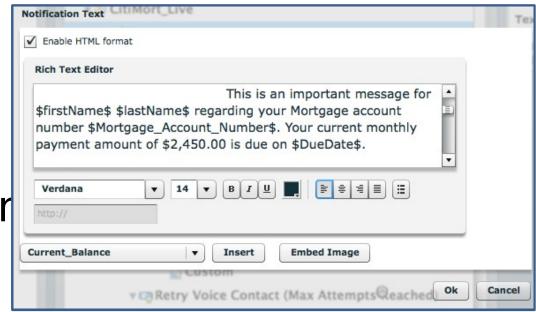
POM Notify

- Customized Messages
- Multi-lingual
- Insert Campaign Data
- Different Messages for Different Results

Avaya POM Agent

- Transfer to Agent
- Plays Specified
   Message to Caller

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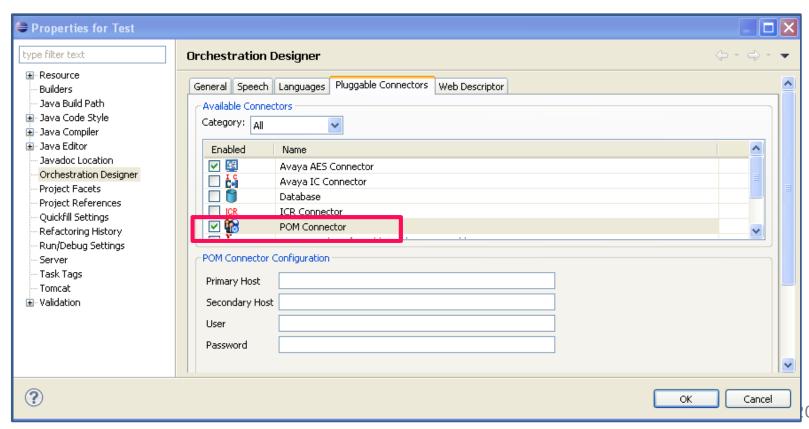| Property	Value
Name	Transfer to Agent
Description	Transfer to Help Desk
Destination	75345
Text ID	2

Orchestration Designer

- Run Orchestration Designer App

- Access to complete session detail

- External Data Access

- Multi-lingual

-
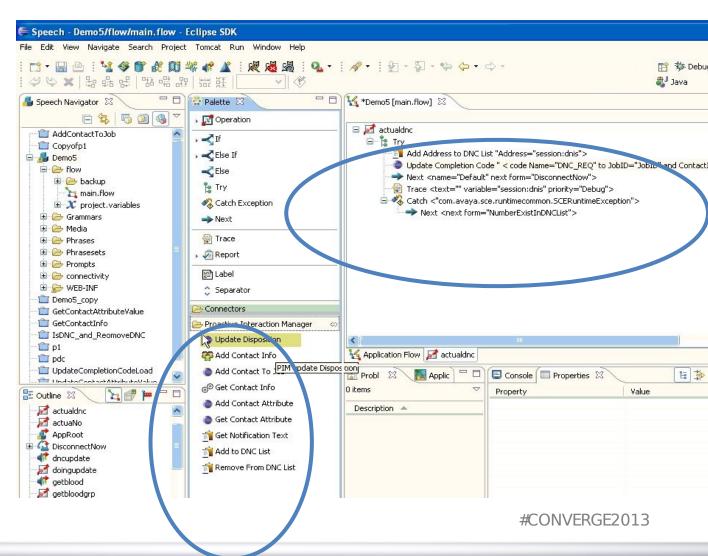
Developing Applications With the POM PDC
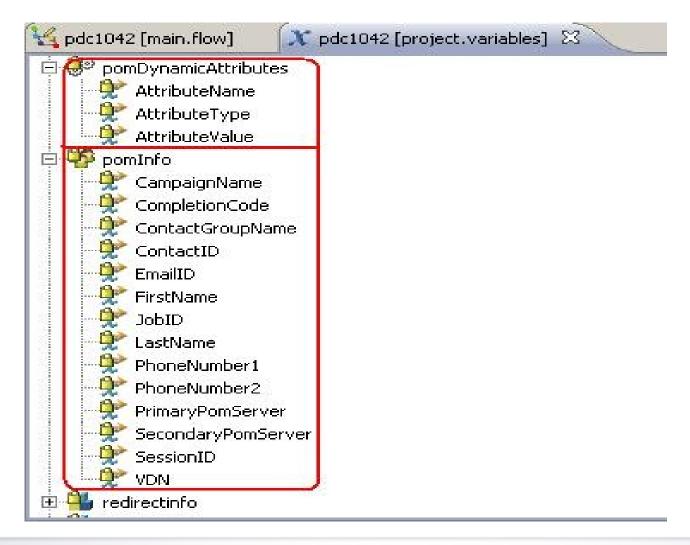
Enabling the Connector

Developing Applications With the POM PDC

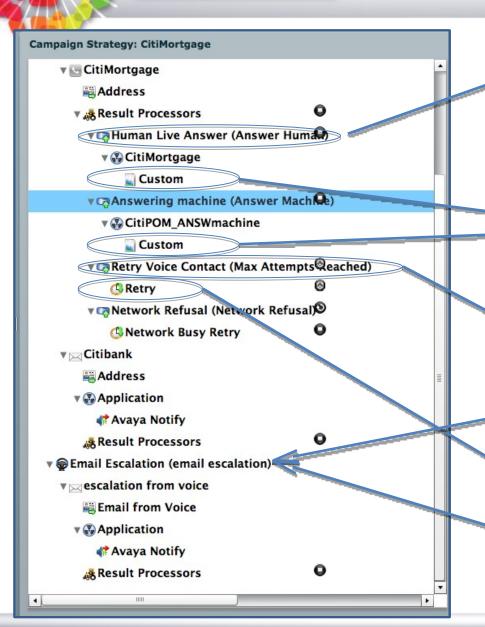Working with Avaya Proactive Outreach Connector

POM PDC Project Variables …

Escalation Strategy

- Can Enter Callback number and time on web
- Web Services to add data to campaign
  - SaveContactToList()
  - AddContactToJob()
- Strategy to Manage Delivery

First name: [ ]
Last name: Web Form
Phone Number [ ]
Callback Time [ ]

HTT

Application Server

Web

POM

Scheduled Web Callback
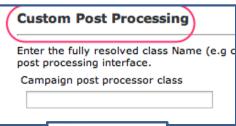
Extending Proactive Outreach Manager

- Custom Data Imports
  - Useful when you want to import data directly from sources other then file, RDBMS. Example : fetch contact records directly by interfacing with your ERP systems, web social sites etc.
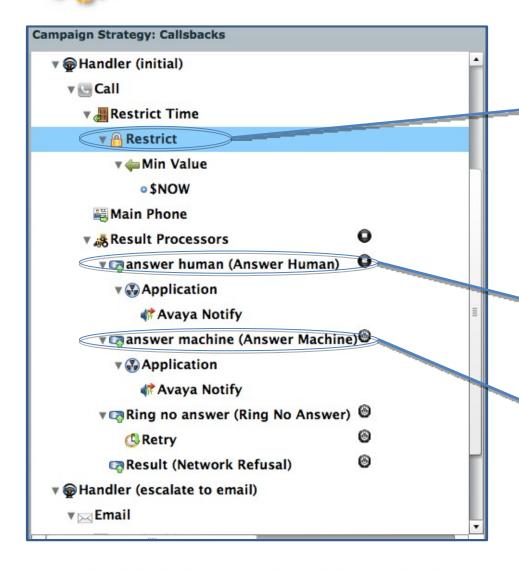
- Custom Post Job processing
  - Useful when you want to take some custom action when a campaign ends. Example on campaign end – get all contact records with a specific disposition and update your ERP/CRM for further processing.

- Custom Result Handler
  - Useful when you want to do some custom processing on specific result like call busy, SMS sent failed etc. Useful when you want to update an external system (ERP / CRM) in real time as you encounter certain dispositions for each contact record processed by POM.

- Custom Action
  - POM supports 3 action types out of the box – Make a call, send Email, send SMS. This essentially allows you to add a custom channel

Create Data Source Using
- File
- DataBase
- Custom

Custom Post Processing

Enter the fully resolved class Name (e.g.
post processing interface.

Campaign post processor class

Handler
  Custom
    Address
    Application
      Custom
    Result Processors
      Result
        Application
          Custom

Selected Node: Handler
- Call
- SMS
- Mail
- Custom

Summary

▸Avaya Aura® Experience Portal provides standard extension points

> ▸Administrable Variables for application configuration
>
> ▸Pluggable Data Connector for integration

▸Telephony and Contact Center Integration

> ▸Passing data in SIP
>
> ▸CTI and IC connectors
>
> ▸Context with IC/AACC/Context Store

▸Proactive Outreach Manager

> ▸Powerful Strategy
>
> ▸Use of Orchestration Designer Apps

Avaya Aura® Orchestration Designer and Related Resources:
Avaya DevConnect Program

- **FREE Registered-level membership!**

  - SDKs & Developer Tools
  - No-Cost & For-Pay
        Technical Support option
  - Sample Applications
  - Tutorials and eBooks
  - Technical Training
  - No-charge Remote Labs
  - … and more!

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**Thank you for attending.
Please remember to complete your
evaluation of this session.**

**640
Advanced Experience Portal,
Proactive Outreach Manager &
Orchestration Designer**