Connecting the Internet of Things to the *Human* Element

Diego Ventura CEO of noHold Inc.
Cisco 8800 vs. Avaya 9600 Series

Customers adopt <10% of features

Top 10% features are the same

Loss of competitive advantage
The VA educates customers on differentiating technology, so that adoption grows and they do not have to compete on price.

Hello, I am Cisco's Virtual Assistant. How may I help you?

I would like to set up Visual Voicemail. How do I do that?

Three easy steps:
1. Open Communications Manager
2. Select "Add New" to create a new service
3. In the IP Phone Service Configuration window, enter the following information…
The Rise of the Bots

Messing Apps Have Surpassed Social Networks

Monthly active users for top 4 social networks and messaging apps

- Big 4 Messaging Apps
- Big 4 Social Networking Apps

Source: Companies, BI Intelligence
Product Life Cycle

- Design
- Build
- Test
- Market
- Sell
- Deploy
- Live
- Support
Benefits

Market Share
- Revenue
- Adoption
- Renewals
- Net Promoter score

Efficiencies
- Support
- Marketing – optimized campaigns
- Company Administration
noHold Inc. builds Virtual Assistants that help some of the most successful companies in the world, increase revenue and decrease cost, while increasing customer satisfaction.

www.noHold.com
What is a Virtual Assistant?
Apple - Siri

image source: iphonehacks.com
Microsoft - Cortana

What else can I do for you?

Good morning! Let's get your day started.

53° Sunny (Clear) in current location

Good morning! Let's get your day started.

Here's the latest on American Horror Story.

search web or phone

image source: geekongadgets.com
A Virtual Assistant is similar to live chat, but answers are provided by Artificial Intelligence, not humans.
Amazon - Echo

- Will it rain tomorrow?
- Set an alarm for eight a.m.
- Play music by Bruno Mars
- How many teaspoons are in a tablespoon?
- Add gelato to my shopping list
- Wikipedia: Abraham Lincoln
- When is Thanksgiving?
- Play my “dinner party” playlist
- What’s the weather in Los Angeles this weekend?
- Add “make hotel reservations” to my to-do list

Image source: geekwire.com
Virtual Assistants are being used by Enterprises to …
Reduce Support Cost

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**Ask Bella**

**You:** You have questions about a charge on your bill

**Bella:** Unfortunately, we are unable to provide you with a solution to an account-specific problem online. You will need to contact a representative with questions about charges on your bill.

Click [here](#) to email a representative or contact ZoomTown Technical Support at (513) 565-9890.

**Bella:** Was I able to answer your question?
- Yes, thank you
- Yes, but I have another question
- Somewhat, show me related topics
- No, this does not answer my question

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Ask your question: [ ]

Send Reset

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Powered by notifly, Inc. U.S. Patent No. 8,054,141
Reduce Support Cost
Make sure customers renew contracts
Generate a recurrent revenue stream
What are the key features of a successful Virtual Assistant?
A successful Virtual Assistant must …

1. Manage dialog with the user (NLP – Procedure Guidance)
2. Connect with your IoT product
3. Connect with your ecosystem
4. Connect with other Virtual Assistants
5. Be accessible from different channels
6. Be available to both customers and employees
7. Provide the Voice of the Customer
8. Interact in multiple languages
Natural Language Processor (NLP)

The NLP provides the right solution, when questions are phrased differently.
NLP continued …

The NLP provides the right solution, even if questions are misspelled or morphed.
Confirming Questions

The troubleshooter can ask confirming questions if it is not sure of what the end user is asking.

This technique reduces the number of “false positive” results.
Subject Change

End users are not forced to follow a specific path to get to a solution.

An end user can make a statement and abruptly change the subject.

<table>
<thead>
<tr>
<th>You</th>
<th>cannot connect to the Internet</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAZ</td>
<td>I understand that you want to connect to the Internet</td>
</tr>
<tr>
<td>You</td>
<td>no, I want to configure windows</td>
</tr>
<tr>
<td>JAZ</td>
<td>I understand that you want to configure Windows for wireless</td>
</tr>
</tbody>
</table>
Clarifying Questions

End users can ask clarifying questions.

When the end user does not understand the meaning of a term or statement; the Virtual Agent provides an answer and continues the conversation.

You: what is tcp ip?

JAZ: Transmission Control Protocol/Internet Protocol is the basic communication language or protocol of the Internet.

JAZ: Select one of the options or describe your problem
- You want to check wireless adapter.
Diagnostic

The Troubleshooter is diagnostic. A typical diagnostic process involves following a procedure and then taking a specific course of action depending on the results.

**JAZ Solution:**
Connect your computer directly to your modem. Then attempt to access the Internet (open browser).

Can you see the Internet now?
If you **can** click here
If you **cannot** click here
Escalation

End users can promptly escalate to a live agent if they are not satisfied with the solution provided by the Virtual Agent.

The availability of escalations is policy driven and can be set by the company.
Cross-sell & Up-sell

The Virtual Agent can identify a problem and propose a product that would solve the issue with a link to purchase it online.

JAZ: How big is your home?
You: 5000 square feet

JAZ: I suggest you take a look at a Range Extender. You can click here to shop online.
Must be able to connect to your Products
Must be able to connect to your Ecosystem – Live Chat
Must be able to connect to your Ecosystem – CRM
Must be able to connect to your Ecosystem – Community
Must be able to connect to your Ecosystem – Ecommerce Platform
Must be able to connect to other Virtual Assistants
Must be accessible from other Channels
Must be available to both Customers and Employees
Must capture the Voice of the Customer
Must be able to support Multiple Languages
But it cannot take too long to build
Use existing content
Agile Deployment

**Week 1**
- Metrics
- Escalation
- Etiquette

**Week 2**
- Routing
- Metrics
- Escalation
- Etiquette

**Week 3**
- Top 10
- Routing
- Metrics
- Escalation
- Etiquette

**Week 4**
- Content
- Top 10
- Routing
- Metrics
- Escalation
- Etiquette

**Beyond**
- Integrations
- NHC
- SPS
- International
- Multi-channel
Must be easy to implement
Must be easy to implement
Must be easy to implement
Considerations

- If you are planning to build an IoT product consider VA as part of your Product Life Cycle.

- If you are planning to adopt IoT products for your business, make sure they come with a Virtual Assistant, they will make your life easier.
Use Cases

1. Product Manual
2. Call Center (Policies and procedures)
3. Sales (RFP, policies and procedures)
4. HR (JLM, Employees Manual, 401K Plan, Stock Option Plan)
5. IT (DB Administrator)
6. Customer Care (Kubi, Centro39, Filosano)
7. Hospitality (Virtual Concierge)
Business & Human(s) Dimension
Companies build apps to query and control the devices they create.
Google Nest publishes this app
To control this device
The current approach of one app per device is not scalable for the IoT
Artificial Intelligence and Virtual Assistants can help humans experience the power of the IoT.
Devices can be queried through a Virtual Assistant
Virtual Assistants can communicate with each other via noHold Connect (NHC)

- Hello
- Sup?
- Whatssss
- Nothing Much
Allowing end users to engage one Virtual Assistant to manage an infinite number of devices
Like personal Butler that can ...
Hi Mike,

What can I do for you this morning?

Set the living room to 70.

Got it. Temperature set to 70 degrees.
Perform tasks

Set the living room to 70.

Got it. Temperature set to 70 degrees.

While you are engaged. Your Automobile needs a tune up.

Would you like me to check availability at Speedy Auto?

Yes, set me a reminder for tomorrow at 2pm.

Will do.
Answer queries

While you are engaged. Your Automobile needs a tune up.

Would you like me to check availability at Speedy Auto?

Yes, set me a reminder for tomorrow at 2pm.

Will do.

Is tonight’s episode of The Big Bang Theory recording?

Yes, it is set to record at 6pm.
Overall simplify people’s lives.
Specific Steps to Get Started

1. Focus on a small quick-win project
2. Leverage existing channels through Machine Learning
3. Use the Agile Deployment Approach
4. Write a good manual (albertAI.com)
Parting Thought

If you consider that:

1. Non programmers can build VAs in minutes
2. VAs can be connected together
3. VA can connect to existing systems and devices
4. VA can support multiple channels and languages

Then, the Virtual Assistant of the future will not be built by one company, but by all of us.
Sign Up for Albert

Name

Email

Company

How did you hear about Albert?

I have read and agree to the terms & conditions

Submit

You must be 18 or older to sign up or be accompanied by a guardian.
Thank you

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