

Ask Us Anything: Cerence Browse Brings Search Engine-Level Knowledge Into the Car

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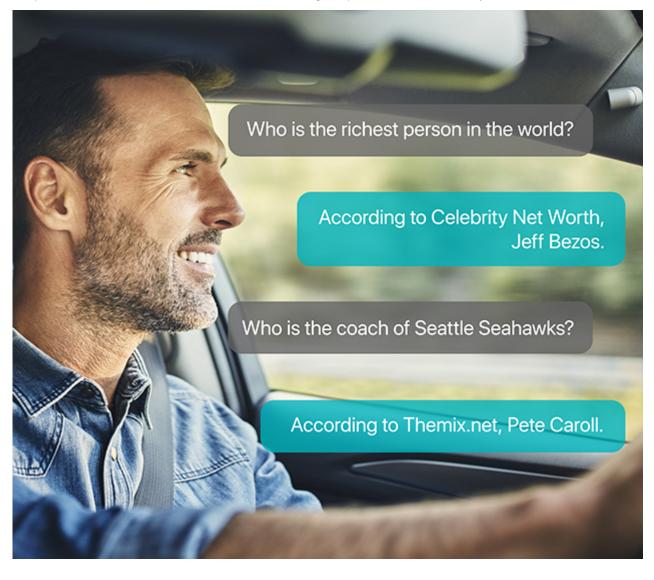
By Nilesh Jain, Principal Product Manager

"Tell me how old the Earth is." "When was the Eiffel Tower built?" "Who was Travis Barker married to?" Since virtual assistants and smart speakers have come on the scene, asking questions has been one of consumers' favorite ways to test their knowledge and capabilities. In fact, <u>Voicebot.Al's</u> <u>Smart Speaker Consumer Adoption Report 2020</u> shows that nearly 85% of users have tried the question-and-answer features of their in-home, smart speaker assistant, with nearly 40% using it daily – up from one-third in <u>2018</u>. Over time, consumers have become accustomed to asking their in-home voice assistants any question that comes to mind.

That said, the need for information doesn't begin and end in the home. Consumers around the world need and want information at their fingertips, easily accessible no matter where they are. As voice assistants have grown in popularity and in-car assistant usage has grown, consumers expect the same level of capabilities and knowledge across their assistant ecosystem. But today, this type of general knowledge isn't common in the car. The current car assistant supports limited general knowledge capability and thus few automotive assistant users - only 14% - have tried general knowledge Q&A with their in-car assistant, according to <u>Voicebot ai's 2020 In-Car Voice Assistant Consumer Adoption Report</u>.

Cerence Browse addresses this need in the car, serving as an AI-powered content service that brings the intelligence of internet search engines directly into the car, enabling drivers to ask general or real-time information questions ("How many calories in a cup of coffee?" or "What is the stock price of Cerence?" for example) and receive spoken, natural language answers – not a list of search results. It's a complete, knowledge-based experience that brings the power of information into the cockpit.

While previous solutions have focused on providing answers to mostly driving- or trip-related questions – like checking the weather, getting directions, or looking up restaurants – Cerence Browse brings a new level of overarching general knowledge, helping automakers seamlessly extend the assistant's capabilities. Drivers can now ask both weather-related questions like "What is current temperature in Seattle?" as well as general information questions about the climate in Seattle like, "What is the average temperature in Seattle in January?"





Cerence Browse covers a vast set of general questions: nutrition facts; specific information about POI; information about a particular area; knowledge about a celebrity or important person like their birthday, height, and family; and much more. More importantly, Cerence Browse's conversational AI-powered ability to deliver answers and information via spoken responses from the automotive assistant demonstrates further advancements in creating a truly human-like virtual companion in the car.

How it Works

Cerence Browse is part of the new Cerence Cloud Services, using Cerence's multi-region and multi-tenant cloud. Here's how it works:

- 1. Cerence Browse connects to several external knowledge sources and web search engines, extending the capabilities of the automotive assistant to allow for a much wider range of user questions.
- 2. We leverage multiple internet-based knowledge sources in real time, indexing continuously updated information and using Machine Reading Comprehension (MRC) to deliver the best possible answer.
- 3. Cerence Browse then converts the information into a voice response that does not require the driver to take their eyes off the road.
- 4. Based on user questions and interactions, we continuously add new content sources and update data to cover more domains and questions, without any additional action or effort from OEMs

Benefits

Cerence Browse offers one point of interaction for all use cases through the OEM-branded application - without the need to open an app or invoke a third-party assistant - so drivers can use their voice to ask anything they need while driving. It also provides OEMs the ability to customize the general knowledge experience to showcase OEM branding, with high accuracy. In addition, OEMs can enable Cerence Browse in vehicles after start-of-production without any modifications via over-the-air updates. Lastly, Cerence Browse extends the use cases of existing automotive information domains such as weather, sports, stock information, and more, and improves the user experience for the given domain.

I'm excited to see how Cerence Browse extends the role of the in-car assistant and adds value for drivers. For more on Cerence Browse, visit www.cerence.com/cerence-products/cloud-services.