



General Personal Assistants

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7 billion

mobile cloud
transactions annually

4,100

patents &
applications

65+

countries

14+ billion

customer engagements
per year

12,000

employees

80+

languages

800 million

mobile keyboards
shipped annually

15,000

mobile app
developers

1,200

voice and language
scientists and
engineers

5 billion

lines of medical data
transcribed annually

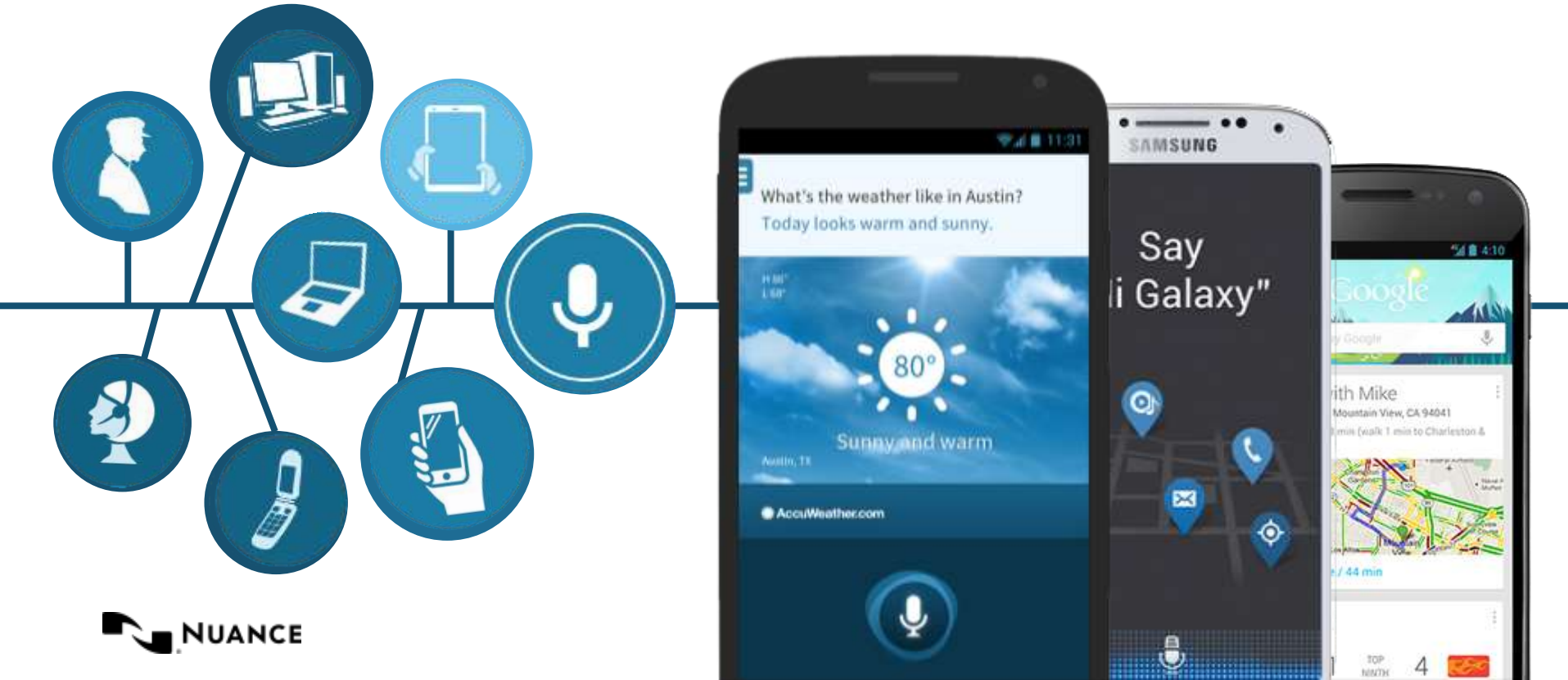
25 million

voice-enabled cars
sold annually

6,500+

companies use
Nuance Enterprise
solutions

The Evolution of the Personal Assistant



Today's Personal Assistant

An always there companion ready to simplify and streamline your life



- Productivity, device and app control
- Conversational UI
 - Speech input
 - Natural, human-like speech output
- Semantic web search
- Handset-focused initially
- Expansion to tablets, desktops, autos and more

An Inflection Point

Revolutionary shift from task-centric to user-centric

Speech Recognition

Command & Control

Dictation

Search

Natural Language



6 billion
mobile handsets

70+
languages

65+
countries

Intelligent Systems

Understand

Inform

Be Aware

Ubiquitous

The Future of the Personal Assistant

Smarter, more aware, personalized and always accessible

I don't remember what I had for breakfast.




Gluten-free waffles, sir.



- Contextual awareness
- Advanced hands-free access
- Smarter notifications
- Personalization
- Ubiquity
- Advanced reasoning

Context is King

Leverage user behavior, device and environmental sensor inputs to augment the intelligence and expand the reach of the assistant

User	<ul style="list-style-type: none">• Last app used• Content in focus• Recent contacts	<ul style="list-style-type: none">- Resolve anaphora- Enable more natural, conversational interactions 
Device	 <ul style="list-style-type: none">• Accelerometer• Proximity Sensor• Ringer State• Camera	<ul style="list-style-type: none">- Account for travel trajectory when making recommendations- Enable new modes of hands-free access, improve battery life- Adjust TTS verbosity and feedback mechanisms- Adapt system responses based on user's environment and mood
Environmental	<ul style="list-style-type: none">• Location• Weather• Traffic• Time/day 	<ul style="list-style-type: none">- Geo-fenced alerts and recommendations- Proactively notify user to prepare for inclement weather- Alert the user to change route or leave early to get to work- Recommending recipes for Sunday evening dinner at home

Hands- and Eyes-Free Access

As devices continue to be more tightly integrated into our lives, to invoke and interact with them will become evermore seamless




- Increased number of devices supporting Wakeup Phrase
- Optimizations to reduce power consumption
- Advancements in SSE
- Proliferation across device types and form factors
- Eventual shift to more predominant screenless interactions






Smarter Notifications

The assistant employs 'agents' that take action based on user data, events and environment

User-generated

-  Hold all of my calls except from my wife.
-  Let me know if the Bruins win tonight.
-  When I get home tonight, send a text to Theresa.

Assistant-generated

-  Based on calendar and appointments
-  Location-based if in a new area
-  Based on music and other media preferences

True Personalization

The assistant will adapt and mold itself to the user



Ubiquitous Access

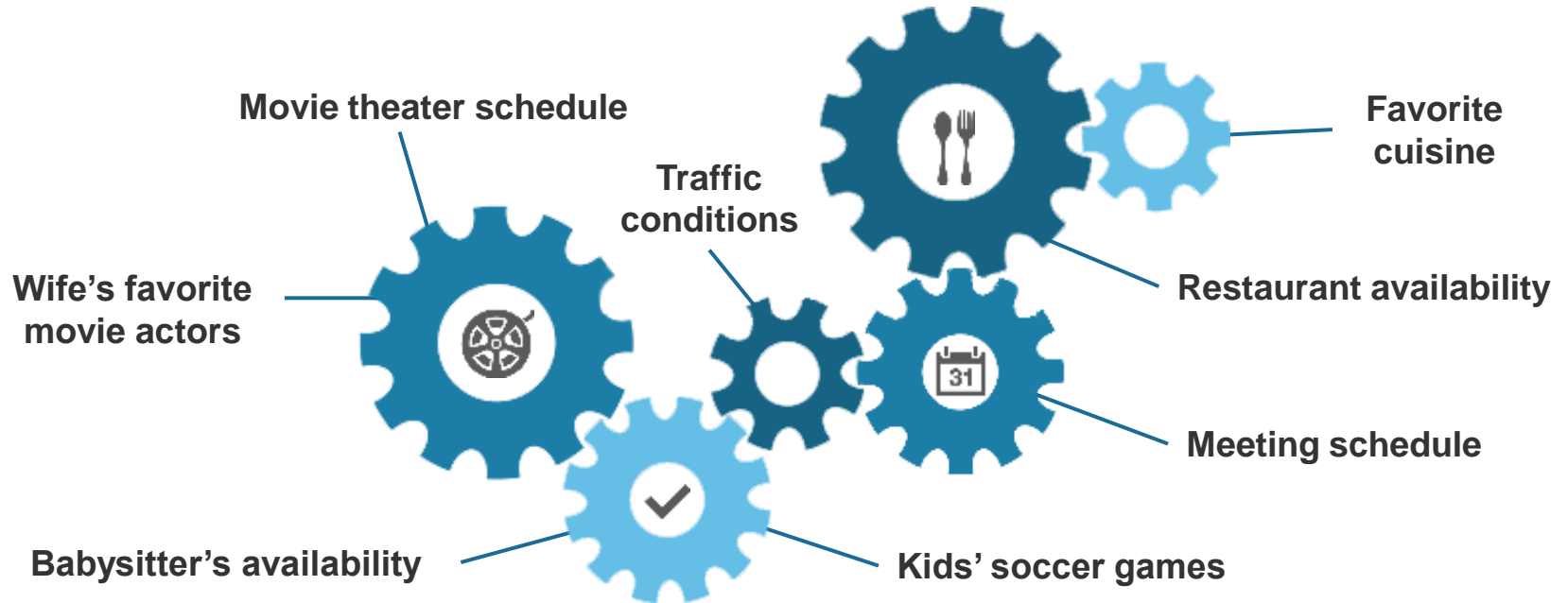
A seamless experience on every screen

- Users can continue an experience easily with natural language input
- Actions and preferences from one platform can more effectively influence another
- Shift from multiple disjointed experiences to a more closely aligned, holistic experience



Advanced Reasoning

A rich understanding of cross-domain knowledge to enable advanced interactions





Video



Thank you