About SBD Automotive

Since 1995 we live, eat and breathe automotive

Our Mission
To be the world-leading knowledge partner for the automotive industry

Our Expertise
The largest team of in-car technology specialists recruited from over 10 OEMs & suppliers

Our Customers
90% of OEMs
65% of Tier-1s
60% of Service Providers

We enable data-driven decisions

Our Intelligence & Insight Services
- Model-level databases
- Technology forecasts
- Supplier intelligence
- Market regulations
- News analysis

Our Evaluation Services
- Expert UX testing
- Consumer UX testing
- Iterative prototype evaluation
- KPI setting
- Cyber security testing

Our Strategy Services
- New market entry support
- RFP/RFQ management
- M&A due diligence
- Strategic workshops
- Supplier positioning support

We are here to help!

Our Approach
We are committed to adapting to our client’s needs and always strive for the highest quality of service

Our Offices

Your Contact Person
Mo Al-Bodour
Senior Specialist – Connected Car
malbodour@sbdautomotive.com
734-6197969
Our expertise

Connected
- infotainment apps
- remote services
- car IoT
- mobility
- telematics

Autonomous
- sensors
- advanced driver assistance
- driver monitoring
- V2X

Secure
- cyber security
- anti-theft
- risk assessments
- countermeasures
If an OEM was a person...

**INTERACTION WITH WORLD**

- **INTROVERTS** often like working alone or in small groups, prefer a more deliberate pace, and like to focus on one task at a time.

- **EXTROVERTS** are energized by people, enjoy a variety of tasks, a quick pace, and are good at multitasking.

**ABSORPTION OF INFORMATION**

- **SENSORS** are realistic people who like to focus on the facts and details, and apply common sense and past experience to come up with practical solutions to problems.

- **INTUITIVES** prefer to focus on possibilities and the big picture, easily see patterns, value innovation, and seek creative solutions to problems.

**DECISION-MAKING**

- **THINKERS** tend to make decisions using logical analysis, objectively weigh pros and cons, and value honesty, consistency, and fairness.

- **FEELERS** tend to be sensitive and cooperative, and decide based on their own personal values and how others will be affected by their actions.

**ORGANIZATION**

- **JUDGERS** tend to be organized and prepared, like to make and stick to plans, and are comfortable following most rules.

- **PERCEIVERS** prefer to keep their options open, like to be able to act spontaneously, and like to be flexible with making plans.
They are excited by new opportunities
Early-movers are not always rewarded
Innovation in Automotive

Organizational deadlock
Dwindling competitiveness
Legacy platforms
Sunk costs

Bureaucracy
Budget
Resources

Autonomous vehicles
Connectivity
Big data
Mobility
Let’s get into the car maker’s brain...
We all know about the HIERARCHY OF NEEDS...

... What if you’re an OEM?
An OEM’s hierarchy of connected car needs

Level 1
Connection
We need to connect our cars to offer basic features

Level 2
Integration
We need to streamline the delivery of services across fragmented platforms

Level 3
Commercialization
We need to monetize our connectivity to extract internal or external value

Level 4
Contextualization
We need to leverage connectivity to develop a sticky user experience

Level 5
Diversification
We need to use connectivity to support new experiences

SBD Automotive – Connected Car IT from the OEM Perspective
An OEM’s hierarchy of connected car needs

Level 1: Connection
- We need to connect our cars to offer basic features

Level 2: Integration
- We need to streamline the delivery of services across fragmented platforms

Level 3: Commercialization
- We need to monetize our connectivity to extract internal or external value

Level 4: Contextualization
- We need to leverage connectivity to develop a sticky user experience

Level 5: Diversification
- We need to use connectivity to support new experiences
Automotive businesses are now faced with the challenge of bringing together disparate - and often times legacy - technology platforms to support a cohesive global IT strategy.
## Technology partner ecosystem

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OEM personas

Seasoned Sally
Progressive Paolo
Ambitious Alicia
Innovative Izzy
Wary Winston
Modest Mo
Seasoned Sally has supported connectivity for longer than most, and has a leading, mature information technology organization supporting the connected car business. She is equipped with the budget, platform, and tools to not just change along with the industry, but also innovate and incite change as a leader. Strategic initiatives are well-funded, and often include a diverse array of options, including acquisition, build, or buy.

- Hybrid – enterprise and public cloud
- Non-strategic components (e.g., billing)
- Core telematics platform, mobility platform
- Connected services group operates independently
Innovative Izzy has prioritized information technology from day one. She’s new to the scene as an OEM and is investing heavily in autonomous, electric vehicle technologies. Her product mobility is largely enabled by a start-up attitude throughout the business. While the requirements of manufacturing and supply chain remain the same for her as for everyone else, she also develops the tools necessary to maintain flexibility in all aspects of her platforms, including utilizing technologies such as public cloud infrastructure or domain-specific IoT platforms, over-the-air updates for vehicles, and unique upsell/subscription features.
Progressive Paolo maintains a strong brand reputation, enjoys high volume across different markets, and generally tends to avoid risk wherever possible. He has recognized the importance of an agile information technology ecosystem supporting his connected car programs, and has made re-alignments and investments to change with the industry. This can come in the form of an independent organization altogether, or the sourcing of a strategic platform partner to help enable his connected car and mobility product strategy. The connected car program targets conservative milestones, focusing on establishing the core platform first, and adding services and features on an iterative basis.

* Legacy/on-prem – migrating to public cloud

Most existing systems – migrating to non-strategic components only

In progress of establishing baseline insourced core systems

Spun-off “start-up” independent from OEM
Wary Winston

Wary Winston has a connected car program, but has generally avoided making large internal investments in establishing strategic connectivity and information technology organizations. He almost exclusively outsources connected car, analytics, and related costs to his tier 1 service providers. He wants to maintain strategic relationships with long-term technology partners, but the partners have to be able to change over time along with him to maintain a healthy, profitable relationship.
Ambitious Alicia has made large organizational investments in meeting strategically important connected car and information technology requirements, but may be more ambitious than can be reasonably achieved. She often has aggressive goals for launching new platforms or connected products, but given the level of organizational transformation and engineering required, will struggle to meet these goals. She often will invest in innovative technology without necessarily having identified the appropriate fit for that technology in her connected car program. This leads to highly unique and competitive features, but may also risk a higher cost structure or risk profile.

- Legacy/on-prem – migrating to public cloud
- Almost all existing systems – migrating to non-strategic components only
- In progress of building global insourced components, including telematics platform
- In flux, but attempting to establish global IT and connectivity governance from a traditionally fragmented team
Modest Mo has traditionally been the last to market for new features and products and has lower volume than most brands. He wants to achieve parity with or leapfrog larger OEMs with his connectivity program by leveraging ambitious service providers or taking greater risks. Mo sees the connected car as an opportunity to differentiate his products and claim greater market share. While this may succeed in some cases, he will instead likely ally with or be acquired by Ambitious Alicia or Progressive Paolo. Mo may choose to launch connected services with a turn-key telematics service provider as a means to reduce initial overhead, and is careful about choosing the right services and partners for each market.

Minimal – has never really invested in IT beyond bare minimum
Everything related to connected services

Nothing

Fragmented – regional entities responsible for connected services
Shared mobility

- How can I sell my cars directly to mobility services?
- I am going to study what everyone else is doing and make my own plan.
- Mobility is the future of my business!
- What startup should I buy?
- I planned for shared mobility from day one.

Passive: Modest Mo
Fast Follower: Wary Winston, Progressive Paolo, Ambitious Alicia
First Mover: Seasoned Sally, Innovative Izzy
The software development lifecycle

**DISCOVERY**

“We have a business challenge and want to solve it with IT.”

- Connected Car Project Kickstarter
  - Project estimation
  - RFx support
  - M&A due diligence

**DEFINITION**

“How exactly should our application or product function?”

- Managed Requirements Analysis
  - User experience definition
  - Proof of concept
  - Commercial strategy

**DESIGN**

“How will this capability integrate with our current platform?”

- Connected Service Prototyping
  - Telematics architecture
  - Product requirements
  - Cloud services design

**DEVELOPMENT**

“We don’t have the resources or expertise to do this in-house.”

- Cloud services development
- Responsive HMI development
- Expert testing
- Program management

**DEPLOYMENT**

“How do we go to production while mitigating risk?”

- Business process definition
- Performance analysis and triage
- Data analytics
- OTA updates
Questions?

Mo Al-Bodour
Senior Specialist – Connected Car
SBD Automotive

malbodoour@sbdautomotive.com
+1 (734) 619 7969