



# Panel Discussion

## IEEE SA E&IP@ATD 2022

**Amir Bar-Niv**

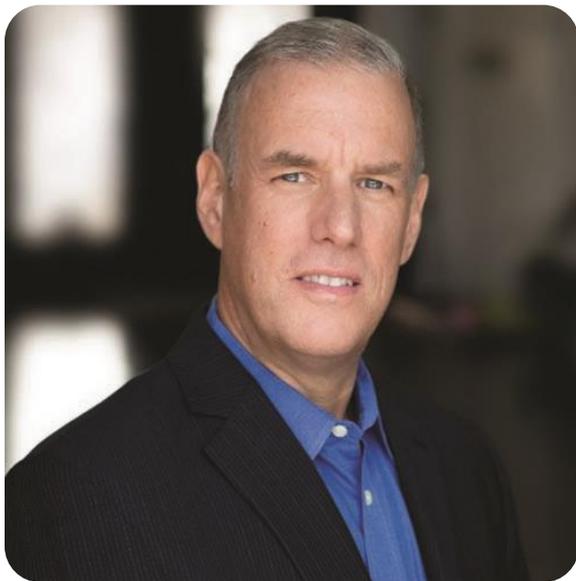
VP Marketing

November 9, 2022

# Forward-looking statements

Except for statements of historical fact, this presentation contains forward-looking statements (within the meaning of the federal securities laws) including, but not limited to, statements related to market trends and to the company's business and operations, business opportunities, growth strategy and expectations, and financial targets and plans, that involve risks and uncertainties. Words such as "anticipates," "expects," "intends," "plans," "projects," "believes," "seeks," "estimates," "can," "may," "will," "would" and similar expressions identify such forward-looking statements. These statements are not guarantees of results and should not be considered as an indication of future activity or future performance. Actual events or results may differ materially from those described in this presentation due to a number of risks and uncertainties.

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## Amir Bar-Niv

Vice President, Marketing

Amir Bar-Niv is the Vice President Marketing of the Automotive Business Unit at Marvell. In this role, he is responsible for the company's automotive strategy and product roadmap.

Amir has more than 30 years of experience including executive roles in engineering and marketing in the Automotive and Communication semiconductor industries. Prior to his role at Marvell, he served as Senior Vice President and General Manager of the High-Speed Interconnect group at TranSwitch Corporation (TXCC). Amir was Co-Founder of Mysticom, a provider of Multi-Gig Ethernet PHY products. Most recently, he was the Vice President of Automotive Marketing for Aquantia which was acquired by Marvell in 2019.

Amir is a Founder and President of the Network for Autonomous Vehicle (NAV) Industry Alliance and is the author of 14 granted patents.

# Automotive industry transition to SDV

Before:  
Device centric



Now:  
Application centric



Future:  
Data and SW centric



Flexibility, high speed, security, safety → Ethernet

# Software-defined vehicle

One time buy  
You get what you paid for



Service model  
Pay as you go



**New business opportunities**

# Software-defined

## **OEM incentive:**

- New stream of revenue
- Include 3<sup>rd</sup> party application developers

## **Car owner incentive:**

- Add new features
- Car value no longer decline

## **Service provider incentive:**

- Charge for bandwidth
- Subscriptions

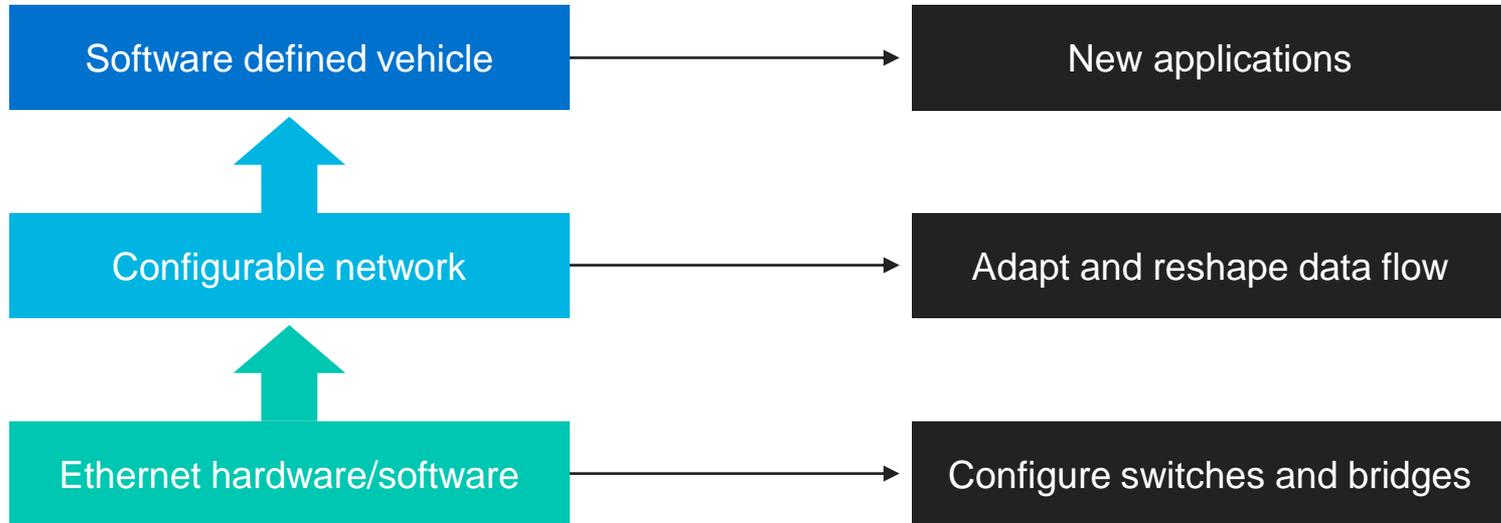
Pay as you go



Over-the-air upgrades and new features.

**New business model for OEM and service providers**

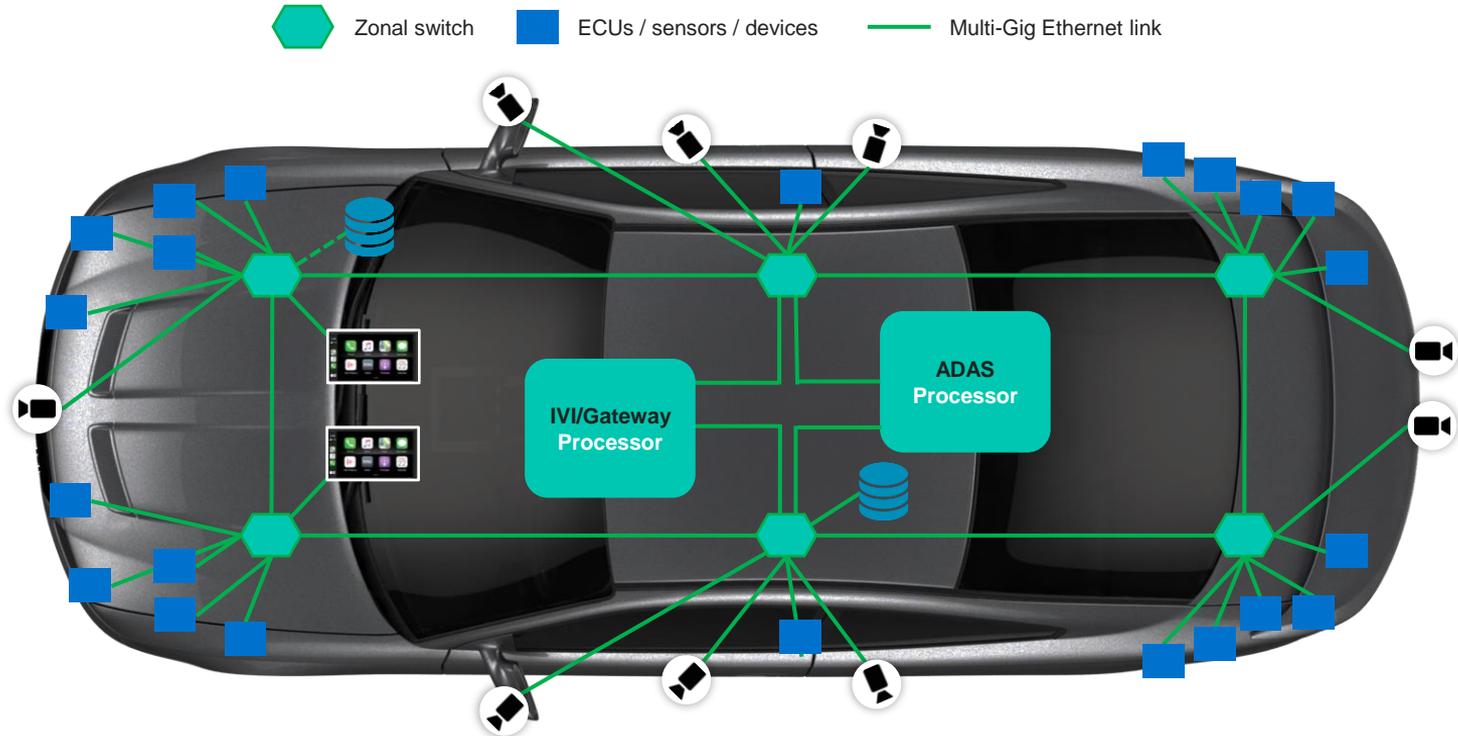
# Software defined vehicle - requirements



Most of the components in the car “talk” Ethernet.

**“Ethernet end-to-end”**

# Ethernet end-to-end over Zonal architecture



Standard based

Software leverage

Flexibility / Scalability

Redundancy / Safety

# System requirements for SDV

- Over-the-air (OTA) software / firmware / control plane updates
- High speed Ethernet backbone
- Ethernet end-to-end (CPUs, ECUs, sensors, cameras, storage, displays)
- Secured gateway



Q&A



Thank You



Essential technology, done right™