SECURING THE IOT CONNECTED CAR WITH DIGITAL IDENTITY

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Strange Times for the Automotive Industry
“We are currently experiencing the biggest change the automotive industry has ever seen. It all comes down to whether we believe we can earn as much money in the future from mobility services as we can from selling cars. I see tremendous opportunities for this. Being able to offer people premium mobility at any given moment is an exciting prospect.”

Peter Schwarzenbauer
Member of the Board of Management of BMW AG, responsible for MINI, Rolls-Royce, BMW Motorrad, Customer Engagement and Digital Business Innovation BMW Group

ChargeNow provides easy access to the world’s largest network of public charging stations.

DriveNow is the car-sharing service from the BMW Group and Sixt that gives customers the flexibility to rent cars when and where they need them.

ParkNow enables digital payment for both on and off-street parking.

ReachNow offers a range of expanded on-demand mobility solutions in the US and China.
New mobility is challenging automakers' assumptions

'NEW MOBILITY' THREATENS THE FOUNDATION OF AN AUTO INDUSTRY BUILT ON THE PREMISE THAT MORE IS BETTER.
Core Pieces of New Mobility

Connectivity

Sharing

Autonomous

Services
NEW MOBILITY = DIGITAL SERVICES

&

DIGITAL SERVICES REQUIRE DIGITAL IDENTITY
What is Digital Identity?
Digital Identity

The information that makes something unique
The Four Corners of Digital Identity

Credentials and Authentication

Establishing Digital Trust and Assurance
The Four Corners of Digital Identity

Authorization

Yes or No?
The Intersection of Security and Experience

Digital Identity

SECURITY & PRIVACY
- Privacy & Consent
- Adaptive Authentication
- Contextual Security, MFA
- Passwordless
- Data Encryption
- GDPR
- Global/regional separation

CUSTOMER EXPERIENCE
- Single View of the Customer/Organization
- Omnichannel
- Frictionless Reg. & Access
- Personalization
- Trusted Relationships
- Self-Service

FORGEROCK
Privacy and Consent Matters

- Data Access
- Data Exchange
- Data Monetization
- Device Data
- Consumer Trust
- Regulatory Compliance
A Familiar Paradigm
It’s All About Relationships
Cars and Connected Devices
Connected Devices...

- Exist to better serve customers and business processes
- Are not effective in silos
- Require varying levels of Trust and Security
- Need Digital Identities, Credentials, Authentication and Authorization
- Are very different across different industries and use cases, and therefore;
- Are underserved when referred to in bulk as “IoT”
Trusted Credentials – People vs. Devices

- **Passport**: High assurance
  - Credential based on strong identity, from trusted authority
  - Attestation based on chip-level credential security

- **Driver’s License**: Medium assurance
  - Credential only trusted within a given context
  - Attestation given operating system level security

- **Conference Badge**: Low assurance
  - Credential defined implicit
  - Attestation using device-derived credential
Automotive is evolving into a new “Mobility” Industry

This new industry favors the *as-a-service* model over ownership

Digital Identity expands Security and Privacy from compliance & prevention tools to critical business enablers

Cars and Mobility is just one industry example

Reconsider “IoT” and think of connected device roles in terms of industries, business use cases and value chains
Apply What You’ve Learned

- Identify your customer’s connected endpoints (includes devices) and consider how to apply the 4 corners of identity beyond humans.

- Think about how to integrate IoT Device and Device identities with human and organizational identities.

- Learn more about the User Managed Access Standard.

- Check out other standards and open source bodies such as Automotive Grade Linux (AGL) and the Car Connectivity Consortium (CCC).