Adopting standards
An evolving journey

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Value of Standards
Adoption of Standards
Evolution of Industry
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Value of the Standard

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Importance of standards

IFSF standard body was found in 1993 (by Agip, BP, Conoco, Fina, Mobil, Shell and Total) to address forecourt device integration.

Retailer focus

- **Scale and Geography** - Necessity of multiple vendors
- **Architect own landscape and platforms** – Define core platforms, define processes and integration
- **Integration of solutions** – Effective, Reliable, Flexible, Supportable, Sustainable, Affordable
- **Sales and Customer satisfaction** - Deliver customer value and differentiating experience

Vendor focus

- **Architect own products and services**
- **Meet industry and Markets requirements** – Requirements, certifications, delivery and support
- **Integrate with Retailers' and other Vendors' platforms** – Flexible and affordable integration
- **Sales and Customer satisfaction** - Sell own products to Retailers

Industry Standards

- **Win-Win opportunities**
- **Reduce complexity**
- **Unified language**
- **Flexible composition of platforms and components**
- **Reduce Development and Integration cost and time**
- **Interoperability**
- **Simplify delivery, faster time to market**
- **Security, Trust and Compliance**
- **Scale**
- **Reduce Total Cost of Ownership**
- **Seamless customer experience**
- **Increase Revenues**
- **Be more competitive**

Adoption

Legend:

Benefits

Blockers

Adoption of a Standard

A successful adoption of a standard depends on various factors

- **Addresses a concrete problem**
- **Delivers win-win opportunities for Retailers and Vendors**
- **Fit for purpose** – It does not bring unnecessary complexity or dependencies
- **Focuses on the right concerns** – Not designed over existing legacy or proprietary logic
- **Data dictionary and Data model well designed**
- **Integration and Use Cases are Generalised** – e.g. not product specific
- **Aligned with industry technology** - Not obsolete, not soon outdated
- **Embeds or Enables Security and Compliance**
- **Addresses the valuable interoperability** – Not bound to critical technologies
- **Simple, clear, well explained**
- **Leaves flexibility**
- **Deployment must be careful to limit customisation**
- **Timely available**
- **Breaking changes/version address new concrete problem** – quality of governance

- **Lock In blockers**
- **Vendors roadmap**
- **Cost of change**
- **Frequency of change**
- **Fragmentation of Standards**
  e.g. across geographies
- **Proprietary legacy platforms**
- **Customization of standards**
- **Innovation / differentiation & Time to market**

Patterns and Adoption by Retailer

Compose Applications

Compose a platform leveraging different Applications, also from different vendors, to offer flexible platform.

Main example is integration at site, for forecourt pumps, prime signs, car wash, etc.

Integrate Applications

Compose different Applications, internal or from vendors, to realize end to end processes.

Main example is integration site and head office applications. E.g. payment, loyalty, product and pricing management, sales billing and settlement, etc.

Evolution of Industry

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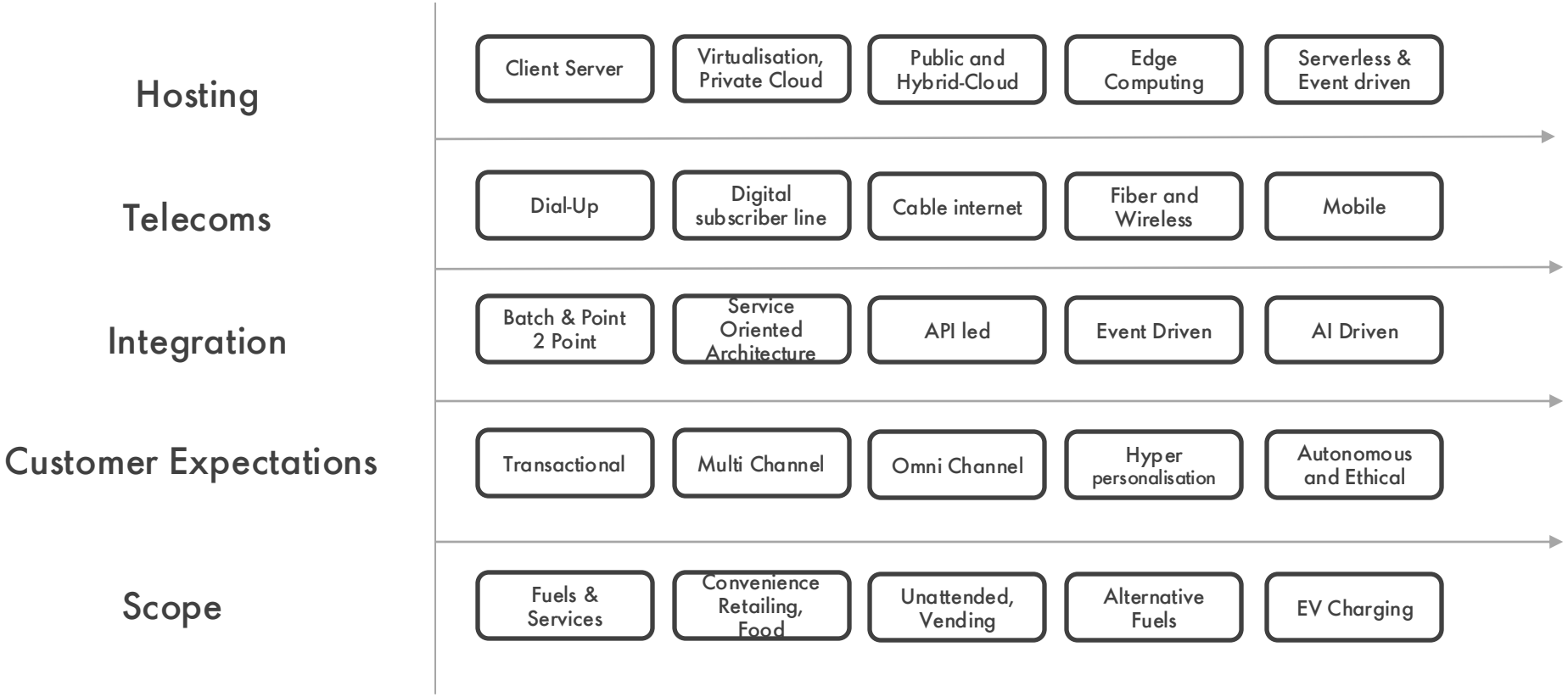
Evolution of the Industry



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Current State

Conceptual Integration

	Government Fiscal integration	POS BOS HOS (vendor)					
	Stock APIs	Receipt APIs					
	Pricing APIs	Transaction / Sale APIs			Bank/Acquirer integration		
	Wet-Stock APIs	Product APIs			Payment APIs		
Remote Management	Loyalty APIs	Fulfilment APIs	Car Wash APIs (vendor)	Vending Service (vendor)	IFSF ISO8583 Host 2 Host		OCPI
Event / IoT (vendor)	Fueling APIs	Order APIs	CarWash APIs	Vending APIs	IFSF ISO8583 POS 2 FEP		OCPP

Note: this is a conceptual list of integrations adopted or envisaged in Shell. There are differences in the scope and design, depending on the Region or other factors.
Colour coding intends association of integration having a level of affinity.

OCPI/OCPP standards are independent of IFSF and are mentioned as example of relevance of other industry standards.

	Car Wash proprietary or standard protocols	Vending proprietary or standard protocols	IFSF POS EPS	IFSF LON	
Point of Sale	Car Wash	Vending	Payment Terminals	Dispensers	Charging Points

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Example

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Designing APIs

Important Principles:

- Generalized integration
- Start from Data
- Re-usable
- Simple and fast to implement
- Common Data Dictionary
- Not unnecessarily complex
- Not Point to Point

Car Wash example

Business Models

- Car Wash sale by Retailer/Dealer (Pricing by seller)
- Car Wash sale by Retailer centrally (Pricing by Network Retailer)
    - Valid at a single site
    - Valid at any site that adheres to the offer
- PrePayment at purchase, or at execution

Implementation Models

- Target – Car Wash code generator/verification central – vendor agnostic
- Pragmatic – Car Wash code generator/verification central – vendor specific
- Legacy - Car Wash code generator on site

User Experience

- Traditional – Receive Code, Enter code to activate
- Digital Seamless – Receive entitlements to execute the Car Wash, one button activation
- Note – HSSE controls to ensure that customer is at the right site, and car wash is ready for the customer

Exceptions

- Errors by customer (e.g. wrong site)
- Car Wash activation, with errors in / no execution
- Different Car Wash type/program selection at sites
- Code is valid at any site, or only if generated for/at that site
- Different days/hours of operation at each site
- Queue before car wash is availabe for the customer
- Customer unsatisfied willing to ask for reimbursement or damage reimbursement

Car Wash Operation

- Log of car wash events
- Levels of liquids, etc
- Equipment status, performance indicators, etc.
- Operation activities (e.g. cleaning, check state, etc.)
- Maintenance interventions (e.g. Brush replacement, Lubricants refill, replacement of parts, etc.)

Car Wash APIs

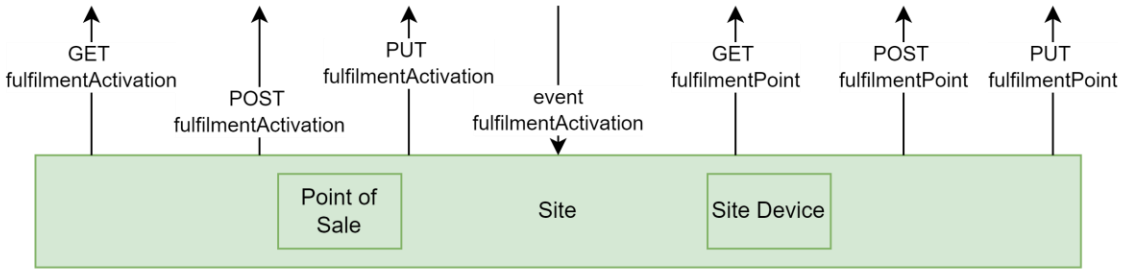
- Simple focused on sale/fulfilment
- Customer Offer/Experience AND Business Model are independent of the Car Wash integration
- Generalised – What is different between Car Wash sale and Coffee sale ?
- Cope with different implementation models

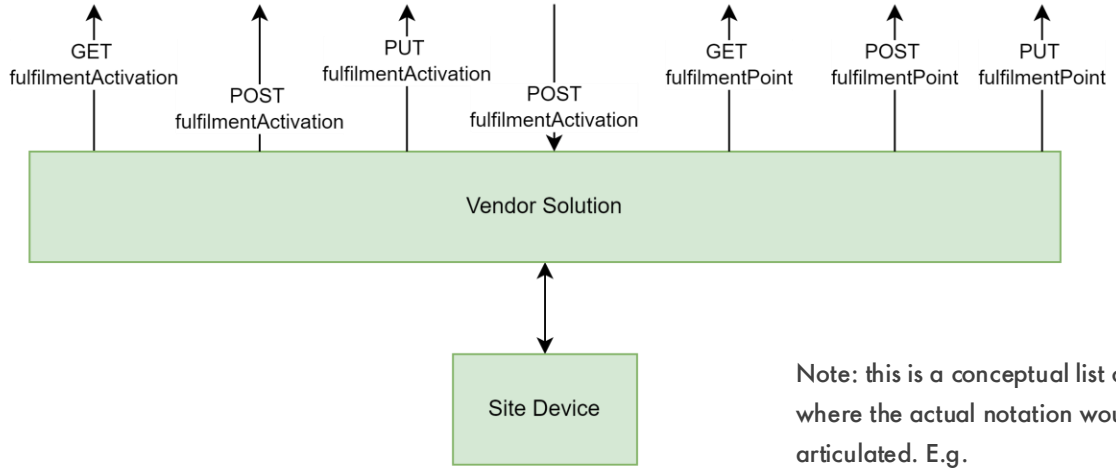
CarWash example

When the primary target of the Retailer is to offer Car Wash independently of service providers:

- A same standard can be leveraged independently of the actual solution present at the site:
  - Legacy components integrated at site
  - Vendors' central solutions integrated with site components

- Why making this a Car Wash standard, if it can be generalised as a fulfilmentPoint standard?
  - Apply for vending and coffee machines, etc too





Note: this is a conceptual list of APIs where the actual notation would be more articulated. E.g.
PUT fulfilment/{fP_ID}/status

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Legend:

Potential targets

Areas of Attention

Looking ahead

Notional direction for the industry

- Edge/IoT, Sensors, Event driven integration, Cloud for monitoring and central control
- Data integration from pragmatic trade off, to real time
- Perimeter based security is not sustainable or fit for purpose, enable Zero Trust
- Centralized data, not embedded in applications
- AI enabled analytics, enhanced customer offers and experience
- Agentic AI to automate business processes and provide integration flexibility

- Pragmatic Affordable & Sustainable
- Value driven, not Technology Driven
- Doable & Performing
- Encapsulate vendor/technology with open standard for Retailer or cross vendor interoperability

Data Standards

Interoperability Standards

Zero Trust

Agentic AI

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