Strategy-to-Implementation Process
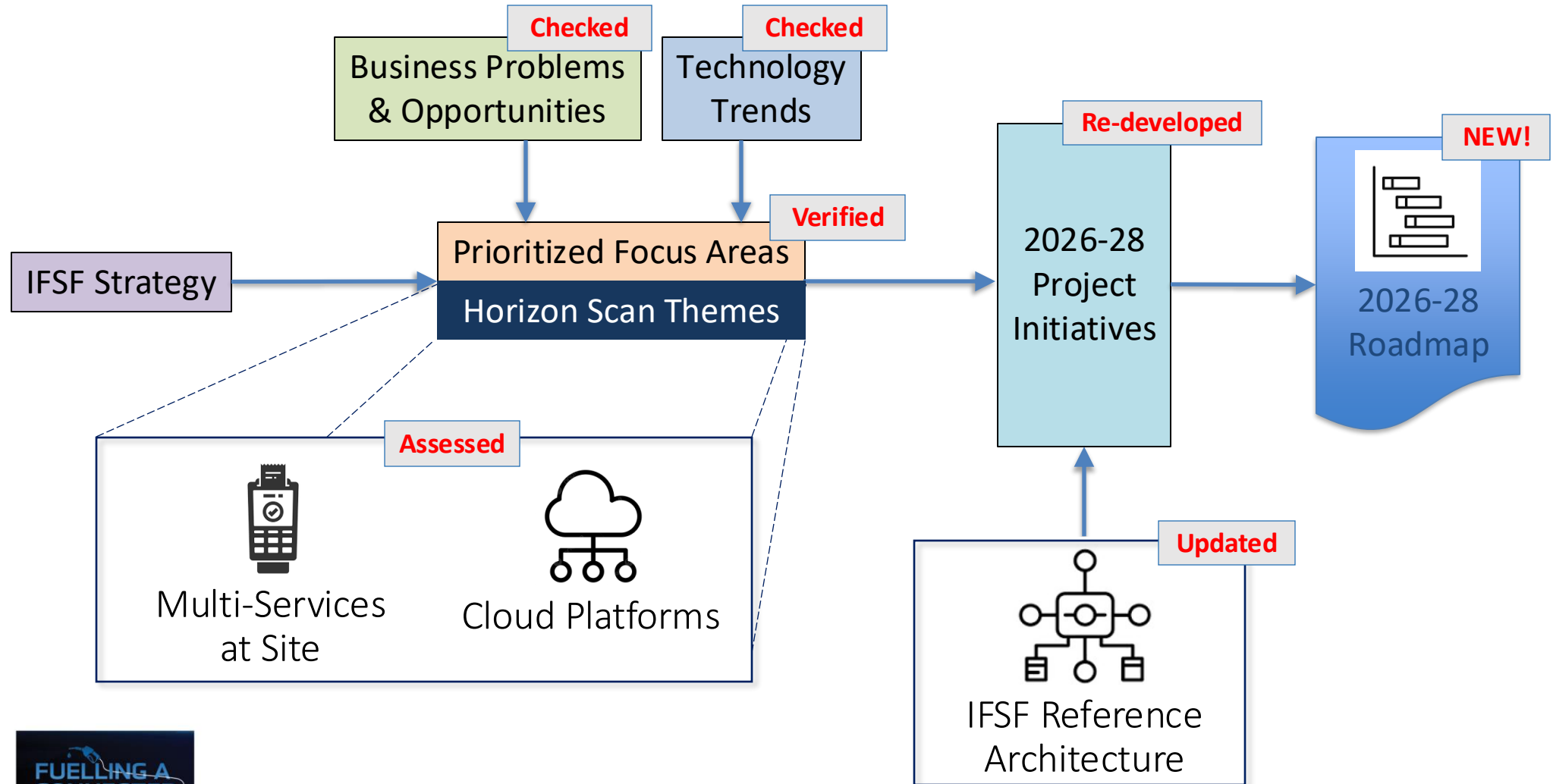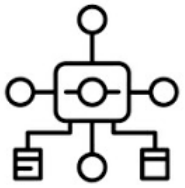
Horizon Scan – Multi-Services at Site

Observations

- **Site ecosystem is diversifying with more parties involved**
- **POS solutions are evolving to handle a broader set of mixed transactions across services**
- **A site-wide sales performance view is key to future success**
- **Retailers need to share data about services with customers**
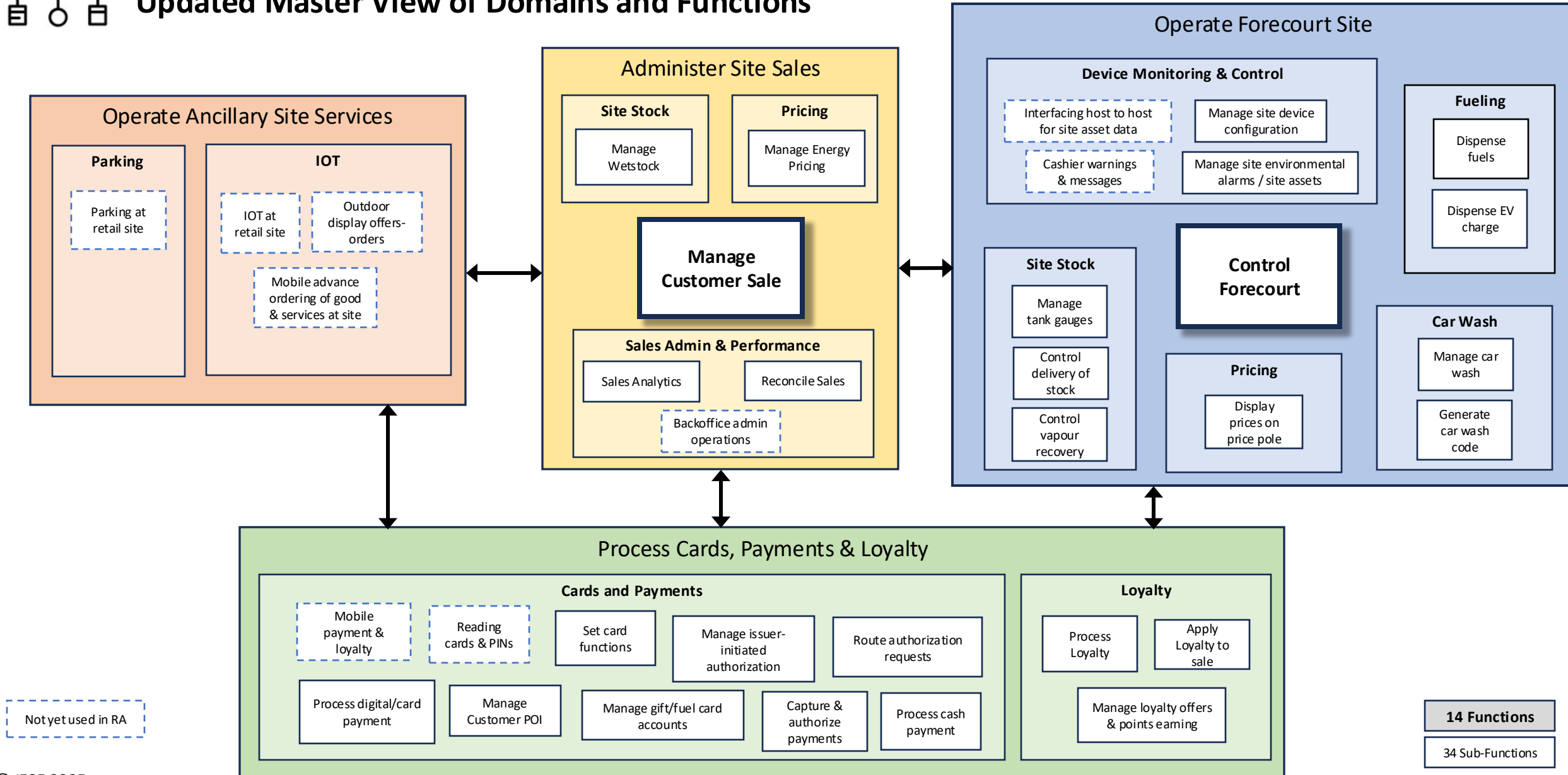
Implications for IFSF

- **Create a white paper detailing requirements for reservations and advance ordering**
- **Define standard requirements to share site facilities data**
- **Update payment standards for kiosk and vending machines**
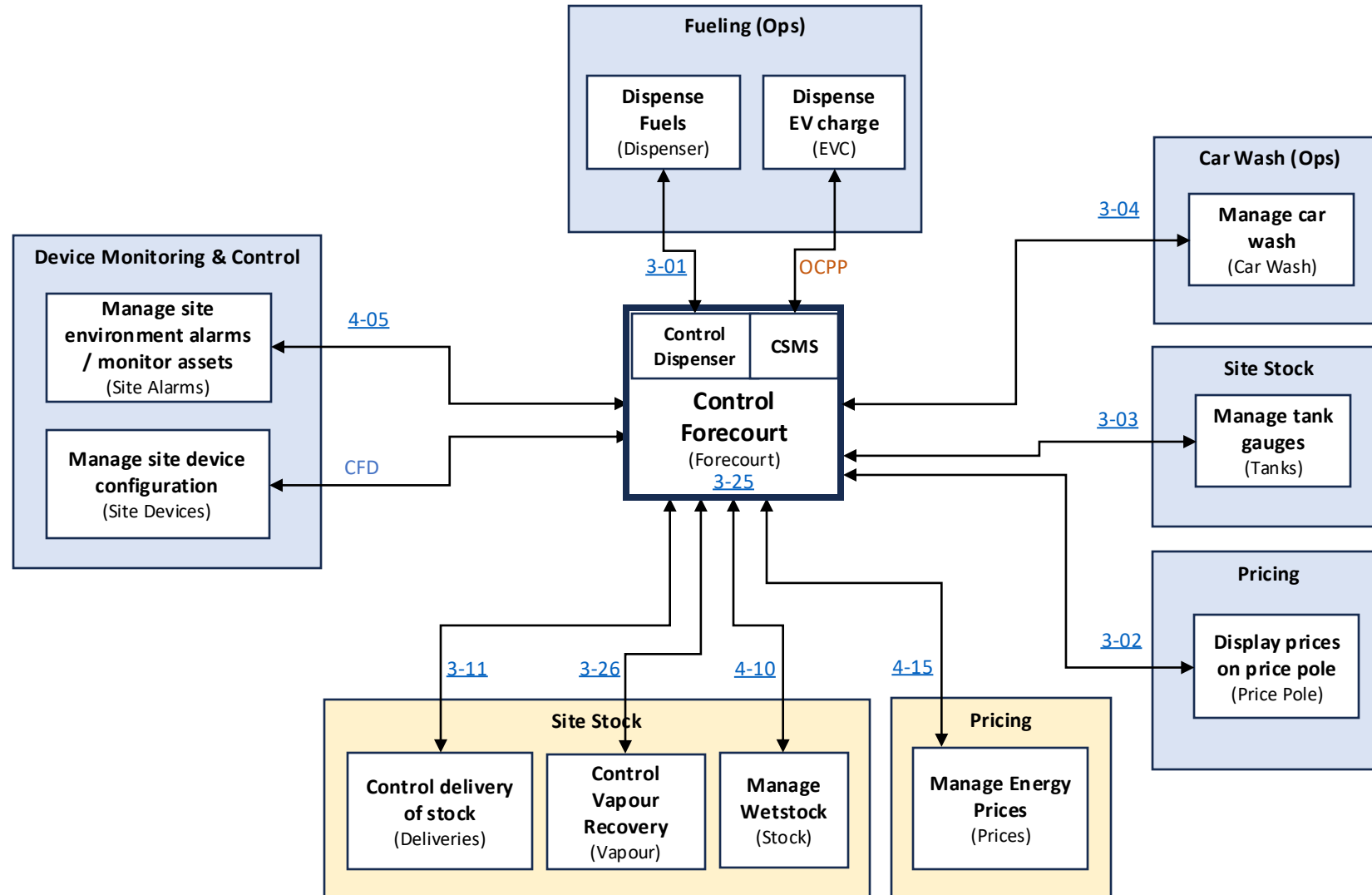- **Update reference architecture to include Value-Added Services**

IFSF Reference Architecture – Today
Updated Master View of Domains and Functions

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Operate Ancillary Site Services

Parking

Parking at retail site

IOT

IOT at retail site

Outdoor display offers- orders

Mobile advance ordering of good & services at site

Administer Site Sales

Site Stock

Manage Wetstock

Pricing

Manage Energy Pricing

Manage Customer Sale

Sales Admin & Performance

Sales Analytics

Reconcile Sales

Backoffice admin operations

Operate Forecourt Site

Device Monitoring & Control

Interfacing host to host for site asset data

Manage site device configuration

Cashier warnings & messages

Manage site environmental alarms / site assets

Fueling

Dispense fuels

Dispense EV charge

Site Stock

Manage tank gauges

Control delivery of stock

Control vapour recovery

Control Forecourt

Pricing

Display prices on price pole

Car Wash

Manage car wash

Generate car wash code

Process Cards, Payments & Loyalty

Cards and Payments

Mobile payment & loyalty

Reading cards & PINs

Set card functions

Manage issuer- initiated authorization

Route authorization requests

Process digital/card payment

Manage Customer POI

Manage gift/fuel card accounts

Capture & authorize payments

Process cash payment

Loyalty

Process Loyalty

Apply Loyalty to sale

Manage loyalty offers & points earning

Not yet used in RA

14 Functions

34 Sub-Functions

IFSF Reference Architecture
Logical View of Forecourt Operational Functions (with Technology & Standards Overlay)

Fueling (Ops)
- Dispense Fuels (Dispenser)
- Dispense EV charge (EVC)

Car Wash (Ops)
- Manage car wash (Car Wash) — 3-04

Device Monitoring & Control
- Manage site environment alarms / monitor assets (Site Alarms) — 4-05
- Manage site device configuration (Site Devices) — CFD

Control Forecourt (Forecourt)
- Control Dispenser | CSMS
- 3-01
- OCPP
- 3-25

Site Stock
- Manage tank gauges (Tanks) — 3-03

Pricing
- Display prices on price pole (Price Pole) — 3-02

Site Stock
- Control delivery of stock (Deliveries) — 3-11
- Control Vapour Recovery (Vapour) — 3-26
- Manage Wetstock (Stock) — 4-10

Pricing
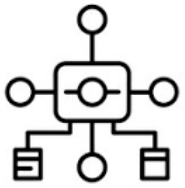- Manage Energy Prices (Prices) — 4-15

Click to overlay Technologies

Click to overlay Standards

Click to overlay Software Tools

Click to overlay Roadmap 2025

Click to return to Master View

IFSF non-API standards prefix 3-xx
IFSF API standards prefix 4-xx
Non-IFSF standards shown in orange

IFSF Reference Architecture – Proposed Updates
Updated Master View of Domains and Functions

Facilitate Value-Added Services

Site Service Status & Information
- Share VA services features & availability
- Share mobility service info

Manage Site Facilities Data & Services Availability

Reservations & Advance Ordering
- Take customer orders & reservations
- Process customer orders & reservations
- Fulfill customer orders & reservations

Administer Site Sales

Site Stock
- Manage Wetstock
- Manage non-fuel inventory

Pricing
- Manage Energy Pricing

Manage Customer Sale

Sales Admin & Performance
- Sales Analytics
- Reconcile Sales

Operate Forecourt Site

Device Monitoring & Control
- Control site remotely
- Predict device maintenance
- Manage site device configuration
- Monitor customer behaviour to optimize services
- Manage site environmental alarms / site assets

Fueling
- Dispense fuels
- Dispense EV charge

Site Stock
- Manage tank gauges
- Control delivery of stock
- Control vapour recovery

Control Forecourt

Pricing
- Display prices on price pole

Car Wash
- Manage car wash
- Generate car wash code

Process Cards, Payments & Loyalty

Cards and Payments
- Manage Customer Point of Interaction (Sales channel)
- Reading cards & PINs
- Set card functions
- Manage issuer-initiated authorization
- Route authorization requests
- Process digital/card payment
- Manage gift/fuel card accounts
- Capture & authorize payments
- Process cash payment

Loyalty
- Process Loyalty
- Apply Loyalty to sale
- Manage loyalty offers & points earning

New Functions added - to be published in Jan 2026

Not yet used in Logical View

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Horizon Scan – Cloud Platforms

Observations

- **"Standards do not change; the transport mechanism does"**
- **Modern integration methods are needed as a pre-requisite for cloud solution adoption**
- **Cloud good for interoperability, integrating multi-services and unmanned sites**
- **Care for critical ops security**

Implications for IFSF

- **Extend capabilities of Mobile Payment API standard to further exploit cloud services**
- **Evaluate Conexxus' PARA standard for cloud-based sales performance system integration**
- **Investigate integration requirements for predictive site maintenance cloud solutions**

IFSF Roadmap 2025-27

Focus Areas		2025	2026	2027
Data	Data Dictionary (H)	4195 Add DD Report Views; 305 Implement DD AI Search	301 Improve process for new DD elements; 319 DD Data Model	312 Dictionary health check
	Enterprise Data Mgt (H)	4196 Fuels Pricing APIs; 302 Enhance Sales Transaction APIs	314 Site Regulatory Reporting	313 Consumer behaviour analysis
	Security & Identity (H)		311 Consumer Authentication	
Alt-Fuel	EV Charging (H)	316 EV Charging Payment Processes; 317 EV Pricing		
	Hydrogen (L)		308 H2 Wetstock Mgt	
Payment	Payments & Loyalty (H)	324 Incremental payment authorizations; 4203 Telecom Security; 309 Implement Fuel Card Trx 2FA		
	OEM In-Car Payments (M)	201 Explore In-Car payments & loyalty		
Mobility	Mobile Experience (H)	307 MPPA mobile standard v2.0 updates	323 Explore In-Car Services at Site	
	Reservation Services (M)	207 Advanced Shop Goods Orders	206 Manage H2/EV/Parking Reservations	
APIs	API Test Tools (H)	4187 Develop API simulators; 326 API Tool Launch; 318 Develop API Certification Tool	322 Develop Mobile v2.0 test simulator	
	API Conversions (M)	4177 Car Wash APIs; 4204 Wetstock Mgt APIs; 4205 Forecourt APIs; 325 LON API Converter	101 Open loop payment API	
Communications		4201 IFSF website update; 321 Enhance Ref Arch; Scan 2025; Roadmap Refresh	Scan 2026; Roadmap Refresh	Scan/Roadmap

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FUELLING A CONNECTED FUTURE

◁ Conexxus alignment opportunity   ◁ Partnership with OCA/EVRoaming   ◁ Partnership with Conexxus (OpenRetailing Scope)

IFSF Roadmap 2025 – Progress vs Plan

Focus Areas	2025	2025 NEW

Data

- **Data Dictionary** (H)
  - 4195 Add DD Report Views
  - 305 Implement DD AI Search
  - 4195 DD Reports Scoping
  - 4209 DD Field Descriptions
- **Enterprise Data Mgt** (H)
  - 4196 Fuels Pricing APIs
  - 302 Enhance Sales Transaction APIs
  - 314 Site Regulatory Reporting
- **Security & Identity** (H)
  - 4224 Closed Loop API Security

Alt-Fuel

- **EV Charging** (H)
  - 316 EV Charging Payment Processes
  - 317 EV Pricing
- **Hydrogen** (L)

Payment

- **Payments & Loyalty** (H)
  - 324 Incremental payment authorizations
  - 4203 Telecom Security
  - 309 Implement Fuel Card Trx 2FA
  - 4219 Closed Loop API Updates
- **OEM In-Car Payments** (M)
  - 201 Explore In-Car payments & loyalty

Mobility

- **Mobile Experience** (H)
  - 307 MPPA mobile standard v2.0 updates
- **Reservation Services** (M)
  - 207 Advanced Shop Goods Orders

APIs

- **API Test Tools** (H)
  - 4187 Develop API simulators
  - 326 API Tool Launch
  - 318 API Certification Tool Planning
- **API Conversions** (M)
  - 4177 Car Wash APIs
  - 4204 Wetstock Mgt APIs
  - 325 LON API Converter
  - 4189 Forecourt APIs

Communications

- 4201 IFSF website update
- 321 Enhance Ref Arch
- Scan 2025
- Roadmap Refresh

Legend:
- Complete
- Partial/Nearing Completion
- In Progress
- Not started/Deferred

- 23 initiatives scheduled to complete in 2025, with an additional 5 added during the year
- 68% complete or nearing completion; 18% in progress; 14% not started/deferred

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FUELLING A CONNECTED FUTURE

API Simulator Tools – Now Available to Purchase

IFSF STANDARDS FORUM™

About ∨   Our Work ∨   Membership ∨   News and Events ∨   **Tools** ∨   Resources ∨

Simulators

Home » Test Tools » Simulators
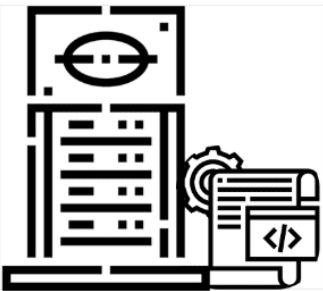
Basket

No products in the basket.

TYPE —

- ☐ CarWash(CW)
- ☐ Dispenser (DSP)
- ☐ POS-EPS v1
- ✔ PricePole (PP)
- ✔ Tank Level Gauge (TLG)

Reset

Select All
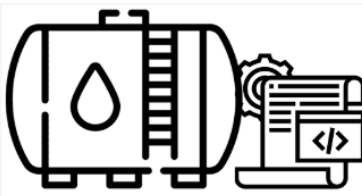
Default sorting ∨

API Price Pole Simulator v1.0
Simulates the API responses from a price pole

£1,000.00

Add to basket

API Tank Gauge Simulator v1.0
Simulates the API responses from a tank gauge

£1,000.00

Add to basket

Controlling Device Simulator v1.0
Simulates the API responses from a controlling device for DSP/TLG/PP/CW

£1,500.00

Add to basket

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Roadmap 2026-28

IFSF Roadmap Refresh – Main Themes from 2025 Research

Business Problems & Opportunities

- Rising importance of customer convenience including access to site facilities information
- Sales performance tracking in response to margin pressures and multi-services at site
- EU Data Act (active Sep 2025) regulating fair access to data

Technology Trends

- Digitalization, enabling new customer engagement methods such as subscription
- AI cloud optimization platforms, driving price optimization and more reliable site operations
- Continued growth of mobile and the need to secure all types of energy transactions
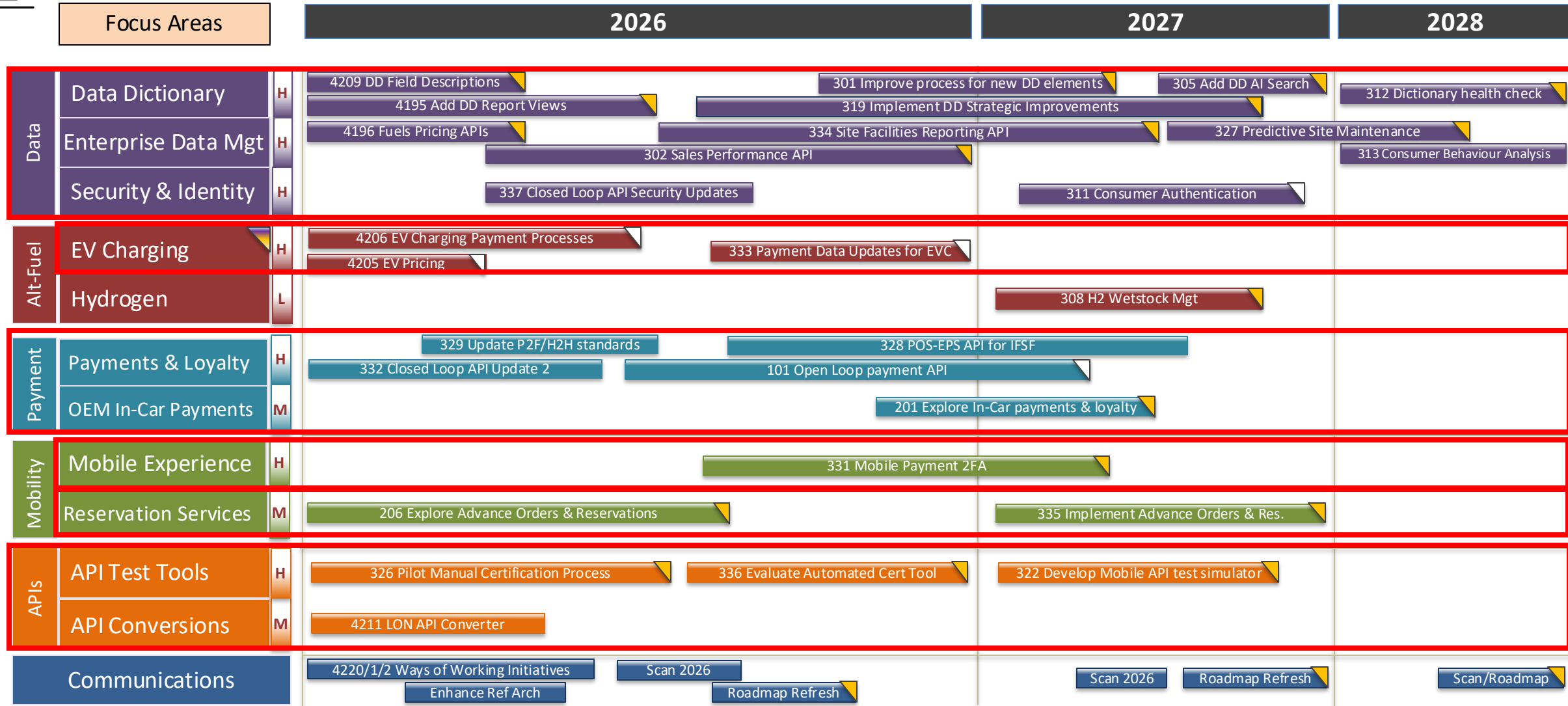
IFSF Member Services Improvements

- Re-focusing the Data Dictionary inline with member's needs to drive usage and value
- Conversion to modern API standards while offering solutions to migration challenges
- API simulators and certification tools

IFSF Roadmap 2026-28 – Proposed

Issue date: 01/01/26

Focus Areas	2026	2027	2028

Data

Data Dictionary (H)
- 4209 DD Field Descriptions
- 4195 Add DD Report Views
- 301 Improve process for new DD elements
- 305 Add DD AI Search
- 319 Implement DD Strategic Improvements
- 312 Dictionary health check

Enterprise Data Mgt (H)
- 4196 Fuels Pricing APIs
- 334 Site Facilities Reporting API
- 327 Predictive Site Maintenance
- 302 Sales Performance API
- 313 Consumer Behaviour Analysis

Security & Identity (H)
- 337 Closed Loop API Security Updates
- 311 Consumer Authentication

Alt-Fuel

EV Charging (H)
- 4206 EV Charging Payment Processes
- 4205 EV Pricing
- 333 Payment Data Updates for EVC

Hydrogen (L)
- 308 H2 Wetstock Mgt

Payment

Payments & Loyalty (H)
- 329 Update P2F/H2H standards
- 332 Closed Loop API Update 2
- 328 POS-EPS API for IFSF
- 101 Open Loop payment API

OEM In-Car Payments (M)
- 201 Explore In-Car payments & loyalty

Mobility

Mobile Experience (H)
- 331 Mobile Payment 2FA

Reservation Services (M)
- 206 Explore Advance Orders & Reservations
- 335 Implement Advance Orders & Res.

APIs

API Test Tools (H)
- 326 Pilot Manual Certification Process
- 336 Evaluate Automated Cert Tool
- 322 Develop Mobile API test simulator

API Conversions (M)
- 4211 LON API Converter

Communications
- 4220/1/2 Ways of Working Initiatives
- Enhance Ref Arch
- Scan 2026
- Roadmap Refresh
- Scan 2026
- Roadmap Refresh
- Scan/Roadmap

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FUELLING A CONNECTED FUTURE

◁ Conexxus alignment opportunity ◣ Partnership with OCA/EVRoaming ◣ Partnership with Conexxus (OpenRetailing Scope)

IFSF Roadmap 2026-28 – Horizon Scan Rec's

Issue date: 01/01/26

Focus Areas		2026	2027	2028
Data	Data Dictionary (H)	4209 DD Field Descriptions; 4195 Add DD Report Views	301 Improve process for new DD elements; 319 Implement DD Strategic Improvements; 305 Add DD AI Search	312 Dictionary health check
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	Reservation Services (M)	206 Explore Advance Orders & Reservations	335 Implement Advance Orders & Res.	
APIs	API Test Tools (H)	326 Pilot Manual Certification Process; 336 Evaluate Automated Cert Tool	322 Develop Mobile API test simulator	
	API Conversions (M)	4211 LON API Converter		
Communications		4220/1/2 Ways of Working Initiatives; Enhance Ref Arch; Scan 2026; Roadmap Refresh	Scan 2026; Roadmap Refresh	Scan/Roadmap

Legend:
△ Conexxus alignment opportunity ◣ Partnership with OCA/EVRoaming ◣ Partnership with Conexxus (OpenRetailing Scope)

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FUELLING A CONNECTED FUTURE

IFSF Strategy Materials & Resources

Feedback always very welcome!

IFSF 2026-28 Roadmap, including OpenRetailing initiatives
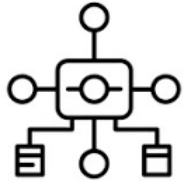
IFSF Reference Architecture *

IFSF Horizon Scan – Cloud Platforms

IFSF Horizon Scan – Multi-Services at Site

jon.thompson@ifsf.org

* 2025 views only – new 2026 views to be added shortly