Valid

Operator Support Portal

Operational Visibility and Control in the eSIM Era



Valid

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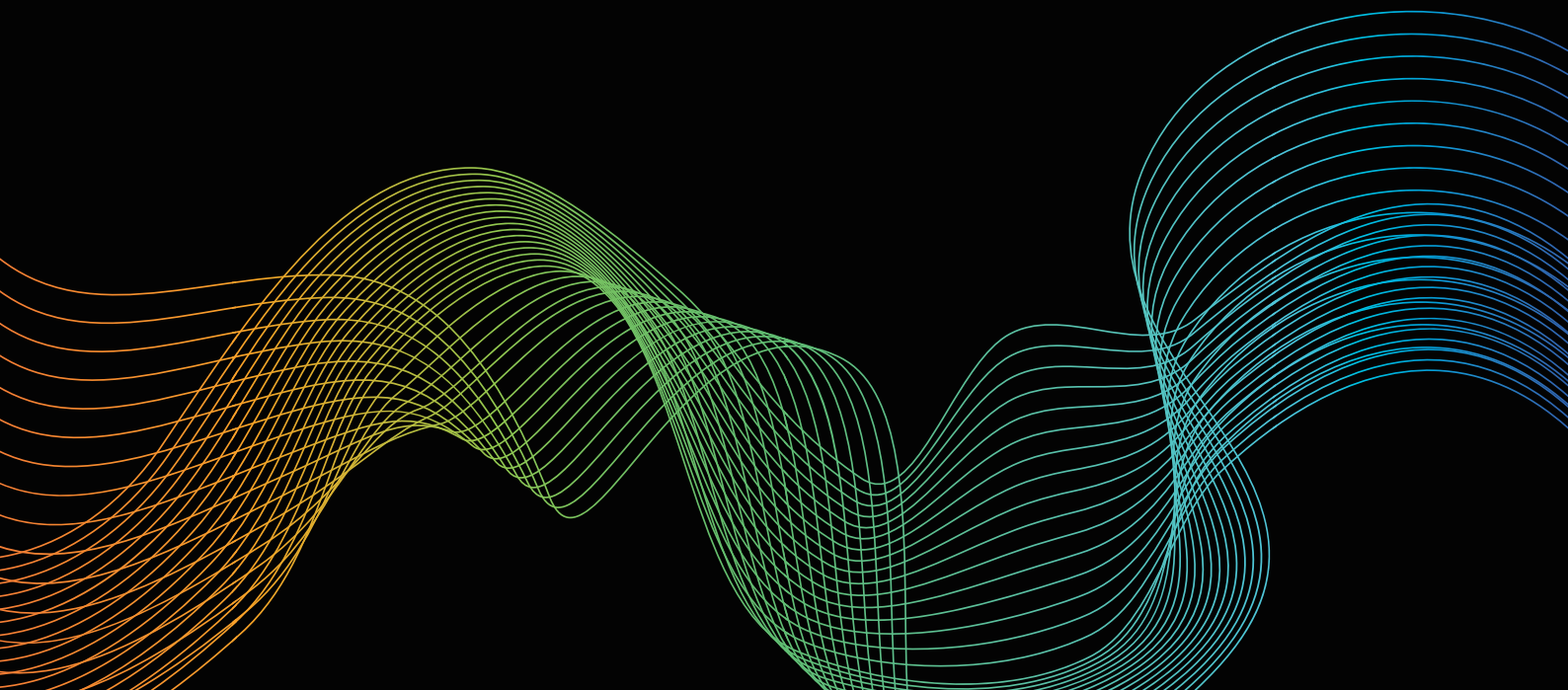


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Executive summary

eSIM is driving fully digital connectivity, but also increasing operational complexity. As adoption grows, visibility and control become essential.

The transition to eSIM is fundamentally reshaping how mobile services are delivered. What was once a hardware-based process has evolved into a dynamic, software-driven lifecycle that spans provisioning, entitlement, activation and ongoing service management.

While this transformation unlocks new digital experiences and business opportunities, it also introduces a new level of operational complexity.

Operators must now navigate:

- **Multiple activation flows** (SGP.22 and SGP.32).
- **Diverse onboarding journeys** across digital and retail channels.
- An **expanding ecosystem** of devices and use cases.
- **Distributed systems managing** provisioning, entitlement and service delivery.

As eSIM adoption scales, it becomes clear that enabling activation is only part of the challenge.



A new operational requirement

As deployments scale, operators must ensure that services are not only delivered, but delivered reliably, consistently and at scale.

This shift requires operators to move beyond orchestration and embrace a more advanced operational model built on:

- **End-to-end visibility** across the entire eSIM lifecycle.
- Real-time **diagnostics and troubleshooting** capabilities.
- **Centralized operational control** across systems, channels and teams.

In this context, the **Operator Support Portal** becomes a key enabler, providing a centralized operational layer that delivers **real-time visibility,** unified access to logs and events, and faster issue resolution across the entire eSIM journey. By acting as a **Single Pane of Glass** across provisioning, entitlement, onboarding and lifecycle operations, it consolidates operational insights into a unified interface, enabling teams to move **from reactive troubleshooting to proactive operations.**

Activation enables connectivity. Orchestration enables coordination. **Visibility enables control.**

Together, these capabilities enable operators to move toward a **scalable, efficient and resilient operational model.**

From Orchestration to Operations

As highlighted in *From Entitlement to Orchestration in the eSIM Era*, **operators are moving toward orchestration models** to unify provisioning, entitlement and onboarding across increasingly complex ecosystems.

Platforms like **Valid's SM-Connect** enable this shift by simplifying integrations and coordinating journeys end-to-end, accelerating time to market and reducing operational complexity.

But as eSIM adoption scales, **operators are facing a new challenge.** Orchestrating journeys is no longer enough: operators must ensure they run flawlessly at scale.

Without full operational visibility, even well-orchestrated flows can result in:

- Service failures.
- Delayed activations.
- Poor customer experiences.

SM-Connect simplifies eSIM integration and **orchestrates the entire activation journey end-to-end,** accelerating time to market while reducing operational complexity.



Activation Is Just the Beginning

The introduction to eSIM has fundamentally redefined service activation.

Activation is no longer a single event, it is a complex, **multi-step journey and multi-system process** involving:

- **Identity** validation.
- **Entitlement** and service authorization.
- Profile **provisioning**.
- Network **registration**.
- Service **enablement.**

Each step introduces dependencies across systems and teams.

Increasing operational complexity

As eSIM adoption grows, operators face:

Customer Experience Impact
Activation delays and unresolved errors directly impact satisfaction, increase churn and damage brand perception.

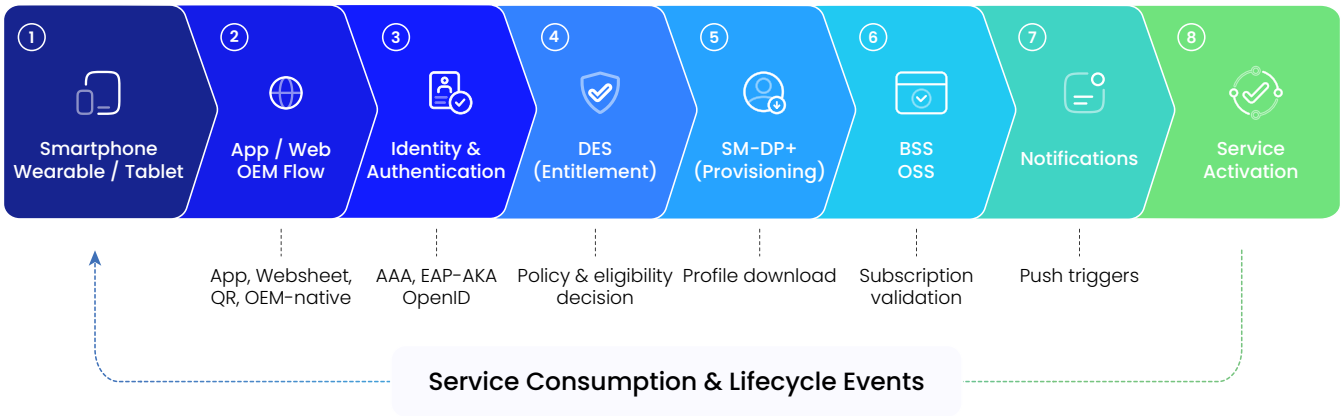
Limited visibility across the full eSIM lifecycle
Operators lack a unified view from order to activation, leading to manual tracking and inefficiencies.

Fragmented troubleshooting

- SM-DP+ platforms.
- RSP flows (SGP.22 / SGP.32).
- Digital and physical sales channels.
- Customer support systems.

Slow troubleshooting
Without centralized insights, root-cause analysis becomes slow, costly and inefficient.

The eSIM Lifecycle



Activation is not a single step - it is a coordinated, multi-system journey.

The Operational GAP

Despite advances in provisioning and enablement, many operators lack a **unified operational view of the eSIM lifecycle.**

The **gap between execution and operations** becomes evident:

While systems perform effectively in isolation

- **Provisioning** platforms deliver profiles.
- **Entitlement** systems authorize services.
- **Digital channels** enable onboarding.

And orchestration platform like SM-Connect coordinate execution…

Execution alone does not guarantee operational control.

The result:

- **Limited traceability** across the full journey.
- **Distributed logs** and diagnostic data.
- **Reactive troubleshooting** processes.
- **Increased operational cost** and complexity.

There is a missing layer—an operational visibility layer.



The Operational Visibility Layer: Enabling Control at Scale

To bridge this gap, leading operators are introducing a **centralized operational visibility layer** designed to deliver control, efficiency and scalability.

- **eSIM Observability:** full visibility across the lifecycle, from retail to digital channels.
- **Diagnostics & Logs:** self-service access to technical data, reducing dependency on backend teams and accelerating issue resolution.
- **Governance & Auditability:** role-based access control, full audit trails and compliance-ready operations.
- **Operational control:** real-time monitoring of SGP.22 and SGP.32 flows with immediate issue detection.

The role of the Operator Support Portal

This is where solutions like an **Operator Support Portal, integrated within SM-Connect,** become critical.

- Real-time lifecycle monitoring.
- Centralized access to logs and events.
- Faster issue detection and resolution.
- Standardized operations across teams.

From reactive support to proactive operations.

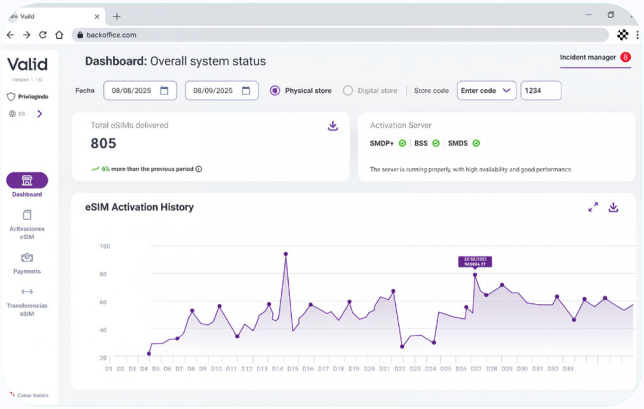
Through the Operator Support Portal, SM-Connect delivers a **Single Pane of Glass across the eSIM lifecycle,** enabling end-to-end visibility and control from onboarding and provisioning to entitlement and lifecycle management.



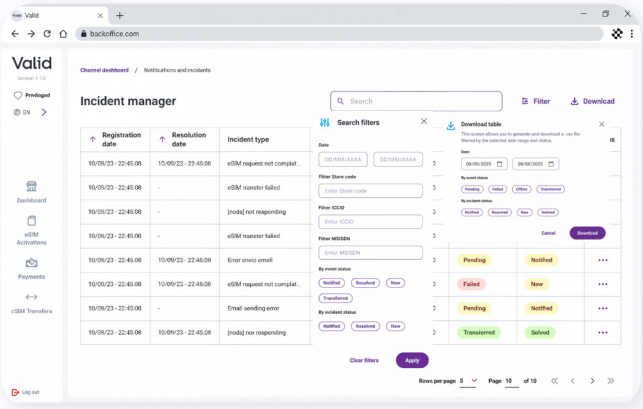
Key Capabilities

An effective operational visibility layer delivers clear business value through:

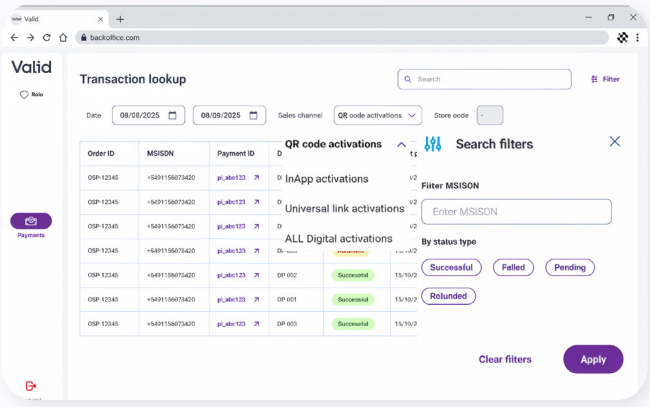
End-to-End Observability



Diagnostics & Troubleshooting



Operational Control



Complete visibility across the entire eSIM lifecycle.

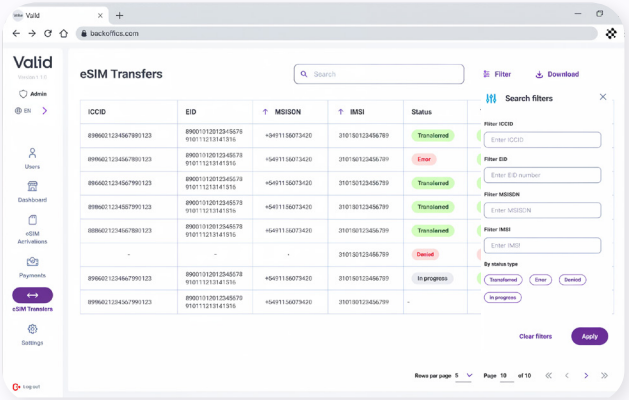
Faster root-cause analysis with centralized data and issue resolution.

Access complete details at a glance, including payment, subscriber, provider and activity information.

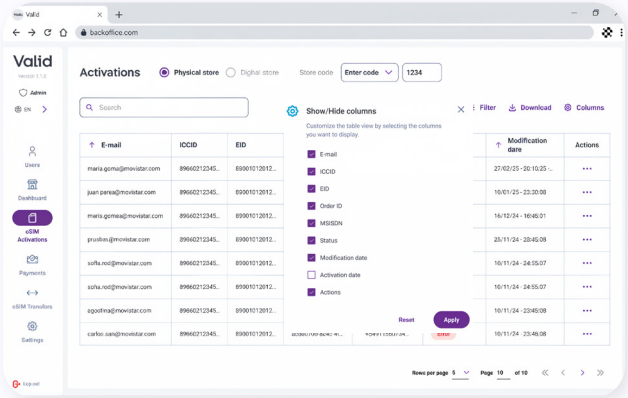
Centralized management and monitoring of eSIM transfers with full visibility into status, subscriber information, and operational workflows.

Advanced monitoring and analysis of activations through store-based filtering and full visibility into digital sales channels including In-App, Universal Link, and QR code activations.

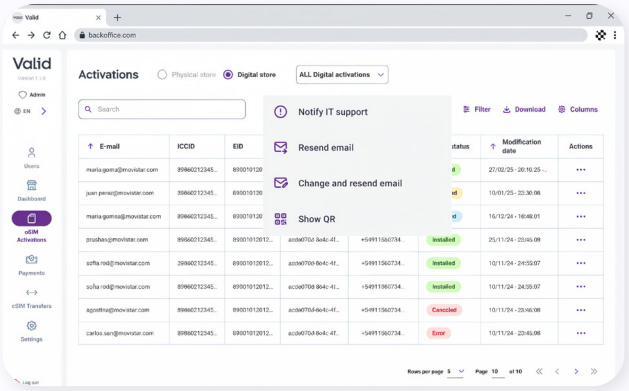
Governance & Auditability



Omnichannel Monitoring | Physical Store



Omnichannel Monitoring | Digital Store



Turning complexity into operational efficiency.

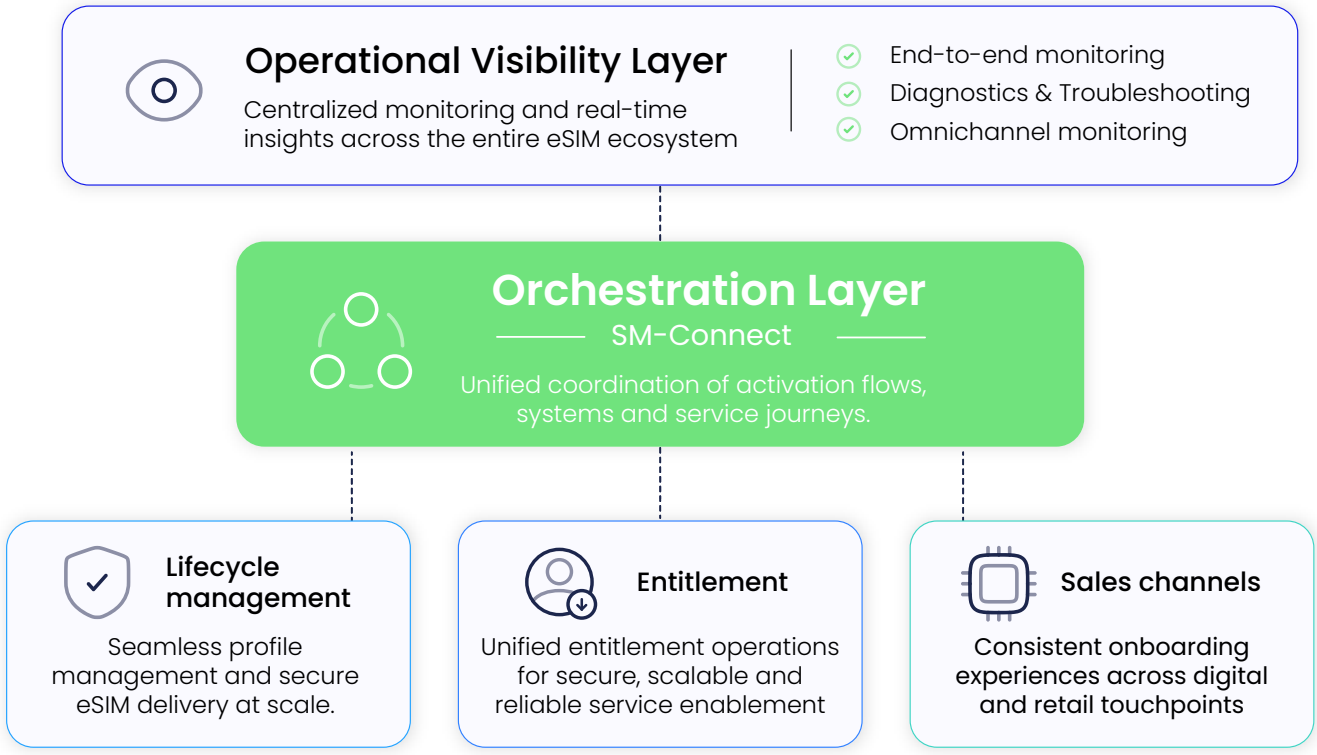
From Model to Implementation

The **operational visibility layer** is not just a concept—it is already being implemented by forward-looking operators. Today, it is increasingly embedded within **orchestration platforms** that integrate:

- **Provisioning** systems.
- **Entitlement** and authorization layers.
- **Onboarding** and activation journeys.
- **Operational visibility** and control.

A clear example is the integration of an **Operator Support Portal within SM-Connect,** providing:

Single Pane of Glass across the entire eSIM lifecycle



This approach enables operators to move from fragmented tools to a unified operational experience.

Multi-Country Operations as a Strategic Driver

The value of operational visibility becomes even more critical in multi-country environments.

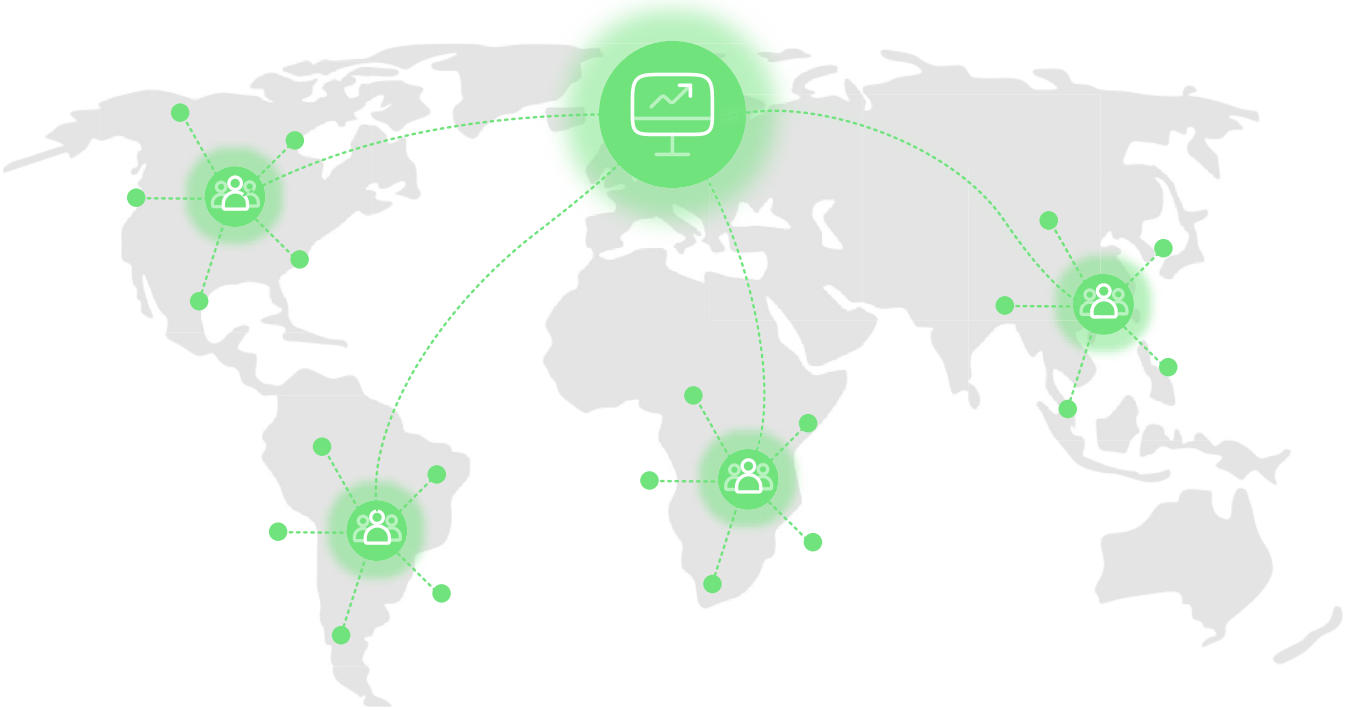
Challenges at scale:

- Multiple operating companies.
- Diverse regulatory environments.
- Limited cross-market visibility.
- Variations in integration and customer journeys.

The Opportunity

By combining orchestration with a centralized operational layer, operators can achieve:

- Standardized operational processes.
- Cross-market visibility and benchmarking.
- Consistent service quality.
- Local flexibility within a global framework.



Global visibility with local execution.

Business Impact

By combining orchestration with real-time visibility and control, operators can scale efficiently while increasing agility, reliability and service quality.

End-to-end visibility across the eSIM lifecycle translates directly into **measurable business outcomes**:

- **Reduce time** to resolution for activation issues.
- **Lower operational costs** through improved efficiency.
- Increase **activation success rates.**
- Enhance **customer experience.**



From operational insight to business performance.

An operator identifies activation failures concentrated in a specific onboarding channel and isolates the issue within minutes using centralized observability.

35% faster onboarding cycles.
End-to-end visibility streamlined activation and reduced manual intervention.

Up to 50% increase in revenue from digital connectivity services.
Faster activation journeys accelerated adoption of premium and multi-device offerings.

Up to 60% improvement in activation consistency.
Unified operational control improved activation consistency across sales channels and devices.

80% faster time resolution.
Centralized observability accelerated troubleshooting and root-cause analysis.

Ultimately, operators gain the ability to:
Scale eSIM operations with confidence, control, and consistency.

***** *Illustrative results based on deployment scenarios and operational assessments.*

Conclusion

The evolution of eSIM is reshaping mobile operations.

What began as the shift from physical to digital SIM has evolved into a broader transformation toward a **software-driven service delivery model**—where agility, integration and scalability are essential.

In this new environment, success no longer depends solely on enabling activation, but on the ability to **operate efficiently,** with control and at scale.

Activation alone is not enough. Orchestration is necessary. But **visibility is what truly makes the difference.**

- **Activation** enables connectivity.
- **Orchestration** enables coordination.
- **Visibility** enables control.

Together, these capabilities allow operators to move from fragmented processes to a scalable, efficient, and reliable operational model, ready to support eSIM growth and deliver consistent, high-quality customer experience and contribute directly to revenue growth.

Operators that combine orchestration with operational visibility will be best positioned to **scale eSIM services efficiently and competitively.**

The future is not just digital—it is operationally intelligent.

Click here to book a demo now...

... or simply scan the QR code!



Glossary

1. **Activation:** The process of enabling connectivity and mobile services on a device through eSIM provisioning and network registration.
2. **BSS (Business Support Systems):** Operator systems responsible for customer management, billing, subscriptions and commercial operations.
3. **Customer Journey:** The complete user experience across onboarding, activation, service enablement and support interactions.
4. **DES (Device Entitlement Server):** System responsible for validating device eligibility and authorizing access to operator services.
5. **Diagnostics & Troubleshooting:** Operational capabilities used to identify, analyze and resolve issues across the eSIM lifecycle.
6. **Digital Channels:** Online customer touchpoints such as apps, websites and self-service platforms used for onboarding and activation.
7. **eSIM (Embedded SIM):** A digital SIM technology embedded into devices, enabling remote provisioning and management of mobile subscriptions.
8. **eSIM Lifecycle:** The complete operational journey of an eSIM, from provisioning and activation to service management and support.
9. **eSIM Observability:** End-to-end visibility across systems, flows and events involved in eSIM operations.
10. **Entitlement:** The process of authorizing devices and users to access specific operator services and features.
11. **Operational Control:** The ability to monitor, manage and troubleshoot services, activations and configurations in real time.
12. **Operational Visibility Layer:** A centralized operational layer providing real-time monitoring, diagnostics, logs and control across the eSIM ecosystem.
13. **Orchestration:** The coordination and automation of provisioning, entitlement and activation processes across multiple systems and channels.
14. **RSP (Remote SIM Provisioning):** GSMA-defined framework enabling remote download and management of eSIM profiles.
15. **SGP.22:** GSMA specification for consumer eSIM remote SIM provisioning architecture and processes.
16. **SGP.32:** GSMA specification designed to support eSIM provisioning for IoT devices and large-scale deployments.
17. **SM-DP+ (Subscription Manager Data Preparation+):** The platform responsible for securely preparing, storing and delivering eSIM profiles to devices.
18. **Service Enablement:** The process of activating operator services and ensuring access after provisioning and authorization.
19. **Traceability:** The capability to track events, transactions and operational flows across the full eSIM journey.
20. **Visibility:** Real-time access to operational data, logs, events and lifecycle insights across systems and channels.

References

GSMA SGP.22 – Consumer eSIM Remote SIM Provisioning.

GSMA SGP.32 – IoT eSIM Remote SIM Provisioning.

Trusted Connectivity Alliance (TCA) – eSIM Interoperability and Remote Provisioning Resources

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