

Amdocs Service and Network Orchestration

End-to-end service orchestration across hybrid network environments

Amdocs Service and Network Orchestration (SNO) is an intent-driven, model-based platform for the full lifecycle management of services and network resources. It provides E2E hybrid service orchestration that connects business orders to

underlying services, and connects those services to the network domains that deliver them.

SNO, part of aOS agentic operations, supports complex, multi-service customer orders across both B2C and advanced B2B scenarios, spanning legacy and next-generation environments. It streamlines service fulfillment through flexible, catalog-driven workflows that support both human-centric and system-centric execution.

Business benefits

SNO's benefits reflect changes in how fulfillment and operations teams execute work in an aOS-aligned operating model:

1

Accelerated time to market

Speeds up service design, testing, launch, fulfillment, and orchestration through automated and reuse-driven capabilities.

2

Optimized operational efficiency

Drives OPEX reduction through enhanced process automation across fulfillment and assurance workflows, simplifying operations and increasing productivity.

3

Seamless hybrid operations

Orchestrates services across legacy and next-generation infrastructure without requiring rip and replace.

4

Stronger E2E business-to-network bridge

Closes the Business-to-Network orchestration gap, providing visibility and consistency across the entire service fulfillment process.

5

Reduced complexity

Maximizes automation to reduce human effort and drive cost reduction, improving customer satisfaction.

Addressing key challenges

CSPs face operational constraints where legacy systems and next-generation networks must function together as a unified service delivery system. SNO addresses these constraints by providing consistent, intent-driven execution across both environments.



Closes the E2E business-to-network gap

Connects business orders directly to network resource configuration and activation.



Enables hybrid operations

Orchestrates services across legacy and next-generation infrastructure without requiring replacement.



Reduces operational complexity

Automates workflows for the dynamic, real-time, and flexible requirements of 5G Standalone networks while supporting existing OSS systems not originally designed for these capabilities.



Lowens total cost of ownership

Reduces manual intervention through automated, catalog-driven processes.



Supports autonomous network operations

Enables intent-driven orchestration that adapts to changing network conditions.

Key capabilities

Each capability supports a shift toward consistent, predictable, and intent-driven execution across the service lifecycle:

Capability area	Core features and functions
E2E orchestration & fulfillment	Enables consistent, repeatable fulfillment execution across complex, multi-domain orders. Provides comprehensive order orchestration, project orchestration for network rollout, and service fulfillment management. Supports model-driven plan generation (WBS, activities) for efficient execution of complex, multi-service orders.
Model-driven design & catalog	Ensures services and resources are modeled once and executed consistently across domains. Uses a comprehensive design-time catalog for defining service specifications (CFS/RFS) and fulfillment specifications, facilitating Product-to-Service Decomposition (P2S). Supports onboarding and enrichment of Network Function Descriptors (xNF-D).
Automation & intelligence	Supports closed-loop automation (Sense, Decide, Act) by continuously monitoring services and taking automatic corrective action based on policies and predefined KPI thresholds. The architecture supports the integration of advanced automation assistants that streamline design and fulfillment tasks.
Network lifecycle management	Ensures operational continuity across legacy and cloud-native technologies. Provides consistent orchestration across the full service lifecycle, from design to retirement. Enables intent-driven orchestration and comprehensive end-to-end service lifecycle management for network and cloud services, covering everything from initial design and creation to deployment, configuration, continuous monitoring, and eventual decommissioning. As part of a full end-to-end service orchestration framework, supports domain management for 5G network slicing (eMBB, URLLC, mMTC) across core, RAN, and transport subnets.
Hybrid technology support	Provides unified management of resources and service components across diverse technology and multi-vendor networks, including legacy infrastructure, Virtual Network Functions (VNFs), Cloud-Native Network Functions (CNFs), and telco cloud resources.

Architecture and integration highlights

Architecture is designed to ensure reliability, consistency, openness, and telco-grade scale across the operating model. SNO supports flexible deployment and integration across hybrid cloud environments through cloud-native architecture and standards-based interfaces.

Architecture: SNO is built on a cloud-native, microservices-based architecture. It utilizes Models and Policies for declarative orchestration and leverages an intent-based solver for complex decision-making, such as Homing and Placement. Workflow execution is managed by the Amdocs orchestration platform, which handles sequences of interdependent tasks.

Deployment options: The solution supports modern, cloud-native deployment using containers on Kubernetes (K8s), following industry best practices. With K8s-native capabilities, it can be deployed on any public or private cloud environment. SNO is hybrid-cloud ready and supports deployment on certified platforms such as AWS, Microsoft Azure, and GCP. It enables geographically redundant architectures with both Active-Active and Active-Hot Standby configurations to ensure high availability and business continuity.

Integration and standards: SNO is an open platform that supports industry standards and features an extensive plugin framework.

- **TMF Open API compliance:** Features robust Northbound (NB) interfaces supporting Amdocs-native APIs alongside extensive TMF standards, including TMF 622 (Product Order), TMF 641 (Service Order), TMF 638 (Service Inventory).
- **3GPP and ETSI alignment:** Aligned with 3GPP specifications for 5G network slicing and ETSI standards (e.g., SOL001) for xNF onboarding and design.
- **Extensibility:** Offers a flexible southbound plugin framework to facilitate integration with cloud management systems, xNFM, and network/domain controllers, enabling easy integration with ecosystem vendors.

About Amdocs

Amdocs helps the world's leading communications and media companies deliver exceptional customer experiences through reliable, efficient, and secure operations at scale. We provide software products and services that embed intelligence into how work runs across business, IT, and network domains – delivering measurable outcomes in customer experience, network performance, cloud modernization, and revenue growth.

With our talented people, and more than 40 years of experience running mission-critical systems around the globe, Amdocs runs billions of transactions daily. Our technology is relied on every day, connecting people worldwide and advancing a more inclusive, connected world.