

Positioning Paper

How Amdocs E2ESO is defining the automation & orchestration landscape

End-to-end service orchestration (E2ESO) is one of the most critical components in the service and network automation and orchestration landscape. As networks evolve towards programmability, such as transitioning from 4G to 5G, they are becoming increasingly complex to operate and manage. Addressing this complexity demands a strategic approach that assures these services, and enables communications service providers (CSPs) to deliver them efficiently and effectively.

Adding value to CSP automation

E2ESO is a pivotal process that fundamentally transforms and expedites the development of next-generation B2C, B2B, and B2B2X services. It not only enhances the monetization of service infrastructure but also boosts revenues associated with advanced service use cases. Indeed, in recent surveys and studies, most CSPs said that 5G SA will not be possible without being highly automated, particularly when considering next-generation network services that enable CSPs to support new business models that maximize network assets' potential.

CSPs rely on E2ESO capabilities to bolster their operational capacity, enabling the instantiation of sophisticated services across diverse technologies, domains, and vendors. E2ESO's role extends across the entire lifecycle of services and networks, encompassing critical stages such as network planning, innovation, provisioning, optimization, orchestration, and assurance. The following is a breakdown of how E2ESO seamlessly integrates into the service and network automation lifecycle:

- **Network design & planning:** plays a pivotal role in the strategic design and planning of network resources and infrastructure, providing a comprehensive solution for service and network lifecycle management across both network and cloud services.
- **Innovation:** facilitates development and deployment of innovative network technologies and services by empowering intent-driven automation and agile service creation and assurance through closed-loop processes.
- **Provisioning:** ensures smooth and efficient service fulfillment and activation across multiple networks and domains by streamlining the configuration of network resources.
- **Optimization:** ensures peak network efficiency by dynamically adjusting resources as needed by leveraging model-driven automation and near real-time, end-to-end data via AI/ML closed-loop systems.
- **Orchestration:** coordinates and manages network components to work in seamless alignment by leveraging an accurate representation of services and resources in the network and cloud infrastructure, with a cloud-native, multi-domain inventory at its core.
- **Assurance:** ensures optimal performance of both services and underlying network resources within agreed-upon service standards, adopting a customer-centric approach and employing advanced automation to support closed-loop systems.

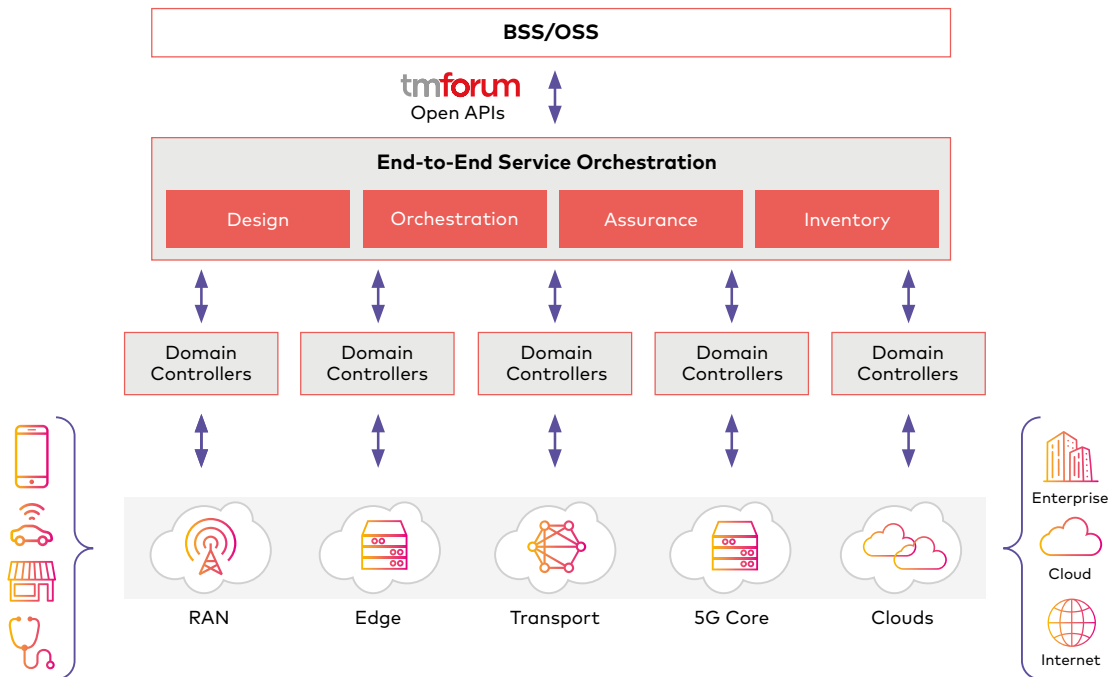


Figure 1 End-to-End Service Orchestration

Building a strategic solution centered on customer experience

CSPs seek innovative solutions that can manage the increased complexity that accompanies the demand from NextGen services. Yet far beyond adding more services, the real challenge lies in finding ways to innovatively integrate advanced technologies to deliver these services effectively.

Our approach to E2ESO focuses on resolving these challenges by driving automation, orchestration, and operational optimization across various domains and technologies, while at the same time, ensuring alignment with evolving industry needs. To do this, we created a solution that is capable of streamlining operational costs and enhancing service quality, thereby facilitating a quicker response to market demands. Furthermore, by seamlessly integrating through standards-aligned APIs, we designed the solution to maximize the potential of our customers' network assets, while helping them open new avenues for revenue and elevate the customer experience.

Our strategy is centered around the three key capabilities, as outlined in the figure on page 4.

Enables new revenue generation, supports new business models

- Connects digital/BSS to network to deliver business intent
- Supports B2C, B2B and B2B2X, including beyond connectivity services
- Supports Naas, NaaP & API exposure, maximizing network assets potential
- Integrates with charging supporting new bizmodels, e.g., slice usage, performance

Improves efficiency, with GenAI & AI-powered closed-loop automation

- Automates E2E service lifecycle management
- Translate business intent into actionable network configurations
- Proactively assures SLAs via closed-loop automation
- Optimizes workload/application placement with AI/ML
- Optimizes operations across domains & technologies with end-to-end visibility

Agility & openness reducing TTM, optimizing TCO

- Agile, microservices-based, rapid model onboarding and low code service definitions
- Intent-driven TOSCA-based data model
- Versatile, multi-service Support including SD-WAN, 5G Slicing
- Multi-domain, multi-vendor network support
- Truly standards aligned including TMF Open API, 3GPP, ETSI

Amdocs' E2ESO solution

Amdocs E2ESO is a unified, pre-integrated modular suite, spanning both IT and the network, designed to provide CSPs with a holistic end-to-end service view and experience. The solution automates and oversees service fulfillment workflows, ensuring comprehensive support throughout the lifecycle of every service and each instance's delivery.

Amdocs E2ESO actively translates business intent, derived from the order, into automated actions that effectively fulfill and sustain the intent across relevant domains – encompassing network, cloud, and other systems – throughout the entire service lifecycle. Seamless integration includes customer order management systems (COM) for addressing customer needs, inventory systems providing accurate, real-time data of services and resources, and domain-specific resource orchestration systems supporting network and infrastructure.

As a strategic cornerstone of the modern telecommunication landscape, the solution truly positions CSPs to not only meet evolving industry needs but also unlock new revenue streams and elevate the overall customer experience.

To learn more about Amdocs E2ESO, [click here](#)



Amdocs helps those who build the future to make it amazing. With our market-leading portfolio of software products and services, we unlock our customers' innovative potential, empowering them to provide next-generation communication and media experiences for both the individual end user and large enterprise customers. Our approximately 30,000 employees around the globe are here to accelerate service providers' migration to the cloud, enable them to differentiate in the 5G era, and digitalize and automate their operations.

Listed on the NASDAQ Global Select Market, Amdocs had revenue of \$4.89 billion in fiscal 2023.

For more information, visit Amdocs at www.amdocs.com.