Amdocs Network Inventory

A 5G and cloud-era inventory, powering reliable automation

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Introduction

Our industry is undergoing transformation in the way networks are built and services are sold. For communications & media service providers, programmable networks like 5G bring a wealth of opportunities by introducing capabilities that enable the creation of differentiated services. Yet for operations teams, the deployment of cloud-native, disaggregated and virtualized networks spread across the edge and core creates a host of challenges. While new networks offer increased flexibility and scalability, their deployment is not isolated from the existing network landscape. So typically, rather than replacing existing networks, at least in the short and medium term, they need to coexist within the prevailing infrastructure, sharing dependencies and remaining highly intertwined. For service providers, this casts a cloud over the ability to leverage the full revenue potential of launching new innovative services.

Efficiently operating a complex, hybrid network while still remaining profitable, demands automation. Such a strategy enables the service provider to effectively multiply the virtual operational capacity of existing teams, using AI/ML-driven automated actions to deliver and maintain the service intent. However, to ensure AI-triggered actions are effective, this requires access to comprehensive, accurate network and service data. Inventory plays a key role here, providing the network and service data required to power automation.

Amdocs Network Inventory is a proven, reliable inventory that supports any network, cloud and service, providing the awareness to automate operations across existing and future networks. By seamlessly providing end-to-end visibility via a centralized, single pane of glass, the solution simplifies and de-risks transformation journeys by removing any blind spots.
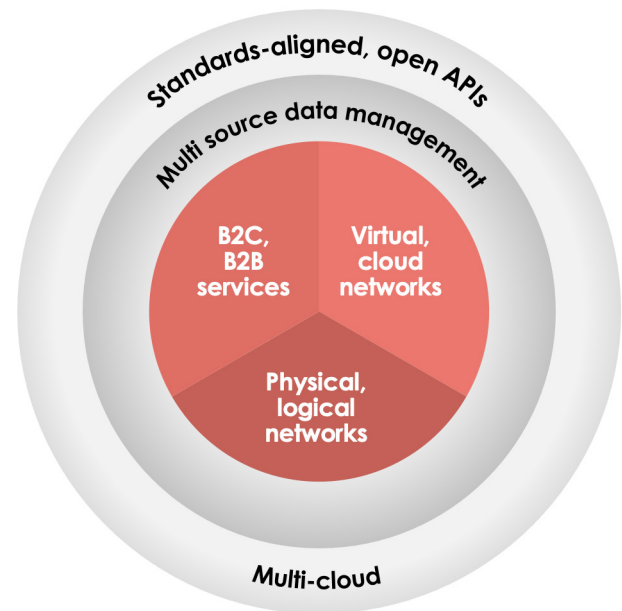

Figure 1: Amdocs Network Inventory Anatomy

Evolve but consider coexistence

Networks are constantly evolving. Having already shifted from analog voice to digital data, they're now transitioning into software-defined networks virtualization and cloudification, with deployments across edge and core. But as with any gradual process, it requires careful planning, while maintaining coexistence with existing networks.

The evolution of Amdocs Network Inventory has been instrumental in facilitating the seamless transition between technologies and empowering service providers to embrace and implement new networks and emerging services. These advancements come as a direct result of Amdocs' continual investments in its inventory technology, which paves the way for future development. The approach revolves around a trusted and versatile system that fully supports the advanced capabilities of 5G and the cloud era. While enabling the management of both traditional and emerging networks, it ensures a harmonious coexistence between today's and tomorrow's networks.
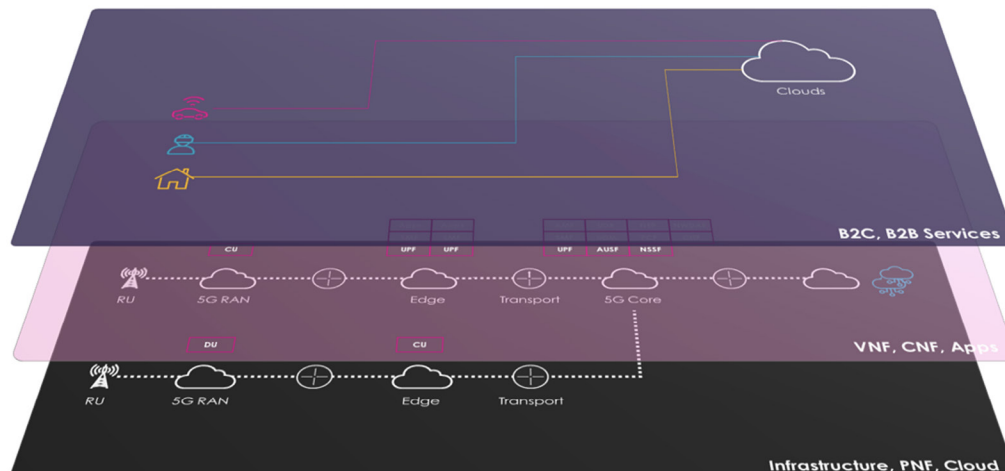

Figure 2: Cross-domain, multi-layer inter-relationships held in Amdocs Network Inventory

Tailoring the journey

Most service providers have operated in the telecommunications sector for many years, often with mergers, acquisitions or spin-offs bringing in new service offerings. This has led to a complex and fragmented IT and network infrastructure landscape, with each operator having its own unique systems, thereby contributing to the overall complexity. Since no two infrastructures are alike, this has created the need for tailored modernization journeys that take into account the different starting points of each individual service provider.

Amdocs Network Inventory provides inventory and data management capabilities that adapt to every individual situation and evolutionary roadmap.

These include:

- A proven, cross-domain inventory that leverages its vendor-agnostic nature to operate across network domains and layers for any vendor

- A flexible, multi-data source management layer that enables federated, centralized access to network and service data from any source, deferring or avoiding costly data migrations

These capabilities enable service providers to combine the following non-exclusive approaches to inventory modernization:

- Federation over existing inventories, providing end-to-end visibility while reducing risk

- Replacement of legacy inventories, increasing business agility with cloud-era capabilities

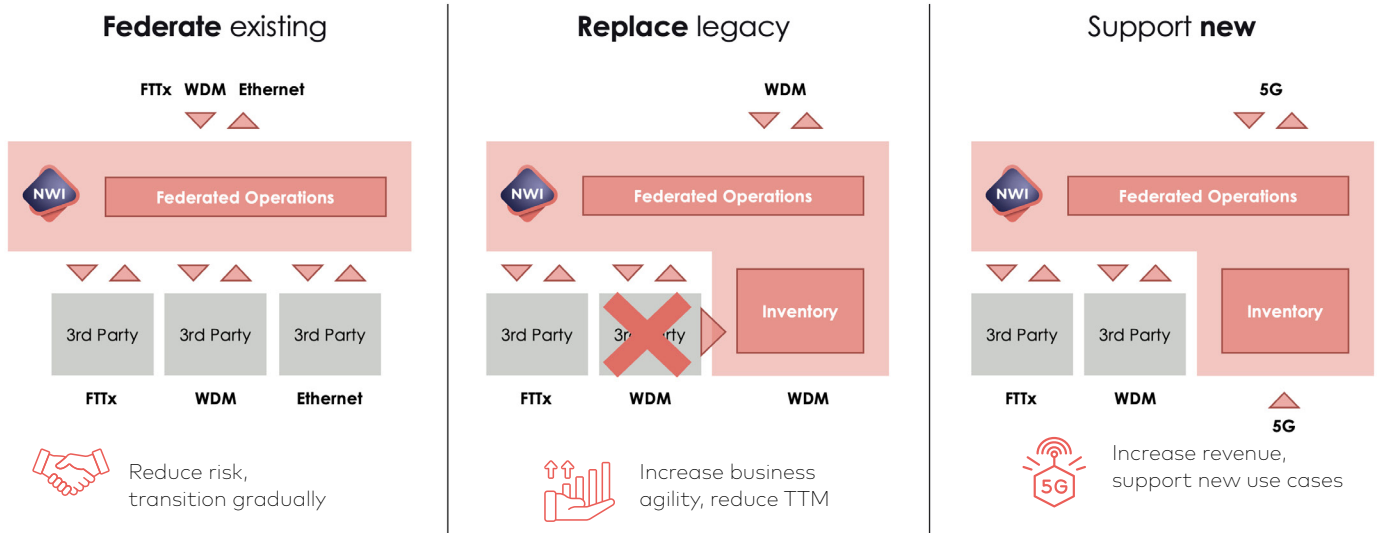- Addition of a new inventory, efficiently supporting new technologies and use cases

Figure 3: Tailored modernization journeys

Remove any burden, get cloud agility

Software-defined, programmable networks should be seen as a strategic investment that can unlock opportunities for innovative, differentiated services and increased revenues. To realize this vision, service providers must possess the capability to rapidly design launch, and deliver new services, thereby enhancing customer satisfaction through agile digital experiences.

Importantly however, as a cornerstone of operations systems, inventory needs to fully support rather than hinder the dynamic nature of 5G and cloud-era networks and services. Amdocs Network Inventory does this by being natively intent-driven, simplifying the interaction with the service fulfilment, network orchestration and design and assign processes that depend on it to allocate the right resources to deliver and guarantee customer SLAs.

The support for intent-driven operations follows a low-code approach that enables increased agility and lower deployment TCO. These benefits are fostered further through the support of cloud deployments that enable CI/CD practices, which in turn, lead to lower TTM for new technologies and services.
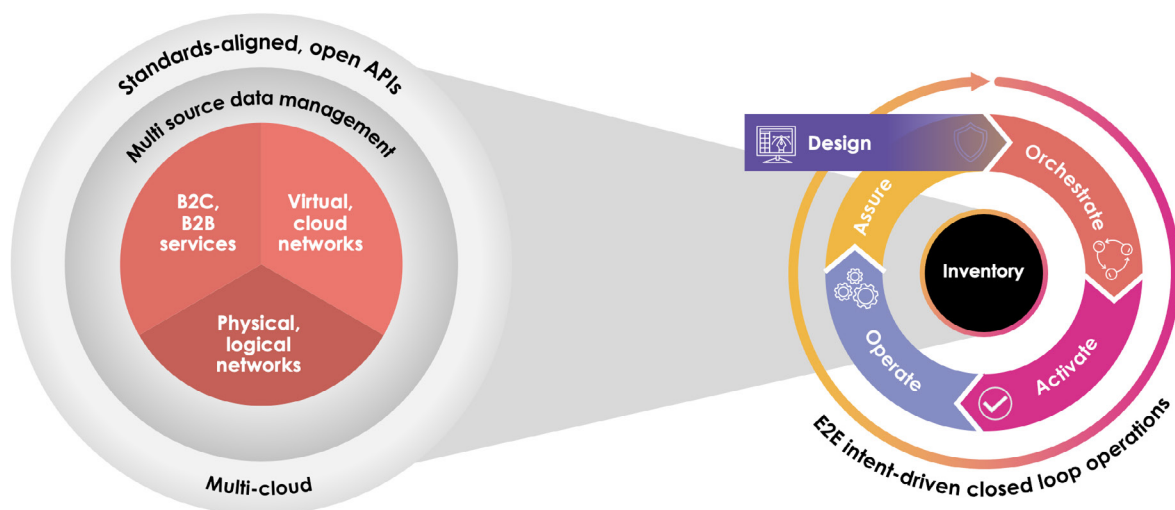

Figure 4: Inventory, a cornerstone of operations

To maintain up-to-date data, Amdocs Network Inventory supports near real-time updates from the network and cloud via a modern, event-based architecture and live enrichment framework. These capabilities are vital to increasing the reliability of operational activities and automations requiring access to accurate network and service data, such as workload placement or self-healing.

Considering the open and heterogeneous nature of new networks, maintaining up-to-date data is only possible with alignment to standards. Amdocs Network Inventory is fully standards-aligned, simplifying the integrations required with all parts involved in delivering customer services. As a company, we fully embrace openness and promote standards alignment through active involvement in standards bodies and organizations such as TM Forum, 3GPP, ETSI, MEF and The Linux Foundation.

Preparing for the next digital age

Managing software-defined, programmable networks like 5G poses new operational challenges, especially considering the coexistence of physical, virtual and cloud network functions, which together are required to support existing and new services. Overcoming these challenges, requires a reliable, rich inventory that can track and provide end-to-end visibility including any inter-relationships across multiple domains and layers, while bringing data from multiple data sources if required. At the same time, it's a key opportunity to unlock new revenue streams, enhance customer experience and gain a competitive edge.

With over two decades' experience of successfully delivering more than 100 inventory projects worldwide, Amdocs is well-positioned to support such an endeavor. Amdocs Network Inventory provides the ideal blend of capabilities to support today's and tomorrow's networks, enabling every service provider to evolve at their own pace.

Benefits summary

- Reduce risk with inventory market-leading vendor with over 20 years of experience and deep industry domain knowledge

- Improve operations and manage any network, cloud and service across existing and new technologies, without any compromises

- Reduce TTM and accelerate support for new technologies leveraging best practices, e.g., 5G across network planning, rollout and service fulfillment

- Increase agility with rapid network and service model onboarding and low-code, intent-driven automation simplifying interactions with surrounding systems

- Reduce capex and leverage federation to defer or avoid costly data migration while having centralized data access

- Reduce TCO with flexible cloud deployment, on private or public cloud, and standards-aligned integrations including TM Forum, 3GPP, ETSI and more

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Vodafone Group said:

"Providing excellent customer service is central to Vodafone's business, and we look to provide a consistent customer experience across our different regions. As we extend our advanced gigabit networks, we are further harmonizing our inventory systems in multiple territories, as well as modernizing and improving efficiency, with the support of Amdocs, our strategic partner in this initiative."

For more information, visit **Amdocs Network Inventory.**

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 enterprise customers. Our 31,000 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 $4.58 billion in fiscal 2022.

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

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