

AMDOCS USER DEVICE MANAGEMENT

Secure and scalable life cycle management of any device from anywhere for any line of business.

In the world of Internet of Things (IoT), 5G goes beyond digital connectivity of people, it also focuses on the reliable and critical communication between devices, sensors etc. 5G enables Industry 4.0 which would bring business processes efficiencies in various Industries. The broadband access and home networking market have been growing exponentially in terms of bandwidth needs and the number of new home devices connecting to networks. By 2030, there will be 1.6 billion fixed broadband subscribers worldwide. With more devices and sensors getting connected, there are multiple challenges which need to be handled:

- **Device Provisioning** - Manual onboarding is not a feasible and sustainable mechanism at scale. Device grouping is must to organize devices by grouping them according to their function, location, or other characteristics into top-level groups, subgroups, or dynamically constructed smart groups. Grouped devices allow for bulk operations capability.
- **Device Maintenance** - Firmware upgrades are not done regularly, causing firmware to become obsolete and error-prone with the passage of time. Upgrades are executed manually and are time consuming.
- **Device Troubleshooting and diagnostics** – Troubleshooting is time consuming and tedious, long time to repair because of the lack of the diagnostics tools; lack of predictive maintenance capabilities to reduce impact on the business

- **Device Security** – Bad cyber actors can exploit devices to access an enterprise's network. An organization must enroll and authenticate these devices if they want them to be secure on their network.
- **Device Analytics** – Lack of AI/ML capabilities to generate valuable insights on the telemetry data collected from devices

Briefly, these challenges need to be answered to embrace new opportunities that are being enabled by 5G and Industry 4.0. Amdocs User Device Management platform is an answer to these challenges. A versatile and scalable user device management platform is a recipe for success for any services – FWA, FTTH, DOCSIS, IoT, 5G etc.

Bringing enhanced device management capabilities stitched with automation and AI/ML

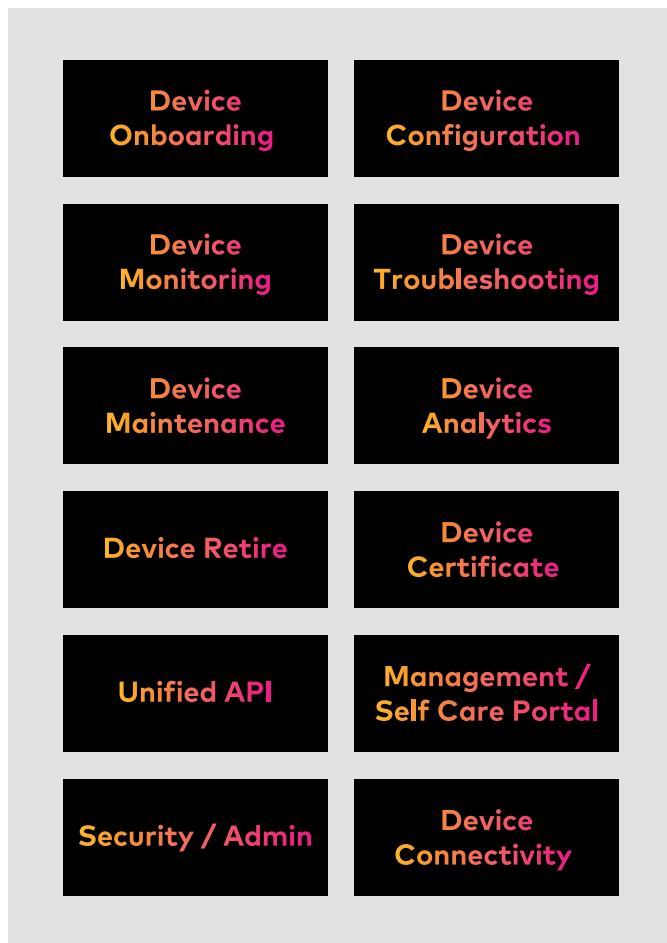
Amdocs User Device Management is a one stop shop which brings device management lifecycle capabilities under one umbrella – onboard, configure, monitor, troubleshoot, maintain, and retire any device – wireless or wireline, serving any customer - enterprise or residential. Leveraging in-built AI/ML capabilities, CSPs and enterprises are harnessing its power to enhance customer experience while reducing operational costs. Amdocs User Device Management supports any type of device over TR-069, TR-369 USP, SNMP and other protocols.

Benefits

- **Reduced OpEx** through automated onboarding and remote device configuration
- **Shorten average calling handling time** with remote troubleshooting capabilities and set of diagnostic tools

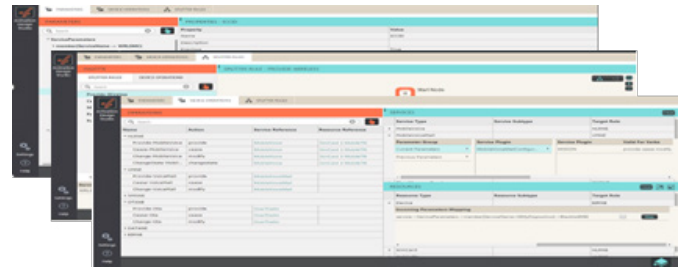
- **Reduced risk** with Amdocs domain knowledge, leveraging proven field experience, which provides quantifiable benefits
- **Increased customer satisfaction** with advanced Enterprise and self-care portal and providing accurate recommendations powered by device analytics
- **Future proof** with flv integration with main vendor
- **Open Industry Standards enables vendor agnostic, device agnostic approach and plug and play integration with major vendors**

Amdocs User Device Management Building Blocks



Automated Device Provisioning

Onboarding a device can be a complicated and tedious process. Manual process has resulted in a longer time to market and hence impacting customer experience. With Amdocs User Device Management, zero touch provisioning can be enabled to automate onboarding and configuration of the device. The platform provides an out-of-the-box, simple and cost-effective way to provision over-the air and securely deploys digital certificates and private key in the device, thus significantly minimizing the operational burden and simplifying the supply chain and connection to the IoT platform.



Supports Industry standard protocols

Amdocs User Device Management supports all types of devices over TR-069, TR-369 USP, SNMP, and other protocols. It enables all devices to be managed by a unified platform.

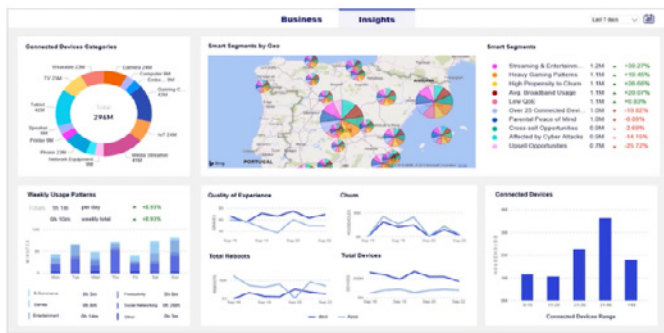
Support for Industry standard protocols for device maintenance

Support for standard protocols such as FOTA, SOTA that can be triggered manually or automatically, support for bulk devices or a specific device is available.

Enabling Data Insights to take intelligent actions

Device data can be transformative for a modern business, but only if companies are able to use it. Many companies manage their devices through siloed systems, making it difficult or even impossible to receive and act on real-time insights about the health of their devices. With Amdocs User Device Management, device data can be ingested into the platform via common protocols MQTT and HTTP, and can scale to support many devices, making it quick and easy to connect all devices available in your ecosystem in one place.

With Amdocs Home OS, CSPs are revolutionizing their broadband services to achieve smarter and efficient operations. Amdocs Home OS generates data insights which enables Smart Care for end users. With Marketing Dashboard, CSPs can segment users based on various dimensions associated with customers – heavy gamer user, heavy media user, number of connected devices, encountering quality of experience issues. This information can be used by product management and marketing team to come up with right offers for their customers to reduce churn rate and enhance customer experience.



Enables Single Pane of Glass to view the health and history of devices in near real time

In-built Management Portal supports navigation and management of all devices. It enables slicing and dicing of the information with historical trends that can be viewed for a specific or group of devices. It can display following information – device status/health state, amount of data (KB) consumed, telemetry data such as signal strength etc.



Efficient way to create rules to identify potential issues

With in-built AI/ML capability, rules can be created to ensure that notification of incidents are generated. Rules can be configured to take automate corrective actions that might be needed to resolve the problem. Rules run in near real-time to detect issues faster. When an issue arises, an Operations incident is automatically created. Easily review the health and history of the affected device to confirm the incident and define a course of action to resolve it. You have all the information you need at your fingertips, from device data to current and past work history, related events, and more.

Unified APIs to enable seamless integration with external systems

Well defined set of APIs to integrate with external systems such as CRM, Billing, Back-office applications, Field Service Management, Customer Support System etc. With all business workflows in one place, you can save time, better manage critical infrastructure, and drive customer loyalty with a high-quality customer experience.

Deployment Options

Amdocs User Device Management platform supports a variety of deployment options: - on-premises, private cloud, hybrid cloud or public cloud.



Amdocs User Device Management solution also includes:

System Integration Services:

Enables integration of the platform with external systems; brings domain and product expertise to validate and benchmark vendor combinations to deliver flexible and innovative technologies to the network.

System Deployment and Development Services:

- Accelerated and cost-efficient network deployments for faster time to market
- Streamlining operations through automation to reduce costs and improve efficiencies

Why Amdocs

Amdocs leverages a deep understanding of existing capabilities and strategies to create tailored solutions that combine our assets with those of the service providers' enterprise customers. Our holistic solution design approach considers enterprise requirements, use cases, future vision, as well as the degree to which the enterprise wishes to manage its network operations.

Leveraging our vendor experience, flexible solution blueprints, and mobile private network deployment expertise, we provide a single point of accountability for committed SLAs, while minimizing risks associated with mobile private network implementations. Meanwhile, our global delivery and support organization – spanning across RAN, core, cloud, IT, system integration, transport, security, and software domains – enables us to manage all the complexities of an end-to-end network solutions.

With the combination of deployment and automation, mobile private network management portal, and AI-enabled operations services, we lead the industry in enhancing the customer experience, while improving overall operational efficiencies.

For more information, visit: [Amdocs Networks](#).