

Amdocs Integration and Commissioning Services



The escalating demand for bandwidth to support growing data consumption is increasing the need for denser networks. Yet, service providers are discovering that without expert support, rapid, cost-effective deployment of 5G networks with 4G/LTE and other legacy technologies is difficult to achieve.

Vital to the network lifecycle is integration and commissioning (I&C), which involves adding sites and technology layers to increase coverage and capacity. This is where integration and commissioning services are key – ensuring faster 5G-NR network rollouts with maximum performance.

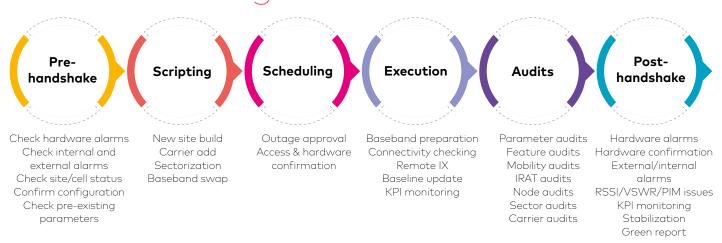
Amdocs Integration and Commissioning is a comprehensive, end-to-end network provisioning service covering all aspects of the network rollout.

Vendor-agnostic and backed by 24x7x365 support, we ensure that site deployment of any size – be it macro, small cell, DAS or pico – is up and running quickly and effectively.

Supported by tools such as Amdocs Network
Workflow Management, Amdocs Network
Performance Management and other proprietary
Amdocs tools, our service enables all stakeholders –
from service providers and construction contractors
to integration vendors and Amdocs engineers – to
work together with complete transparency and
cost-efficiently.

All tools are fully customizable with the capability to track details at each stage of the rollout, allowing us to provide you with one-touch summaries and scripts, and eliminating the need for spreadsheets and verbal status reports.

Amdocs Integration and Commissioning Process:



The process includes extensive automation of script creation, alarm monitoring & notification and audit discrepancy clearing, all which enable us to keep site visits to a minimum and complete the integration faster.

Team responsibilities

Amdocs EUTRAN team responsibilities include:

- · All equipment on site is in proper working order
- RF jumper and optical connections are going to the right ports
- Tx/Rx optical measurements pass
- · RETs appear and there are no VSWR issues

What the services include

- Remote integration, including field Integration and commissioning of BTS equipment and configuration of OSS equipment via remote integration support
- BTS equipment installation, including basebands, routers, radios, multiplexers, and so on, as well as connecting the related cable/feeder connections
- Building new sites, carrier addition, site modernization, macro RBS, small cells, pico cells, COW site, special event sites, C-RAN integration and 5G microsites

- Installation, commissioning and integration for Nokia system module (ASIA/ASIB/ASIK/FSMF/ FSME/ESMB), Ericsson basebands (BB6648/ BB6630/BB5216/DUS/DUL/DUW/DUG) and Nokia IXR/ALU CSR – (IXRe V1/V2 and IXR R6, SAS MXP 7210, 7705 SAR M/F)
- Radio upgrade, 2*2 to 4*4 MIMO/mMIMO, digital sector addition, AAS integration and AIR antenna 1641/6449 upgrade
- NR cell addition in N41, N39, N25; anchor integration, LAA cell addition, SA and NSA 5G integration in low band on millimeter band

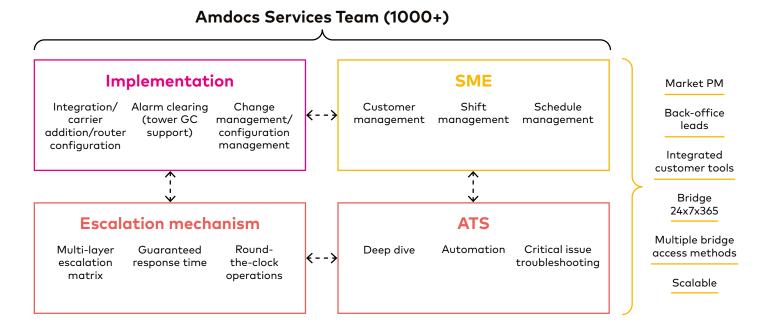
Service methodology

The field integrator loads the BTS software and commissioning files, and then verifies the following:

- TX power and bandwidth are set correctly
- Remote OSS support has connection to the carriers
- Ensure technologies that need to be defined are configured (e.g. L21, L19, 5G, UMTS, 2G)

Once the cells are integrated and ready for E911 call tests, the field integrator completes the call/data tests following directions in the MOP provided by the service provider.

Delivery methods



The Amdocs Integration Support team then remotely loads all scripts to complete the integration, including configuring cells in the OSS with correct parameter settings to ensure compliancy with the baselines provided by the service provider.

Throughout the process, Amdocs' advanced troubleshooting support (ATS) team, consisting of expert-level engineers and subject matter experts are on call 24x7 to provide real-time troubleshooting of any issues that arise, with a focus on targeting their root cause.

Benefits

- Cost savings: exceptional standards of site integration and commissioning minimizes need for multiple site visits to complete the integration and mitigates post-integration faults and alarms, resulting in significant OpEx and maintenance cost savings
- Faster return on investment: single product for pre-post integration services, combined with 24x7 war room support, ensures faster root cause identification and troubleshooting, thereby minimizing site downtime and ensuring faster integration

Why Amdocs

Amdocs has a proven track record supporting projects throughout all phases of network rollout and acceptance – including but not limited to RAN, transport and core design, provisioning and troubleshooting services, pre/post launch optimization, provisioning, triage and so on – for multi-vendor, multi-technology heterogeneous networks.

With an experienced network provisioning team staffed by professionals in the area of transport and core, as well as RF engineers, our strength lies in adapting to our customers' needs and requirements, while orchestrating various support teams/vendors to ensure timely delivery.

As a preferred vendor for Tier-1 and Tier-2 service providers across the globe, our vast complex configurations integration experience and holistic approach to network management ensures you deliver faster, within budget and with the highest levels of quality.

Partner with us to benefit from our proven tools, processes and time-tested methods, as well as customized services for all major network equipment providers and technologies, so you can be confident in your ability to meet your customer experience goals.

For more information on our network deployment services, visit <u>Amdocs Mobile Network Services</u>.

