Amdocs Open Networks

COVID-19 analysis &
Rural Wireless Initiatives

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amdocs

Agenda

1. Amdocs Open Networks overview
2. COVID-19 impacts on networks
3. Rural Wireless Network Initiatives
4. How can Amdocs help?

amdocsONE Open, Modular Portfolio

Consumer Experience & Monetization

- Lead a digital-first brand
- Expand and accelerate your portfolio of products
- Capture every revenue opportunity

Media & Digital Services

- Deliver premium content
- Leverage partner ecosystem
- Frictionless user access and experience

Enterprise & Connected Society

- Digitize B2B sales & care
- Zero touch ordering & fulfillment
- Business & NG connectivity services

Open Cloud **Networks**

- Hybrid network operation
- Virtual networks
- Autonomous operations
- Network rollout
- Open 5G

New **Domains** & **Disruption**

Enter new domains to drive growth and disrupt the Industry to enhance loyalty and brand value

Services & Hybrid **Operations**

- Experience Design & Development
- Cloud Services
- Data Management & Intelligence
- Delivery services, IT velocity & development (ADM Plus)
- Digital Hybrid Operations

Amdocs Open Network Overview

Enabling the era of Open Cloud Networks

Accelerate & optimize network rollout

- Network Design & Planning
- Integration & Commissioning
- Assurance & Mitigation
- Acceptance
- Optimization

Automate service & network operations

- Service Design & Onboarding
- E2E Service Orchestration
- Network / NFV Orchestration
- Cross-domain Hybrid Inventory
- Assurance & Autonomous Ops.

Realize & manage 5G networks

- 5G Slice Management
- 5G Edge Management
- 5G PEN* Management
- 5G RAN Optimization & Analytics
- 5G Network Rollout

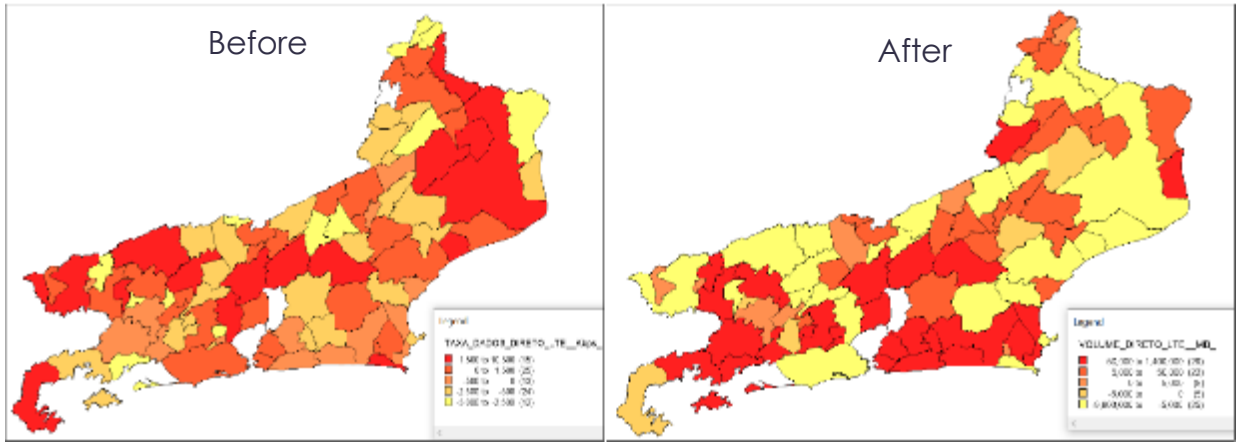
Consumer Multi-play		Enterprise/ B2B		SD-WAN	NaaS	5G Open Core Network	
4G/LTE	5G	ONAP	CBRS	Fixed	ORAN	Fiber	TIP	Cloud

** PEN = Private Enterprise Network*

COVID-19 impact on our customers' networks

KPI	AT&T	T-Mobile	Verizon
Voice traffic	↑ 44%	↑	↑ 10%
LTE data traffic	↑ 4%	↑ 6%	
Gaming traffic		↑ 45%	↑
Wi-Fi Offload	↑ 88%		
SMS	↑ 41%	↑ 26%	↑

LTE Data volume difference by zip codes



Traffic shift- LATAM operator

Impact

Shift in traffic Pattern from dense cities to suburbs

Changes in Data traffic patterns

Increase in Wi-fi traffic, resulting in pressure on wireline network

What needs to be done

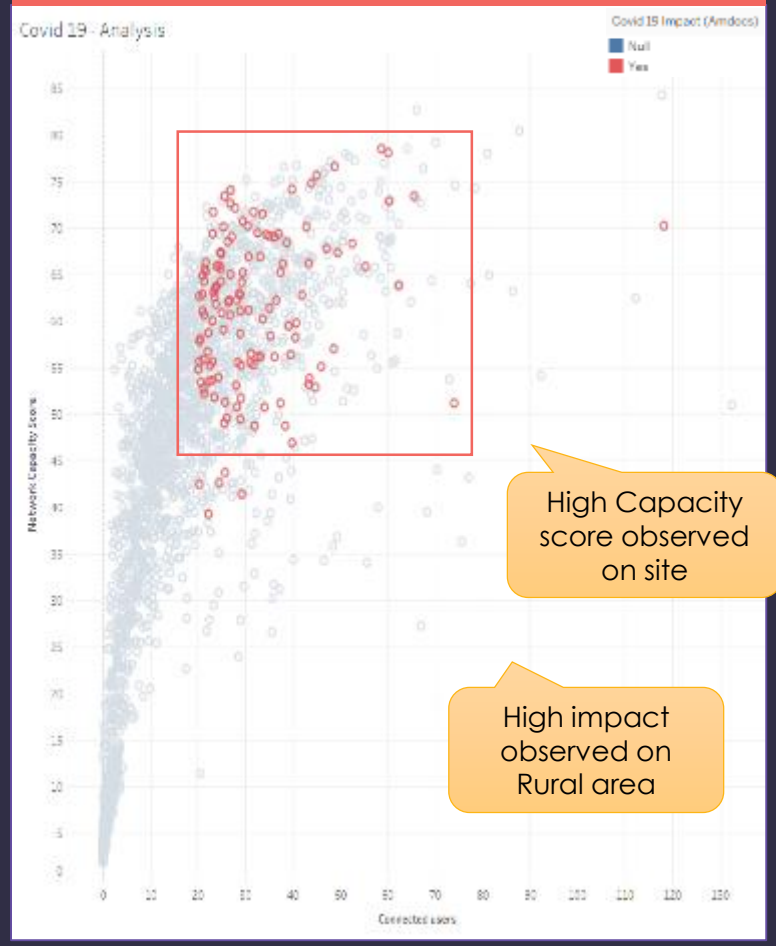
Predict traffic surge

Network Optimization

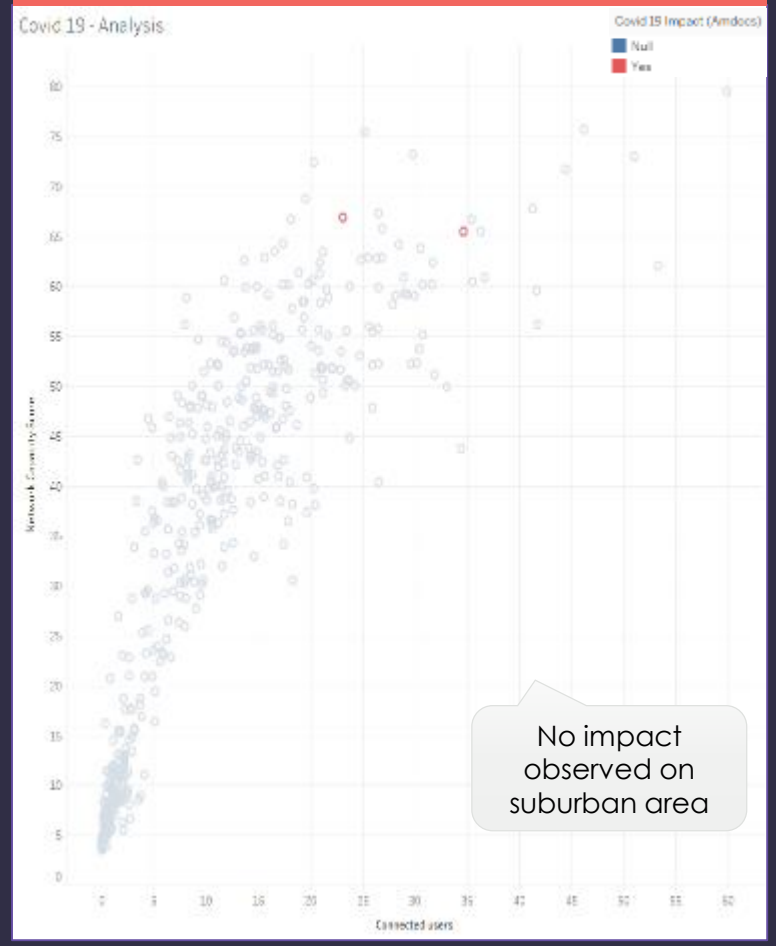
Add capacity

Capacity Score Analysis on Network (Covid19)

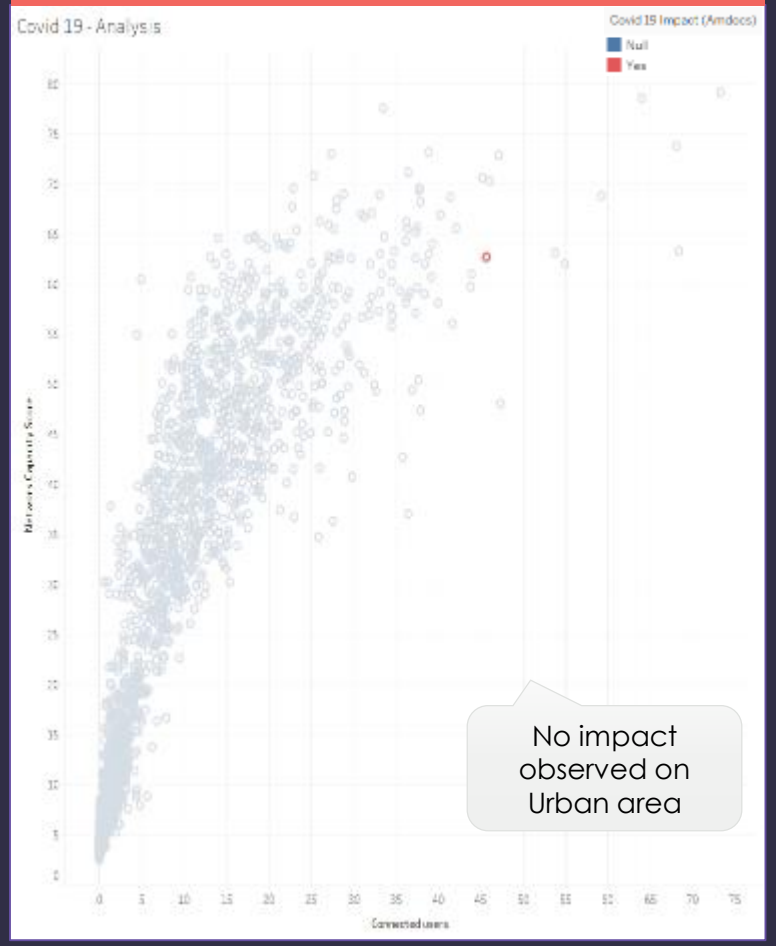
Rural



Suburban



Urban



Providing automation analytics for traffic changes

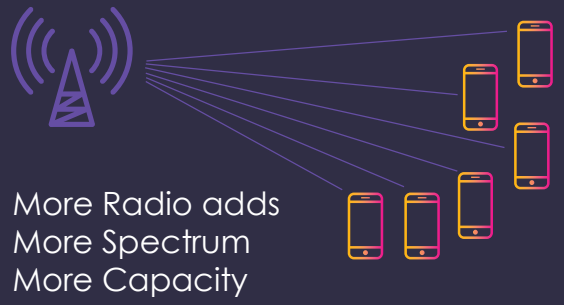
Learn more about Amdocs Smart Capacity and Actix solution

Analyze sudden increase in usage using metrics

Recommend strategy to improve capacity

Forecast timelines for capacity exhaustion

Prioritized investment based on VIP locations



Amdocs Smart Capacity solution for quick analysis

Short term opportunity
with Planning team

actix

- Free Demo licenses with Actix solution
- Demo automated capacity assessment
- Provide network planning and strategy for growth
- Prioritize VIP areas for immediate capacity adds

Long term opportunity
with Planning team (& CFO)

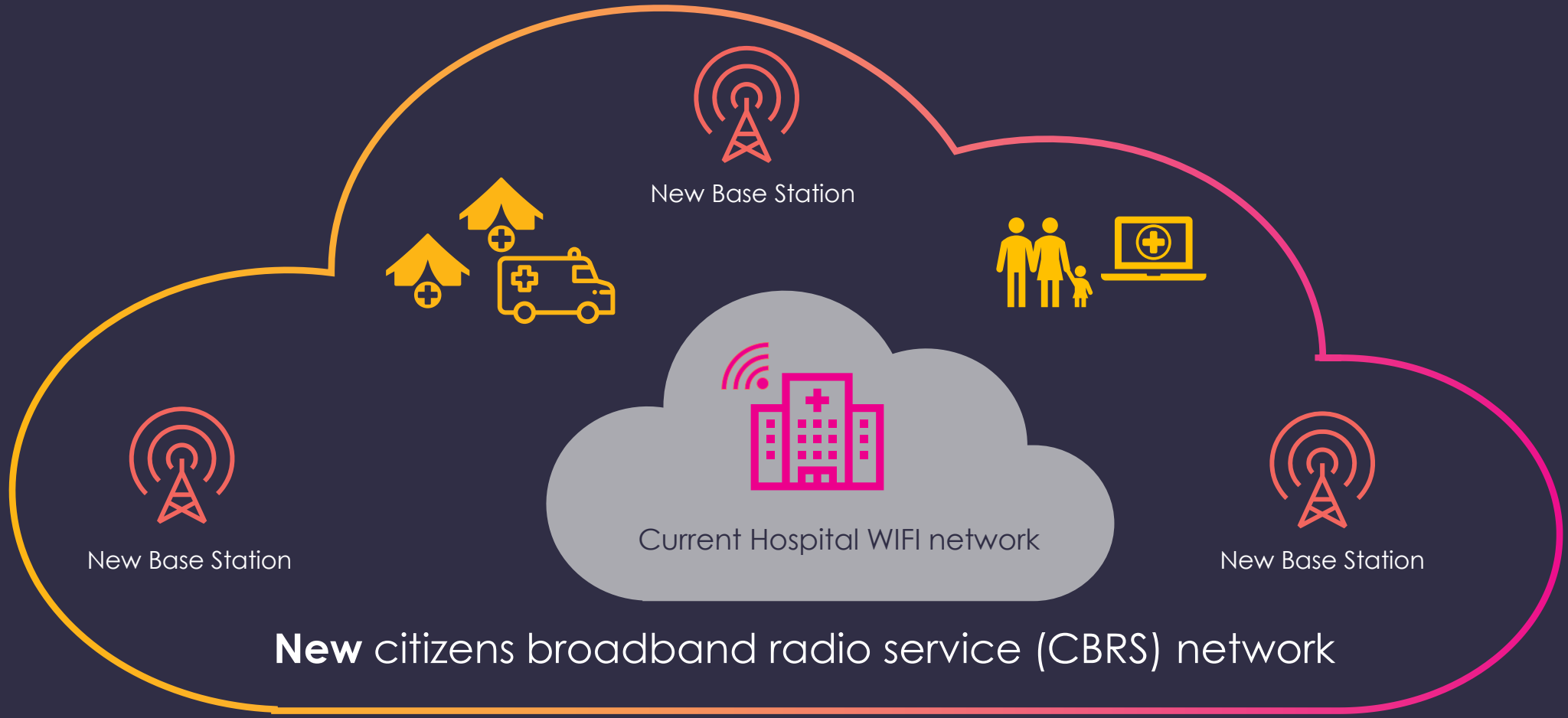
- Multi-year automated capacity assessment
- CapEx planning and forecasting

COVID-19 telecom infrastructure challenges for impacted business

For Patients

For Hospitals

Proposing fast and reliable CBRS-based wireless network solution for COVID-19 challenges



Rural Wireless Network Initiatives

FCC Rip/Replace

FCC $1billion fund to be used mainly for "permanently removing", "replacing" and "disposing" Huawei or ZTE gear and equipment (other vendor may also be prohibited in the list from the FCC in the future)

Protecting existing Part 90 devices

FCC mandates all part 90 device license must transition to part 96 CBRS band 48 by October 17th

Devices must connect to a SAS to operate in CBRS band 48 in order to operate in the 3550 to 3700 MHz frequency

Amdocs SpectrumOne (SAS)

Future proof to LTE and evolving to 5G

Technology Evolution:

5G Key Enablers:

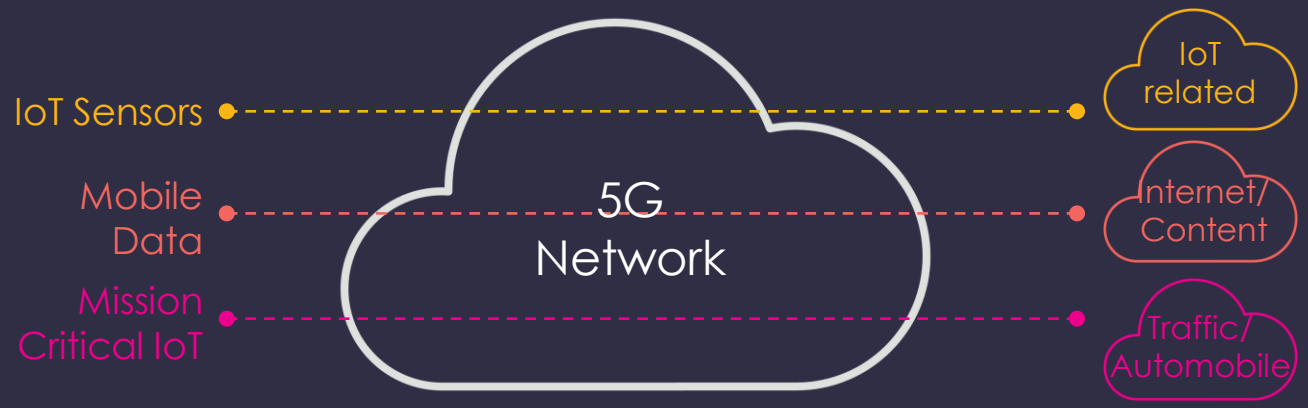
- Edge Computing
- Network-Slicing-as-a-Service (NSaaS)
- Private Enterprise Networks

5G Network Slicing in the Future

A network slice provides a set of network capabilities and performance level that are tailored for a set of service types;

A network slice may be dedicated to a particular service type or customer/partner;

Operators will benefit from a more flexible sliced network design to meet specific services and customers/partners requirements



Network Slicing Benefits

- Optimal resources utilization
- Efficient QoE diversity support
- Built-in NaaS Capability
- Higher Agility
- Trial/Fail fast
- Faster TTM
- Logical network isolation

Building wireless network in a box for service providers

Bringing expertise, network components and services to quickly deploy wireless network

Consult

Bring in proven experience and expertise to the project

- Fixed Network Experts and RAN experts
- Telecom Infra Project experiences for open network
- Vendor Agnostic Technical recommendations
- Technology Consultancy for best PEN solution

Design

RF dimensioning and general planning done. N/W equipment and platforms supplied

- Site survey and RF Design & Planning services
- Supply of H/W: NMS RAN, Core, LTE Core, LTE Radio, End user devices.
- Supply of : eSIM Platform, CBRS allocation (SAS)
- Fiber Designing services

Build

Build the physical and service infra needed for the PEN to operate

- Install LAN for Fixed Wireless Networks. Install and optimize RAN.
- Integration and commissioning. Network acceptance
- Spectrum allocation. Core set up.
- Connect different Enterprise Sites.
- Integrate apps and business critical process

Build

PEN IT adds and configures the operation of the connected devices

- Add Ent. devices to PEN/mobile core + configure access
- Adjust policies based on real usage patterns

Operate

PEN services visible and assured over lifetime with SLA defined at order time

- Establish process with automation, audits. Report on service ops.
- Tickets raised on failing network service.
- RAN, Core monitoring. Spectrum Mgmt. eSIM Mgmt.

Operate

PEN IT team manages the services on-site

- Add OTT apps and services (AI, MEC, edge, cloud)
- Modify/add new service (within SLA limits)

Amdocs can supply

Customers manage

Thank You

For more information please reach out to:

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