Amdocs Open Networks

COVID-19 analysis & Rural Wireless Initiatives

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Agenda

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

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* PEN = Private Enterprise Network
COVID-19 impact on our customers’ networks

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:
- High impact observed on Rural area
- High Capacity score observed on site

Suburban:
- No impact observed on suburban area

Urban:
- No impact observed on Urban area
Providing automation analytics for traffic changes
Learn more about Amdocs Smart Capacity and Actix solution

Amdocs Smart Capacity solution for quick analysis

**Short term opportunity with Planning team**
- 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

- Analyze sudden increase in usage using metrics
- Recommend strategy to improve capacity
- Forecast timelines for capacity exhaustion
- Prioritized investment based on VIP locations

Existing Capacity

More Radio adds
More Spectrum
More Capacity
COVID-19 telecom infrastructure challenges for impacted business

For Patients

Congested Network near mobile hospitals for patients

Need reliable broadband for remote doctor consult in some areas

For Hospitals

Slow or unable to access wireless connection to hospital networks

Need infrastructure for remote hospital sites for COVID-19 testing
Proposing fast and reliable CBRS-based wireless network solution for COVID-19 challenges

New citizens broadband radio service (CBRS) network
Rural Wireless Network Initiatives

FCC Rip/Replace

FCC $1 billion 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

Future proof to LTE and evolving to 5G

Technology Evolution:

5G Key Enablers:

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

Amdocs SpectrumOne (SAS)
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

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
  - Tickets raised on failing network service.
  - RAN, Core monitoring. Spectrum Mgmt. eSIM Mgmt.
- 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

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