SRE at telecom and media industry bridging between legacy and cloud native applications

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Agenda

- Who we Are
- The Challenge
- The Amdocs Journey to SRE
- atomIQ Automation Platform
- Case studies
- Benefit of SRE to our Organization
A leading software & services provider to communications and media companies of all sizes, accelerating the industry’s dynamic and continuous digital transformation.

Global leader

- **$4.1B** Revenues
- **26,000** Employees
- **85** Countries
- Full year cash flow of **$613 million**
- **3 billion** People touched by our platforms
- **1.7 billion** Daily digital journeys
- **350+** Customers including the world’s most advanced service providers
- **50** Managed Services customers
- **800+** Video service providers
- **~$2B** in **revenue**
- **700M+** subscribers supported under managed services
- **10M** bills generated daily
- **2000** automation flows executed
- **7000** DSP **operation** experts
- **30%** of tickets are “zero-touch”

SmartOps: Modernizing, automating, and digitizing the communications and media industry
The challenges we faced

- How to promote extensive automation to improve service reliability and customer experience
- How to use economies of scale to utilize the expertise across the company, to improve service reliability to our customers
- How to prepare our organization to support cloud operation
Re-inventing the Way we Run Operations

- Operation runs by software engineers
- Invest significant portion of time in operational improvements
- Using Agile development methodology
- On a shared automation platform
- Utilizing inner-sourcing

To improve service reliability and customer experience
**SRE Program**

KPIs and Measurements

- New SRE roles
- Create safe environment
- Encourage proactiveness
- Agile development processes
- Crowd sourcing
- Generalize automations across accounts
- atomIQ automation platform

**People**

**Processes**

**Technology**

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SRE Program in Numbers

- 46 Accounts onboarded practicing SRE
- 900 Involved in SRE
- >900 Automated flows deployed and run
- ~20% Re-Use
- ~33,000 hrs Invested in SRE Monthly
- ~1500 atoms
- ~400 Generic atoms
atomIQ automation Platform

Customer Environment

- Identify automation need
- Account repository

Amdocs Centralized Environment

- Identify automation need
- Global automation repository
- Automation review, approve and reuse

**Integration Points**

- atomIQ automation platform
- atomIQ Monitoring
- atomIQ Console
- atomIQ Marketplace
- atomIQ UTS/Auto ticket resolution

**Service Now**

- Operations
- SRE

**AWS**

- Service Now
- Interaction with atomIQ

**Events**

- atomIQ Marketplace
- atomIQ UTS/Auto ticket resolution

**Ticketing System**

- Customer Systems
- Operations
- SRE

**Global SRE Ops CoE**

- Global automation repository
- Automation development

**Marketplace**

- atomIQ automation platform
- atomIQ Marketplace
- atomIQ UTS/Auto ticket resolution

**Identify automation need**

- Customer Environment
- Amdocs Centralized Environment

**Operations**

- UTS/Auto ticket resolution
- atomIQ UTS/Auto ticket resolution

**SRE**

- Customer Environment
- Amdocs Centralized Environment

**Global**

- atomIQ automation platform
- atomIQ Marketplace
- atomIQ UTS/Auto ticket resolution

**AtomIQ**

- Automation platform
- atomIQ Marketplace
- atomIQ UTS/Auto ticket resolution
SRE Case Study – Reconciliation Self-healing
Implemented in multiple customers across the globe

**CUSTOMER PROFILE**
Number of mobile operators in EMEA, CALA, NA, and APAC.

**BUSINESS NEEDS**
Data integrity issues cause service interruption

**SOLUTION**
- Recon process execution by recon tool identifies mismatches
- Mismatch sent to diagnosis analysis and recommended resolution
- Resolution flow activated: Mismatch fixed and reported

**RESULTS ACHIEVED**
- Quick resolution of mismatches in 3 mins vs. hours per subscriber
- Minimize customer impact, quick resolution
- Reduce manual effort – improve employee satisfaction
SRE Case Study – windows server hotfix tool

APAC Tier-1 multi-play customer

CUSTOMER PROFILE

Large APAC Tier-1 multi-play with ~60 million prepaid wireless subscribers.

BUSINESS NEEDS

Manual deployments take long time, bear risk of mistakes impacting the SLIs.

SOLUTION

Deployments were automated using the atomiq automation platform.

Used for multiple applications

RESULTS ACHIEVED

250+ deployment every month

Deployment time reduced from 2 hours to 10 mins

99.9% availability reached

One-click deployment shift-left to Operations team
SRE Case Study – File System (FS) Cleanup

Implemented in multiple customers across the globe

CUSTOMER PROFILE
Number of mobile operators in EMEA, CALA, NA and APAC.

BUSINESS NEEDS
File system overflow cause 10% of the on-call calls, and reduce service availability

SOLUTION
- Configuration
- Monitoring triggers alerts activates self-healing
- System actions flow to clean-up file system space
- Resolution flow Activated FS cleaned alert is cleared

RESULTS ACHIEVED
- Improve service reliability
- Reduce manual effort – improve employee satisfaction
- Easy implementation in multiple accounts
What did we gain

- Treat operation as a software challenge
- Structured automation Reduced manual work
- Day-to-day has changed from reactive (incidents) to proactive agile development of operation improvements
- Encourage proactiveness
- Improved Psychological safety, Improve employee Satisfaction
- Improved service reliability
- Proactiveness
- Improved Psychological safety, Improve employee Satisfaction
Thank you