

Why Cloud Native Architectures Matter

It's the OPEX

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Once Upon a Time...

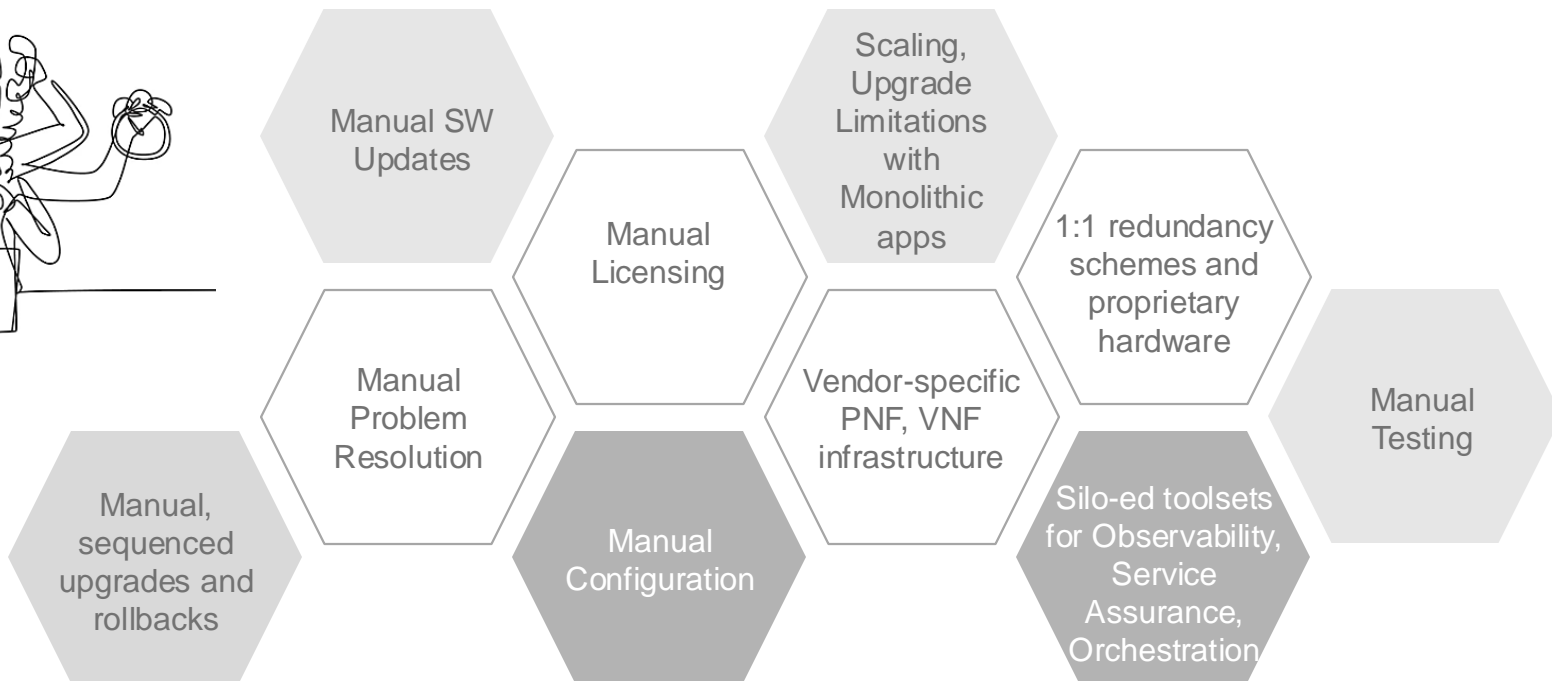
Story of an Operations Champion

This is the Story of Our Operations Champion

- Ops Champion is the HERO of this story
- Ops Champion is on a Quest
- Ops Champion Stumbles
- Ops Champion Evolves
- Ops Champion Succeeds



Day In The Life Of An Operations Champion



What an Ops Champion wants...

The network to be..



FASTER



BETTER



COST EFFECTIVE



Key Challenges for the Ops Champion

Complex Networks & OPEX Targets



Tension – Old vs New



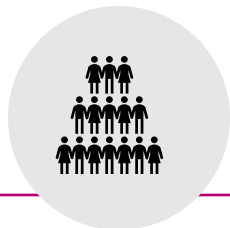
People Problem



Traffic Management Tools



Customers Sat & Churn

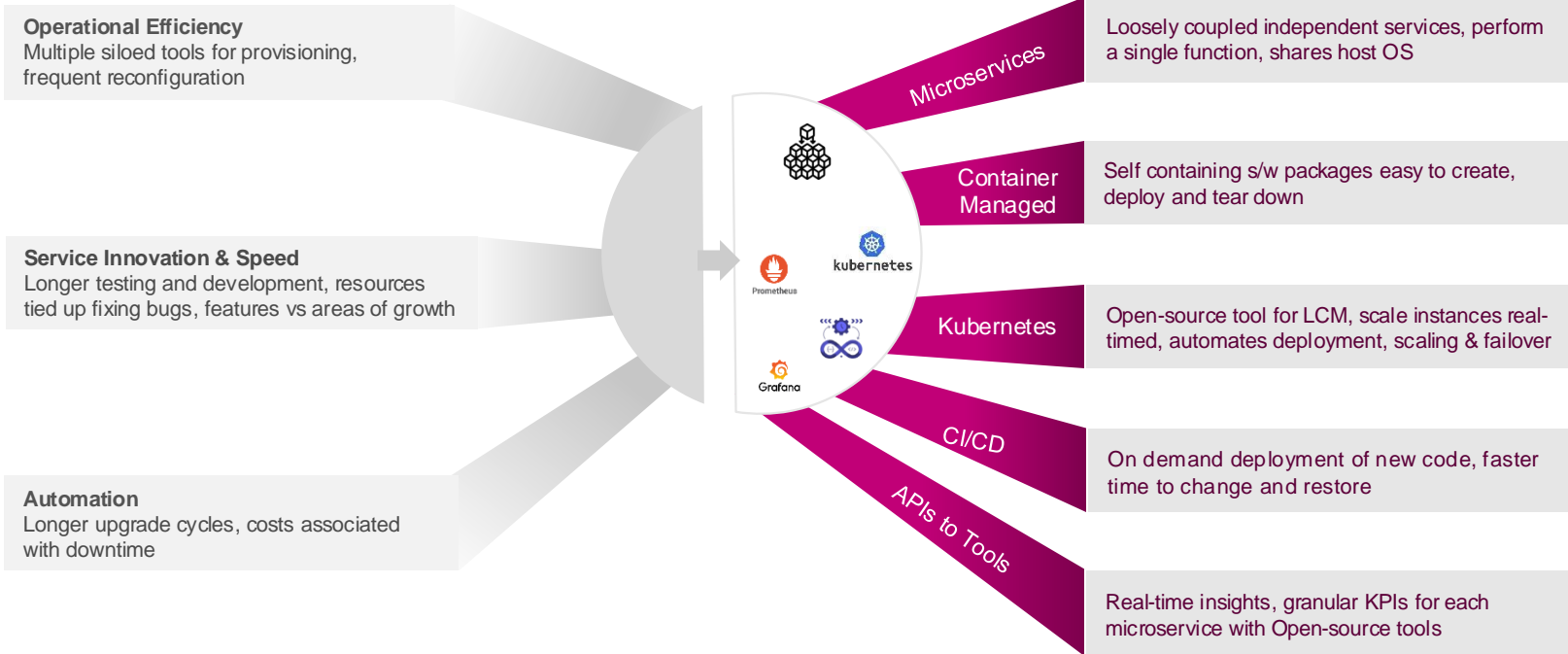


5G, Regulations, Platforms, UC Apps, Security



Ops Champion Wants to Stay Relevant & Competitive

Top Three Challenges with Current Approach



Ops Champion Looks at Market Reports and Talks to Counterparts

Top Motivators for Industry Leaders

▪ Driving Revenue

63%

▪ Speed of Innovation

38%

▪ OpEx Savings

50%

▪ New Service Creation

63%



Software Factory Approach

Cloud manages application lifecycle eliminating extensive manual design and pre-work



Lower Risk with High Velocity Approach

Reducing time to market to months, no downtime for new functions, ability to test and launch within days



Faster Service Creation & Updates

Improve user experience on network with features and fixes delivered faster in smaller chunks



Network Convergence & Consolidation

Lower infrastructure cost savings by consolidating Mobile & Fixed Network Consolidation onto CNFs

Use Case – PNF, VM & VNF Consolidation onto CNFs in Private Cloud

Customer Profile: Tier 1 Operator in Americas

Subscribers: Over 110 million

Network Coverage: Across 150 countries providing broadband, mobile, fixed networks.

Objective /Challenge

- ✓ Software Factory Approach for roll outs
- ✓ Common Infrastructure for all networks

Approach

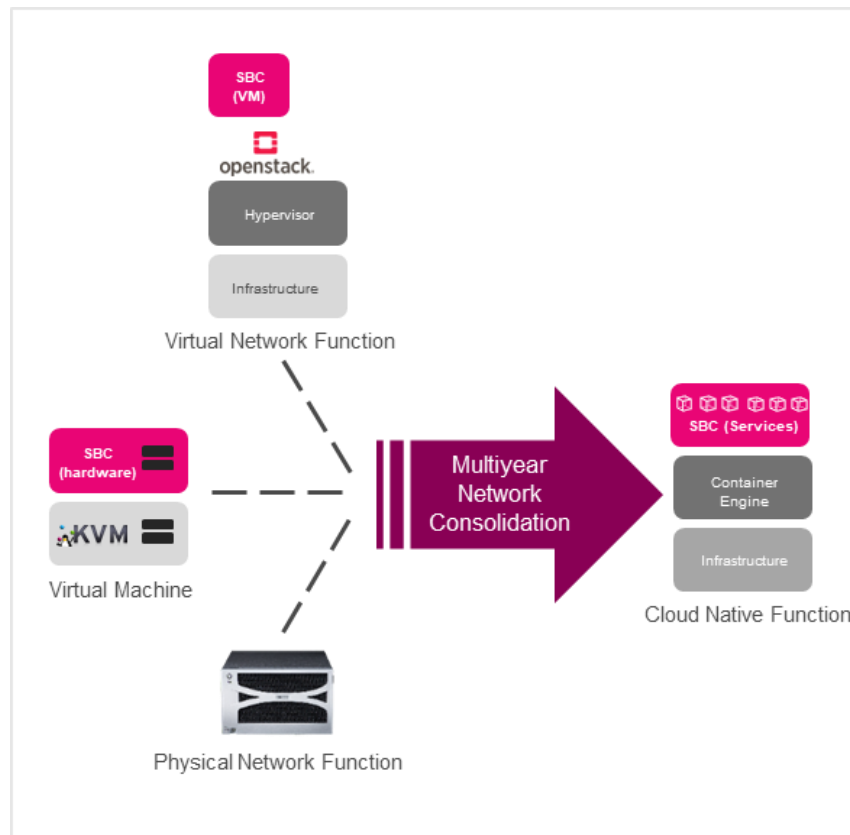
- ✓ Infrastructure agnostic
- ✓ Dynamic elasticity

Use Case

- ✓ Wireless, wireline and enterprise
- ✓ 4 Million sessions at steady state

Impact

- ✓ High Velocity roll out of releases
- ✓ Improved utilization of resources



Use Case - Mobile & Fixed Network Consolidation onto CNFs in Private Cloud

Customer Profile: Tier 1 Operator in Europe

Subscribers – Over 250 million

Network Coverage: Across Europe and Asia providing fixed, broadband, mobile, internet.

Objective /Challenge

- ✓ Adopt agile development methodologies across the portfolio
- ✓ Reduce defects
- ✓ Consolidation to single vendor

Approach

- ✓ 3-2-1-0 vision to launch new service with zero nightshifts & defects –
- ✓ Total automation with separation of HW & SW

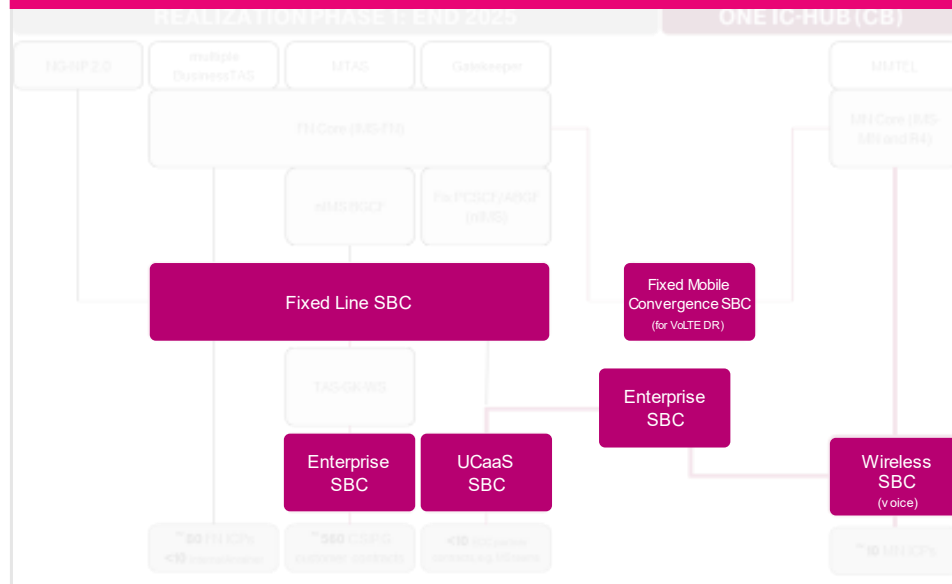
Use Case

- IMS/5G mobile, fixed network, UCaaS, & enterprise
- Millions of sessions at steady state

Impact

- ✓ High Velocity roll out of releases
- ✓ Nextgen E2E technology

Mobile & Fixed Network Consolidation onto CNFs



Use Case – PNF & VM Consolidation onto CNFs in Hybrid Cloud

Customer Profile: Global Fortune 500 Financial

Subscribers: 240k+ employees & Contact Centers

Network Coverage: Across 180 countries

Objective /Challenge

- ✓ Diverse platforms
- ✓ Complex operations
- ✓ Security compliance

Use Case

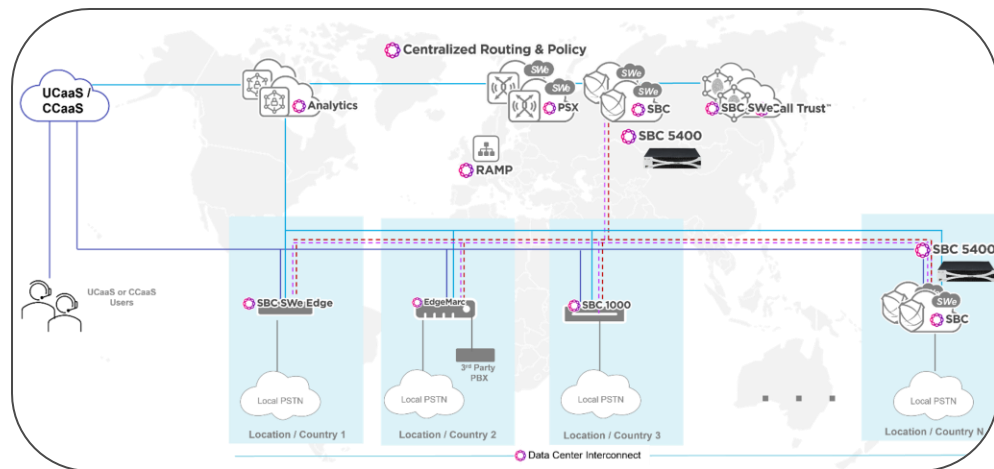
- ✓ Multi-country Enterprise network
- ✓ Distributed deployment

Approach

- ✓ Infrastructure agnostic, Platform flexibility
- ✓ Automation for Agility

Impact

- ✓ High Velocity roll out of releases for Security compliance
- ✓ Data Center consolidation



Ops Champion Reviews OPEX Challenges



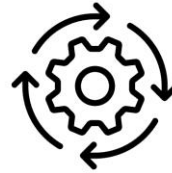
Hybrid Cloud



Demand Based
Auto Scaling



Service Assurance
Analytics



Intelligent Automation



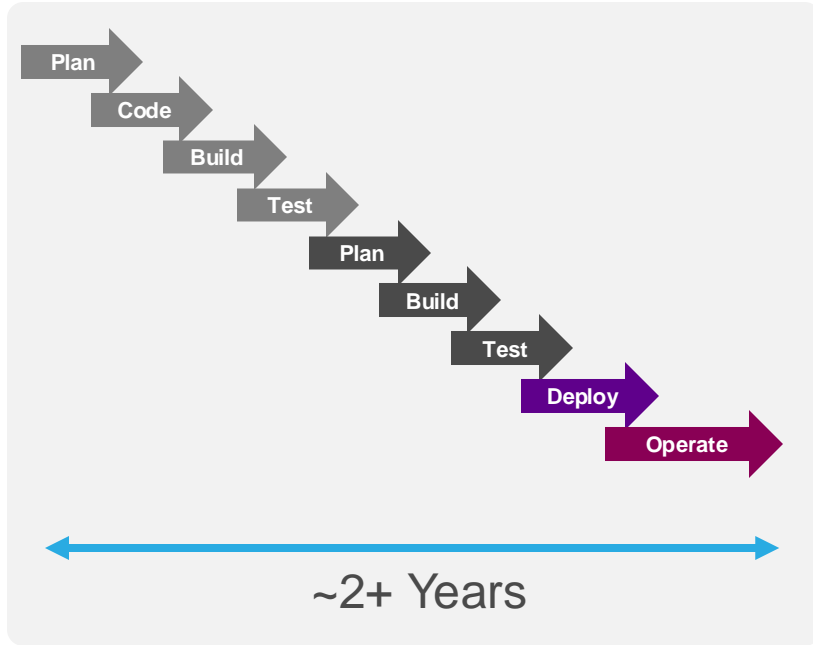
Energy Efficiency



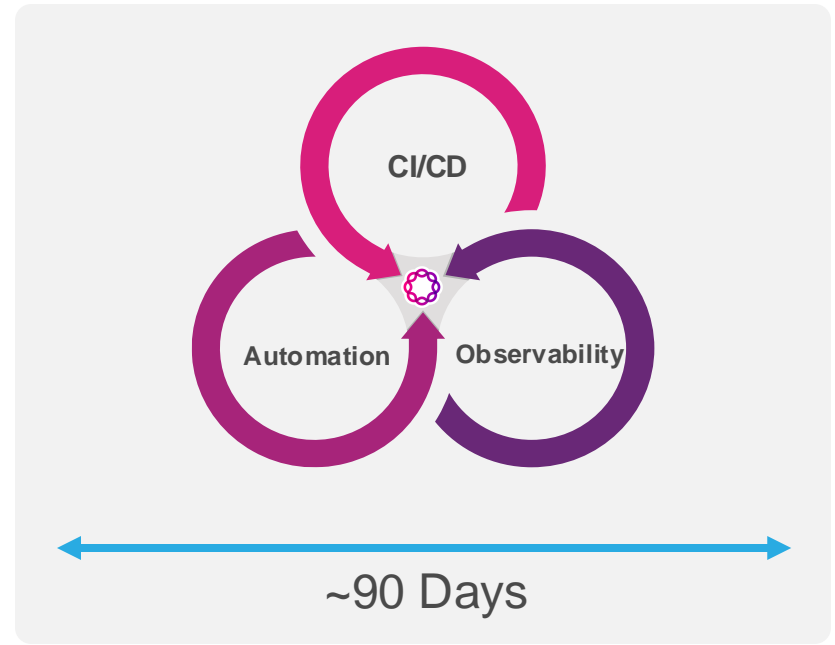
White Box Servers

Ops Champion Looks for a Modern Approach to Key Challenges

Legacy: Waterfall - Linear



Today: Cloud Native - DevOps



What do I need for successful cloud native operations

Flex
Consumption
Licensing

Automation
Pipeline

Ribbon-
Customer
CI/CD
Twinning

True
Microservice
Apps

Efficient
redundancy
and resource
utilization

Canary
Upgrades

Automated
Problem
Resolution

Cloud Native
Toolset

Choice of K8s
&
Infrastructure
Management

Telco LLM &
GenAI
configurations
and reporting

Organizational Mindset is Top Priority

- Executive Sponsor
- Trickle Down Cloud and Intelligent Automation
- Aligned to Business Objectives
- Who is the Cloud-Automation Champion
- Pragmatic Expectations



Ops Champion Learns to Spot the Fake Architecture

Cloud-native

- ✓ Faster deployment with all software reducing staff expense
- ✓ A single service or function can be scaled in and scaled out without impacting others
- ✓ Designed for the cloud, migrating to public or hybrid is efficient and optimized
- ✓ Automate updates to any part of infrastructure without impacting other parts orchestrated by Helm charts
- ✓ Scales from single node to large clusters, integration with other software provides seamless analytics & observability



Microservices:
Independently
packaged services



kubernetes

Standard tool for
Lifecycle
Management of cloud
native applications



Built for the
Cloud



CI/CD
development
practices



APIs to Open-Source
Tools for storage,
security, metrics, logs

Cloud washed/enabled

- ✗ Requires manual provisioning and configuring of each server or VNF
- ✗ Requires all functions and services to grow proportionally and simultaneously increasing cost and utilization of resources
- ✗ Requires reconfiguration of the solution to meet cloud requirements
- ✗ Longer testing and development to roll our upgrades, may require downtime increasing costs and more manual efforts
- ✗ Lack of vertical scalability to accommodate growing devices, subscribers

Ops Champion Reviews Ribbon's Automation enabled Cloud-Native Portfolio

Stay Ahead of Market Demands

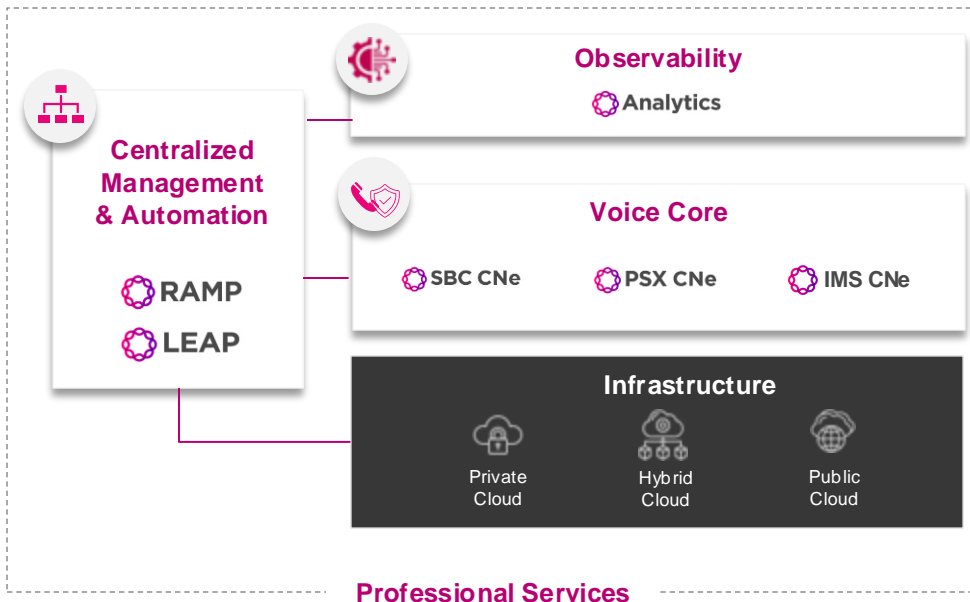
Seamless access to the latest software & security updates with CI/CD automation.

Reduce Your Costs

Eliminate need for dedicated hardware by migrating SBC workloads to cloud.

Enhance Operational Efficiency

Optimize power consumption, footprint, service resiliency.



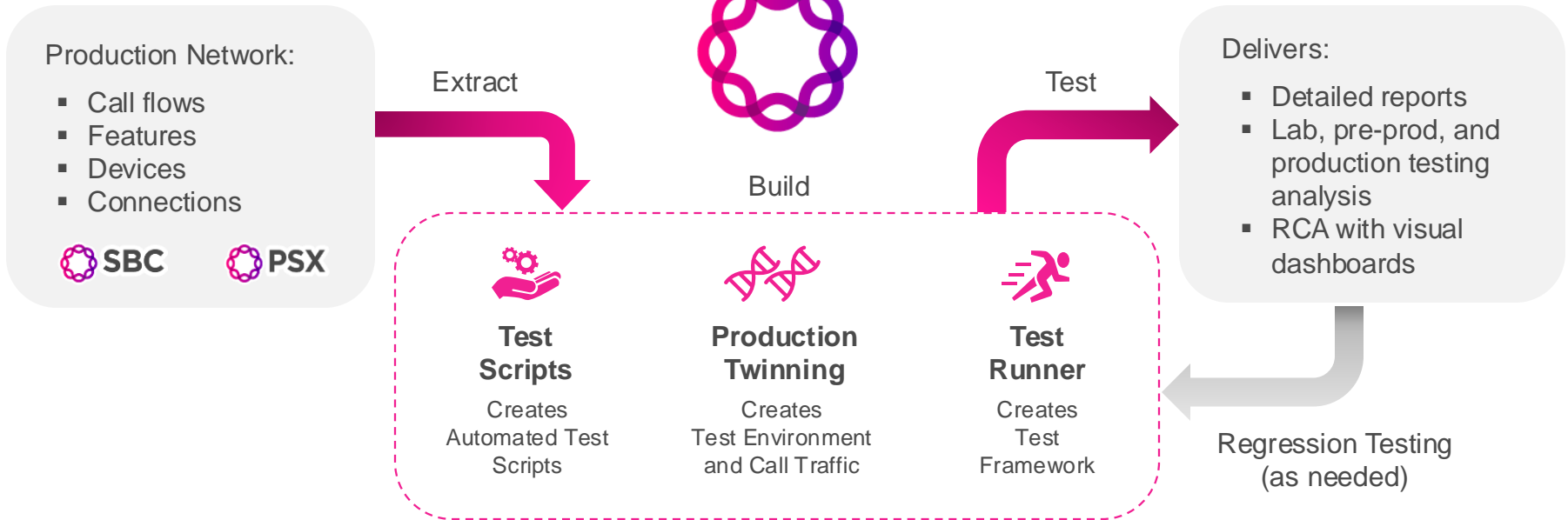
Ribbon's Re-Architected Cloud-Native SBC Solution



“20 Years of security experience delivered on a thoroughly modern architecture”

Ribbon's AI Enabled Automation

Learning Enabled Automation Platform (LEAP)

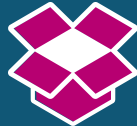


LEAP CI/CD Automation

Automated
SW
Delivery



Automated
Deployment



Configuration
Automation



Test
Automation



Sandbox



Integration



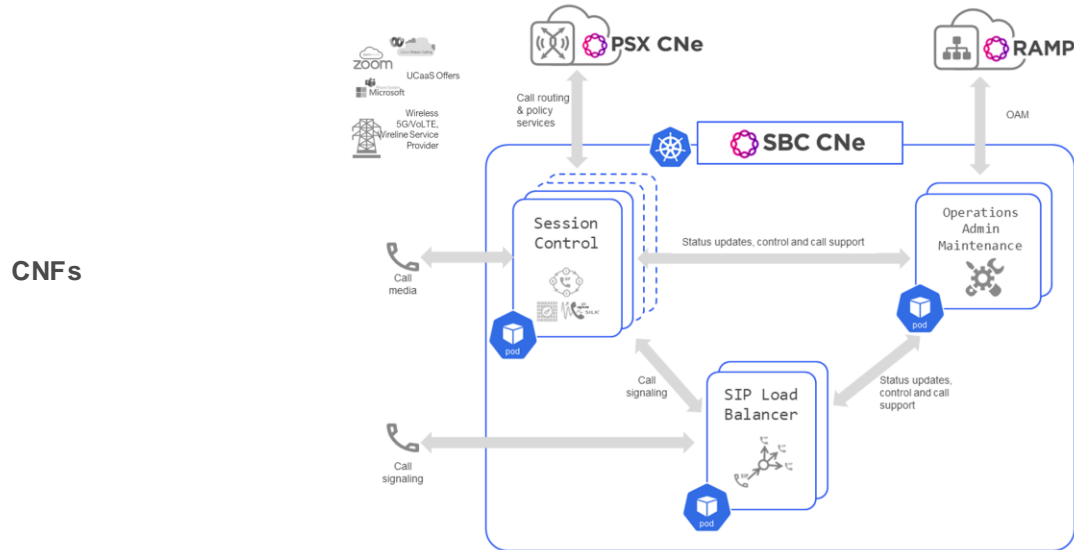
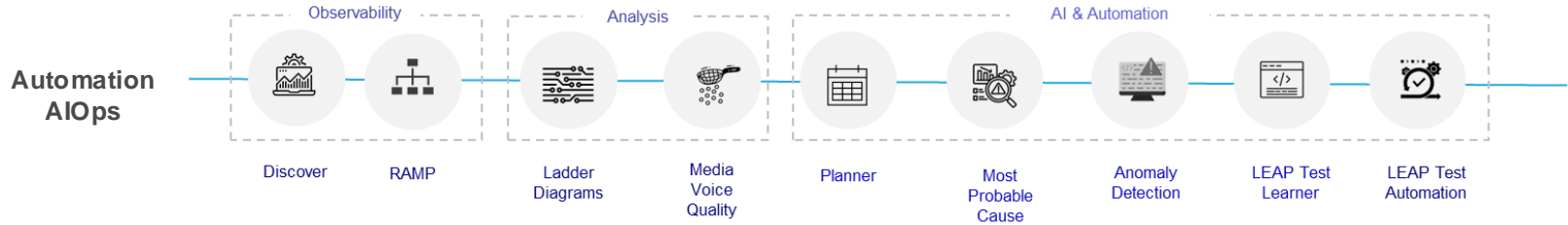
Pre-Production



Production



CNF & Intelligent Automation: Takes Two to Tango



Ribbon's Cloud-Native & Automation Market Momentum



- **Tier 1 Win in Western Europe, Japan**
- **Multiple Trials, PoCs on SBC, PSX and RAMP Across the Regions**
 - Tier 1 MNOs – network consolidation, replacement
 - Large enterprises
 - Mobile & Fixed Line Operators – cost savings, faster updates

Day in the Life of an Operations Champion: After



Our Ops Champion's Key Takeaways

- Moving to a Cloud-Native architecture is paramount to success
- Adopting Automation AIOps is necessary to stay relevant
- Automate, Automate, Automate – oh did I forget something – AUTOMATE!
- Speed, Scale and Resiliency are hallmarks of future networks
- Use Analytics to mine your data to monetize, improve customer sat, stay on top of security threats



Thank You

ribbon
INSIGHTS

