Securing Hosted Voice
for Service Providers

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INSIGHTS

We Understand Key Service Provider Challenges

Math Problem

Tension – Old vs New

People Problem

Alternate ways to deliver voice require some thought…

Deploying voice communications over the Internet or using third-party services to host voice subscribers has the potential to create quality, security, and business continuity concerns.

- Remaining price competitive with more competition
- Packet Based Networks are a "Best Effort" Transport
- End-Customer Networks are Always an Unknown
- Truck Rolls Are Expensive
- Customer Churn Is Always An Issue
- Add in Security, Call Quality and SLA Guarantees

Ribbon Communications - rbbn.com

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Ribbon Hosted Voice Service Assurance

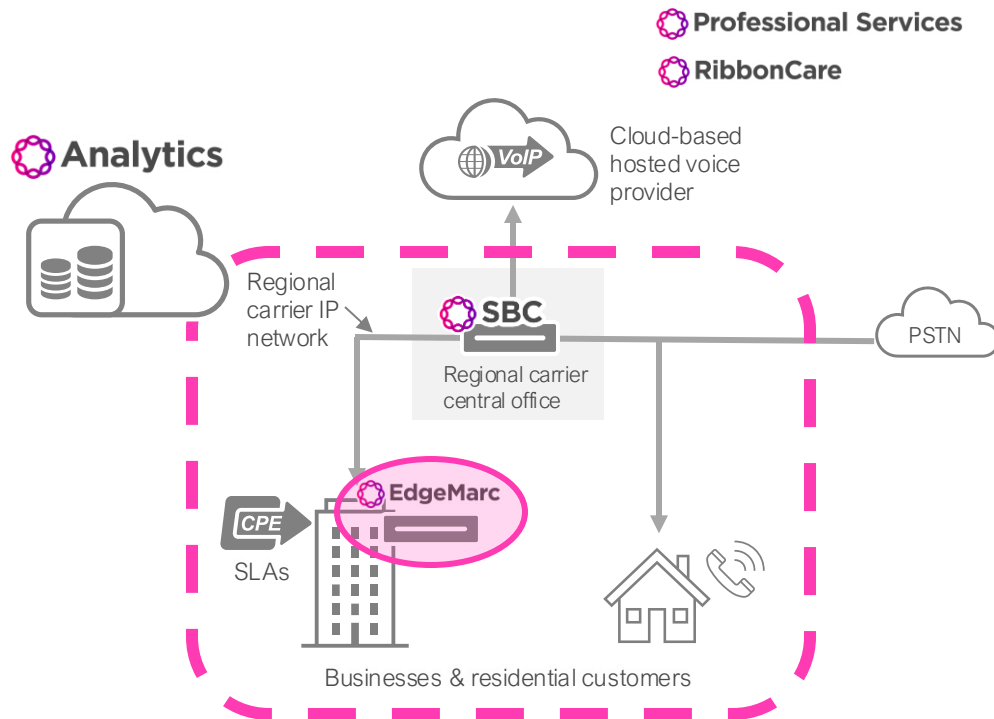## Complementary capabilities for Hosted Voice Deployments

Analytics Applications

- Reporting insights and advanced troubleshooting
- Discover (SLA monitoring, SLA & CSAT)
- Most probable cause
- Fraud mitigation

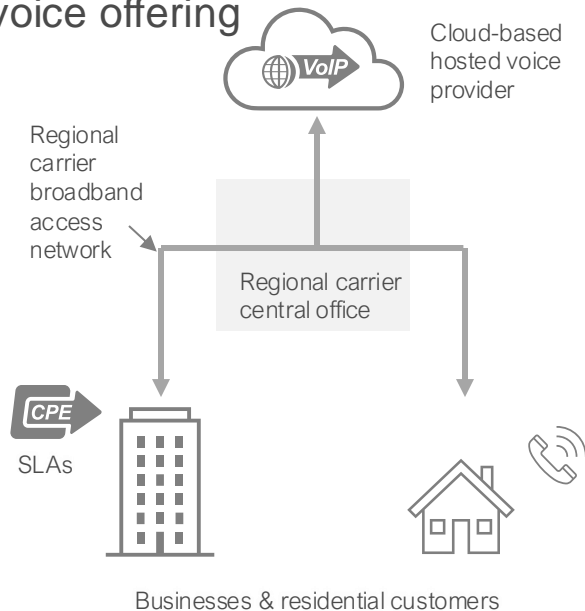*Robocall mitigation and STIR SHAKEN compliance*

Carrier CPE EdgeMarc portfolio

- Critical customer demarcation for QoS assurance
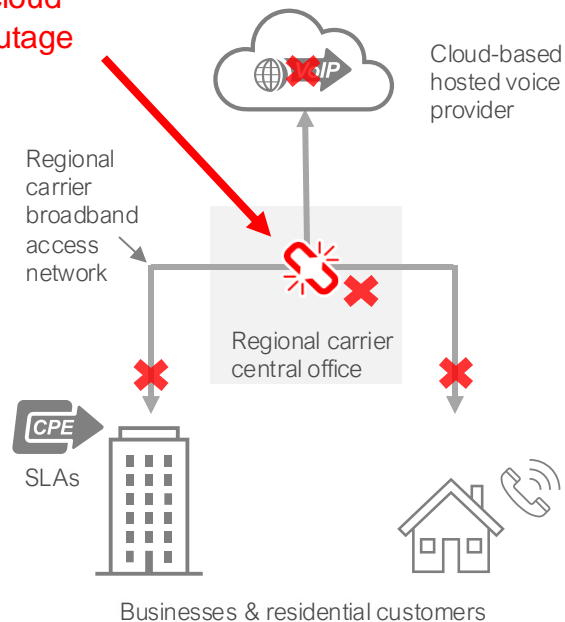- On customer-premises local survivability

Professional Services

RibbonCare

Analytics

Cloud-based hosted voice provider

VoIP

Regional carrier IP network

SBC

Regional carrier central office

PSTN

CPE

EdgeMarc

SLAs

Businesses & residential customers

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Problem – Regional Carrier Adopting Cloud-Based VoIP

Service provider adopting cloud hosted voice offering

Cloud-based hosted voice provider
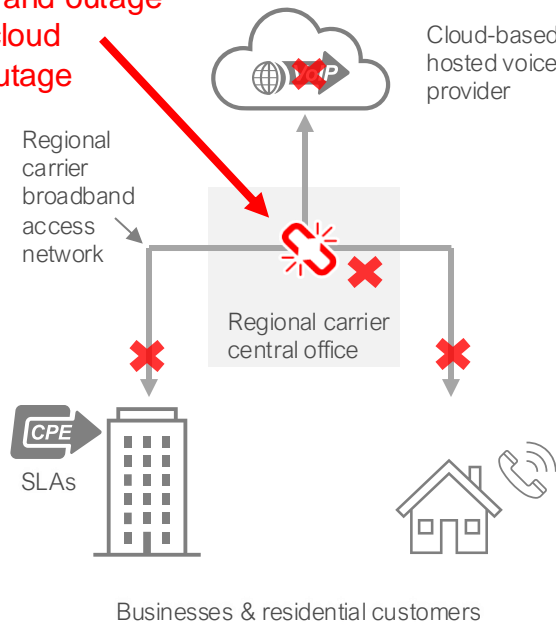
Regional carrier broadband access network

Regional carrier central office

SLAs

Businesses & residential customers

Challenges:
- Network faults and outage
- Hosted voice cloud unreachable/outage

Cloud-based hosted voice provider

Regional carrier broadband access network

Regional carrier central office

SLAs

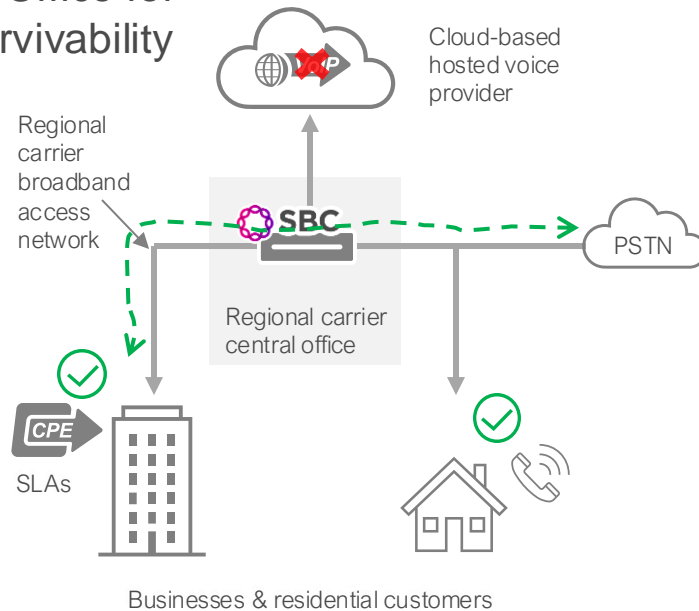Businesses & residential customers

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Solution – Adopting Hosted Voice Requires a Backup Plan

Challenges:
- Network faults and outage
- Hosted voice cloud unreachable/outage

Cloud-based hosted voice provider

Regional carrier broadband access network

Regional carrier central office

SLAs

Businesses & residential customers

Deploy SBC in Central Office for local survivability

Cloud-based hosted voice provider

Regional carrier broadband access network

SBC

PSTN

Regional carrier central office

SLAs

Businesses & residential customers

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SBC Core Portfolio

- Unrivaled scale and performance
- Solves the unique real-time communication (RTC) challenges for security, reliability and interoperability
- Certified with all leading UCaaS providers
- JITC and FIPS-140-2 certified for US Govt.
- Any deployment (cloud native, virtual or appliances) has same feature code base
- High availability options
- Ribbon Application Management (RAMP) common across all SBCs

SBC CNe — Cloud Native
Customer Defined Sessions
High Availability

SBC SWe — Virtual
Customer Defined Sessions
High Availability

SBC 7000 — Service Provider
150,000 Sessions
High Availability

SBC 5400 — Large Enterprise
75,000 Sessions
High Availability

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Securing the Edge of the network

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Securing the Edge is Only Step One…

Microsoft Certified for Direct Routing

Zoom Certified for BYOC
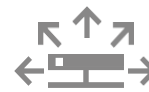
| PSTN Gateway | WAN Router | NAT/ DHCP | SIP Firewall |
| LTE Back-up | ALG/ B2BUA | Voice Quality Monitor | Traffic Shaper |

- Ribbon's C2E Hosted Edition and EdgeMarc deliver a set of intelligent "probes" into the customer environment
- Providers can see what's happening all the way down to a desktop device
- Ribbon gives providers control over the experience and differentiates last mile providers from pure OTT offers

Adding Value at The Edge

Monitor, manage, and secure voice traffic as it enters and exits a provider's network and/or an end customer's site.

Switch

C2E Hosted Edition Service Control Center

EdgeMarc Intelligent Edge
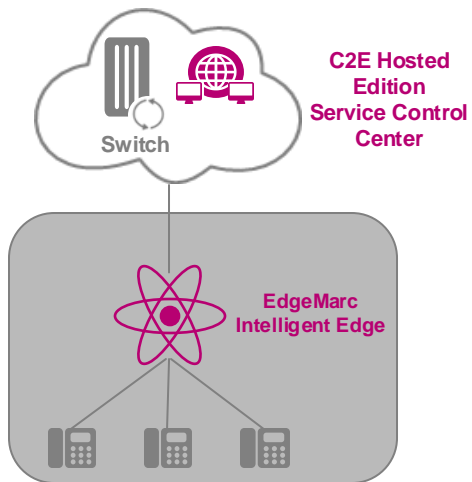
EdgeMarc

- Zero Touch Provisioning
- Service Configuration
- Status Streaming and Event Triggers
- Interoperability
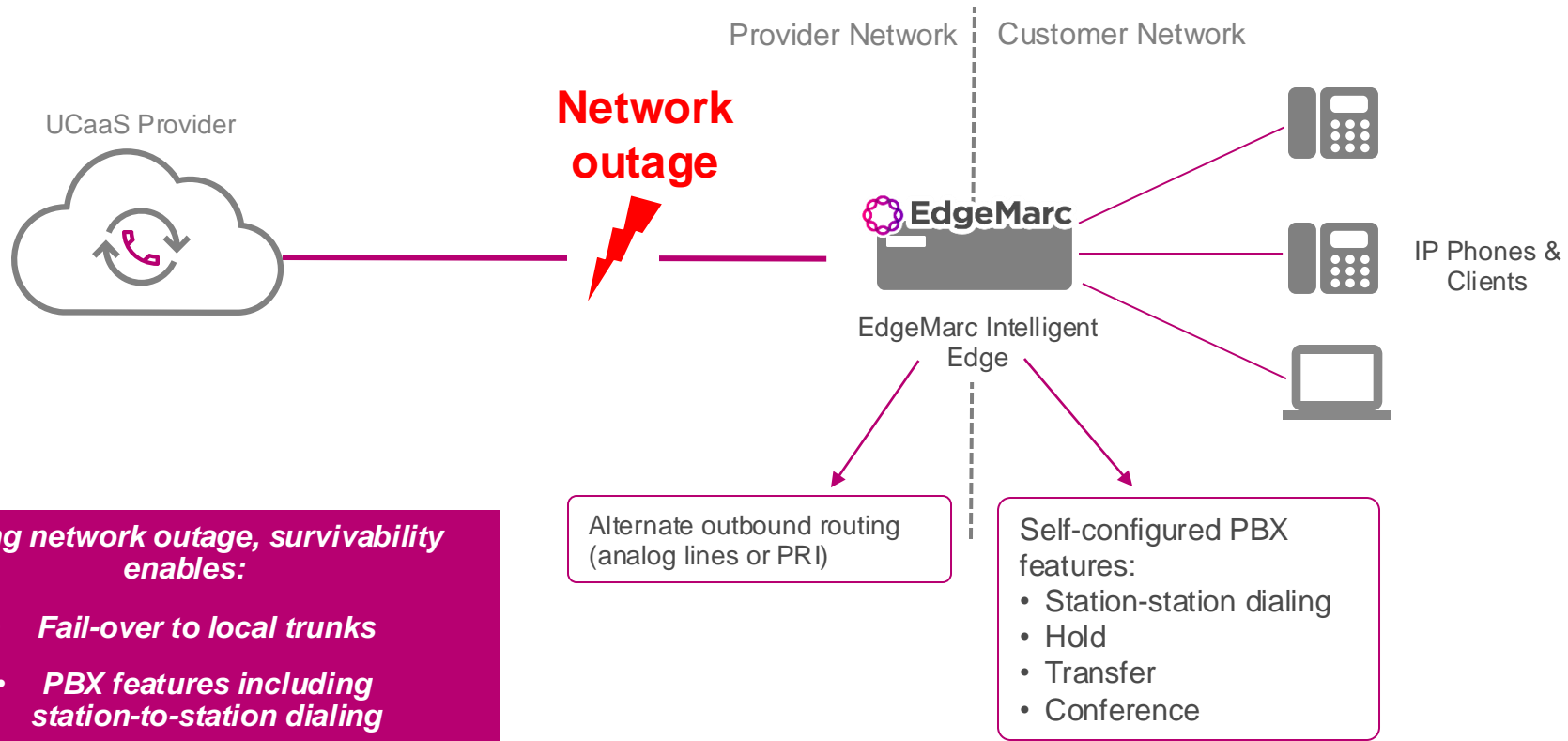
C2E Hosted Edition

- Provision and Manage
- Monitor and Alert
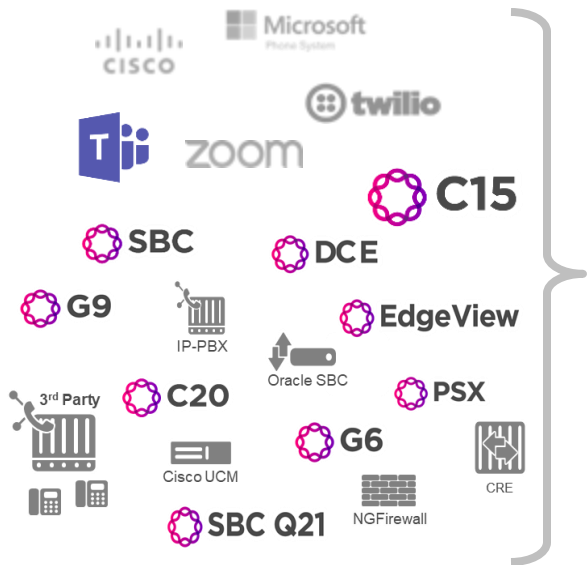- Troubleshoot and Remediate
- Report and Analyze

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Add Local Survivability Options to Create Even More Value

Provider Network | Customer Network

UCaaS Provider

Network outage

EdgeMarc

EdgeMarc Intelligent Edge

IP Phones & Clients

During network outage, survivability enables:

- *Fail-over to local trunks*

- *PBX features including station-to-station dialing*

Alternate outbound routing (analog lines or PRI)

Self-configured PBX features:
- Station-station dialing
- Hold
- Transfer
- Conference

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Closing the Technology Gap with Analytics

Benefits

Stay ahead of outages

Fix issues faster

Gain immediate ROI

Manage growing networks

Identify Security Threats

Justify upgrades

Report on SLAs

Visibility

Agility

Automation

Summary

Proven Expertise Securing SIP Traffic

True Unified Communications Interoperability

Secure, Reliable and Seamless Scalability

Physical, Virtual, Cloud Native Deployment

**Ribbon is the VoIP expert
Innovative. Comprehensive. Proven.**

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