



Transforming Cities & Towns:

How NWN Carousel Enables Technological
Transformation

June 30th, 2022



Agenda:

Introductions & Background – Who is NWN Carousel?

Hybridized Work From Home Solutions

Next Generation Emergency System Management

NWN Carousel, the Cloud Communications Services Leader

ABOUT US

- Founded in 2000, PE Backed
- National Footprint, Waltham, MA HQ



Customers
(~50% SLED, 50% enterprise)

7,000+



Headcount

1300+



2020 customers with >10-yr
relationship with NWN

950+



Number of locations

20+

EXPERTISE

- Intelligent Offices and Conference Rooms
- Managed Devices and Secure Endpoints
- Unified Communications, and Contact Center
- Connectivity, Networking, and Security
- Managed Services and SaaS Management (EMP)

2020/21 HIGHLIGHTS

20%+

STRONG
GROWTH

600+
Customers

3+ OFFERINGS
PURCHASED

50%+
Customers

1+ OFFERINGS
PURCHASED

350+
Customers

YTD
NEW LOGOS

79
NPS

CUSTOMER
SUCCESS

NWN Carousel – A Major Technology Solution Provider in Florida

CURRENT FLORIDA CLIENTS



Florida Courts
Department of Mgmt. Services
Department of Transportation
Department of Health
Department of Veteran Affairs
Office of the AG
Department of Enviro. Protect.
Office of Criminal Conflict
Fish & Wildlife Conservation
Department of Education

NWN Carousel – Contract Vehicles



SUNCOM

Providing superior telecommunications services more cost effectively to state and local governments, educational institutions, libraries, and non-profit organizations by achieving economies of scale with enterprise planning and procurement.

Voice Services

Data Services

Mobile Communication Services

Wiring and Cabling Services

Emergency Support Function - Communications

E-rate



MyFloridaMarketPlace


























MFMP is the State of Florida's award-winning eProcurement system in operation for over 15 years. Benefits include:

Providing tools to support innovative procurement for the State of Florida

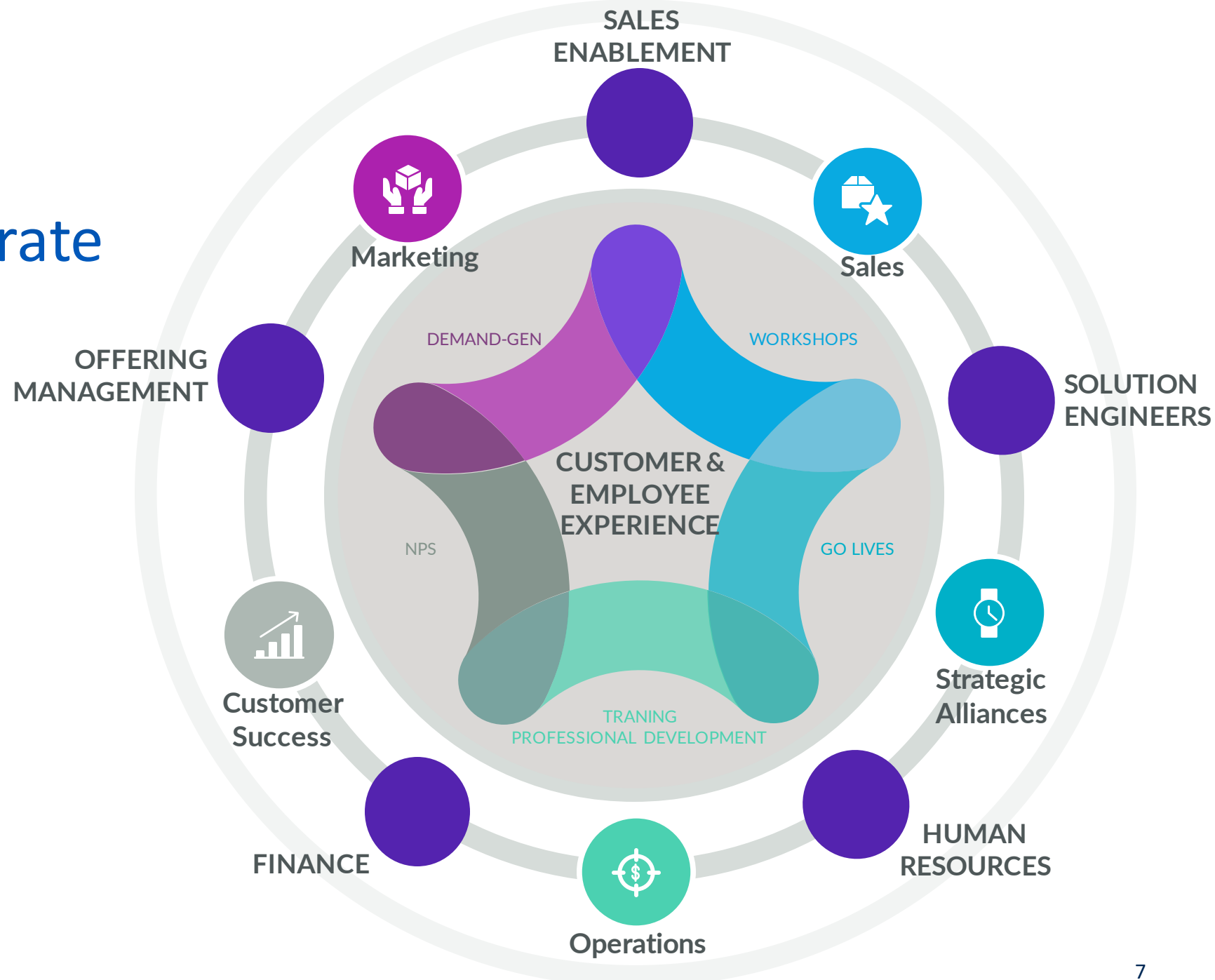
Centralizing procurement activities

Streamlining interactions between vendors and state government entities

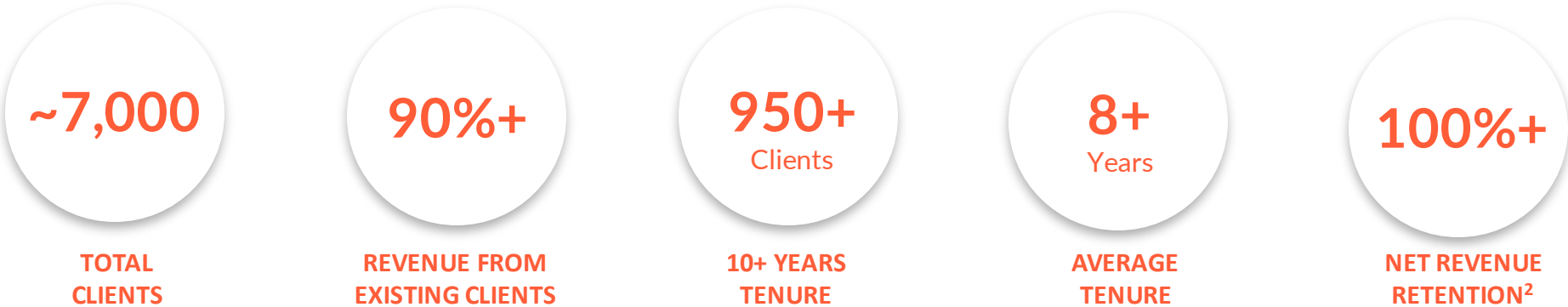
NWN Carousel - Unique within the IT Ecosystem

	Unified Communications	Contact Center	Devices & AV	Security	ATS
nwn carousel					
Carriers AT&T west verizon					
UCaaS Providers 8x8 RingCentral zoom					
Cloud Providers Microsoft aws Google					
IT Solution Providers e+ PRESIDIO. CDW					

Our organization is designed to accelerate momentum.



Serving our blue-chip customer community with world-class experiences for over 30 years.



Commercial	Education	Financial	Government	Healthcare	Industrials

<https://vimeo.com/590205183>

CUSTOMER EXPERIENCE HIGHLIGHT



Problem

The City of New Bern wanted to upgrade their security posture in the advent of recent local government ransomware attacks. They felt that their current IP tables based firewall solution and endpoint protection mechanisms were inadequate to defend against a modern cyberattack. In addition, they wanted to have more visibility into ingress/egress on their network edge and endpoints.

Solution

NWN worked with the City of New Bern to upgrade their perimeter, endpoint, and network wide visibility with a combination of products from Cisco that integrated to provided automated threat response capabilities and visibility. NWN's managed security services provided the talent and 24x7x365 support the City required to stay vigilant against the constant barrage of cyber threats.

Result

The final solution provided enhanced visibility into emerging and present threats and automated threat containment and incident response capability. In addition, the managed services offering provided the talent required to run and operate the total solution 24 x 7x 365.

Customer Proof Points

South Carolina Department of Transportation

Problem

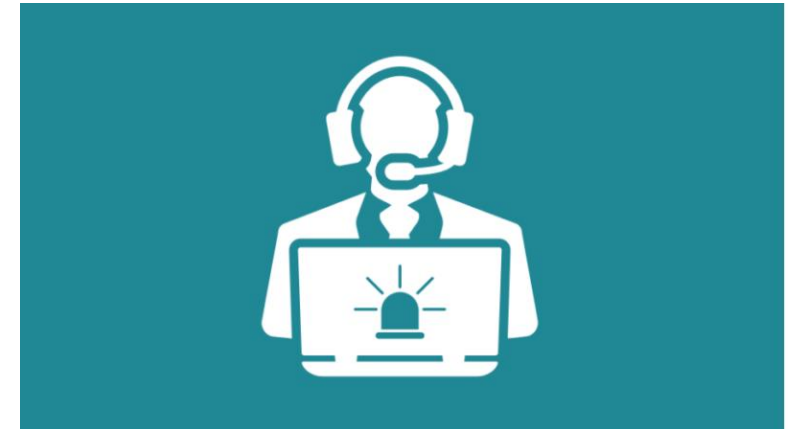
Customer needed a flexible Contact Center for all forms of emergencies to take citizens calls 24 X 7 when needed.

Solution

Our team analyzed and subsequently implemented an as needed Emergency Contact Center. Phase II, our team is now working on this same ECC but allowing the agents to be remote.

Result

SCDOT is now able to turn up the Emergency Contact Center by placing resources in stand by agent seats as needed. Phase II, the agents will be either filling in the stand by seats or working from home answering the citizens calls 24 X 7.



Customer Proof Points

California Department of Child Support Services (CA DCSS)

Problem

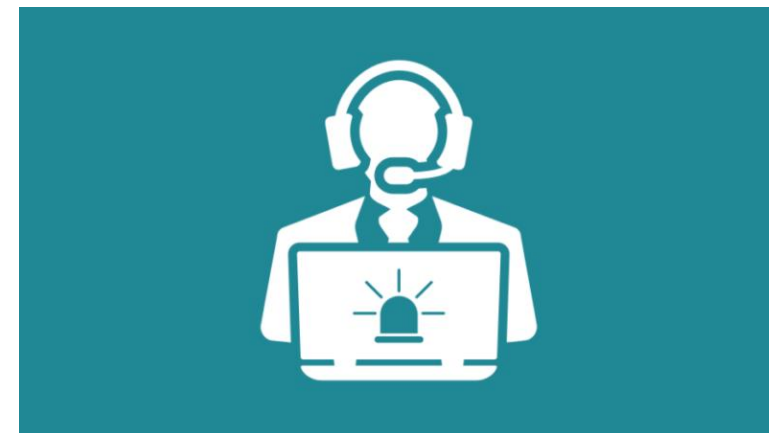
CA DCSS needed to replace an End of Life Contact Center solution that supported 1100 Agents, 440 concurrent, and integrated to other 3rd party contact solutions.

Solution

NWN implemented Cisco UCCE, integrated and enabled several third party solutions like Zoom International and other critical cloud applications. NWN also developed an innovation roadmap to modernize their agent solution and enhance their customer experience.

Result

The customer has a stable platform and an NWN support model that fosters dialog, in addition to holistic communications and visibility with the NWN Experience Management Platform (EMP).



Customer Proof Points

California Department of Tax and Fee Administration (CA DTFC)

Problem

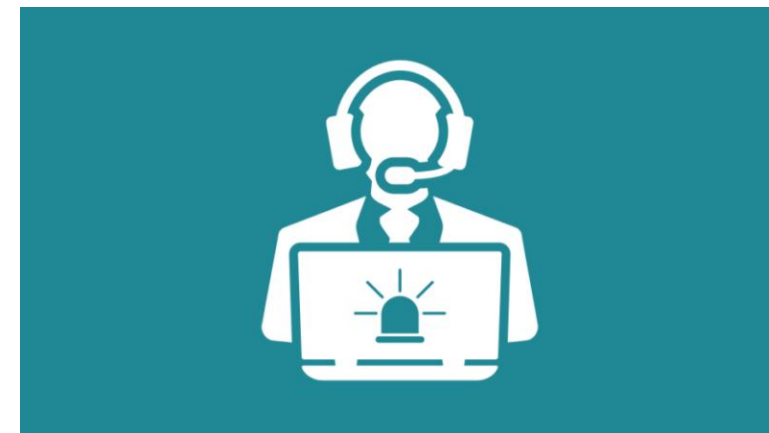
CA DTFC looking to move from Avaya On-premise solution. The Contact Center supports a mix of 800 on-site and remote agents. The migration needed to happen with little to no downtime.

Solution

NWN implemented a full Cisco Contact Center Solution, utilizing NWN CX Enterprise Service for ACD/IVR functionality and full PBX functionality through NWN hosted NWNCOMM.

Result

The customer migration timeline was met and the Contact Center services are now powered through NWN's single tenant platform.



UC Experience Highlight



Problem

Richmond County Department of Social Services needed to minimize staff's potential COVID-19 exposure when working face-to-face with their constituents. This potential exposure would create inherent health risks to citizen and DSS staff. The amount of time to sanitize meeting areas between in-take appointments negatively impacted DSS staff productivity and added expense to the organization.

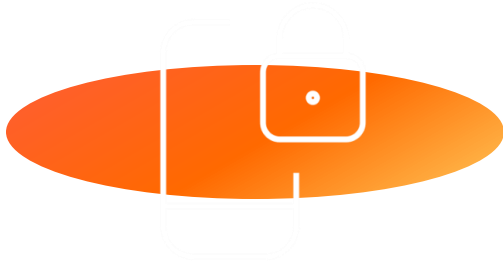
Solution

Richmond County partnered with NWN to develop a means of conducting business with citizens in a "face-to-face" manner through the use of WebEx Meetings and Video endpoints.

Result

This "Single Button to Push" video solution allowed citizens to continue to visit the county offices for assistance while minimizing COVID exposure for all parties. Meeting area sanitation time was cut by 90% which allowed the county to regain lost productivity. This solution will not only provide a remedy for the immediate needs, but it will also provide a unified collaboration platform that can be used for all day to day county activities.

Security Experience Highlight



Problem

Orange County Government staff was not able to patch their critical sever infrastructure on a regular basis. This was due to the time constraint that are inherent with a small IT staff and a large number of servers. This lack of consistent patching increased the County's exposure to cyber attacks.

Solution

NWN worked with the County's IT team to develop a plan to rollout a remotely administered sever patching service that happens consistently and is supported by NWN's Customer Success Team.

Result

Orange County Government now has a more secure server environment that helps minimizes risk of attacks to the county's valuable infrastructure. The services NWN provided allowed the small IT team to spend time on high-value, high profile, and time sensitive projects and leave the routine server patching activities to NWN.

Security Customer Experience Highlight



Problem

Duplin County Government had an outdated network and security infrastructure that caused a major security breach and in turn, shut down access to the entire infrastructure. The existing solution lacked control, visibility and Duplin County also lacked the staff to manage the security infrastructure in the environment.

Solution

Duplin County partnered with NWN to design/configure/implement a next generation secure infrastructure. NWN will manage new security components to help prevent future breaches. The solution reduced complexity and provided secure connectivity to support Duplin County's next-generation applications,

Result

This solution provides a highly available, secure, resilient network solution that drives Customer satisfaction through additional controls and stability.

ATS Customer Experience Highlight



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Hybrid Work is Here



What is Hybrid Work?

- **The future is hybrid** & your organization may need new integrated cloud communications offerings to deliver the employee and customer experience
- **NWN Carousel's 6 integrated offerings** help you by:
 - *Transforming your Customer Experience*
 - *Manage Business Risk And Minimize Disruption*
 - *Improve Operational Efficiency And Productivity*
 - *Ensure Costs Are Predictable*
- Our **EMP Platform** helps you accelerate cloud transformation with powerful self-service, visibility & control to work-from-anywhere.



We're making Hybrid Work, Work Better for People.



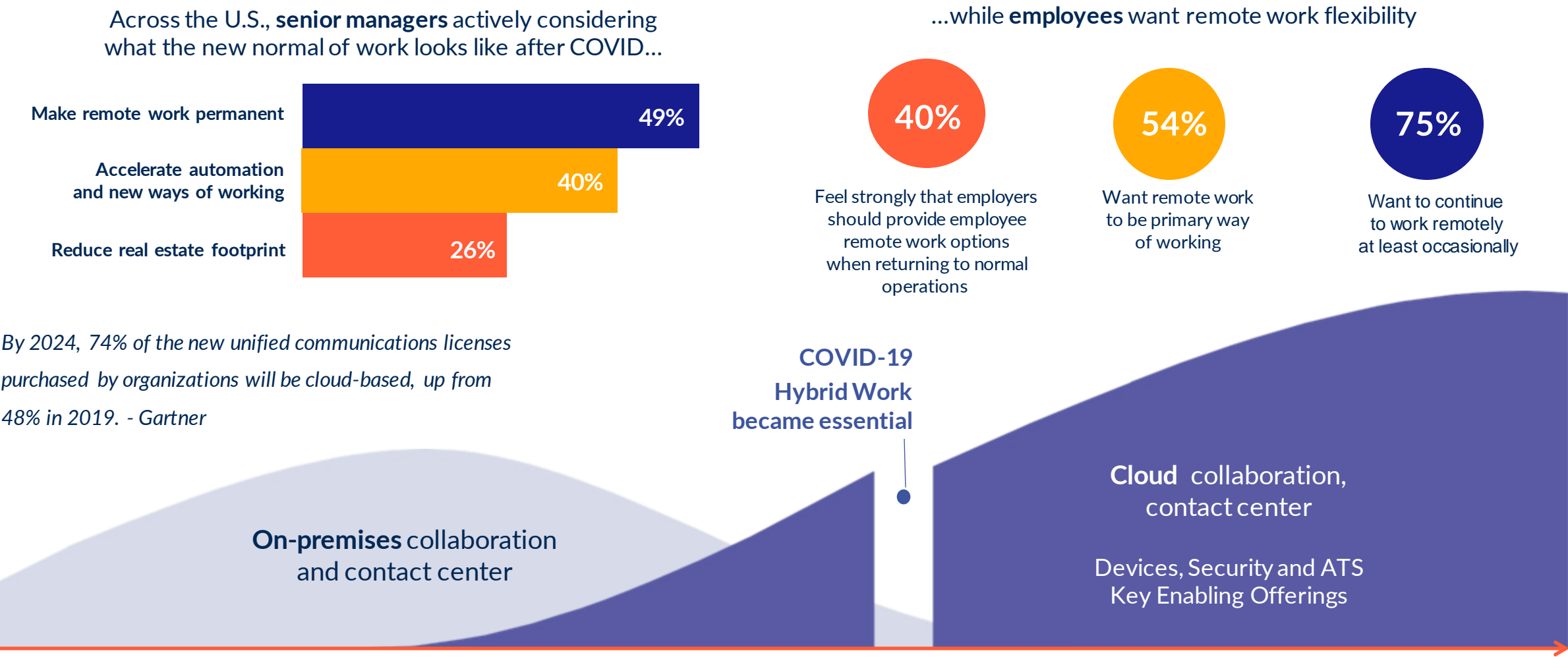
Our Customers Agree

- **74%** of customers said that they would continue with **remote or hybrid work** rather than have all employees return to the office as soon as regulations permit.
- **91%** of respondents reported **no loss of productivity** when working remotely with NWN Carousel offerings. .

Markets at Inflection Point

COVID-19 has accelerated adoption of cloud communication offerings which enable the remote workforce

The Rise of the Remote Worker



Cloud Communications essential for the future of work.

2021



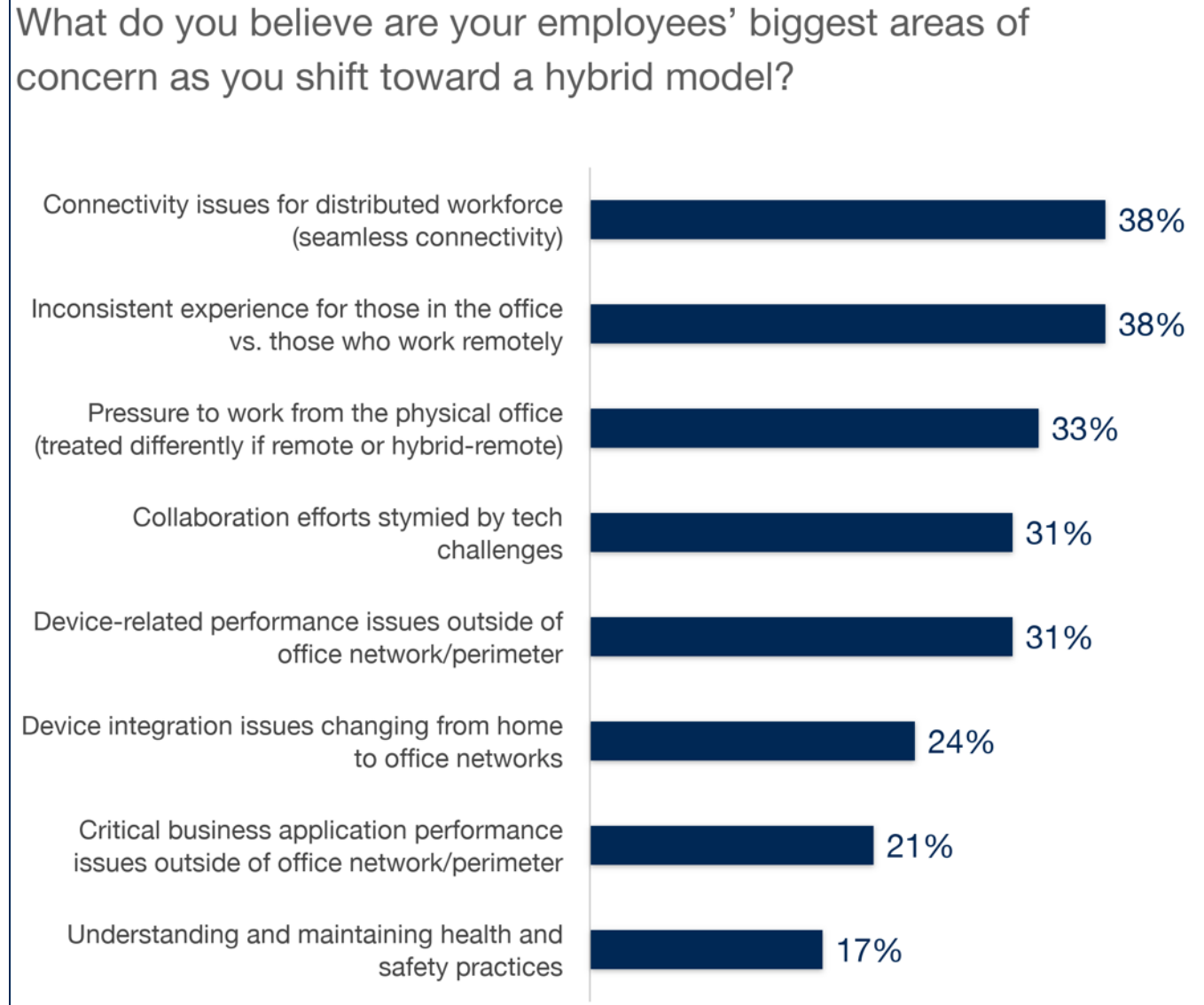
2022



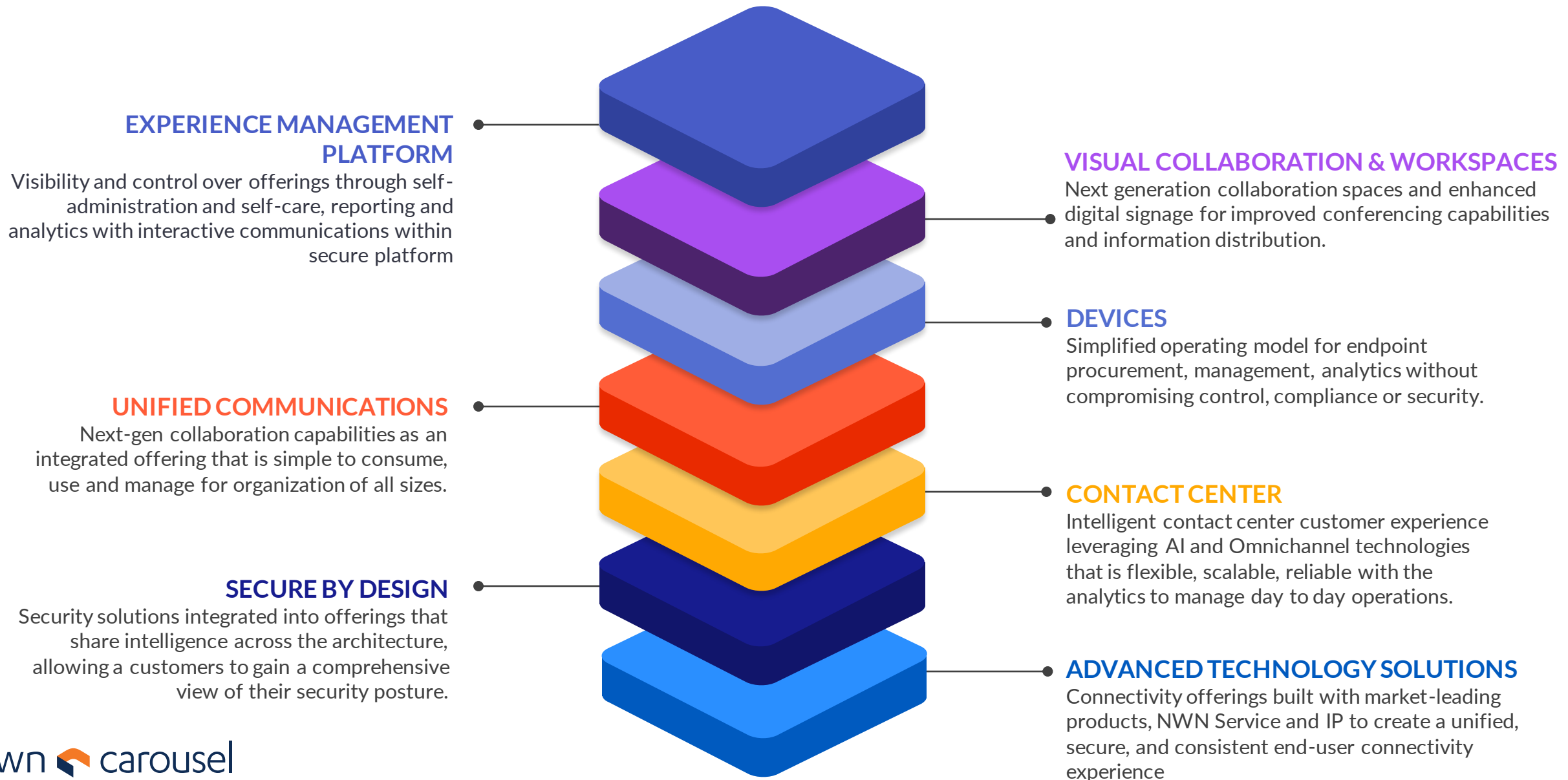
*“Through 2024, organizations will be forced to bring forward digital business transformation plans by at least five years. Those plans will have to adapt to a post-COVID-19 world that involves **permanently higher adoption of remote work.**” - Ranjit Atwal, Gartner*

Uniquely positioned to solve our customer's biggest hybrid work challenges.

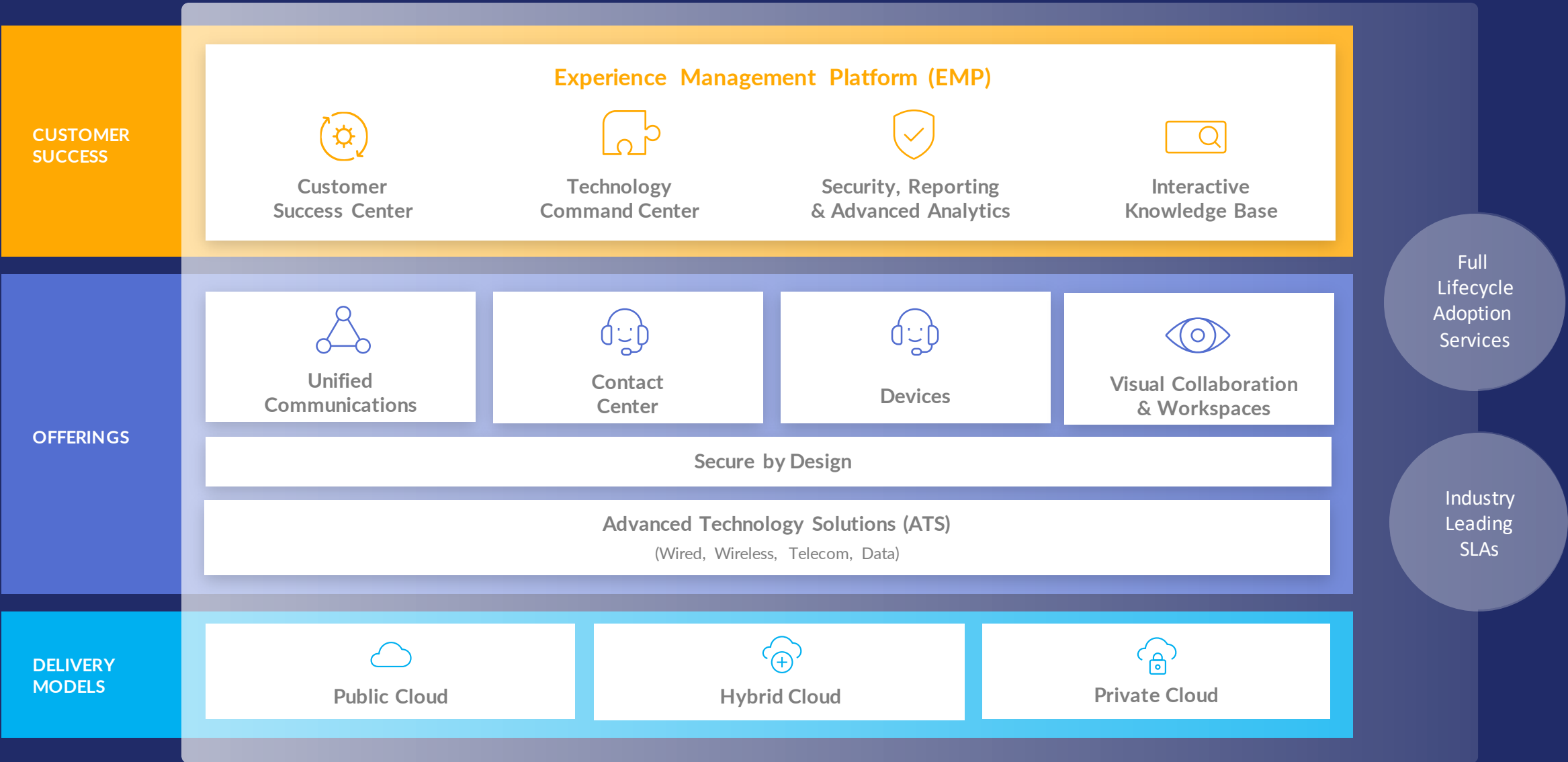
- Our customers want **frictionless** connectivity from anywhere
- Our customers want **consistent** collaboration experiences from anywhere.
- Our customers want **secure** devices that enable them to work from anywhere.



Our integrated offerings portfolio works together to deliver better business outcomes for you.



Our Integrated Offerings Portfolio Enables Hybrid Work



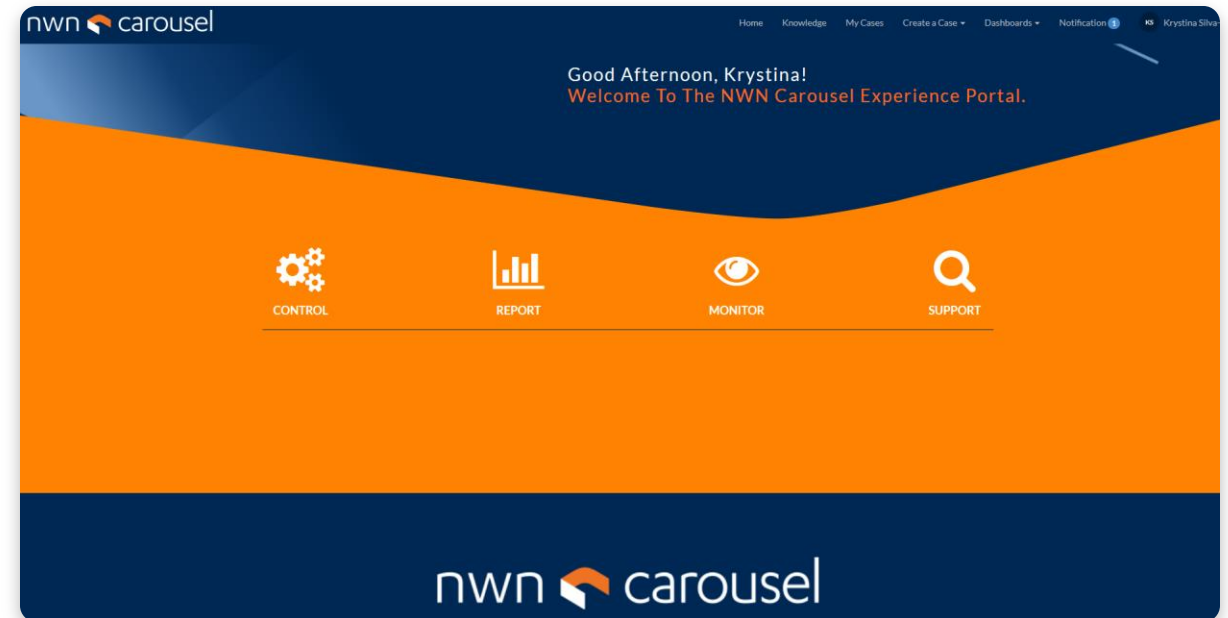
NWN Carousel's Experience Management Platform

OPTIMIZE OPERATIONS

OPTIMIZE COST

OPTIMIZE EXPERIENCE

- ✓ Cloud-based Customer Platform
- ✓ Self-serve Access to Information
- ✓ Real-time Analytics & SLAs



“Technology-enabled service providers need to differentiate themselves with unique IP that delivers analytics, self-service, visibility and control. **NWN Carousel’s new EMP is a powerful example of a layer of technology that can make a tangible difference to a customer by speeding up their processes so they can serve their customers better.**”



– Steve Duplessie, Founder & Senior Analyst

Our Experience Management Platform fills a critical and strategic market gap to accelerate cloud communications adoption

CLIENT'S NEEDS

Gartner.

Unified communications as a service **adoption is soaring**, but enterprises often **lack proper tools**.

Strategic planning assumption:

Enterprise adoption of tools specifically designed for UCaaS will rise

Key findings: Monitoring/management capabilities used for premises-based proprietary endpoints and systems are ill-suited for use in the UCaaS environment

Recommendation: Evaluate UCaaS providers on their monitoring/management prowess

NWN CAROUSEL PLATFORM DELIVERS DIFFERENTIATED VALUE

Integrated software and systems

Interactive communications

Simplified operations

EXPERIENCE MANAGEMENT PLATFORM (EMP)



CUSTOMER SUCCESS CENTER



TECHNOLOGY COMMAND CENTER



REPORTING & ADVANCED ANALYTICS



INTERACTIVE KNOWLEDGE BASE

Adoption and Utilization Assurance

PHONE

EMAIL

CHAT

PORTAL

MANAGE

- Initiate Requests
- Trouble Tickets
- Check Status
- Review Bills & Inventory

ADOPT

- Interactive Knowledge Base
- On-line Training
- Subject Matter Experts

SELF SERVICE

- Move, Add, Change, Delete (MACD)

BI & REPORTING

- Performance
- Utilization
- SLA
- Trends

Source: Gartner "Magic Quadrant for Unified Communications as a Service, Worldwide"; July 30, 2019.

EMP Value



All-inclusive offering bundles include software + hardware + adoption services with an NWN-backed SLA

	Essentials	Core Everything ESSENTIAL plus	Complete Everything CORE plus
Technology & Licensing	X	X	X
Design & Network Readiness	X	X	X
Deployment, Integration, & Migration	X	X	X
Monitor & Operate	X	X	X
Carrier Services	X	X	X
E911 Consulting and Solutions	X	X	X
Adoption & System Health Checks		X	X
Insights & Analytics		X	X
User MACDs		X	X
Smart Provisioning & Administration*		X	X
Self-Care *		X	X
End to End SLAs			X
Custom Insights & Analytics			X
Workflow Integration Services			X
Advanced Security Integrations			X

Summary & Next Steps

- **The future is hybrid** & your organization may need new integrated cloud communications offerings to deliver the employee and customer experience
- **NWN Carousel's 6 integrated offerings** help you by:
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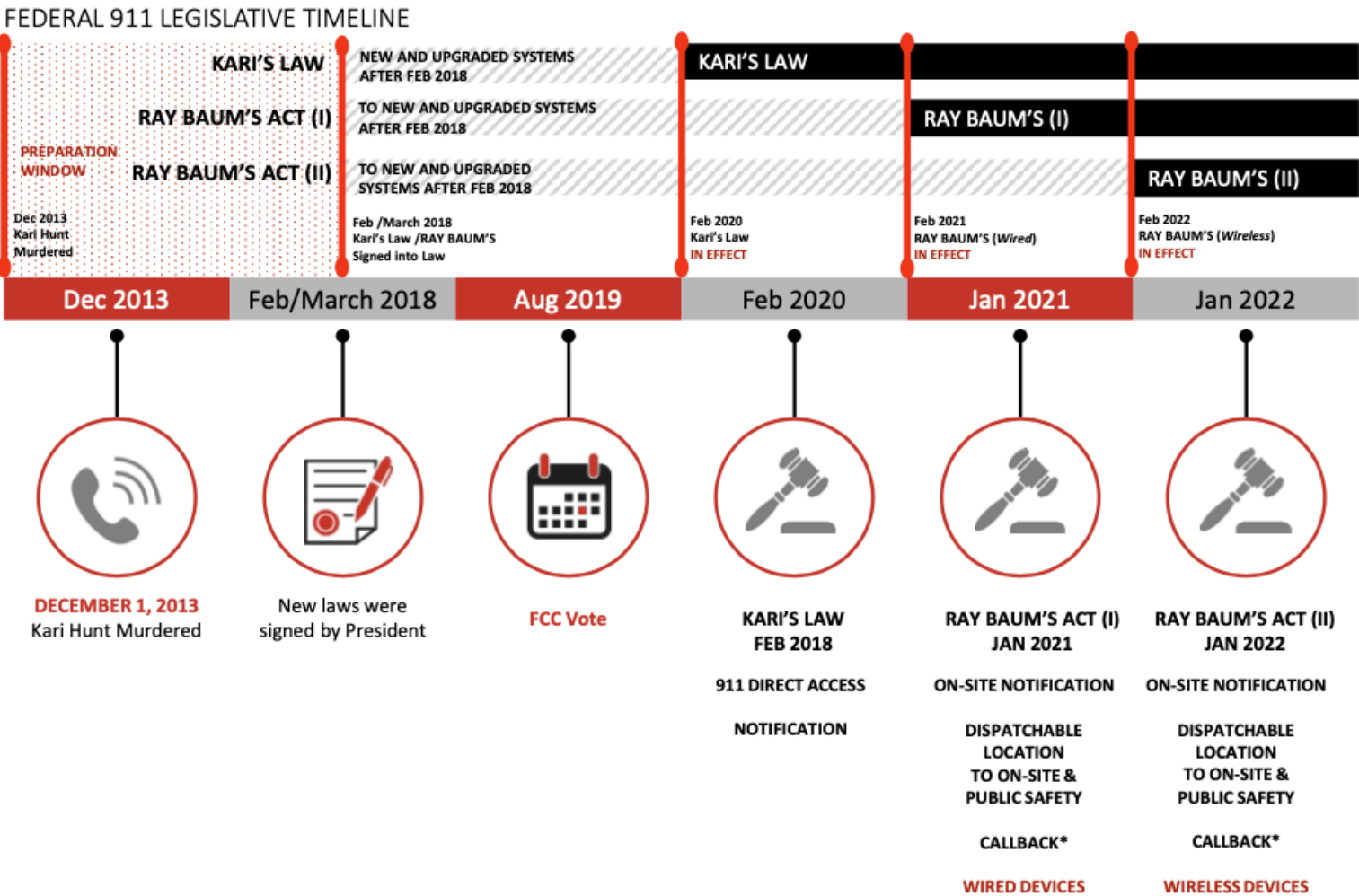


E911 – Are you compliant and ready



Federal 911 Compliance Requirements

What is required and when?



DISPATCHABLE LOCATION

IS THE STREET ADDRESS OF THE CALLER, PLUS ANY ADDITIONAL INFORMATION NEEDED TO LOCATE THE CALLING PARTY IN A REASONABLE AMOUNT OF TIME

ON-SITE NOTIFICATION MUST BE DELIVERED CONTEMPORANEOUSLY (AT THE SAME TIME AS THE CALL), TO A LOCATION WHERE THE INFORMATION IS LIKELY TO BE SEEN.

Background

- Kari's Law –
 - As of February 16, 2020
- RAY BAUM'S* Act
 - As of January 6, 2021 (on-premises, fixed devices)
 - As of January 6, 2022 (on-premises, non-fixed devices and off-premises devices)
- Requirements
 - Kari's Law –
 - Requires any MultiLine Telephone System (MLTS, a.k.a. PBX) to direct dial 911 from any extension
 - RAY BAUM'S Act
 - To ensure that “dispatchable location” information is conveyed with 9-1-1 calls to PSAPs, regardless of the underlying technological platform used, including calls to from MLTS
 - “Dispatchable location” means location information delivered to the PSAP that consists of the valid street address of the calling party, plus additional information such as suite, apartment, or similar information

Implementation of RAY BAUM'S Act involves significantly more than just technology upgrades to phone systems and the provision of location-based information. The legislation defines obligations, but does not define how those obligations are to be met.

RAY BAUM'S is an acronym for **Repack **A**irwaves **Y**ielding **B**etter **A**ccess for **U**sers of **M**odern **S**ervices*

Not Just About Technology

- Compliance with RAY BAUM'S Act is not just about technology, but also about process and procedures
- Multiple departments should be engaged, including IT, Legal, HR, Security, Facilities, and Risk Management, among others
- An E911 initiative affects the entire organization - emphasis is required surrounding end-user awareness, education and operating practices, including those that are internal, operational or security oriented
- We estimate that the breakdown of areas of effort are 80% process, 15% policy and 5% technology



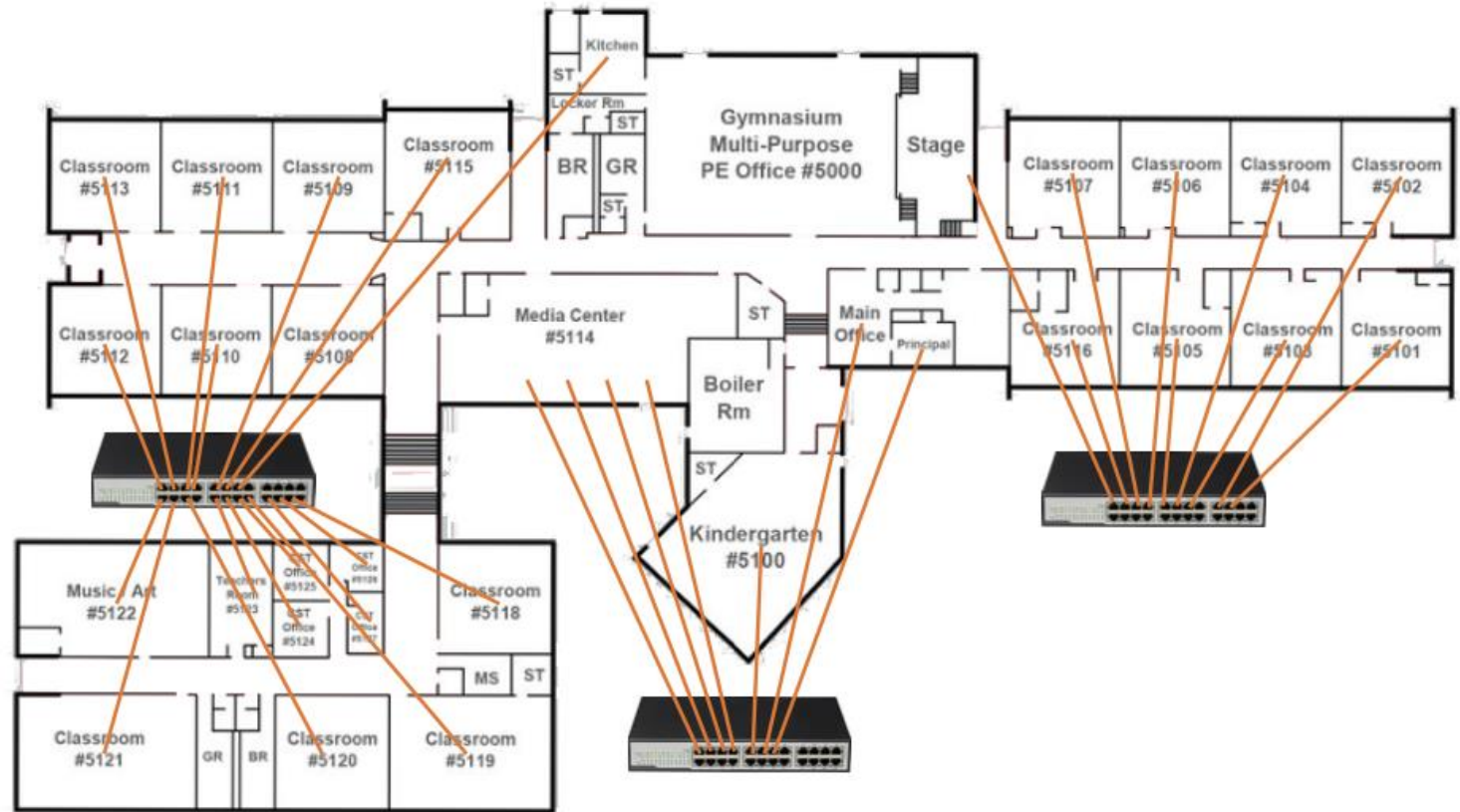
Leveraging Network Devices for Location

Labor Intensive

Requires coordination of multiple data sets

Requires deep knowledge of physical devices

Devices must be managed with a high level of effort



Granularity Level: **HIGH**

Certainty Level: **LOW**

Leveraging Logical Segments for Location

Labor Intensive

Requires coordination of multiple data sets

Devices must be managed with a high level of effort

Results are highly dependent on quality of Device Management and Architecture



Granularity Level: **MEDIUM**

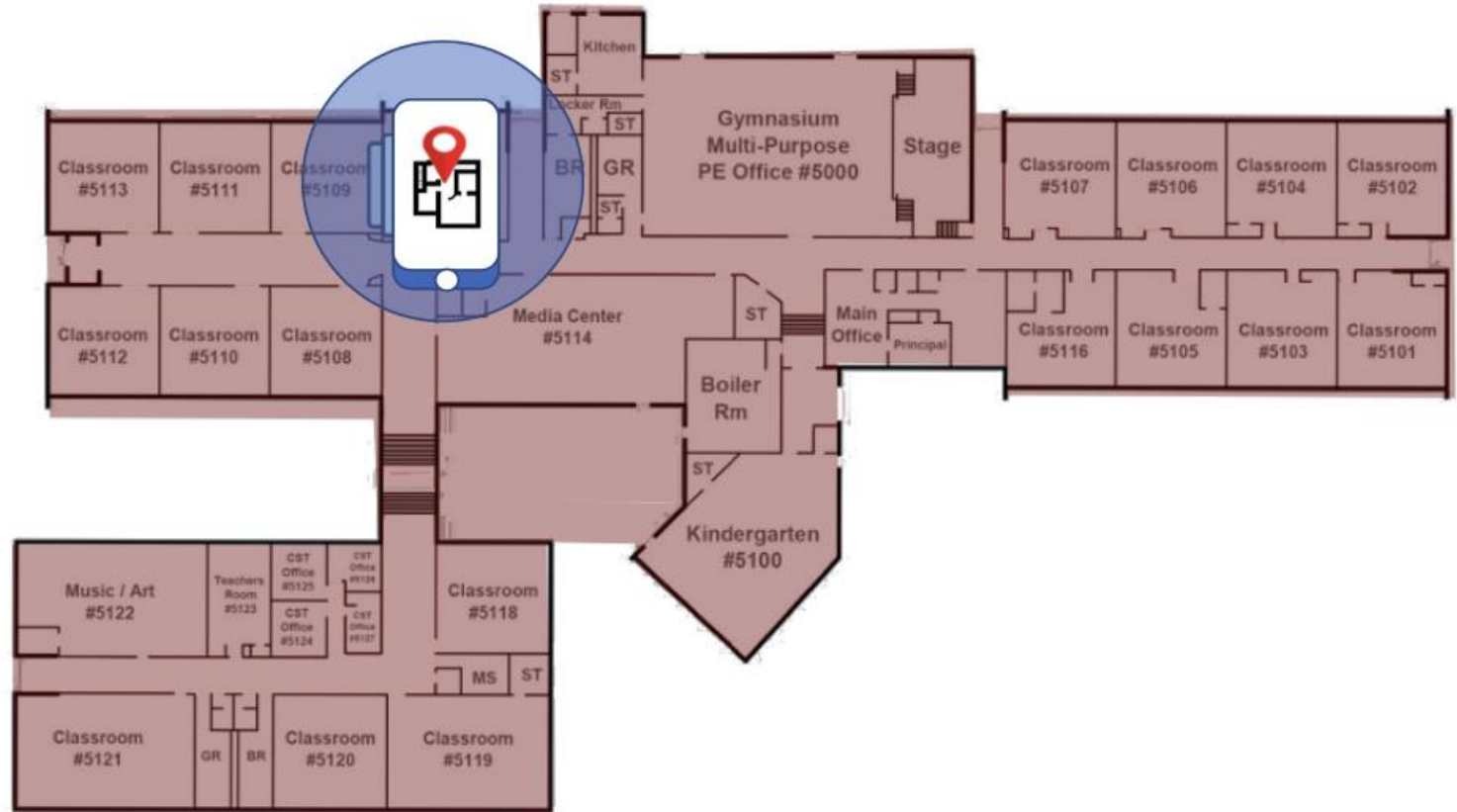
Certainty Level: **MEDIUM**

Leveraging Application Assistance for Location

Does not require an app to be installed – Uses Text or Email

Non Intrusive – Only used when further clarification is needed

Very high levels of granularity



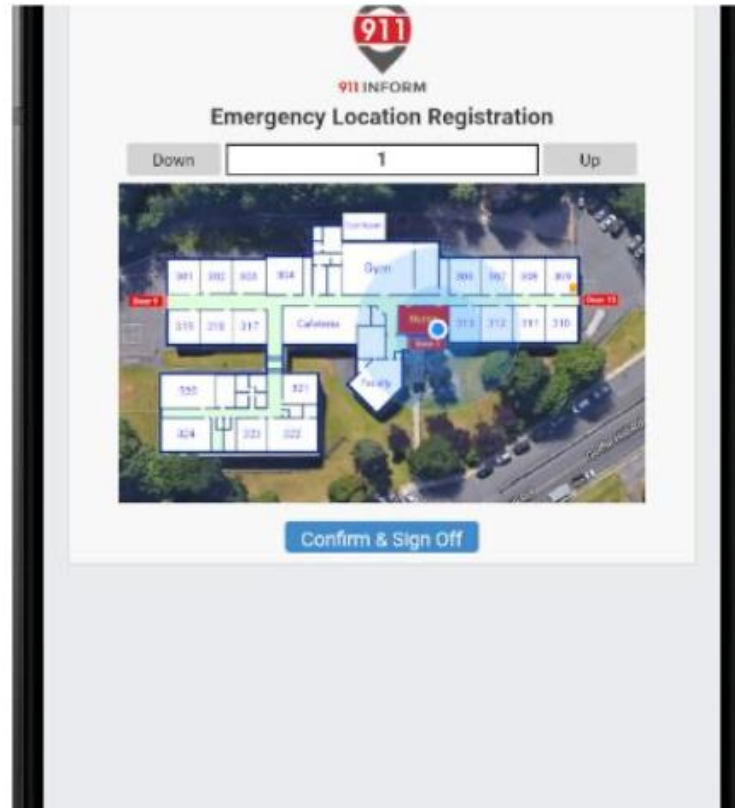
Granularity Level: **HIGH**

Certainty Level: **HIGH**

User Experience



- 1) User is sent a text requesting they confirm their device location

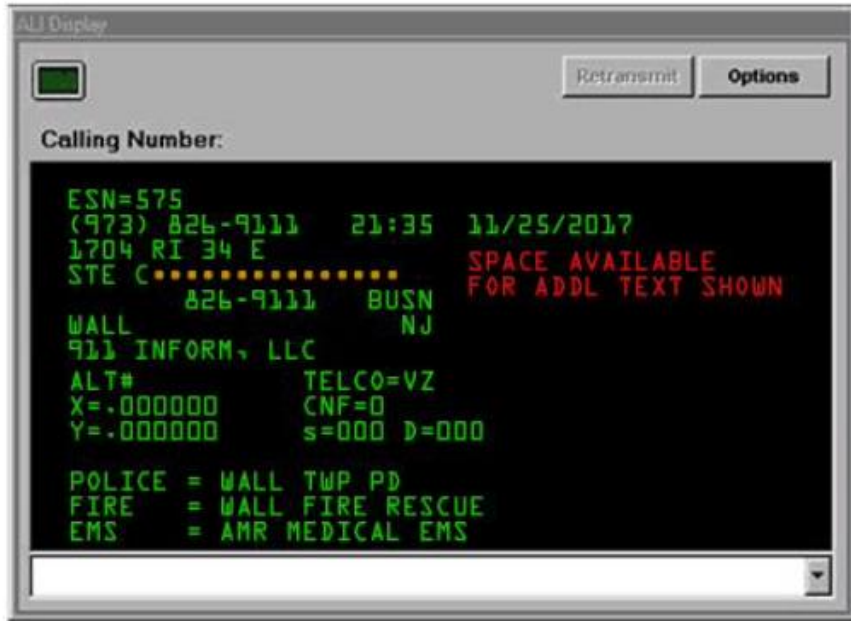


- 2) User location provided based on GPS
Inside of mapped buildings, users are provided floorplans.



- 3) Outside of a mapped building, a Google Maps pin is provided

Yesterday's E911



2 Lines Of Information
Only Line 2 Data Can Be Changed
Limited to 20 TOTAL Characters Allowed

Today's NG911



Full Multimedia Data
Dynamically Updateable Information
Delivered ANYWHERE at time of call

Market Adoption - Estimated

Larger Organizations

- An estimated 3,000 to 3,500 large enterprise customers have either have upgraded/replaced in the past 2 years, are currently upgrading /replacing, or considering an upgrade is actively evaluating or deploying an E911 solution
- An estimated 40% of the large enterprise market. Many large enterprise clients have multiple PBX environments and 1 or more of those is being upgraded

Safety Concerns

- Both Kari's Law and RAY BAUM'S Act are important from a safety point of view as well as Compliance to the Law
- Adds that layer of protection and safety for their employees that in the event of a 911 call they are assured that they will be reached

Possible Risks for Non-Compliance

Possible Fines - Federal fines start at \$10,000.00 plus \$500.00 per day for non-compliance with RAY BAUM

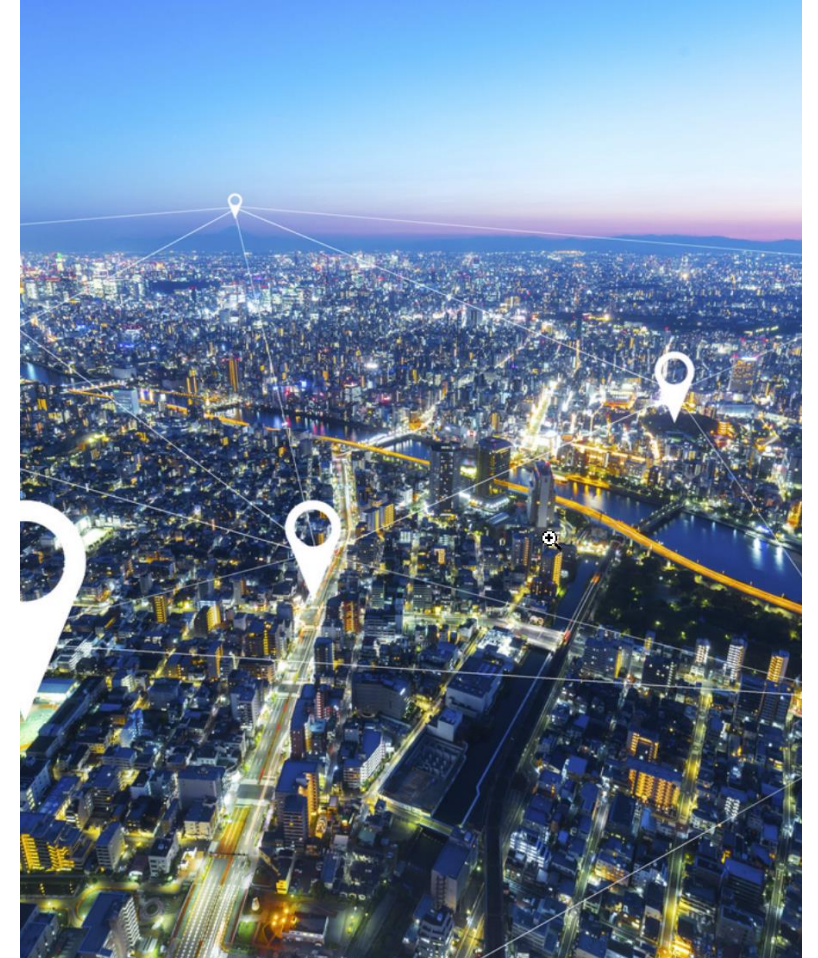
Additional Financial Risk - Willful avoidance of the mandates presents significant additional financial risk of litigation from employees, vendors and customers who are on client sites – these would likely dwarf the published fines above

Safety and Wellbeing Concerns - Safety and wellbeing concerns for those same employees, vendors and customers and the associated reputational risk for the client if not implemented



RAY BAUM - Areas To Note

- DIDs - Emergency Location Identification Numbers (ELINs, or DID numbers) are typically sent to the PSAP
- When a Requirement - Most vendors and experts in the industry agree that a major upgrade (i.e., from 12.x to 13.x) or a VoIP system replacement (premises or cloud) create a requirement for RAY BAUM
- Legacy PBX Systems Exempt - there are legal implications if an E911 call to the PSAP fails or is not answered with appropriate first responder actions
- Geographic Location - A 911 call must be identified by geographic location and recommend providing information at least within a given area within a 200-foot radius (i.e., nearby telecom/network IDF wiring closet, based on interpretation)
- PCs, Mobile Devices - In larger environments, most vendors can send a notification to key PCs or mobile devices, in addition to the originating call reaching the PSAP
- Remote Workers - (@Home, @Anywhere) are commonly offered as a separate app on their PCs that will confirm their location whenever they working remotely (advisable, not a requirement)



Recommendations – RAY BAUM’S Act

- IT Strategy for Next Generation Systems - Ensure the development of the client’s corporate long term IT strategy on next generation communications systems and architecture is included and considered as required for 9-1-1 compliance. Includes leveraging data/LAN IP-based identity information integrated to future overall E9-1-1 architecture
- Consideration of Third-Party Locations – If an organization owns a facility and rents to a third party, consideration must be given regarding voice end points at those locations, whether owned by the organization or owned by the third party
- Remote Workers – In today’s hybrid workforce, including workers on premise or work from home or anywhere, clients are well-advised to create processes, policies, procedures, documentation and training to enable the remote staff to effectively reach the appropriate 911 agency
- Form an Internal E911 Steering Committee - We recommend representation from each of the key departments and regions from Legal, HR, IT, Facilities, Safety/Security Risk and Contact Center. The Steering Committee should be responsible for initial set up and ongoing yearly review



Recommendations – RAY BAUM’S Act

- Identify, Confirm Resource Requirements and Responsibilities - Create a new role and/or assign responsibility to resources within the client’s organization who will be the technical point person(s) and liaison to other required departments to enable migration and ongoing operations of elements for compliance purposes
- Leverage Outside Legal Help –
 - In our E911 assessments, we have addressed both state and federal requirements
 - Florida
 - Requires all PBX systems installed after January 1, 2004 must be able to provide station-level ALI data to the PSAP. Section 365.175, Florida Statutes 2009 365.175
 - If someone calls 9-1-1 from a phone within your enterprise, your business is liable for providing the location of that call
 - As businesses are trending toward mobility and implementing VoIP services, a solution that tracks soft-phone locations and routes remote calls to the proper PSAP becomes even more imperative



In Summary

- Kari's Law and RAY BAUM'S Act are now federal law and any current technology MLTS/PBX system (VoIP being defacto) must now comply
- Any legacy digital PBX or early adopter VoIP systems that require an upgrade or replacement are all candidates to meet the standard for RAY BAUM'S Act requirements with such an upgrade/replacement
- For those that are on legacy digital systems, the potential risk of liability for a failed E9-1-1 call is real

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