BROOKSIDE CLOUD FOR EDUCATION

SCHOOL TECHNOLOGY GUIDE FOR 2023

CLOUD-BASED SOLUTIONS FOR VOICE, CHAT, VIDEO, VIRTUAL ASSISTANTS USING CONVERSATIONAL AI

EMERGENCY MANAGEMENT, MASS NOTIFICATION, NG911 COMPLIANCE, & PANIC BUTTONS

BROOKSIDE CLOUD CONSULTING

DECADES OF INDUSTRY EXPERIENCE WITH TELECOMMUNICATIONS & NETWORK SERVICES

Austin SINCE 2002

Mike Dance

Vendor Agnostic Channel Partner

FC Federal Communications Commission   NG911 COMPLIANCY

■■ Gartner Magic Quadrant Providers

Network Services from Major Carriers

Emergency Management & Mass Notification

FREE Consulting from Solution Design *through* Implementation *of* Cloud-based solutions

Contact **Mike Dance** at **mdance@BrooksideUS.com** or **(512) 839-6460**

LEARN MORE AT **WWW.** BROOKSIDEUS.COM

Brookside Cloud Consulting has decades of experience working with all sizes of public and private schools and saves time and money on finding the perfect solution to meet your needs and budget.

Brookside **cut their total cost per user in half** and fixed all kinds of problems they didn't know they had!

Brookside designs and implements complete **cloud-based solutions** from major providers for:

- **Unified Communications (UCaaS)** - Voice, Chat, Video on Any Device, Anywhere

- **Contact Center as a Service (CCaaS)** - Omni-channel Routing, AI, Customer Journey Analytics

- **NG911 Emergency Management** – Location accuracy, Mass Notification, Panic Buttons

- **Interactive Geo-fenced Map** with access to existing cameras, doors, paging, & phone system

- **Fiber** and **managed SD WAN** solutions that deliver the highest level of business continuity.

COMPLIANCY. Many districts do not realize the communications equipment that they are using is most likely NOT compliant with the latest **FCC NG911 laws** that replaced the E-911 last year.

TEXAS DIR PURCHASING CO-OPS. We help find the right solution and get the best deal for you. Most of the time, the best deal is with one of the many state- approved purchasing co-ops.

GRANTS. Most – if not all - of the cost of implementing school safety solutions is covered through **grants** from state and local government agencies – including the **Texas Education Association.**
We help you find and secure grants to offset the costs.

INTELLIGENT VIRTUAL ASSISTANTS (IVA). Intelligent virtual assistants automate text-based conversations that help users accomplish all sorts of tasks by providing the ultimate tool self-service tool that's available 24/7/365.
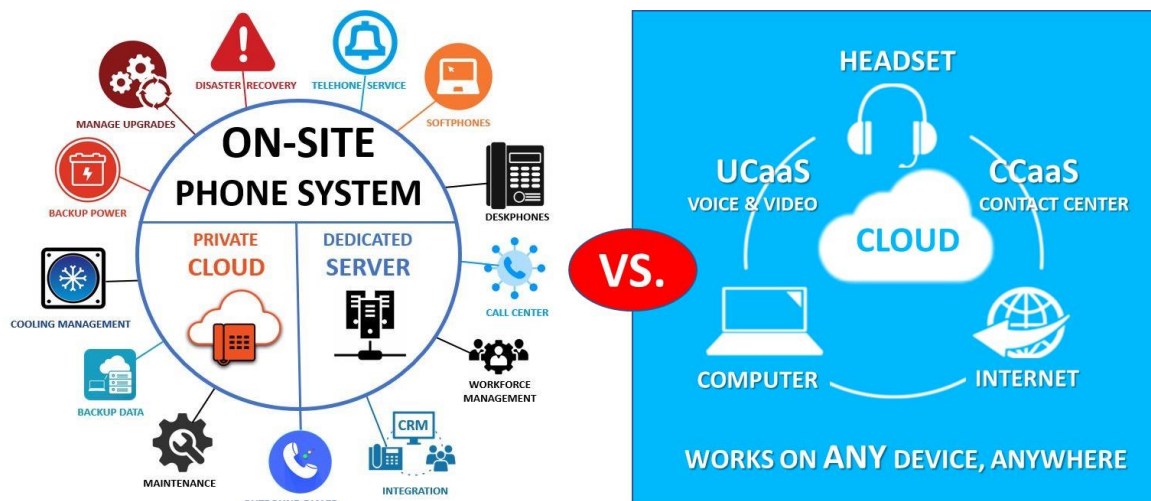
ON-SITE PHONE SYSTEM VS. CLOUD-BASED UCaaS

When comparing the difference between your **on-premises** solution that you own, the results will shock you. On-premise has huge responsibilities for the client are *enormous* compared with **FREE** support 24/7 for cloud.

C**loud-based** solutions, as opposed to an on-premise system, make sure you can communicate with staff members, students, and parents inside and *outside* of your building securely using the latest cloud technology.

Key Benefits of Moving Voice & Video to the Cloud

- Know exactly what you are going to spend on a cost per user basis for the next 3-5 years

- Minimal upfront cost and pays for itself through savings when comparing the total cost/user.

- Reduces complexity & responsibility for IT by getting rid of legacy server hardware & circuits.

- Consolidate collaboration tools to reduce the number of apps, logins, & passwords for users & IT.

- Pay for what you need on a per user basis and always have the latest features & capabilities.

- Meets business continuity & security goals with enterprise connectivity using fiber & SD WAN.

- Cloud-based solutions install easily, are always up to date, and come with 24/7/365 support.

- They integrate with applications like Google Workspace for Education & Microsoft 365/Teams.

- Consolidation and integration of key apps to deliver the best possible user experience.

Texas Department of Information Resources (DIR)

Working with the DIR and/or purchasing cooperatives makes a lot of sense for schools today and saves a lot of time. The days of going through the request for proposal, or "RFP" process is essentially over unless you really want to.

RFP's and the vetting of providers and vendors and what they offer has already been done by the DIR and multiple purchasing cooperatives to provide great pricing for government, education, and non-profits.

Approved Purchasing Co-operatives

Purchasing cooperatives are a popular purchasing option for Texas school districts because they are more flexible and have better pricing than the DIR.
They help you make the purchasing process as simple as possible by offering solutions that help you save time and optimize your education dollars.

Brookside over the years has worked with multiple purchasing co-operatives that are all free-to-join.
These national online purchasing cooperatives were developed to streamline the buying process for school districts, municipalities, and other public entities, while saving them time and money.
Purchasing coops give school districts the advantage of leveraging the cooperative's ability to obtain bulk discounts, combined with the ease of web-based shopping and ordering.

These organizations have developed these programs that comply with state laws which require government entities and allow them to make purchases from an approved list of vendors who have one through a competitive procurement process.

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THE HIGHEST LEVEL OF BUSINESS CONTINUITY

Cloud solutions require internet so in today's cloud-based world, reliable internet is a **requirement** – not a luxury. Brookside has years of experience designing multi-vendor internet solutions that never go down.

We are there from initial design to help with ordering the *right amount of bandwidth* for each location and project manage the implementation.

Regardless of which option you choose, Brookside can help find the right **managed SD WAN solution** to provide **quality of service (QoS)** to prioritize real-time apps like video and voice over e-mail, social media, YouTube, etc.

SECURITY CERTIFICATIONS

Security should always be a top consideration when choosing a UCaaS and collaboration tool as well as CCaaS.

All the providers offer **end-to-end encryptions** for all your communication data along with these certifications.
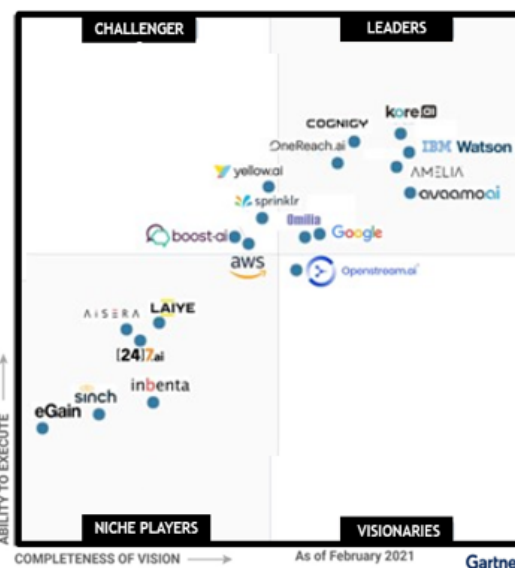
Gartner Magic Quadrant Providers

UNIFIED COMM. as a SERVICE (UCaaS)

SD WAN SOLUTIONS

CONTACT CENTER as a SERVICE (CCaaS)

ENTERPRISE CONVERSATIONAL AI

Go to www.BrooksideUS.com for access to the latest **Gartner Magic Quadrant** white papers.

zoom one

Connect your city and/or county with **one Unified Communication and Collaboration Platform.**

Supporting your administrators and providing flexible learning modalities for students has never been easier. Most if not all of your users already have Zoom installed on their devices for whatever reason.

Now you can manage your communication procedures and policies as well as emergency protocols all within **one platform.**

Check out how Zoom Meetings, Team Chat, Phone, and Rooms can transform your workflow and bring your entire community together.

Zoom takes a video-first approach to collaboration, enabling quick and easy meetings at the touch of a button. It's very user friendly to set up audio and video meetings and teams can share files and screens, create breakout rooms, and change their backgrounds and it's easy to host **webinars** and events.

You can access a range of speaker views, including something like the **Together** mode from Microsoft Teams.

zoomphone

UCaaS. While you can enjoy simple and effective video meetings through the **Zoom** platform, you can also unlock **UCaaS** with **Zoom Phone** for calling, and even send messages to team members through **Zoom Chat**.

Ranging from a simple Zoom app where you can access all the features you need to connect with teams, to call transferring and management functionality; Zoom is a comprehensive platform.

Features include:

- Access to mobile and desktop apps
- Call transfer and routing capability
- Call forwarding and voicemail
- Integration with things like Salesforce, Microsoft, and Slack
- Elevate to meeting functionality
- Monitoring for supervisors
- In-depth analytics and reporting

ZoomPhone is perfect for organizations that really like the **Zoom** experience and just want to add voice to video.

Microsoft Teams

Microsoft Teams Monthly Active Users (MAU) has surged to literally everyone in the business world.

Teams allows students, faculty, educators, and staff meet, work together, create content, and share resources in **Office 365 Education** — featuring the simple, intuitive power of **Microsoft Teams.**
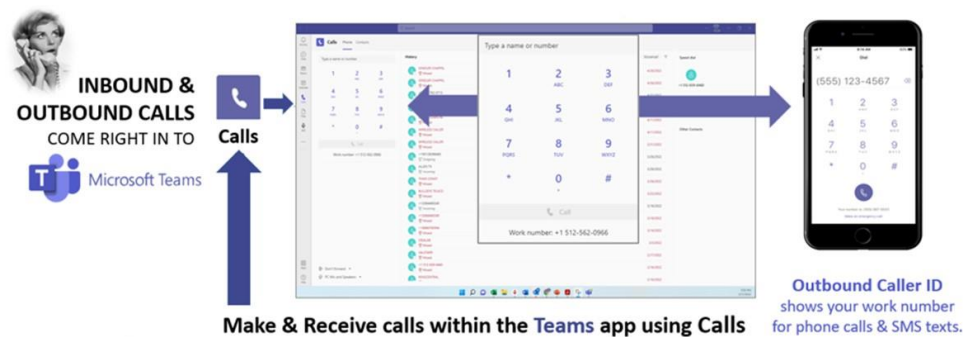
Microsoft Teams offers instant chat, file sharing and screen sharing, access to shared calendars for planning meetings, and integrations with a range of productivity management tools.

Microsoft Teams makes sense as your go-to collaboration and communication tool if you already have a lot of investment in Microsoft tools and productivity apps. The integrations with the Microsoft ecosystem are excellent.

Microsoft Teams' flexible UCaaS Features include:

- Built-in Softphone for Work Number
- SMS Chat
- Direct routing to carriers or Microsoft phone plans (not recommended)
- Messaging and file sharing
- Video and audio conferencing
- Access to all Microsoft 365 productivity tools

Employees are already familiar with Microsoft Teams can help to drive adoption for businesses of all sizes.

INBOUND & OUTBOUND CALLS COME RIGHT IN TO **Microsoft Teams**

Make & Receive calls within the **Teams** app using Calls

Outbound Caller ID shows your work number for phone calls & SMS texts.

Multiple End-User Options - from Softphones to cost-effective hardware-based SIP phones

8x8 erases boundaries between **UCaaS** (voice & video) and **CCaaS** (contact center) with a **one platform** approach. Three of the providers – Ring Central, Zoom, and Microsoft Teams all offer **UCaaS** – but do not offer CCaaS.

8x8 combines **UCaaS** *and* **CCaaS** into a single solution that is easy to manage on a secure and compliant cloud-based platform that has the industry's only **platform-wide 99.999% uptime SLA.**

Some of the leading features included in **8×8** UCaaS offering are:

- Integrations with **Microsoft Teams, Salesforce, G-Suite,** and others

- Audio and video conferencing functionality

- Self-service IVR And IVA

- Sophisticated Multi-level Auto-attendant functionality

- Messaging over SMS, voicemail, email, and apps from your work number

- Collaboration features and Employee presence

- Support for compliance requirements

The UCaaS solution from **8×8** ensures that companies have all the components they need in a **single platform**, from video conferencing and SMS, to voice and chat technology.

8×8 makes it easy to consolidate **all** your business communications into a single environment, reducing ongoing expenses in the workplace, and allowing for stronger insights. You get built-in redundancy to protect against downtime, and you can access a wide range of solutions for omni-channel communications too.

8x8 provides unified administration capabilities that allow you to provision, configure, manage, and monitor all your communications with one administration console for UCaaS and CCaaS users.

8×8 supports **unlimited global calling** and **SMS,** and it's well suited to companies who have specific compliance requirements, thanks to a HIPAA compliant approach to conversations.

8x8 X Series provides a range of service plans that include **unlimited calling** to specific countries, for no additional cost, with up to **48 unmetered destinations** as you can see from this chart based on their **X1-X4 licensing.**

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8x8 VOICE for Microsoft Teams

8x8 has deep native integration to **Teams** via **8x8 Voice for Microsoft Teams** which provides enterprise-level telephony *and* contact center with global inbound and outbound PSTN calling across to more than 46 countries.
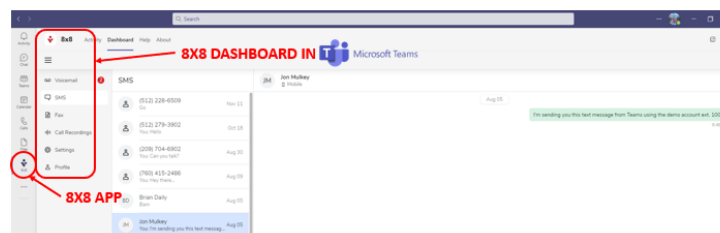

Most schools use **Teams** for **internal** with **external** calls handled on separate phone system & lines to manage. Why not use **Teams** for both inbound & outbound calling and use **ONE APP** for everything? It's easy on users & IT.
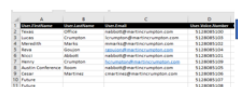

8x8 Voice for Microsoft Teams comes with a **dashboard** as part of an **8x8** app that operates within **Teams.**

It's super easy to install and manage and provides the best overall experience for your users and IT with **ONE APP**. Once both 8x8 & Microsoft Teams have the right permissions, setting up the Teams users in 8x8 is as easy as 1-2-3. You download **USER TEMPLATE (.CSV File)** with user information - name, direct number, e-mail, phone ext.

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webex for education
by CISCO

Webex for Education provides a highly secure and easy-to-use experience that **addresses teachers, administrators, and students' needs, while making distance learning more secure than ever.**

Webex *provides these plus additional tools and features to optimize effective and safe distance learning.*

WORKS SECURELY ON ANY DEVICE, ANYWHERE

DESKTOP OR TABLETS

Cisco Webex

MOBILE AND/OR DESKTOP PHONES

SITE 1 MAIN OFFICE	MIDDLE SCHOOL	ELEMENTARY SCHOOL	NEW HIGH SCHOOL
Cisco UCM Cloud	Cisco Webex Calling	Cisco Webex Calling	Cisco Webex Calling

WAYS TO CONNECT TO webex
by CISCO

📞 Calling

Make and take calls across all devices with a powerful enterprise cloud phone system that keeps everyone within reach.

💬 Messaging

Keep work flowing in between meetings with rich messaging, secure file sharing, and whiteboarding for continuous teamwork.

👤 Webinars

Simplify webinar delivery and drive engagement with immersive content and interactive audience experiences.

✏️ Whiteboarding

Unleash creativity with a digital whiteboarding solution for everyone, on any device.

📹 Meetings

Drive more engaging meetings that minimize interruptions and let everyone participate, equally.

☑️ Polling

Ensure active participation in meetings and events with six different types of polling and interactive Q&A.

Events

Power virtual, in-person, and hybrid events with immersive multi-track agendas, ticketing, attendee networking, analytics, and more.

▷ Vidcast

Communicate on your time with an asynchronous video messaging tool that makes it easy to record, share, and get feedback from customers and colleagues.

GoTo

Bridging the Distance between Students and Teachers

Virtual Lessons
Meet with students and small groups via secure video conferencing, or leverage webinar polls, Q&A, and recording for large lectures.

Critical Communication
Share critical updates with faculty, staff, and parents with a cloud-based PBX that can operate remotely.

Integrated Experiences
Our collaboration suite integrates with top software partners like MS Teams, Singlewire, CirQLive, Calendly, and more.

Positive, secure interactions

Protect your students from the unexpected. Educators and parents can trust GoTo to keep students safe while at school and during online lessons.

- TLS encryption and 256-bit AES encryption at rest protects sensitive chat, session, recording, notes, and more
- Secure video conferencing features for meeting hosts include password protection and meeting locks
- Full-control over attendees (to monitor, mute, or remove someone)

Enhanced school safety and notifications

Maintain a safe learning environment for students and staff leveraging GoTo's integrations with **SIP-based safety devices** and **mass notification software.**

- Phone system integration with on-premises paging and safety equipment including door locks, alarm system, and more

- Easily configure bells, paging and phones to broadcast announcements and alerts during an emergency

- Full integration with **InformaCast** and **CatapultEMS** mass notification systems to keep everyone safe, connected and informed

- Reliable cloud-based solution that keeps running even during outages with prioritized calling to emergency services.

Enriched online learning experiences

GoTo Training and **GoTo Webinar** enable educators looking to incorporate more interactive coursework and workshops.

- Share materials like handouts, workbooks, and external links - before, during and after meetings
Polling, surveys and chat empower students to engage with the content in real-time
Cloud storage for storing classwork, handbooks, tests and more

PHONE OPTIONS

You have *multple* options for a deskphones that will do what you need them to do.

Desktop Phones & Accessories

poly CCX 500	poly CCX 400	poly CCX 600	poly CCX 700
Certified for Microsoft Teams — From the Microsoft Website	Certified for Microsoft Teams — From the Microsoft Website	Certified for Microsoft Teams — From the Microsoft Website	Certified for Microsoft Teams — From the Microsoft Website

poly Edge 550	poly Edge 400	poly Edge 300	poly Expansion Module for E400 & E500

poly Edge B30	poly Edge B20	poly Edge E220	NEW poly Edge E100

poly VVX 150	poly VVX 250	poly VVX 350	poly VVX 450

poly VVX 401	poly VVX 601	poly Speakerphones	poly Headsets

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ARE YOU READY FOR AN
ACTIVE SHOOTER?

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911 INFORM **EMERGENCY MANAGEMENT PLATFORM**

NG 911 COMPLIANT

Kari's Law, Ray Baum's Act, & Alyssa's Law

| GUNSHOT DETECTION | RFID TRACKING | WEAPONS DETECTION | DRONE DETECTION | MASS NOTIFICATION | CAMERA CONTROLS | DOOR ACCESS | PHONE SYSTEM |

- Cloud-based Communication Platform
- Interactive Map on a Single Pane of Glass
- Digital Floor Plans with Geo-Fencing
- Access to existing Video Camera Controls
- & Door Access Controls to Lock & Unlock

- Gunfire Detection on Live Interactive Map
- Emergency Notifications & Panic Buttons
- Mass Notification provides the latest info
- Paging through existing Intercom & Phones
- Cloud or Premise-based PBX Integration

CALL TO 911 → **LIVE INTERACTIVE MAP WITH ACCESS TO EXISTING VIDEO, DOOR SECURITY PAGING** → **TEXT MESSAGE TO PERSONNEL** → **EMERGENCY NOTIFICATION**

ACCESS TO APP IS CONTROLLED BY 911 PSAP

CLOUD-BASED APP THAT WORKS ON ANY DEVICE THAT CAN RUN A BROWSER

WORKS WITH YOUR **EXISTING VIDEO SURVEILLANCE, DOOR CONTROL, & OVERHEAD PAGING SYSTEMS**

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Are you compliant with the latest NG911 laws for location accuracy?

Federal Communications Commission & NEXT GEN 911 LAWS

KARI'S LAW

Allows **DIRECT ACCESS TO 911** without access codes

Allows **On-site notification** of 911 calls and the **extension**

RAY BAUM'S ACT

Any call to 911 must provide a **dispatchable location** to 911 PSAP

Any call to 911 must provide a **dispatchable location** to **on-site personnel**.

ALYSSA'S LAW

Silent panic alert technology that directly notifies 911 in the classrooms by the **2025-2026** school year.

Built-in Panic Buttons

DIRECTLY TO 911 PSAP

INFORM POLICE

INFORM ALL STAFF with Mass Notification

It is common practice today to protect our schools and public buildings through legislation such as **Kari's Law,** requiring the **direct dial of 911 from telephone devices** and the **on-site reporting of the emergency call to staff**, and the **Ray Baum's Act** requiring a **dispatchable location** be sent to public safety.

Alyssa's Law is now in effect requiring mobile 'panic buttons' specifically in schools and public areas.

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singlewire
InformaCast Mass Notification

InformaCast offers the only mass notification system that reaches people on-site *and does* mobile alerts from the *same* alerting solution. InformaCast is a powerful mass notification system that reaches your people on both their mobile and on-premises devices.

When you need everyone to receive a message very quickly, and you need it to grab their attention, InformaCast delivers attention-grabbing streaming audio to a wide variety of devices.

LEVERAGE EVERY CHANNEL · Utilizing all your on-premises and mobile devices means it's more likely you'll reach everyone rather than relying solely on mass SMS text messages.

> - **InformaCast Mass Notifications** can be sent as live and recorded audio to speakers and phones and text can be sent to a desktop computer, desk phone displays, and digital signage.

> · Mobile alerts from **InformaCast** can be delivered as SMS text, push notification, email and/or audio.

ALERT BEYOND YOUR ORGANIZATION · Connected devices can trigger visual alerts like flashing strobe lights, digital displays and scrolling text. Have visitors self-enroll to receive notifications simply by texting a designated number.

InformaCast Fusion is a leading mass notification solution used in thousands of organizations around the world to enhance safety and communication. Schools, universities, hospitals, government agencies, manufacturing facilities and businesses ALL use **InformaCast** to prepare for emergency situations, share critical information, and improve daily processes and procedures.

With **InformaCast** you'll have a solution with the speed and reach you need to ensure everyone receives the information they need to stay safe. It integrates with **Microsoft Teams, ZoomOne,** and most cloud-based solutions.

singlewire
InformaCast®

SAFETY INCIDENT → InformaCast BROADCAST

EVERYONE IS NOTIFIED

SAFETY TEAM MEETS IN Microsoft Teams

InformaCast Fusion with **Microsoft Teams** is a mass notification solution that allows Teams users to trigger and receive InformaCast alerts from within the Teams interface as well as cell phones, digital signage, and other connected devices.

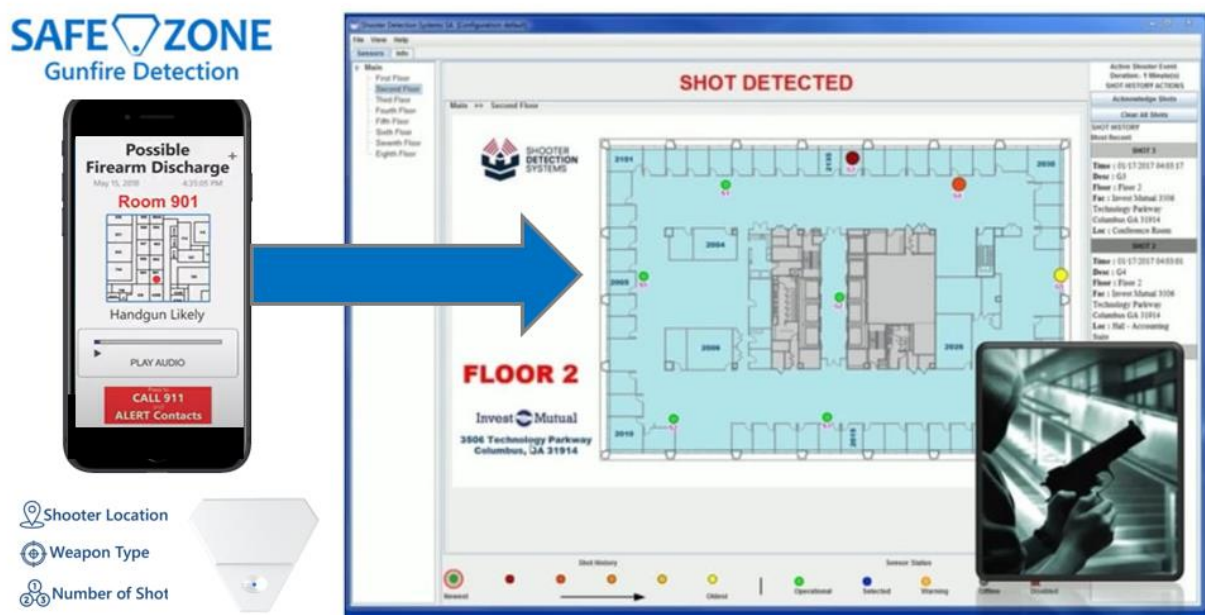BROOKSIDE CLOUD CONSULTING

LICENCE PLATE & FACIAL RECOGNITION

According to the National Center for Education Statistics, almost **80%** of elementary schools have security cameras as part of their security system. This number rises to about **94%** for high schools.

So students are already being surveilled and layering in facial and license plate recognition is all about providing **real-time alerts** to security staff so they can respond to threats quickly.

Facial recognition systems are primarily being used to identify bad actors such as violent ex-students, registered sex offenders, non-custodial parents, or anyone who may have made threats against the students or staff.

GUNFIRE DETECTION

SaveZone is part of a completely customized safety solution that provides the best possible solution to address how emergency situations are handled from a communications standpoint when there is gunfire.
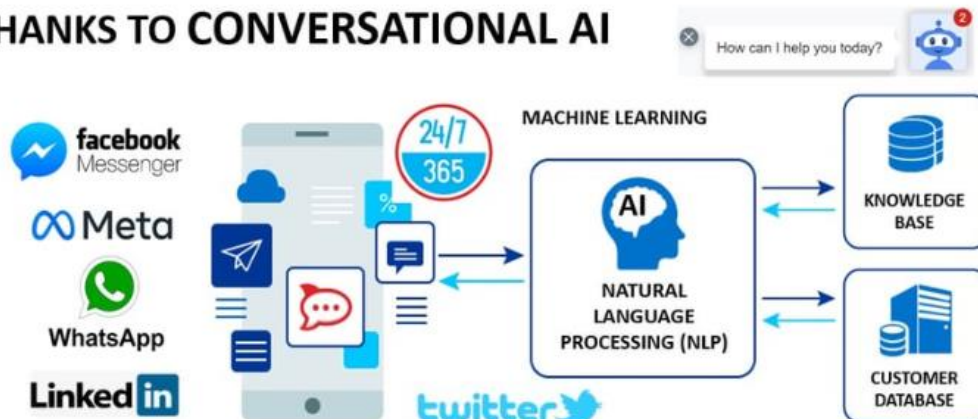
INTELLIGENT VIRTUAL ASSISTANTS (IVA)

Virtual assistants using conversational AI can simulate human conversations from answering questions from a knowledge base and is like a live person that is available 24/7/365 for students, teachers, etc.
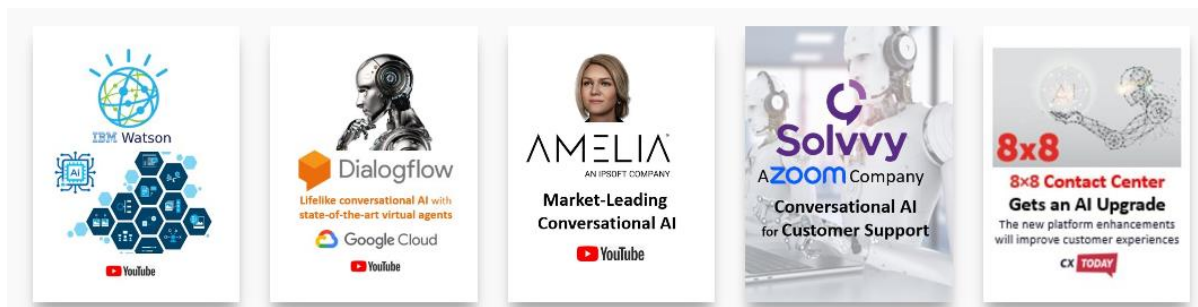

Bots interpret the user intent, process their requests, and give prompt relevant answers.

MULTIPLE OPTIONS FOR CONVERSATIONAL AI

ADDITIONAL EQUIPMENT FOR SCHOOLS

So now that we know what to look for when shopping for VoIP equipment and conference room hardware for schools, let's take a closer look at some of the equipment itself. There's a wide range in equipment, price, makes, models, and buying options to consider before finalizing a purchase.

Brookside knows how to help get the right equipment and get it installed and working.

We want to make sure you have enough information on each piece of equipment to make the most informed decision possible. More specifically, we're going to look at mics, paging/intercom systems, conferencing equipment, and digital whiteboards.

Alyssa's Law is legislation to mandates that all public elementary and secondary school buildings be equipped with silent panic alarms that directly notify law enforcement. These **Emergency Response Applications** Must Include:

- Administrative Access to Critical Information

- **Silent Panic Alarm System**

- Real-Time Communication Between First Responders

- 2-Way Communication with Users

PAGING - The Best Defense Against Active Shooters and Other Emergencies

Schools and colleges can save lives by adopting proven strategies to improve the effectiveness of their campus public address systems. Brookside is very familiar with all the latest paging solution from **Valcom, Viking, and Bogen.**

VoIP Phone System Microphones for Schools

ClearOne Ceiling Mic Array

Ceiling Microphones would be extremely beneficial for schools for several reasons, the first being that they will be out of reach from students, making them less likely to break depending on what age the students are.

The second is that they can make the experience of interacting with digital whiteboards smoother.
This mic offers 360-degree voice coverage, and it also comes with three what **ClearOne** calls "unidirectional elements" to help reduce reverberations and background noise.

These mics are a little pricey at around $428.34 on Amazon.

VoIP Intercom Systems for Schools

Grandstream GDS3710 IP Video Door System

This system is no joke, which, yes, is a subtle way of saying it's on the expensive side: **$300 on sale on Amazon**.

School violence is becoming more common and security protocols are getting tighter. You want to be sure your schools are secure.

The **Grandstream** video door system can be used by security teams to ensure everyone entering/exiting the school is accounted for.

The system comes with a built-in RFID chip reader for keyless entry, SIP video streaming options, weatherproof and vandal-resistant metal casing, a built-in hemispheric camera of 180 degrees, microphone, and speaker.

Valcom VIP-172AL-Brass

This humble intercom system can also be found on **Amazon**.

It doesn't have the video features like the **Grandstream** intercom system above, but simplicity is nothing to shrug off.

If there's an active event, the police can take advantage of the intercom system by giving detailed instructions to students and instructors.

Features include SIP DoorPhone w/ Door/Gate Relay, Power over Ethernet (PoE) Compatible, Use with Cisco, Nortel, Avaya, and Most Modern IP Telephone systems, Call button calls any SIP address or any Valcom Gateway, Automatic Talkback VOX Operation (no Push To Talk button needed), Companion to IP CCTV Cameras, SIP or Multicast Communications, and LED Status Indicator.

DIGITAL WHITEBOARDS

High-tech whiteboards resemble the conventional dry-erase boards that students are already familiar with, but they are loaded with modern features to facilitate interactive, modern learning.

Today's state-of-the-art interactive digital whiteboards can use their whiteboard teaching aids in ways not previously possible.

State-of-the-art digital whiteboards interact with computer software programs, digital documents and photo files, all by touching the board's screen. The whiteboard's touchpad is connected to a computer, and the computer is connected to a projector.

The class instructor can alter information on the board, copy and move it to the next slide. He/she can write on it like on a traditional whiteboard, but the digital board turns the handwriting on the board into text, which can be immediately retrieved for reference during the class session.

Features and Benefits of Digital Whiteboards

Media Content — Digitized whiteboards are designed to open and interact with electronic files and software programs. They even support a variety of applications designed for use on a computer.

The whiteboard can be used to search the internet, help students make stronger oral presentations, play video games, and more.

- **Spotlight** — The whole image can be darkened to highlight only a specific area on the whiteboard by just dragging the spotlight to any desired place on the board. This allows the user to direct students' attention quickly.

- **Screen Content Interaction** — Classroom instructors and students can interact with information using a stylus pen, or finger to draw, highlight, activate hyperlinks, press on-screen buttons to execute commands in real-time.

- **Class Engagement** — Students can interact with content instead of just reading lecture notes. Participants can open applications from the whiteboard to create presentations, making them more interactive and easier to use for the student.

- **Reliable Compatibility and Quality** — Older versions of whiteboards were notorious for not interfacing as expected with other technologies needed for integrated presentations, and for not working at all with others. Today's upgraded digital whiteboards reduce the risk of finding yourself unable to connect with other equipment and devices, stuck teaching from your own memory or handwritten notes through key parts of your lecture, without the benefits of the full-scale use of your central teaching tool. Since most lessons are now built around whiteboards, teachers need the most reliable whiteboard technology.