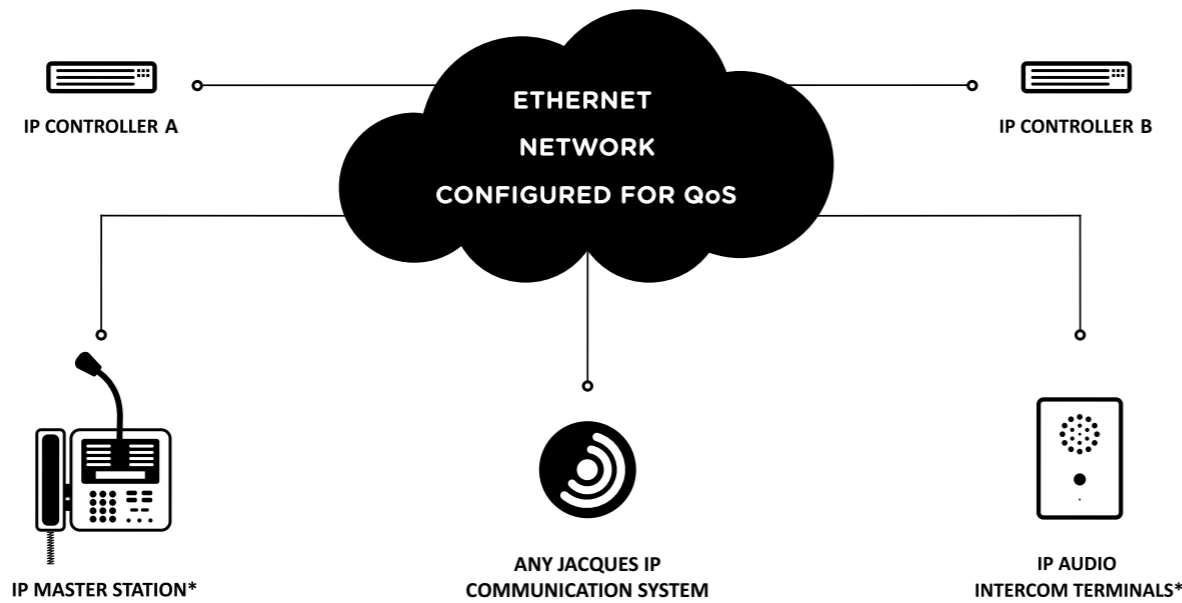


CONTROLLERS & SOFTWARE

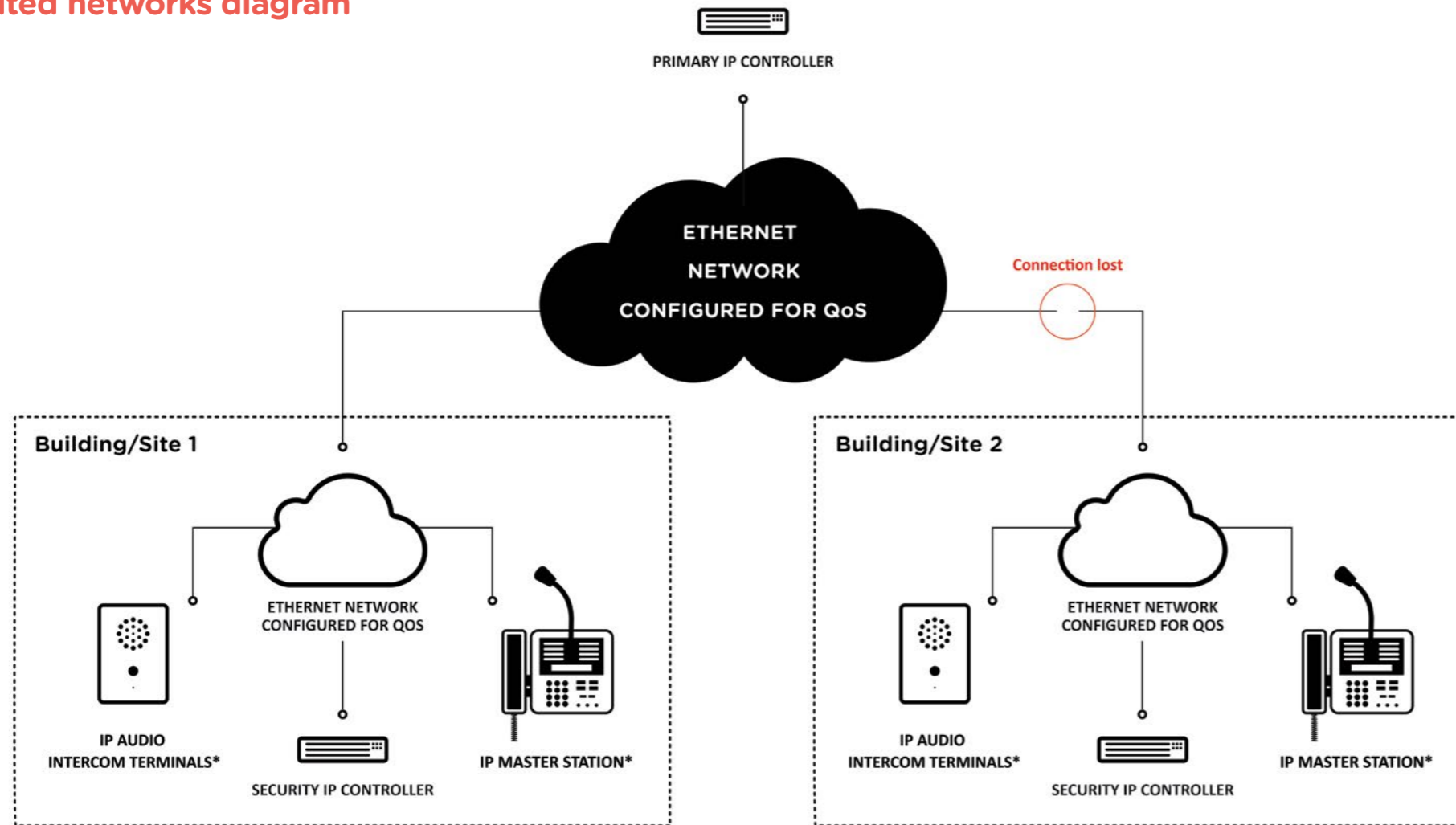
for Enhanced Control & Security



Redundant controllers diagram



Distributed networks diagram



SECURITY IP CONTROLLER

Under normal operation, all secondary controllers, master stations and intercom terminals communicate directly with the primary controller. During normal operation any master station or intercom terminal that attempts to connect to its secondary controller will be rejected.

CONNECTION LOST - DISRUPTED OPERATION

The Secondary IP Controller at building/site 2 detects a lost network connection to the Primary IP Controller
 The Secondary IP Controller at building/site 2 will now accept connections from master stations and intercom terminals within its network
 The master stations and intercom terminals at building/site 2 will detect the lost connection to the primary IP Controller and automatically connect to their Secondary IP Controller
 Building/site 1 continues to operate as normal with connection to the Primary IP Controller

Central to Jacques intercom system design is the controller. Controllers combined with software modules, manage all system functionality.

Empowering Communication Systems with Advanced Controllers & Software

At the heart of any Jacques IP communication solution is a system controller engineered for seamless control and efficient management. Our robust controller(s), complemented by a range of included and optional software provide the endless opportunities for our customers and their security communication requirements. Our in-house team designs and engineers all Jacques software modules, enabling us to deliver cutting-edge IP communication solutions that cater to unique market requirements.

Managing System Functionality

Jacques offers controllers in various capacities, tailored to accommodate a predetermined number of endpoints and key communication and reporting functionalities. Controllers, in conjunction with included software, serve as the backbone of the system, overseeing critical functions such as audio communication between endpoints, system & device reporting, and integration with leading third-party systems such as CCTV, access control & building management.

Virtual Controllers: Unleashing Flexibility

Our IP communication system software can be deployed in virtual environments, running on client-supplied hosts. Virtual controllers offer full system functionality, coupled with enhanced flexibility and usability. They seamlessly integrate into existing networks and infrastructure, making them a versatile solution for any setup.

Redundant Controllers: Ensuring Uninterrupted Communication

In mission-critical environments where uninterrupted communication is paramount, Jacques provides redundant controller solutions. Featuring (at least) a primary and secondary controller, in a redundant setup, this safeguards against system failures caused by hardware or software issues. In the event of a failure, the secondary controller automatically takes over, ensuring continuous system operation. Our rigorous testing procedures guarantee that the failover process occurs in less than a minute, minimising disruptions. Our redundancy solution significantly reduces the risk of system failure, making it ideal for environments such as corrections, defence establishments, and hospitals.

Distributed Networks: Seamless Integration Across Sites

The Jacques IP Communications System seamlessly supports distributed networks across multiple locations. With hot standby redundant controllers at the primary site and multiple transmission links for alternate routing, the system ensures continuous operation even in the event of link failures. Each remote site is equipped with a local controller, enabling independent operation if all transmission links fail. In cases where a master station fails or remains unanswered, calls can be routed to alternate sites on the wide area network (WAN). This distributed network capability is a valuable asset for organisations operating across multiple locations utilising multiple controllers.

INCLUDED SOFTWARE: MEETING DIVERSE REQUIREMENTS

OUR SOFTWARE MODULES ARE DESIGNED TO MEET MARKET-DRIVEN NEEDS AND SUIT A VARIETY OF APPLICATIONS AND SYSTEM REQUIREMENTS.

JCCP

The Jacques Call Control Protocol (JCCP) software serves as the central hub for the IP Communications System, facilitating control, audio, and video communication between intercom and public address devices.

JELinux

Our Linux-based operating system, JELinux, powers the Jacques IP Communications System, providing users with monitoring, viewing, filtering, and event recording capabilities.

Optional Software: Extending Functionality

To enhance the capabilities of our IP communication systems, Jacques offers a range of optional software modules.

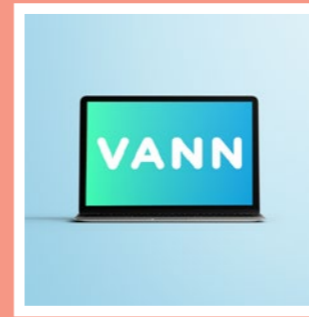




EVENT CONTROLLER

Simplifying integration with external systems, this software enables configurable event triggers, simultaneous event handling, and alarms. Event Controller is a powerful “if-this-then-that” logic allowing for the configuration of highly configurable rules to match system events and triggers to produce user-defined & site-specific outcomes.

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VOICE ANNUNCIATOR (VANN)

A digital message store used to manage pre-recorded audio files, for use across the system. Audio files can be broadcast throughout the system using rule-based permissions and system hierarchy.

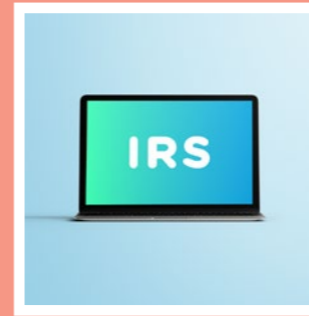
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DAR

DAR is a multi-functional software module responsible for handling recording, interfacing with third-party recording devices, streaming background music through intercom & public address endpoints, echo cancellation for full duplex communication, Visual Audio Monitoring (VAM) (in conjunction with J650UI application) and threshold alarm monitoring & display. Multiple instances of DAR can be utilised in a system to achieve the capacity and functionality requirements of this powerful module.

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REPORTING SOFTWARE (IRS)

IRS is a reporting software module that generates detailed reports on system operation, fault events, and call activity, aiding fault diagnosis, network management, and system maintenance. Detailed reporting of system operation and traffic aids in accurate and efficient fault diagnosis, preventative system maintenance, network management via traffic monitoring and automatic report generation, document creation and report distribution.

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HIGH AVAILABILITY PACKAGE (HAP)

Ensuring system redundancy, this package, in conjunction with multiple controllers, facilitates seamless failover safeguarding against the complete loss of one of the system controllers. Operating in an active/standby configuration, the primary system controller hosts all services while the backup server remains idle under normal conditions. If the primary system controller fails, the High Availability software package ensures the backup system controller takes over all services. The backup system controller remains active until a switchover or failover occurs. This allows the primary controller to be inspected and any faults diagnosed with minimum disruption to services. Additionally, the software module ensures the primary and backup controllers monitor each other’s state.

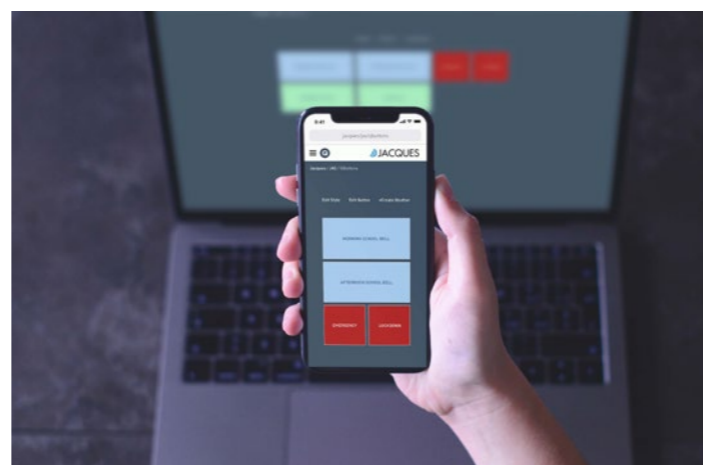
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ANNOUNCEMENT SCHEDULER (JAS)

Advanced audio scheduling interface for public address. JAS allows users to easily upload audio files such as tones, bells, chimes, songs, and pre-recorded audio to create detailed announcements for seamless broadcast throughout the Jacques IP Communications System. The scheduling functionality of JAS allows users to create timetables for broadcasting audio files at specific times across all zones or selected zones. Schedules can be assigned to daily, weekly, or monthly intervals based on the audio broadcast requirements of the site. Managing the system on a daily basis is made convenient through the calendar interface, where users can easily assign, view, and remove schedules for a particular day or date range. Qbuttons (Quick Buttons) allows for the fast broadcast of a predefined audio announcement (eg. Lockdown tone) across a PA system at the touch of a button.

[LEARN MORE](#)



The logo for PACOM, featuring the word "PACOM" in a bold, black, sans-serif font. The letter "O" is stylized with a blue circular graphic element.The logo for inner range, featuring the word "inner range" in a white, lowercase, sans-serif font on a black rounded rectangular background. Above "inner" is a red "i" and "r" icon. Below "range" is the website "www.innerrange.com" and the tagline "Intelligent Security Solutions" in a smaller white font.The logo for GALLAGHER, featuring a stylized orange sunburst icon to the left of the word "GALLAGHER" in a bold, orange, sans-serif font.The logo for LENEL, featuring a blue square icon with a white padlock symbol to the left of the word "LENEL" in a bold, blue, sans-serif font. Below "LENEL" is the tagline "A UTC Fire & Security Company" in a smaller black font.The logo for Honeywell, featuring the word "Honeywell" in a bold, red, sans-serif font.The logo for SAAB TECHNOLOGIES, featuring a circular blue and red emblem with a crown and a griffin head, with "SAAB" above and "TECHNOLOGIES" below. To the right of the emblem is the word "SAAB" in a bold, blue, sans-serif font.The logo for Luxriot, featuring a green vertical bar to the left of the word "Luxriot" in a bold, black, sans-serif font.The logo for Genetec, featuring the word "Genetec" in a bold, blue, sans-serif font.The logo for BOSCH, featuring a circular silver icon with a stylized "H" and "B" to the left of the word "BOSCH" in a bold, red, sans-serif font.

HIGH LEVEL INTERFACE (HLI)

Jacques offers many High Level Interfaces (HLI's) to industry leading, third-party systems, enabling the functions of our system to integrate with many building and security management, telephony, CCTV and access control systems. Our HLI development kit permits third-parties to enhance their own products/software to interact, control and respond to events within the Jacques system without having to implement network communications or low-level protocol message handling.

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HLI PARTNER MATRIX - BMS



	Honeywell	SAAB	GALLAGHER	inner range	Genetec	BOSCH	PACOM	LENEL	VVS	vidsys	CNL	C-CURE 1000
MULTISITE												
Multisite operation	•	•		•	•						•	
INTERCOM FUNCTIONS												
Make intercom calls	•	•	•	•	•	•	•	•	•	•	•	•
Receive intercom calls	•	•	•	•	•	•	•	•	•	•	•	•
Terminate intercom calls	•	•	•	•	•	•	•	•	•	•	•	•
Forward intercom calls			•	•	•	•	•	•			•	•
Place intercom calls on hold			•	•	•	•	•				•	•
Pending intercom call notification (call queue)	•	•	•	•	•	•	•	•			•	
Adjust intercom call volume	•	•		•	•						•	
Control music streaming function of intercoms	•	•		•			•				•	
Covertly monitor intercoms	•	•		•							•	
Remote or isolate intercoms	•	•	•	•	•		•	•			•	•
View CCTV footage from Jacques video intercom device		•		•	•						•	
PA FUNCTIONS												
Select PA zones for broadcast	•	•		•							•	
Make/terminate PA calls	•	•		•				•			•	
Group PA zone calling	•	•		•				•			•	
Soft button intercom Push-to-Talk	•	•		•							•	
Soft button PA system Push-to-Talk	•	•		•							•	
RELAYS & EVENTS												
Trigger alarm - intercom event	•	•		•	•		•	•			•	•
Trigger alarm - activate CCTV	•	•		•	•		•	•			•	
Activate door/gate relay	•	•	•	•	•		•		•	•	•	•
DIAGNOSTICS AND REPORTING												
System controller connection status	•	•		•	•	•	•	•	•	•	•	•
Monitor endpoint status changes (online/offline/alarm)	•	•	•	•	•	•	•	•	•	•	•	•
Site specific information distribution	•		•		•						•	•
Alerts & alarms interface	•	•		•	•		•	•		•	•	•
Event logging interface	•	•		•	•		•			•	•	•
GRAPHICAL MAPS												
Display Jacques intercom on graphical maps	•	•	•	•	•		•	•		•	•	•
Dynamically change the display of Jacques intercoms based on their current status	•	•	•	•	•		•	•			•	•
Control Jacques intercoms from graphical maps	•	•	•	•	•		•	•		•	•	•
Automatically zoom in on intercoms based on alarm trigger events	•	•	•	•	•		•	•			•	•
ALARM MANAGEMENT												
Automatically control intercoms based on alarms received from 3rd party systems	•	•	•	•	•		•				•	•
Automatically control objects (doors, areas, relays etc) based on events from Jacques	•	•	•	•	•		•	•		•	•	•
Automatically control compatible 3rd party systems (e.g. CCTV) based on events from Jacques	•	•	•	•	•		•	•			•	•
RECORDING												
Records 3rd party CCTV in conjunction with intercom audio					•						•	

HLI PARTNER MATRIX - CCTV



MULTISITE

Multisite operation

INTERCOM FUNCTIONS

- Make intercom calls
- Receive intercom calls
- Terminate intercom calls
- Forward intercom calls
- Place intercom calls on hold
- Pending intercom call notification (call queue)
- Adjust intercom call volume
- Control music streaming function of intercoms
- Covertly monitor intercoms
- Remote or isolate intercoms
- View CCTV footage from Jacques video intercom device

PA FUNCTIONS

- Select PA zones for broadcast
- Make/terminate PA calls
- Group PA zone calling
- Soft button intercom Push-to-Talk
- Soft button PA system Push-to-Talk

RELAYS & EVENTS

Trigger alarm - intercom event	•	•	•	•
Trigger alarm - activate CCTV	•	•	•	•
Activate door/gate relay				

DIAGNOSTICS AND REPORTING

System controller connection status				•
Monitor endpoint status changes (online/offline/alarm)				•
Site specific information distribution				
Alerts & alarms interface	•		•	•
Event logging interface	•			•

GRAPHICAL MAPS

Display Jacques intercom on graphical maps				•
Dynamically change the display of Jacques intercoms based on their current status				
Control Jacques intercoms from graphical maps				
Automatically zoom in on intercoms based on alarm trigger events				

ALARM MANAGEMENT

Automatically control intercoms based on alarms received from 3rd party systems				
Automatically control objects (doors, areas, relays etc) based on events from Jacques	•			•
Automatically control compatible 3rd party systems (e.g. CCTV) based on events from Jacques	•			•

RECORDING

Records 3rd party CCTV in conjunction with intercom audio	•		•	•
---	---	--	---	---



MASS NOTIFICATION (MNS)

Jacques Mass Notification System (MNS) facilitates text notifications to contacts based on events or triggers within the Jacques system. Utilised with Event Controller, MNS can send text messages (SMS) to contacts to provide information or respond to events. MNS can alert recipients about system events such as an equipment failure or an emergency alert or threat on site.

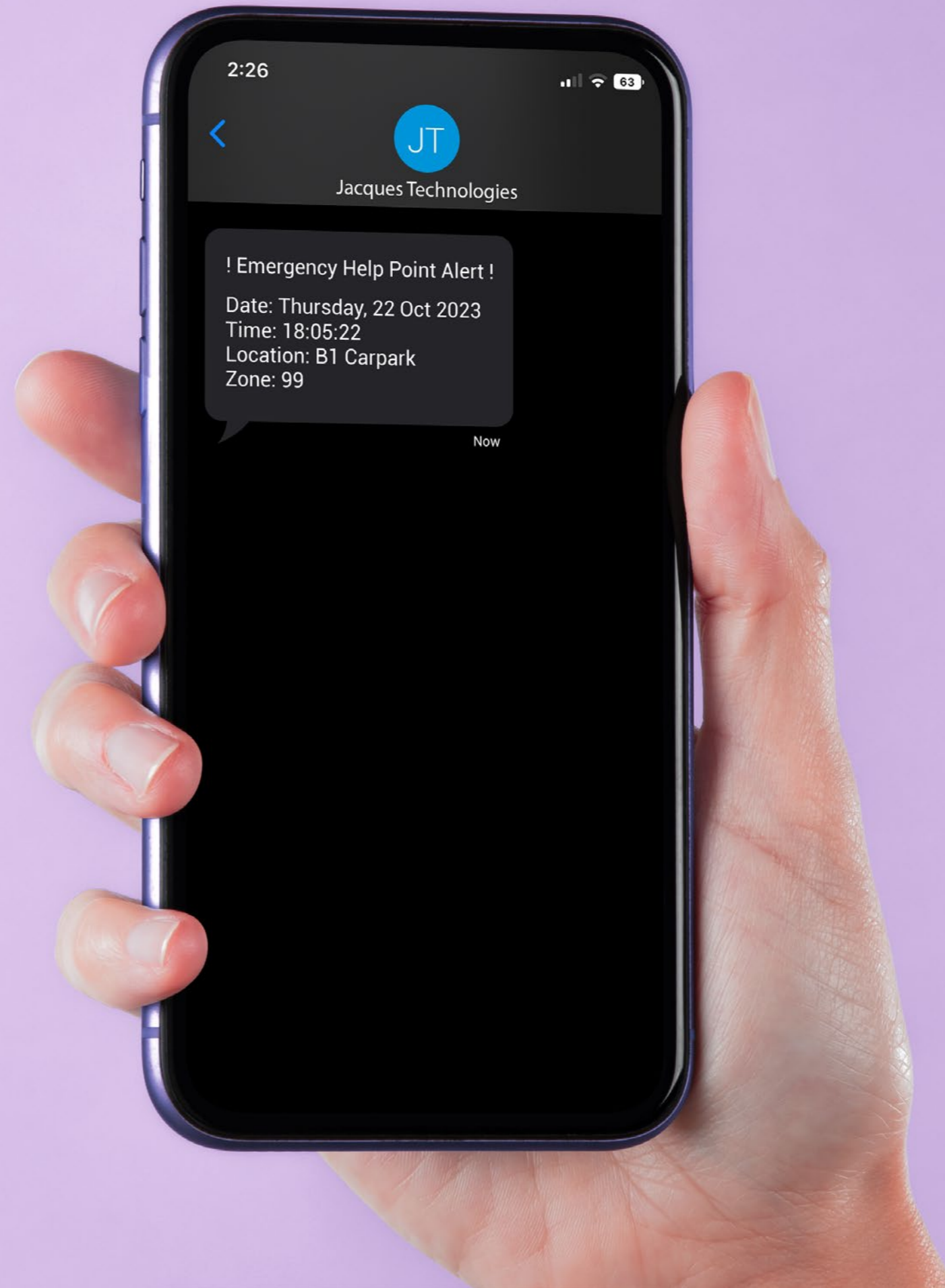
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SIP

Jacques SIP Proxy Software module allows Jacques devices to connect to SIP telephony systems. The interface implements RFC 3261 – Core Session Initiation Protocol to transfer, convert and filter the communication (e.g. calls, streaming media) from the Jacques communication system devices and make it available to third party SIP systems and devices.

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LOCKDOWN

Emergency lockdown

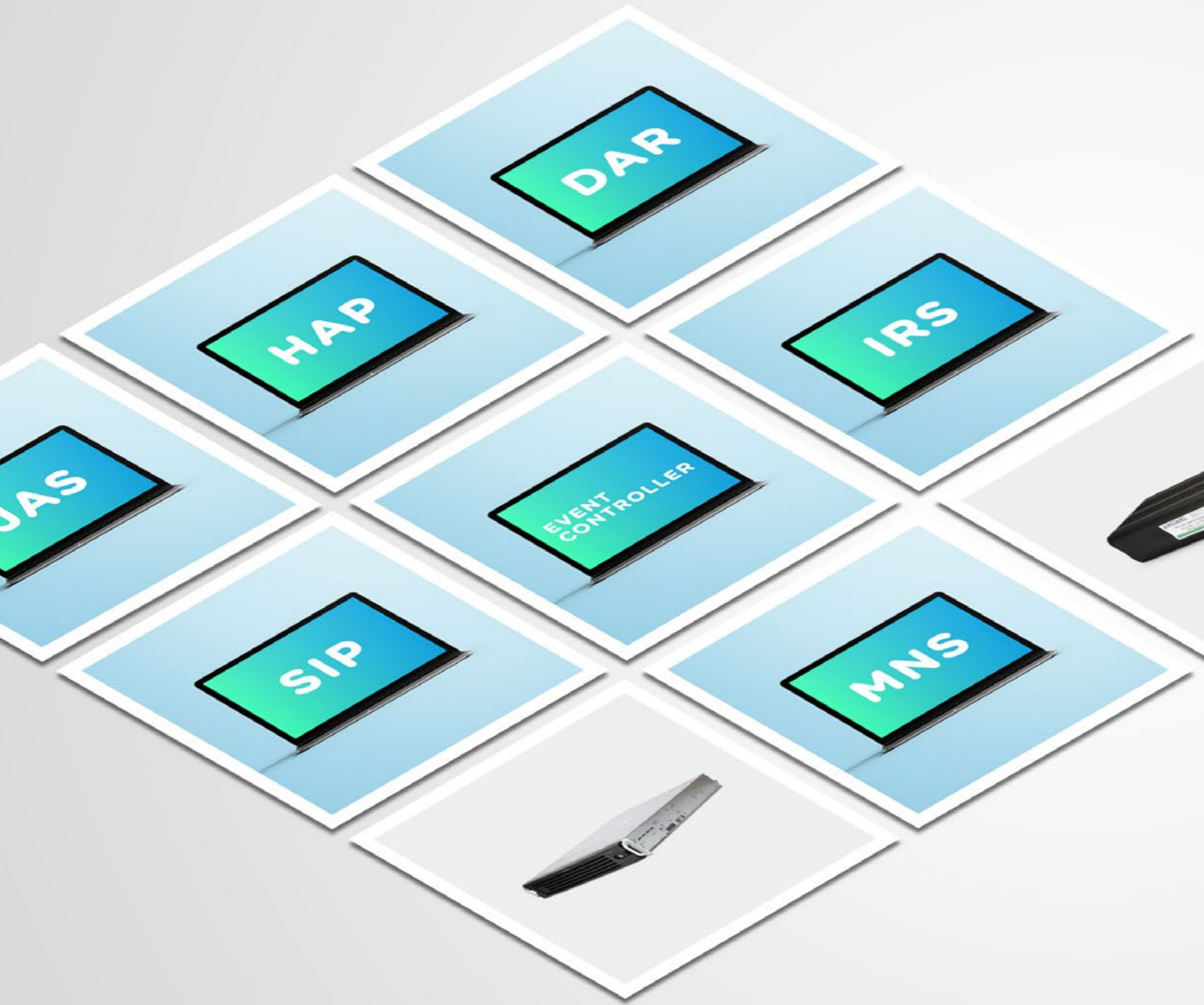


VIVI INTEGRATION

The Jacques - Vivivi integration allows for event triggers in the Jacques system, such as emergency push button panel button press or J650UI Emergency Message button activation, to display Vivivi configured images on screens based on screen locations. Vivivi offers wireless screen mirroring and digital signage devices designed for the education market. The integration allows a Jacques system trigger (such as a lockdown) to display Vivivi graphics (lockdown screens) and the alarm is heard across the public address system.

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CONTROLLER COMPARISON GUIDE

	TCH-2MXH	JSC-5L	JSC-VM
ENDPOINT LIMITATION	< 80	2000*	2000*
INCLUDED SOFTWARE			
Jelinux	✓	✓	✓
JCCPs	✓	✓	✓
DAR	-	-	-
OPTIONAL SOFTWARE			
DAR AEC	✓	✓	✓
DAR RECORDING	✓*	✓*	✓*
DAR BGM	✓	✓	-
DAR ATM	-	✓	✓
DAR SIP VPN	-	-	✓
DAR CCTV	-	✓	✓
INTERCOM REPORT SERVER	✓	✓	✓
HIGH LEVEL INTERFACE	✓	✓	✓
EVENT CONTROLLER	✓	✓	✓
HA PACKAGE	✓	✓	✓
SIPPROXY	✓*	✓*	✓*
JAS	✓	✓	✓
VIVI	✓	✓	✓
MNS	✓	✓	✓
OPTIONAL HARDWARE			
NO. OF SOUND CARDS (BGM)	-	2	-
RAID UPGRADE KIT	-	✓	-
REDUNDANT PSU UPGRADE KIT	-	✓	-
FEATURES			
NO. OF FULL DUPLEX CHANNELS (MASTER TO ENDPOINTS)	10*	90*	120*
NON-CONTACT VISITS	-	✓	✓
CELL TO CELL COMMUNICATION	-	✓	✓
NO. OF AUDIO THRESHOLD MONITORING DEVICES	-	250*	250*
NO. OF RECORD OUTPUT STREAMS	10*	90*	120*
NO. OF BGM STREAMING CHANNELS	1	Dependent on no. of sound cards	-
NO. OF 3RD PARTY CCTV CAMERAS	-	Dependent on resources availability	Dependent on resources availability

* Dependent on server configuration, resources
 *Additional server required for system needing audio recording and integration to SIP phones

REQUEST A DEMO

Contact us or your local distributor for a product demonstration today. We can provide virtual demonstrations tailored to your project or target market verticals.

RELATED DOCUMENTATION

[JSD-0016 \(HLI BROCHURE\)](#)

[JSD-0219 \(DAR SOFTWARE SPEC\)](#)

[JSD-0220 \(EVENT CONTROLLER SOFTWARE SPEC\)](#)

[JSD-0221 \(HAP SOFTWARE SPEC\)](#)

[JSD-0222 \(IRS SOFTWARE SPEC\)](#)

[JSD-0223 \(JAS SOFTWARE SPEC\)](#)

[JSD-0252 \(SIP SOFTWARE SPEC\)](#)

[JSD-0253 \(VANN SOFTWARE SPEC\)](#)

[JSD-0262 \(VIVI INTEGRATION SPEC\)](#)

[JSD-0265 \(MNS APPLICATION SPEC\)](#)

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