JACQUES
Future Proof Communications

HLI

Jacques Technologies Pty Ltd

High Level Interface

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HIGH LEVEL INTERFACE (HLI)

Jacques boasts a number of High Level Interfaces (HLI's) to industry leading, third party systems, enabling the functions of our system to integrate with numerous building and security management, telephony, CCTV and access control systems.

The Jacques High Level Interface Software permits third parties to enhance their own programs to interact, control and respond to the Jacques IP Communications System. Provided to third party developers as a windows 32-bit or 64-bit Dynamic Link Library, Jacques can make events available from our system to a client's application through event handlers. This allows third-party system designers to communicate with the Jacques IP Communication System without having to implement network communications or low-level protocol message handling.

FEATURES

System Controller Connection Status - The HLI will be polled regularly by the system controller and will enter a failure mode when the poll from the controller is not received for an interval of time.

Call Queue Display - All calls in the intercom system are queued in priority order by the controller and the following call queue information can be passed through the HLI:

- Total number of calls in the queue
- Details of each incoming call: call-id, queue position, priority and the id, tag, name, location of the originating intercom station
- Additional site specific information as required, for example associated CCTV camera number or additional location information

Call Notification Display - The HLI can receive call information for all calls in the intercom system, including those that may not directly involve the HLI as an intercom master station. The information passed is the same as the call queue display.

Call Originate - The HLI can originate calls as an intercom master station using the tag assigned to each intercom station to initiate the call

Call Answer - The HLI can answer a specific call in the queue of calls by specifying the call-id or tag of the originator

Call Answer Next Call - The HLI can answer the next queued call according to the priorities assigned to each call by the intercom system

Call Originate, Master Call - The HLI can originate a call to the next available master station above it in the zone hierarchy

Call Originate, Monitor - The HLI can originate a call to monitor an intercom terminal to receive audio from the endpoint without any indication at the intercom that the audio path is open.

Call Originate, Group Call - The HLI can originate a group call to a group of intercom terminals simultaneously for a public address call. Any combination of pre-defined intercom groups can be selected for a group call.

INTEGRATION PARTNERS

Integration currently in development with Milestone and others.

Call Originate, Public address - The HLI can originate a call to the PA controller/ amplifier system. Any combination of pre-defined PA zones may be selected for a public address call.

Call End - The HLI can terminate any call that it is connected to, regardless of the call type (master call, monitor, group call, PA)

Call Hold - The HLI can place a connected call on hold, returning it to the call queue so that it can perform other call functions. The held call can be reconnected by one of the call answer functions.

Call Forward - The HLI can forward a connected call, or any call in its call queue to any other master station.

Remote Intercom Master Station - The HLI can set its state to "remote". When remoted, all calls queued for it will be diverted to the next available master station in multi-level zone hierarchy.

General Purpose Input/Output (GPIO) Control - The HLI can control the general purpose inputs/outputs/relay outputs on intercom terminals or dedicated relay module devices.

Alerts and Alarms Interface - The HLI can receive alerts and alarms from the system for logging or the attention of operators, including:

- Device offline or self-test faults
- Tamper alarms
- Isolate timeouts warning

Event Logging Interface - The HLI can receive event logging information from the system, including:

- Event log records
- Intercom call activity logging (call time and date of the call, call ring time, call duration)

View/Edit Site State - The HLI can view or change the intercom system site state, including:

- List of all intercom devices in the system
- Endpoint ID
- Name
- State (online/offline/isolate/remote)
- Assigned call priority
- Tag
- Isolated state of any intercom station. Setting an intercom device to the isolate state prevents it from making calls in the system. This can be used to prevent nuisance calls
- Remote state of any intercom master stations
- Settings for auxiliary audio channels (background music) for output at intercom terminals
- The date and time of the system controller clock

Site Specific Information Distribution - The HLI can receive site specific information from the controller, such as GPS information, temperature or other system statuses.

HLI PARTNER MATRIX

	integriti	GALLAGHER	Honeywell	BOSCH	SAAB	PACOM	avigilon	LENEL	Genetec	VVS	vidsys
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	✓	✓	✓		✓	✓	✓	✓	✓		
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	✓		✓		✓	✓	✓	✓	✓		
View CCTV footage from Jacques Video Intercom device	✓	✓			✓		✓		✓		
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 Intercoms 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							✓		✓		

THIRD PARTY INTEGRATION

Critical to the ongoing national and international success of Jacques is the ability of our IP Communication Systems to integrate with a large number of third party systems, ultimately providing end users a highly flexible and cohesive solution to meet their needs. Our team of talented software engineers, together with the support of a number of highly recognised partners, have developed a wide range of high level interfaces (HLI). These third party, HLIs ensure Jacques systems seamlessly integrate with building and security management, telephony, CCTV and access control systems ensuring endless market application options and solutions.

HONEYWELL

Jacques and Honeywell have a long-term, ongoing integration which offers the majority of Jacques system functionality within Honeywell's EBI system. Honeywell's Enterprise Buildings Integrator (EBI) integrates diverse facility and business systems onto a single, security-enhanced platform for strategic control and optimised performance across a vast array of industries. The Honeywell/Jacques integration allows staff operating the Honeywell EBI system to manage Jacques intercom call functions, public address functions, trigger relays and events, access diagnostics and reporting, and control the alarm management all from the one management system.

SAAB

SAAB's High Level Interface (HLI) with the Jacques IP Integrated Communication System is operational at multiple sites and enables operators of the SAAB OneView Security Management system (SMS) to perform numerous communication tasks. Through use of the SMS graphical user interface, operators are able to make intercom calls, terminate intercom calls, monitor intercoms, adjust intercom call volume, select PA zones for activation, make/terminate PA calls, monitor intercom alarms and statuses, soft button intercom Push-To-Talk and soft button PA System Push-To-Talk. The integration of the OneView SMS provides for integrated pop-up controls that enable associated items to be controlled from one pop up menu, including intercoms, doors, lights cameras etc.

GALLAGHER

Gallagher has an existing HLI with Jacques TCP/IP Communications System. The High Level Interface has provided integration of intercom systems, the functionality, related alarms and events all supported through Gallagher Command Centre graphical user interface. The HLI also allows for live viewing of video footage from a Jacques Video Intercom device, forwarding calls to other intercom units, placing calls on hold, ending calls and initiating calls.

AVIGILON

The Avigilon™ Control Center software integration with the Jacques™ IP Audio Intercom System allows alarms in the Avigilon Control Center to be triggered whenever an intercom event is activated in the Jacques System, and to record audio communication from the Jacques™ system with video from a camera connected to the Avigilon system.

The Jacques system uses tags to communicate events between intercom units. Tags are a series of numbers that users dial to call other intercom units and initiate specific actions. The integration enables tags to be linked to specific Avigilon alarm actions and be recorded with the associated video. A possible use case for the integration is for users to view video from a camera pointed at an intercom station. When a tag dials another Jacques intercom station, the corresponding alarm is triggered in the Avigilon Control Center Client and the alarm video is displayed. The audio from the intercom station is recorded with the alarm video.

INNER RANGE

The Inner Range Integriti platform is an integrated intruder detection, access control, building automation and security management solution. The Integriti/Jacques high-level interface is IP-based and bi-directional. Events/alarms from the Jacques system may trigger actions within the Integriti platform – such as unlocking a door and putting a lift in free access for a period of time, just to name a couple. The Integriti system can monitor and control system actions within Jacques, including, create, answer, end, forward and hold calls. It also identifies call held in a call queue waiting to be answered. Jacques intercom endpoints may be graphically represented within Integriti's dynamic schematic maps (along with Integriti's intruder and access points). Push to talk functionality is provided for intercom and PA announcements allowing for half duplex communication as required. The end result is a seamless integrated solution empowering security personnel in their daily security managerial tasks.

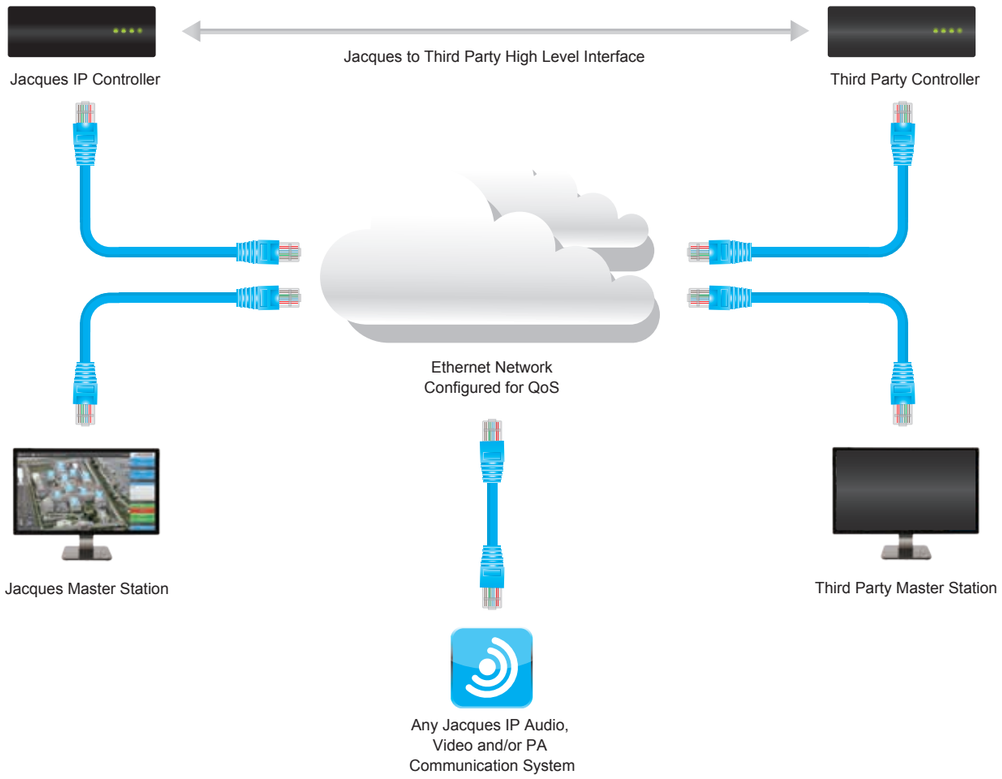
PACOM

Pacom's Access Control application (GMS) has been integrated with Jacques IP Communication System which has resulted in convenience in responding to calls, performing actions and monitoring the status of the entire intercom system. The HLI provides notification of pending intercom call requests, intercom manager displays, live streaming video display and intercom activity reports. It is also ensures that a single GMS Intercom module can be used for all security applications.

OUR GLOBAL NETWORK

Our HLI partners come from every corner of the globe and are leaders in the security and communications industry. From Gallagher in New Zealand, to Honeywell in the US to Saab in Sweden our integration partner network is made up of world-renowned system integrators that have worked across several market streams on every continent. Jacques are proud to partner with these companies that can offer our solutions to global markets.

HLI DIAGRAM



GENETEC

The Jacques to Genetec High Level Interface (HLI) allows the Jacques Integrated Communication System (650 series) to send call notification alarms to the Genetec Security Center 5.3 for switching of the intercom-associated-camera on to the Security Desk.

CISCO

SIP Interface is a signalling protocol, widely used for controlling multimedia communication sessions such as voice and video calls over Internet Protocol (IP) via LAN, WLAN, WAN and other different networks. Jacques SIP Proxy Gateway was developed by using RFC 3261/2833 to allow other SIP Devices (e.g. iPhone, Cisco IP Phones, Avaya, VaxTele, Express Talk, etc.) to communicate with Jacques Intercoms using G.711 U-Law/A-Law Audio Codecs which are widely used throughout the world.

GENERAL ELECTRIC

GE Forcefield has an existing integration with Jacques' 550 Series Analogue Intercom System. This integration provides the ability to control doors, alarms, user access, cameras and digital recorders from a map display screen. Benefits include advanced alarm monitoring and reporting features.

VVS

The Jacques to VVS High Level Interface (HLI) allows the Jacques Integrated Communication System (650 series) to integrate into the VVS system. Intercom calls at a gate point trigger the VVS verification screen at the security desk for communication between the guard and vistors. From the VVS console guards can activate intercom calls to end points whilst viewing the endpoint user.

VIDSYS

The Jacques to VidSys High Level Interface (HLI) allows the Jacques Integrated Communication System (650 series) to integrate into the VidSys system. The VidSys integration provides information about the events happening in the system and executes supported commands/requests from third party applications. In order to integrate the functionality provided by this system with the VidShield PSIM platform, the Jacques Intercom Proxy was developed. This proxy serves as a link between VidShield and the Jacques 650 series VoIP Communication System and the devices connected to it, as well as receiving events and alarms from Jacques 650 system on RiskShield.

ADDITIONAL RESOURCES

The following forms are required when developing & registering HLIs:

JEF-0011 (SDK Request Form)
JEF-0015 (High Level Interface Product Registration Form)

The following forms require submission to achieve product customisations or development :

JEF-0013 (Product Customisation Form – Hardware)
JEF-0014 (New Product Development Form – Hardware & Software)
JEF-0016 (New Feature Request Form – Hardware & Software)

The following forms are required for GUI customisation:

JEF-0017 (PC Master Station J650UI Customisation Form)
JEF-0018 (PC Master Station J650UI Feature Request Form)

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p | +61 7 3846 8400
e | sales@jacques.com.au
www | jacques.com.au