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UNICOM
GATEWAY

DATA SHEET

UNIFIED **COMMUNICATIONS**
Converged voice, video and data flow control and processing.

2020

Media **Signaling**

Unified Communications platform based on the implementation of open, industry standard Session Initiation Protocol (SIP) and real-time integration with enterprise applications. Available as a cloud service or corporate data centre deployment.
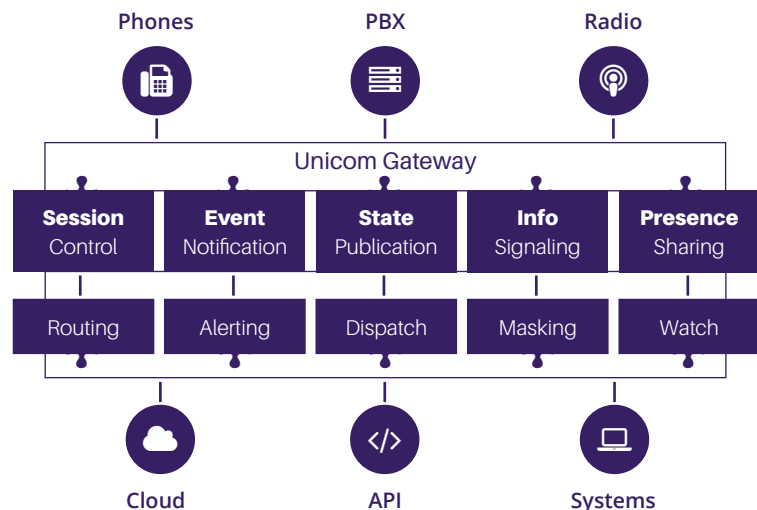
SIP User Agent Server

Unicom Gateway includes carrier-grade implementation of the User Agent Server (UAS) fully compliant with SIP 2.0 specification. Concurrent User Agent Clients (UAC), such as SIP phones, video-conferencing stations, two-way radio devices, PBX or branch-office routers, can connect to the *Unicom Gateway* and benefit from using the following services:

- *Session Control* — media session lifecycle management.
- *Event Notification* — asynchronous media event distribution.
- *State Publication* — presence and other event state advertising.
- *Information Signaling* — in-session control information exchange.
- *Third-party Call Control* — management of calls for other parties.
- *Presence Sharing* — presence state subscription and notification.

Call Management

User Agent (UA) requests are handled by the *Unicom Gateway*, modified according to media control logic, and forwarded to recipients as part of the session. Specific event state and general-purpose media control information is captured and delivered to the integrated IP applications.

Key Feature	Description
Call Routing	Forward calls on behalf of the requestor.
Real-time Alerting	Deliver events to subscribed media endpoints.
Event State Dispatch	Publish UA event state to a compositing entity.
Dial-tone Masking	Securely process and block DTMF dial-tones.
Presence Watch	Share presence state with interested parties.

KEY **BENEFITS**

- Handles SIP signaling actions.
- Uses open standards to control calls and multimedia distribution.
- Allows asynchronous event delivery to subscribed media parties.
- Enables call processing transparent to SIP proxies and endpoints.
- Extends media control channel to IP systems and cloud services.

Media
Control

Phones	PBX	Radio		
Unicom Gateway				
Session Control	Event Notification	State Publication	Info Signaling	Presence Sharing
Routing	Alerting	Dispatch	Masking	Watch
Cloud	API	Systems		

HTTP Message Broker

Unicom Gateway includes carrier-grade implementation of asynchronous message broker compliant with JMS 2.0 and HTTP/2 standards. Messaging clients can use REST interface to publish and subscribe for SIP messages, and benefit from utilizing the following broker facilities:

- *Standard Wire Protocols* — AMQP 1.0, MQTT 3.1 and STOMP 1.2.
- *High-performance Journal* — append-only file based persistence.
- *Consumer Prioritization* — message delivery based on client priority.
- *Consumer Flow Control* — message pre-fetching to consumer buffer.
- *Zero Message Loss* — client auto-failover across broker instances.
- *Web Console* — live monitoring of destinations and consumers.
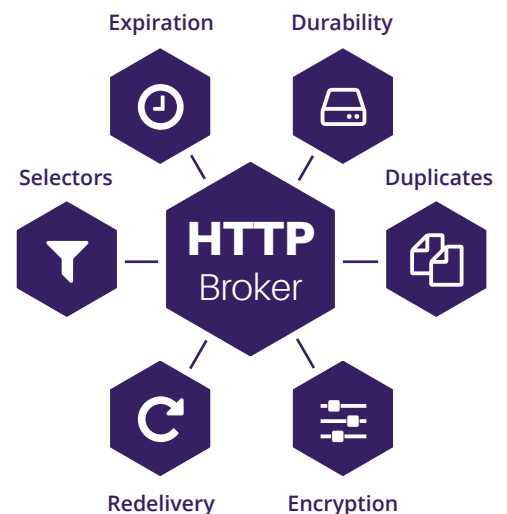
Converged Applications

Traditional IP applications can use *Unicom Gateway* to gain access to the voice channel, and receive media control messages in real time. Converged solutions may utilize an API Management platform for centralized access to the telecommunications core network, and *Identity Provider* facilities to secure integrated, distributed value-added services.

Unicom Gateway enables third-party applications with asynchronous HTTP interface to SIP messaging. Ideal for API Management platforms, core systems and cloud services.

Broker Feature	Description
Message Expiration	Expire messages based on time-to-live.
Message Durability	Persist messages to survive system restart.
Subscription Selectors	Define filters for message consumption.
Duplicate Detection	Ignore or discard messages sent twice.
Message Redelivery	Retry delivering messages to consumers.
In-transit Encryption	Transport-layer security for messaging.

Expiration   Durability

Selectors   **HTTP** Broker   Duplicates

Redelivery   Encryption

GATEWAY **FEATURES**

Converged SIP 2.0 and HTTP/2 messaging.
Asynchronous REST/XML data interface.
Real-time voice and data integration.
High Availability with clustering.

The complexity of low-level SIP session management and event distribution is hidden behind the implementation. Enterprise systems and cloud services can take advantage of convenient REST interface to subscribe for specific SIP messages delivered in push or pull mode.

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