EMPOWERING TELECOM INNOVATORS

Pika R2

Technical white paper on the new release of the call logging api

Jun, 2017

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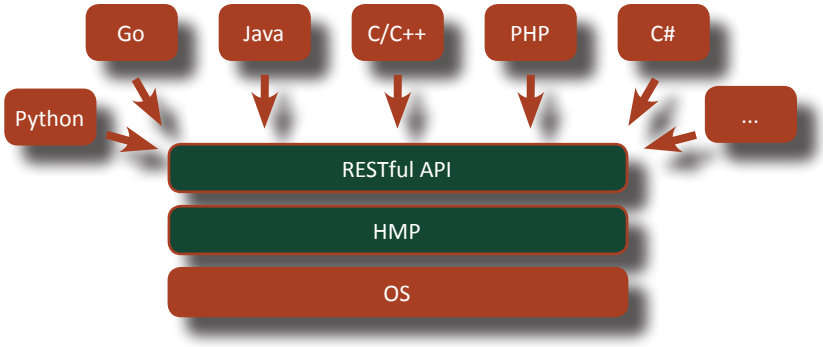
Pika R2 at a glance

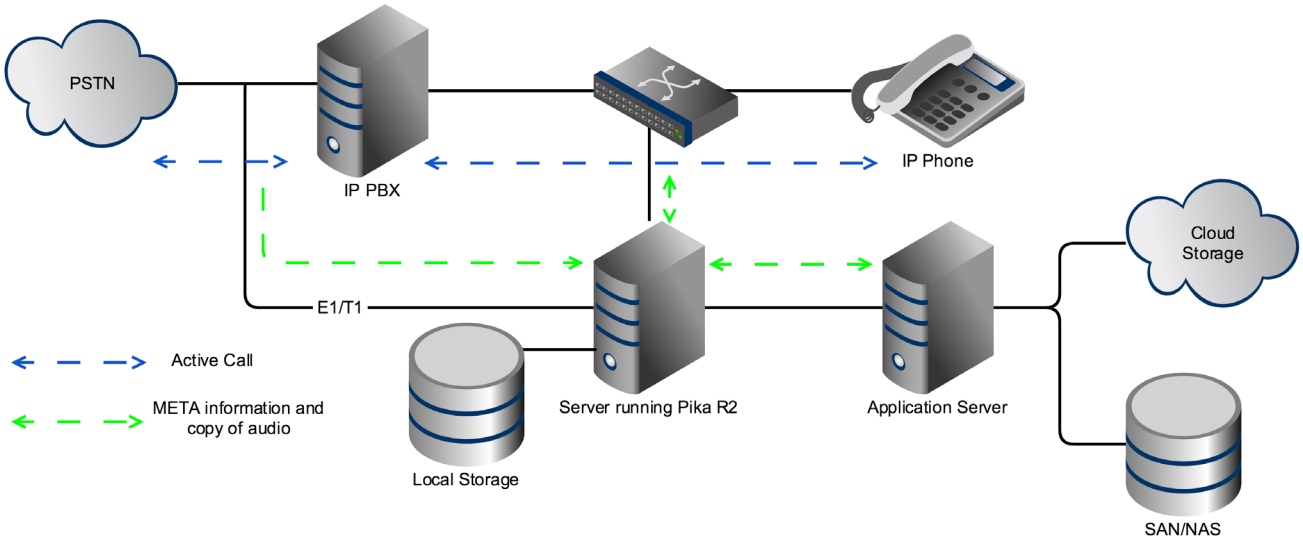
PIKA's R2 offers an extremely powerful, yet a very simple to use development SDK for voice logging with just 14 API calls to build your logging application. RESTful API enables developers to create custom logging solutions without writing even a single line of C code and no need for specific knowledge on Linux. What's more, you can choose any language that supports REST API according to your preference.

REST API is accessed over the network; thus the system running R2 can operate on a Linux platform, while the actual application utilizing that host can operate on Windows, Mac or anything else and can be placed at another geographical location. This model also enables you to easily build distributed applications.



Since R2 is based on the brand new Pika X2 (our 5th generation HMP), you could optionally extend the capabilities with full X2/HMP functionality and have access to full telephony API at REST and/or C/C++ level.

R2 supports all flavors of voice logging, including TDM with analog and digital interfaces and/or VoIP. All this in passive and/or active mode - thus all possible scenarios are covered. Pika SIPREC, the new architecture, call flow and metadata for recording can be sent directly to an offsite location or to the Cloud. Or, you can decide to store recording files along with the meta-data on local storage. Since Pika supports TDM, we can also record TDM calls to an SIPREC server. Thus you have complete flexibility of recording analog, digital and VoIP recordings on a single server.



List of Features

- SIPREC client
- SIPREC support for TDM calls
- Active and Passive logging
- VoIP, Analog and Digital call logging
- RTP, sRTP, SIP/TCP, SIP/UDP, SIP/TLS
- Early Media support
- Full Meta Data including Disconnection Cause
- Application control on per call basis
- Supported codecs: AMR-NB/WB, G.729, G.711, Opus
- Local storage file formats: GSM, uLaw, aLaw, Linear, Wave
- SIPREC call supported codecs: AMR-NB/WB, G.729, G.711, Opus
- C/C++ api
- RESTful api
- JWT token authentication (REST)
- Event callback
- Windows and Linux support
- Live monitoring (available with optional X2 SDK)
- VAD, AGC
- High Density
- Container distribution system

Technical details

Comprehensive set of API calls: There are 14 API calls within the SDK which provides easy access to call logging functions.

- PKPL_SYSTEM_Open
- PKPL_SYSTEM_GetCOn
- PKPL_SYSTEM_SetCon
- PKPL_SYSTEM_Start
- PKPL_SYSTEM_Stop
- PKPL_SYSTEM_Close
- PKPL_SYSTEM_SetEventUserData
- PKPL_SYSTEM_SetEventHandlers
- PKPL_CALL_Attach
- PKPL_CALL_Detach
- PKPL_CALL_MakeSipRecCall
- PKPL_CALL_DropSipRecCall
- PKPL_CALL_StartRecord
- PKPL_CALL_StopRecord

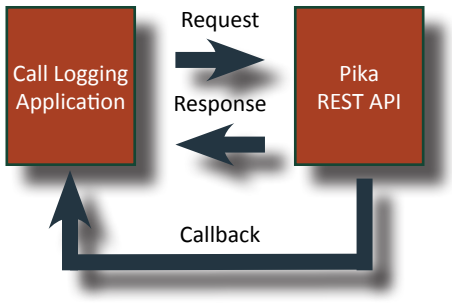
Simplified callbacks: The programming effort is further simplified as we provide callbacks to notify you about events. However, if you do not want to process callbacks, we can do it for you by starting to record automatically.

Privacy and security: We also provide sRTP and SIP/TLS functionality. Thus all calls can be transmitted over an encrypted connection to your SIPREC server.

Early Media Recording: In addition, we provide Early Media support for special needs such as recording of operator's prompts and such.

In-depth analysis: we include Disconnection Reason (if applicable) in the meta-data together with all other parameters of a call.

Per call control: your application can behave differently depending on your criteria, we allow to control all features on per call basis.



Supported codecs: To optimize storage, you can use various codecs such as for local disk storage; GSM (compression!), uLaw, aLaw, Linear and Wave (for local storage). As well as AMR-NB, AMR-WB, g.729, g.711 and Opus (for communication to SIPREC servers).

Supported formats: To accommodate various scenarios we can record AMR-NB, AMR-WB, g.729, g.711 an opus based calls

Simplified security: To protect your system, we provide token-based authentication based on JWT mechanism.

Advanced audio features: We include Pika proprietary Voice Activity Detection and Automatic Gain Control along with support for DTMF detection.

Boundless scalability: Since we utilize Pika's X2 HMP engine, we are offering a high-density platform.

Simplified installation process: We are offering container distribution system, thus all dependencies are maintained automatically and the install is seamless.

Live call monitoring: For special needs, we are providing an option for Live Monitoring of all current calls, however, you will need to have a full X2 license in order to use that feature.

Easy Upgrade and Update: You can create updates for your application without interfering the operation as Application and SDK are running on different systems.

About PIKA Technologies

Since 1987, PIKA Technologies has pioneered technology and products that enable global telephony, fax and communications solutions. PIKA's offerings include telephony appliances, board-level TDM products, mobile PBX, end-user applications and custom telecom development services. Known for exceptional voice quality, reliability and renowned customer service, PIKA enables developers, system integrators and businesses worldwide to take full advantage of advanced communication solutions. This includes products that support innovation in legacy and emerging telephony models, as well as solutions that bridge the path from TDM to VoIP and services in the cloud.

Pika has customers in more than 35 countries and numerous product and technology awards to its name.