



## Transforming Customer Experience through Natural Language Processing

TxIVR is a scalable, standards-based advanced IVR Platform with capabilities like Speech recognition, Payment processing and Speech Analytics that enables Enterprises and Contact Centers to transform the customer experience to a new level.

TxIVR has evolved over the past fifteen years and has been deployed in complex multi-layer call flow processes be it for credit card processing, Self-care, Surveys, outbound telemarketing and reminder services. It is an integral part of TxContact, Interlink's Omni-Channel Contact Centre Platform.

TxIVR can work as a standalone system or can be seamlessly integrated with third party platforms like Avaya, Skype for Business, Asterisk, Cisco or any other IP switch based Contact center Platform.

### Features

#### DTMF AND SPEECH RECOGNITION MODES

Supports touch-tone detection and speech recognition in multiple languages.

#### CUSTOMIZABLE CALL FLOW

Any call flow ranging from simple to complex can be completely customized depending on the application requirements.

#### AUDIO AND TTS

Supports pre-recorded audio files and TTS(Text to Speech) in multiple languages.

#### CRM INTEGRATION

Supports integration with various CRM's such as Microsoft Dynamic CRM, Salesforce, Oracle, Sugar CRM, vTiger and Siebel.

#### VOICEXML

Supports VoiceXML 2.0 specification including audio playback and recording, voice recognition and touch-tone entry, speech synthesis, call transfers, and more.

#### CALL BLOCKING

Customize a list of numbers to be blocked to stop any bots or spam callers from using your IVR resources. Calls are dropped immediately if the number is in the blocked list.

#### REPORTING

Provides detailed summary of each call and allows generation of reports daily, weekly and export in various formats.

#### DATABASE INTEGRATION

Supports integration with Microsoft SQL server, MySQL, Oracle etc...

#### PAYMENT GATEWAY INTEGRATION

Supports secure Payment Gateway Integration. We are certified by CyberSource, PayPal, Authorize.Net, FirstData/Bank of America etc.

The integration can be used to process Credit Card and Debit card transactions while accepting online orders from customers..

#### INVESTMENT PROTECTION

Works with your existing analog lines or digital T1/E1 lines or SIP trunks. Our modular design makes it easy to add on capacity, while maintaining your existing infrastructure.



### Highlights

- Supports an in-built XML/VXML based scripting tool allowing customers and partners to make changes to IVR code
- Ready connectors for integration with advanced Speech recognition engines using Natural Language Processing
- Supports Text to Speech
- Ready connectors for leading CRMs like Sales force, Microsoft Dynamics, Sugar CRM, Sage and Oracle
- Multi switch support
- Speech Analytics

## CTI INTEGRATION

Supports complete CTI integration with various CRM's like Salesforce, Microsoft Dynamic CRM, vtiger and Siebel. This integration automatically brings up customer information stored in the CRM for agents when they answer the call.

## GUI EDITOR

Easy to use GUI editor with ability to create any complex IVR menus.

## SUPPORTED CODECS

- CELT (32 kHz and 48 kHz)
- G.722.1 (wideband)
- G.722.1C (wideband 32 kHz)
- G.722 (wideband)
- G.711
- G.726 (16k, 24k, 32k, 48k) AAL2 and RFC 3551
- G.723.1 (passthrough)
- CELT (32 kHz and 48 kHz)
- G.729A (Requires a license unless using passthrough)
- AMR (passthrough)
- iLBC
- Speex (narrow and wideband)
- LPC-10
- DVI4 (ADPCM) 8 kHz and 16 kHz
- SILK

## COMPLETE REDUNDANT/SCALABLE ARCHITECTURE

Provides a complete geographical redundant architecture and can be scaled to quickly meet demand. Optimal performance regardless of call volume is guaranteed.

## DNIS BASED CALL FLOW

Supports DNIS based call flows to be presented to the caller.

## SUPPORTS W3C STANDARDS

Supports W3C standards like SRGS, SSML and VoiceXML.

## FLEXIBLE PRICING OPTIONS

You can opt for a cloud hosted solution or have the IVR implemented at your premises, maintained by your own internal staff.

## CERTIFIED LYNC READY

Compatible with Microsoft Lync 2010, Lync 2013 and Skype for Business editions.

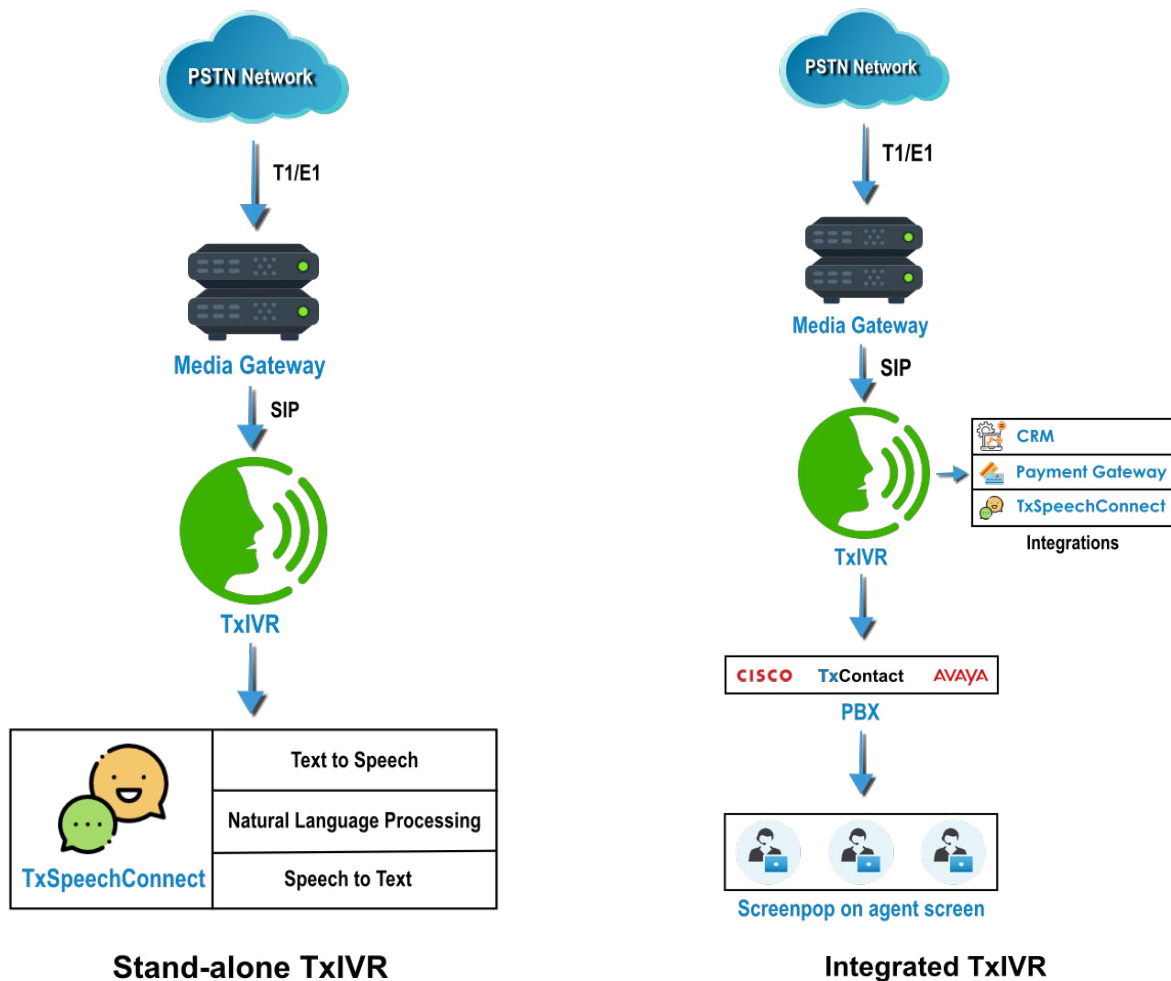
## CALL FLOW UPDATES

Any changes to existing call flows can be done without any downtime.

## HOSTED / CLOUD BASED SOLUTION

Offers hosted or cloud based solution depending on your business requirements.

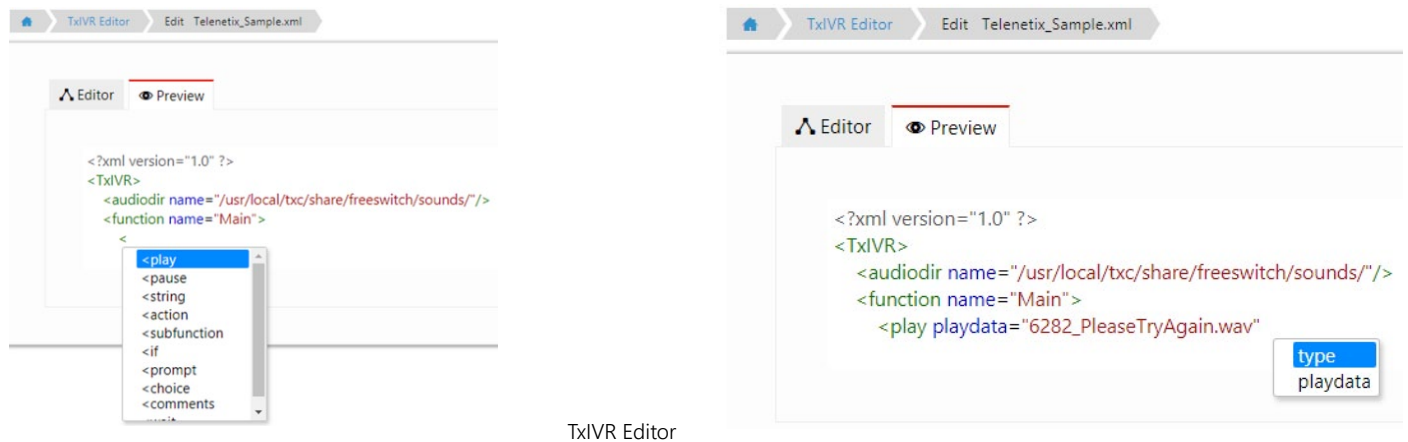
## Architecture



## TxIVR Editor

The XML editor includes IntelliSense features, which assists users to create customized call flows. Intellisense helps the users by suggesting.

- The XML elements/tags that can be used at a certain level in the document.
- The attributes of the XML element can have.
- The default values for the attributes when applicable.

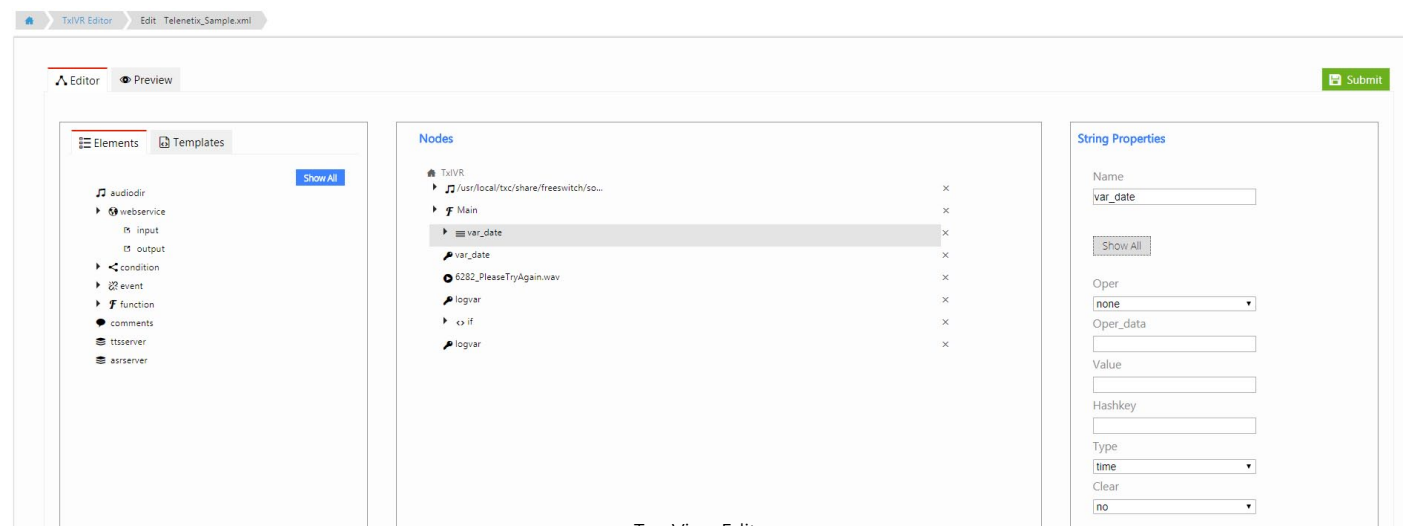


TxIVR Editor

## TreeView Editor

TreeView Editor displays XML files as tree views and allows basic operations - adding, editing and deleting text nodes and their attributes.

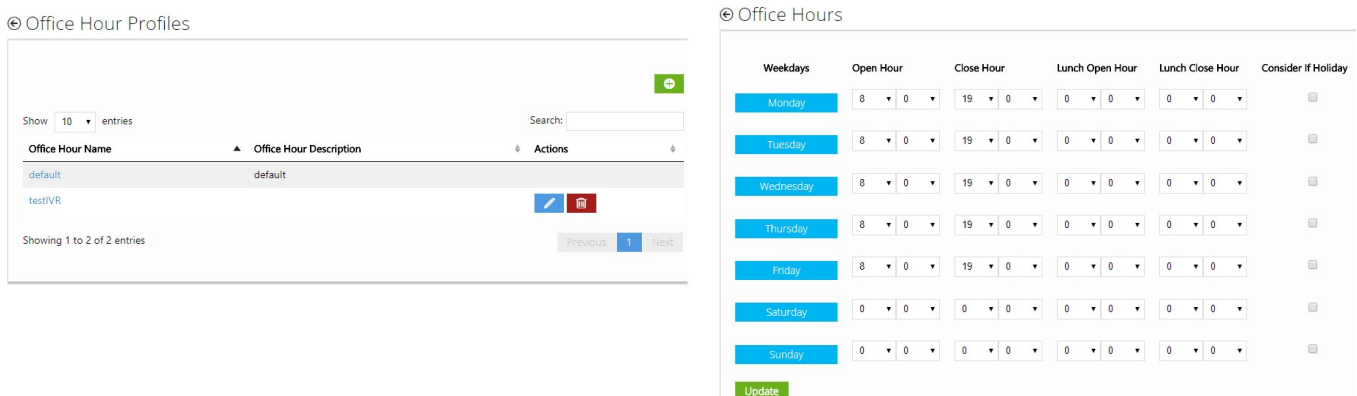
The main goal is to provide a simple tool to create/edit XML configuration files for users without knowledge of XML.



TreeView Editor

## Office Hour

TxIVR provides an easy way to configure office timings for each day through the web interface. On receiving a call, the IVR XML can know if the office is open or closed by making a web service request to the URL provided by the web portal. TxIVR also allows a single tenant to have multiple office hour profiles.



Office Timings Configuration

## Holidays

Users can create a holiday list and the TxIVR will use this holiday list to determine if the office is open or closed. This is the section where the user can add a list of the holidays for the tenant.

© Holidays

Show 10 entries

Search:

Holiday Name	Date	Holiday Type	Actions
Christmas	Dec. 25, 2018	Festival	<a href="#">Edit</a> <a href="#">Delete</a>

Showing 1 to 1 of 1 entries

Previous 1 Next

## Sounds

This section allows users to easily manage the various audio files used in the IVR call flow.

Sounds

Select folder: Telenetix

Choose Files No file chosen Upload Sounds

0:00

Filename	Play	Delete
sales.wav	<a href="#">Play</a>	<a href="#">Delete</a>
support.wav	<a href="#">Play</a>	<a href="#">Delete</a>
defaultMoh.wav	<a href="#">Play</a>	<a href="#">Delete</a>
KCCTELSBNL.wav	<a href="#">Play</a>	<a href="#">Delete</a>
playingOpenMsg.wav	<a href="#">Play</a>	<a href="#">Delete</a>
Playing Close Hours Message.wav	<a href="#">Play</a>	<a href="#">Delete</a>
KCCTELSBL.wav	<a href="#">Play</a>	<a href="#">Delete</a>

## Advanced Features

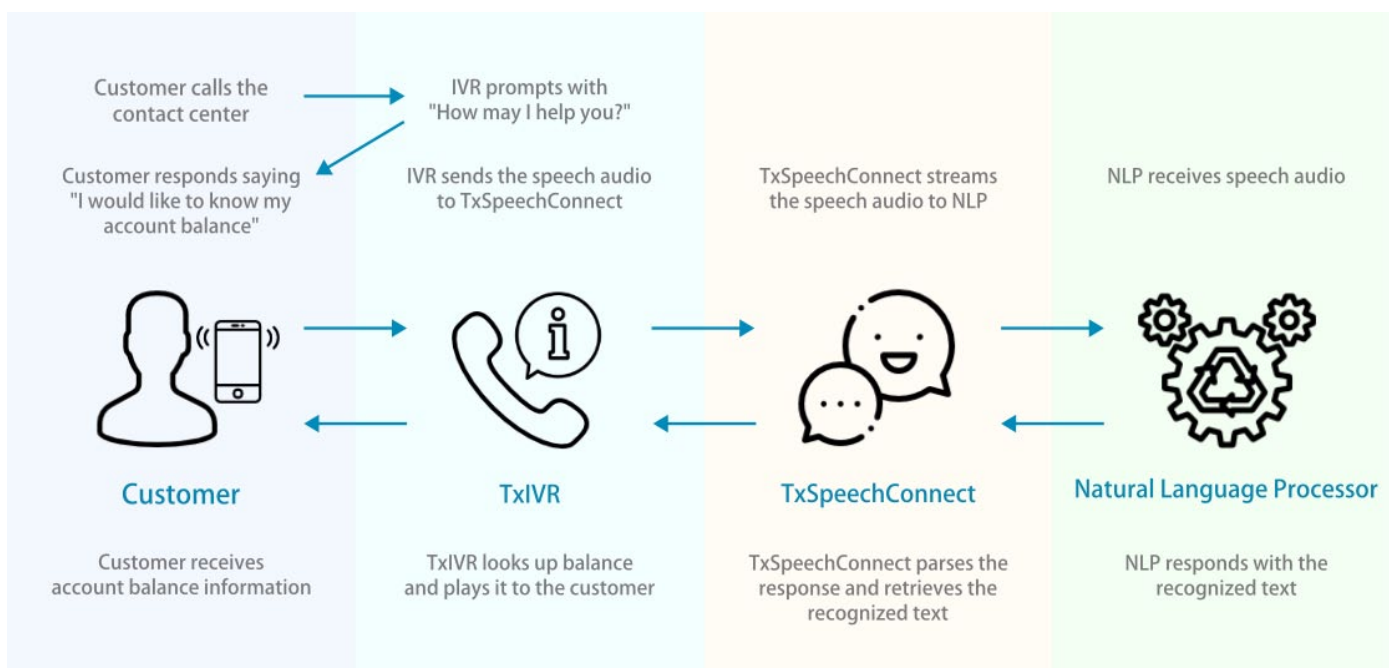
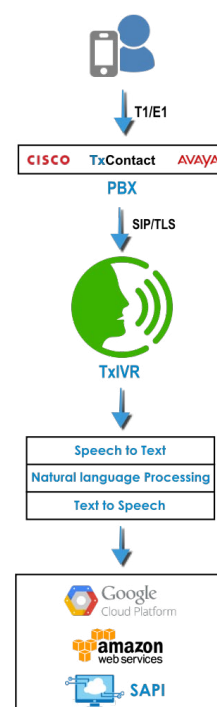
### TxSpeechConnect

TxSpeechconnect is an advanced NLP ( Natural Language Processing) based Speech recognition Module integrated with TxIVR to deploy Voice Activated Self-Service customer support process.

TxSpeechConnect is integrated with both on-premise and cloud based speech recognition service providers and platforms. It can be deployed in one of the three modes :

- On-premise
- Cloud based
- Combination of On-premise and Cloud

With this powerful capability, TxIVR can address customer queries quickly and most of them can be resolved without the need to forward the calls to agents, thereby, reducing costs and improving efficiency of the customer support process.



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## Language Support

- English (United States)
- English (United Kingdom)
- English (Australia)
- English (Canada)
- English (Ghana)
- English (Ireland)
- English (Kenya)
- English (New Zealand)
- English (Nigeria)
- English (Philippines)
- English (South Africa)
- English (Tanzania)
- Swedish (Sweden)
- German (Germany)
- Spanish (United States)
- French (France)
- Italian (Italy)
- Hindi (India)
- English (India)
- Gujarati (India)
- Kannada (India)
- Malayalam (India)
- Marathi (India)
- Tamil (India)
- Telugu (India)
- Urdu (India)
- Bengali (India)
- Nepali (Nepal)
- Sinhala (Sri Lanka)
- Tamil (Singapore)
- Tamil (Sri Lanka)
- Tamil (Malaysia)
- Bengali (Bangladesh)
- Urdu (Pakistan)
- Malay (Malaysia)
- Zulu (South Africa)
- Afrikaans (South Africa)
- Indonesian (Indonesia)
- Spanish (Spain)
- Russian (Russia)
- Hebrew (Israel)
- Japanese (Japan)
- Chinese, Mandarin (Simplified, China)
- Thai (Thailand)
- Arabic (United Arab Emirates)
- Arabic (Saudi Arabia)
- Arabic (Israel)
- Arabic (Qatar)
- Arabic (Oman)
- Arabic (Kuwait)

[Contact us for more languages](#)

## Speech Analytics

With the “Speech to Text” conversion capability of TxSpeechConnect, it is possible to perform Speech Analytics from the recorded phone conversations between an agent and the customers.

This text data can be used to discover information relating to strategy, product, process, operational issues and contact center agent performance. In addition, speech analytics can automatically identify areas in which contact center agents may need additional training or coaching.

The process can isolate the words and phrases used most frequently within a given time period. This information is useful for supervisors, analysts, and others in an organization to spot changes in consumer behavior and take action to reduce call volumes and increase customer satisfaction.

Using TxSpeechconnect, it is possible to develop applications that can spot spoken keywords or phrases, either as real-time alerts on live audio or as a post-processing step on recorded speech.

## Voice Biometrics

Enterprises can implement a better and stronger form of identity verification by using voice biometrics. This technology uses the customer’s voice signature for the authentication process, an intuitive and reliable authentication method as compared to traditional credential based methods. With Interlink’s Voice Biometrics module, enterprises can improve their customer satisfaction levels by avoiding the use of multiple verification processes that require their customers to remember multiple passwords. As part of the one-time enrollment process, a voice print of customers is created and stored in a database, which will be used as a reference voice signature for authenticating the callers whenever they call the customer care number.

Voice biometrics based authentication can also be used as an added authentication method (multi-factor authentication) along with other security methods and It is independent of user’s accent or language.



## Payment Gateway Integration

TxContact’s IVR module is certified by leading payment gateway systems like CyberSource, PayPal, Authorize.Net, FirstData/ Bank of America and can be integrated with similar gateways if required.



The secure integration with Payment gateways enables processing of Customer's Credit and Debit card for payment transactions over IVR.

The agents can also conference the customer with the IVR during the transaction for providing assistance to the customers. When the customer is typing in the card details, the agent's call is placed on hold and only the customer will be interacting with the IVR system thus ensuring complete security of the transaction.



Payment Gateway Integration with TxContact

1. Customer calls for support/service
2. TxIVR takes the customer through customized callflows prompting them to enter the credit card information
3. TxIVR collects the entered credit card number and authentication credentials
4. TxIVR sends the information collected securely to the payment gateway for verification/authorization using 128 bit encryption
5. TxIVR collects the status of the transaction from the payment gateway
6. The customer is provided with info on success/failure of the transaction

## TxIVR for SFB

TxIVR natively integrates with Skype For Business taking advantage of all the SFB functionalities such as call routing, messages, prompts, speech recognition and text to speech capabilities. By being able to register as a trusted application endpoint TxIVR has complete control over the call. It can also subscribe for presence information such as "Busy", "Available" to detect the availability of the user before the call is being transferred to the user. The call data record collected can be used for reporting or pushed to CRM or other applications for further analysis.



## System Requirements

- **Server** : 2 physical servers (with redundancy)
- **Specifications** : Dual Intel Xeon 8 core with 2.4 GHz, 32 GB RAM, 300 GB X 3 HDD
- **Operating System** (Minimum version) :  
Windows Server 2016  
Debian

## INTERLINK NETWORK SYSTEMS INC.

Interlink Network Systems established in the year 1991 is a Telephony and Enterprise Application Integration (EAI) software products and services company. As a US subsidiary company of Telenetix with valued customers in the US, Canada, Africa, Middle East and South-Asia, Interlink is committed to delivering high quality products and services.

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