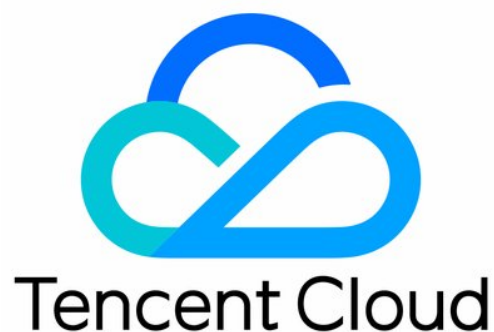


Tencent Push Notification Service Release Notes Product Documentation



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Release Notes

Features

Last updated : 2020-12-23 16:14:33

December 2020

| Update | Description | Release Date | Document |
|---|---|------------------|--|
| The push troubleshooting feature is added | If a device fails to receive a push message, you can use the device token and the `PushID` of the push to identify the cause and quickly troubleshoot the problem | December 2, 2020 | You can go to Console > Toolbox > Troubleshooting Tools > Push Query to try it out |
| The device number estimate feature is added | Before confirming a push, you can view the estimated number of devices for the selected push target and quickly estimate the current push coverage | December 2, 2020 | - |
| Tag selection in the console is optimized | Tag selection in the console is redesigned to improve the selection experience | December 2, 2020 | Tagging Feature |

November 2020

| Update | Description | Release Date | Document |
|---|--|-------------------|----------|
| Emojis can be quickly inserted into push message body | When you create a push in the console, you can quickly insert emojis in the message input box on the right, which effectively increases the click rate | November 20, 2020 | - |

| Update | Description | Release Date | Document |
|--|--|-------------------|-------------------------------------|
| IP allowlist is available | After you configure an IP allowlist in the console, you can control the permissions of RESTful API requests, so that only IPs in the allowlist can request RESTful APIs, which helps improve the push security | November 20, 2020 | - |
| Test preview is available | You can save the tokens of commonly used test devices and directly select such devices to preview messages before officially pushing them, which enables you to quickly verify the push configuration | November 20, 2020 | - |
| Account package filename can be viewed in account push details | The account package filename can be displayed in account push details when the push is performed, so you can locate push targets quickly | November 20, 2020 | - |
| Huawei v2 protocol is upgraded | Huawei officially announced that the v2 protocol will be disused starting September 30, 2021 . TPNS has upgraded the Huawei push protocol to v5, which does not support carrying custom parameters through the <code>**extra parameter(s)</code> field. If you have integrated the Huawei vendor channel, we recommend you use Intent to carry custom parameters; otherwise, custom parameters cannot be delivered through the Huawei channel | November 9, 2020 | - |
| A new personalized push feature is added | After binding user attributes such as nickname with tokens, you can push personalized messages with user attributes to different users easily, which can increase the average click rate by 40% | November 9, 2020 | Custom Notification |

| Update | Description | Release Date | Document |
|---|--|------------------|--------------------------------|
| Account package files in <code>.txt</code> or <code>.csv</code> format can be uploaded directly | If an account package file in <code>.txt</code> or <code>.csv</code> format is below 100 MB in size, it can be uploaded directly without being compressed | November 9, 2020 | - |
| iOS push supports channel policy | One device can receive up to 3 silent messages per hour through the APNs Channel. Both notification bar messages and silent messages on iOS support complementary delivery through the TPNS and APNs channels, and the delivery policy can be customized | November 2, 2020 | Channel Policy |

October 2020

| Update | Description | Release Date | Document |
|--|--|------------------|--|
| Statistics in the console are optimized | Push statistics and device statistics are separated | October 22, 2020 | Statistics module in the console |
| Quick integration with iOS is upgraded | You can use the quick integration tool to integrate the SDK for iOS to get complete push capabilities in 3 minutes | October 22, 2020 | Quick Integration with iOS |
| Notifications will not be delivered to opt-out iOS devices | If notification bar is disabled on an iOS device, this device will not be included in the Attempted metric when a push message is delivered | October 22, 2020 | - |

September 2020

| Update | Description | Release Date | Document |
|--------|-------------|--------------|----------|
|--------|-------------|--------------|----------|

| Update | Description | Release Date | Document |
|--|---|--------------------|---------------------------------------|
| Troubleshooting tools support querying tokens by account | You can search for device tokens by account to locate issues more quickly and conveniently | September 28, 2020 | Troubleshooting Tools |
| New, active, and inactive are added as user tags | New, active, and inactive are added as user tags, allowing you to reattract and reactivate inactive users in a more targeted manner and improve the user activity with ease | September 24, 2020 | Tagging Feature |

August 2020

| Update | Description | Release Date | Document |
|--|---|-----------------|----------------------------------|
| The feature of collapse by group is added | The feature of collapse by group is added, which can determine whether to collapse a message in the notification center, and the collapse policy can be customized | August 11, 2020 | Message Collapse |
| The channel policy for Android is optimized | The custom channel policy for Android is optimized, so you can choose whether to deliver a push message preferably through the TPNS channel when a device is online | August 11, 2020 | - |
| New data metrics are added on the data overview page | Opt-in devices and uninstalled/unavailable devices can be viewed by day on the data overview page in the console | August 11, 2020 | Data Overview |

July 2020

| Update | Description | Release Date | Document |
|--------|-------------|--------------|----------|
|--------|-------------|--------------|----------|

| Update | Description | Release Date | Document |
|--|---|---------------|---|
| The device statistics page is added | The device statistics page is added in the console to help you stay on top of the distribution of all registered devices of the application in all dimensions and make informed operational decisions. | July 30, 2020 | - |
| Rich media notification is upgraded | The rich media notification feature is upgraded to support images in notifications for an improved click rate (for the Huawei and Mi channels). | July 30, 2020 | Rich Media Notification |
| The pay-as-you-go (postpaid) billing mode is added | The daily pay-as-you-go billing mode is added, which is suitable for applications whose number of daily connected devices fluctuates greatly. | July 1, 2020 | Pay-as-You-Go |

June 2020

| Update | Description | Release Date | Document |
|---|---|---------------|---|
| Bulletin board is added | A bulletin board module is added on the Product Management page in the console to display notifications for release notes and services changes | June 10, 2020 | - |
| Reminder for lengthy notification text is available | When you enter the notification title/content in the console, if the text cannot be fully displayed on some device models, the console will display the corresponding reminder, which does not affect the normal delivery of the push | June 10, 2020 | Text Length Limit Description |
| The toolbox feature is updated | In the toolbox, you can query some basic attributes of a device by token | June 10, 2020 | - |

May 2020

| Update | Description | Release Date | Document |
|--|--|--------------|-------------------------------|
| Push funnel data at the application level is available | Data for daily and real-time trends in message delivery, arrival (PV/UV), click, and dismissal at the application level is provided and can be viewed by channel | May 25, 2020 | Data Overview |
| Task-level channel selection is supported | A push channel can now be specified for a single push to save the vendor channel quota | May 7, 2020 | - |

April 2020

| Update | Description | Release Date | Document |
|---|---|----------------|---------------------------------|
| Quota reminder is available for the Mi channel | After the quota of the Mi channel is used up, pushes will be automatically delivered through the TPNS channel, and reminders will be displayed in the console | April 23, 2020 | - |
| Push records can be searched for in the console | Pushes can now be searched for by `pushid` | April 23, 2020 | - |
| Push progress is displayed | Push progress is now displayed on the push details page in the console for you to view the delivery status | April 23, 2020 | - |
| Push time is displayed | Push time analysis is added on the push details page for you to view push arrivals and clicks in real time | April 23, 2020 | - |
| The toolbox is updated | "Notification bar status" is added in the toolbox, enabling you to query whether the notification bar is enabled on a device based on the token | April 23, 2020 | - |
| The tag combination | "AND", "OR", and "NOT" operations are supported for tags for more precise user | April 9, 2020 | Tagging Feature |

| | | | |
|---|---|---------------|---|
| logic is optimized | grouping | | |
| More metrics are available in data overview | More metrics are added on the data overview page for you to view push data in more dimensions | April 9, 2020 | - |

March 2020

| Update | Description | Release Date | Document |
|--|---|----------------|---|
| Multi-package name push is fully supported for Android | Multi-package name push is now supported for the TPNS channel and major vendor channels | March 12, 2020 | Multi-Package Name Push Feature |

February 2020

| Update | Description | Release Date | Document |
|--|--|-------------------|--|
| Interactions in the console are upgraded | The functionality structure in the console is optimized | February 24, 2020 | - |
| The SDK can be quickly integrated | Quick integration based on configuration file is supported for Android; Codeless integration can be implemented for iOS based on local tools | February 24, 2020 | <ul style="list-style-type: none"> Quick Integration with Android Quick Integration with iOS |
| Resource-level permissions are supported | You can now grant operation permissions of a specified application to a specified sub-account | February 24, 2020 | Authorizable TPNS Resource Types |

January 2020

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|--|--|--|--|
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|--|--|--|--|

| Update | Description | Release Date | Document |
|---|--|-------------------|--|
| Quota exceeding policy is supported for vendor channels | After a vendor channel quota is used up, messages will be automatically delivered through the TPNS channel to ensure message arrival as much as possible | February 24, 2020 | Vendor Channel Limit Description |

December 2019

| Update | Description | Release Date | Document |
|------------------------------------|--|-------------------|---|
| Push details are optimized | Push details can now be displayed by channel, and push effect can now be analyzed at the channel level | December 25, 2019 | Querying Push Records |
| A trial mechanism is added | The TPNS service can be used free of charge for 30 days for applications with less than 1,000 daily connected devices | December 25, 2019 | - |
| The toolbox is launched | Troubleshooting tools are launched for querying device information by token, binding accounts and tags, and quickly identifying push issues in a self-service manner | December 19, 2019 | - |
| Aggregate statistics are available | Push funnel data of multiple pushes can be aggregated through the `groupid` field | December 19, 2019 | Querying Aggregated Statistics for Multiple Tasks |

SDK for Android

Last updated : 2021-01-11 16:02:43

November 2020

| Update | Description | Release Date | Document |
|------------------------------|--|-------------------|------------------------------|
| The SDK v1.2.2.0 is released | <ul style="list-style-type: none"> The naming convention is unified for account and tag operation APIs SDK error code reporting is optimized The FCM channel protocol is upgraded, and the display of notifications sent through the FCM channel is taken over by the system Badge coloring is supported for messages sent through the TPNS channel gzip compression is supported during network communication The exception of service unbinding that might occur in multi-thread environments is fixed | November 26, 2020 | SDK Download |
| The SDK v1.2.1.3 is released | <ul style="list-style-type: none"> The internal logic is optimized Huawei Push SDK v5 is officially supported starting this version. Please update the integration configuration as instructed in Huawei Channel v5 Integration | November 11, 2020 | - |

October 2020

| Update | Description | Release Date | Document |
|------------------------------|--|------------------|----------|
| The SDK v1.2.1.1 is released | <ul style="list-style-type: none"> User attribute APIs are added for personalized push The in-app message feature and several in-app message templates are | October 12, 2020 | - |

| | | | |
|--|---|--|--|
| | added <ul style="list-style-type: none"> The SO files are optimized and updated The SDK is optimized internally | | |
|--|---|--|--|

July 2020

| Update | Description | Release Date | Document |
|------------------------------|---------------------------------|---------------|----------|
| The SDK v1.2.0.3 is released | Known issues are fixed | July 30, 2020 | - |
| The SDK v1.2.0.2 is released | The internal logic is optimized | July 1, 2020 | - |

June 2020

| Update | Description | Release Date | Document |
|------------------------------|---|---------------|--|
| The SDK v1.2.0.1 is released | <ul style="list-style-type: none"> Statistics of vendor channel notification click events can be collected More custom notification styles are added The SDK for OPPO PUSH is upgraded to v2.1.0 | June 23, 2020 | Package name is changed on this version. Please modify relevant configurations as instructed in SDK Integration : <ul style="list-style-type: none"> Automatic integration: pay attention to the obfuscation configuration; Manual integration: pay attention to the SO files, |

| | | | |
|------------------------------|---|--------------|---|
| | | | manifest file, and obfuscation configuration. |
| The SDK v1.1.6.3 is released | Third-party vendor channel integration is optimized | June 4, 2020 | - |

April 2020

| Update | Description | Release Date | Document |
|------------------------------|---|----------------|--|
| The SDK v1.1.6.1 is released | The vulnerability with HTTPS certificate verification is fixed | April 28, 2020 | - |
| The SDK v1.1.6.0 is released | <ul style="list-style-type: none"> The encryption protocol is optimized Network connection is optimized Badge can now be configured for the Huawei channel The SDK v3.7.5 for Mi Push and SDK v3.9.0 for Meizu Push are upgraded Realme and Black Shark channels are supported The call of Beacon to get QIMEI information is removed | April 21, 2020 | Badge Adaptation Guide |
| The SDK v1.1.5.5 is released | The issue where DCL violation occurred when an application was released in Google Play is fixed | April 2, 2020 | - |

March 2020

| Update | Description | Release Date | Document |
|------------------------------|---|---------------|----------|
| The SDK v1.1.5.4 is released | <ul style="list-style-type: none"> Network connection is optimized Account types are added Issues with security alarming are fixed | March 6, 2020 | - |

| | | | |
|--|--|--|--|
| | <ul style="list-style-type: none"> TPNS is now compatible with XG Platform version upgrade The feature to get QIMEI information is added | | |
|--|--|--|--|

January 2020

| Update | Description | Release Date | Document |
|------------------------------|--|------------------|----------|
| The SDK v1.1.5.3 is released | <ul style="list-style-type: none"> Network is optimized Security alarming is optimized | January 14, 2020 | - |

December 2019

| Update | Description | Release Date | Document |
|------------------------------|---|-------------------|----------|
| The SDK v1.1.5.2 is released | Error monitoring is optimized | December 19, 2019 | - |
| The SDK v1.1.5.1 is released | Crash monitoring is optimized | December 12, 2019 | - |
| The SDK v1.1.5.0 is released | <ul style="list-style-type: none"> Huawei push is optimized The SDK v2.0.2 for OPPO PUSH is optimized | December 4, 2019 | - |

November 2019

| Update | Description | Release Date | Document |
|------------------------------|---|-------------------|----------|
| The SDK v1.1.4.0 is released | <ul style="list-style-type: none"> Internal error reporting is added TPNS is now compatible with Huawei Push v3 | November 21, 2019 | - |

| | | | |
|------------------------------|---|-------------------|---|
| | <ul style="list-style-type: none"> TPNS is now compatible with OnePlus devices | | |
| The SDK v1.1.3.2 is released | Statistics are optimized | November 13, 2019 | - |
| The SDK v1.1.3.1 is released | Network is optimized | November 11, 2019 | - |

October 2019

| Update | Description | Release Date | Document |
|------------------------------|---|------------------|----------|
| The SDK v1.1.3.0 is released | <ul style="list-style-type: none"> Data reporting is optimized Logging is optimized to add the local log reporting feature API chaining is added The system is optimized internally to improve resource release | October 31, 2019 | - |

September 2019

| Update | Description | Release Date | Document |
|------------------------------|--|--------------------|---|
| The SDK v1.1.2.1 is released | <ul style="list-style-type: none"> The notification bar display is optimized Some APIs are optimized Audio rich media is now supported The SDK is optimized internally | September 27, 2019 | Usage of audiovisual rich media |

SDK for iOS

Last updated : 2020-12-09 15:42:12

November 2020

| Update | Description | Release Date | Document |
|------------------------------|--|-------------------|------------------------------|
| The SDK v1.2.9.0 is released | <ul style="list-style-type: none"> Fixed the issue where image download might fail in rich media notifications Fixed the issue where the TPNS channel might be online when the application was running in the background Fixed the issue where the TPNS token might be duplicate on versions below 1.2.5.2 Fixed the issue where it might fail to establish a persistent connection Fixed the issue where the naming of "in-app message" conflicted with certain SDKs Optimized the performance of local cache Optimized the timing of reporting application notification status Optimized the persistent connection handling mechanism on weak networks Optimized account APIs Optimized the code samples of TPNS demo Added the local notification feature Added the support for IPv6 Removed the code compatible with the free edition | November 25, 2020 | SDK Download |

October 2020

| Update | Description | Release | Document |
|--------|-------------|---------|----------|
|--------|-------------|---------|----------|

| | | Date | |
|------------------------------|------------------------|------------------|---|
| The SDK v1.2.8.1 is released | Known issues are fixed | October 29, 2020 | - |

September 2020

| Update | Description | Release Date | Document |
|------------------------------|--|--------------------|----------|
| The SDK v1.2.8.0 is released | <ul style="list-style-type: none"> • User attribute APIs are added for personalized push • The in-app message feature and several in-app message templates are added • Known issues are fixed | September 27, 2020 | - |

July 2020

| Update | Description | Release Date | Document |
|------------------------------|---|---------------|----------|
| The SDK v1.2.7.2 is released | <ul style="list-style-type: none"> • The custom event reporting feature is added • The success rate of "arrival" statistics reporting is improved • Known issues are fixed | July 23, 2020 | - |

May 2020

| Update | Description | Release Date | Document |
|------------------------------|---|--------------|---|
| The SDK v1.2.6.1 is released | <ul style="list-style-type: none"> • The stability is improved, and known issues are fixed • The access is optimized, and a registration callback method is added | May 6, 2020 | Registering Callback Method |

- The TPNS channel is added for message delivery
- Data statistics are optimized

April 2020

| Update | Description | Release Date | Document |
|------------------------------|---|----------------|----------|
| The SDK v1.2.5.4 is released | The stability is improved, and known issues are fixed | April 22, 2020 | - |

March 2020

| Update | Description | Release Date | Document |
|------------------------------|---|----------------|---|
| The SDK v1.2.5.3 is released | <ul style="list-style-type: none"> • Tokens of a free XG cluster can now be unregistered to avoid repeated pushes • Repeated messages can now be replaced in the notification extension | March 19, 2020 | Unregistering XG Platform Service |
| The SDK v1.2.5.2 is released | <ul style="list-style-type: none"> • Precise push is improved, and enumeration of accounts is added • The stability is improved, and log IO exceptions and iOS 10 message receipt callback exceptions are fixed | March 6, 2020 | - |

February 2020

| Update | Description | Release Date | Document |
|------------------------------|---|-------------------|----------|
| The SDK v1.2.5.1 is released | <ul style="list-style-type: none"> • The access is simplified, and the reporting API is deleted (reporting will be automatically processed by the SDK) | February 20, 2020 | - |

| | | | |
|--|--|--|--|
| | <ul style="list-style-type: none"> The stability is improved, and the crash caused by the cache module is fixed | | |
|--|--|--|--|

January 2020

| Update | Description | Release Date | Document |
|------------------------------|--|-----------------|----------|
| The SDK v1.2.4.9 is released | <ul style="list-style-type: none"> The stability is improved, and crashes caused by message statistics collection and a memory leak issue are fixed The compatibility of the SDK is improved | January 6, 2020 | - |

December 2019

| Update | Description | Release Date | Document |
|------------------------------|--|-------------------|----------|
| The SDK v1.2.4.8 is released | The stability is improved, and crashes caused by message statistics collection are fixed | December 24, 2019 | - |
| The SDK v1.2.4.7 is released | The stability is improved, and crashes caused by message statistics collection and logging are fixed | December 19, 2019 | - |
| The SDK v1.2.4.6 is released | <ul style="list-style-type: none"> The registration process in the SDK is optimized to improve the registration success rate Rich media push is optimized to support resources with no file extensions Known issues are fixed | December 16, 2019 | - |
| The SDK v1.2.4.5 is released | <ul style="list-style-type: none"> Crash monitoring is added in the SDK Arrival statistics are optimized The statistics of cumulative devices are optimized The I/O performance of the SDK is improved | December 12, 2019 | - |

- The stability of the SDK is improved

November 2019

| Update | Description | Release Date | Document |
|------------------------------|--|-------------------|----------|
| The SDK v1.2.4.4 is released | The registration process in the SDK is optimized to improve message delivery | November 28, 2019 | - |
| The SDK v1.2.4.3 is released | The compatibility of the SDK is improved | November 26, 2019 | - |
| The SDK v1.2.4.2 is released | The issue with getting the TPNS token in the SDK is fixed | November 22, 2019 | - |
| The SDK v1.2.4.1 is released | <ul style="list-style-type: none"> • The log upload API is added • The stability of the SDK is improved • The compatibility of the SDK is improved | November 13, 2019 | - |
| The SDK v1.2.4.0 is released | <ul style="list-style-type: none"> • The issue with binding callback to a single account is fixed • The compatibility of the SDK is improved • Device push environments can now be differentiated between to optimize the statistics • The cache logic for changing application information is optimized • The registration success rate in the SDK is improved | November 12, 2019 | - |

October 2019

| Update | Description | Release Date | Document |
|---------|---------------------------------------|--------------|----------|
| The SDK | An issue that occurred when the token | October 21, | - |

| | | | |
|----------------------|------------------|------|--|
| v1.2.3.0 is released | changed is fixed | 2019 | |
|----------------------|------------------|------|--|

September 2019

| Update | Description | Release Date | Document |
|------------------------------|---|--------------------|----------|
| The SDK v1.2.2.1 is released | The issue with network connection that occurred when an API was called before the SDK was completely started is fixed | September 29, 2019 | - |

August 2019

| Update | Description | Release Date | Document |
|------------------------------|--|-----------------|----------|
| The SDK v1.2.2.0 is released | <ul style="list-style-type: none"> The issue where registration couldn't be completed on iOS 13 is fixed The issue with network connection during application status switch is fixed | August 28, 2019 | - |
| The SDK v1.2.1.2 is released | <ul style="list-style-type: none"> The issue with click statistics is fixed The issue with the tag binding API that occurred when the network connection status changed is fixed | August 19, 2019 | - |
| The SDK v1.2.1.0 is released | <ul style="list-style-type: none"> The API used to query the token generated by TPNS is added The failure to bind a single account is fixed | August 8, 2019 | - |

July 2019

| Update | Description | Release Date | Document |
|------------------------------|--|---------------|----------|
| The SDK v1.2.0.0 is released | <ul style="list-style-type: none"> A separate data reporting SDK is added | July 30, 2019 | - |

| | | | |
|------------------------------|--|---------------|---|
| released | <ul style="list-style-type: none">The device registration service is optimizedThe `DeviceToken` parsing logic is updated | | |
| The SDK v1.1.0.1 is released | <ul style="list-style-type: none">The username/password authentication logic is fixedThe defect with dynamic loading of the SDK is fixed | July 25, 2019 | - |
| The SDK v1.1.0.0 is released | <ul style="list-style-type: none">The PushKit plugin is addedThe SDK startup time is shortened | July 18, 2019 | - |
| The SDK v1.0.1.0 is released | <ul style="list-style-type: none">Push for persistent connection is addedThe PushKit plugin is now supported, which is limited to registration, unregistration, and reporting | July 11, 2019 | - |
| The SDK v1.0.0.0 is released | This is the initial version | July 5, 2019 | - |

SDK for macOS Updates

Last updated : 2020-07-09 18:53:07

April 2020

| Update | Description | Release Date | Documentation |
|------------------------------|---|----------------|------------------------------|
| The SDK v1.0.4.0 is released | <ul style="list-style-type: none">The access is optimized, and a registration callback method is addedThe TPNS channel is added for message deliveryData statistics are optimizedThe stability is improved, and known issues are fixed | April 28, 2020 | SDK Download |

March 2020

| Update | Description | Release Date | Documentation |
|------------------------------|---|----------------|---------------|
| The SDK v1.0.2.9 is released | <ul style="list-style-type: none">Precise push is improved, and enumeration of accounts is addedThe stability is improved, and the log IO exception is fixed | March 19, 2020 | - |

January 2020

| Update | Description | Release Date | Documentation |
|------------------------------|---|-----------------|---------------|
| The SDK v1.0.2.8 is released | <ul style="list-style-type: none">The crash caused by message statistics collection is fixedThe access is simplified, and the usage of the reporting API is optimized (it is sufficient to call it in the start method; for more information, please see the demo) | January 7, 2020 | - |

- The stability is improved, and known crashes are fixed
- The compatibility of the SDK is improved

December 2019

| Update | Description | Release Date | Documentation |
|------------------------------|--|-------------------|---------------|
| The SDK v1.0.2.6 is released | <ul style="list-style-type: none"> • The stability is improved, and crashes caused by message statistics collection and logging are fixed | December 19, 2019 | - |
| The SDK v1.0.2.5 is released | <ul style="list-style-type: none"> • The registration process in the SDK is optimized to improve the registration success rate • Rich media push is optimized to support resources with no file extensions • Known issues are fixed | December 16, 2019 | - |
| The SDK v1.0.2.4 is released | <ul style="list-style-type: none"> • Crash monitoring is added in the SDK • The statistics of cumulative devices are optimized • The I/O performance of the SDK is improved • The stability of the SDK is improved | December 12, 2019 | - |

November 2019

| Update | Description | Release Date | Documentation |
|------------------------------|--|-------------------|---------------|
| The SDK v1.0.2.3 is released | <ul style="list-style-type: none"> • The compatibility of the SDK is improved • The registration process in the SDK is optimized to improve message delivery | November 28, 2019 | - |
| The SDK v1.0.2.2 is released | <ul style="list-style-type: none"> • The issue with getting the TPNS token in the SDK is fixed | November 26, 2019 | - |

| | | | |
|------------------------------|--|-------------------|---|
| The SDK v1.0.2.1 is released | <ul style="list-style-type: none"> The log upload API is added The stability and compatibility of the SDK are improved | November 13, 2019 | - |
| The SDK v1.0.2.0 is released | <ul style="list-style-type: none"> The issue with binding callback to a single account is fixed The compatibility of the SDK is improved Device push environments can now be differentiated between to optimize the statistics The cache logic for changing application information is optimized The registration success rate in the SDK is improved | November 12, 2019 | - |
| The SDK v1.0.1.2 is released | <ul style="list-style-type: none"> An issue that occurred when the token changed is fixed | November 2, 2019 | - |

October 2019

| Update | Description | Release Date | Documentation |
|------------------------------|---|------------------|---------------|
| The SDK v1.0.1.1 is released | <ul style="list-style-type: none"> The issue with network connection that occurred when an API was called before the SDK was completely started is fixed | October 21, 2019 | - |

August 2019

| Update | Description | Release Date | Documentation |
|------------------------------|---|-----------------|---------------|
| The SDK v1.0.1.0 is released | <ul style="list-style-type: none"> The issue with network connection during application status switch is fixed | August 21, 2019 | - |
| The SDK v1.0.0.2 is released | <ul style="list-style-type: none"> The issue with click statistics is fixed | August 15, 2019 | - |

| | | | |
|------------------------------|--|----------------|---|
| released | <ul style="list-style-type: none">• The API used to query the token generated by TPNS is added• The failure to bind a single account is fixed• The issue with the SDK version number in the reported data is fixed | | |
| The SDK v1.0.0.0 is released | <ul style="list-style-type: none">• This is the initial version | August 1, 2019 | - |