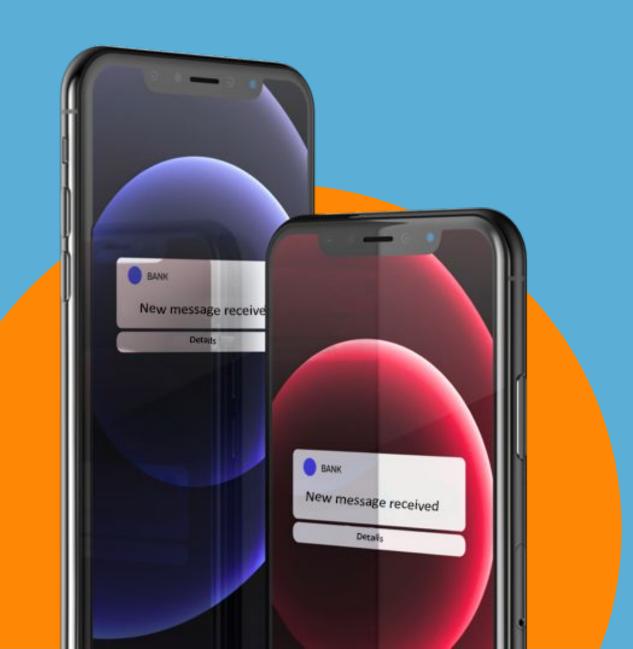


The push notification server on-premises solution

Effective reduction of SMS costs



Implement your own Push notification

solution

WINGS

Companies spend a lot of money every month on sending messages to their customers.

For example, sending 1 million SMS messages, consisting of two segments, at an average of \$0.03 per SMS would cost about \$60,000.

Sending just 20% of 1 million of these two-segment messages via a free Push channel would save you about \$12,000.

We offer you to deploy our industrial-grade WINGS Notification Server to enable you to send Push messages to mobile apps FREE OF CHARGE, bypassing any service providers.



Our SLA guarantees
90%
delivery of your
Push messages

How Push notifications saves money



High delivery rates

When you develop your own Push software, push notification delivery rates rarely exceed 70%.

The WINGS Notification Server provides >90% delivery rate for push notifications.

This means that you will only send paid 10% messages via SMS if you fallback delivery.

On the server side, all the necessary measures are already in place, and there is an mobile SDK to increase the push delivery rate on your mobile app side.

Fallback option

Push is not a guaranteed delivery channel, and it is important for it to be able to use the fallback mechanism, i.e. sending undelivered messages through other channels.

With fallback option implemented in WINGS Notification server, you can switch absolutely all available traffic to fallback delivery scenarios, such as Push -> SMS or Push->Viber->SMS.

If there is no fallback option, only non-essential messages that require no delivery guarantee can be switched to the Push channel. This greatly reduces your chances of saving money.

How to save money using Push notifications?



The amount of money saved on SMS is one of the main indicators showing **how effective Push implementation is.**The WINGS Notification Server provides the greatest cost savings and compares favorably to competitors' software, service providers, or in-house development.

In-house push development

You save less due to low delivery rates; moreover, fallback option is limited or absent.

Through service providers

The delivery rate is high and fallback is supported. However, your savings are greatly reduced due to per-Push commissions.

Third-party push software

Your cost savings are average because fallback is usually supported, but delivery rate is low.

WINGS Notification Server

Provides very high savings due to high delivery rate (>90%) and fallback support.

Comparison with alternative Push solutions



	In-house push development	Through service providers	Third-party push software	WINGS Notification Server
Push notification delivery rate	*	***	*	***
	50-70%	80-90%	50-70%	>90%
Fallback option	*	***	**	***
	Often no	Yes	Yes, but ineffective due to low delivery rates	Yes
Cost of sending Push	***	*	***	***
	Free	Pay per Push or for the volume	Free	Free
Launching timeline	*	**	**	***
	Long	Medium	Medium	Short
	***	*	***	***
Data security	Hosted entirely on the customer's infrastructure. Push messages don't pass through third-party servers	Part of the solution is hosted by the service provider, Push messages pass through the service provider's servers	Hosted entirely on the customer's infrastructure. Push messages don't pass through third-party servers	Hosted entirely on the customer's infrastructure. Push messages don't pass through third-party servers



Why pay providers or spend man-hours to develop own Push software if you can deploy the WINGS Notification Server and start saving right away?

Highest Push Efficiency on the Market



delivery rate exceeding 90% for all types of messages, including delivery to Huawei devices disconnected from Google services.

These are currently the best delivery rates on the market»

«Deployment of the WINGS Push SDK boosted our push notification

 - says Sergey Chikov, Head, Information Technology Service, Post Bank official <u>press release</u>

Post Bank deployed the Push SDK library in its mobile app. This resulted in an over 90% push notification delivery rate. The bank began sending fewer SMS to its customers, thereby lowering the cost of sending messages to its customers.





Enhanced security



The Notification Server is installed in your infrastructure (On-Premises) and is managed in accordance with your own security policy.

Your messages do not pass through third-party servers (providers).

For instance, your Push messages are sent by the Notification Server directly through Apple / Google / Huawei services.



Unlike sending Push notifications through providers, your data does not pass through third-party servers. Messaging statistics and subscriber data are not accessible by third parties. The sent content is stored only on your side.

You can configure an operation mode where Push only notifies the app of an incoming message, but the message itself is downloaded directly from the server. So, text messages do not pass through Google, Apple and Huawei clouds.

Independence from providers



Service providers often offer to install their own Push software on the customer's infrastructure or use their Push SDK. But messages still pass through the providers' servers, and subscriber information is stored by providers.

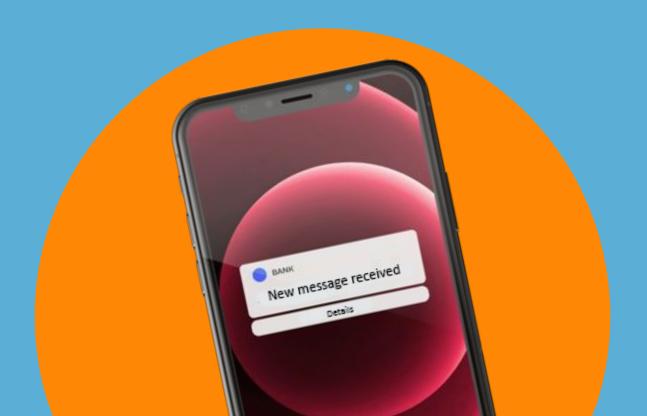
Having such a provider integration module in the customer's infrastructure is a major risk. .

The WINGS Notification Server eliminates intermediaries that would otherwise participate in the process of sending Push notifications to customers.

Easy integration with customer's app



An efficient Push solution should have a server side part and provide optimization on the mobile app side in the form of SDK (library for embedding into mobile apps). Without this, you can't achieve high Push delivery rates.





Our Push SDK already contains everything you need to properly handle Push notifications. We have applied the best practices, which improve service quality and increase delivery rates (>90%).

Push SDK simplifies the work of a mobile app developers because they no longer needs to learn the specifics of Push.

Seamless integration and easy migration



Based on our experience, we can confidently say that switching to using the WINGS Push Notification Server goes smoothly and painlessly – both for sender systems on the server side and for mobile app users.

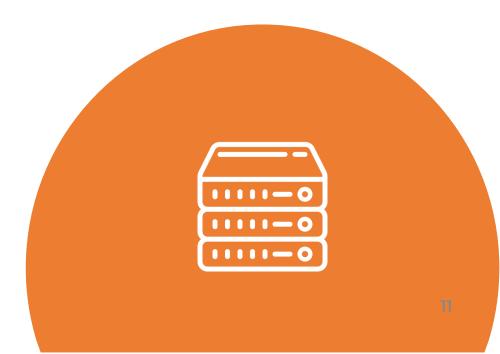
The Push SDK is easily integrated into mobile apps. It simplifies integration and makes it easy for the developer to quickly implement the solution, allowing you to focus on your core business.

We integrate with the customer's systems over the protocols currently used by the customer. Sender systems only need to switch requests to another address.

The risks of switching to a new platform are minimized:

- you can gradually switch traffic;
- at any time, you can temporarily switch part of the traffic to your old work scheme.

You can gradually transfer users to the mobile app with Push SDK, with a smooth rollout and without any disruptions in the messaging system.



Embedding the Push SDK



Integrating the Push SDK into your mobile app is well described step-by-step process. It doesn't require a separate in-depth study by the developer.

Embedding the Push SDK into a mobile app takes just a few days for iOS or Android mobile platform.



iOS SDK is a library provided as an XCFramework or a package for Swift Package Manager.

Supported iOS versions: iOS 11 and higher.



Android SDK is a library, the file extension is .aar.

Supported Android versions: 4.4.2 and higher.





The Notification Server can be deployed in various configurations. This depends on how critical the service is for you. For example, you can have one cluster for high-priority traffic, and another cluster for marketing traffic. You can also locate the solution in several data centers.



The message processing time (from the moment the message is received to the moment it is sent) is 10-20 milliseconds.

One-time passwords are delivered instantly.



Sending performance - 1000 messages per second on one server.

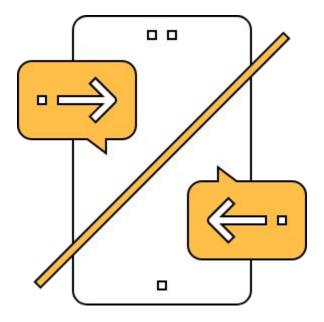
Not enough? The Notification Server scales out by adding servers to the cluster (horizontal scaling).

Considerations for different devices



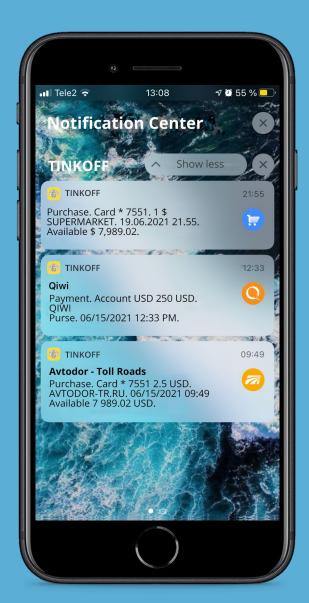
Delivery of Push notifications on different devices and with different OS versions has its own peculiarities. To a greater extent, this is manifested on Chinese-made Android devices. Push delivery rates are markedly reduced if these peculiarities are not taken into account; with reduced delivery rate, you won't be able to fully reduce the cost of SMS messages.

We are constantly working on adapting the Notification Server and Push SDK to the specifics of devices and operating system versions in order to guarantee the highest Push delivery rate (>90%) and quality of work.



Enrichment of transactional Push







Messages containing information about credit card payments can be enriched with the logos of the merchant who received payment, and their correct names in native languages. If no logo is available, the message can contain the logo of the payment category (products, gas stations, etc.).

This makes Push more attractive and informative for recipients.

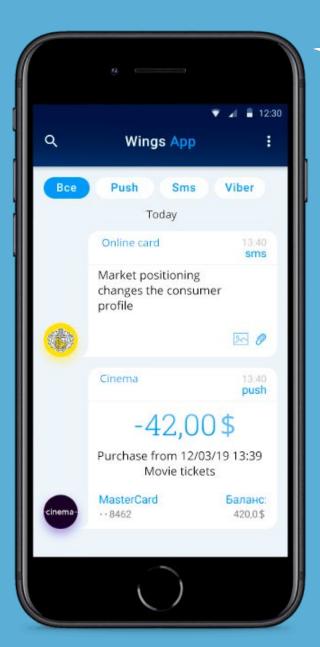
WINGS provides ready-to-use logo library and ensures that transaction push notifications are enriched with merchant logos.

Notification History

Push SDK gives the ability to quickly **build a notification history section** in the customer's mobile app, which will be accessible even without Internet access. By opening this section, the user will be able to see all his notifications, **even if he has cleared the notification center** of the mobile device or installed the application on a new device.

Users value their Push notifications more if they're able to view the notification history and this in turn reduces the number of those who turn off Push notifications after a period of time.

Using our off-the-shelf Push SDK library significantly reduces the launching timeline and saves the customer some resources.





Interactive notifications (rich push)



Push messages can contain interactive buttons performing certain actions. Having such interactive elements right within the notification message motivates users to perform the actions you want them to, thereby increasing their response.

Push notifications also contain deep links directing the user on which section/page of the mobile app to go to when clicked.

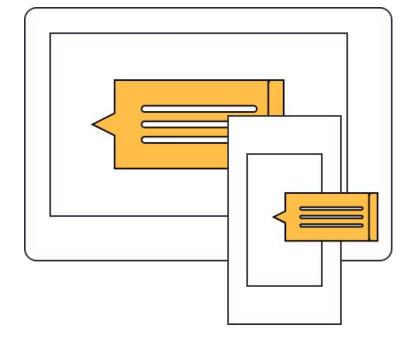


Multi-device support



To fully utilize Push under fallback message delivery scenarios, the customer's phone number is used as his identifier. In this case, the customer can also have multiple devices. Push can be sent to all of these devices or to a specific one.

When Push new devices are opting-in or there are token changes on already connected devices, the subscription data is updated on the server. This is easily done through our SDK.



Pilot project





We are ready to conduct a **free pilot project** for you, within which you can make sure of the high level of delivery of Push notifications, as well as carry out load testing - on your or our servers.

The pilot project would help you to check whether deploying our software in the your infrastructure could actually reduce the number of paid SMS you send and reduce traffic costs for you.

Further development



The WINGS Notification Server can be easily scaled to any business needs in the future.

Apart from implementing Push notifications through the WINGS software, you can also **send SMS directly to mobile operators** without passing customer data through third-party servers. This would enhance security and privacy.

In the future, you'll also be able to implement fallback channels, such as WhatsApp, Viber, voice calls, email and social networking apps.



About Us





WINGS Solutions is a leading
Russian IT company, which
has been in the market **since**2003. We develop and supply
enterprise-grade and
carrier-grade **innovative**software solutions.



We've made over **200 commercial deployments**in **30 countries** for SMS
aggregators, banks and
mobile operators.



WINGS Solutions has huge professional experience in delivering 24/7 fast, friendly and responsive support, monitoring and administration of **mission-critical** systems for our customers.

Some of our customers:

















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