LightSOFT® 2FA

Two Factor Authentication for Secure Remote Access

A distributed work environment, including working from home, has become very common, so ensuring secure remote access is now a mandatory requirement for many clients. This extends now to remote access to network management systems (NMS), where a few keystrokes by an unauthorized person can bring whole networks down.

LightSOFT NMS manages Ribbon's packet and optical network solutions. A large number of operations personnel typically have access to the LightSOFT Server to perform a variety of network management functions. Currently, remote access is managed through LightSOFT Clients where each user is authenticated by username and password.

LightSOFT is now making available an optional Two-Factor-Authentication (2FA) feature, using a One-Time-Password (OTP), to add a higher level of authentication security to remote access. It is based on free-of-charge mobile apps (such as FreeOTP or Google OTP) installed on users' mobile phones, and on an OTP algorithm running in the LightSOFT Server.
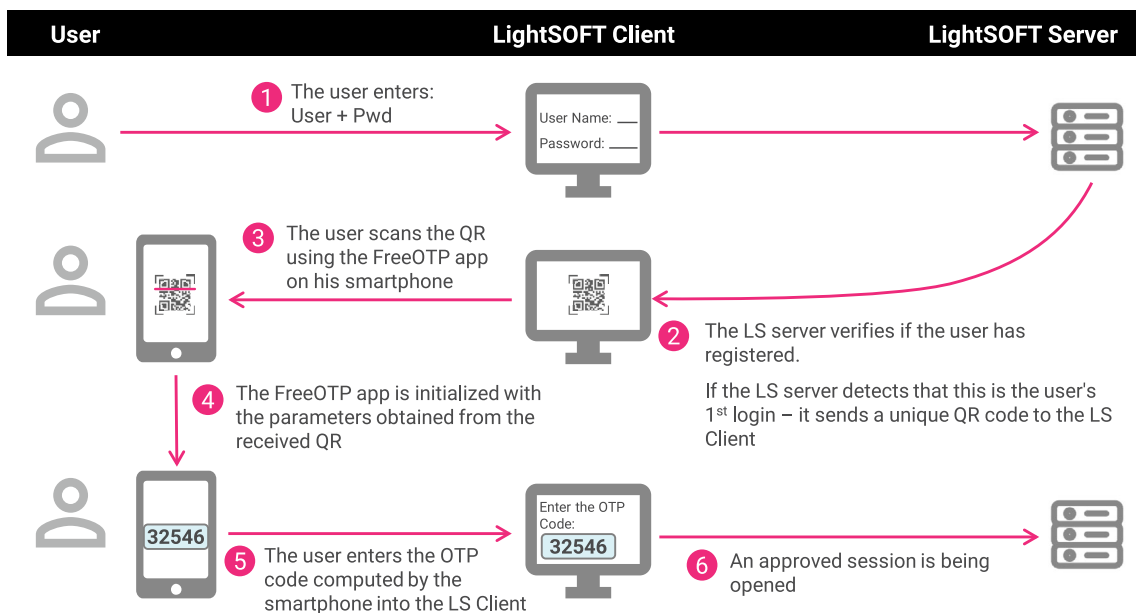
During the login process, after entering the username and password, the user has to enter the code that appears on their mobile phone in an appropriate field of the LightSOFT Client login screen. The entered number is compared with the number that is calculated in parallel by the LightSOFT Server for this specific user, and the login process will only work if the numbers are the same.

The LightSOFT 2FA solution has two steps:

1
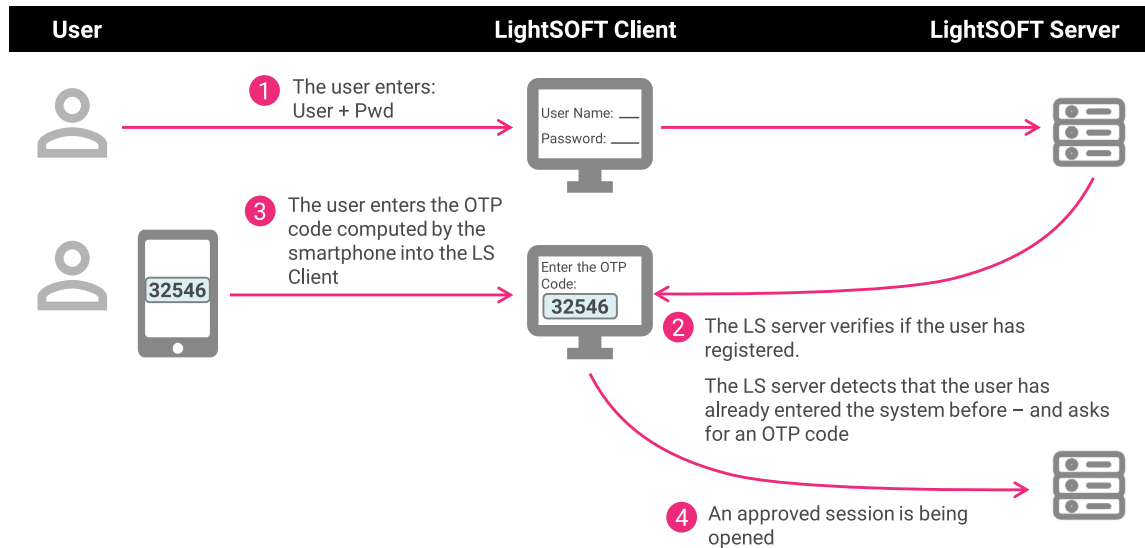
Initial step - synchronization of the user's OTP code

The system displays a special QR Code for the user who identified themself using a username and password. Using the OTP app on the mobile phone, the user captures the QR Code and by doing so, the mechanism for calculating the OTP number on the phone automatically synchronizes with the OTP software in LightSOFT Server.

User	LightSOFT Client	LightSOFT Server

1 The user enters: User + Pwd

User Name: ___
Password: ___

3 The user scans the QR using the FreeOTP app on his smartphone

2 The LS server verifies if the user has registered.

If the LS server detects that this is the user's 1st login – it sends a unique QR code to the LS Client

4 The FreeOTP app is initialized with the parameters obtained from the received QR

32546

Enter the OTP Code:
32546

5 The user enters the OTP code computed by the smartphone into the LS Client

6 An approved session is being opened

2

Ongoing work phase with synchronized OTP code

During the ongoing work phase, each time the user logs in to the system, they enter the number that appears on their OTP application into the appropriate field of the login screen.

User	LightSOFT Client	LightSOFT Server

1 The user enters:
User + Pwd

User Name: ___
Password: ___

3 The user enters the OTP code computed by the smartphone into the LS Client

32546

Enter the OTP Code:
32546

2 The LS server verifies if the user has registered.

The LS server detects that the user has already entered the system before – and asks for an OTP code

4 An approved session is being opened

The solution also enables a trusted administrator to disable the feature on a mobile phone, for instance, when a user leaves the network operator, or to reset the feature when a user acquires a new or replacement phone, reinitiating the first step.

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About Ribbon

Ribbon Communications (Nasdaq: RBBN) delivers communications software, IP and optical networking solutions to service providers, enterprises and critical infrastructure sectors globally. We engage deeply with our customers, helping them modernize their networks for improved competitive positioning and business outcomes in today's smart, always-on and data-hungry world. Our innovative, end-to-end solutions portfolio delivers unparalleled scale, performance, and agility, including core to edge software-centric solutions, cloud-native offers, leading-edge security and analytics tools, along with IP and optical networking solutions for 5G. We maintain a keen focus on our commitments to Environmental, Social and Governance (ESG) matters, offering an annual Sustainability Report to our stakeholders. To learn more about Ribbon visit rbbn.com.