



**PROTELION**  
GOVERNMENT SOLUTIONS



# **PROTELION SECURE COMMUNICATION**

The Solution You Need  
for Enhanced Security



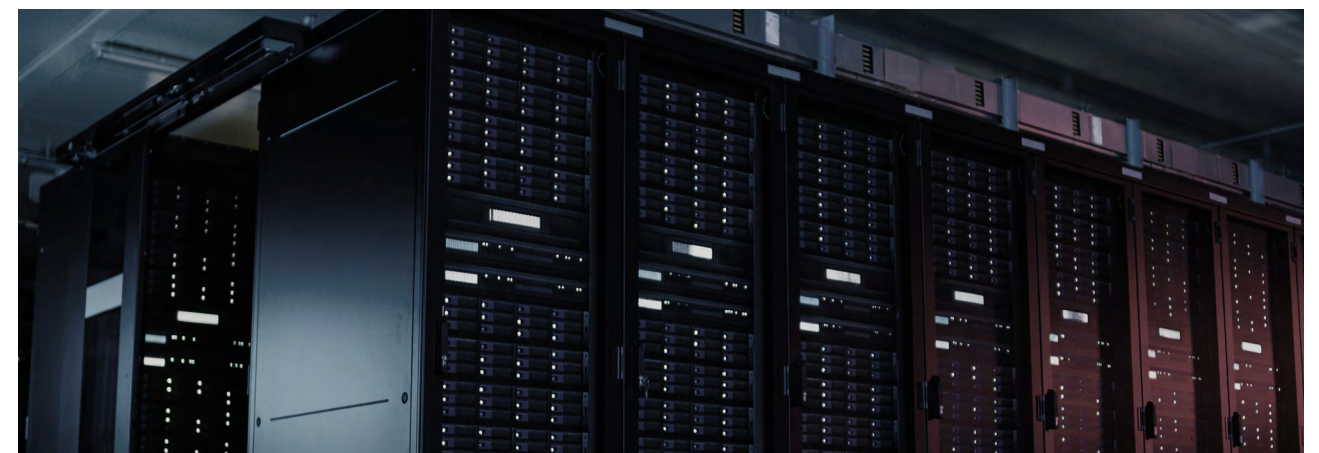
# SECURE COMMUNICATION

In today's fast-paced, information-driven world, secure communication is crucial. We exchange photos, voice, files, and text messages on a massive scale, yet mobile communication is particularly vulnerable to interception. Hackers worldwide are making immense efforts to access data transmitted through networks, and governments have been victims of that. As a result, both public and private sector organizations need fast, secure, and reliable communication solutions. With this in mind, Protelion has developed its secure mobile communication solution to address these concerns.

## SECURE MOBILE COMMUNICATION FOR GOVERNMENT ORGANIZATIONS AND AFFILIATED ENTERPRISES

In response to the rigorous security requirements of governmental organizations Protelion has developed solutions operating within a customer-administered and controlled network infrastructure. Protelion Encrypted Mobile Communication is a secure alternative to public services that offers an encrypted corporate messaging communication platform based on Protelion VPN technology. Protelion VPN technology is a modular

solution for comprehensive, multilevel information security. Products based on Protelion VPN technology provide scalability, flexibility, ease of deployment, management, and maintenance. This allows products to be successfully integrated into existing networks, maintaining an optimal balance between the required comprehensive information security and performance, simplicity, and cost-effectiveness.





## PROTELION TECHNOLOGY ADVANTAGES

- Symmetric Encryption
  - Protelion Security Technology is based on symmetric AES 256 encryption.
  - Key length is 256 bits
  - Symmetric key exchange protocol
- Sessionless VPN
  - No handshake or additional packets exchange
  - Direct transmission of IP packets without intermediary servers
  - IP packets from the very first one go out encrypted
  - Works even through low-quality channels
  - Handover without interruptions
- Protelion AR Messenger Service
  - Messaging
  - Voice
  - Video
  - Group chat services
  - File exchange
  - Content sharing
- Protelion Security Management Center (SMC)
  - The Protelion VPN Technology uses a centralized management platform to manage and update all security and network parameters

## SECURE MOBILE COMMUNICATION SOLUTION

The Protelion VPN Technology safeguards user devices with a virtual private network (VPN) over the Internet and LAN networks, offering secure access to corporate resources. Supporting any IP network, Protelion Technology meets diverse user needs. Customers can opt for our standard secure AR VPN and AR Messenger applications for secure communication. Alternatively, if they need extra means and levels of security, they can choose Protelion ArmoredMobile.

### KEY BENEFITS

- Highly secure communication solution based on AES 256 encryption
- Point-to-point exchange of encrypted data directly between devices
- Designed for seamless voice and video calls, group chat, texts, and file exchange
- Easy to use modern and intuitive UI design
- Protected address book centrally created and managed by the Protelion SMC

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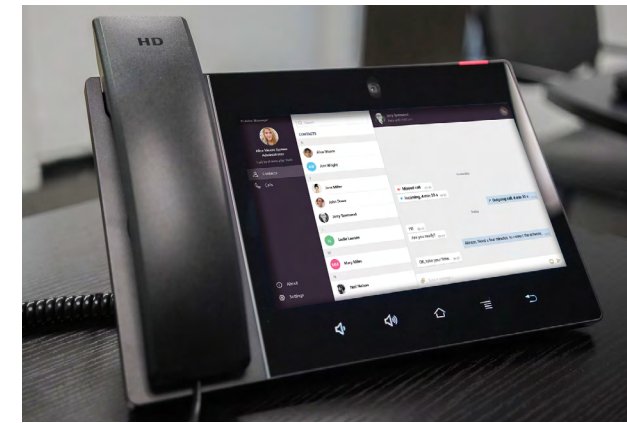
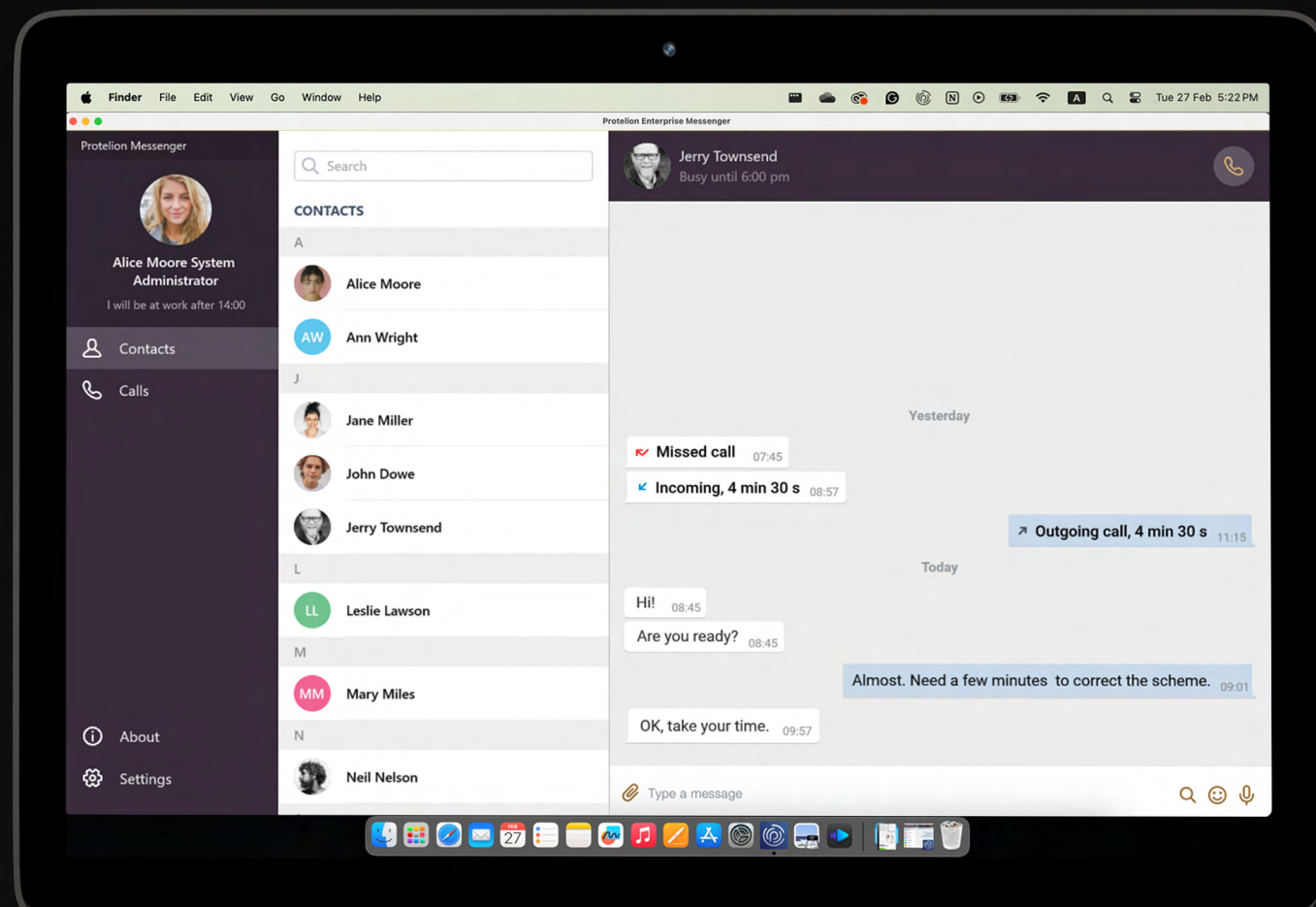
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## PROTELION AR MESSENGER

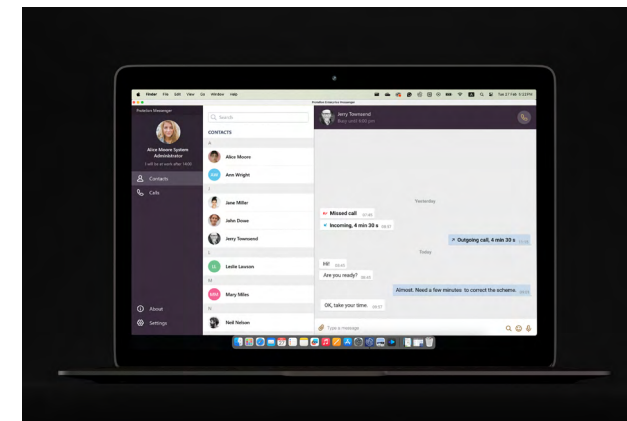
The Protelion AR Messenger offers a secure and efficient alternative to public messaging services to ensure protected communication through its advanced Protelion Security Technology. Users can easily install the Protelion AR Messenger and Protelion AR VPN on their Android, Windows, and Linux devices and iPhones. This AR Messenger solution could be integrated with existing telephony

infrastructure and seamlessly fit into existing VoIP and video conferencing systems. Secure communication services ensure high-quality, secure voice and video calls and data transmission and bypassing intermediary servers for added security. The Protelion AR Messenger is a reliable and secure communication solution that prioritizes user privacy and data protection across multiple platforms.



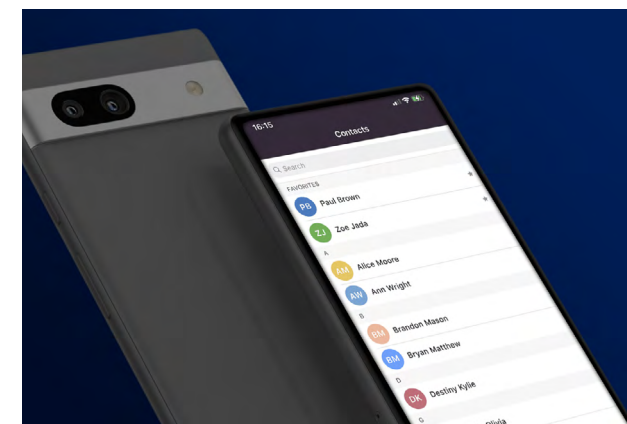
### Protelion AR Messenger on AR Desktop Phone

The Protelion AR Desktop Phone is compatible with various enterprise SIP servers. The built-in Protelion AR VPN and AR Messenger applications ensure confidential and private communication.



### Protelion AR Messenger on Notebooks and Desktops

The Protelion AR Messenger Application converts laptops or desktop computers into a fully integrated, protected part of the client's secure communication system.



### Protelion AR Messenger on Mobile Phones

The Protelion AR Messenger allows employees to securely communicate using voice calls, video calls, chat messages and supports file exchange. The application can be installed on any private iPhone and Android phone.

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PROTELION ARMOREDMOBILE

The Protelion ArmoredMobile Security is the definitive response to government organizations' need for secure mobile communication. This holistic solution delivers highly secure communication using the Protelion ArmoredMobile with extremely robust, built-in security capabilities. Protelion hardens off-the-shelf Android mobile phones by implementing its proprietary Android-based ArmoredOS, a highly secure and fully customized operating system. It has been developed to provide the highest level of privacy

and security when using smartphones for communication. In addition, the application contains visualization and control features for device protection, providing kernel-level antivirus capabilities with real-time file checking and a network firewall accessible only through the VPN. The continuous monitoring of system status, isolation of device drivers, and control over device activity, coupled with a centralized Mobile Device Management (MDM) system, ensures effective device protection and management.

THE PROTELION ARMOREDMOBILE CONSISTS OF THREE MAIN COMPONENTS:

- Protelion AR VPN
- Protelion AR Messenger
- Protelion ArmoredMobile with ArmoredOS

A key function of ArmoredMobile is to protect against cyber attacks and spyware that uses zero-day exploits. The hardened phone has kernel-level antivirus capabilities with real-time file checking based on hash values and YARA rules. WiFi, Bluetooth, NFC, and USB activity are closely monitored for maximum security. The smartphone achieves its robust security posture by minimizing and tailoring the list of applications,

eliminating access to Google Mobile Services, incorporating accessibility features in the operating system, and exclusively using verified applications. The deliberate limitations on system applications and services enhance the overall security of this trusted solution for governmental entities, with the option to block conventional calls functionality for voice calls.



*Protelion ArmoredMobile*  
Main screen of Protelion ArmoredMobile.

*ArmoredOS System Applications*  
Lists of available applications for users.

*ArmoredOS Security Center*  
The application for visualization and control of device protection systems.



## PROTELION ARMOREDMOBILE KEY FEATURES

- According to customers requirements, Protelion could add the customers applications to the corporate application store
- It only allows the installation of applications verified and digitally signed by Protelion
- It features a kernel-level antivirus, which scans every file in real-time, regardless of any changes
- It prohibits flashing the device or accessing the operation system bootloader
- Any connection trying to bypass the VPN is prohibited
- The ArmoredMobile Services provide a secure and timely mechanism for OTA updates of the operating system and applications
- It can block incoming and outgoing calls
- It has exploit protection, which includes measures such as hardened malloc, kernel, libc, a secure web browser with a protected WebView component, a defense against PDF and document exploits, a camera application for secure scanning QR codes, and the absence of support for MMS messages
- Data does not leave the corporate infrastructure
- The system can track and monitor phones
- Data could be blocked or deleted remotely in case of emergency

## PROTELION SMC

The Protelion SMC is a centralized management system that securely manages and controls Protelion products and solutions. It facilitates product deployment, license management, and essential delivery and operates the Protelion networks for each organization, with its user accounts, devices, etc. Protelion SMC can be deployed on-premise or remotely in a secure environment. Customers will always be able to generate, distribute, and renew the encryption keys and thus control the encryption and their data. Protelion SMC operates through highly secured remote channels.

## Protelion Communication Security System

