

## QuoVadis Secure Email Service

### Background

With the new GDPR legislation active since the 25th of May 2018, more and more companies start to realise that a lot of their privacy relevant information is sent by normal unencrypted internal and external email. Especially the external email is vulnerable to 'data-leakage' because an external email can pass multiple mail servers, where everyone with enough access to these servers can read the content of these mails.

You could even say that sending digital mail the way we do today is comparable with sending a classic letter in an open transparent envelope or even sending a postcard with privacy relevant text on it.

Since 1996 the technology and the global trust framework is available to send secure encrypted email with the use of personal S/MIME certificates. S/MIME stands for Secure/Multipurpose Internet Mail Extensions. An S/MIME certificate is a sort of digital passport which you can use to digitally sign your email or even encrypt your email so no one can read your email other than the one receiving it.

The substantial cost for an S/MIME certificate, the very technical installation procedure and the need for the sender to acquire the public key of the receiver of the email, to send an encrypted email are the reasons that sending encrypted mail did not raise to be the standard.

Talking to our customers we found out that they would really like to use digitally signed and encrypted email if the extra cost weren't that high and the installation and use would be very simple. So together with our Certificate and Key Management partner KeyTalk, we develop the QuoVadis 'Secure Email Service'.

### Description of the Secure Email Service

To fulfill the need to use encrypted email in an affordable and easy to use way, QuoVadis, as a Qualified Trust Service Provider (QTSP) and KeyTalk as a Certificate and Key Management partner, jointly developed this Secure Email service.

This Secure Email Service consists of a number of components all relevant for the proper way of working:

- A personal S/MIME certificate issued by QuoVadis a globally trusted CA.
- A Secure Email Service client app, this is an end-user app developed by KeyTalk, available for Windows, OS X, Android and iOS. The app handles the request, installation and configuration of the S/MIME certificate for the mail program of the user. (mostly MS Outlook)
- A Secure LDAP directory service, is a specific service configured as a public Directory Service in which every user of the Secure Email Service will be

registered and where the public keys for these users will be stored. The Directory Service will be hosted in the Trust Centre of QuoVadis and therefore accessible for everyone with an internet connection.

- CKMS, a Certificate and Key Management System, in this case the CKMS of KeyTalk. The CKMS is needed to securely manage the crypto key pairs used for the encryption and decryption of email messages. The CKMS is by default hosted in the Trust Centre of QuoVadis, but can also be hosted on premise or in the Cloud solution of a customer.

The Secure Email Service is intended for those companies who want to be ready for the new GDPR legislation and because of that they want to tackle their most vulnerable source for data leakage, the internal and external email traffic. With this service they can provide all their employees and even their customers with the possibility to digitally sign their emails and optionally encrypt them without any hassle.

#### How easy is this Secure Email Service for the end-user?

With the design of the Secure Email Service, one of the most important features was the ease of use for the end-user. So what brings the service for the user?

- With the KeyTalk Secure Email app, the installation process for the end user is seamless, only once an authentication is needed with corporate credentials and the installation and configuration of the S/MIME certificate for MS Outlook is done automatically.
- The email program of the user is now capable of sending and receiving digitally signed emails with the option to encrypt each single email or decrypt an email coming from another user registered by the QuoVadis Secure Email Service.
- Furthermore, if a user wants to send an encrypted email to a contact without an S/MIME certificate, the user can easily invite an external contact for a free S/MIME certificate by sending a request for that external email address.
- Less than one minute later, sending and receiving end-to-end encrypted emails to that external contact is possible.

Do you want to start with secure email? Its easy, contact us and we can have you up and running within a day.

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