

3KEYS CRPT Connector¹ for SAP Advanced Track & Trace

The CRPT Connector is a solution provided by 3KEYS GmbH. The CRPT Connector helps companies to fulfill the reporting requirements to the Russian Federal Databases for Medications, Tobacco, Footwear, Tires, Light industry products, and also for upcoming regulations, such as Water, Dairy, and other goods.

The CRPT Connector is available both on-premise and as a cloud version.

Depending on its version the Connector is the combination of an ABAP SAP ATT add-on and a Java-based middleware used to transfer digitally signed Russian reporting messages from SAP Advanced Track & Trace (SAP ATT) to the OMS, GIS MT, IS MDLP, IS MOTP systems using a secure connection. It will also download incoming messages from the GIS systems and forward them to SAP ATT for further processing. The Connector provides the monitoring for outbound and inbound messages. This middleware is available in two flavors: on-premises software or cloud-based service. The predeveloped programs can be adopted to the client needs. The Cloud is hosted in Russia (Yandex Cloud) in order to provide full compliance of GOST Electronic Signatures usage.

WHY THE CONNECTOR IS NEEDED?

The current Russia Country Package for SAP ATTP 3.0 allows to generate reports in XML/JSON formats and either automatically upload them to a file share or send to GIS systems after manual approval and locally-applied digital signature. The 3Keys Connector enables bi-directional (inbound and outbound) integration between SAP ATT and GIS MT, IS MDLP, IS MOTP systems in fully automated mode without installing digital signature software on user machines.

HOW THE CONNECTOR WILL BE USED?

The CRPT Connector will be installed on SAP ATT as pre-delivered ABAP code implementing standard ATT BADIs. The BADIs call Java components which are then used to communicate with the GIS systems. The BADIs call HTTP endpoints of the Java component, which in turn communicates with the GIS systems. Vice versa, the ABAP code implements a set of function modules that are then exposed as HTTP endpoints from ATT and are called from the Java component to push notifications and update report statuses. The Java component of the Connector provides GOST TLS connectivity with the IS MDLP and GIS MT APIs, integrates with CryptoPro JCP library to support digital signatures and enables polling GIS APIs for incoming messages.

Security

- The solution is secured proven and GxP validated by an external independent professional company.
- It has been proven that there is no possibility to bypass access control list and gain unauthorized access to API for the legitimate clients of the Connector Cloud.
- The overall security level has been evaluated as high.
- Additional client-side middleware (such as SAP PO) and security mechanisms (Gateways, Firewalls, Proxies) can be used.

¹ Patented as «3Keys MDLP connector»

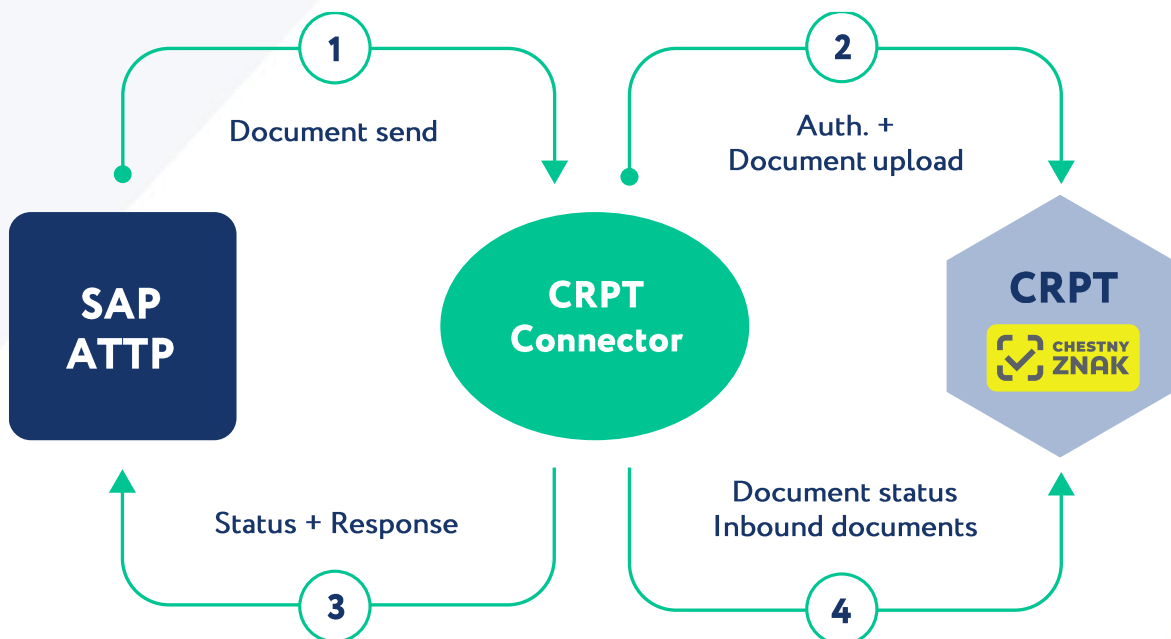
3KEYS CRPT connector provides the following functionality:

- Implements fully featured communication & authentication layer, security features (document signature, certified based authentication) required by CRPT
- Provide GOST Digital signature functionality via CryptoPro library or another certified cryptographic provider
- Auto digital signature of crypto code orders to OMS (non-pharma industries)
- Automatically send reports from ATT to GIS APIs
- Provide GOST TLS connection
- Poll GIS systems for processing status of sent outbound reports
- Poll GIS systems for new inbound messages (6xx notifications) and download them into ATT
- ATT transaction to monitor inbound and outbound messages

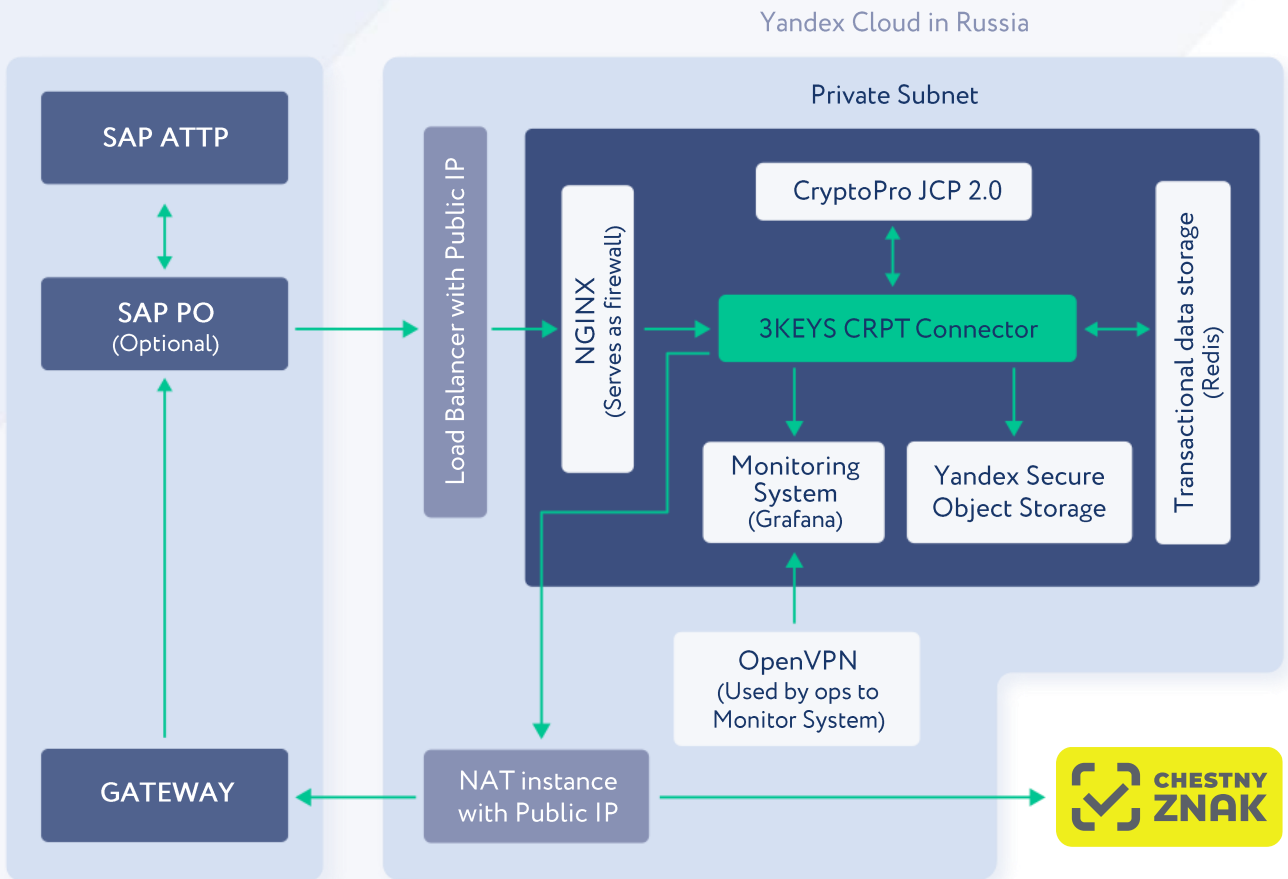
The Connector on cloud also provides:

- Middleware-as-a-Service to connect SAP ATT with the OMS, GIS MT, IS MDLP and MOTP
- Cloud hosted in Russia (Yandex Cloud) in order to provide full compliance of GOST Electronic Signatures usage (the cloud version)

Data flow-simplified



CRPT CONNECTOR: SaaS on Yandex Cloud



HOW THE CONNECTOR IS VALIDATED?

The 3KEYS CRPT Connector is developed in line with best practices of computerized system validation (CSV).

HOW TO MIGRATE FROM CONNECTOR TO SAP STANDARD IF NEEDED?

The 3KEYS CRPT Connector provides parameters which can be set active or inactive at any time without making changes to the code. This allows customers to return to SAP standard and deactivate the Connector implementation without programming.