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# **LIBREOFFICE LOCKDOWN & ENCRYPTION**

## **Improvements to document security & permissions**

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# Yours Truly

*Thorsten Behrens – [thb@libreoffice.org](mailto:thb@libreoffice.org)*

- Since 2015 with CIB & built the LibreOffice team there
- One of those LibreOffice forkers/founders, also on The Document Foundation board
- Working with this code since about 2001 (OpenOffice, then LibreOffice)
- Hacker, computer scientist, FLOSS & Open Standards lover



# CREDITS

Vasily Melenchuk

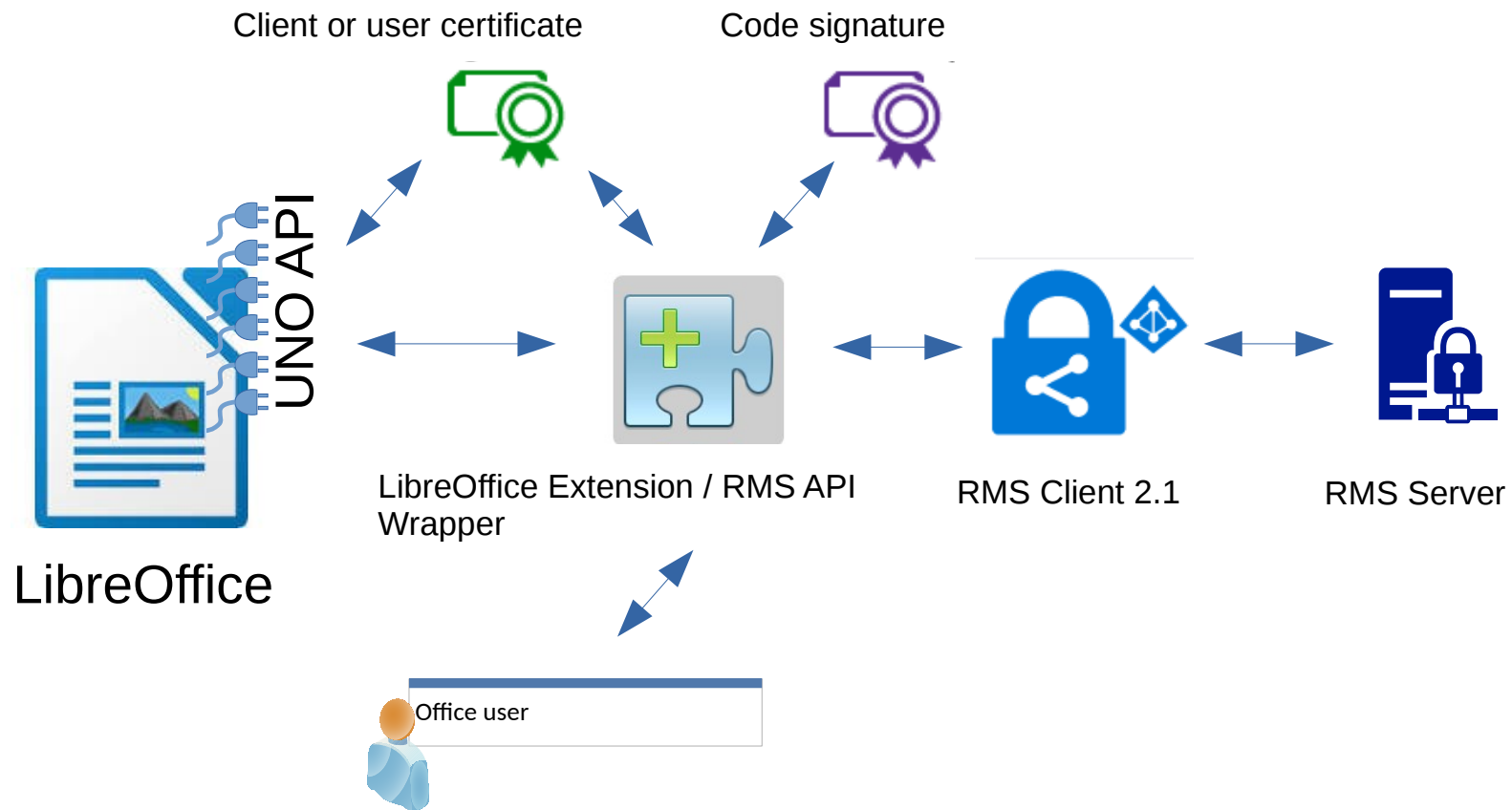
Serge Krot

Samuel Mehrbrodt

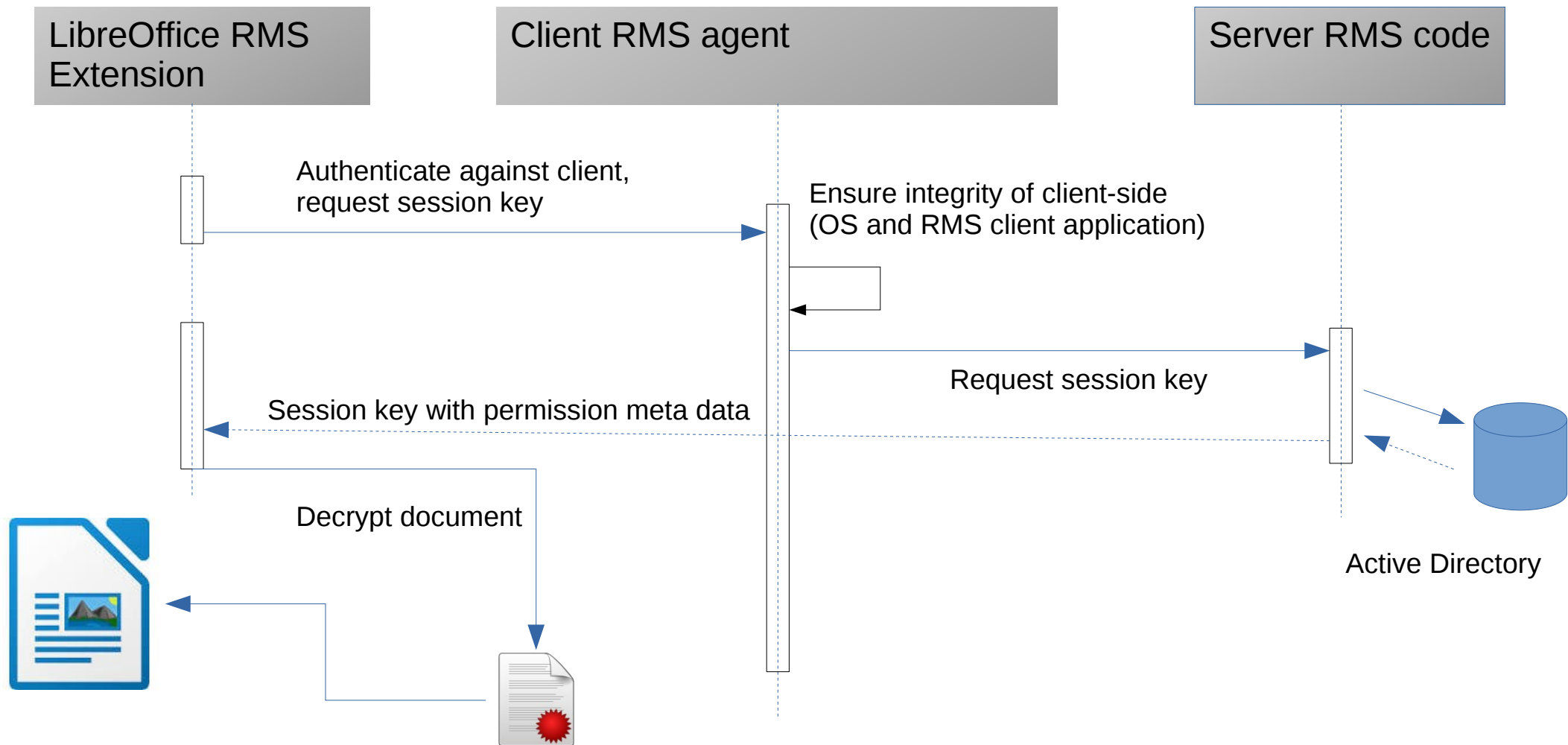
# **ANOTHER „ENTERPRISE“ FEATURE WE MISSED**

- 1. FOR DESKTOP USERS**
- 2. PERMIT ENTERPRISES TO CENTRALLY CONTROL WHAT USERS CAN DO**
- 3. WITH THEIR COMPUTERS & THEIR DOCUMENTS**

# ARCHITECTURE FOR MS RIGHTS MANAGEMENT (RMS)

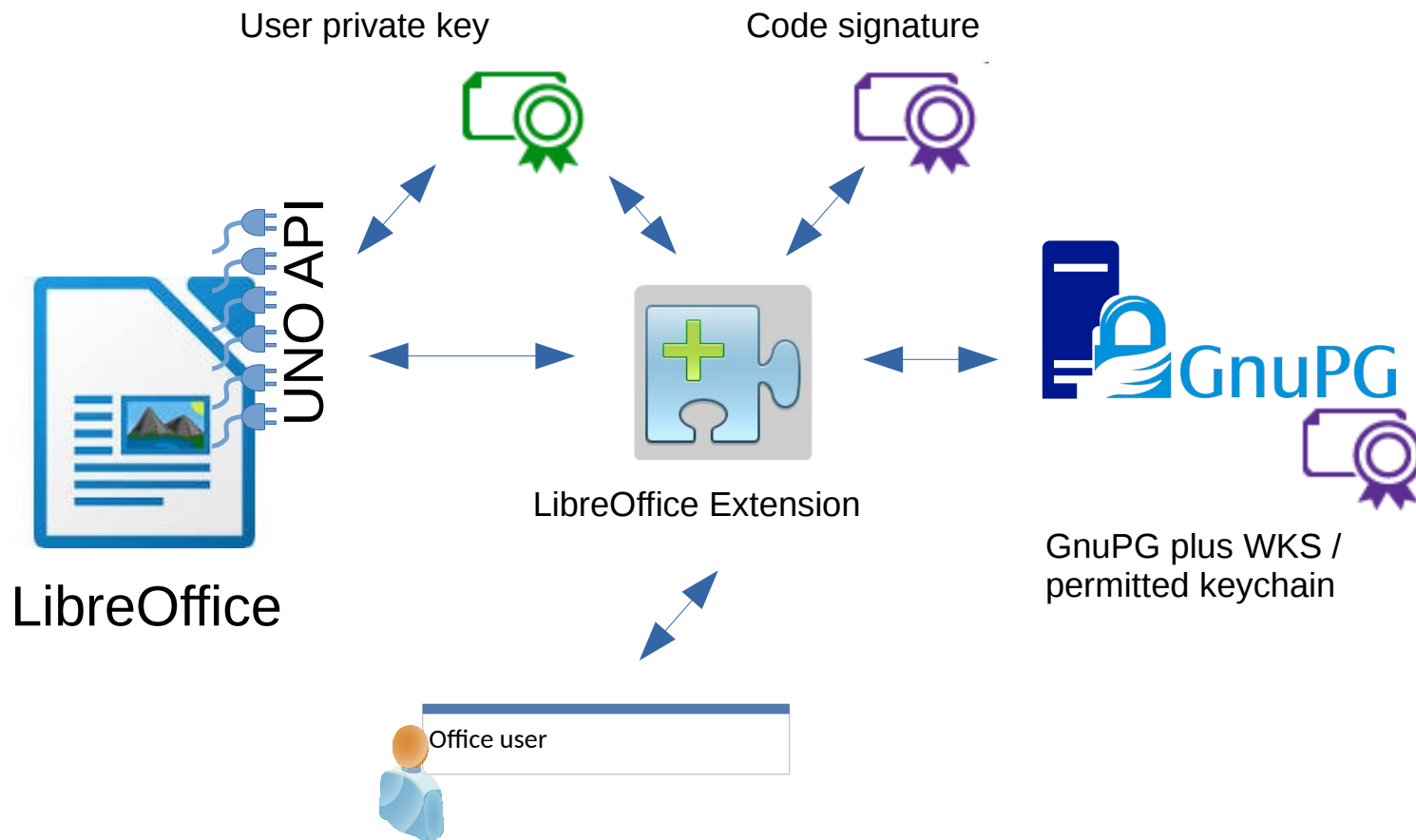


# SEQUENCE DIAGRAM FOR A RMS DECRYPTION





# ARCHITECTURE FOR GNUPG (SUGGESTION)



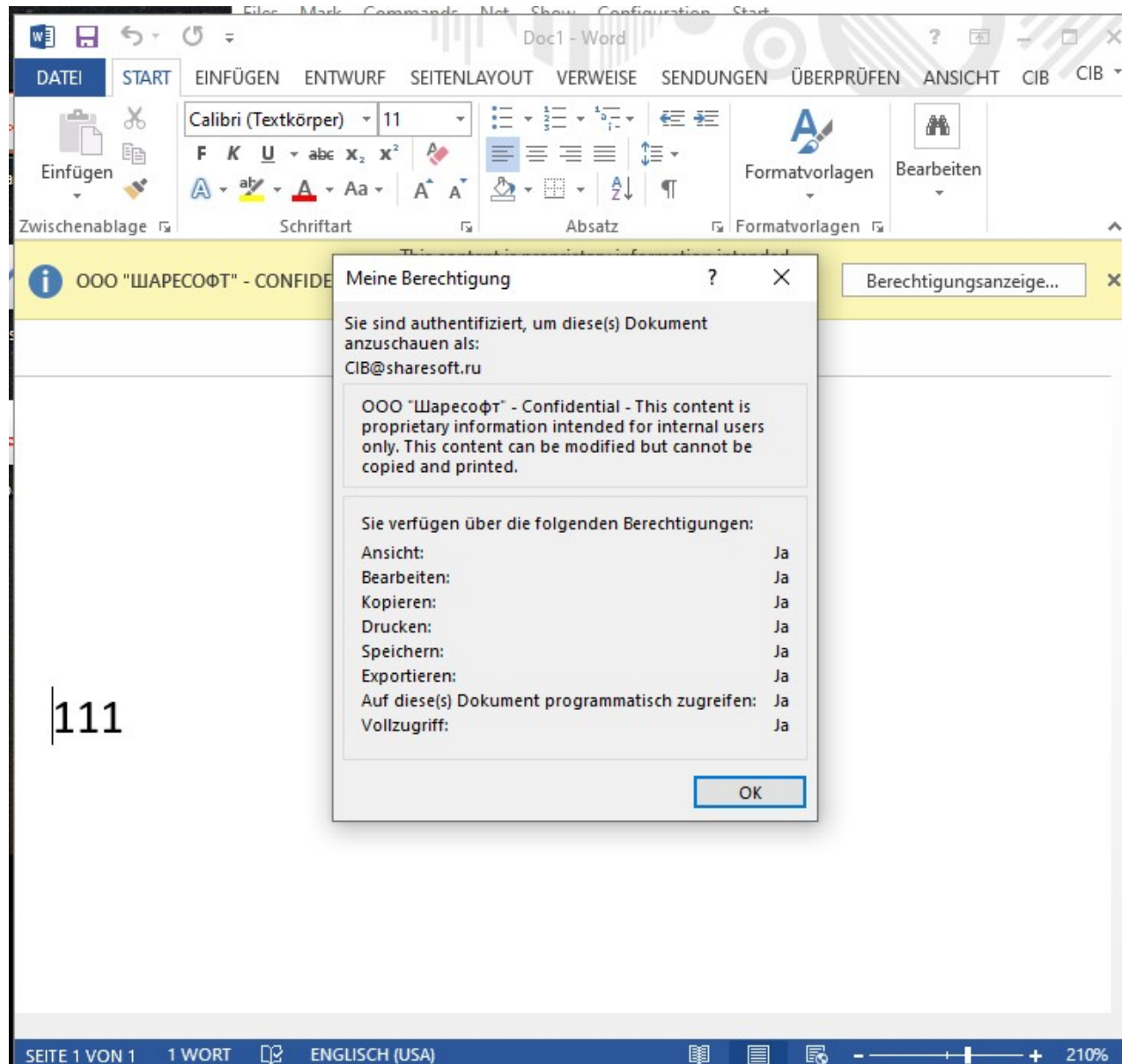


# IMPLEMENTATION

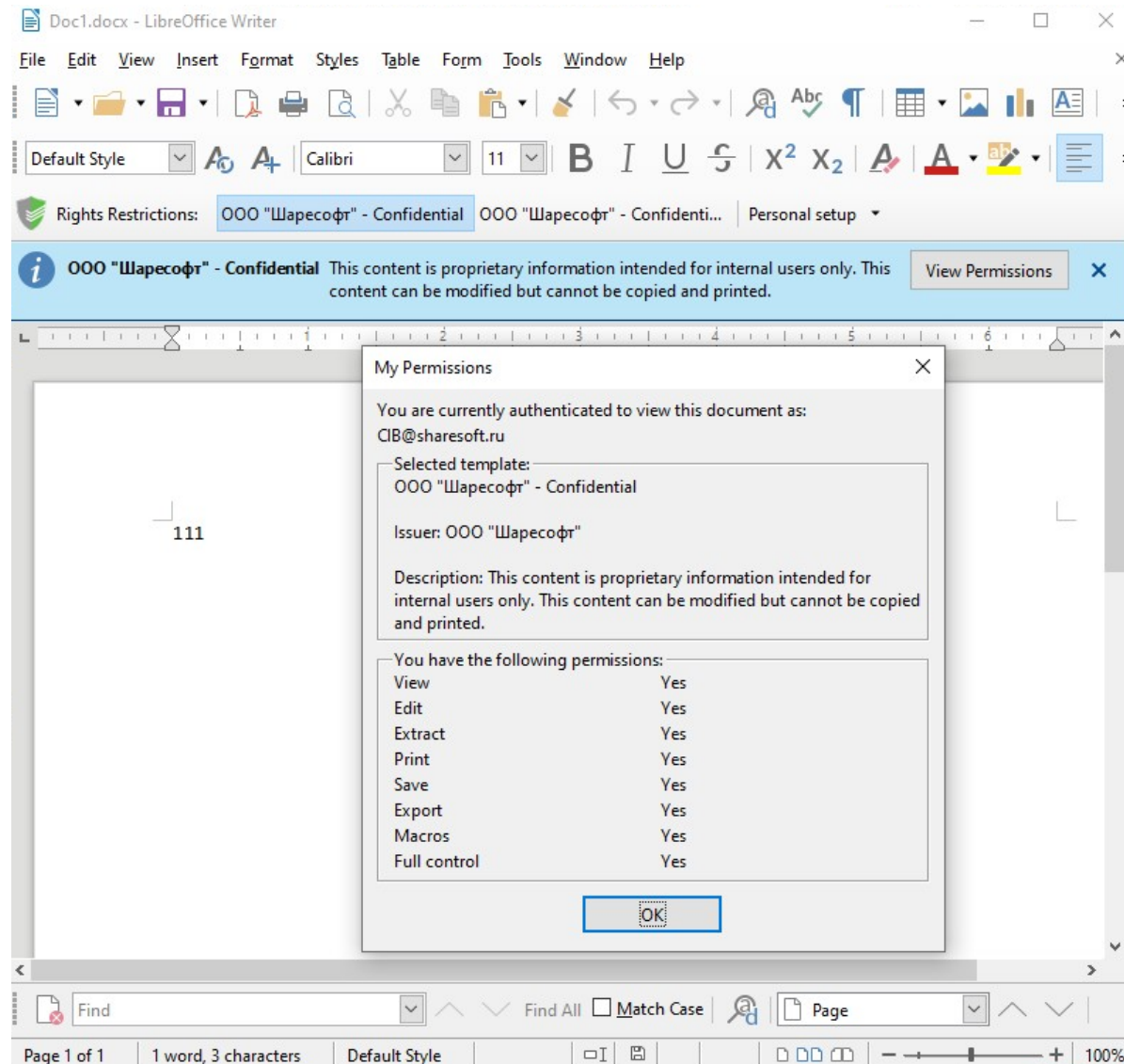
# CORE API CHANGE FOR THIS FEATURE

```
interface XPackageEncryption: css::uno::Xinterface
{
    boolean readEncryptionInfo(
        [in] sequence < css::beans::NamedValue > r0leStreams);
    boolean generateEncryptionKey(
        [in] string rPassword);
    boolean decrypt(
        [in] css::io::XInputStream rxInputStream,
        [out] css::io::XOutputStream rxOutputStream);
    sequence<css::beans::NamedValue> createEncryptionData(
        [in] string rPassword);
    boolean setupEncryption(
        [in] sequence<css::beans::NamedValue> rMediaEncData);
    sequence<css::beans::NamedValue> encrypt(
        [in] css::io::XInputStream rxInputStream);
    boolean checkDataIntegrity();
};
```

# SOME SCREENSHOTS



# SOME SCREENSHOTS



Any questions? :)



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**THANK YOU!**

