

# Cloud-Based Licensing in Offline Scenarios

**Strategies and Best Practices** 



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SECURITY LICENSING PERFECTION IN PROTECTION

# To access the on-demand replay of this masterclass, please visit

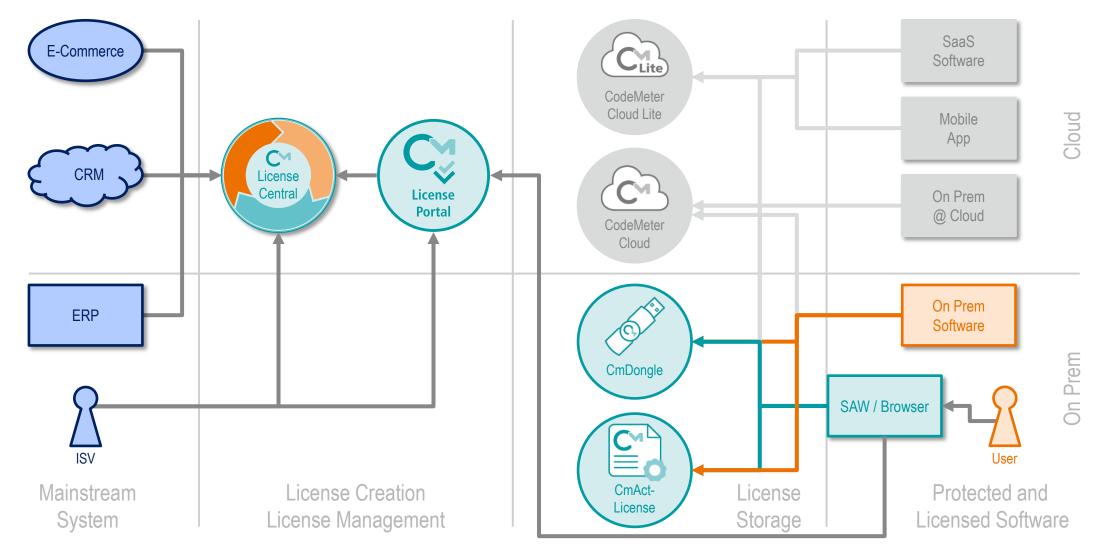
# https://www.wibu.com/wibu-systems-webinars/cloudbased-licensing-in-offline-scenarios/access.html



# Overview



## **CodeMeter Product Overview**



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# **CodeMeter Container Types**



# **CmContainer Types**

#### CmDongle

- Mobile
- Highest security

## CmCloudContainer

- Mobile
  - Requires Internet connection
  - Highest security



# CmReady

- Mobile
- Uses existing flash memory device



#### CmActLicense

• Bound to a device

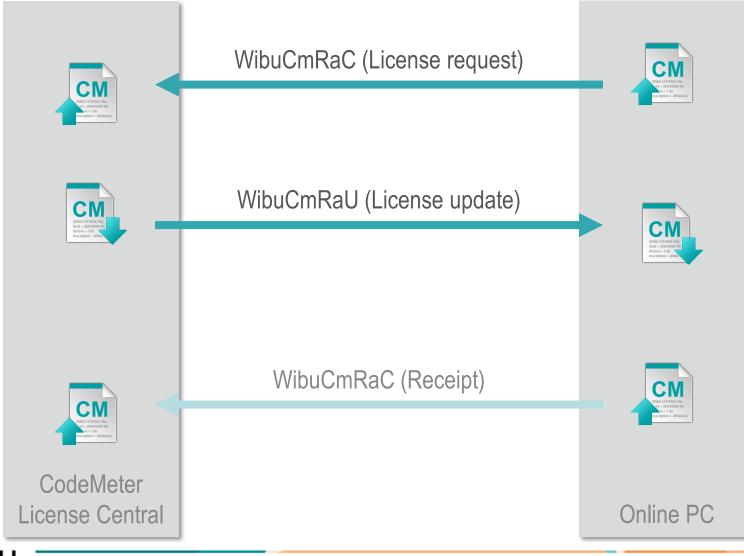


# **License Activation**

#### The Basic Process

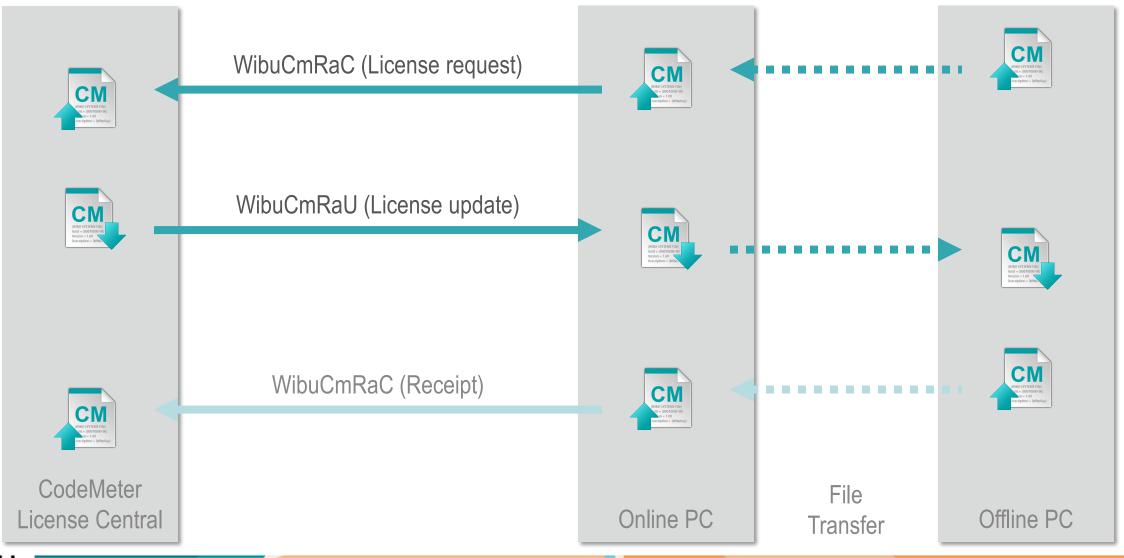


# **Transferring a License into a CmContainer (Online)**



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# **Transferring a License into a CmContainer (Offline)**



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# **Fingerprinting Offline Devices**



# **Fingerprinting Offline Devices**

## SmartBind

- Default (automatic) binding
- Maintained by Wibu-Systems

#### Workflow I

- WibuCmLiF → WibuCmRaC
- WibuCmRaC → WibuCmRaU
- Pre-activation during production

# Binding Extension

- Individual Binding as plugin to CodeMeter
- Implementation effort by ISV
- Workflow I
  - WibuCmLiF → WibuCmRaC
  - WibuCmRaC → WibuCmRaU
  - Pre-activation during production

#### Workflow II

- Device ID → Binding Value → WibuCmRaC (Simulated)
- WibuCmRaC → WibuCmRaU
- Storage of Device ID during production



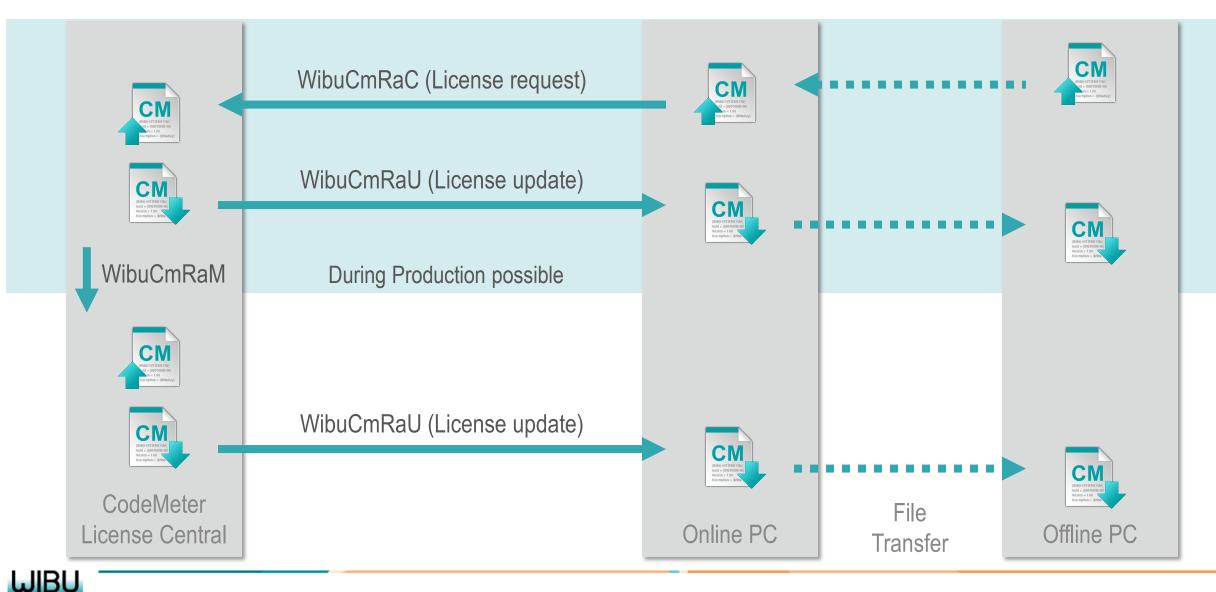
# **Push Updates for Known Devices**



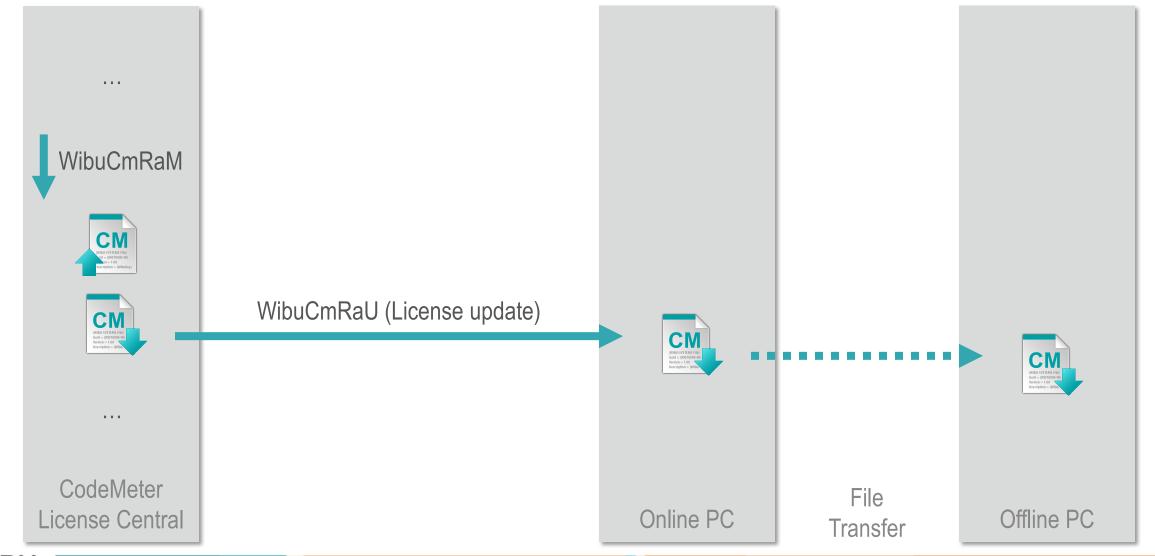
# **Push Updates for Known Devices**

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## **Push Updates for Known Devices**



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# **License Deactivation**



## **License Deactivation**

- Deactivation creates a new license file (higher generation ID)
  - Secure storage of generation ID
- Receipt mandatory to confirm deactivation
  - Firm Update Counter after deactivation
  - Manual confirmation by ISV possible

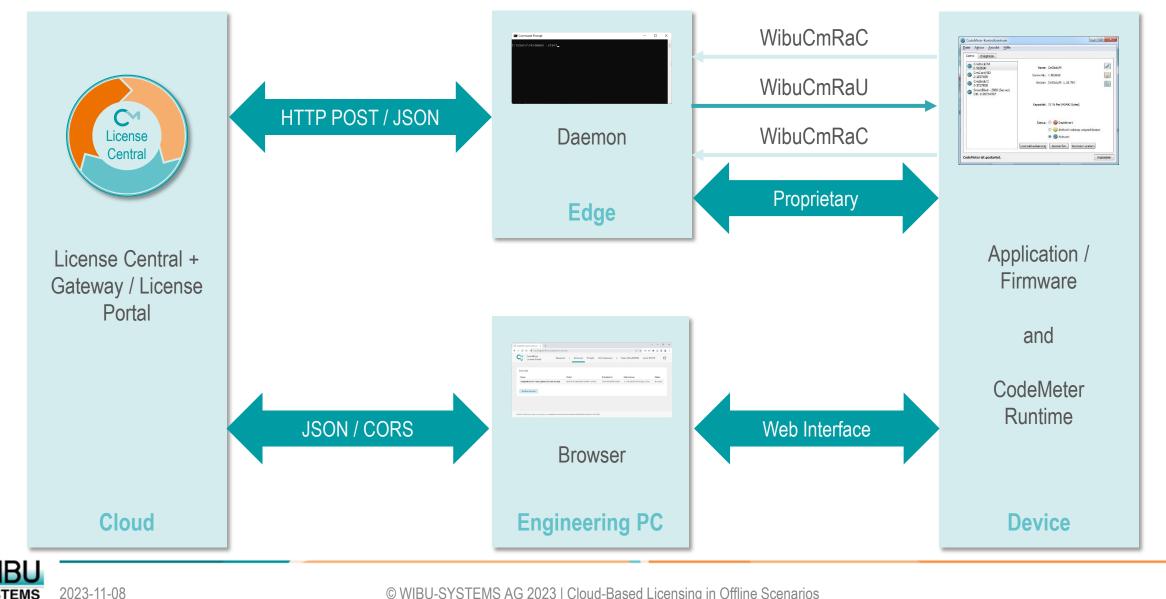


# Indirect Activation via Edge Devices or Engineering PCs



## **Indirect Activation via Edge Devices or Engineering PCs**

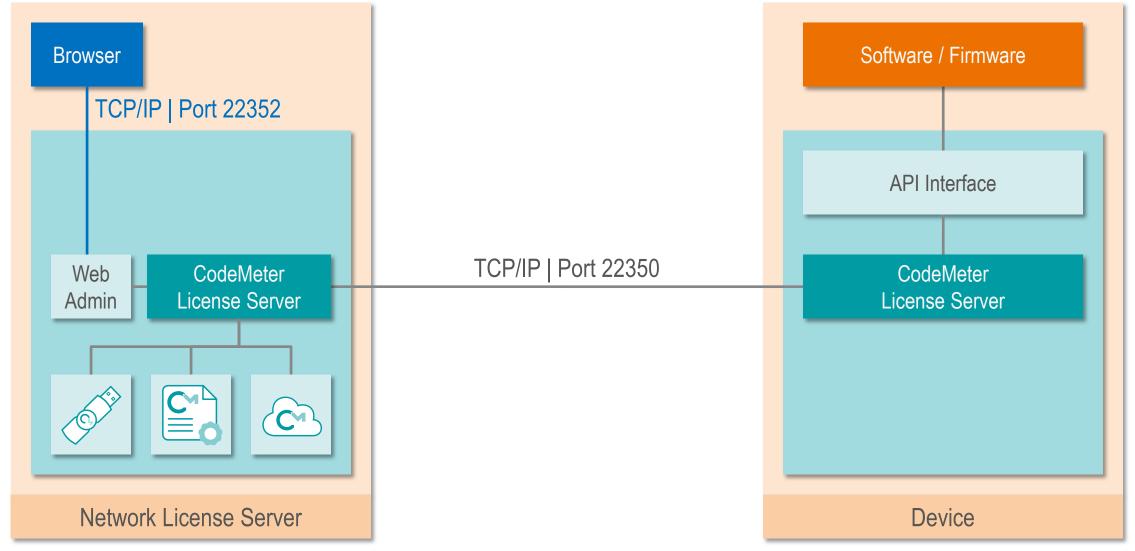
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# License Servers and Redundant License Servers



#### **License Servers and Redundant License Servers**



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# **License Servers and Redundant License Servers**

#### License Server

- Central license management
- TCP/IP communication Client → Server
- License Quantity defines number of devices per license
- Windows, Linux, macOS
- CmDongle, CmActLicense, CmCloudContainer, CmReady
- WebAdmin for support processes
- CodeMeter Control Center / cmu-tool

## Redundancy

- Two-License Servers with/without usage tracking
- Triple Mode Redundancy (TMR)



# **Advanced Requirements**



# **Advanced Requirements**

#### Bulk updates for entire shop floor landscapes

- Tool to collect WibuCmRaC files and push WibuCmRaU files
- XML file, Zip archive, ... to transfer all files at once, individual implementation

## Subscription licenses in industrial manufacturing

- Needs direct or indirect Internet connection for renewal
- Alternatively, via Push updates
- License Subscription vs. Maintenance Subscription





## It's time to address your most burning questions



# **Thank You!**

#### Let's keep in touch

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