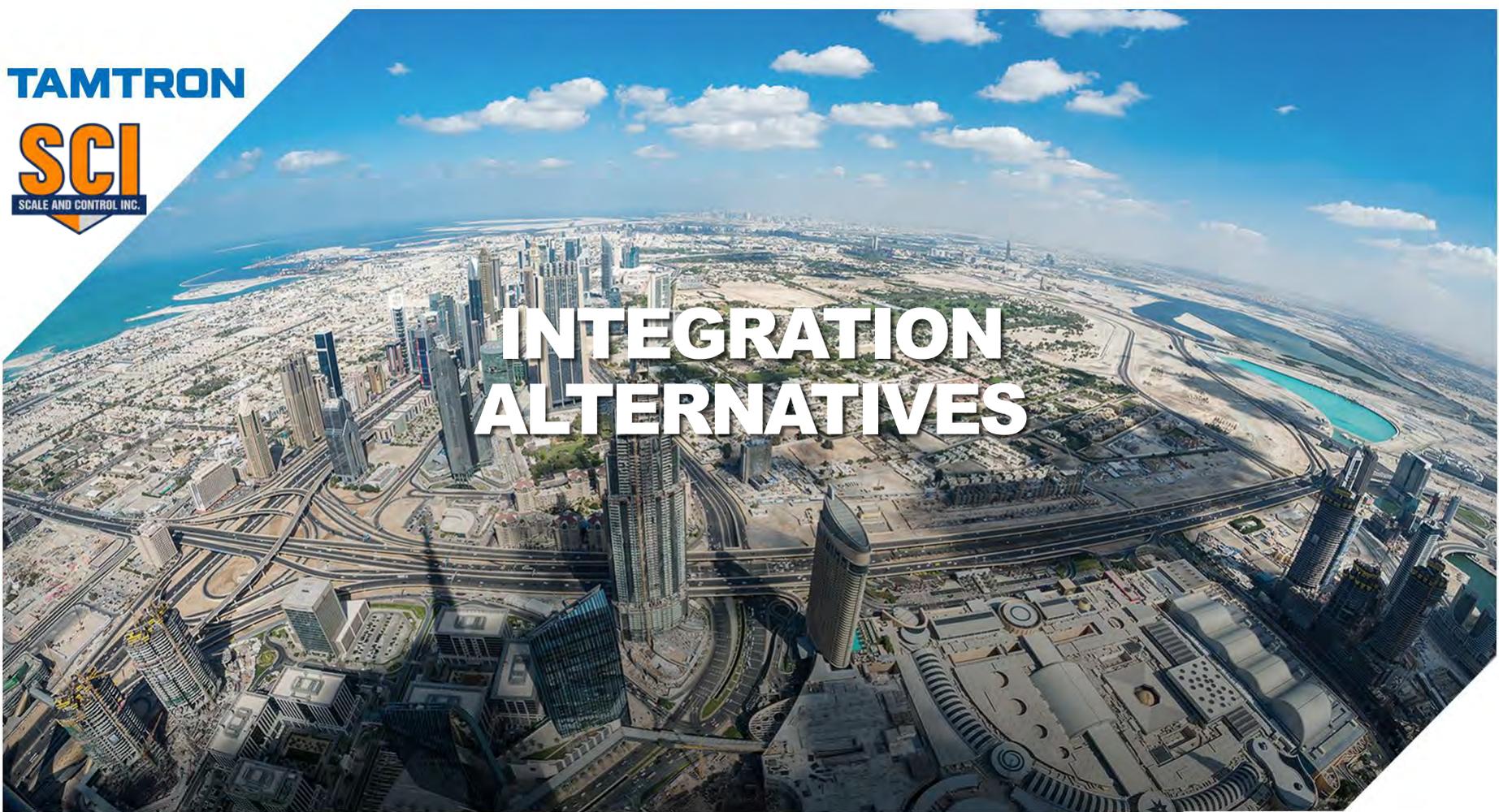


TAMTRON



INTEGRATION ALTERNATIVES



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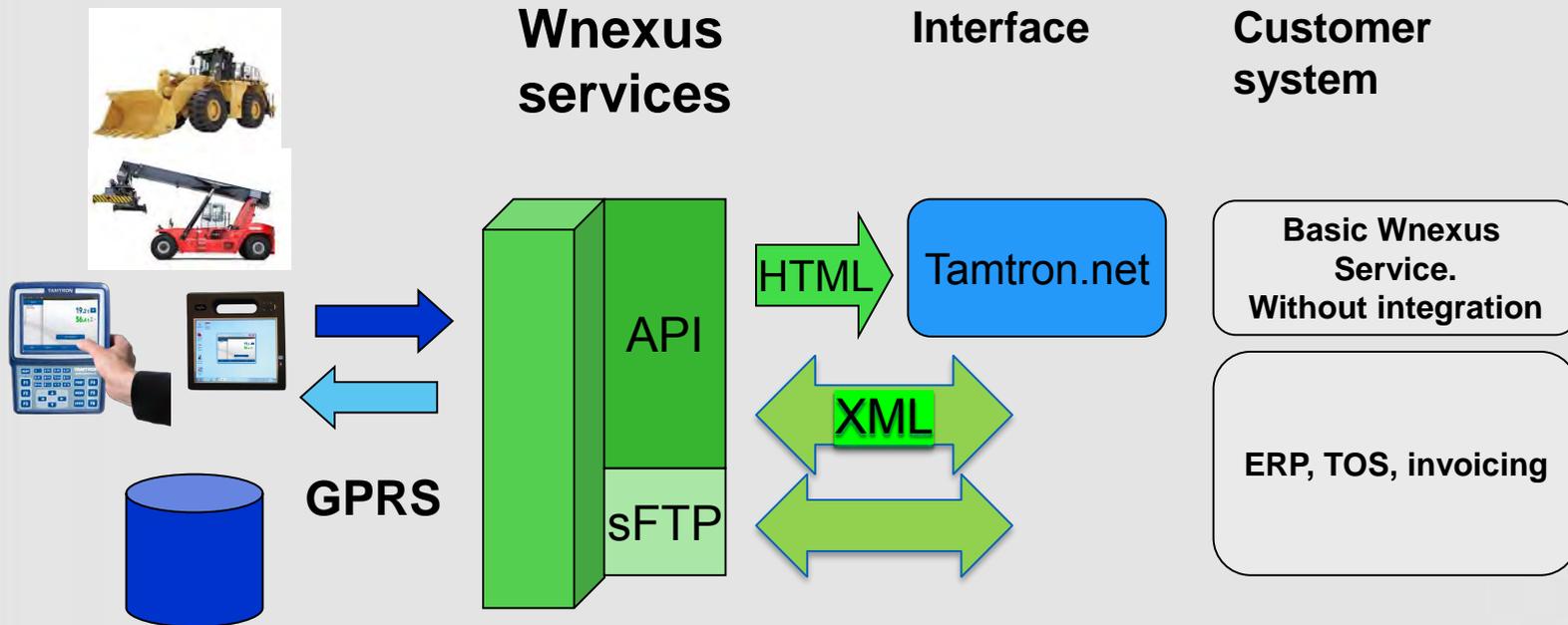
1. Via Tamtron cloud service Wnexus

- GPRS data transfer
- With Power instrument or Power PC application
- Interfaces: XML based API, SFTP file transfer
- Time, date, weighing result and weighing related data transferred

2. Direct XML

- PC software running in onboard PC or Power instrument connected with cable (ethernet) to onboard PC
- Interface: XML
- Time, date and weighing results transferred
- Container data base and other weighing related data stored in PC

WNEXUS ARCHITECTURE



WNEXUS STANDARD INTERFACES TO CUSTOMER SYSTEMS

- **XML based API**
- **SFTP file transfer**

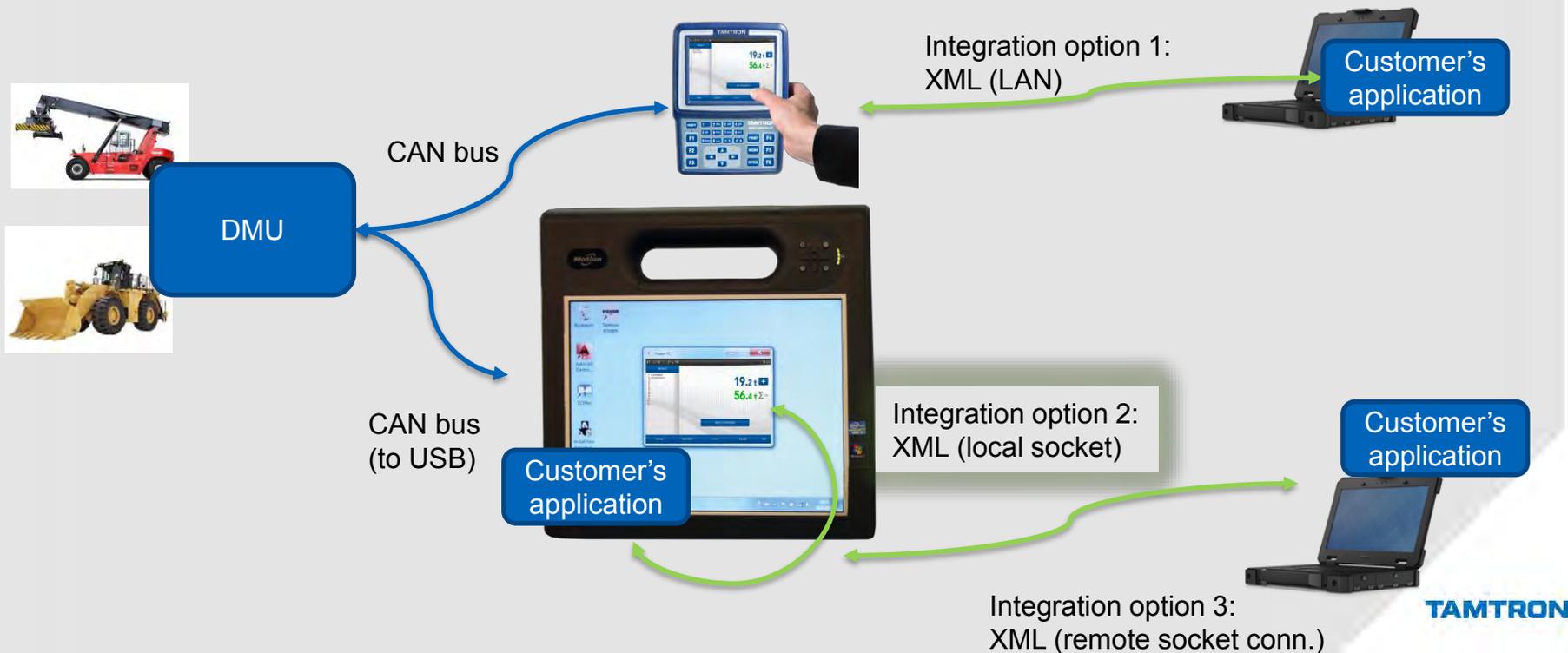
XML API

- XML format designed by Tamtron Oy
- XML packet to the Wnexus is WIR message (WIR = Weighing information request)
- Wnexus responds with WIA message (WIA = Weighing information answer)
- It is possible to send orders and new memo items (weighing related data like customers) with WIR message
- Requesting new weighing tickets is also made with WIR message
- WIR messages are sent to the WWW server with TCP/IP HTTP protocol using POST method.
- The XML format is fully described in DN11704 Standard Wnexus integration document

SFTP FILE TRANSFER

- Customer system logs in to the Tamtron sFTP server
- User identification is made by username and password method or with public / private key
- Customer system saves orders and new memo items to toWnexus directory
- WNexus saves weighing tickets to fromWnexus directory
- File format is the same what ERP, TOS etc. writes and reads
- Tamtron Oy configures the sFTP server
- This is always a tailor made project, but there are some pre-designed formats available, for example csv

DIRECT XML - ALTERNATIVES



DIRECT XML API

- XML format designed by Tamtron Oy (XML interface description available (DN 13605_7 and DN 13640_3)
- Power acts as a TCP/IP server, customer's software connects to it
- It is possible to observe scale's status details in real-time, e.g. to enhance customer software's UI
- Weighing results are delivered in event-oriented manner from server to client
- API also allows executing basic scale commands or querying last weighing results
- API does not transfer memo items (only exception is a container ID)
- If using Power PC then direct XML API and WNexus can both be used in parallel
- Direct XML integration option suits best for situations where weighing results are needed immediately in the customer's software in the vehicle, but memo data isn't needed (typically it exists in customer's software)

THANK YOU!

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