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The standard is valid in all ŠKODA AUTO plants.

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The latest updated version of this ITS is available at the "<http://cts.skoda-auto.com/>" website, the company is not obliged to notify their business partners on the ITS update.

Therefore we strongly recommend that everybody checks the ITS regularly. These documents become valid on the date of their last update. Validity of the ITS at the time of the order is decisive for the contracts.

Note: In case of any differences between the Czech, English and German language version of this ITS, the Czech version takes precedence. The Czech version is available at <http://cts.skoda-auto.com/>.

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Change no.:	Date:	Comment:
1.	2007-07-27	Points 2, 4, 5 supplemented
2.	2010-12-21	Fully revised
3.	2011-01-14	Point 6.3 supplemented
4.	2011-01-31	Point 6.3 supplemented
5.	2012-06-13	Fully revised
6.	2012-06-29	Points 1, 2.12, 4.2 corrected
7.	2014-12-15	Points 2.11. 2.12 corrected; points 2.13, 2.14 added
8.	2015-11-30	Points 3.1 updated, Attachment 1 added
9.	2016-10-11	Point 2.9 updated
10.	2017-09-21	Point 2.15 added
11.	2019-04-26	Points 1, 2.3, 2.9, 2.11, 2.12, 2.14, 4.2 corrected, points 2.13, 2.15, 2.17, 2.18, 2.20, 2.21, 2.22 added, Point 5.4 deleted
12.	2022-07-26	Point 5.4 added



1. Concepts and Abbreviations

IT – Information technology (e.g. SW, HW, etc.)

ISMS – Information security management system

ISMS Partner – The designated coordinator of activities to protect the information in the relevant area

DMZ – Demilitarized zone

SLA – Service level agreement

SLP - Low voltage wiring

Disaster recovery plan

Reaction time – The period between reporting a defect and the moment when its removal starts

Time for defect removal– The period between reporting a defect and its removal

PSB – Production Service Bus

ČTÚ – Czech Telecommunication Office

CA – Certification Authority

ODIS – Diagnostic software used to communicate with car control unit

VAS – Diagnostics device used to communicate with car control unit

MFT – Multi Functional Tester used to perform checks during the car production process

2. IT Planning

2.1 When planning IT, IT security conditions defined by the valid ŠKODA AUTO a.s. methodology must be fulfilled. If any of the conditions cannot be met, an ISMS partner for the respective area must be contacted and they will discuss an exception with ŠKODA AUTO a.s. Security Organization.

2.2 Prior to purchasing IT, the possibility of using current ŠKODA AUTO a.s. IT must be investigated and considered.

2.3 Any IT purchase must be approved by IT Organization (FI). In case, these systems support manufacturing processes, ShopFloor IT (SFIT) - Skoda.ShopfloorIT@skoda-auto.cz is contact partner. After an approval from FI, documentation based on this ITS must be submitted. The structure is as follows :

- a. Server
- b. PC
- c. Data network
- d. SW
- e. Back-up
- f. Security
- g. Links to other ŠKODA AUTO systems
- h. Users
- i. Location
- j. Installation (complete installation and configuration documentation)
- k. Operation and maintenance
- l. Delivery schedule

2.4 The minimum warranty period for technological HW and the individual HW components is three years.

2.5 If the user requirements on the operation of IT (system availability) cannot be implemented through a standard servicing contract (above-standard or specific requirements on IT servicing or maintenance), a back-up solution (e.g. doubling HW/SW sources) must be a part of the IT.

2.6 IT must be able to be upgraded/updated to a newer software version (firmware, operation system, patches, SP...).

2.7 If IT enables local as well as central installation, central installation is required.

2.8 The supplier is obligated to supply a technological PC with the Acronis Backup & Recovery application for creating HDD images in accordance with point 4.3.

2.9 IT and its components must respect three-tier architecture (tiers: presentation, application, data). All tiers have to be physically separated. Direct access of client to the data tier is not allowed.

2.10 If the IT installation/operation requires the installation/operation of other IT, the responsible employee/IT owner must approve it before the acquisition.



- 2.11 In case the IT delivery includes extension or construction of data network infrastructure this must meet the requirements of the Škoda Auto (VW) standard and be fully integrated into the existing Škoda Auto data network. Use of own network infrastructure (AP, Hotspots, Modems, Switches, Hubs) is not allowed.
- 2.12 Devices supposed to communicate using the Škoda Auto data network must meet the following mandatory standards:
- IEEE 802.1x (EAP TLS)
 - IEEE 801.3u (100 Mbps, 100Base TX)
 - IEEE 802.3x (Full duplex, Flow control)
 - DHCP Client
 - IPv4
- 2.13 Devices meant to communicate using the Škoda Auto data network must not use:
- broadcasting for their communication on application level
 - multicast for their communication on application level
- 2.14 Devices meant to communicate using the Škoda Auto wireless data network must meet the mandatory standards 802.11a and 802.11n in 5GHz frequency band on all channels allowed by ČTÚ. The devices must further support the WPA2 Enterprise (EAP TLS). A device must be able to roam in the enterprise network.
- 2.15 Devices which use different network protocol than WiFi must be approved by IT departments FIG, FIO and be in evidence.
- 2.16 Devices requiring power supply through Ethernet must meet the 802.3af (PoE) or the 802.3at (PoE+) standard.
- 2.17 EAP-TLS Specification:
- Client certificate requirements: sha256RSA Signature Algorithm, sha256 Signature Algorithm hash, 2048bit minimal key length.
 - Device must verify certification validity of radius server.
 - CA certificate specification: Signature algorithm sha256RSA, sha256 Signature Algorithm hash and key length 4096bit.
- 2.18 A certificate distributing system is required for automatical certificate enrollment and distribute them into endpoint devices(autoenrollment). This system must be connected to Škoda Auto Certificate Authorities. Allowed protocols: SCEP, NDES, WebService.
- 2.19 Devices and systems planned for vehicle identification by so called « Kennnummer » (« ID-no. »), must in communication with Škoda Auto systems fulfill all requirements of the specification document „Vehicle identification – KNR13“ as an integral part of the technical specification.
- 2.20 Every IT manufacturing system, which requires/assumes communication with other IT manufacturing systems must have its interfaces connected via PSB, which unifies all communication interfaces.
- 2.21 System must use TLS 1.2 or newer for encrypted communication.
- 2.22 System must be connected to central user and group management. Permissions should be paired to user groups.

3. IT Purchasing

- 3.1 Any SW supplied to the company (separately or as part of a unit) must always be explicitly stated on a receipt of tax deductible expenses, or the delivery sheet attached to the technology or on the List of delivered software see Attachment 1. If a manufacturer delivers SW with another document (e.g. licence card), the document must be attached to the delivery. If the SW is delivered together with installation media, the media must be included with the delivery. If the SW is tailor-programmed, the source code (including the definition of the development environment and its extension and components) must also be included.
- 3.2 The IT delivery must include a delivery schedule and IT start-up manual including the location of all components.
- 3.3 When purchasing IT, a person responsible for the IT must be appointed, who will ensure administration of the IT in keeping with internal company rules.



- 3.4 The supplier is obligated to ensure the availability of spare parts and servicing (warranty and post-warranty servicing) for the whole warranty period and, at the time of placing the order, declare the default service life for the delivered technology.

4. IT Procurement

- 4.1 IT procurement must include documentation and a protocol must be drawn up on the delivery. The documentation stated in 2.3 must be submitted upon handover.
- 4.2 The technical documentation for SLP networks must be executed in accordance with the following regulations and acts : ČSN 33 2000-4-41 ed.2, ČSN 34 2300 ed. 2, ČSN 33 2130 ed. 3, ČSN EN 50173-1 ed. 4, ČSN EN 50173-2 ed. 2, ČSN EN 50173-3 ed. 2, ČSN EN 50173-4 ed. 2, ČSN EN 50173-5, ČSN EN 50173-6, ČSN EN 50174-1 ed. 2, ČSN EN 50174-2 ed. 2, ČSN EN 50174-3 ed. 2, ČSN EN 62305-1 ed. 2, ČSN EN 62305-2 ed. 2, ČSN EN 62305-3 ed. 2, ČSN EN 62305-4 ed. 2, ČSN 33 0165 ed. 2, ČSN 330166 ed.2 and Act No. 22/ 97 Sb. technical requirements on the production.
- 4.3 The documentation should be submitted in electronic form. EPLAN is a recommended tool for compiling the documentation.
- 4.4 The so called cable log must also be included in the SLP documentation.
- 4.5 If necessary, ŠKODA AUTO Network Manager may provide consultation on and samples of compiling the documentation.
- 4.6 If SW is a part of the installation delivery, the supplier must supply an identical copy of the SW and its configuration on a back-up medium (a so called HDD image) in the format specified in point 2.8.

5. IT Operation and Servicing

- 5.1 Before the IT is put into operation, the responsible employee/owner must ensure in cooperation with ISMS partner in the relevant area the following :
- standard title of the device
 - registration of the device(UMS form nr. 8028) and SW(UMS form nr. 8017)
 - antivirus protection
 - SW security updates
- 5.2 IT can only be operated using a common user account (without administrator rights) and if connected into ŠKODA AUTO network, it must allow access for domain admins and for audit purposes.
- 5.3 The responsible person (owner) must ensure IT servicing and maintenance according to the manner of use of the technology in a guaranteed period (through SLA or a service contract with the reaction time and time for defect removal defined) including the possible data renewal.
- 5.4 VAS/ODIS and MFT device types which are operated within production are managed by central IT department (IT Shopfloor Devices).

Attachment 1 – List of delivered software
Seznam dodaného SW / List of delivered software

Příloha k faktuře číslo / Annex to the Invoice Nr.	
Technologie / Hardware	
Číslo objednávky / Order Nr.	
Datum objednávky / Date Order	

Č. Nr.	Výrobce Producer	Software/ název Description	Číslo Licence Part Number	Počet licencí Quantity	Maintenance /Coverage Dates start – End
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Předáno dne / Date:

Razítko + podpis / stamp + signature