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TOSIBOX[®]

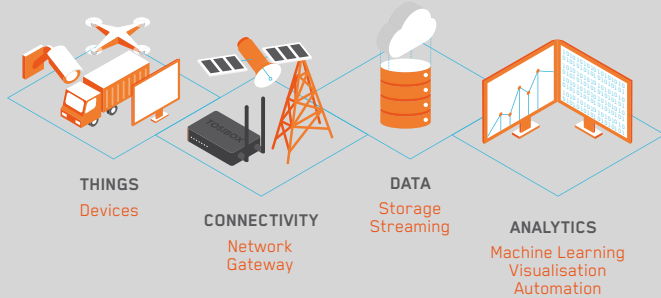
Simplifying IoT

Secure IoT connectivity, remote maintenance
and network management



The anatomy of IoT solutions

4 Pillars of a Connected Enterprise



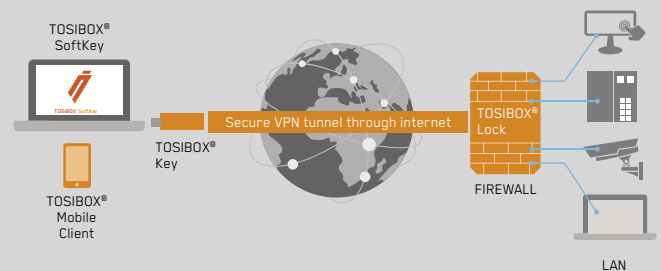
We believe that success in the era of the Internet of Things is simply a matter of connections, and connectivity is the core of IoT. Today the need for reliable connectivity is greater than ever: By 2020 more than half of major new business processes and systems will incorporate some elements of IoT.

Secure connectivity is essential for remote access, remote maintenance, continuous monitoring, real-time data collection and data logging. TOSIBOX® helps you to harness IoT for your business.

With TOSIBOX® you can create a fully secure remote connection within minutes, and without special IT skills. You can build and manage networks and IoT infrastructures with the easily expandable and timeless solution.

We offer centralized real-time management of your devices and access control that help you generate cost savings. With TOSIBOX® adding new devices or users into the network is simply drag and drop, whereas with old-fashioned IT networks completing the same task takes days or weeks.

How TOSIBOX® Plug & Go™ works







Modular TOSIBOX® technology

TOSIBOX® solution consists of modular components that offer unlimited expandability and flexibility. All products are compatible with each other. The technology can also be integrated into OEM devices.

- TOSIBOX® Key is a client used to access the network.
- TOSIBOX® Lock is an industry router sharing access to devices.
- TOSIBOX® Virtual Central Lock is the platform for network and access rights management.



Functions	TOSIBOX® Lock 100 	TOSIBOX® Lock 150 	TOSIBOX® Lock 200 
TOSIBOX® Plug & Go™ Technology	Yes	Yes	Yes
Mounting options	DIN rail mounting at bottom	DIN rail mounting at bottom	DIN rail mounting on three sides
Power input	12 – 24V DC, ±25%	12 – 24V DC, ±25%	8 – 27 V DC ±10%, with cable anchor
3G / 4G USB modem support	Yes	For TOSIBOX® modems	Yes
WAN port	10/100 Mbit/s	10/100 Mbit/s	10/100 Mbit/s
LAN ports	3 x 10/100 Mbit/s, bridged	3 x 10/100 Mbit/s, bridged	3 x 10/100 Mbit/s, bridged
VPN throughput	Up to 6 Mbit/s	Up to 10 Mbit/s	Up to 15 Mbit/s
VPN encryption	Blowfish 128 bit CBC, AES 128/192/256 bit CBC	Blowfish 128 bit CBC, AES 128/192/256 bit CBC	Blowfish 128 bit CBC, AES 128/192/256 bit CBC
VPN connection authentication	PKI, 3072 bit RSA	PKI, 3072 bit RSA	PKI, 3072 bit RSA
Concurrent VPN connections	Max 10	Max 10	Max 50
Supported platforms	N/A	N/A	N/A
TosiOnline™ – automatic connection recovery functionality	Yes	Yes	Yes
PoE functionality	No	No	PoE in and PoE out: 27 V / 580 mA max
Approvals	CE, FCC	CE, UL, FCC, ISED	CE, FCC, UL
WLAN	802.11b/g/n	802.11b/g/n	No
Measurements (LxWxH)	132 mm x 99 mm x 35.5 mm / 5.2" x 3.9" x 1.39"	132 mm x 99 mm x 35.5 mm / 5.2" x 3.9" x 1.39"	140 mm x 36 mm x 125 mm / 5.51" x 1.41" x 4.92"
Power consumption	Max 7.2 W	Max 7.2 W	Max 7 W
Product code	TBL1	TBL15	TBL2

Functions	TOSIBOX® Key 	TOSIBOX® SoftKey 	TOSIBOX® Mobile Client 
TOSIBOX® Plug & Go™ Technology	Yes	Yes	Yes
Key role	Master Key, Backup Key, Sub Key	Sub Key	Sub Key
Cryptographic key size and type	2048 bit RSA, hardware-based	4096 bit RSA	2048 bit RSA
Data encryption	TLS, Blowfish-128-CBC, AES-128-CBC, AES-256-CBC	TLS, Blowfish-128-CBC, AES-128-CBC, AES-256-CBC	TLS, Blowfish-128-CBC, AES-128-CBC, AES-256-CBC
VPN connection type	Layer 2 / Layer 3 (OpenVPN)	Layer 2 / Layer 3 (OpenVPN)	Layer 3 (OpenVPN on Android, IPsec/IKEv2 on iOS)
Mobile Client for Android and iOS	Yes (1 license incl.)	No	N/A
Two-factor authentication	Yes	Yes	Yes
Product code	TBK2	TBSKL1 TBSKL5 TBSKL10	TBMC1 TBMC5 TBMC10





TOSIBOX® Lock 500	TOSIBOX® Central Lock	TOSIBOX® Virtual Central Lock*
Yes	Yes	Yes
DIN rail attachment at back	19" rack mounting, rails included	N/A
12-48V DC (+/-20%), reverse polarity protected	90 - 264 V AC	N/A
Internal LTE (option)	No	N/A
10/100 Mbit/s	1 Gbit/s	One required, dependent on virtual platform
3 x 10/100 Mbit/s	4 x 1 Gbit/s, independent	One or more, dependent on virtual platform
Up to 70 Mbit/s	Up to 700 Mbit/s	Dependent on virtual platform
Blowfish 128 bit CBC, AES 128/192/256 bit CBC	Blowfish 128 bit CBC, AES 128/192/256 bit CBC	Blowfish 128 bit CBC, AES 128/192/256 bit CBC
PKI, 3072 bit RSA	PKI, 3072 bit RSA	PKI, 3072 bit RSA
Max 50	Max 4000	Dependent on virtual platform and license
N/A	N/A	VMWare ESXi, Microsoft Hyper-V, Linux KVM
Yes	N/A	N/A
No	No	No
CE, UL, FCC, ISED	CE, FCC, UL	N/A
802.11b/g/n	No	No
110 mm x 58 mm x 127 mm / 4.33" x 2.28" x 5.0"	570 mm x 430 mm x 43 mm / 22.44" x 16.93" x 1.69"	N/A
Max 10 W	Max 250W	N/A
TBL5, TBL5PS, TBL5iA, TBL5iAPS, TBL5iB, TBL5iBPS, TBL5iC, TBL5iCPS	TBCL1	TBVCL1 TBVCL1LP100 Licence Package required

* Please see all requirements on Virtual Central Lock datasheet



Patented security

TOSIBOX® is globally audited, patented and performs at the highest security levels in the industry. It's not a cloud service, but a direct VPN tunnel between the physical devices. Only trusted devices can access the network.

All of the users and keys are managed from a single console. So you can be sure that your network and data will remain encrypted and secure.



Accessories

TOSIBOX® 4G Modem	TB4GM2
Antenna for 2G/3G/4G modem	TBANT1
3G/4G antenna with magnet stand	TBANT2
DIN rail mounting bracket	TBMBD1

TOSIBOX[®] solution built for your needs



Simple

Build and manage secure IoT infrastructure in minutes

- Easy configuration-free Plug & Go[™] implementation without special IT skills
- Create and manage access groups: Limit access, add new users and objects simply by drag and drop.
- IT/OT convergence solved
- "Self-healing" network: TosiOnline[™] automatically reconnects dropped connections.



Timeless

Deals with legacy and future systems

- Technology makes the legacy hardware and future systems compatible.
- Internet connection, operator, and device agnostic
- Works both in internal and external networks.



Secure

Tested & audited security

- Technology based on two-factor authentication, automatic security updates and latest encryption technology
- One TOSIBOX[®] Lock device protects all devices behind it.



Modular

Unlimited expandability and flexibility

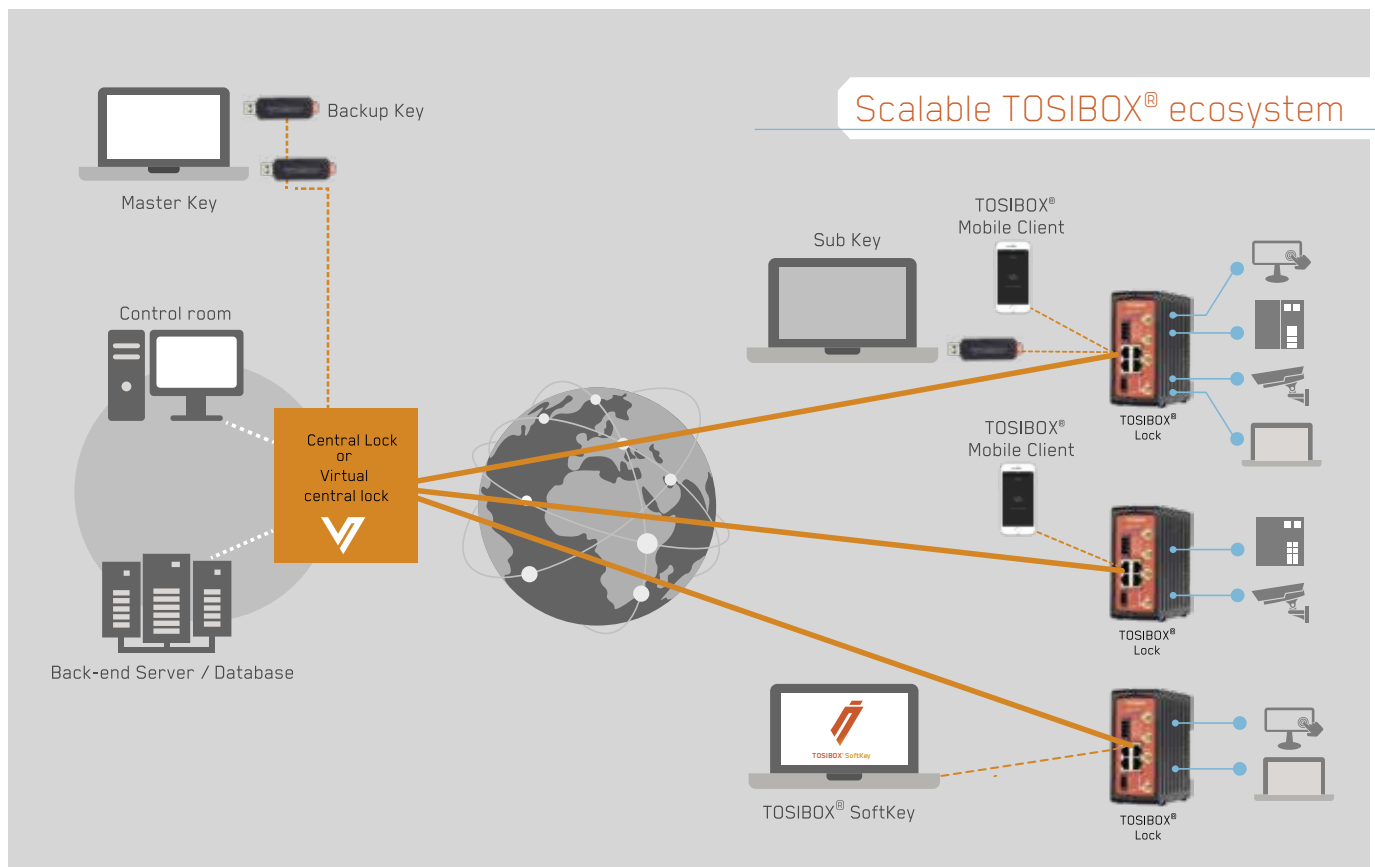
- Easily extend the network when you need to.
- Grow from one object to thousands, without changing the system.



Unique

Globally patented point-to-point connection

- Point-to-point data flow: data streams directly between two modules, no cloud
- Two-way communication offers the benefits of IoT plus remote maintenance with one technology.
- Globally awarded solution



TOSIBOX[®]

"If a tourist can fly across oceans without knowing anything about airplanes, why can't people enjoy the benefits of technology without having an IT degree?"

Veikko Ylimartimo, Tosibox founder

We have taken connectivity and made it simple. Our people, technology and software have created a new standard for secure IoT connectivity, remote maintenance and network management. The award-winning TOSIBOX[®] products are manufactured in Finland and used worldwide.



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