Overview of selected KPN Security Policies

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Requirement	**Container segmentation and zoning**
Description	Containers must not be consolidated on the same system (i.e. (virtual) machine) when they differ on zone, DTAP purpose (development, testing, acceptance and production), customer or risk-level. The administrator must classify the risk per group of containers in one particular zone and for one customer on the effects of: - kernel panics, i.e. focus on the business continuity aspects. - container break-out and information security, i.e. ensure that a container break-out does not escalate into data extraction from shared volume devices. - network segmentation between containers on the network bridge devices. Exception: When the container serves an Network Function Virtualization role for OSI layer-2, layer-3 or layer-4 function, also regarded as part of data transport network, than this is allowed.
ID	KSP-RE-270
Version	1.0
Date	December 11, 2017
Rationale	System hardening

Requirement	**CIS benchmarks**
Description	Network and server equipment, for which Center for Internet Security (CIS) benchmarks are available, must be hardened as described in these benchmarks, including default configuration values, default account and password blocking. In case of a conflict between the CIS benchmark results and the KSP, the KSP is leading.
Related info	https://benchmarks.cisecurity.org/downloads/multiform/index.cfm
ID	KSP-RE-260
Version	1.0
Date	December 11, 2017
Rationale	System hardening

Requirement	**Container image layer controle**
Description	Containers must be assembled and build from image layers containing supported software, which can be commercially supported or community supported. All image layers must be kept up to date.
ID	KSP-RE-271
Version	1.0
Date	December 11, 2017
Rationale	System hardening

Requirement	**No CIS benchmarks available**
Description	Network or server equipment, for which Center for Internet Security (CIS) benchmarks are not available (such as applications), must be configured according to the security guidelines from the supplier of the equipment, or if available, application specific guidelines developed by KPN.
ID	KSP-RE-261
Version	1.0
Date	December 11, 2017
Rationale	System hardening

Requirement	**Customer account database separation**
Description	For different (business market) customers, account databases must be split into separate Active Directory or LDAP directory systems. The databases may be combined to form one logical pool of accounts for a distinct purpose.
ID	KSP-RE-272
Version	1.1
Date	November 2, 2018
Rationale	System hardening

Requirement	**CIS benchmark scenario choice**
Description	When the CIS benchmarks provide multiple scenarios, the most strict scenario should be followed. Level 1 is a minimum requirement: This means that every deviation on the CIS baseline must be accepted by CISO. Level 2 recommendations: must be configured in (highly) secure environments.Level 2 is mandatory for all services marked as vital.
ID	KSP-RE-262
Version	1.1
Date	April 4, 2018
Rationale	System hardening

Requirement	**System log-on with an administrator or root account is prohibited**
Description	Users with administrator rights must not be able to log on to a system directly to the root, administrator or domain administrator account. The users must log on to the system with their personal and unpriviledged account and elevate their effective rights after initial entry on the system. In effect this means that all entry possible protocols to directly log on to a system, like SSH, RDP, SMB, etc, must be hardened to disallow network log on to these privileged system accounts and allow elevation of effective rights when the user is explicitly privileged to do so on the target system. This must be enforced by configuration deployment, e.g. ansible, puppet or group policies.
ID	KSP-RE-273
Version	1.1
Date	November 2, 2018
Rationale	System hardening

Requirement	**Single use**
Description	Systems must be setup and configured to support one service type or application type (such as web services or database). In a virtualized environment, every Virtual Machine counts as one system.
ID	KSP-RE-263
Version	1.0
Date	December 11, 2017
Rationale	System hardening

Requirement	**Restricted Domain Administrator log on**
Description	Accounts with Domain Administrator privileges must never be used on normal workstations.
ID	KSP-RE-274
Version	1.1
Date	November 2, 2018
Rationale	System hardening

Requirement	**Network separation**
Description	The equipment that is not part of network infrastructure and has multiple interfaces, must be configured to upheld the segmentation. Therefore this equipment may not route/leak between two segments. The owner must ensure that no firewalls or network security can be bypassed. Per interface this equipment must only handle traffic bound to the purpose of that equipment.
ID	KSP-RE-264
Version	1.1
Date	April 4, 2018
Rationale	System hardening
Rationale	Separating environments

Requirement	**Windows Domain Trusts relationships**
Description	Windows Domains must only be trusted in a one-way non-transitive connection between each other, with a trust relationship exclusively towards KPNNL.LOCAL, i.e. trust KPNNL.LOCAL. Bi-directional trusts, transitive and non-transitive are not allowed.
ID	KSP-RE-275
Version	1.2
Date	November 2, 2018
Rationale	System hardening

Requirement	**Host based protection**
Description	Systems connected to the Internet must be equipped with host based protection mechanisms, such as ACLs, firewalls, IDSs, antivirus software and antimalware software.
ID	KSP-RE-265
Version	1.0
Date	December 11, 2017
Rationale	System hardening

Requirement	Stripping
Description	All systems and applications must be stripped of non-essential functionality. If removal is not possible then the non-essential functions must be disabled.
ID	KSP-RE-266
Version	1.0
Date	December 11, 2017
Rationale	System hardening

Requirement	**Mitigation of non-hardened residual risk**
Description	When certain aspects of a system can’t be hardened, the requirements in the related documents must be consulted to see how to handle mitigation, if possible based on the CVSS score of a non-hardened topic.
ID	KSP-RE-267
Version	1.0
Date	December 11, 2017
Rationale	System hardening

Requirement	**System hardening**
Description	Systems must be subjected to a hardening process conform KSP-RA-259 System hardening to minimize risk of an attack.
Supplement	Not necessary features must be closed and protection mechanisms must be used to make the attack surface as little as possible. Close unnecessary features and ports of operating systems.
ID	KSP-RE-268
Version	1.0
Date	December 11, 2017
Rationale	System hardening
Rationale	Vulnerability scanning- and management
Rationale	Separating environments

Requirement	**End user device hardening**
Description	End user devices must be hardened with respect to user privileges, patching and updates, necessary functionality adequate firewall and up-to-date antivirus/ malware controls.
Supplement	Access to the local configuration of the KPN Endpoint must be managed in order to preserve the standardization, integrity and security level of the KPN Endpoint. All KPN Endpoints must receive updates for antivirus/malware detection on a regular basis.
ID	KSP-RE-269
Version	1.0
Date	December 11, 2017
Rationale	System hardening
Rationale	Vulnerability scanning- and management
Rationale	Separating environments

Requirement	**Elevated rights**
Description	Applications or programs may exclusively be started with elevated rights when there is a technical need, but must not execute tasks with elevated rights.
Supplement	For example: a web-service or database. It is allowed to execute tasks with elevated rights when these tasks service a system administrative role. For example: Puppet, Ansible or GPO-deployment.
ID	KSP-RE-694
Version	1.2
Date	November 2, 2018
Rationale	System hardening