

CONNECTING AN ALL-ELECTRIC WORLD

# Implementation of Security Requirements

Walter Wutzl | Digital Grid Automation Products

# Implementation of Security Requirements Products, Solutions and Services

## Products

- Security for control centers
- Security for embedded systems
- Security for engineering tools

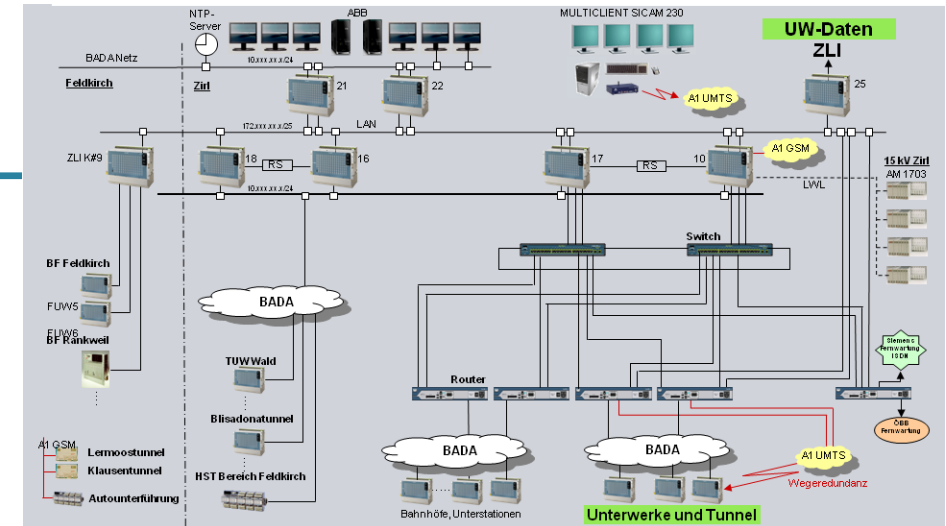


## System

- Network segmentation
- Data transmission via unsecured networks
- Back up / Restore
- Patch management
- Integration / upgrade of existing systems

## Human

- Security Know How
- Security Maintenance





# Implementation of Security Requirements by Defined Process

## Technical Assessment

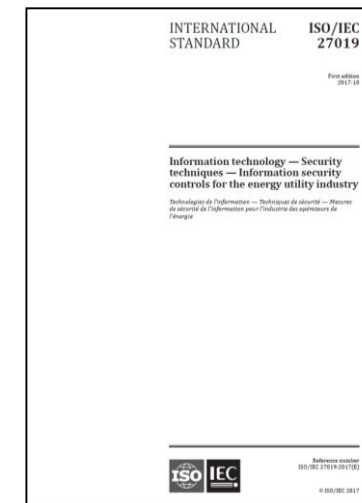
- Of existing system

## Assessment of Technical Risks

- Based on ISO 27001 requirements

## Definition of Measures for the Security Enhancement

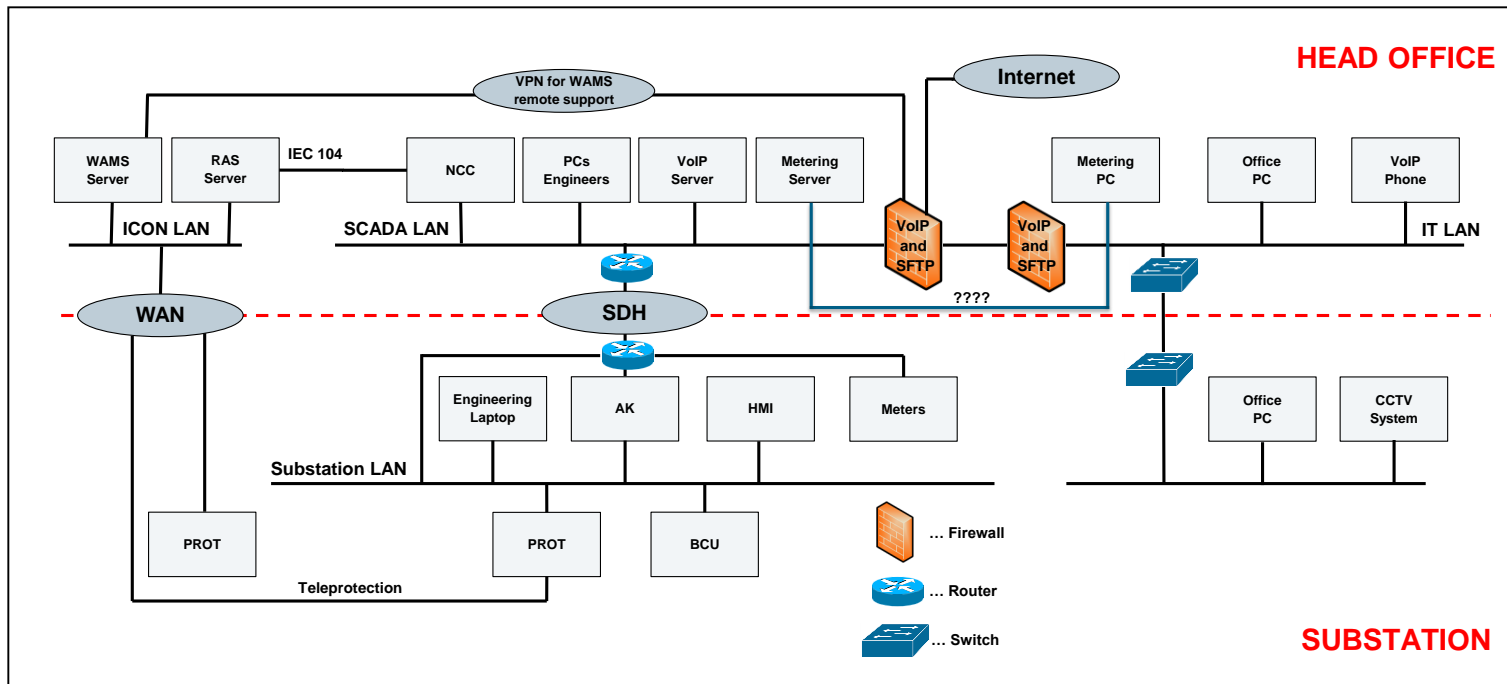
- Based on bdew Whitepaper and ISO 27001/ ISO 27019



# Implementation of Security Requirements by Defined Process

## Technical Assessment

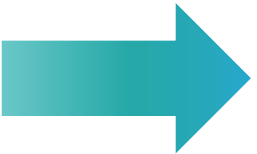
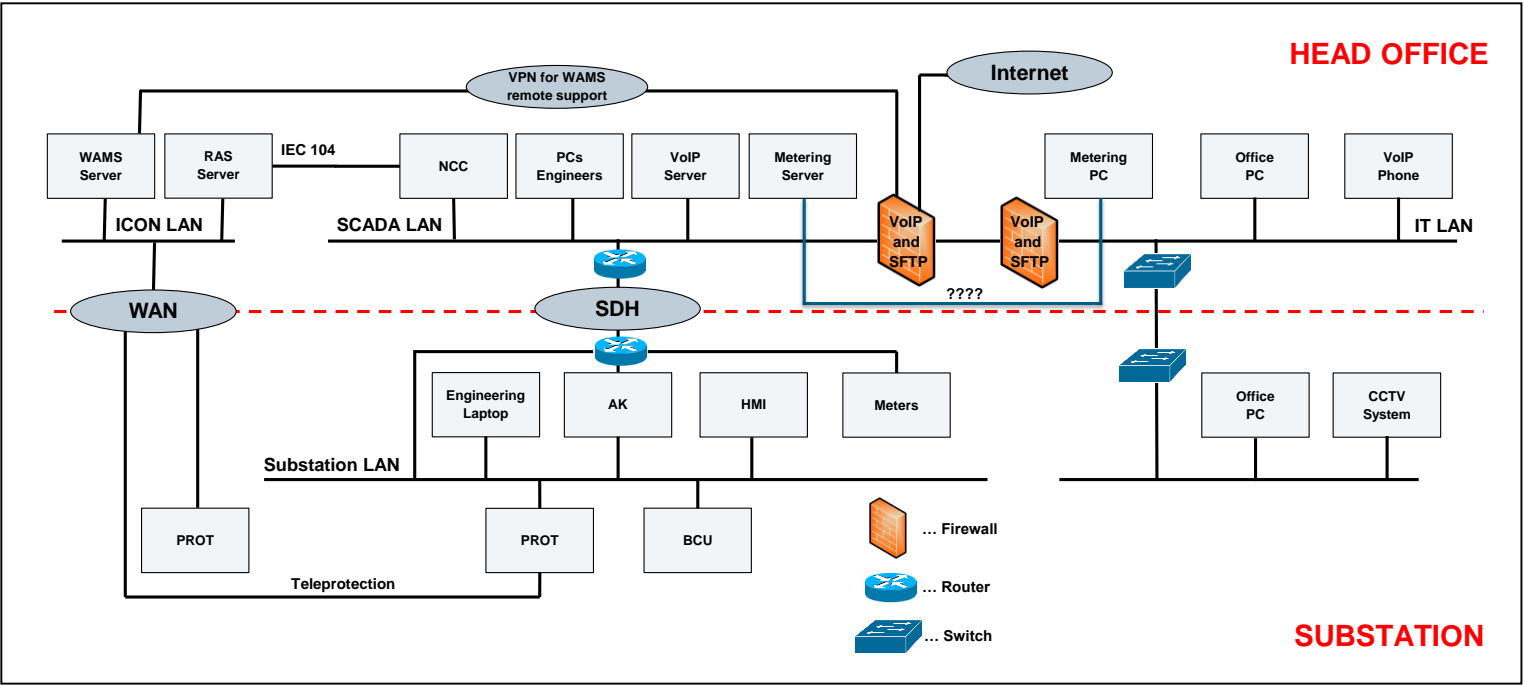
- Of existing system



# Implementation of Security Requirements by Defined Process

## Assessment of Technical Risks

- Based on ISO 27001 requirements



Probability	Very Likely	Acceptable Risk (medium – 2)	Unacceptable Risk (high – 3)	Unacceptable Risk (extreme – 5)
	Likely	Acceptable Risk (low – 1)	Acceptable Risk (medium – 2)	Unacceptable Risk (high – 3)
	Unlikely	Acceptable Risk (low – 1)	Acceptable Risk (low – 1)	Acceptable Risk (medium – 2)
	Occurrence / Impact	Low	Moderate	High
Probability x Impact = Risk		Impact (how serious is the risk?)		

# Implementation of Security Requirements by Defined Process

## Definition of Measures for the Security Enhancement

- Based on bdew Whitepaper and ISO 27001/ ISO 27019
- Definition of target state
  - Resulting necessary measures
  - Including specific generic blueprints
  - Considering organizational setup

### REQUIREMENTS

**oesterreichs energie.** **bdew**  
Energie. Wissen. Leben.

bdew Bundesverband der Energie- und Wasserwirtschaft e.V.  
Kornubergstraße 12  
10117 Berlin  
Geschäftsbereich: Leitungsstelle  
Energie und  
Wasser  
Österreich

**Whitepaper**  
**Anforderungen an sichere Steuerungs- und Telekommunikationssysteme**

**White Paper**  
**Requirements for Secure Control and Telecommunication Systems**

Überarbeitete Version 1.1 03/2015:  
Angepasste Referenzen auf ISO/IEC 27002:2013 und ISO/IEC TR 27019:2013

**info**

bdew Bundesverband der Energie- und Wasserwirtschaft e.V. [www.bdew.de](http://www.bdew.de)



### CONCEPT

**SIEMENS**

Kelag/Siemens Secure Substation  
Maßnahmen zur Erhöhung der IT-Security

Verteiler:

Name	Abteilung	Ort	Name	Abteilung	Ort
Hr. Riedelbauer	Kelag/SSKVV	GRZ	Hr. Riedelbauer	EM DG SYS TI	GRZ
Hr. Riedelbauer			Hr. Riedelbauer	EM DG SYS TI	VERU
Hr. Riedelbauer			Hr. Riedelbauer	EM DG SYS TI	VERU
Hr. Riedelbauer			Hr. Riedelbauer	EM DG SYS TI	VERU
Hr. Riedelbauer			Hr. Riedelbauer	EM DG SYS TI	VERU

Ersteller:	Prüfer:
Abt.: SIEM DG SYS TI	Abt.: Kelag/SSKVV
Name: Sadowsky	Name: Riedelbauer
Tel.:	Tel.:

Status:	Entwurf	Intern
Datum:	2016-06-06	Ablage:

000001 Template: Standardized / Version: vom 07.08.2015

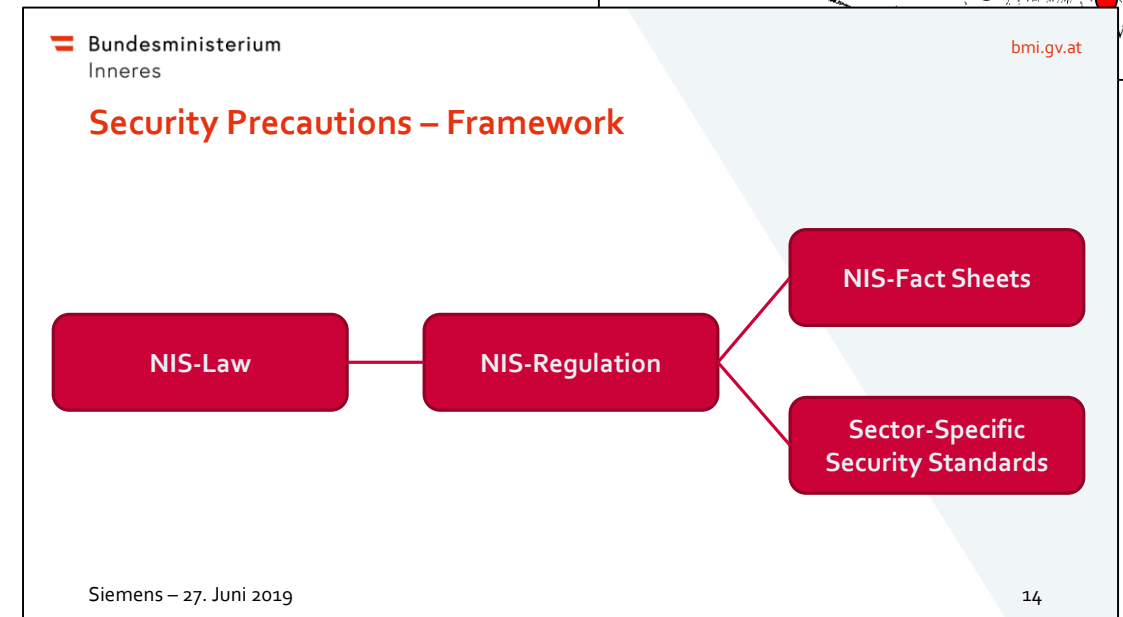
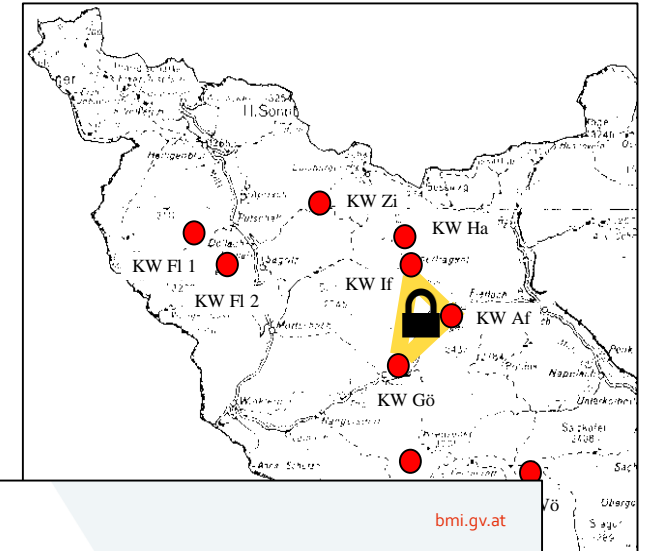
# Implementation of Security Requirements First Project in 2015

## Improvement of Security of Installed Base

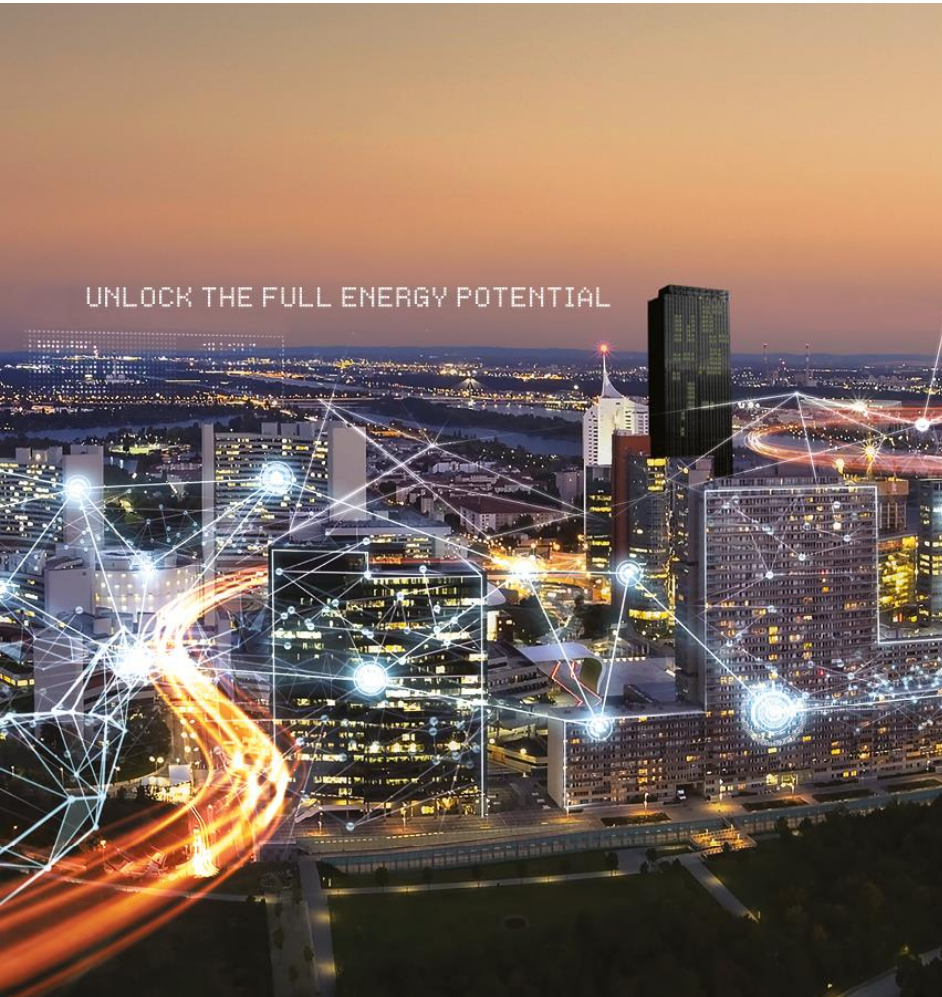
- Systematic analyses/ expansion of already implemented security measures
- Maintain compatibility with existing systems
- With reasonable efforts for both parties

## Implementation of Recommendations and Measures According to

- bdew-Whitepaper
- ISO 27001 (ISO 27002 + ISO 27019)



# Thank you for your attention!



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**[siemens.at/future-of-energy](https://siemens.at/future-of-energy)**