

	Name:	Datum:	Fach: E
			Klasse: 11

Unit 05 IT Security

Lecture Notes based on Chapter 5, IT Matters³, Cornelsen, 2018, pp.48-57

Foundation: Unauthorized access

Situation: You work in the IT department at Hoffman Auditing, a tax consultancy in Auckland, New Zealand. The company has discovered that several customer accounts have recently been hacked.
→ You write an email to your customers with advice on how to avoid cybercrime.

1 A) p.48 Identifying types of attacks (S)

	A-F	Notes
1 Phishing	C	
2 Worms	F	
3 Backdoor	E	
4 man-in-the-middles	B	
5 Injection attacks	A	
6 Social engineering	D	

1 B) p.49 Complete the statements of caution! Grammar: imperatives p.162 (S)

1	The findings show that our employees don't seem to pay attention to our warnings about cybercrime.
2	I can only repeat what we say there: Bevac of phishing
3	Our network monitoring team continues to keep an eye out for worms
4	We continually watch out for communications that are going to
5	Many of our staff work in cafés, even though they have been told to make sure they use secure networks
6	These are hard to detect, so we ask employees to pick up on anything that just doesn't look right
7	Our employee training contains lessons on how to guard against

p.49/2 Warning employees about cybercrime

Beware of the following features of emails that are likely to be phishing emails.

	Fake emails often...	1-7	Explanations
A	Ask you for personal information.	4	
B	Have some spelling and grammar mistakes.	5	
C	Address you as a 'valuable customer'.	7	
D	Ask you to click on the new 'Hoffman Software' site.	6	
E	Come from domain names such as hofman.confirmdetails.co.nz'.	2	The expected "domain name" and ".co.nz" are never separated by other words
F	Threaten to punish you if you don't follow a specific action.	1	A trustworthy organization will never threaten you via email
G	Display a logo that is a different colour than normal.	3	Hoffman Building for ex. uses one logo and colour

p.49/3 Warning customers about cybercrime

Write an email to Hoffman's customers with tips on how to guard against phishing emails. Make sure to tell them

- To watch out for cybercrime but not panic
- How to identify a real email from Hoffman
- What to do if they receive a suspicious email that claims to be from Hoffman

Use the FAQ page and the language of *exercising caution* to help you.

Dear Sir/Madam,

Information Security problem in emails.

In order to strengthen our IT security we created this email. Cybercrime is getting more common, so please look out for potential phishing emails. But don't panic, here are some tips on what to watch out for.

A real email from Hoffman has no spelling mistakes and ends only on "...". The logo is the same everywhere.

If you receive a suspicious email, write an email to our security expert "..." or open an ticket.

Do not hesitate to contact me if you have any questions.



Name:

Datum:

Fach: E

Klasse: 11

Unit 5: Protecting a computer network (Foundation)¹

A The way hackers work. Complete the sentences with the words from the list.

bypass • gain • persuade • listen • pretend • exploit

- 1 They _____ to be real customers.
- 2 They _____ users to open an email.
- 3 They _____ weaknesses in people.
- 4 They _____ normal authentication.
- 5 They _____ to communication between a user and the network.
- 6 That is how they _____ access to the customer accounts.



B How to protect a network. Match the sentence beginnings to the ends.

1 Guard

a of phishing.

2 Don't

b out for worms.

3 Beware

c sure that you use secure networks.

4 Make

d up on anything that doesn't look right.

5 Pick

e against social engineering.

6 Keep an eye

f work remotely in cafés.



C How to recognize a reliable email. Unjumble the sentences.

A trustworthy organization/email will ...

1 request / details / never / personal / .

2 an email / call / and / you / you / to open / ask / never / .

3 always / refer / last name / by your / to you / first and / .

4 include / number / customer / always / your / .

5 via / threaten / never / you / email / .

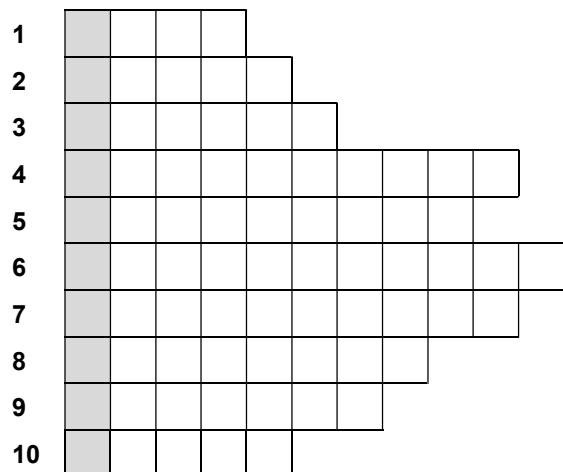
¹ KV 5.1 Cornelsen, Autor: Robert Kleinschroth

D Complete the phrases in the middle with the nouns of the verbs and translate the new phrases.

Verb	Noun	German noun
1 identify	ask for _____	_____
2 receive	be the _____	_____
3 advise	give someone _____	_____
4 authenticate	require _____	_____
5 explain	give an _____	_____



E Read the clues and write the words into the grid below. Then find the solution word (grey, vertical).



- 1 a secret message
- 2 a search engine
- 3 unjumble 'bentot'
- 4 transforming information so only authorized users with a key can understand it
- 5 someone who receives something
- 6 an attack made from the internet
- 7 named on an official list
- 8 network for exchanging information within a company
- 9 a software created by crackers
- 10 a mistake

	Name:	Datum:	Fach: E
			Klasse: 11

p.50/Part A: Internal access and acceptable use

Situation: You work in the IT department at Hoffman Auditing, a tax consultancy in Auckland, New Zealand. One of your jobs is to provide technical support to employees.

→ You summarize the terms of acceptable use and internal access at your training company.

p.50/1 A Understanding access privileges



Complete the following form about the caller's request.

1	Name of user:	Esther Smith
2	Department:	Corporate Auditing Team
3	User access level	Standard user
4	Reason for call	Not allowed to install software
5	Software or hardware problem	Software
6	Error message received?	
7	Error message: Software / Hardware name:	Audio Man
8	Error message	You dont have permission to install this applic
9	Cause of problem	Software is not pre-approved

10 Employee number D8773893

p.50/1 B Listen again and complete the summary of the call

- 1 ...due to your access level of 'standard user' you are not allowed to install applications that are not approved by the IT department.
- 2 'You dont have permission to install this application' is a security mechanism
- 3 Only a limited set of applications are permitted to be installed to protect us from software that...
- 4 Only users with 'administrator' access have permission to install software outside this list.
- 5 There are three audio management applications that are permitted to be installed
- 6 If you add them to audio management software that is not permitted
- 7 However, you are allowed to store interviews in the approved audio management applications.
- 8 You have access to install any of these.

p.51 Defining acceptable use – employees have to complete online training to demonstrate that they understand the new policy.

p.51/2 A Put in the English term to their German equivalents.

Ausnahme	exception	umstritten	controversial
gegen etw verstößen	to contravene sth	verbieten	to prohibit
Ruf, Ansehen	reputation	Verleumdung	defamation
schaden	to harm	Umstand	circumstance

p.51/2 B Think about what might be in the new acceptable use policy. Discuss with a partner whether you think it is (probably) allowed or not allowed?

		Yes/No?	Why?
1	Reading an online newspaper for a few minutes per day	Yes	Allowed so long you don't take too long
2	Emailing customer lists to a personal computer	No	List has no reason to be on pers comp which is not as protected
3	Sharing individual employees pay details	No	Harms another person
4	Storing personal videos	Yes	Allowed if the content doesn't harm the company
5	Storing images that show discrimination based on race or religion	No	Illegal activity
6	Playing networked games	No	Uses too much time and costs the company
7	Watching a press release video from Hoffman's competitors	Yes	For Work related use allowed
8	Sending personal emails from a work computer	Yes	Allowed if the content doesn't harm the company
9	Using social media (Facebook, Twitter) from a Hoffman computer	No	No use of personal accounts

p.52/ 3A Reading about remote network access

Match the four images in the book with a correct authentication

Picture	Correct authentication	Requirements/other restrictions
1	Soft Token	Requires Smartphone/Tablet, internet not needed
2	Push Notification	Requires Smartphone/Tablet, app and internet access
3	SMS	Requires mobile cellular coverage
4	Hard Token	Requires a registered and working hardware token

	Name:	Datum:	Fach: E
			Klasse: 11

p.52/ 3B What are possible authentication options in the following situations

situation	Possible authentication options?
1 a meeting room in your company building with your laptop only	email
2 at home with your PC and smartphone with the app installed	email, soft token, push notification, sms, call
3 somewhere where mobile phone reception is weak, but you have your smartphone with the app installed	soft token
4 at a café and only have a mobile phone with no internet access (not a smartphone)	call, sms
5 in an hotel with a hard token and a laptop with Wi-Fi connection	hard token, email

p.52/ 4 Accessing your company systems

Summarize the terms of computer use at your training company

- where you can log in from
- what you are (not) permitted to do with your company computer
- what options you have to gain access

From Work, Home and everywhere where I have access to Internet

~~Do Illegal stuff, sell it, give it to other people, let another person use it without supervision~~

~~At work I can login to my work related accounts through the authentication in the work wifi and my username and password.~~

~~When I am at home or have internet access, I can connect with the vpn on the work laptop which authenticates me or I can use my soft token on my mobile phone to authenticate myself.~~

Useful phrases: Explaining access requirements

- You are (not) allowed/permited to install software from the internet.
- You do (not) have permission to download videos.
- There are a number of options to gain access to the company network.
- Clients do (not) have access to the company intranet.
- To access your email you need a smartphone, tablet or desktop computer.
- Authentication via a soft token requires a smartphone or tablet with the app installed.

Unit 5: Opposites, a gap text & word building (Part A)²

F Complete the sentences with the opposites of the underlined words.

- 1 Your activities should support the business. They shouldn't disrupt the business.
- 2 Use business computers only. Using personal computers is prohibited.
- 3 Acceptable use lists the allowed activities. Prohibited activities might cost you your job.
- 4 Never write personal emails from the office. Only write business emails at work.
- 5 Malware might slow down a computer. It's difficult to speed it up again.

G Complete the text with the words from the list.

allowed • approved • audio • considered • control • hands • means • shared

Interviews with clients are considered¹ confidential information, which
means ² that it is not permitted for them to be shared³ on personal devices.
Synchronizing them with your smartphone means that the audio⁴ files are out of our control
and could end up in the wrong hands⁵. Employees are only allowed⁶ to
manage interviews via the approved⁷ audio management applications.

H Use the words in the boxes to build as many adjectives as possible.

verbs & adjectives:

accept harm trust use rely value able legal active



prefixes & suffixes:

il- in- un- -less -ful -able -worthy

acceptable, inacceptable, unacceptable, harmful, harmless, trustful, untrustful, trustworthy, useless,
useful, unreliable, reliable, valueless, unable, illegal, inactive, activeless

² KV 5.2 Cornelsen, Autor: Robert Kleinschroth

