**NOTES FOR FINAL REPORT**

Remote scenario:

-) laptop with Windows 10 locked.

-) clerks work on the laptop with user privileges (no admin).

-) use of VPN SW (Juniper Junos Pulse) to connect to the office.

-) remote SW tightVNC (remote desktop) or team speak.

Court scenario:

-) each type of courts 🡪 has its own president. Staff are in separated offices. For me 🡪 each court is a company and all these companies (courts) share the same building.

-) each case is assigned to an uniquely clerk.

-) a clerk can take over or review work of another clerk on the same court, NOT of another court.

-) clerks follow a process that is digital using a SW.

-) penal courts and persecution have more secrecy to avoid disclosure of information.

SW of the clerk:

-) SW is very complicated, each clerk has a unique password to access to it and the read/write operations are logged.

-) a clerk using a computer of another clerk would be immediately noticed.

-) if a clerk gives his password to another clerk, the latter could impersonate the first one who is the responsable of losting his password.

-) the president of the court can review the high-level log in case of problem.

Network status and architecture:

-) all computers are managed nationally, each judge/clerk/other member has an unique ID with password, no one has admin priviledges and all the SW installed must be checked.

-) no personal system (phones, personal laptop…) are allowed to connect the inside network.

-) a global firewall protects the building (all the court) and the entire network, but there are no internal firewalls.

-) you can access to the certified email SW only from the computers of the clerk inside the building and behind the global firewall.

-) tribunal building has 3 floors (0,1,2,3) with a lot of things.

-) network is segregated with several VLANs with switch at L2.

-) VLANs for external members (lawyers or public) are separated from the tribunal VLANs, unless: external VLANs 🡪 internet 🡪 tribunal VLANs.

Operational security:

-) the different court officers are distinct, so each computer is for only 1 person and there is no computer which is shared between different officers.

-) Judge has his own office, clerks work in offices with other clerks of the same court, administrative staff work in different offices from judges and clerks.

-) court clerks and judges can be visited by public, visitors are identified and screened for weapons.

-) administrative services of the tribunal building are shared among various offices.

Network infrastructure:

-) Ground floor:

-) open lab-building shared pc conference room: vlan 53, 10.186.10.0/24, gateway 10.186.36.1

-) wifi-lawyers waiting rooms: vlan 39, 10.186.160.0/18

-) 1° floor:

-) cabled-access control: vlan 29, 125.35.183.0/24, gateway 125.44.16.37

-) cabled-CCTV: vlan 50, gateway 125.44.16.37

-) cabled-multimedia (projectors, tv, screens): vlan 53, 10.184.6.0/24, gateway 125.44.16.37

-) cabled-prosecutor head and assistants: vlan 17, 10.184.30.0/23, gateway 125.44.16.37

-) cabled-prosecutor office administration: vlan 18, 10.184.32.0./23, gateway 125.44.16.37

-) wifi-lawyers waiting rooms: vlan 39, 10.184.160.0/20

-) wifi-police officers: vlan 40, 10.184.200.0/22, gateway 125.44.16.37

-) wifi-visitors: vlan 44, 10.184.204.0/22

-) 2° floor:

-) cabled-criminal court head office: vlan 1, 183.205.186.0/17, gateway 125.44.0.125

-) classroom-building shared pc conference room: vlan 2, 182.168.162.0/24, gateway 125.44.0.125

-) cabled-criminal court judges: vlan 3, 182.168.163.0/24, gateway 125.44.0.125

-) cabled-criminal court clerks: vlan 11, 182.168.165.0/17, gateway 125.44.0.125

-) cabled-access control: vlan 29, 125.35.160.1/24, gateway 125.44.0.125

-) cabled-cctv: vlan 50, gateway 125.44.0.125

-) cabled-multimedia (projectors, tv, screens): vlan 53, 10.160.6.1/23, gateway 125.44.0.125

-) wifi-lawyers waiting rooms: vlan 39, 10.186.160.1/18

-) wifi-tribunal administrative officers: vlan 40, 10.186.182.0/18

-) wifi-visitors: vlan 44, 10.186.224.0/18

-) cabled-captive portal for meeting rooms: vlan 77, 10.160.220.0/22, gateway 125.44.0.125

-) 3° floor:

-) cabled-access control: vlan 29, 125.35.186.0/24, gateway 10.186.36.1

-) cabled-multimedia (projectors, tv, screens): vlan 53, 10.186.6.0/23, gateway 10.186.36.1

-) cabled-civil court clerks: vlan 17, 10.186.30.0/23

-) cabled-civil court judges: vlan 18, 10.186.30.0/23

-) cabled-building administration: vlan 19, 10.186.34.0/23, gateway 10.186.36.1

-) cabled-prosecutor investigation labs: vlan 20, 10.186.36.0/23, scanner location

-) wifi-tribunal administrative offices: vlan 40, 10.186.182.0/18, gateway 10.186.36.1

-) wifi-visitors: vlan 44, 10.186.224.0/18

References costs:

-) Awareness training: <http://tehelka.com/how-much-does-training-for-cyber-security-for-employees-cost/from> 5000$ --> 4200 euro per employee

-) Costs of cybersecurity expert: <https://mondo.com/blog-highest-paid-cybersecurity-jobs/> 90000$/year , 52 work weeks, 5 days per week, 8 hours per day 🡪 90000/52 = 1731$ per week, 1731/5=346$ per day, 346/8=43$ per hour 🡪 36€ per hour

-) Cost of pentester: <https://mondo.com/blog-highest-paid-cybersecurity-jobs/> 80000$/year 🡪 80000/52=1538/5=308/8=39$ per hour 🡪 33€ per hour

-) cost of HR junior and senior: <https://www.tutored.me/it/hr-risorse-umane/> junior 28000€ per year 🡪 28000/52=539/5=108/8=14€ per hour, senior 50000€ per year 🡪 50000/52=962/5=192/8=24€ per hour

-) Cost of network security engineer: <https://mondo.com/blog-highest-paid-cybersecurity-jobs/> 125000$ per year 🡪 125000/2080=60$ per hour 🡪 50€ per hour

-) RFID+lettore biometrico: <https://www.liberotech.it/it/lettore-biometrico-autonomo-per-controllo-accessi-lettura-impronte-digitali-e-rfid-anviz-t5pro.html> 172€ per piece

-) industrial electrician: <https://www.jobbydoo.it/stipendio/elettricista> 1710€/month 🡪 1710/4\*5\*8=11€ per hour

-) cost of backup vpn Express VPN: <https://www.usnews.com/360-reviews/vpn> 8.32$/month annual plan 🡪 8.32/720=0.012$ per hour 🡪 0.010€ per hour

-) cisco firewall: <https://www.router-switch.com/Price-cisco-firewalls-security_c3> 441$ 🡪 370€

-) Application security engineer for cloud solutions (backup): <https://mondo.com/blog-highest-paid-cybersecurity-jobs/> 120000$/year 🡪 120000/2080=58$ per hour 🡪 49€ per hour

-) Security guard: <https://www.glassdoor.com.hk/Salaries/us-security-guard-salary-SRCH_IL.0,2_IN1_KO3,17.htm> 30000$ per year 🡪 30000/2080=14$ per hour 🡪 12€ per hour

-) Camera [CIVS-IPC-3050](https://itprice.com/cisco/civs-ipc-3050.html) <https://itprice.com/cisco-gpl/civs-ipc-3050> 1250$ 🡪 1047€

-) impianto antincendio: <https://www.habitissimo.it/preventivi/impianto-antincendio> 2400€

-) water detection sensor: <https://www.pcmag.com/picks/the-best-smart-water-leak-detectors> 50$ 🡪 42€

-) installare generatore di riserva: <https://www.ernesto.it/prices/installare-un-generatore> 2650€

-) electrical ground: <https://www.edilnet.it/guida/messa-a-terra-impianto-elettrico-quale-il-costo-289#:~:text=Messa%20a%20terra%20impianto%3A%20da,%E2%82%AC%20a%20700%2C00%20%E2%82%AC> 75€+400€

-) circuit breakers: <https://campoelettrico.it/magnetotermico-differenziale-interruttori/magnetotermici-differenziali-abb/> 90€

-) cooling system: <https://www.cibsejournal.com/general/cost-model-data-centre-cooling/> most expensive 1720£/kW 🡪 2000€/kW

-) IT tecnhician: <https://it.talent.com/salary?job=tecnico+informatico#:~:text=Tecnico%20Informatico%3A%20Qual%20%C3%A8%20lo%20stipendio%20medio%3F&text=Lo%20stipendio%20medio%20per%20tecnico,24%20500%20%E2%82%AC%20all'anno>. 1400€ per month 🡪 9€ per hour

-) retaining wall: <https://www.fixr.com/costs/retaining-wall-building#retaining-wall-cost-per-square-foot> 5.463$ per wall (7.3m X 1.2m) 🡪 4577€, 50$ per square foot 🡪 420€ per m^2

-) prosecure: <https://it.talent.com/salary?job=pm#:~:text=Lo%20stipendio%20medio%20per%20pm,44%20750%20%E2%82%AC%20all'anno>. 2250€ per month 🡪 13.85€ per hour

-) Recovery company laptop: <https://global.techradar.com/it-it/news/migliori-notebook-aziendali> 1752€

-) police salary: <https://www.jobbydoo.it/stipendio/agente-polizia> 1300€ per month 🡪 1300/160=8€ per hour.

-) malware attack 2019: <https://www.wired.it/internet/web/2020/03/05/cybersecurity-minacce-clusit/> 1670 attacks, 44% is malware 🡪 735 malware attack /365 🡪 2 malware attacks/day