HSL SECURITY SOLUTION FOR VolP Telephony Endpoints





VoIP Telephony as a major security threat

- VoIP phones are everywhere even in the most classified offices and meeting rooms.
- Large deployment = large potential attack surface.
- Last older PSTN phones in service are being replaced by modern IP telephony.
- New IP Telephony brings many value added features including Video Conferencing, phone directory, and smart caller ID functions.



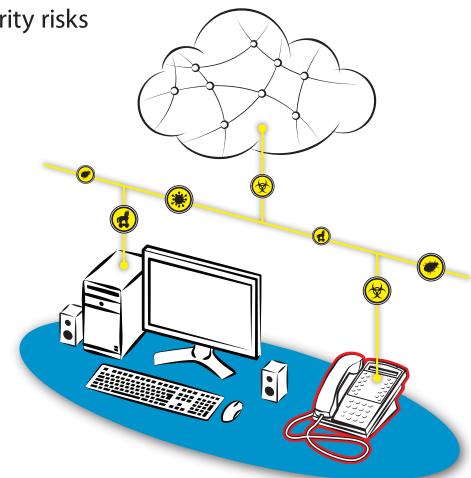


VolP Telephony as a major security threat

VolP Phones Protection

 Many organizations are not aware of the security risks involved with VoIP deployments.

- VoIP phones are NOT perceived as a security threat although being exposed to the outside world through networks that have internet access.
- VoIP telephony offers great opportunity for external attackers to launch audio eavesdropping or undetected video surveillance.
- VoIP telephony supply chain is typically high risk.





VolP Telephony as a major security threat

VolP Phones Protection

Video camera may be hacked by remote attacker to operate without user activation

Flash memory can be upgraded with malicious code by remote attacker

Desktop computer is chained to the IP Phone through internal switch

Handset hook switch is software function that may be hacked

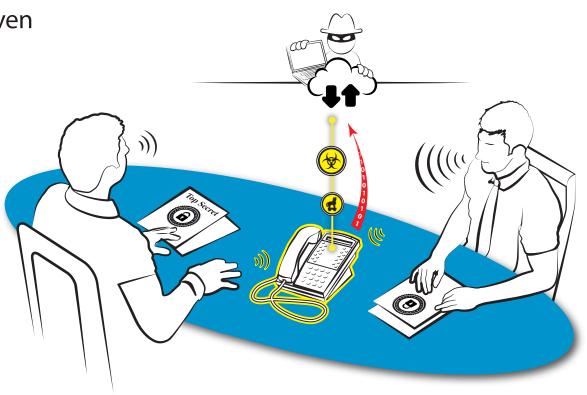
Base speaker and handset speaker can be hacked and abused to become a microphone

Base microphone may be turned on by remote attacker



Eavesdropping through a hacked IP Phone

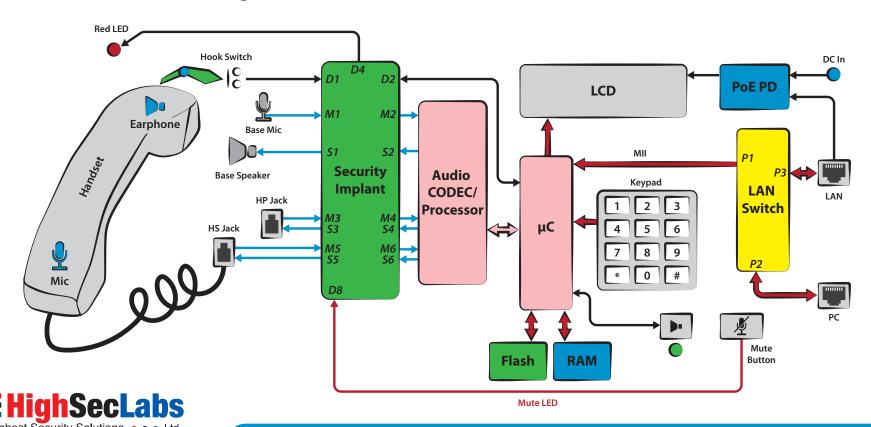
- Any IP Phone can be easily converted into a surveillance audio bug using malicious software.
- Remote attacker may eavesdrop on private/classified conversation or even open the device video camera.
- Most commercial IP Phones are lacking basic security functionality of modern network devices.
- VoIP Phones may be used to breach air gap to deliver information or malicious code to/from classified computers having speakers / microphone.





HSL Security Enhanced IP Phone

- HSL Security enhanced IP Phone is modified to include a trusted security implant.
- HSL Security implant is positioned between the phone and all of the acoustic peripherals, blocking it unless the user provides a positive and distinctive action.
- Security enhanced IP Phone provides clear user indications when the phone is in secure state or when it is sensing its environment (active).



HSL Security Enhanced IP Phone

- HSL's Security enhanced IP Phone Implant will only allow access to the phone acoustic peripherals once the user physically lift the handset.
- No reliance on phone software or hardware.
- Base Speaker and headset calls are possible but only when the handset is lifted.
- The implant allows normal phone operation without any negative effect on performance or user experience.
- Audio and visual notifications provide clear and simple user indications of the phone s secure state.





VolP Phones Protection

Protect against - Air-gap breaching

- Phone will not receive audible or ultrasonic audio signals from nearby computer.
- External IP Phones may be securely placed and used in classified zones.





Supported Phone Models

MODEL	MANUFACTURER	P/N	
CP-8851 2nd Gen	CISCO	CPN13221	
CP-8851 3rd Gen	CISCO	CPN23853	
CP-7821 / 41	CISCO	CPN16207	
CP-8865	CISCO	CPN16653	
440HD	AUDIOCODES	CPN70464	-
CORAL 281S	TADIRAN	CPN15698	
LIP-9030	LG	CPN17372	
T-58	YEALINK	CPN70872	
J179	AVAYA	CPN70931	**************************************









THANK YOU!



For more information, please visit www.highseclabs.com