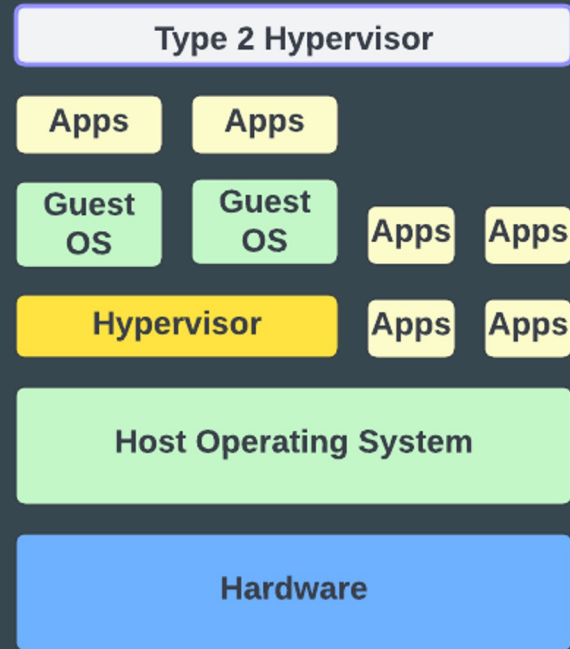
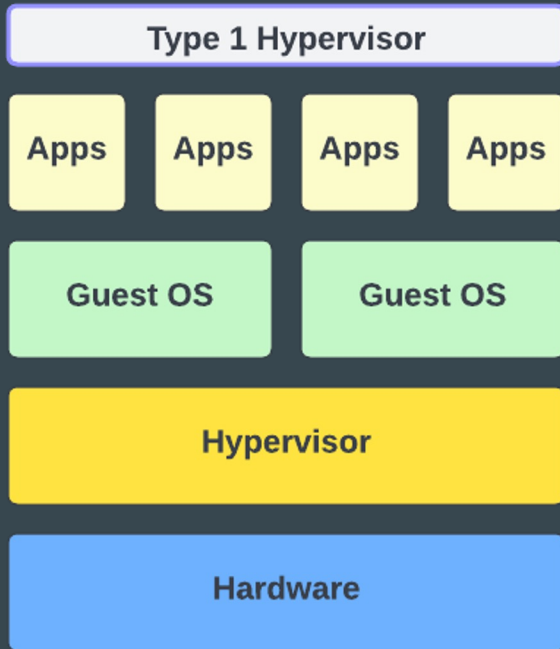


Hypervisor Security

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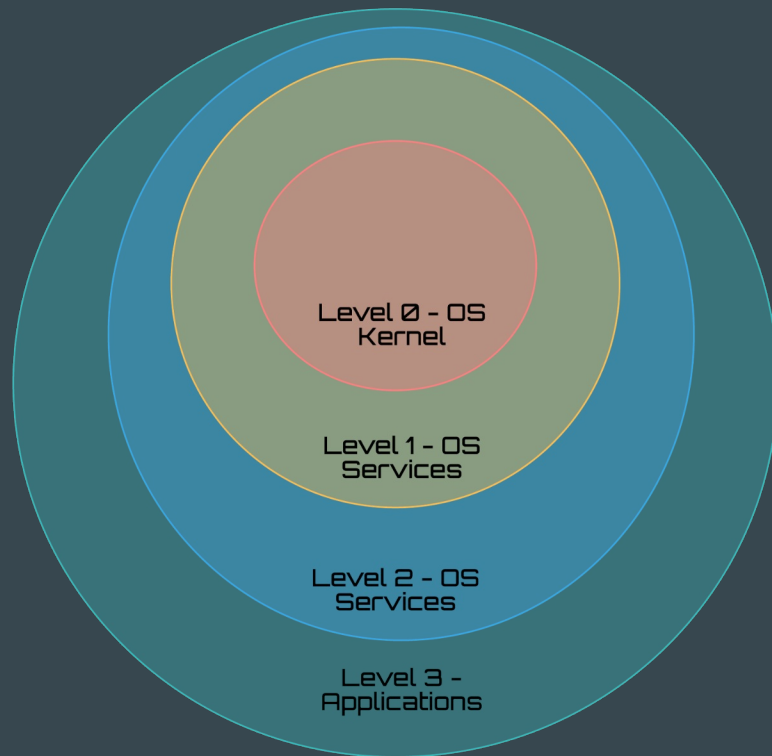
Ashwini Prashanth Bhaskar
Arturo Paz

Hypervisor Types



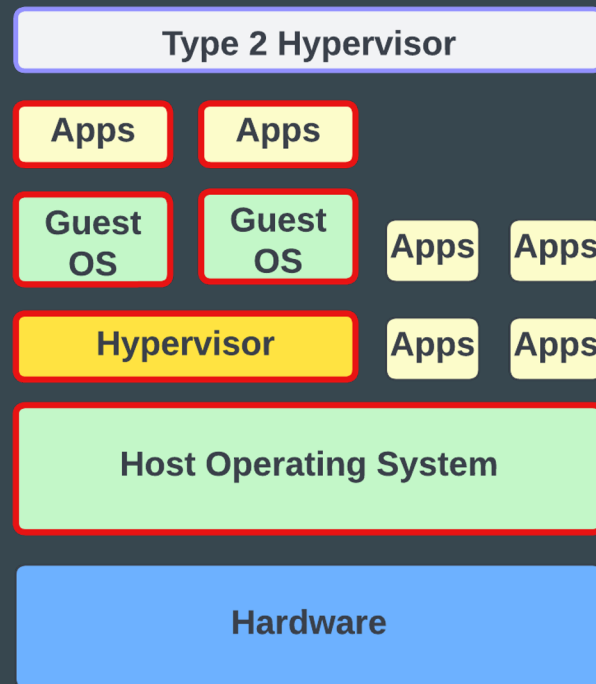
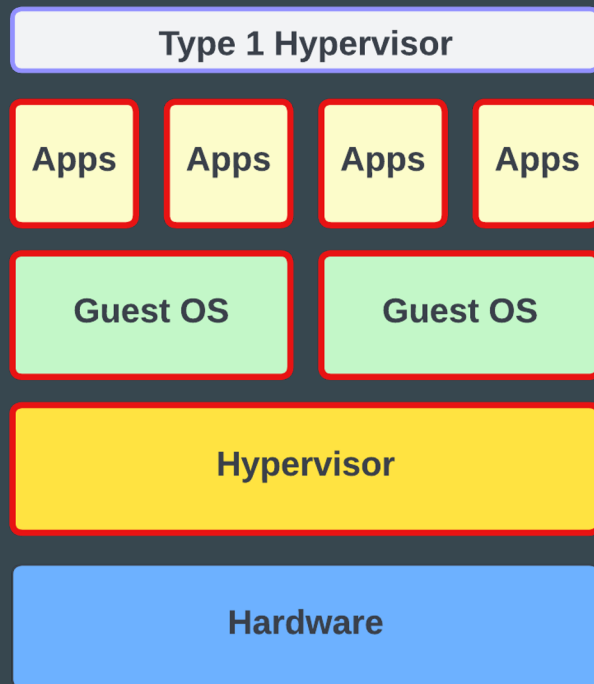
Hypervisor Security

- ❑ Hypervisors operate at the kernel level, which is considered to be the most privileged layer.
- ❑ Hypervisor separates the host machine from guest machine.
- ❑ Hypervisor acts as security as it prevents unapproved sharing of physical resources.
- ❑ Features of Hypervisor Security:
 - 1) Abstraction of physical resources
 - 2) Pre-attack State restore
 - 3) Isolation of Physical resources

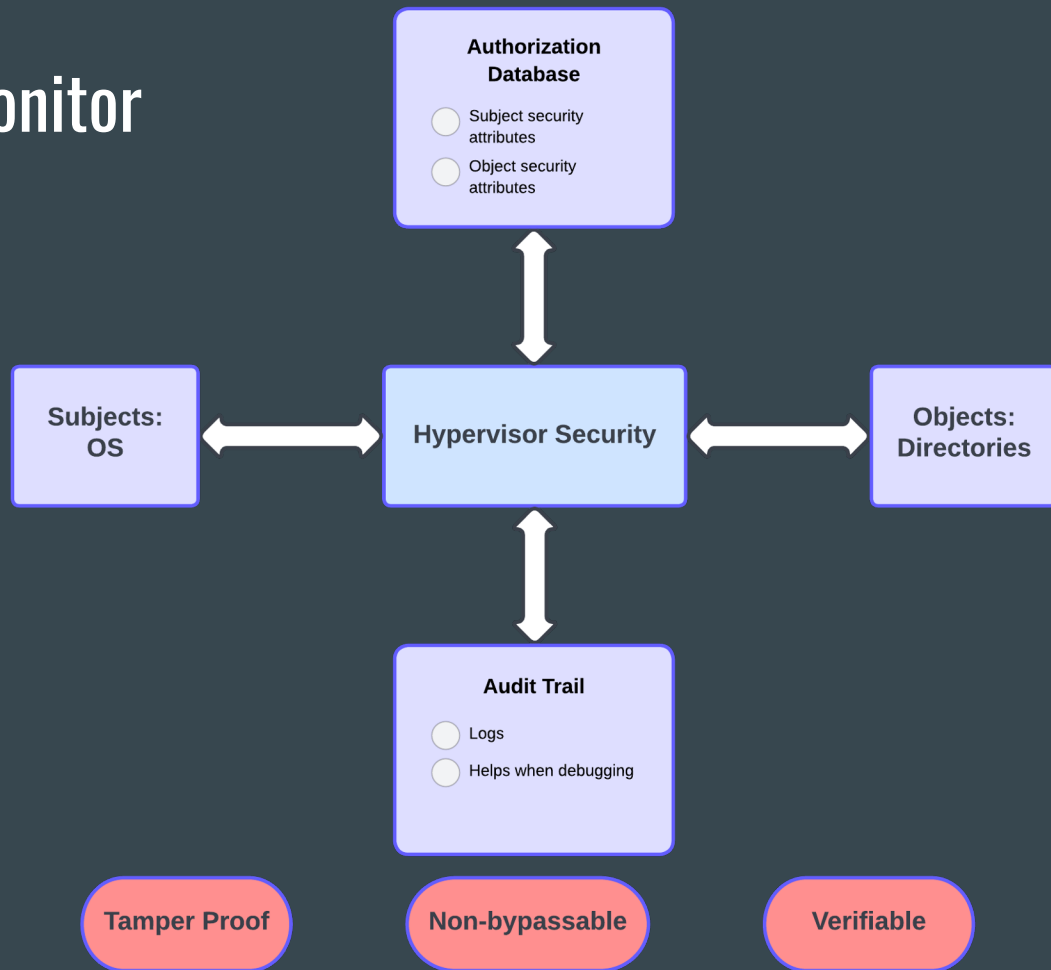


Attack Surfaces - HYP-T#

- Breach of Process Isolation
 - HYP-T1
- Breach of Network Isolation
 - HYP-T2
- Denial of Service
 - HYP-T3



Reference Monitor



References

- <https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-125A.pdf>
- https://www.rippublication.com/irph/ijict_spl/08_ijictv3n6spl.pdf