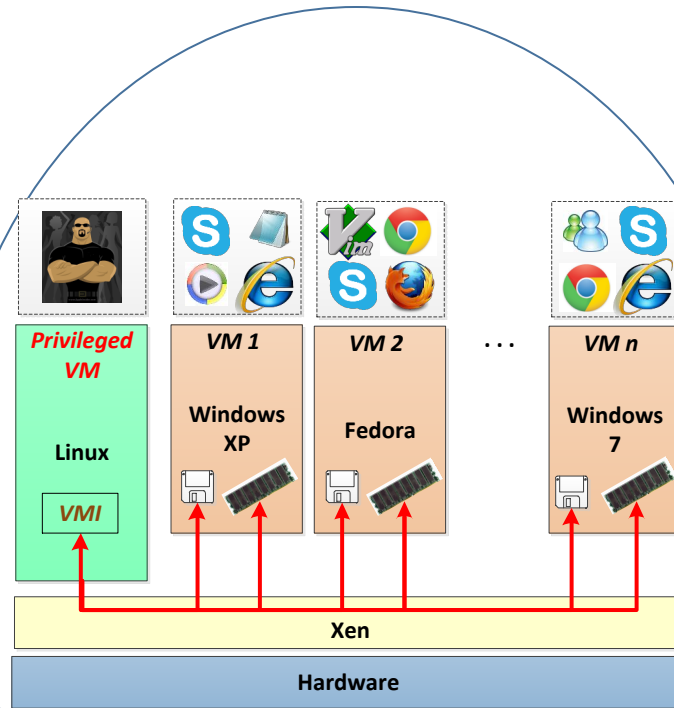# Using Virtual Machine Introspection for Deep Cybersecurity Education

Challenge:
- Improve hands-on learning experience of students for low-level offensive and defensive techniques

Solution:
- Utilize VMI to develop a toolkit for hands-on exercises
- provides a playground for memory manipulation that let students make direct changes in memory contents and then observe their effect

Virtual Machine Introspection

Scientific Impact:
- Develop a new toolkit in a virtualized environment for building more insightful hands-on exercises for cyber security education
- Eliminate the abstraction between physical memory and a user program

Broader Impact:
- Contribute to the cyber security education curriculum
- Enrich the knowledge of the tools
- Involve underrepresented students

Project info (1623276, University of Texas at Dallas, Zhiqiang Lin, University of New Orleans, Irfan Ahmed)