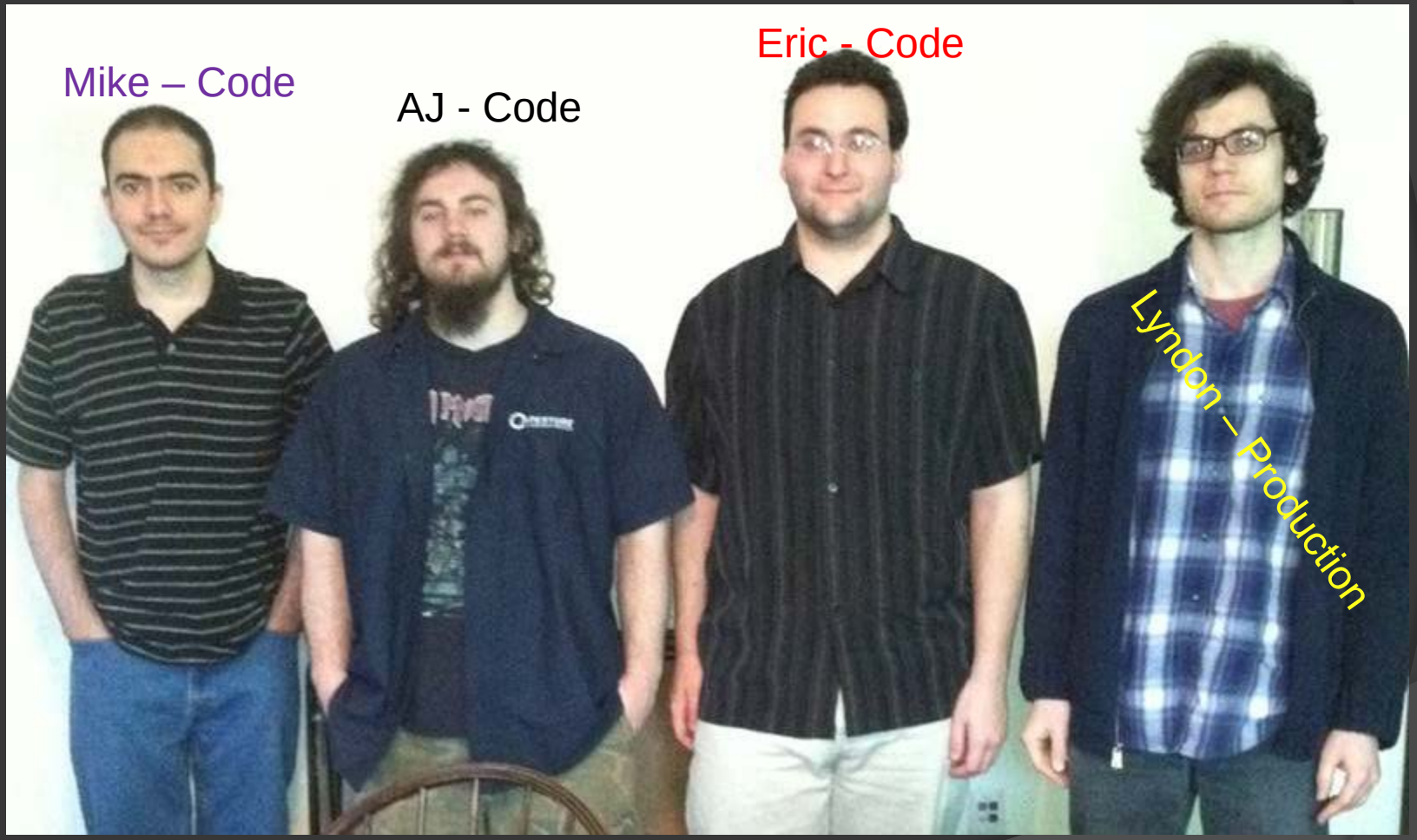
CORE GAME USER EXPERIENCE PROTOTYPE

CORE Security and WPI Joint Project

Project Goal

Take the techniques that make games easy to use and apply them to professional security software.

The Team



The Team

Beth Hankel - Art

Professor Moriarty

IMGD

Professor Shue

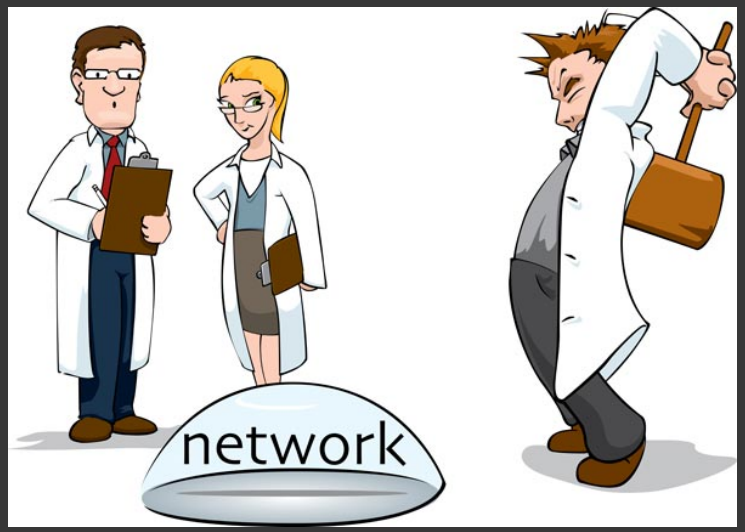
CS

Professor Claypool

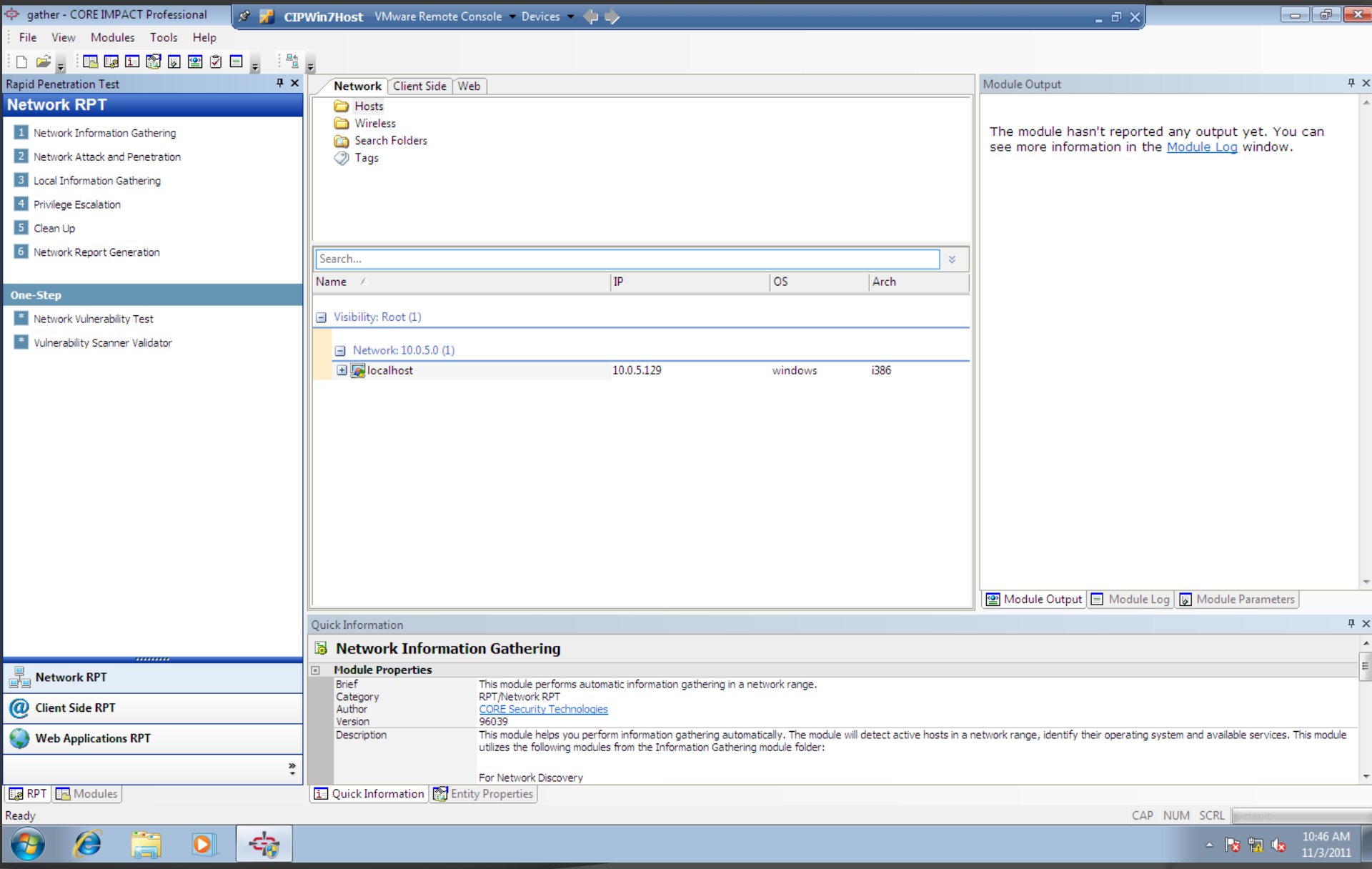
CS, IMGD

Core Impact Professional

Network Security
Penetration testing:

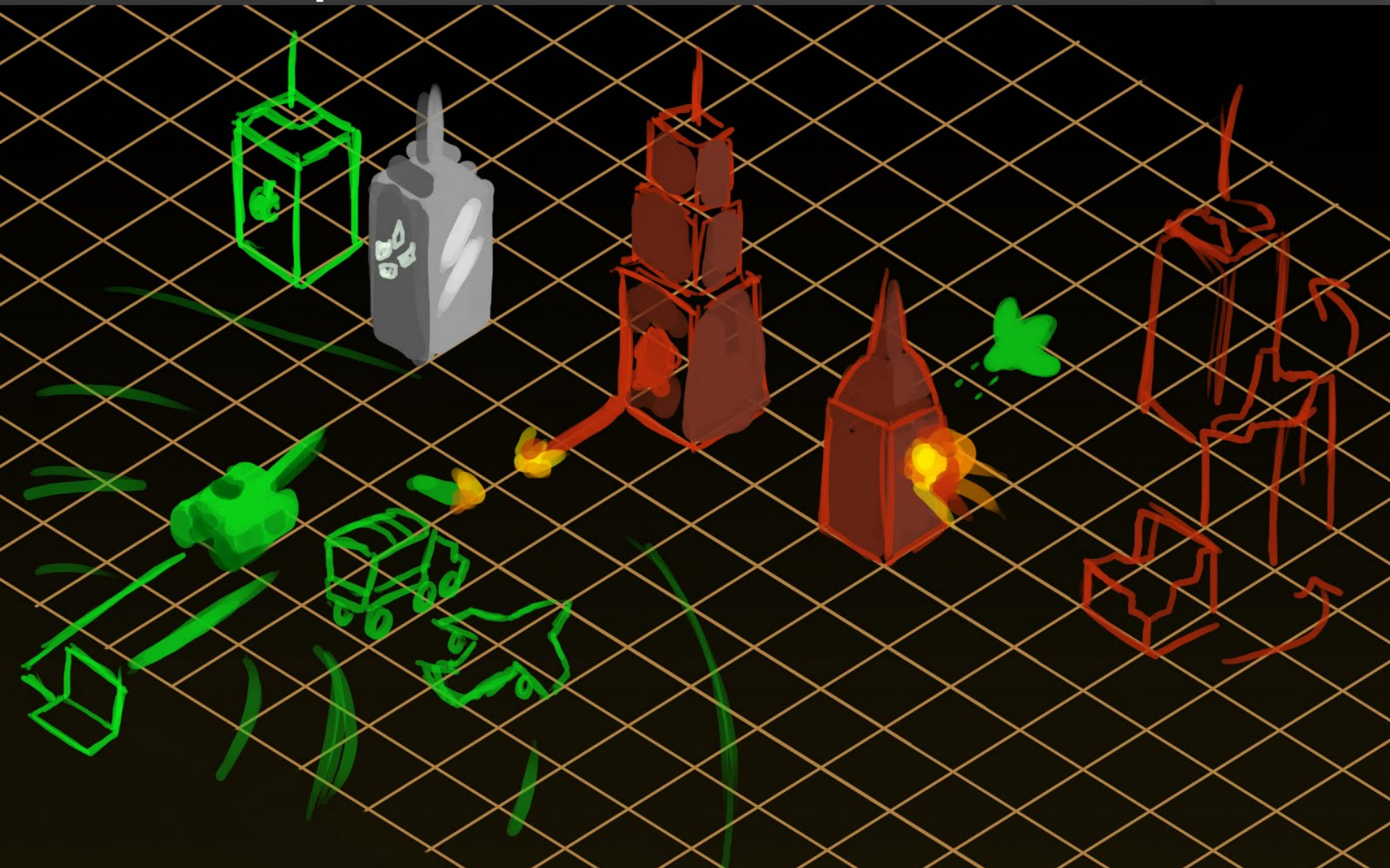


- Ethical Hacking
- Scan and attack a computer network to discover vulnerabilities
- By Experts for Experts…


gather - CORE IMPACT Professional
CIPWin7Host
VMware Remote Console
Devices
File
View
Modules
Tools
Help
Rapid Penetration Test
Network RPT
1 Network Information Gathering
2 Network Attack and Penetration
3 Local Information Gathering
4 Privilege Escalation
5 Clean Up
6 Network Report Generation
One-Step
Network Vulnerability Test
Vulnerability Scanner Validator
Network RPT
Client Side RPT
Web Applications RPT
RPT
Modules
Network
Client Side
Web
Hosts
Wireless
Search Folders
Tags
Search...
Name
IP
OS
Arch
Visibility: Root (1)
Network: 10.0.5.0 (1)
localhost
10.0.5.129
windows
i386
Module Output
The module hasn't reported any output yet. You can see more information in the Module Log window.
Module Output
Module Log
Module Parameters
Quick Information
Network Information Gathering
Module Properties
Brief
This module performs automatic information gathering in a network range.
Category
RPT/Network RPT
Author
CORE Security Technologies
Version
96039
Description
This module helps you perform information gathering automatically. The module will detect active hosts in a network range, identify their operating system and available services. This module utilizes the following modules from the Information Gathering module folder:
For Network Discovery
Quick Information
Entity Properties
Ready
CAP
NUM
SCRL
10:46 AM
11/3/2011

How Do Games Do Complex Information?

Concept Art



Concept Art

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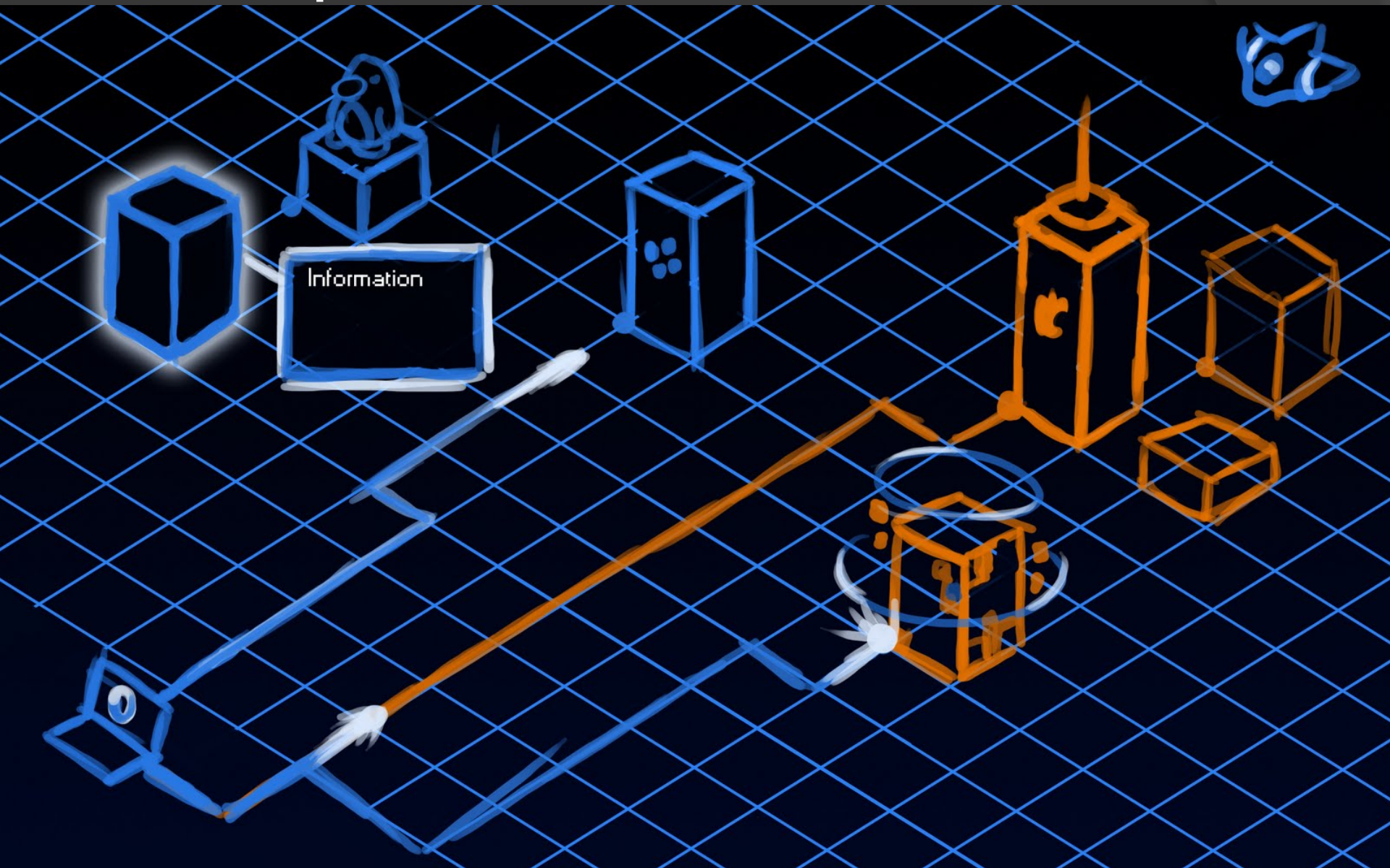
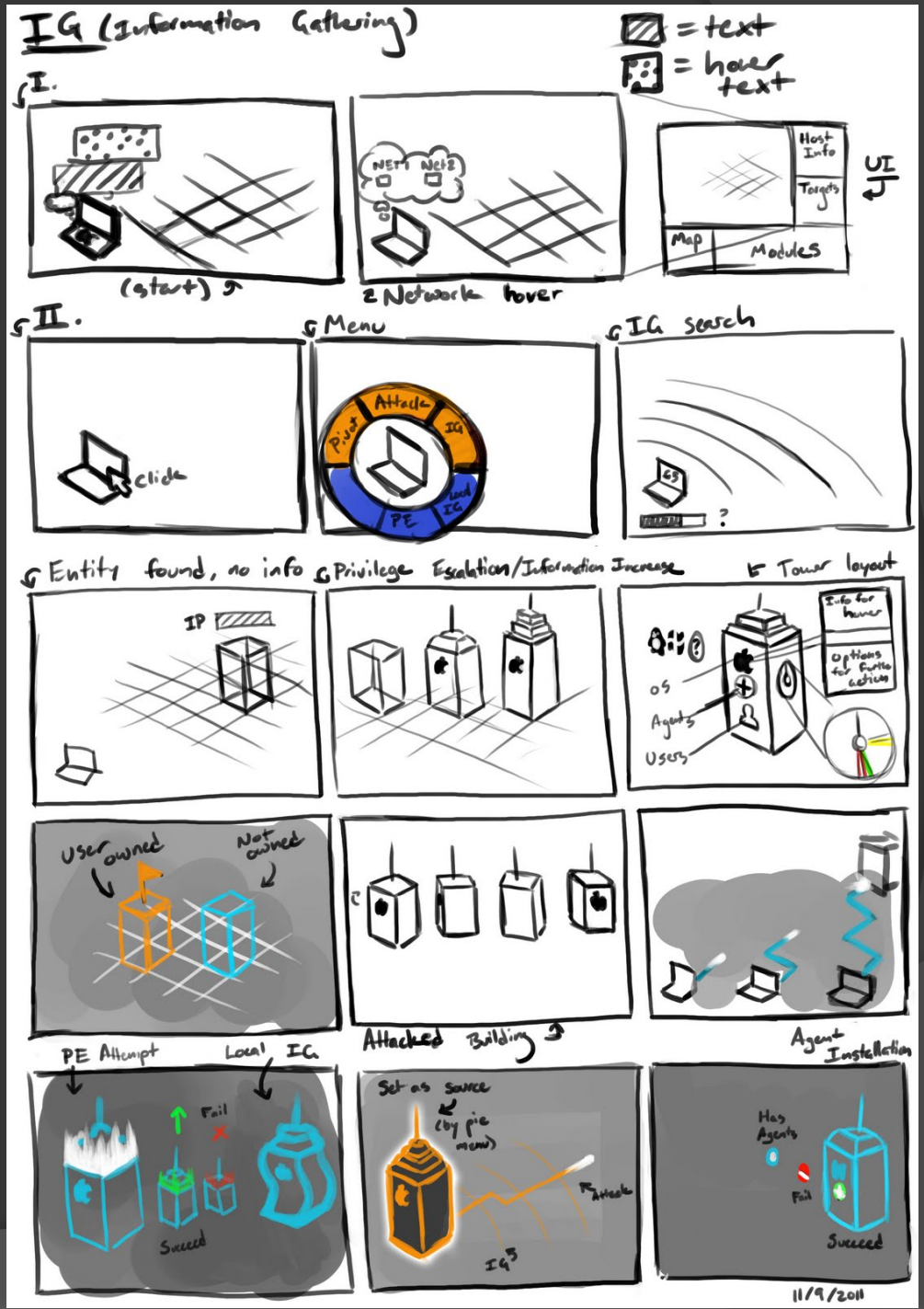


Software Storyboard

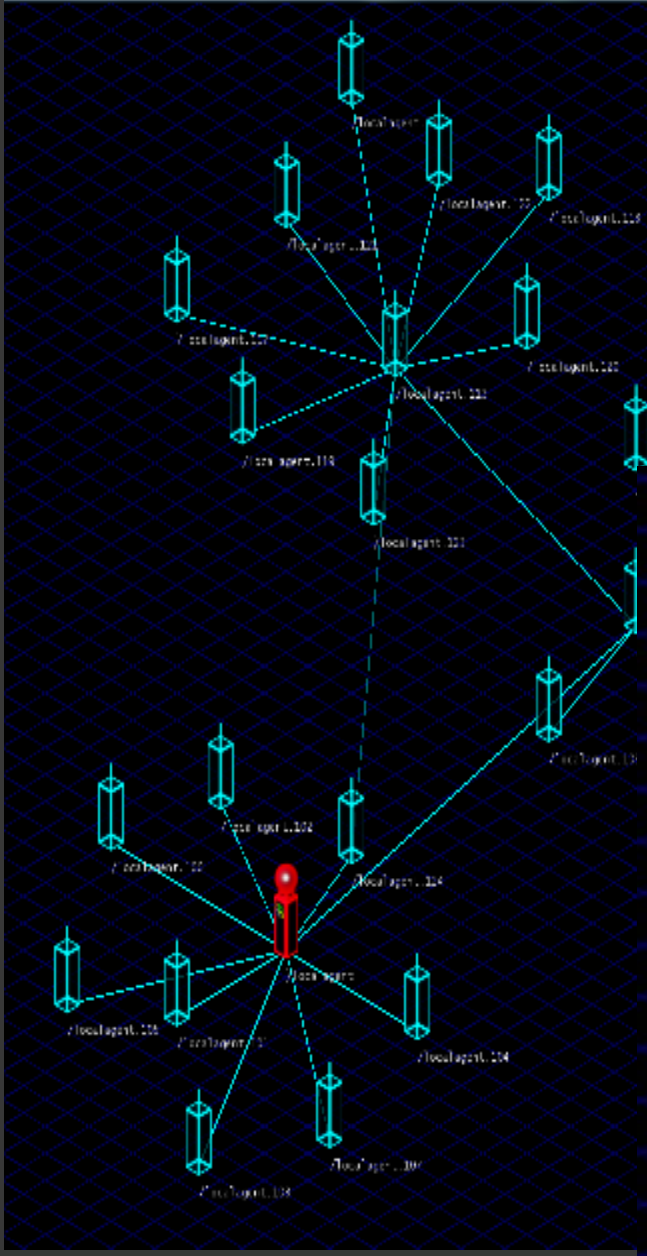


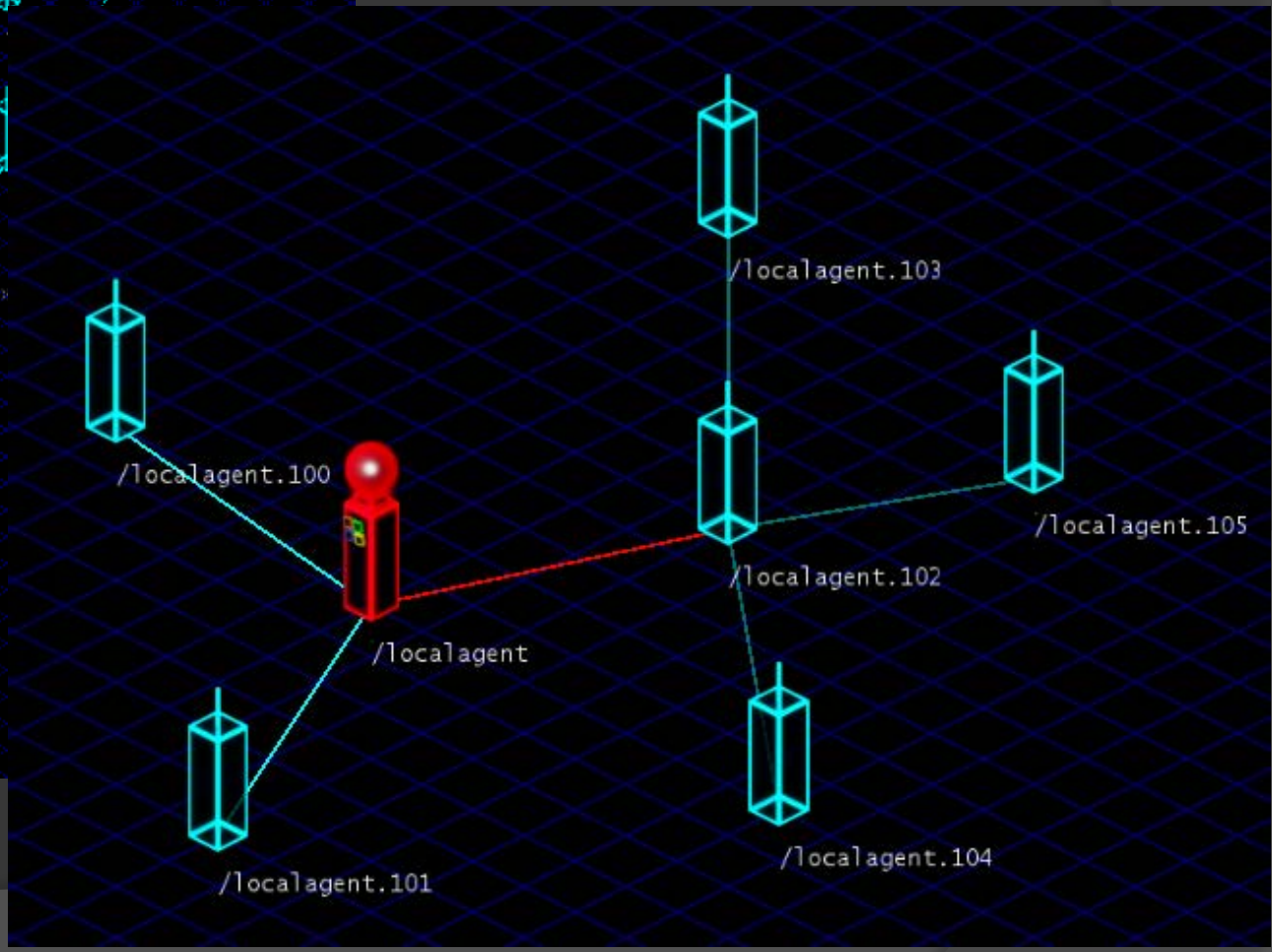
Game UX Techniques

- Direct manipulation
- Sound and animation
- Context-relative information

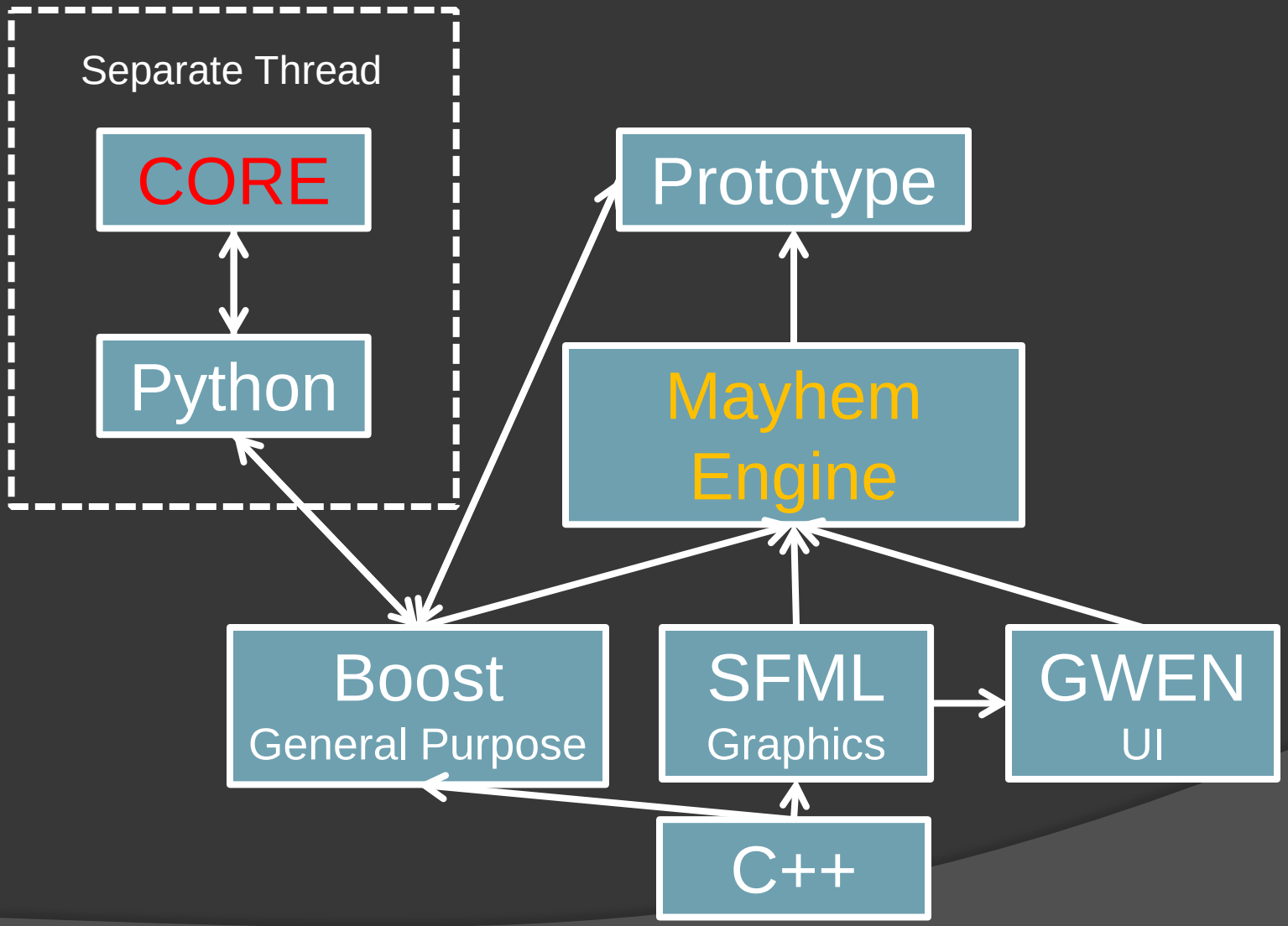
Game UX Techniques

- Spatial network layout





Architecture



Usability Study

Does our prototype perform better than the existing interface?

- Control group: Core Impact Pro
- Test group: Prototype

1) Network security task
   - Scan a network
   - Attack a machine
   - Discover a new network
2) Subjective survey questions
   - What did they think about the interface

- CONFIDENTIAL -

Usability Study

Interface	Test Score	N	Standard Error
CORE Impact Pro	9.07	15	0.702
Mayhem Prototype	11.19	13	0.477

Independent t-test (2-tailed):
P = 0.0225

Interface	Subjective Survey	N	Standard Error
CORE Impact Pro	12.5	15	2.465
Mayhem Prototype	16.8	12	1.011

Independent t-test (2-tailed):
P < 0.0001

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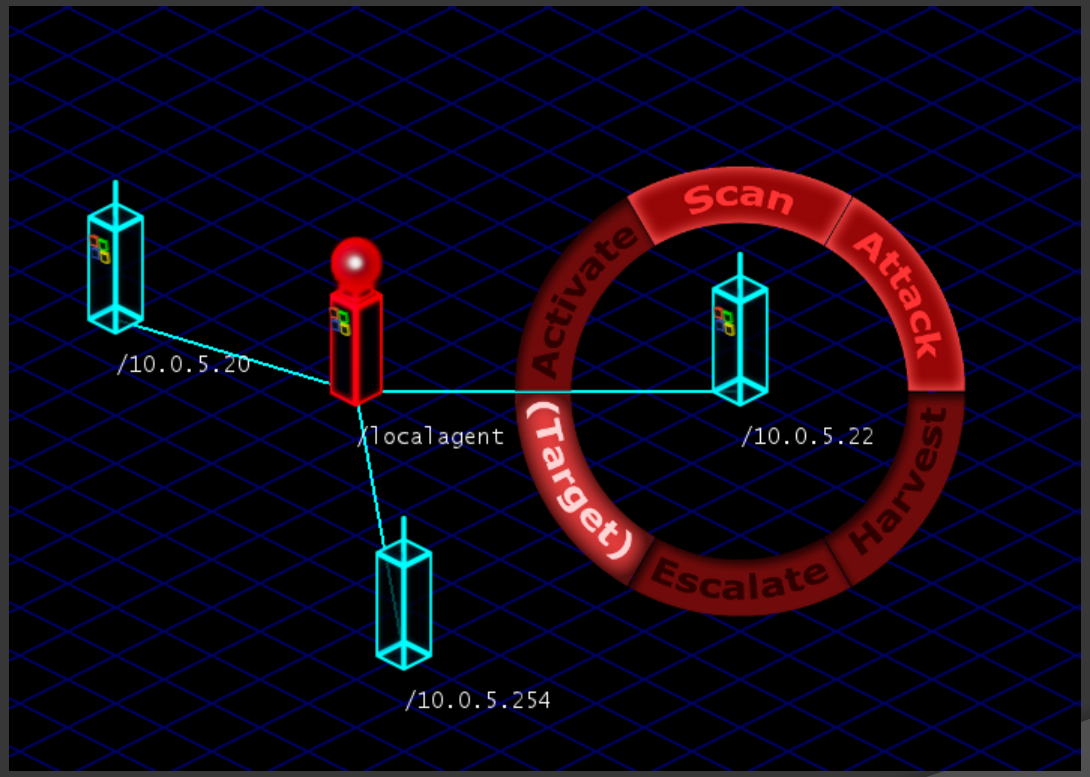
DEVELOPMENT BUILD DEMO