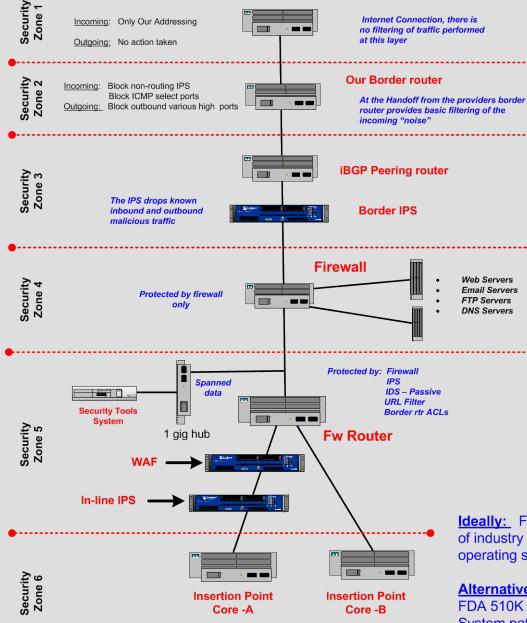
## **Medical Device Security**

Mark Olson hospital CISO



## **General System Counts**

Systems with AV	6398
Printers	2074
Medical equipment	905
Misc	2460
Total Devices:	11837

## OS Makeup – Medical

Windows	951
Windows	9815
Windows	200023
Windows	CE9
Windows	Vista0
Windows	XP600
Windows	XP SP10
Windows	XP SP215
Windows	XP SP31
Total	664

## **Average Time to Infection**

Clinical Systems , 510K, no AV..: **12 days** Systems running AV/Patches....: **300+ days** 

**Ideally:** FDA 510K is updated to include a requirement for the provision of industry accepted security controls for devices utilizing embedded operating systems or other controllers associated with a medical device

**Alternatively:** The FDA issues a clear statement to the community that FDA 510K is not jeopardized by permitting Anti-Virus or Operating System patching to the supporting systems associated with a certified medical device