The number of new mobile malware has grown 32% in the past year. In Q2, a total of 41 million mobile malware samples—almost 2 million—was the highest number ever recorded. Total malware in Q2 was the highest ever tallied. The McAfee Labs malware "zoo" includes over 600 million samples.

Legacy Systems
They have legacy systems with weak security.

Medical Devices
They own medical devices with weak security or no security.

Ransomware authors target hospitals because...
- Hospitals insulated from other systems
- Systems with weak security
- At least 19 hospitals breached organization
- At least 104 million infected devices
- Medical Devices infected by ransomware
- $17 Thousand ransom payment

Threats Statistics
- 48.6 billion queries per day
- McAfee GTI protections against potentially unwanted programs dropped 77% year over year to 104 Million
- McAfee GTI protections against malicious files dropped 77% year over year to 68%
- McAfee GTI protections against risky IP addresses show the highest number of protections over year to 100 Million

Crisis in the ER
"What will happen?"
- Hospitals generate at least $100,000 in ransom payments per day
- "What happened?"
- Hospitals paid $17,000 to restore its files and estimate lost $100,000 in revenue
- "Why did it happen?"
- Ransomware samples included encrypting user data.
- "How do we stop it?"
- McAfee GTI received on average 48.6 billion queries per day, 30 million per day in Q2.

The Evolution of Analytics
- Using machine learning to learn from data
- Using analytics to decide on actions based on understanding patterns and behaviors from large data sets
- Using cognitive computing to automate data discovery and insight

Stages of a Hospital Ransomware Attack
1. Download: "Why did it happen?"
- Systems with weak security
- Macro Malware
- New downloader
- An unsuspecting user receives an email attachment as a Word document, which launches the macro.
- The macro directs a downloader to fetch the payload, and decryption
- Important files encrypted using a key from a process
- Medical Devices infected by ransomware
- Based on comparators, only 12% of hospitals use endpoint monitoring, and physical media.
- A California hospital paid $17,000 to restore its files and estimate lost $100,000 in revenue
- McAfee GTI protections against potentially unwanted programs dropped 77% year over year to 104 Million
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