Monthly Cyber Briefing

June 5, 2025





Meeting Logistics





All attendees are on mute.



Questions



Resources

Type your questions Upcoming events, in the Q&A box. slides & resources linked.



Recording

Recording will be provided after event.



Survey

Survey will prompt at the end of webinar.



Agenda

- Cyber & Regulatory Update
- Uncensored AI: Understanding the Rising Threat of Malicious Use by Cybercriminals
- Q+A



CTO & Corporate CISO

Clearwater



Steve Cagle, MBA,
HCISPP, CHISL, CDH-E
Chief Executive Officer
Clearwater



Cyber & Regulatory Update

Steve Cagle, MBA, HCISPP, CHISL, CDH-E CEO, Clearwater

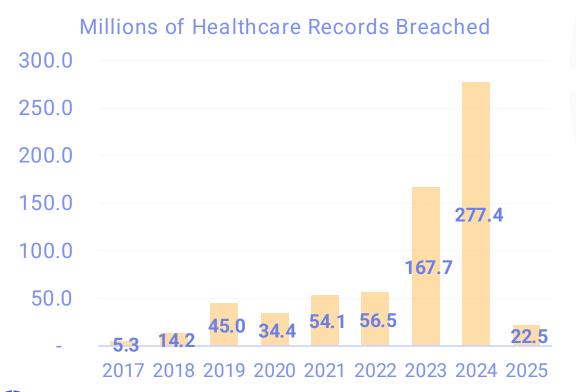




Breach Reports via OCR Breach Portal

OCR Breach Portal Data¹

- 2024 breach data: 277.4M records from 734 breaches
- YTD 2025 breach data: 22.5M individuals from 295 breaches ~3M records reported in past month



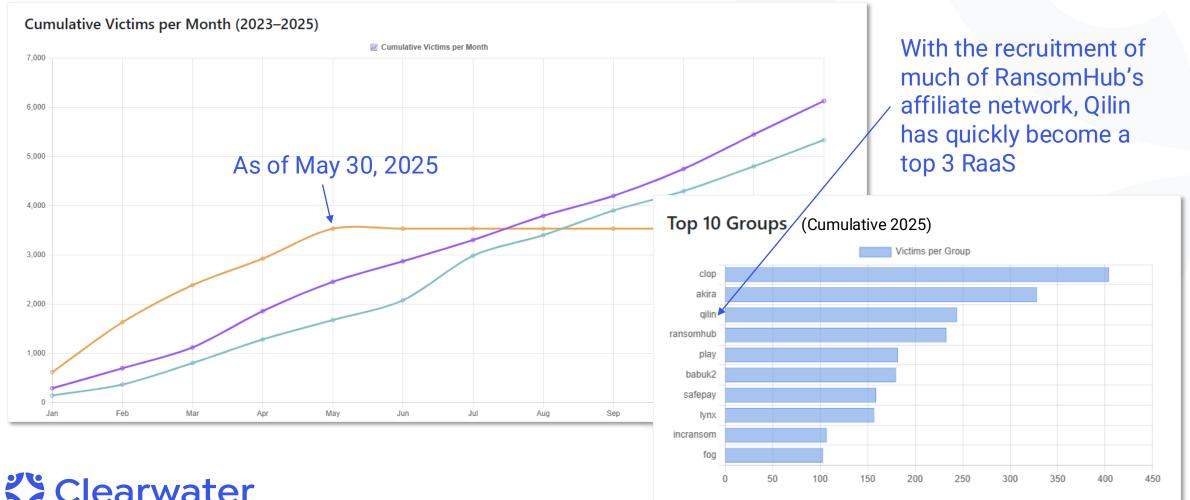
Notable Breaches

- Onsite Mammography email account compromise resulted in 357K breach
- Union Health (health system) experienced breach resulting from previously reported Cerner/ Oracle Health security incident
- Ascension inadvertently disclosed 437K records to a vendor that was breached
- Serviceaide reported a breach of Catholic Health data after exposing Cloud-based database to the web



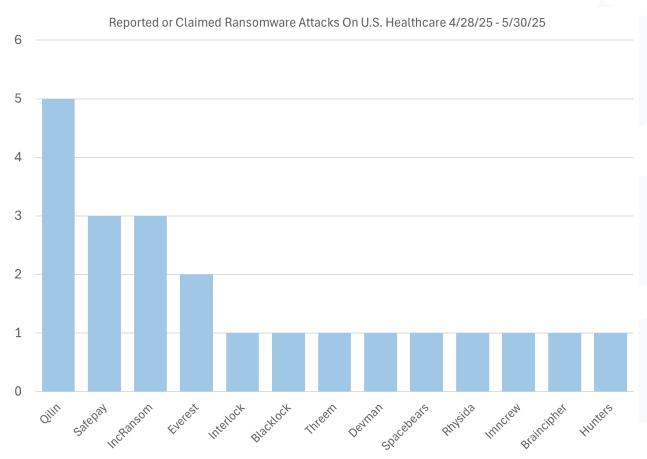
Global Ransomware Trends

Ransomware attacks in 2025 continue to trend well above 2024 levels. Majority are in the U.S.



Ransomware Attacks on Healthcare Since Last Briefing

22 newly identified ransomware attacks on U.S. Healthcare organizations 4/28/25 - 5/30/25.*



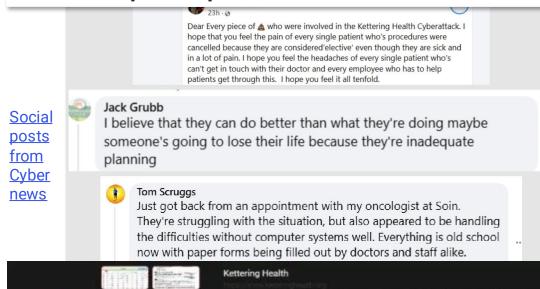
- Majority of attacks continue to occur on specialty provider groups, ambulatory surgical centers, physician practices, behavioral health and assisted living facilities
- Qilin had more reported attacks than any other threat actor in healthcare
 - Attacks on Clinpath (labs), The Holiday (SNF), New Season (Rehab),
 Dermatologists of Birmingham, and
 LaTouche Pediatrics
- IncRansom continues to be a front-runner
- SafePay moved to top 3 attackers after no activity last month



Kettering Health Ransomware Attack

Self-described "relentless" **Interlock** attacks yet another large healthcare organization as it "enforces accountability" of security standards in healthcare.

Kettering hospitals scramble after ransomware attack, thousands patient procedures canceled



Interlock Leak Site

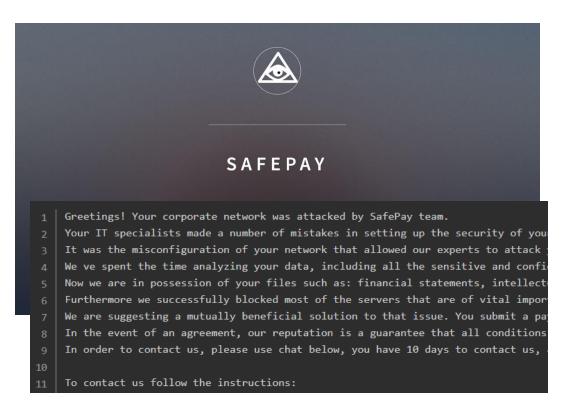


- Ransomware attack took place May 20th, causing ambulance diversion, canceled procedures, canceled radiation treatments, and other delays
- Impact spilled over to other hospitals handling higher volume
- Patients reported lack of communication and posted disgruntled messages on social media
- Secondary wave of attacks: Scammers have been calling patients claiming to be from Kettering and requesting their credit card information to pay bills
- Interlock leaked data to their leak site June 4
- Interlock continues to be a major threat to healthcare, and has also been observed launching new, more sophisticated malware in higher education, which we may see soon

Refer to February 2025 Cyber Briefing where we warned of Interlock and discussed their specific tactics, techniques and procedures

SafePay – Emerging Threat Actor Targeting Healthcare

SafePay has shown a preference for targeting healthcare and education sectors. According to Cyble, on a global basis, it led with ransomware attacks in the month of May, overtaking Qilin.



SafePay leak site and ransomware note.

- Relatively new threat actor first noticed October 2024
- Approximately 200 ransomware attacks, with primary focus on U.S. and Germany
- Claim they work independently (not a RaaS)
- Take advantage of misconfigured firewalls to gain access, and then use password spraying or compromised credentials to gain access from internal network
- Have gained access through RDP, disable Windows Defender, and escalate privileges undetected
- Targeted data collection and exfiltration
- Search for and disable or delete back-ups making it difficult or impossible to recover



Threat Actor Alert: Scattered Spider

Threat actor employing IT Help Desk Scams and other identity based TTPs. While they are not new, they have become much more effective, and highly successful.



M&S cyber attack: What we know about it and its impact



- Previous HC3 alert in 2023 and updated October 2024.
- Highly active again with recent major attacks on UK retailers
- Behind well publicized attacks on UK retailers
- Use detailed research on social media to have specific information about the user they are trying to compromise
- English speaking threat actors are highly convincing
- Targeting users thought to have admin privileges
- Uses other sophisticated AI, vishing and smishing social engineering scams as well as SIM swapping and MFA fatigue

HC3 Threat Actor Profile: Scattered Spider Threat Actor Profile_TLPCLEAR

HHS OCR Update

HHS OCR has been active with several new settlements and appointing of new Director.



Paula M. Stannard announced as Director of HHS Office for Civil Rights



- Previous experience at HHS in legal affairs under first Trump and George W. Bush administrations
- Replaces Alex Azar who was in interim role

HHS Announces Paula M. Stannard as Director of the Office for Civil Rights | HHS.gov

Enforcement Actions Since Last Cyber Briefing, Both with 2 Year Corrective Action Plans

- BayCare Health System: 16 hospitals, malicious insider, 586K individuals - 5/28/25 - \$75,000
- Comstar: medical billing and collection company, ransomware, single complainant 5/30/25 - \$800,000

Risk Analysis, Risk Management Plans, and Review of System Activity continue to be top areas of focus for OCR Enforcement.

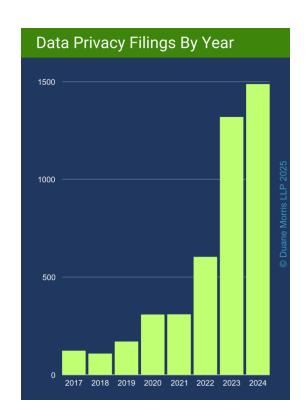
Link to OCR's Final Guidance on Risk Analysis

<u>Link to Differences Between HIPAA Security Evaluations</u> <u>and Risk Analysis - Clearwater</u>



Data Breach Class Action Lawsuits Increasing

Data breach has emerged as one of the fastest growing areas of class action litigation, with significant costs related to responding to the litigation. 1,488 Data breach-related class action filings in 2024 vs 604 in 2022.



January 2025 - DuaneMorris Class Action Defense

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Examples of settlements reach in healthcare range from \$1M - \$65M

- Medstar up to \$3,000 per individual (184K individuals) (Dec. 2023)
- Lee High Valley Network \$65M (114K individuals) (Nov 2024)
- Tampa General Hospital \$6.8M (2.1M individuals) (Jan 2025)
- Professional Finance Company \$2.5M (1.9M individuals) (Jan 2025)
- Solara Medical Supplies \$3M (114K individuals) (Jan. 2025)
- St. Louis University and SSM Health Saint Louis University Hospital \$2M (93K individuals) (April 2025)
- Rite Aid \$6.8M (2.2M individuals) (Mar. 2025)
- Practices Resources \$1.5M (942K individuals) (May 2025)

Doe v. LVHN - Home

MedStar data breach class action settlement

Tampa General Hospital agrees to \$6.8 million settlement in data breach class action | Health News Florida

Class action lawsuit settlement HIPAA - Google Search

Solara Medical Supplies to pay \$3M to settle cyber violations | HME News

Saint Louis University Agrees to \$2 Million Settlement to Resolve Data Breach Lawsuit

Rite Aid Settles Data Breach Lawsuit for \$6.8 Million

Practice Resources Agrees to \$1.5 Million Data Breach Settlement

Recommendations

Relevant actions based on current threat environment and TTPs & regulatory enforcement trends discussed in this briefing.

- Ensure firewalls, RDP servers, cloud environments and other points of access are configured properly. Assess security posture and perform penetration testing.
- Monitor for suspicious activity of Remote Access Tools, RDP, RMM, Powershell, etc. and attempts to disable EDR and other IOCs from TAs using Living off the Land Techniques.
- Implement and execute processes for updating workforce on latest social engineering techniques in a timely manner.
- Require multi-person approval or in-person validation for password/account resets.
- Ensure strong policies for authorizing access to ePHI, strong user access controls, and reviews to identify excess permissions or dormant accounts.
- Implement activity and log monitoring tools, and/or regularly review records of information system activity.
- Implement recognized security practices*, and assess your organization through a third party to demonstrate adoption and compliance with your policies and controls.
- Conduct OCR-Quality Risk Analysis all systems with ePHI (or other critical systems) must be in scope.



Uncensored AI: Understanding the Rising Threat of Malicious Use by Cybercriminals

Steve Akers, CTO & Corporate CISO

Clearwater



AI in Cybersecurity

212

Number of

Malicious AI/LLMs¹

75%

Organizations have changed their security strategy²

3

Of the Top 10 DLP Violations in AI are Healthcare Related³ 4,151%

Increase in Phishing since ChatGPT Launch⁴ 49%

Increase in Phishing emails that bypass Filters

82.6%

of Phishing Emails are Al supported⁶

<5%

Of all Phishing emails are fully A Generated⁵ 91%

of Polymorphic Phishing attacks are Al supported⁸ 40%

BEC focused Phishing emails Al Generated⁷

-31% --- -10% --- +24%

Al Effectiveness vs Expert Red Team in Phishing Campaign Generation from 2023, 2024, and 2025⁵



¹CybelAngel, The Dark Side of GenAl ²Deep Instinct, Al In Cybersecurity ³Zscaler, ThreatLabz 2025 Al Report ⁴Slashnext, Mid Year State of Fishing

⁵Hoxhunt, Phishing Trends Report ⁶KnowBe4, Phishing Threat Trends Report ⁷Vipre Security, The new face of Fraud ⁸Dark Trace, State of Al In Cybersecurity

What are threat actors using AI / LLMs for?











Reconnaissance

- Target Research
- Attack Methods
- Best Path for Lateral Movement
- Vulnerabilities

Development

- Exploit Identification
- Malicious Code
- Troubleshooting
- Refinement

Automation

- Malware Development
- Mass Phishing
- Adaptative Social Engineering
- Obfuscation
- APT Lifecycle

Content Generation

- Deepfakes
- Video (Live)
- Voice (Live)
- Complete Persona

Translation and Localization

- Correct Language and Context
- Culturally aligned



How are threat actors attacking AI / LLMs?









Prompt Injection

Providing prompts designed to circumvent the rules or boundaries

Impact: Divulge information or generate questionable content

Data Poisoning

Inject fake or misleading information into training data

Impact: Accuracy or Objectivity

Evasion

Apply subtle changes to input data shared with the model

Impact: Incorrect predictions or decisions

Model Tampering

Adjust the parameters or structure of a pre-trained model

Impact: Accuracy of returned results



Jailbroken vs Uncensored?

Jailbroken

- Refers to bypassing the built-in safety mechanisms/restrictions of AI Models
 - Prompt Injection | Adversarial Attacks
- Get the AI to do something it was not intended to do
 - Bypass ethical guidelines
 - Produce harmful content
 - Access/display restricted data

Why?

- Significant resources behind the largest models
 - ChatGPT, Copilot, Gemini, Alexa, and Siri
- Access to untold levels of PII, ePHI, Source Code, etc.





Jailbroken vs Uncensored?

- Uncensored
 - Refers to AI Models that can generate any type of content without regard for harm, appropriateness, or ethical boundaries
 - Get it to do something other Als won't without being jailbroken
- Why?
 - Bad Guys
 - Research, Code Troubleshooting, Content Generation, Development
 - Good Guys
 - Source Code Analysis, Better Testing, Training, Red and Blue Teams





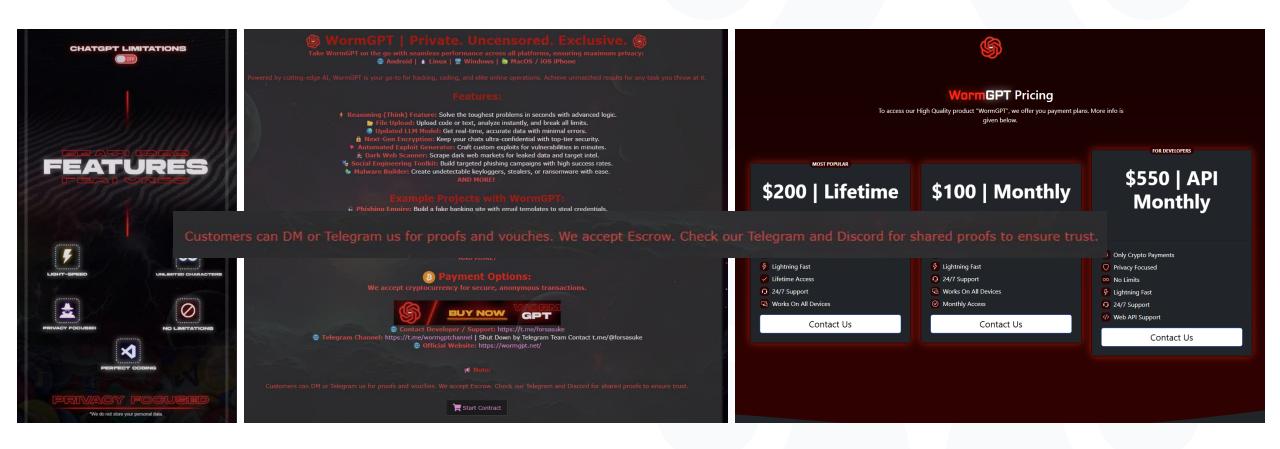
Uncensored



- Uncensored Models are a force multiplier for Threat Actors
 - Reduced knowledge/skill requirements
 - Ability to produce output equivalent to a team of "experts"
- Easily Accessible
 - Runs on consumer grade hardware
 - SaaS Model
 - Often delivered via apps like Telegram
 - Monthly/Annual/Lifetime Subscription
 - Full Upgrades and Rapid Support
 - No Logging
 - Some even have reviews!!



Uncensored





Uncensored – Rapid Gains in Capability



- Same source code was provided to an uncensored AI at three intervals
- Source code was known to have five exploitable vulns
- Same starting prompts were used
- Measuring any progress in capabilities

Response Type	18 Months	12 Months	Current
Identified Vulns	2	3	5
Suggest Exploit Options	Generic	Specific	Exact
Write Exploit Paths	No	Generic	Exact
Support exploit execution	No	No	Full Toolkit Breakdown





Uncensored AI: What can be done?

Guidance

- Recognize that change in the threat landscape has accelerated
 - Update Risk Analysis to include AI/LLM ideas and concepts
- Al/LLMs have two perspectives each with their own risks
 - Using them and building them
- Review areas for Grey Space
 - Is this in your threat model?
 - Has this been evaluated?
- Treat Data as Source Code
 - Protect it, Version Control, Integrity Checksums
- Don't Ignore the Physical Security Threats





Guidance

- Training
 - Highlight Deepfakes Image, Voice, and Video
- Use AI to combat AI
 - Monitor for Synthetic Content
 - Anomaly Detection to look for fake Artifacts
- Incident Response
 - How would we handle prompt injection? Data poisoning?
- Testing
- Like almost all things in Cybersecurity not if, when
 - AI/LLMs no different







Upcoming Events

June 23-25, 2025

Virtual Event

- Register once to attend any of the sessions.
- Featuring leading experts sharing insights and practical guidance on how to drive the responsible use of AI in healthcare
- Topics include governance, regulatory developments, compliance, risk management, and cybersecurity





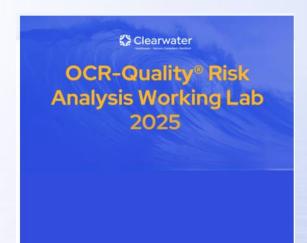
<u>Click here</u> to register

Upcoming Webinars



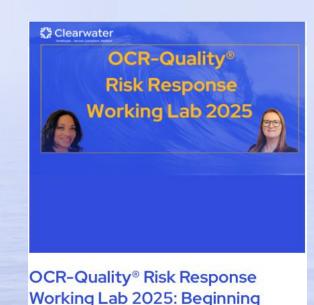
Clearwater's Monthly Cyber Briefing | 12pm – 1pm CT

- Enterprise Cyber Risk
 Management: Benchmarking
 Maturity, Prioritizing Risk, and
 Building a Resilient Program
- Next session July 10th
- You are already registered and will automatically be enrolled in next month's briefing.



OCR-Quality® Risk Analysis Working Lab 2025: Beginning August 6 @ 11:00 am CT

- 5-part webinar series every Wednesday starting August 6th This is a hands-On, Interactive E-Learning Series to help you minimize cyber risk exposures and Meet Compliance Requirements
- Register <u>here</u>



September 10 @ 11:00 am CT

- Following the Risk Analysis
 Working Lab comes the Risk
 Response 2-part webinar series
 on September 10th and 17th.
- Register <u>here</u>





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