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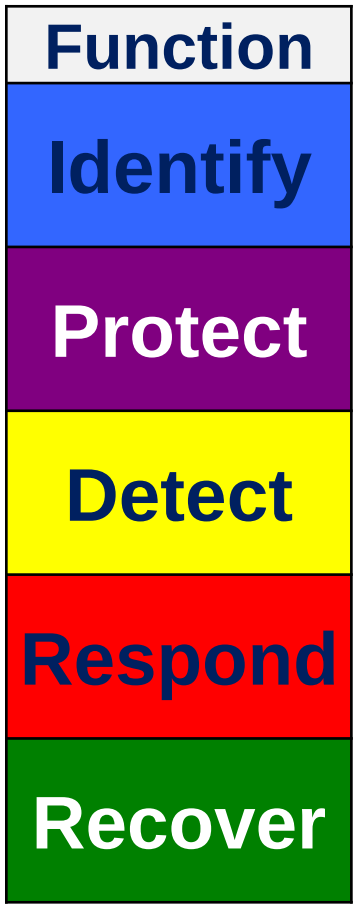
Fast, Local, & Complete Recovery from Ransomware Attacks

Maria E. Vachino

Resilience requires quick Recovery

NIST Cybersecurity Framework V1.1

- Bad actors move faster than defenses can be built ('Protect' will never be enough)
- Organizations must be confident they can quickly recover & restore operations and productivity, and do it in minutes or hours not days or months
- Cyntegra has made it our mission to make ransom payments a thing of the past



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Today's Recovery Options: Costly and Insufficient

Prevention (will never be enough)

- Asymmetric arms race – only one mistake can have catastrophic results
- Anti-virus, Patching, Whitelisting, and other best practices reduce attacks, but do not prevent them
- Attack signatures are created *after* disaster strikes someone

Restore from Normal Backups

- Backup can be encrypted by the same ransomware
- Does not restore customizations and configurations that allow users to operate efficiently
- Corporate networks unlikely to be available to access backups and don't support 'everyone-at-once' restoration
- Useless if OS (operating system) is corrupted

Pay the Ransom

- Restoration not guaranteed
- Funds criminal activity and organizations
- Increasing legal risks
- Insurance may not cover the incident

Rebuild the System

- Often requires device replacement, which is time consuming and expensive
- Requires time-consuming in-person support
- All data may be wiped out
- Lost productivity

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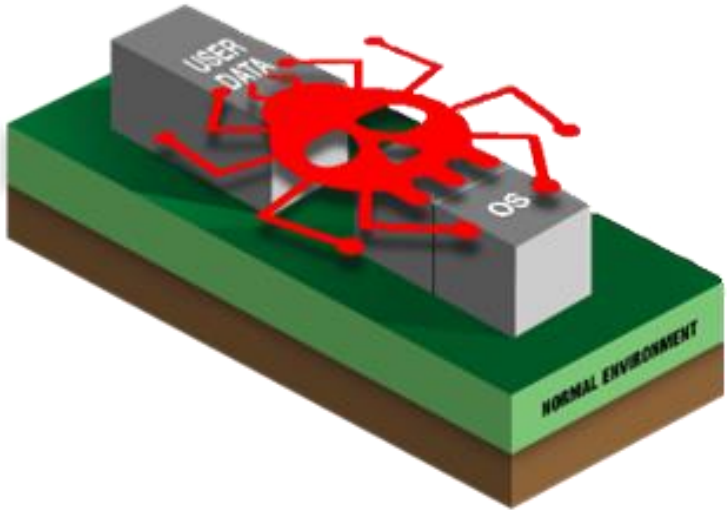
Infection without Cyntegra

- Whole system may be corrupted – including the Operating System
- Users with no access to:
  - Data
  - Applications
  - Network
  - Communications



- Catastrophic loss of productivity and processing
- Huge costs, lost revenue

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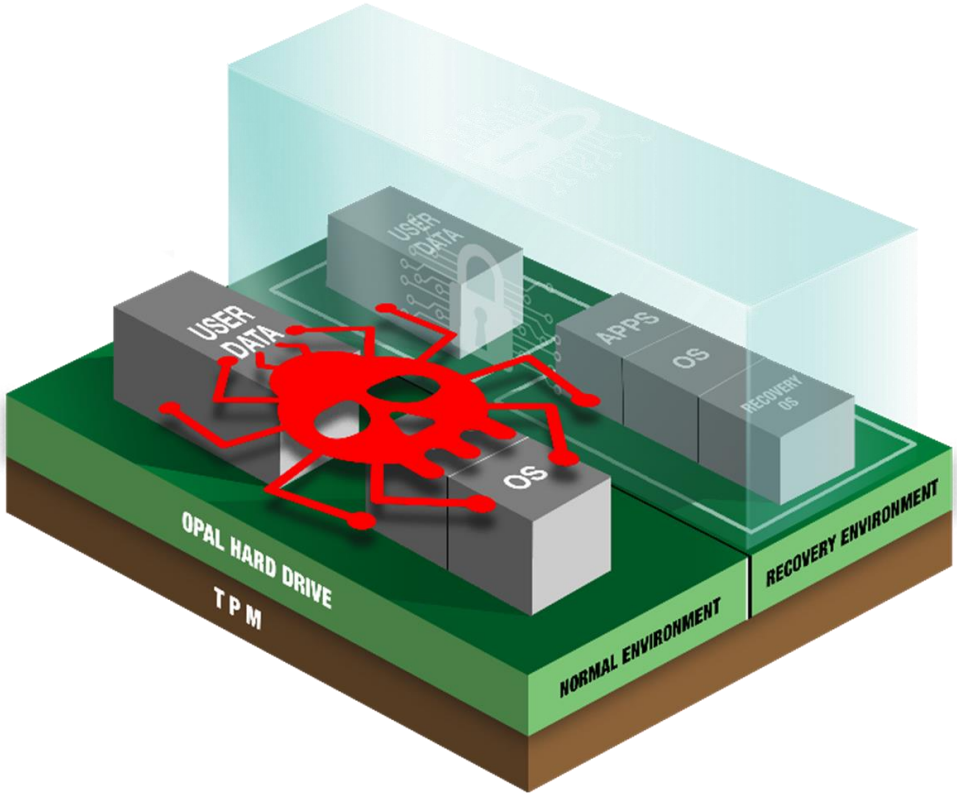
Infection with Cyntegra's protection

- Patented approach
- Recovery environment remains untouched
- Protected by a TPM



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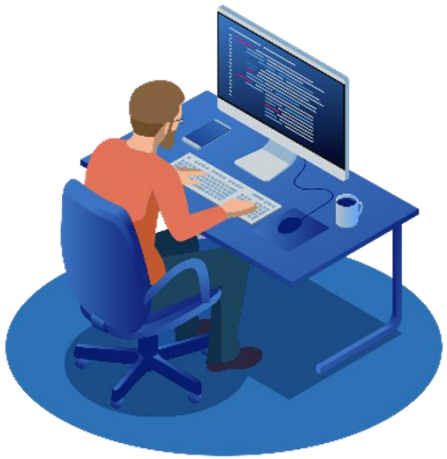
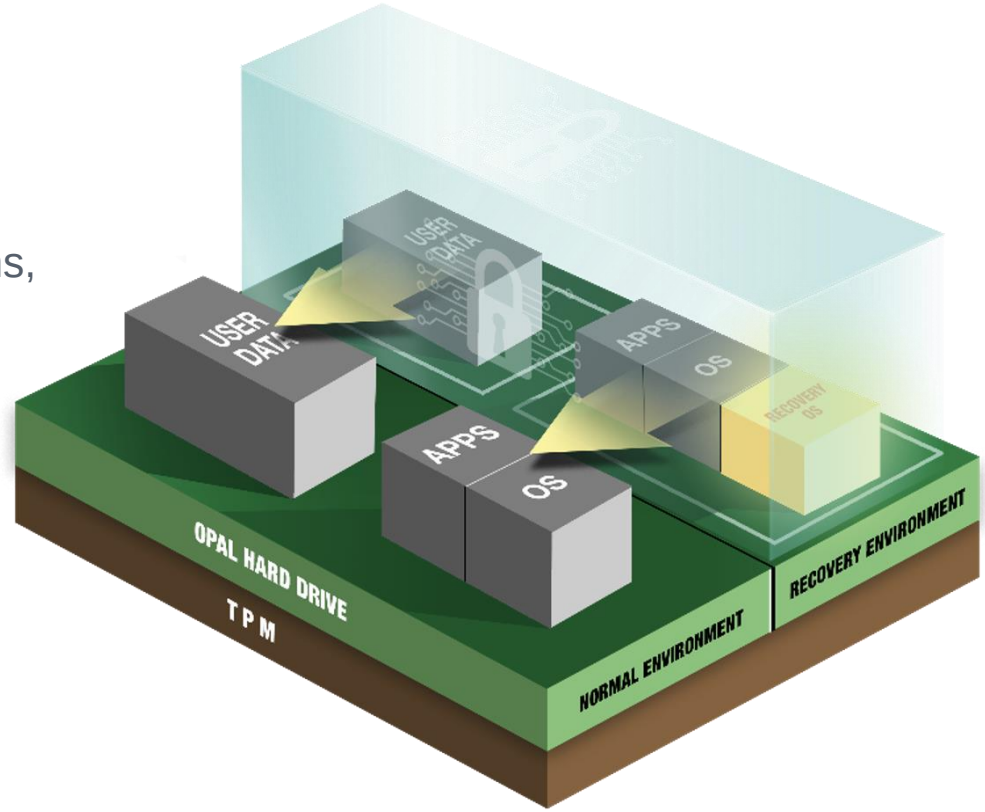
Recovery with Cyntegra

- **Fast** – minutes, not days/weeks
- **Local** – fully self-contained, no support required
- **Complete** – includes OS, data, customizations and configurations, histories, and favorites





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Cyntegra: under the hood

- Patented approach
  - Developed by a seasoned team with over 100 years of combined cybersecurity and technology experience

- Trusted hardware
  - Opal 2.0 compliant drive
    - Read-only data ranges
    - Guaranteed Boot
  - Trusted Platform Module 2.0 (TPM)
    - Integrity verification
    - Secrets controlled by hardware, never software

- Cyntegra management and recovery OS (CyntOS)
  - Separate protected OS to manage backup and restoration
  - Does not interfere with, or rely on, main OS
  - Allows custom backup policy

Cyntegra: Deployment

- On device
  - Preferably baked-in at device build
  - Can be retroactively installed
  - Requires Opal compliant drive
  - Requires sufficient storage

- cydecar
  - Separate self-contained SSD and enclosure
  - Works with any existing windows system, even if low available native storage and non-Opal compliant drives
  - Requires initial config
  - Requires user to keep it available

- Limited and intuitive end-user interaction
  - Backups can be forced on power-on or power-off
  - Potential for automatic wake and backup
  - Restore requires power-cycle and simple menu-driven choices

Summary

- Mission driven
  - Making ransomware payments and business disruption a thing of the past
- Resilient and agile recovery capability
  - Fast
  - Local
  - Complete
- Patent-pending solution for servers, mobile devices, and industrial IoT

Cyntegra: leadership

Maria Vachino
CEO

- Former Senior Cybersecurity Researcher and Strategist at Johns Hopkins Applied Physics Laboratory
- Former Technical lead for Department of Homeland Security Cybersecurity RD&T programs
- Former Director of Digital Identity at boutique consulting firm, Easy Dynamics
- Kantara Initiative Director at large
- UpSurge Baltimore Cybersecurity team
- Recognized expert in cybersecurity, digital identity, and blockchain

Giles Watkins
Executive Chairman

- Former Partner with both EY and KPMG in Cyber Security and Technology Risk
- Led EY's Tech M&A practice advising on over 500 deals
- Founded and led international Privacy consultancy, Concentium, subsequently sold to KPMG
- Former Board Member of the Open Identity Exchange and UK Country Leader for the International Association of Privacy Professionals
- Member of ISO standards committee for Blockchain and Distributed Ledger Technology

David Challener, Ph.D.
Master Inventor

- Former Master Inventor at IBM with over 130 patents
- Original inventor of the patents underlying Cyntegra
- Author of 'A Practical Guide to TPM 2.0'
- Chair of the Trusted Computing Group's TPM WG
- Recognized Trusted Computing expert
- Independent Security Architect

Russell Fink, Ph.D.
Engineering Consultant

- Cybersecurity professional with expertise in TPM and Opal technologies
- Co-inventor and engineering lead of the patented technology underlying Cyntegra

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Questions?

Contact:

Maria E Vachino
CEO

Email: mvachino@cyntegra.com

Tel: +1 (410) 849-9033

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