



# IEEE 1667 and Portable Device Authentication

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## IEEE 1667 – Standard Protocol for Authentication in Host Attachments of *Transient Storage Devices*

- What are they?
  - Storage Devices which offer removable mass storage capabilities
    - Unique personal storage device (e.g., UFD, USB Hard drives)
    - Part of another device (e.g., media players, cell phones)
    - Interface Agnostic
      - Connection Protocol
      - Form factor, connector
      - Target Host

# Transient Storage Devices

## *Current Landscape*

- Broad User Acceptance
- Expectation of Ease of Use
  - Form factor independence
  - Seamless use between Hosts and Platforms (e.g., same TSD in mobile device and PC)
- Popularity has Highlighted Significant Gaps in Security
  - Lost/Stolen Data
  - Malicious Software
  - Corporate Banishment

# Transient Storage Devices – Security

- There has been Progress
  - Device-level password support on UFD (“MSC-Lock”) for “Lost UFD” scenario
  - Enterprise Security Applications bundled with hardware
    - Custom Drivers
    - Executables
    - Inconsistent Implementation (e.g., “faux” encryption)
- A Comprehensive Security Solution requires host/OS involvement
- OS changes require standard hardware solutions

- Need for a device/bus agnostic approach for security
  - Lightweight
  - Timely to Market
  - Complementary to existing Specs and Initiatives (MSC-Lock (USB-DWG) and TCG)
  - Two-way authentication
    - Functionality “pulled” by host
    - Host-provided drivers
    - Host-provided Executables
- Extensible

## IEEE 1667 – Status

- V1.0 Specification Complete (December 2006)
- Broadly supported Working Group
  - Fifteen (plus) Participating companies
- Spec-based hardware and software development actively ongoing
- Soliciting Companies to apply for 1667 Silo Identifiers