Adding “trust” to NFC applications provides frictionless authentication Experience for New York City buildings

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More things connected increases the need for...Internet of “Trusted” Things
Evolution of Internet of Trusted Things

- RFID Transponders
- Mobile devices (iOS, MSFT, Android)
- Bluetooth SMART
- Cloud Data Analytics & Authentication
- IoT is not new
- Easier to deploy & Use
- Real-Time & Sensing
Physically link equipment to maintenance management systems (CMMS) to receive relevant & historical data, arm mobile field technicians to be more efficient, and comply with city ordinances.
New York City Embracing the IoT

Buildings across New York city are implementing a “trusted” IoT Ecosystem

Streamline fire protection & Inspection processes
Building High-Rise: Fire & Safety Implementation

• Key Building Challenges

1. Compliance with building, federal and local safety inspection regulations
2. Thousands of industrial equipment parts, on paper labels
3. Improve traceability of maintenance logs
4. Antiquated maintenance scheduling
Building Requirements: Industrial Sprinkler Equipment Systems

Mission: *Simplify and streamline maintenance & inspection process for industrial sprinkler equipment*

**Deployment Technical Requirements:**

1. Easy **integration** into various sprinkler equipment and **CMMS** software applications
2. Must be **mobile** environment for field workers
3. Digital “proof of **compliance**” and reporting for regulatory mandates
4. **Authenticate** the technician to the specific equipment that is being serviced
5. NFC tag application must be **flexible**, and **robust** to affix to the various equipment & conditions
The Solution: Trusted Automated Maintenance & Inspection

Facilitates a secure, efficient transaction when technician taps their smartphone on the tagged sprinkler system.
Trusted Outcomes

- **Peace of Mind:** Systems are compliant, maintained for integrity to avoid failure and receive swift attention in case of emergency

- **Digital Proof of Presence:**
  - Easy inspection process, reports online, automated records
  - Verifies the identity of technician, ensuring they are qualified/credentialed to the specific equipment

- **Digital Proof of Compliance:**
  - Reduced manual checklists and paper tags
  - Work orders processed faster, reduced field inspection times & visits – saving building’s labor costs

- **Flexible system:**
  - Extended to other building equipment
  - Affixes to the variety of surfaces and application’s environment
Trusted NFC
How most NFC Tags are used

• Option 1:
  Constant URL stored on Tag, Write locked
  • All tags have the same URL
  • Upon tap, the NFC phone will open its browser and access the URL provided by the tag

• Option 2:
  URL Combined with Tag UID, Write locked
  • URLs unique by tag, but may be copied
  • Upon tap, the NFC phone will open its browser and access the URL provided by the tag with UID as parameter
Current uses focus on “convenience”

[URL]
www.service.com

[URL]
www.service.com
Why some applications need TRUST

• Option A:  
  Copy the tag  
  • Use one of many free NFC apps from App Stores  
  • Read Tag 1 copy content to Tag 2

• Option B:  
  Remember the URL  
  • Bookmark the URL after the first tap in your browser  
  • or publish/retrieve it from Social media sites etc.  
  • The server will **not** notice a difference from a tapped tag!

• *For some use cases this is critical, for others not*
Brand Protection & Anti Counterfeiting

Authentic Products and Warranties

Authentic Documents

Authentic IDs
Trusted Transactions and Loyalty

Sweepstakes

Loyalty Points

Consumer Services
Proof of Presence

HID Global Trusted Tag™ Services
Secure Electronic Visit Verification

1. Provide authentication
2. Visit documentation
3. Guard tours
4. Maintenance and compliance inspections

Electronic Visit Verification  Guard Tours  Maintenance and Compliance Inspections
Benefits of Frictionless Trust

Frictionless Benefits:
- Easy customer adoption
- Simple integration

Trusted Benefits:
- Unclonable Tags
- Proof of Presence & Compliance

Cloud Maintenance Software (CMMS)
How HID Trusted Tag® Services adds Trust

- Tap: http://...ABCD
- Tap: http://...7635
- Refresh: http://...7635
- Tap: http://...B423
Understanding HID Trusted Tag® Services
Innovative elements make “trust” a reality

• **Cloud Authentication Service**
  • Strong authentication leveraging HID Multi-factor application
  • Authentication service (SaaS) is easily integrated uses a web-service call into various business applications

• **Trusted Tag™**
  • NFC Forum Standards
  • Transparent chip migration – not tied to specific chip or frequency
  • Available in several form factors
    • Inlay, Key Fob, ISO card, Asset tag, eTamper
    • Compatible with other HID products & services
Q&A

Thank You