

JACard Security

Zach Putz





Has anybody ever lost their JACard?

It'll be okay!





Has anyone ever told someone else their JMU Student ID?

You're fucked



**How many times have you seen
someone's lost JACard on
snapchat?**

JMU ACCESS CARD



DOG
DUKE 1

DUKEDOG1@DUKES.JMU.EDU

000000000



02/24/2012

STUDENT OF JAMES MADISON UNIVERSITY



The JACard is the property of James Madison University. The JACard is non-transferable and must be used under the provisions prescribed by JMU. If damaged or lost, a replacement fee will be charged. To deactivate a lost card go to www.jmu.edu/cardctr or report loss to Card Services during business hours, Mon.-Fri. 8a.m.-5p.m. or Campus Police after 5p.m. Usage acknowledges acceptance of JACard "Terms and Conditions".

If found please return to:

Card Services

James Madison University
738 S Mason Street, MSC 3532
Harrisonburg, VA 22807
(540) 568-6446

SafeRides: (540)568-7433

JMU Police (EMERGENCY): (540) 568-6911

JMU Police (Non-Emergency & Escorts): (540)568-6913

JMU Police (Alternate Emergency): (540) 442-6911

Harrisonburg/Rockingham 911: (540) 434-4436 or 911

What's It Used For?



Dining



**Building
Access**

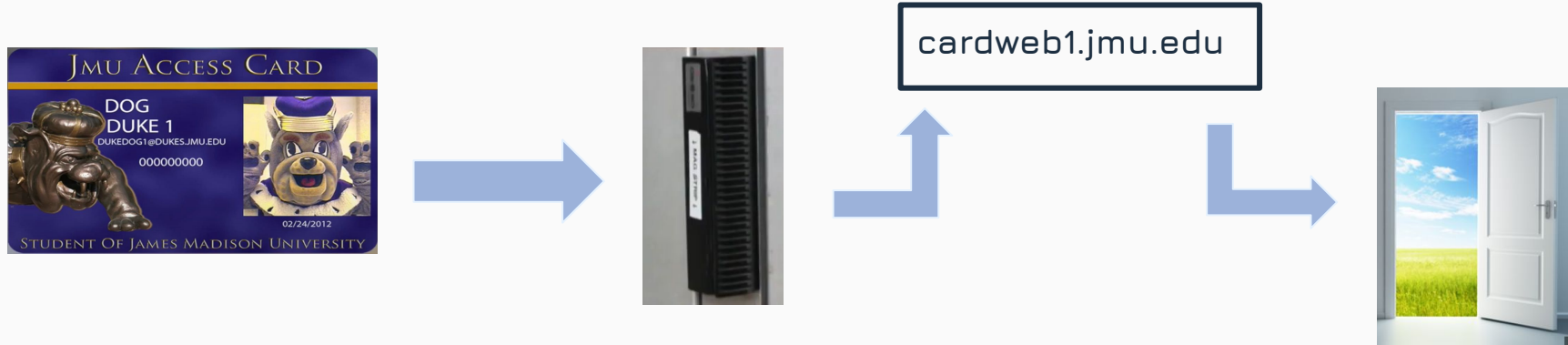


Laundry



Flex

How Does It Work?





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Magnetic Strip/Stripe

Each magnetic strip on a card is encoded with specific information.

The “information” on each card is actually thousands of tiny, iron-based particles that have been magnetized – or set – in different directions by a device that produces a strong magnetic field.

Each magstripe has three tracks, but only tracks 1 and 2 are used in payment card processing and other uses. Track 3 is rarely used and may not always be present on a card.

So what's on the JACard?

The magstripe uses track 2, which has your Student ID, followed by a key code.

- Student ID: 123456789
- Key Code: 0000

123456789=0000

Key Code

The key code is encoded on the magstripe when a card is printed.

When a card is swiped, checking that code is one of the verifications. If the code on the card does not match what is in the system, the transaction will be denied.

About disabling a card, when a student marks their card as lost, the magstripe media type becomes disabled in the system until it is reactivated.

This prevents the card from being swiped for any transactions.



**How do we
exploit
this?**





Demo



**How can
we fix this?**

