

Thinking Outside the Box

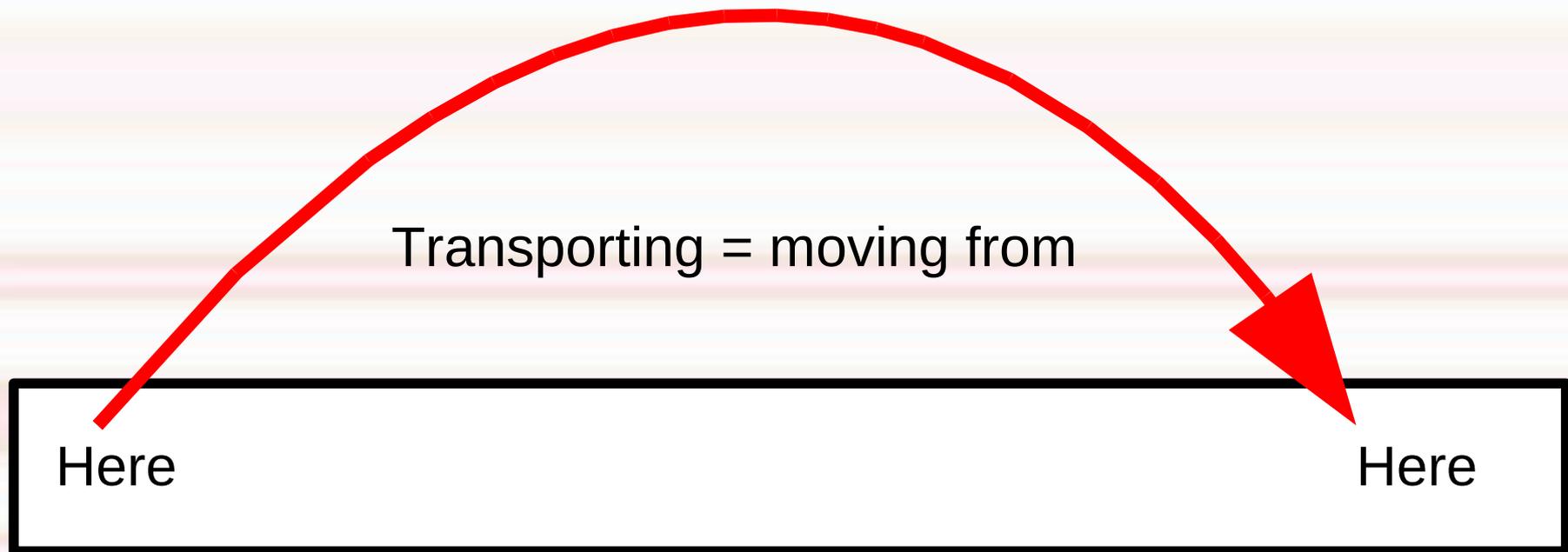
Linux

Question: What form of transportation racks up the most passenger miles per year?

- ◆ Not cars
- ◆ Not bicycles
- ◆ Not buses
- ◆ Not trains
- ◆ Not ships

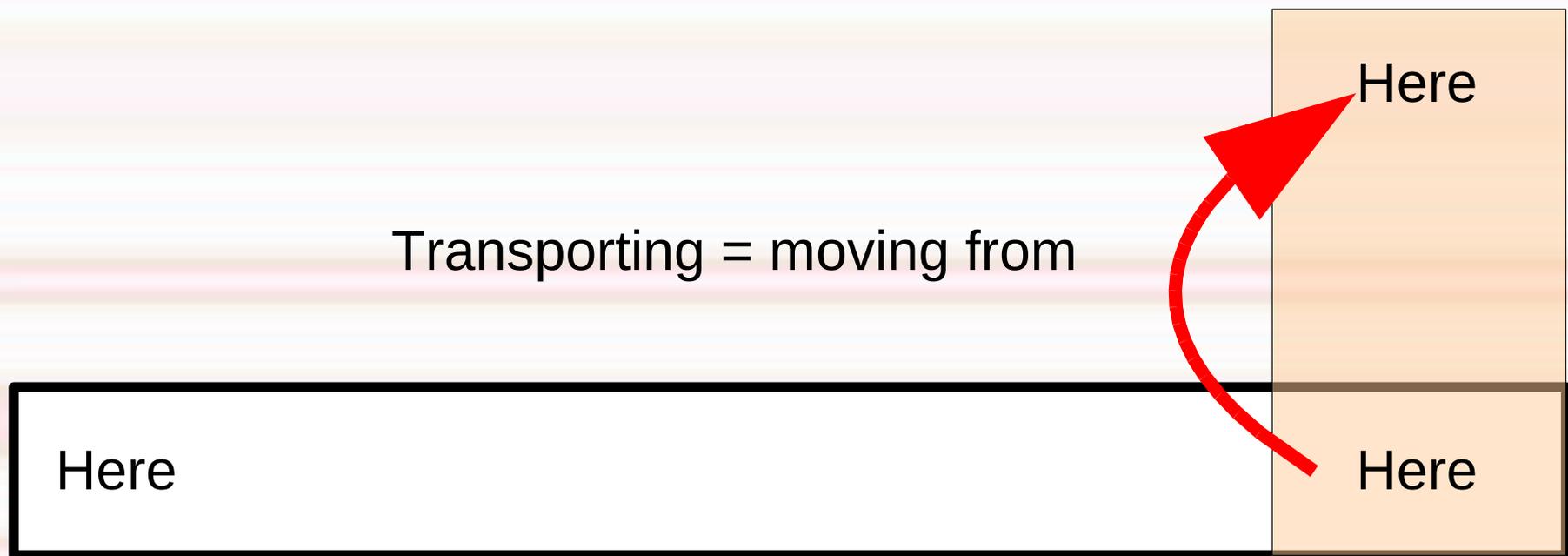
Thinking inside the box

- ◆ When you say transportation everyone assumes a box.



Thinking outside the box

- ◆ What's outside the box



Elevators



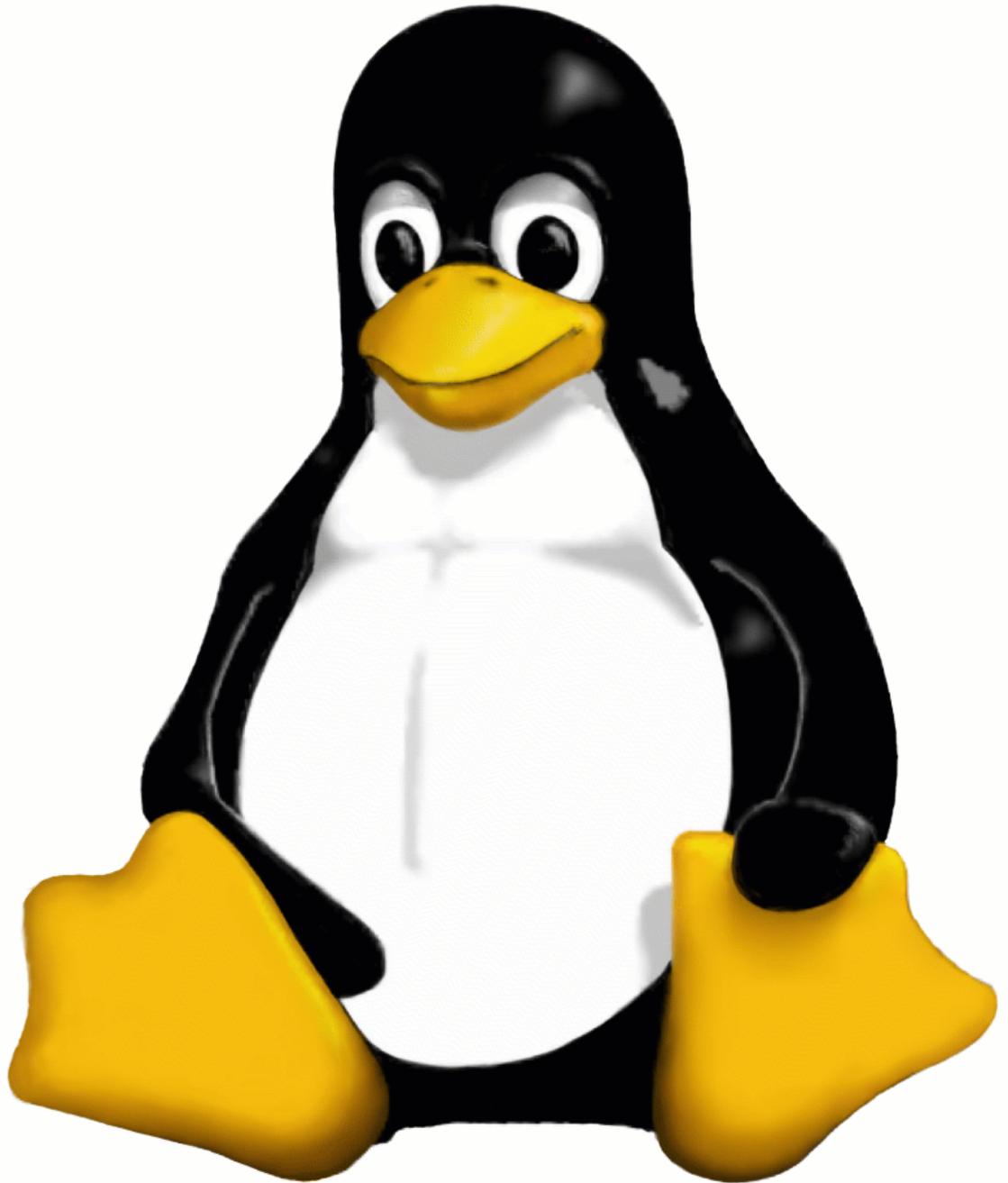
A Business Plan?

- ◆ To manage it get someone:
 - ◆ With no track record
 - ◆ No experience
 - ◆ Not even out of college
- ◆ Make him the only manager
 - ◆ After we do more than billion dollars of business then we'll get a second manager

A Business Plan

- ◆ One manager – 10,000+ engineers
- ◆ Don't give anyone assignments, let them do whatever they want to.
- ◆ No marketing
- ◆ No sales
- ◆ Give the product away
- ◆ Go after one of the richest and most powerful companies around.
- ◆ **And don't pay anybody!**

Linux



Linux

- ◆ Currently competing against Microsoft successfully in:
 - ◆ Super computers
 - ◆ Embedded systems
 - ◆ Servers
 - ◆ Powers the “One Laptop Per Child” computer
 - ◆ Low end computers

Good evening Mr. Gates, I'll be your server today!



Why does Linux Work?

- ◆ Commercial Software

- ◆ Made by people who want money.
- ◆ Only paying features are added.
- ◆ Some things (like security) aren't really money makers

(According to Microsoft marketing people are breaking down their doors demanding insecure web browsers)

- ◆ Many people who want to fix things can't because of closed licenses.

Why does Linux Work?

- ◆ Open Source Software
 - ◆ Made by people who want software that works.
 - ◆ Useful features are added
(I want the software to do X and I'll get that feature even if I have to write it myself.)
 - ◆ More people work on Open Source than commercial software.

Licenses

- ◆ Commercial License
 - ◆ You don't own the software.
 - ◆ Only do with it what we allow.
 - ◆ Don't fix it even if you can
 - ◆ Pay us money
- ◆ Open Source Licenses
 - ◆ Get it for free
 - ◆ Use it any way you want.
 - ◆ You can distribute it for free
 - ◆ If you improve it you must give back to the community by distributing them for free.

Commercial vs. Open Source

- ◆ Cost
 - ◆ Commercial -- \$\$\$
 - ◆ Open Source – 0
- ◆ Quality
 - ◆ Commercial -- “There's no money in fixing bugs”
 - ◆ Open Source – Community fixes bugs
- ◆ Security
 - ◆ Commercial – Security costs money – don't do it unless you have to.
 - ◆ Open Source – Everyone sees your code and will tell you where the security problems are.

Support

- ◆ Three supported products
 - ◆ Sun – Not important enough to fix
 - ◆ SGI – We are not going to implement that
 - ◆ HP – He doesn't understand the software. Why don't you have him read the O'Reilly book?
- ◆ The unsupported product
 - ◆ Not supported (officially)
 - ◆ Didn't report a problem
- ◆ Got a fix from the chief engineer of the project

What is Linux?

- ◆ Linux is the base operating system.
 - ◆ The framework that everything else runs under.
 - ◆ The GUI and other programs are not part of Linux.
- ◆ People take Linux and programs which run under it to produce distributions.

Open Source Programs

- ◆ Web server: apache
- ◆ Web browser: firefox
- ◆ Office suite: OpenOffice
- ◆ Picture editing: The GIMP
- ◆ Lots and lots of other things
- ◆ Including games

Ubuntu Linux

- ◆ Get it free from <http://www.ubuntu.org>
- ◆ Starts as a “Live CD” program (requires no hard drive.)
- ◆ Can be installed on the hard drive after that.

Homework Assignment

- ◆ Play with Ubuntu. Learn how it works.

You can now legally say:

I'm not playing video games, I'm doing my homework.

- ◆ Homework time is limited to ½ hour. After that you are playing video games.