



Technology

A Look Behind The Curtain

Presented By:

Joseph M. Lee – Co-Director of Technology - South Brunswick Schools

John Piznar – Manager of Information Systems - South Brunswick Schools

- Superintendents
- Business Administrator
- Director of Technology
- Technology Support Staff
- Director of *xxx*
- Someone else

Who Are You?

- John Piznar
 - Manager of Information Systems
 - 16+ years in the South Brunswick School District
 - Started as 3rd grade teacher
 - Converted into Techie

Who Are We?

- Joseph M. Lee
 - Co-Director of Technology for the South Brunswick School District
 - 19+ Years in the Information Technology Field
 - Been involved in all aspects of information technology from desktop to server to networking
 - Worked in Education for the past 7 years and previously for fortune 500 companies

Who Are We?



Change Is Inevitable









EWT GEPA NJASK8

Tera Nova

NJASK HSPT HSPT-9

HSPT-11 HSPA

PARCC

- Change?
- Devices?
- Infrastructure?
- Wireless?
- PARCC?
- All Of The Above?

What Brings Us Here Today?



YES!

- Change - Inevitable
- Devices – So many options
- Infrastructure – The behind the scenes foundation
 - Wireless – Extension of the foundation
- PARCC – Current driver
- All Of The Above – Working together to move forward

What Brings Us Here Today?

- Discussion of some of the things behind the scenes, what is really going on.
 - The infrastructure
- Discussion of South Brunswick
 - Things we have done and are doing
- Your role as Educational Leaders
 - Tips for Overcoming Obstacles

Objectives

- Internet use – how do you get to a website like google.com or whatever one we want to use?

**Something you might
relate to**

- Information travels from the computer across the wire or wireless to a switch to servers to determine whether it is on the network or not by looking for DNS name resolution. If not local, it travels back through switches to a router to a firewall and out to other routers outside of your local area. The routers pass information throughout the world until it locates where google.com then google.com sends information back in reverse.

What is really going on (Nutshell)

- All this is taking place within a few moments. Without a proper infrastructure, this whole process can break down.

Nutshell Continues

- The Definition on dictionary.com for in·fra·struc·ture is:
 1. the basic, underlying framework or features of a system or organization
 2. the fundamental facilities and systems serving a country, city, or area, as transportation and communication systems, power plants, and schools.

Infrastructure Definition

- Ever use the internet?
- Ever use a cell phone?
- Ever listen to music on the radio?
- Ever watch TV?
- Ever go shopping in a store?
- Ever turn on a light?

Infrastructure – Why do you care?

- Infrastructure as it Pertains to Technology
 - CAT6 Cables
 - Switches
 - Routers
 - Servers
 - Firewalls
 - IP Addresses
 - DNS Resolutions
 - And many other boring items

What is the Infrastructure?

- Technology is part of the daily operations
- Just like a roof, infrastructure needs to be checked and maintained
- Imagine your day without technology

Items to Remember



Welcome to South Brunswick

- District
 - 12 school locations (14 total buildings)
 - 41.04 sq miles
- Total Students = 8605
 - Total Students Testing = 6208
 - Based on our last NJTrax submission

South Brunswick School District

- What device to use for PARCC
- Infrastructure to support the volume of data traffic
- Testing structure and coordination
- Funding

Challenges Being Faced

- Conversations need to be had
 - Device choice can/will impact curriculum
 - Device choice can impact infrastructure needs
 - Device choice can impact how to roll out the devices
 - Device choice affects budget

Communication

- Look at different devices
 - Ipads
 - Laptops
 - Desktops
 - Virtual Desktops
 - Chromebooks
- How many do we need?
 - Based on PARCC
 - Largest class size divide by 2 + 10% = total for building
 - District total is 1500 needed devices

Devices

- Devices selected – Chromebooks
 - Cost Effective
 - Ipad - $\$499 * 1500 = \$748,500$
 - Laptop - $\$1000 * 1500 = \$1,500,000$
 - Desktop - $\$850 * 1500 = \$1,275,000$
 - Chromebook - $\$250 * 1500 = \$375,000$
 - Ease of use
 - Operates similar to a laptop
 - PARCC Compliant
 - App for testing

Devices

- Decision impacted district
 - Integration into curriculum
 - Get children using the device
 - Getting staff trained on using Chromebooks

Chromebook

- Wireless infrastructure
- Internet connectivity
- WAN connectivity

Infrastructure Inventory

- Wireless Infrastructure - BEFORE
 - Apple airports as needed
- Wireless Infrastructure - AFTER
 - Meraki with full building coverage
 - <http://Dashboard.meraki.com>

What We Did

- Bandwidth
 - Internet Connectivity
 - Upgrade of bandwidth based on device needs and PARCC
 - WAN Connectivity
 - Upgrade of bandwidth based on device needs and PARCC

What We Did

- Monitoring
 - BEFORE
 - Baseline to see where you are
 - AFTER
 - Making sure things are sufficient

What We Did

- How we plan to deploy our devices for testing
 - Elementary – collection process
 - Inserted 4 devices into the classrooms 3-5
 - Additional Chromebook into 2nd grade
 - Middle School – carts to testing locations
 - High School – carts to testing locations

Testing Structure and Coordination

- Planning, Planning, Planning
 - Identify the needs
 - Identify the costs
 - Follow a plan

Funding

Overcoming Obstacles

- How do you handle the inevitable?
 - Take it head on
 - Embrace it
 - Resist it
 - Run screaming into the night

Change Is Inevitable

- PARCC is coming
- Devices are needed
- Internet is needed
- Support structure is needed
- Funding is needed

TIP 1 - Know What You Know

- Different people have different skills
 - Testing vs. Technology
 - Business Office vs. Technology

TIP 2 - Know What You Don't Know

- There are things out of your control
 - Power outage
 - Circuit down
 - PARCC servers could be down
 - Weather
 - Zombie Apocalypse

**TIP 3 – You Can Not
Control Everything**



**There are plenty of difficult obstacles
in your path.**

**Don't allow yourself to become one of
them.**

~Ralph Marston~

- Joseph Lee
 - Email: joseph.lee@sbschools.org
 - Twitter: [@josephmlee1](https://twitter.com/josephmlee1)
- John Piznar
 - Email: john.piznar@sbschools.org

Thank You
