Solvay Schools Technology Plan and Smart Schools Bond Act

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Uses for the SSBA

Budget Category	Sub-Allocations*
School Connectivity	0
Connectivity Projects for Communities	0
Classroom Technology	0
Pre-Kindergarten Classrooms	0
Replace Transportable Classrooms	0
High-Tech Security Features	0
Totals	0

Current Network Configuration

SES

Three Wiring Closets

- 5 (48-Port) 1GB Switches
- 10 Older Wireless APs
- Cramped Space

SMS

Six Wiring Closets

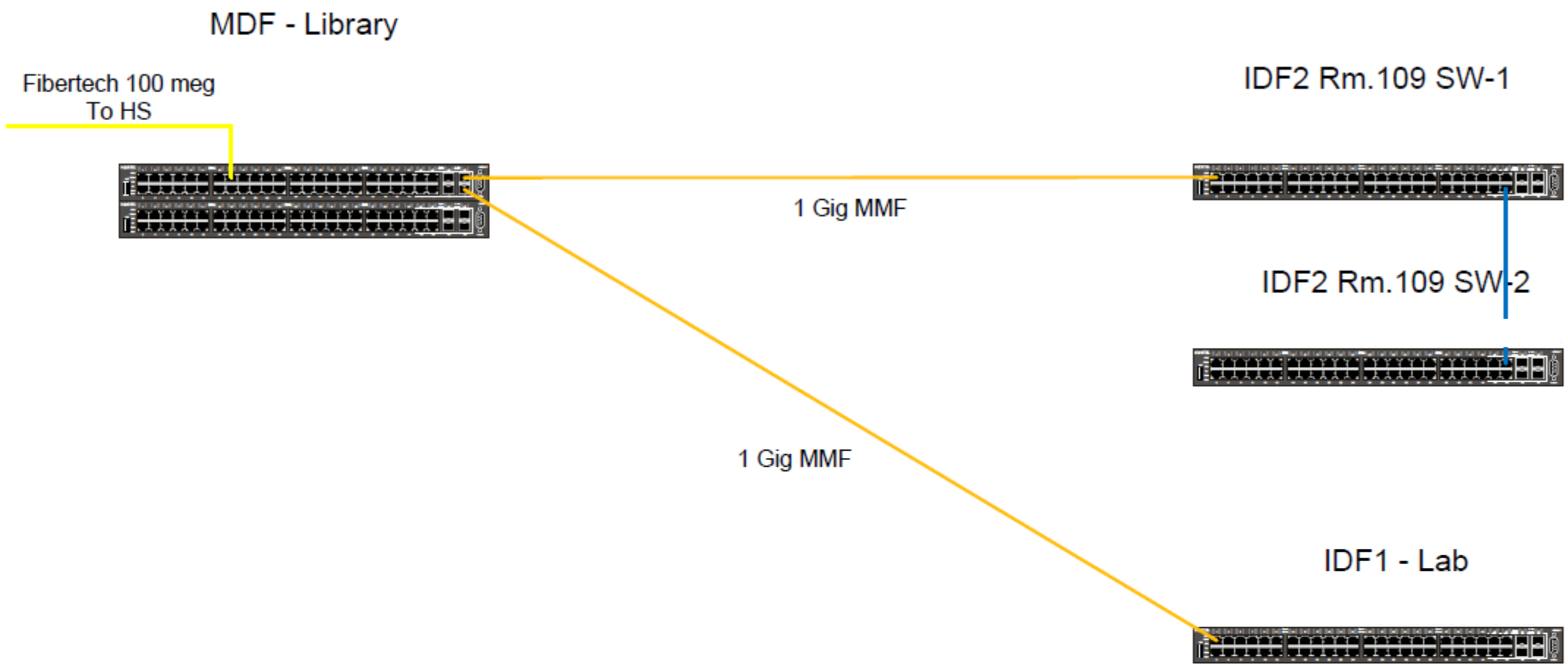
- 12 (24/48-Port) 1GB Switches
- 40 Wireless APs (Cloud Controlled)

SHS

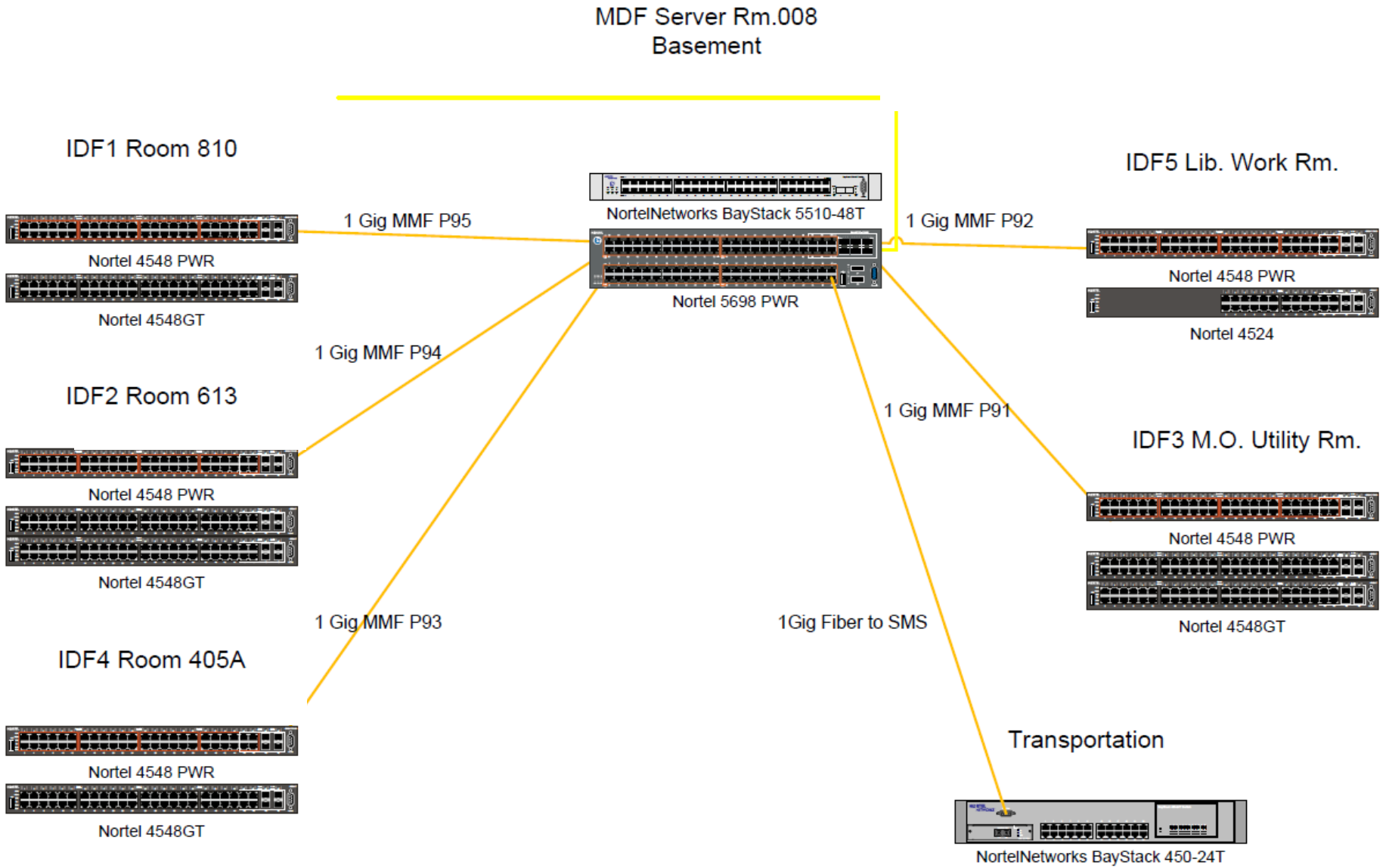
Seven Wiring Closets

- 14 48-Port 10GB Switches
- 8 (24/48-Port) 1GB Switches
- District's Core
- Phone & Data Center
- 27 Older Wireless APs

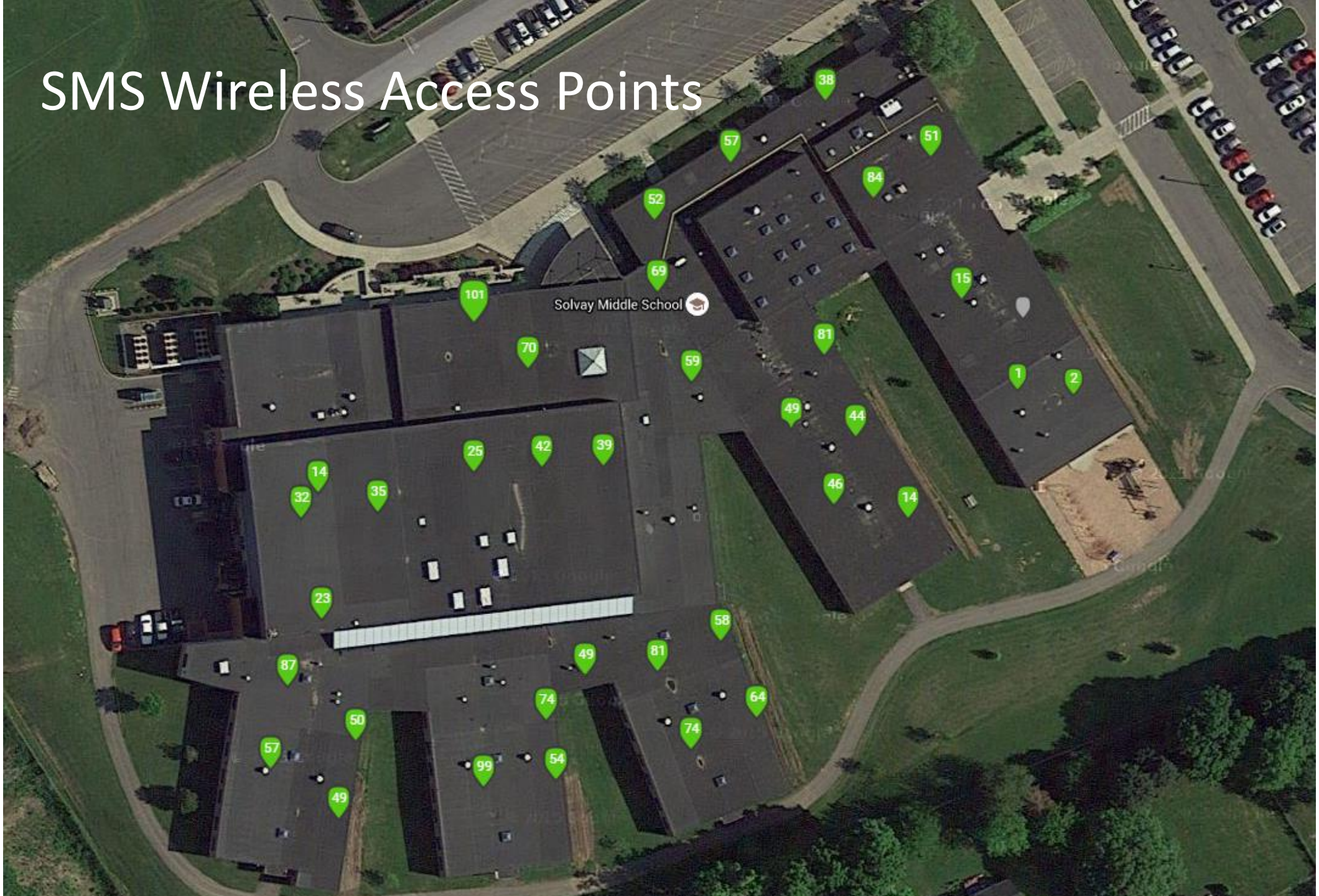
Solvay Elementary



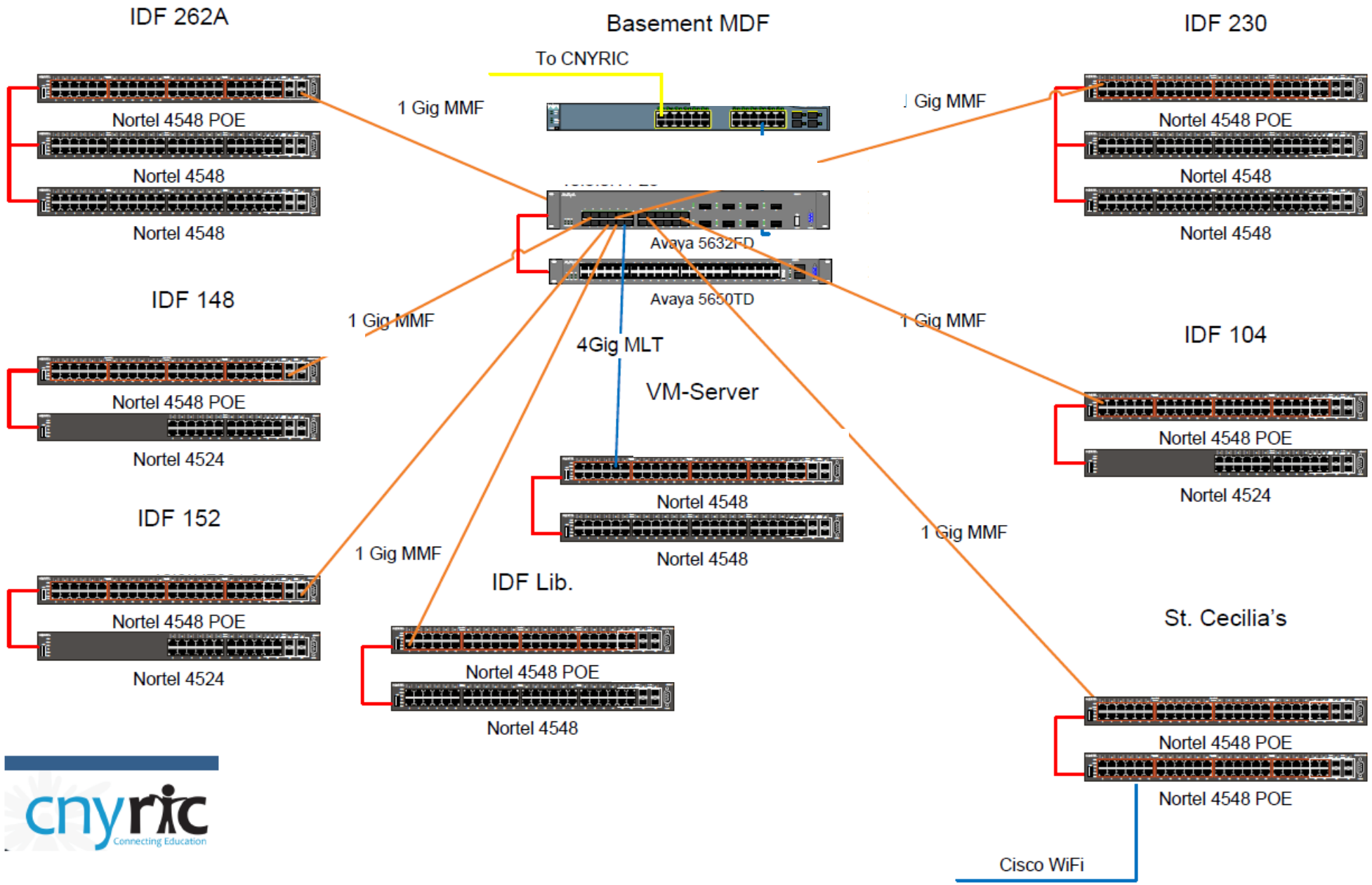
Solvay Middle School



SMS Wireless Access Points



Solvay High School



Current Asset Inventory

- 673 Windows Desktops
  - Classrooms, Offices, Labs
- 157 Laptops (Mac/PC)
  - Carts, Classrooms, Labs, Staff Assigned
- 638 Chromebooks
  - Carts, 6th Grade Classrooms, Staff Assigned
- 441 Apple iPads
  - Carts, Staff Assigned

6th Grade 1:1 Chromebook Pilot

- Robust Wi-Fi enables ease of access
- Having the Chromebooks right in the classroom saves time tracking down shared carts or getting a class to a computer lab etc.
- CNYRIC Bandwidth increased from 20Mbps -> 100Mbps
  - This has eliminated a lot of the buffering or slowdowns we have seen in previous years.

Infrastructure Upgrades Recommendations

- Would like to upgrade all remaining 1GB switches to 10GB switches across the network. This will future proof us for at least the next 5 years.
- Would need to upgrade the wireless at SES and SHS to match what the SMS currently runs. Meraki Wireless is a robust cloud-based controller-less solution that has been working great at the middle school for almost a year.
- Total cost to upgrade network switches and wireless ~ $200,000

1:1 Chromebook to Student Plan

- Phased in multiyear approach to bring students and staff up to speed.
- Leveraging Google Classroom
- Professional Development for staff
  - CNYRIC ITD and local trainers
- Prepare students for Computer Based Testing CBT (starting this Spring @ Elementary school)

International Society for Technology in Education (ISTE) Standards

1. Creativity and innovation

- Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

  a. Apply existing knowledge to generate new ideas, products, or processes

  b. Create original works as a means of personal or group expression

  c. Use models and simulations to explore complex systems and issues

  d. Identify trends and forecast possibilities

2. Communication and collaboration Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

  a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media

  b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats

  c. Develop cultural understanding and global awareness by engaging with learners of other cultures

  d. Contribute to project teams to produce original works or solve problems

ISTE Standard For Students 3&4

3. Research and information fluency

- Students apply digital tools to gather, evaluate, and use information.

  a. Plan strategies to guide inquiry

  b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media

  c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks

  d. Process data and report results

4. Critical thinking, problem solving, and decision making

- Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

  a. Identify and define authentic problems and significant questions for investigation

  b. Plan and manage activities to develop a solution or complete a project

  c. Collect and analyze data to identify solutions and/or make informed decisions

  d. Use multiple processes and diverse perspectives to explore alternative solutions

ISTE Standard For Students 5&6

5. Digital citizenship

- Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
  - a. Advocate and practice safe, legal, and responsible use of information and technology
  - b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
  - c. Demonstrate personal responsibility for lifelong learning
  - d. Exhibit leadership for digital citizenship

6. Technology operations and concepts

- Students demonstrate a sound understanding of technology concepts, systems, and operations.
  - a. Understand and use technology systems
  - b. Select and use applications effectively and productively
  - c. Troubleshoot systems and applications
  - d. Transfer current knowledge to learning of new technologies

One-to-One Replacement Plan

School Year	3	4	5	6	7	8	9	10	11	12	Inventory	Purchased	$250/Chrombook
2016-2017	110	120		120	120		130	130		130	860	370	$92,500.00
2017-2018	110	120	120	120	120	120	130	130	130	130	1230	370	$92,500.00
2018-2019	110	120	120	120	120	120	130	130	130	130	1230	490	$122,500.00
2019-2020	110	120	120	120	120	120	130	130	130	130	1230	370	$92,500.00
2020-2021	110	120	120	120	120	120	130	130	130	130	1230	370	$92,500.00
2021-2022	110	120	120	120	120	120	130	130	130	130	1230	490	$122,500.00
2022-2023	110	120	120	120	120	120	130	130	130	130	1230	370	$92,500.00
2023-2024	110	120	120	120	120	120	130	130	130	130	1230	370	$92,500.00
2024-2025	110	120	120	120	120	120	130	130	130	130	1230	490	$122,500.00
2025-2026	110	120	120	120	120	120	130	130	130	130	1230	370	$92,500.00
Approx Enrollment	110	110	110	110	110	110	130	130	130	130	1180		
													$1,015,000.00

Purchase New

Smart Schools Bond Money $1,132,000

Local Funds

Questions ??