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IT Effectiveness & Strategic Planning Project Current Assessment Report

Prepared for:
Presented by:
Date:



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Contents

The purpose of this document is to present an assessment of technology currently in place throughout all areas and functions of Ralston Public Schools (RPS). The following outlines the contents included in this report...

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INTRODUCTION





Background

- Ralston Public Schools' mission emphasizes Achievement, Character and Technology (A.C.T.).
- Technology is a critical aspect of RPS' vision for fostering "21st Century Learning" environment
 - In the fall of 2011, RPS prepared their 21st Century Learning & Technology Plan covering the 2011-12 through 2014-15 school years focused on key benchmark areas:
 - Additional IT related planning had been done for technology-specific initiatives, equipment and systems (e.g., Dell's IT Simplification Assessment-2/2011)
- Dr. Jerry Riibe, RPS Superintendent at the start of this project, desired to build upon these plans and facilitate through a focused process for Strategic IS Planning covering the next 3-5 years
- PRISM advisors (PRISM) was engaged as an independent consultant to provide facilitation and IT planning expertise to RPS and assist in evaluating the effectiveness of RPS' technology and prepare a Strategic IS Plan

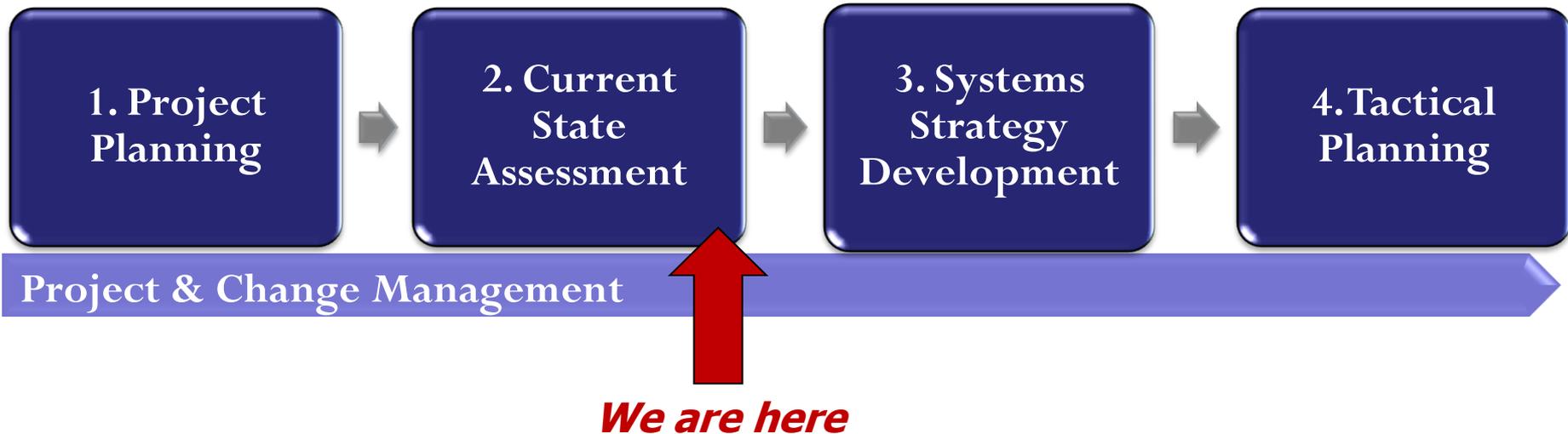


Key Objectives & Scope

- This Strategic IS Planning process is focused on the following key objectives...
 - Understanding and defining current systems and technology in place
 - Conducting research on relevant enabling technology trends
 - Identifying and prioritizing system needs and requirements
 - Identifying potential solutions and developing a cost-benefit analysis for addressing high priority gaps
 - Developing a roadmap and plan for implementing solutions
- The scope of the project focuses on these functional areas...
 - **All buildings** – VMAC, Ralston High School, Ralston Middle School, Six Elementary Schools (Blumfield, Karen Western, Meadows, Mockingbird, Seymour, Wildewood)
 - **All departments** – Curriculum & Instruction, Student Services, Business Services (Finance, Human Resources, Facilities, IT), Superintendent's Office, Board of Education

Strategic IS Planning Methodology

A proven approach for developing a comprehensive plan for RPS is based upon the following Strategic IS Planning methodology...





EXECUTIVE SUMMARY RESULTS





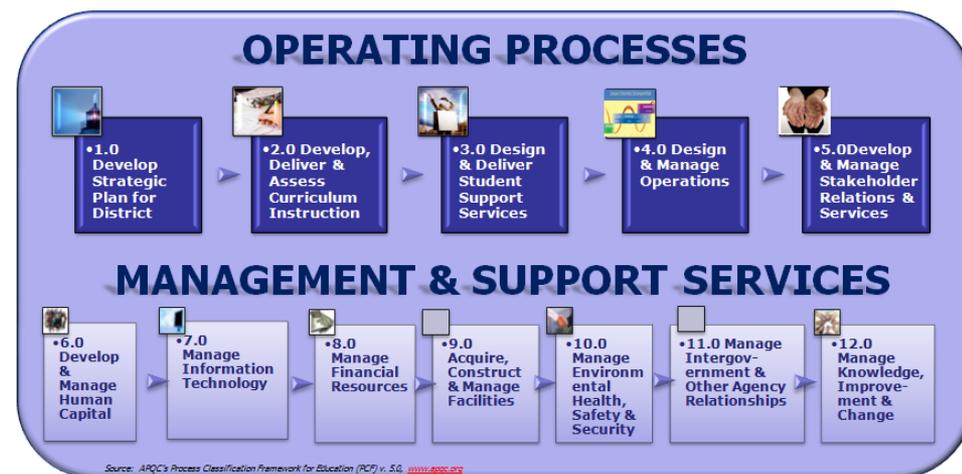
Summary Project Results

- This section of the report provides a summary of key project results in the following areas:
 - **Process Assessment** – using an education industry process model and cross-industry process assessment framework, each process is given a current state rating with summary of key findings and observations
 - **Planning Recommendations** – for consideration in the strategic planning phase of the project, recommendations are highlighted for RPS to consider related to strengths to build upon, opportunities for improvement and planning guiding principles



Use of K-12 Process Model

- In the late 1990s, an industry organization called APQC (American Production & Quality Control), in collaboration with industry experts, developed a generic Process Classification Framework (PCF) that defines key business processes, sub-processes and activities that businesses and organizations should consider implementing in their operations.
- In 2006, a group of K-12 advocates within APQC created a K-12 Education specific PCF that highlights specific processes, sub-processes and activities for school districts to consider
- This framework serves as a structure for assessing RPS' current use of technology throughout the district

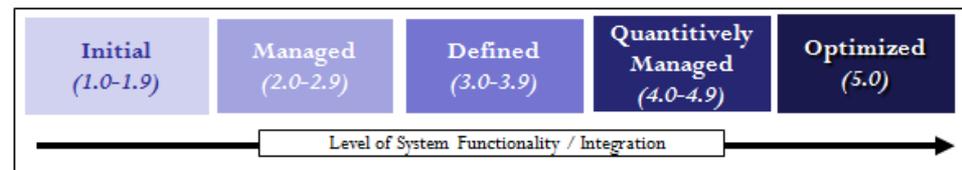




Rating Current Processes

- For each of the identified processes, a Current State Rating is given that appraises the overall level of maturity of the process
- Levels are adapted according to the Capability & Maturity Model Index for Services (CMMI-SVC) from Carnegie-Mellon’s Software Engineering Institute (SEI) – www.sei.cmu.edu
 - The maturity level of an organization provides a way to characterize its performance. Experience has shown that organizations do their best when they focus their process improvement efforts on a manageable number of process areas at a time and that those areas require increasing sophistication as the organization improves.
 - A maturity level is a defined evolutionary plateau for organizational process improvement. Each maturity level matures an important subset of the organization’s processes, preparing it to move to the next maturity level.

LEVEL	PERFORMANCE MATURITY
LEVEL 1: INITIAL	<i>Processes are usually ad hoc and chaotic; organization usually does not provide a stable environment to support processes; characterized by a tendency to over-commit, abandon their processes in a time of crisis, and be unable to repeat their successes</i>
LEVEL 2: MANAGED	<i>Work groups define a service strategy, create work plans, and monitor and control the work to ensure the service is delivered as planned; work groups, work activities, processes, work products, and services are managed; service provider ensures that processes are planned and managed in accordance with policy; process adherence is periodically evaluated and process performance is shared with senior management</i>
LEVEL 3: DEFINED	<i>Service providers use defined processes for managing work; organization's set of standard processes is established and improved over time; processes are managed more proactively using an understanding of the interrelationships of process activities and detailed measures of the process, its work products, and its services</i>
LEVEL 4: QUANTITATIVELY MANAGED	<i>Service providers establish quantitative objectives for quality and process performance; quantitative objectives are based on the needs of the customer, end users, organization and process implementers; performance of processes is controlled using statistical and other quantitative techniques and predictions</i>
LEVEL 5: OPTIMIZING	<i>Focuses on continually improving process performance through incremental and innovative process and technological improvements; defined processes, set of standard processes and supporting technology are targets for measurable improvement activities; organization is concerned with overall organizational performance using data collected from multiple work groups; analysis of data identifies gaps in performance which drive organizational process improvement</i>

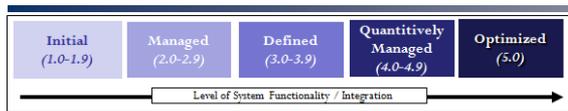


Adapted from the Capability Maturity Model for Services (CMMI-SVC), v1.3 framework developed by Software Engineering Institute (SEI) of Carnegie Mellon University, November 2010



Process Assessment

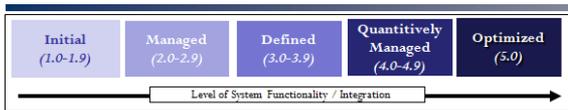
Operating Processes



PROCESS	CURRENT STATE RATING	SUMMARY FINDINGS & OBSERVATIONS
1.0 Develop Strategic Plan for District	Initial (1.0)	<ul style="list-style-type: none"> • Strategic planning primarily performed by cabinet leadership on an ad hoc basis • District mission and vision statements posted on RPS website • Monitoring progress on strategic plan appears informal and ad hoc without defined program management and reporting process
2.0 Develop, Deliver & Assess Curriculum Instruction	Managed (2.8)	<ul style="list-style-type: none"> • Curriculum standards, guides and publisher supported content are documented and utilized at all levels <ul style="list-style-type: none"> ◦ Alignment to Common Core Standards • Professional learning and teacher development is encouraged either via PLCs, instructional coaches, and attending external conferences and resources <ul style="list-style-type: none"> ◦ Online professional development application (PD360.com) being deployed for certified staff ◦ Conference registration process is largely paper-based but is planned to be automated this summer • Extensive instructional technology available at all locations <ul style="list-style-type: none"> ◦ All teachers have laptops and plans in place for upgrading over the next few years ◦ A combination of computer lab classrooms and mobile laptop carts are available in all schools ◦ All schools have just made iPad carts available for teachers to use in classrooms ◦ Noted that available technology tools are utilized inconsistently by teachers with limited instructional integration support (e.g., SmartBoards, iPads) • Online NeSA state standard testing completed by students primarily via computer labs and mobile computer carts • Assessment and testing data will be maintained and reported via new Data Director application slated to be deployed over the summer <ul style="list-style-type: none"> ◦ Data Director will provide teachers with on-line access to NeSA, ACT, ITBS, DIBELS and other test history for each student – emphasis expected to put into effective training and support for teachers on Data Director • The SIMS system, hosted and supported by ESU #3, is the primary system of record for all student information (e.g., demographics, attendance, grades, schedules, testing history) and related reporting <ul style="list-style-type: none"> ◦ Central office and building administrative staff are primary users of SIMS for administrative activity ◦ Teachers have limited access via web version of SIMS which is being enhanced by ESU #3 – Data Director is expected to be the primary system teachers will access for student information ◦ A couple of schools starting to use a different application for PBIS model (SWIS) requiring added data entry



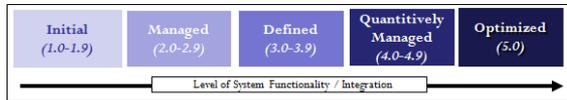
Operating Processes (cont.)



PROCESS	CURRENT STATE RATING	SUMMARY FINDINGS & OBSERVATIONS
2.0 Develop, Deliver & Assess Curriculum Instruction (cont.)		<p>Student Information (cont.)</p> <ul style="list-style-type: none"> o Data collection of key student information in most elementary schools is via paper-based forms and entered either in building office or central office (e.g., discipline referrals, daily attendance) • Ongoing training and focused use of instructional technology planning time are common requested needs from end-user community
3.0 Design & Deliver Student Support Services	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <i>Initial</i> (1.9) </div>	<ul style="list-style-type: none"> • Special Education services utilize a number of State provided systems for capturing, tracking and reporting student information (e.g., SRS for IEPs, MPS for Medicaid claims, GMS for grant reporting) <ul style="list-style-type: none"> o Staff time is spent ensuring state systems are updated and in synch with RPS systems (SIMS, FinancePlus) due to limited integration between the systems • Counseling services provided at each school level utilize various technology tools in supporting students' needs <ul style="list-style-type: none"> o Truancy reporting and compliance is facilitated via SIMS student information system o Counseling specific functionality within SIMS supports requisite documentation of student interactions o New Response to Intervention (RTI) program being designed and deployed - initially a paper based, with opportunity to automate (e.g., GoogleDocs) o Guidance counselors utilize on-line career and college planning services with high school students – access Data Director will enhance planning • Student Health Services track and maintain student immunization information in SIMS <ul style="list-style-type: none"> o High school nurses log all student health activity in SIMS; elementary and middle schools still using health cards • ELL services are growing with increase in student population with English as second language – limited access and use of technology <ul style="list-style-type: none"> o Increasing need for technology with multiple language and translation capabilities • Early Childhood curriculum currently available at all schools with extensive technology used by teaching funded via Title I grants (e.g., SmartBoards, projectors) • High-Ability Learning (HAL) teachers utilize available technology labs and on-line resources – no standard curriculum and resources in place • Parent engagement technology limited to on-line access to R-Kids application (grades) and Alert Now communications



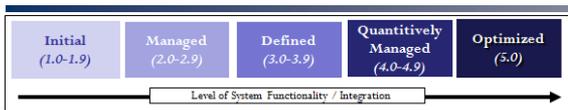
Operating Processes (cont.)



PROCESS	CURRENT STATE RATING	SUMMARY FINDINGS & OBSERVATIONS
4.0 Design & Manage Operations	<div style="border: 1px solid black; background-color: #d9e1f2; padding: 5px; text-align: center;"> Managed (2.0) </div>	<ul style="list-style-type: none"> • Purchasing functionality provided by Finance Plus application hosted by ESU #3 <ul style="list-style-type: none"> ◦ Paper-based purchase requisition forms completed by staff needing something purchased ◦ Purchase orders entered into Finance Plus and approved on-line ◦ Beginning to purchase via vendors' on-line catalog systems (e.g., Office Depot, Dell, Grainger, AMSAN) ◦ Procurement Card program being expanded for small dollar, higher volume purchases • Student transportation needs are maintained within SIMS for special education, ELL and option enrollment students <ul style="list-style-type: none"> ◦ Edulog transportation software recently acquired to automate scheduling and routing currently done with use of paper forms, spreadsheets and on-line maps • Food Services at all locations managed by third party provider (Sodexo) with stand-alone, point-of-sale system (NutriKids) used for daily meals and on-line lunch account system (RevTrak) for parents to purchase lunches on-line <ul style="list-style-type: none"> ◦ Evaluating options for integrating point-of-sale and lunch account systems • An integrated library management system (TLC), hosted and supported by ESU #3, is used at all schools • Copy services provided at Central Office are requested via paper form – opportunity to automate
5.0 Develop & Manage Stakeholder Relations & Services	<div style="border: 1px solid black; background-color: #d9e1f2; padding: 5px; text-align: center;"> Initial (1.3) </div>	<ul style="list-style-type: none"> • RPS migrated from First Class e-mail to GoogleApps for Education at the time of this report <ul style="list-style-type: none"> ◦ Early adopters and central office received training before school ended; additional training planned prior to next school year • Emergency communications facilitated through use of AlertNow for mass phone and e-mail distribution • New RPS website being evaluated at the time of this report <ul style="list-style-type: none"> ◦ Current district site primarily static content; building pages inconsistently updated and used (school lunch menu, newsletter) • Social media is not formally used for district communications • Annual budget development process facilitated through use of spreadsheets and FinancePlus reports for printing, presentation and approval by Board of education • No formal communications strategy and plan in place



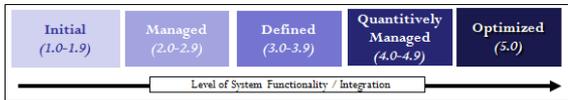
Management & Support Services



PROCESS	CURRENT STATE RATING	SUMMARY FINDINGS & OBSERVATIONS
<p>6.0 Develop & Manage Human Capital</p>	<p>Managed (2.7)</p>	<ul style="list-style-type: none"> • Finance Plus application, supported and hosted by ESU #3, is the primary HR information system for maintaining and reporting employee information, job codes, salary and benefit information <ul style="list-style-type: none"> ◦ A paper-based Personnel Action Form (PAF) used for documenting and updating employee information ◦ A paper-based Leave Request Form used for requesting leave/vacation – slated for automation by ESU #3 this summer • Hiring process is enabled through the use of an online applicant tracking system (AppliTrack) <ul style="list-style-type: none"> ◦ Facilitates capturing and maintaining applications and resumes for open positions ◦ For certified positions, system used for screening candidates and referrals for interviews ◦ Not integrated with Finance Plus • A custom development database application (FileMaker Pro), called EPP, is used by administrators for conducting teacher evaluations • SubFinder application, supported and hosted by ESU #3, is used for facilitating finding and assigning substitute teachers
<p>7.0 Manage Information Technology</p>	<p>Initial (1.6)</p>	<ul style="list-style-type: none"> • IT governance and oversight primarily done via Cabinet team and 21st Century Learning & Technology ad hoc committee • Limited IT policies and procedures are documented as part of Employee Handbook – no formal disaster recovery / continuity plan in place • Annual District IT budget managed by central administration primarily focused on district support personnel (5.5 FTE), new hardware equipment purchases (according to 3-year rotation plan) and annual vendor support/maintenance • ESU #3 provides primary IT services in areas of application development (SIMS, web, custom reporting), application hosting (Finance Plus, SIMS, SubFinder, TLC), and systems and networking (WAN, Internet connection) • IT Training of district staff is primarily on-the-job and informal • Enterprise Information/Content Management primarily distributed throughout district through use of “best-of-breed” applications that are focused on functional needs with limited integration and interoperability



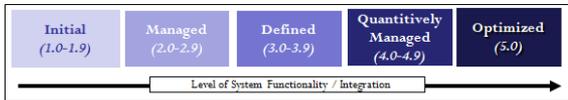
Management & Support Services (cont.)



PROCESS	CURRENT STATE RATING	SUMMARY FINDINGS & OBSERVATIONS
7.0 Manage Information Technology (cont.)		<ul style="list-style-type: none"> • Implementation of private “cloud” application (Stoneware) intended to be a “single-sign” secure solution for accessing district owned applications from anywhere – currently accessible to teachers, but has had limited usage due to lack of ongoing training and clarity as to how “cloud impacts daily user activities • New wireless network components (Dell Aruba) has improved secure network availability and accessibility, but network performance limited by bandwidth (provided by WindStream) and older connectivity equipment connecting buildings <ul style="list-style-type: none"> ◦ If primary wireless controller at high school goes down, a back-up controller would be needed to ensure wireless connections remain available – critical especially during NeSA testing • Numerous technology projects were noted to be in progress at the time of this report with limited or no formal project management besides central office administrative oversight • End-user support primarily provided by district IT staff without a formal service or “help” desk process or system in place – ESU #3 in the process of evaluating help desk application solutions to offer to partner schools • End-user training primarily provided upon deployment of new technology (e.g., “cloud”, GoogleApps, Data Director) without an ongoing training program for ensuring effective use of technology according to job role <ul style="list-style-type: none"> ◦ User survey feedback confirmed this need for ongoing training needs especially in areas of instructional technology
8.0 Manage Financial Resources	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Initial (1.8) </div>	<ul style="list-style-type: none"> • RPS’ Primary financial system of record is Finance Plus, supported and hosted by ESU #3 <ul style="list-style-type: none"> ◦ Access limited to central office accounting personnel, HR personnel, building principal and secretary with proper segregation of duties and internal controls in place ◦ School activity funds are handled in FinancePlus • Finance Plus provides canned reports with the capability of using reporting application from IBM (Cognos Impromptu) which integrates with Finance Plus directly <ul style="list-style-type: none"> ◦ Management analysis and summary reports are limited to ad hoc spreadsheets – no standard KPI metric reporting • A majority of vendors are paid via paper check (a few electronic fund transfers). • Payroll is processed using Finance Plus payroll functionality <ul style="list-style-type: none"> ◦ Job codes inconsistent between HR and Payroll modules



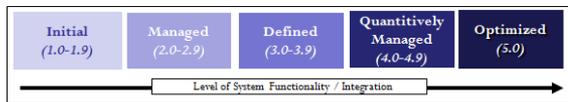
Management & Support Services (cont.)



PROCESS	CURRENT STATE RATING	SUMMARY FINDINGS & OBSERVATIONS
8.0 Manage Financial Resources (cont.)		<ul style="list-style-type: none"> ○ Various paper-based forms are used as timecards for hourly employs (except for food services staff clock-in/out on-line) ○ Employees can view payroll information on-line via Employee Access Center portal (e.g., pay advice, deductions, demographic information) ○ All employee payments made via direct deposit file transfer from Finance Plus to bank
9.0 Acquire, Construct & Manage Facilities	<div style="background-color: #d9e1f2; padding: 5px; border: 1px solid black;"> Initial (1.4) </div>	<ul style="list-style-type: none"> • Building maintenance requests are entered and routed via web-based application called schooldude.com • No formal risk management program is in place for managing overall risk factors beyond insurance levels
10.0 Manage Environmental Health, Safety & Security	<div style="background-color: #4f81bd; color: white; padding: 5px; border: 1px solid black;"> Managed (2.2) </div>	<ul style="list-style-type: none"> • A formal District Safety Committee is formed as required by law for compliance, emergency drills, fire prevention and general building safety and security <ul style="list-style-type: none"> ○ Safety Committee recently subscribed to on-line training content available via Safe Schools Program and will be deployed over the summer • Physical security of building limited to key access with all buildings having security alarm system <ul style="list-style-type: none"> ○ Limited video surveillance currently at buildings – would enable greater visibility and monitoring



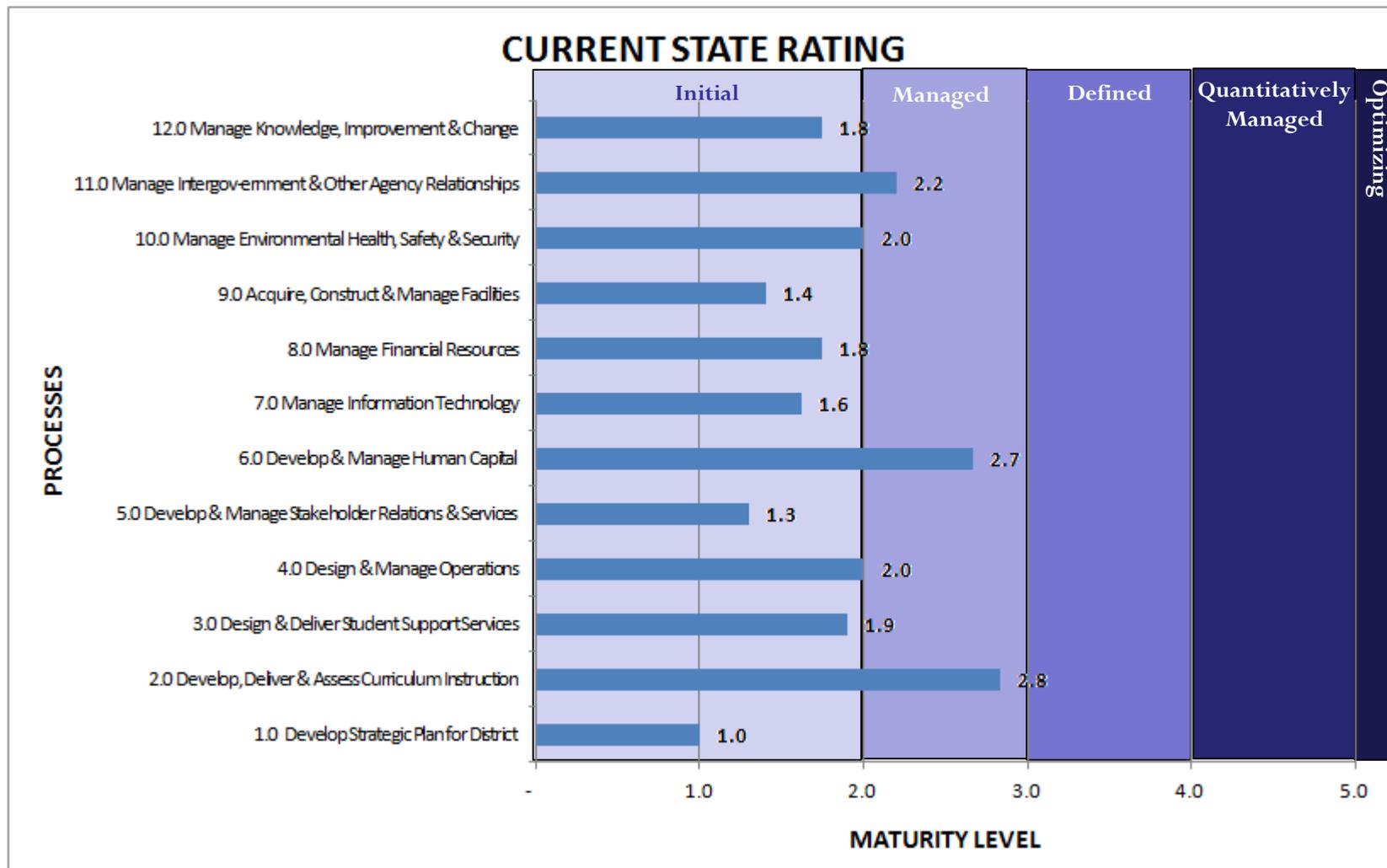
Management & Support Services (cont.)



PROCESS	CURRENT STATE RATING	SUMMARY FINDINGS & OBSERVATIONS
11.0 Manage Intergovernment & Other Agency Relationships	<div style="background-color: #4a7ebb; color: white; padding: 5px; text-align: center;"> Managed (2.0) </div>	<ul style="list-style-type: none"> Static, searchable Board policies are available via RPS website Board meeting information primarily paper-based Board performs an ad hoc annual evaluation of superintendent with limited quantified, empirical performance measures Alumni relations is done on an ad hoc basis with a stand-alone database maintained for contact information, as needed
12.0 Manage Knowledge, Improvement & Change	<div style="background-color: #cfe2f3; padding: 5px; text-align: center;"> Initial (1.8) </div>	<ul style="list-style-type: none"> School Improvement initiative are focused on adapting and implementing AdvancED Standards for Quality School Systems <ul style="list-style-type: none"> A dedicated School Improvement officer facilitates adoption with building principals with technology support via on-line ASSIST repository Prioritization has been placed by the Board of Education on focusing initiatives on AdvancED Standard #3 – Teaching & Assessing for Learning



Current State Rating Summary





Strengths to Build Upon

- **Strategic Importance and Alignment**— Technology is identified as an overall strategic priority with the district's focus on Achievement, Character and Technology (A.C.T.)
- **Continued Sustainable Technology Investment** – for the past three budget cycles (and for the next three years), technology spending has been steady and focused on hardware rotation upgrade plan (e.g., laptops, mobile labs, iPads) and network infrastructure (e.g., storage, virtualization, wireless, broadband) which is critical as more technology is deployed and accessible to more end-users, namely students
- **Data-Driven Decision Making** – proactive alignment to national standards and emphasis on data-driven analysis related to school improvement and student achievement
- **Process Automation** – most of the current processes utilize some level of software application (many web-based apps) for automating data capturing, processing and reporting with opportunity to improve integration and interoperability between systems
- **User Adoption & Change Readiness** – based upon survey feedback, over 80% of respondents indicated use of technology at home and work with a desire for more technology that improves their productivity and satisfaction



Opportunities to Improve

- **IT Governance** – formalization of governance oversight committee and processes will facilitate communication of end-user requirements and needs of students
- **Instructional Technology Support** – training and support of classroom technology has been limited and resulting in teachers avoiding use of available technology (e.g., “cloud”, SmartBoards, iPads)
- **Ongoing Technology Training Program** – the user feedback survey consistently reiterated the need for an ongoing, on-demand training program for various critical technologies available throughout the district
- **Automating Remaining Manual Processes** – several opportunities for automating, streamlining and/or standardizing manual processes throughout the district including, but not limited to:
 - Daily attendance
 - Discipline referrals
 - Copy service requests
 - Timecards
 - Purchase requisitions
 - Budget development
 - Financial reporting and analysis
 - Board meeting documentation

Opportunities to Improve (cont.)

- **Document Management** – paper-based records remain a critical method for capturing and maintaining information which could be an opportunity for scanning documents, making digitized documents accessible and reducing physical document storage space
- **Help Desk Process** – formalizing end-user support requests with a more structured help desk process and system will improve utilization of district IT support and provide improved, timely service to end-users
- **Project Management** – with multiple technology related projects in progress, the need for specific project management processes and skills will ensure coordination of requisite resources and end-user communication for successful implementation



Strategic Guiding Principles

The following should be considered as guiding principles for RPS to use in developing the an IT strategy for the next 3 to 5 years (adapted from International Society for Technology in Education (ISTE) Essential Conditions to effectively leverage technology for learning....

- **Shared Vision**
 - Proactive leadership in developing a shared vision for educational technology among all education stakeholders, including teachers and support staff, school and district administrators, teacher educators, students, parents, and the community
- **Empowered Leaders**
 - Stakeholders at every level empowered to be leaders in effecting change
- **Implementation Planning**
 - A systemic plan aligned with a shared vision for school effectiveness and student learning through the infusion of information and communication technology (ICT) and digital learning resources
- **Consistent and Adequate Funding**
 - Ongoing funding to support technology infrastructure, personnel, digital resources, and staff development
- **Equitable Access**
 - Robust and reliable access to current and emerging technologies and digital resources, with connectivity for all students, teachers, staff, and school leaders
- **Skilled Personnel**
 - Educators, support staff, and other leaders skilled in the selection and effective use of appropriate ICT resources
- **Ongoing Professional Learning**
 - Technology-related professional learning plans and opportunities with dedicated time to practice and share ideas
- **Technical Support**
 - Consistent and reliable assistance for maintaining, renewing, and using ICT and digital learning resources
- **Curriculum Framework**
 - Content standards and related digital curriculum resources that are aligned with and support digital age learning and work
- **Student-Centered Learning**
 - Planning, teaching, and assessment centered around the needs and abilities of students
- **Assessment and Evaluation**
 - Continuous assessment of teaching, learning, and leadership, and evaluation of the use of ICT and digital resources
- **Engaged Communities**
 - Partnerships and collaboration within communities to support and fund the use of ICT and digital learning resources
- **Support Policies**
 - Policies, financial plans, accountability measures, and incentive structures to support the use of ICT and other digital resources for learning and in district school operations
- **Supportive External Context**
 - Policies and initiatives at the national, regional, and local levels to support schools and teacher preparation programs in the effective implementation of technology for achieving curriculum and learning technology (ICT) standards



Next Steps

- Incorporate Board feedback on Current Assessment and planning guidance
- Identify cross-district representatives to form an IT Steering Team (~10-12 members)
- Conduct planning work shop(s) with IT Steering Team to develop IT Strategy and Tactical Plans for next 3-5 years
- Share strategic plan for Board input and approval
- Communicate strategic plan district-wide
- Initiate implementation of plans



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