



Combined Communications Network

2018 - 2021

Strategic Plan



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Record of Changes		
Date	Changes	Approved by:
March 2018	Origination Date	Lowell Porter, Executive Director



Dear Emergency Communications Partners and Stakeholders:

On behalf of the Combined Communications Network (CCN) Executive Board and our staff, I am proud to share with you the 2018 – 2021 Strategic Plan. This new strategic resource took over a year to develop internally and with the support of several external partners and stakeholders. This Strategic Plan sets forth the CCN's:

- Vision – that clearly defines what success is for the organization;
- Mission – the steps necessary to achieve the success defined in the Vision;
- Strategic Goals and Objectives – the incremental steps necessary to achieve our Mission; and the
- Core Values – upon which the CCN functions each and every day.

This new “Guiding Light” document will direct the CCN's daily activities as the entire organization works to meet the needs of the communications systems at the local, county and regional levels. By working in close partnership with groups and organizations who support the delivery of emergency communications capabilities in this region, the CCN will fulfill its roles and responsibilities.

The CCN will accomplish the above by:

- Being Vision focused and Mission driven;
- Establishing strategic priorities with the highest potential for achieving this plan's Vision and Mission;
- Directly aligning the allocation of resources with our strategic priorities and objectives;
- Being data-driven, using proven strategies and best practices, and creating integrated systems that produce the best results and returns on investment;
- Continuously building the organizational capacity necessary to achieve our vision of success; and
- Maintaining effective and transparent accountability processes that track progress, measure success, and drive our external communications.

Thank you in advance for your support and commitment in helping the CCN achieve our vision of success by accomplishing this important public safety mission. We look forward to working with you closely in the future.

Respectfully,

A handwritten signature in blue ink that reads "Lowell Porter".

Lowell Porter, Executive Director
Combined Communications Network

CCN Governance

Executive Board Structure

The Combined Communications Network is governed by a four-member Executive Board. The Board is made up of elected officials representing the Pierce County Executive and County Council and Pierce Transit Administration and Commissioners.

This Strategic Plan aligns with both the Pierce County Executive's and the Pierce Transit's strategic plans.

The Executive Board meets regularly at 1:30pm on the second Wednesday of each month at Tacoma Mall Plaza, 2702 South 42nd Street, Tacoma WA 98409.

The CCN has a Joint Finance Committee consisting of members representing Pierce Transit and Pierce County who work on CCN financial components including the annual budget and accountability.

<http://www.co.pierce.wa.us/4355/Combined-Communications-Network-CCN>

Vision

A regional interoperable communications network for first responders, governmental agencies, and local jurisdictions.

Mission

The CCN operates, maintains and sustains a secure multi-layered flexible communications system using proven technology, best practice standards and an integrated business systems approach.

Values

Integrity – Be honest, ethical, and professional in all actions

Respect – Be inclusive and treat all people with dignity

Innovation – Be willing to seek out new and creative solutions to improve service

Accountability – Be responsible stewards of public resources

Reliability – Be responsible to provide services under all conditions

Guiding Principles

- ♦ Financial stewardship and stability
- ♦ Innovative and livable communities
- ♦ Excellent public service
- ♦ Balanced service delivery
- ♦ Operational excellence
- ♦ Increased service value for our neighbor agencies and communities
- ♦ Reduced operational costs and risks
- ♦ Increased reliability for service over a larger geographical area

Combined Communications Network Overview

Pierce Transit and the County formed this joint venture in the public interest to support the development, operation, maintenance, and sustainment of a combined radio communication interoperability network for purposes of ensuring communications for Pierce Transit's system and for the County's public safety community as well as for the benefit of such other public agencies as added in the future.

In 2005, Pierce County led a study to address the Federal Narrowband mandate that would go into effect in 2012, and what the impacts would be to Pierce County communications systems and its customer agencies. The study drove out five different recommendations; narrowband, implement a new VHF system, build its own 700 MHz system, merge and expand with Pierce Transit 700 MHz system, or merge with and expand the City of Tacoma 800 MHz system. Due to the lack of 800 MHz spectrum, Pierce County Executive and Legislative Branch determined to partner with Pierce Transit and expand their 700 MHz system.

In 2008, Pierce Transit built the first Puget Sound Next Generation P-25 Phase 1 FDMA Voice and Data network in the region, investing over \$35 million.

In 2010, Pierce County entered into a Memorandum of Understanding (MOU) with Pierce Transit to:

- Assure that the Pierce County residents in need of help have their immediate needs met and receive cost efficient services from both public safety and public transportation services.
- Create, deliver and maintain a high-quality communication system for the region to deliver next generation communications for public safety and public transportation.
- Support a single county wide communication system (SCWCS) in the Pierce County region for the purpose of improving effectiveness, efficiency, and overall service delivery, thereby avoiding duplication of networks supporting services, and reduce cost.

In 2011, Pierce Transit and Pierce County completed an Interlocal Agreement, the first step toward establishing the Combined Communication Network (CCN) Enterprise Joint Venture and basis to:

- Design, develop, finance, acquire, install, operate maintain, repair, and replace as necessary a uniform high quality, public safety and public transportation communication system.
- Share a single county wide communication system's microwave, mobile radios, data radios, communication sites, towers, etc. to reduce costs and provide a Lean approach toward an integrated public safety and public transportation communication network.
- Meet FCC Narrowband requirements, NIMS compliance, and certified design requirements including redundant and resilient capabilities with 99.999% system reliability.

Also in 2011, Pierce Transit and Pierce County completed Phase I of the SCWCS upgrading the P-25 700 MHz Motorola System from version 7.2 to 7.7.

In 2012, Pierce Transit and Pierce County sourced funding from grants, Pierce County, Pierce Transit and South Sound 911 (SS911) to implement a P-25 Phase II TDMA 700 MHz system.

In 2013-2015 Pierce Transit funded over \$8 million for TDMA subscribers which increased SCWCS capacity to allow access for SS911 agencies and future customers to drive down costs for all system users.

In 2014, Pierce Transit and Pierce County invested over \$2 Million to upgrade and provide improved microwave loop protection and capacity for the SCWCS backhaul network and a 4-channel 3-site VHF 410 corridor system. SS911 funded in 2017 a 4-channel 11-site VHF overlay network for station alerting, paging, and mutual aid.

In 2015, Pierce Transit Board and Pierce County Counsel voted unanimously to approve a Cooperative Governance Agreement (CGA) establishing the Joint Venture partnership known as the CCN.

In 2016, The VHF 410 corridor system was completed, and first responders gained beneficial use of the SCWCS.

In 2017, Construction began for a 4-channel 11-site VHF overlay network for station alerting, paging, and mutual aid system and beneficial use will be available at the end of the first quarter of 2018.

SAFECOM Interoperability Continuum

Radio interoperability definition

- The ability for multiple agencies to simply and effectively communicate with each other on-scene on demand in real-time and as needed using their everyday radios.

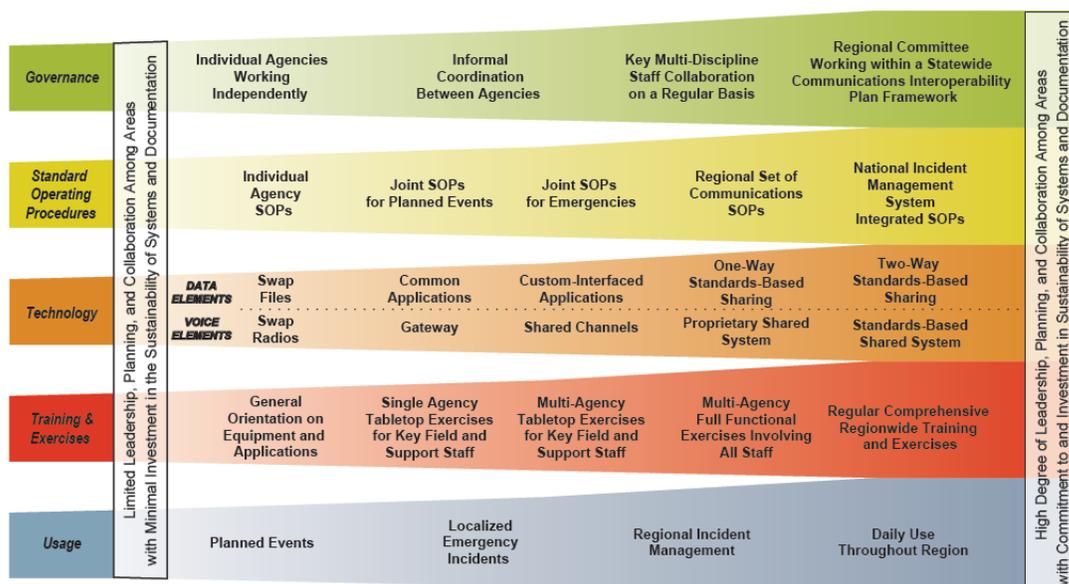
The highest radio interoperability level requires 3 integrated components

- Administrative Establishing leadership, collaboration and governance.
- Operational Developing standard operating procedures and establishing frequent training and usage.
- Technical Using standards based radio technology such as P25.



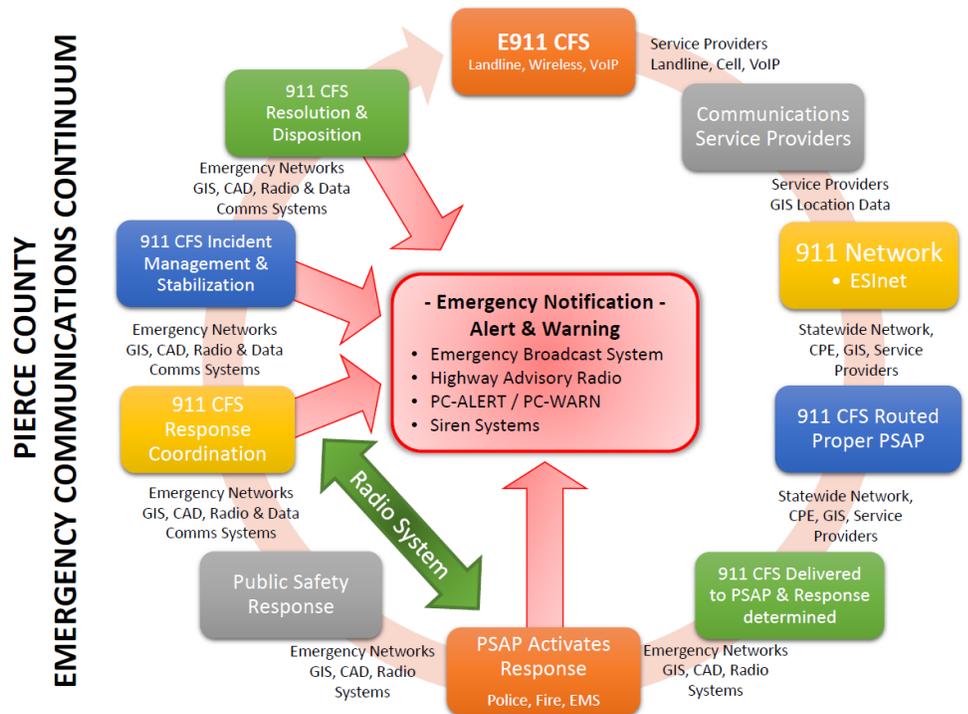
Homeland Security

Interoperability Continuum



Pierce County Emergency Communications Continuum

In compliance with Revised Code of Washington (RCW) 82.14B.020, the Pierce County Emergency Communications Continuum provides an integrated systems approach to emergency communication and an efficient, effective, and economical mechanism delivering the greatest benefit to the whole community who choose to **live, work, and raise a family** in Pierce County.



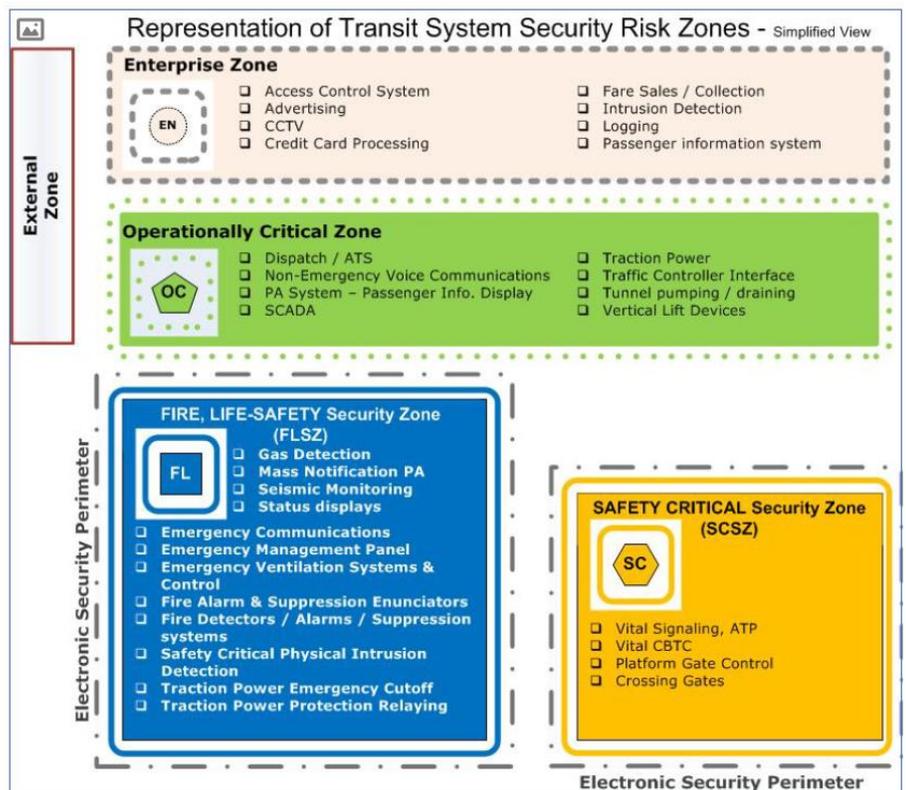
Public Transportation Standards

The CCN can accommodate and support all of the Federal Transit Administration (FTA) and American Public Transportation Association (ATPA)¹ communications standards, including but not limited to:

APTA Recommended Practices
 ATPA SS-CCS-RP-001-10, ATPA SS-CCS-RP-002-13, ATPA SS-ECS-RP-001-14, and ATPA SS-CC-03-15.

The emerging APTA/FTA Transit Communications Interface Profiles (TCIP) open transit initiative.

Additionally, the CCN provides support for transit agencies to protect Transit System Security Risk Zones.



¹United States Department of Transportation, ITS Standards program, www.standards.its.dot.gov

CCN Strategic Objectives

Objective #1: Improve timely, effective and respectful customer service

- The CCN will deliver services with a focus on customer's needs
- The CCN will use customer survey information to improve processes

Objective #2: Improve information transparency

- The CCN will continually seek out innovative ways to provide access to information
- The CCN will improve processes for distributing information

Objective #3: Increase capabilities for regional interoperable communications

- The CCN will identify efficiency opportunities
- The CCN will collaborate with partners and stakeholders to leverage efficiency opportunities

Objective #4: Increase staff development opportunities

- The CCN will identify work tasks having the greatest return on investment to provide internally
- The CCN will invest in developing staff's skillsets

Pierce County Executive's Strategic Planning and Performance Management Framework

Vision: A vibrant Pierce County where people choose to live, work, and raise a family

Mission: Through collaboration and partnerships, Pierce County delivers efficient, innovative and reliable public service to enhance our quality of life.



Pierce Transit's Strategic Planning and Performance Management Framework

Vision: Your preferred transportation choice for today and tomorrow.

Mission: Pierce Transit improves people's quality of life by providing safe, reliable, innovative and useful transportation services that are locally based and regionally connected.

Dedicated Employees	➤ Attract, cultivate, and maintain an engaged workforce
Financially Responsible	➤ Act with financial accountability and transparency as stewards of the public trust
Culture of Excellence	➤ Develop a culture which fosters safety, collaboration, data-driven decisions and innovation
Customer Focused	➤ Provide transportation services that meet our current and potential customers' needs

VALUES



Innovative...dedicated to providing our customers with leading-edge services that enhance their transportation experience.



Driven...continuously improving our capabilities, work habits, processes, and attitudes by listening to our employees and customers.

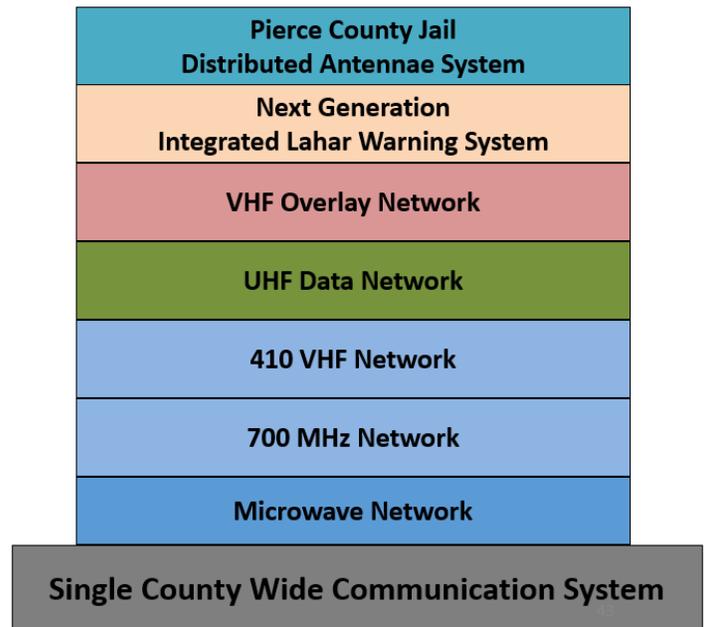


Responsible...invested in managing the safety, quality, and reliability of our services.

Single County Wide Communications System (SCWCS)

The SCWCS is an integrated, seven-layered, next-generation interoperable voice and data network consisting of Public Safety Communications, intelligent transportation systems, and Lahar warning systems which primarily support Pierce County's 795,225 citizens to include some technologies which extend into Snohomish, King and Thurston counties.

SCWCS customers are primarily the citizens of Pierce County, public safety, public transportation, first responders, regional stakeholders (United States Geological Survey (USGS), Port of Tacoma, Washington State Patrol, Washington Department of Transportation, etc.), and general government.



The coverage area for the SCWCS is approximately 2,350 square miles (estimated using Pierce County GIS and Motorola coverage map).

The SCWCS consists of:

700 MHz System – 17 sites

VHF 410 150 – 174 MHz System – 3 sites

UHF 420 – 470 MHz Data System – 8 sites (6 sites shared with the 700 systems, 2 are standalone)

VHF 150 – 174 MHz Overlay System – 11 sites (7 sites are shared with the 700 MHz system, 4 are standalone)

There are multiple layers of redundancy that are associated with the SCWCS, such as:

- Microwave loop protection;
- Backup generator systems - Onsite and Mobile;
- DC power plant systems;
- Complete redundant M-3 core; and
- Subsystem overlapping coverage.

The SCWCS processes approximately 900,000 average number of calls per month.

First responders in Pierce County have radios with 3 frequency bands, 150 MHz, 700 MHz, and 800 Mhz. If a first responder needs to communicate with someone on a different frequency band, they can turn to the channel that has the correct frequency. For example, a sheriff deputy normally communicates on the 700 MHz band, if that deputy needs to communicate with a park ranger, “who uses the VHF band”, the deputy can turn the channel on the radio to the park service channel and directly communicate with the park ranger.

Citizens directly benefit when government agencies take a strategic approach with building public service relationships. Taking advantage of these opportunities can revitalize citizen confidence and demonstrate how government agencies can deliver efficient tax-supported services, reducing duplication while providing more resilient services. This approach represents a positive shift in thinking, a reduction of silos, and better coordination and integration across traditional governmental and organizational boundaries.

Users on the Single County Wide Communications System (SCWCS)

Law Enforcement

Bonney Lake Police Department, Buckley Police Department, Eatonville Police Department, Fife Police Department, Fircrest Police Department, Gig Harbor Police Department, Lakewood Police Department, Milton Police Department, Orting Police Department, Pierce County Corrections, Pierce County Sheriff Office, Pierce Transit Public Safety, Port of Tacoma, Puyallup Police Department, Roy Police Department, Ruston Police Department, South Sound 911 Dispatch 35th Street, South Sound 911 Records, Sumner Police Department, Tacoma Police Department, Washington State Patrol.

Fire Services

Buckley Fire Department, Fire Marshal, PCFD #3 (West Pierce Fire & Rescue), PCFD #5 (Gig Harbor), PCFD #6 (Central Pierce Fire & Rescue), PCFD #13 (Browns Point), PCFD #16 (Key Penn), PCFD #17 (South Pierce Fire and Rescue), PCFD #18 (Orting), PCFD #21 (Graham), PCFD #22 East Pierce Fire and Rescue, PCFD #23 (Ashford/Elbe), PCFD #27 (Anderson Island), PCFD #43 (Eatonville), South Sound 911 Dispatch (Puyallup), Tacoma Fire Department.

Mutual Aid

Bureau of Alcohol, Tobacco and Firearms, Boeing Frederickson, Bonney Lake Police Department, Buckley Fire Department, Central Pierce Fire & Rescue, Drug Enforcement Administration, Federal Bureau of Investigations, Fife Police Department, Immigration and Customs Enforcement, Joint Base Lewis-McCord, King County Sheriff, Lakewood Police Department, Milton Police Department, National Parks, Port of Tacoma, Puyallup Police Department, Regional Aviation, Ruston Police Department, Seattle Police Department, Snohomish County Sheriff, Special Offenders Unit (WA DSHS), Sumner Police Department, Tacoma Fire Department, Tacoma Police Department, WA State Dept. of Corrections, WA State Fish and Wildlife, WA State Gambling Commission, West Pierce Fire & Rescue.

Transit

Pierce Transit, Sound Transit, First Transit.

General Government

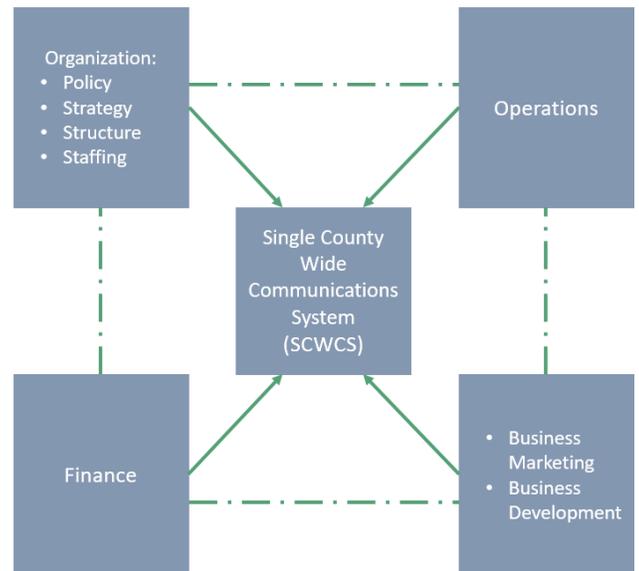
Airport and Ferry Admin, Auditor, Emergency Management, Medical Examiner, Road Operations, Sewer Utility, Surface Water, Traffic Ops/Engineering, WA State Department of Transportation.

CCN Organizational Foundation

The foundation of the CCN as an organization is comprised of four organizational cornerstones:

1. Structure – strategy, structure, staffing and policy.
2. Operations – network operations day-to-day, maintenance and sustainment responsibilities.
3. Business Operations – business planning, marketing, and business development.
4. Finance – budgeting, accounting, auditing, and reporting.

This organizational foundation creates the structural stability and resiliency necessary for the efficient and effective operations required to successfully achieve the Vision, Mission and Strategic Priorities established by the CCN Executive Board.



Leadership Framework

- The ability to create a clear vision of the future that is success
- The ability to share that vision with a growing number of committed leaders
- Who then become a cohesive team committed to achieving that vision success
- And by doing so, achieve what was once not possible



Priority Setting

Maximizing the use of available resources by our team members, external partners and stakeholders is imperatively important to effectively and efficiently achieve high-quality outcomes. To do so, we use Balanced Scorecard methodology to effectively and efficiency achieve desired outcomes.

- Strategic Objectives – outcomes or goals;
- Strategic Results – what success looks like;
- Performance measures – how we know we have reached our target; and
- Initiatives – projects we complete to improve performance measure scores.

By aligning CCN's vision to the strategy, the strategy to our structure, our structure to the staffing, we can better align our valuable resources (dollars, assets, people) with strategic objectives.

Through data-driven decision making, we focus on:

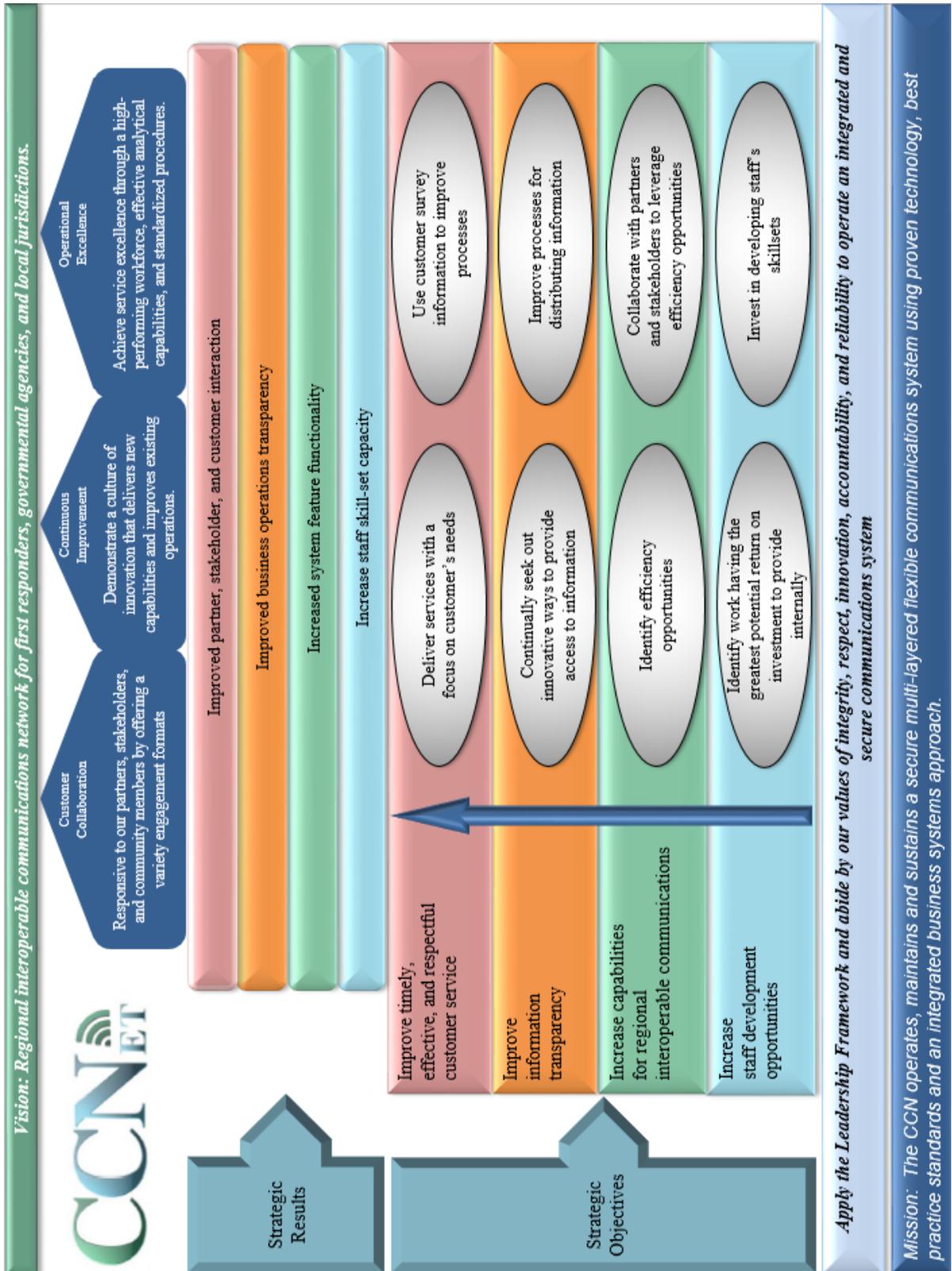
- Tracking data that matters;
- Selecting the right initiatives and projects;
- Choosing the right products and services;
- Process improvements guided by strategy;
- Employees focused on results; and
- Prioritizing limited resource allocations.

CCN Planning Cycle for SCWCS Activities

The logical flow of the process ensures that we use the hazards, risks, threats, data analysis, and intelligence information that pose the greatest risk for Region 5/Pierce County. This data drives our planning processes for developing our comprehensive workplan and training schedule. By identifying our system and staffing needs we are able to also complete a gap analysis based on those needs to determine what sort of new and sustained system improvements and training should occur. This established and best practice methodology allows us to evaluate and measure our progress, and informs our resource allocation and funding priorities to include investment justifications.



CCN Strategy Map





Strategic Objective #1

Improve timely, effective, and respectful customer service

Intended Outcome

The CCN is focused on providing opportunities for partner, stakeholder and customer interaction so that areas of potential improvement can be identified

- Deliver services with a focus on customer's needs
- Use customer survey information to improve processes

Performance Measure - Percent of overall customer satisfaction

The CCN has provided opportunities on-line and following a service delivery for customers to complete a survey.

This measure will track the score for customers who say they are overall satisfied with a target of 80% being satisfied.

Initiatives

- Develop and implement a customer survey / feedback process



Strategic Objective #2

Improve information transparency

Intended Outcome

The CCN is focused on improving access to their public documents.

- Continually seek out innovative ways to provide access to information
- Improve processes for distributing information

Performance Measure – Number of public record requests

The CCN has improved the agency's website with a focus on providing easy access to document without the need for a customer having to complete a public records request.

This measure will track the number of public records requests for information not being available on-line prior to the request with a target of 5 annually.

Initiatives

- CCN Website project phase two – customer portal
- Develop Metro Steering Committee model charter
- Implement Joint System Owners Customer Information meeting series



Strategic Objective #3

Increased capabilities for regional interoperable communications

Intended Outcome

The Single County Wide Communication System has increased system feature functionality.

- Identify efficiency opportunities
- Collaborate with partners and stakeholders to leverage efficiency opportunities

Performance Measure – Percent of estimated savings realized

The CCN uses the Lean Six Sigma methodology for process improvement including DMAIC – Define, Measure, Analyze, Improve, and Control when building a business case with process improvement recommendations with identified estimated savings.

This measure will track the percent of estimated savings realized with a target of 80 percent.

Initiatives

- Conduct system efficiency analysis
- Implement an asset management system



Strategic Objective #4

Increase staff development opportunities

Intended Outcome

The CCN staff have skills and technical capabilities to maintain the certified system.

- Identify work having the greatest potential return on investment to provide internally
- Invest in developing staff's skillsets

Performance Measure – Contracted services costs

Currently, the CCN utilized contracted services to maintain a certified system. The CCN does not have the appropriate skillset in-house to complete specific work tasks needed to maintain a certified system.

This measure will track the number of work tasks completed by CCN staff that meet the qualifications for maintaining a certified system.

Initiatives

- Conduct services delivery cost benefit analysis
- Conduct workload capacity study
- Implement a staff training program

Conclusion statement

Development of the Strategic Plan

This Strategic Plan was developed over the course of 12 months. The process began with a review of our Business Plan that included a SWOT analysis identifying our strengths and improvement opportunities for the newly formed organization. The development of the mission and vision statements, core values, operational priorities also were part of the Business Plan development process. The strategic planning work completed this year focused on refining the vision and mission statements, identified key strategic objectives, including performance measures and strategic initiatives which will allow us to accomplish our stated intended outcomes. A next to final draft of the Strategic Plan was distributed for final review and comment to Pierce Transit and Pierce County staff who conduct and support CCN business operations. External partners and stakeholders, with whom we work closely, were also invited to validate the contents and provide comments. Input provided by staff, partners, and stakeholders is reflected in the Strategic Plan, and defines and supports our vision of what success can be and the mission we must accomplish to achieve this level of success.

Maintenance and Updates to the Strategic Plan

Since this Strategic Plan is designed to be a 'guiding light' document that identifies and sets meaningful and strategic priorities; aligns our allocation of resources; and achieves success through the application of proven strategies and best practices, we anticipate an annual review of the Strategic Plan. Strategic Objectives were designed broad enough to be relevant for the four-year performance period of this plan; however, strategic initiatives can be created at any time as needed provided that a business case is made to explain and justify the addition. As part of the annual review we will seek out ways to update and improve the Strategic Plan by carefully applying the designed performance measurement resources, both qualitative and quantitative, via Balanced Scorecard and Lean Six Sigma methodologies and additional internal performance measurement tools. The CCN's goal is to accomplish our Strategic Initiatives while continuing to build stronger working relationships with our partners and stakeholders in the emergency communications community.

Glossary

Business Case: a structured proposal for business improvement that functions as a decision package for organizational decision-makers. A business case includes an analysis of business process performance and associated needs or problems, proposed alternative solutions, assumptions, constraints, and a risk-adjusted cost-benefit analysis.

Lean Six Sigma: (see Lean Six Sigma Terms below)

Outcome/impact: the desired change in behavior, attitude, knowledge, skills and conditions at the individual, divisional, or departmental level.

Output: the products and services from the direct result of an activity.

Performance Measurement: the ongoing monitoring and reporting of program/project accomplishments and progress toward pre-established targets/goals.

Perspectives: a perspective is a view of an organization from a specific vantage point. Four perspectives are traditionally used to encompass an organization's activities. The organization's business model, which encompasses mission, vision, and strategy, determine the appropriate perspectives.

Program Evaluation: a systematic process of obtaining credible information to help assess and improve programs (outcomes).

Road Map: the resource used to clarify roles, responsibilities, and expectations; identify and prioritize objectives, initiatives and activities; and measure performance.

Stewardship: the careful and responsible management of something entrusted to one's care includes people, resources, projects, products, and programs.

Strategic Initiatives: are **programs or projects** that turn strategy into operational terms and actionable items, provide an analytical underpinning for decisions, and provide a structured way to prioritize projects according to strategic impact. Projects deliver outputs while programs create outcomes.

Strategic Management: is the comprehensive collection of ongoing activities and processes that organizations use to systematically coordinate and align resources and actions with mission, vision, and strategy throughout the organization.

Strategy Map: A strategy map displays the cause-effect relationships among the objectives that make up a strategy. A good strategy map tells a story of how value is created for the business.

Strategic Objectives: provide the specific expectations that support our strategy and define the department's planned **intent** to carry out **our mission**. Objectives are designed to be measurable, specific and realistic translations of the mission statement to guide decision-making. If the strategic objective is not achieved then the likely result would be a significant decrease in customer satisfaction, system performance, employee satisfaction or retention, or effective financial management.

Lean Six Sigma Terms

Lean: A continuous improvement methodology that focuses on improving work flow by eliminating delays and waste.

Six Sigma: A continuous improvement methodology focused on getting it right the first time by eliminating variation, solving root-cause of process problems, and keeping the customer's needs always at the forefront.

Lean Six Sigma The combination of two continuous improvement methodologies to form 7 principles of continuous improvement:

- 1 Focus on the customer
- 2 Identify and understand how the work gets done
- 3 Manage, improve, and smooth the process flow
- 4 Remove nonvalue-adding steps and waste
- 5 Manage by fact and reduce variation
- 6 Involve and equip people in the process
- 7 Undertake improvement activity in a systematic way (DMAIC)

DMAIC:



DEFINE

Clearly articulate the business problem, goal, potential resources, project scope and high-level project timeline. This information is typically captured within a project charter document.



MEASURE

Objectively establish a current baseline as the basis for the process area. The performance metric baseline(s) will be compared to the metric at the conclusion of the project to determine whether significant improvement has been made. The group decides on what should be measured and how to measure it.



ANALYZE

Identify validate and select root cause for elimination. A large number of potential root causes may be identified by analysis. Use group consensus to validate top 3 – 4 causes to focus on.



IMPROVE

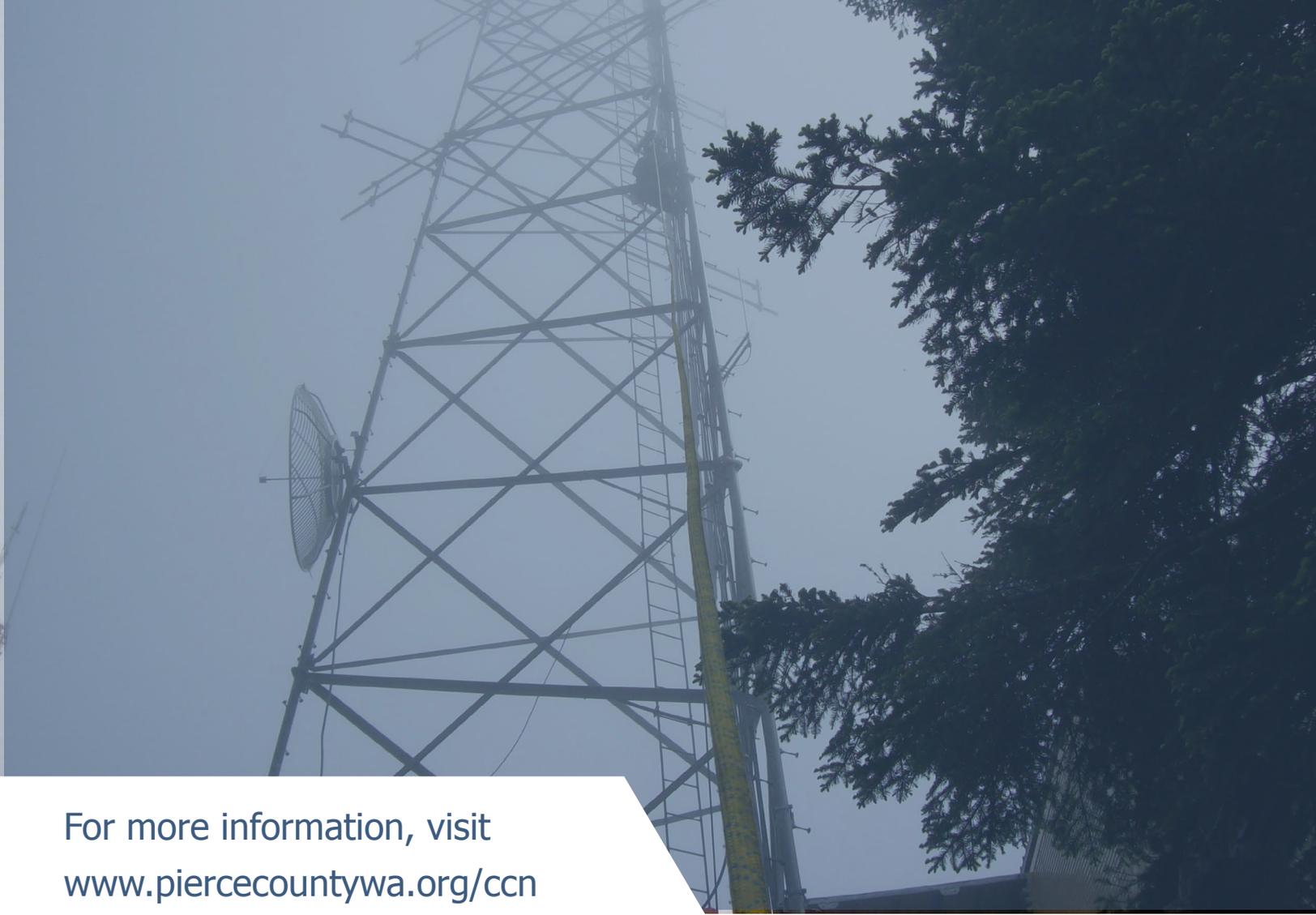
Identify, test and impellent a solution for a problem; in part or in whole. Try to focus on obvious solutions if they are apparent, and think creative.



CONTROL

Monitor the improvements to ensure continued and sustainable success. Create a control plan by updating documents like business process and training records.

Kaizen:	A rapid process improvement event (usually 3 to 5 days) involving all levels of staff focused on a business process in an effort to make it simpler, faster, better, and less costly.
Belts (Green belt, Black belt, etc.)	Designations for degree of training and expertise in Lean Six Sigma methods. In increasing order; they are white belt, yellow belt, green belt, black belt, master black belt.
CTQs	Your customers' requirements that are Critical to Quality. Meaning, they will not be satisfied if those requirements are not met. They must be measurable.
DMADV (Design for Lean Six Sigma)	Similar to DMAIC, DMADV is used in Design for Lean Six Sigma. DMADV is used when no formal process exists to be improved, and instead an organization wants to design a new process using Lean Six Sigma principles. Stands for Define, Measure, Analyze, Design, and Verify.
Gemba	Japanese for "actual place." 'Going to the Gemba' is a key Lean Six Sigma concept. Solutions must be generated after observing how the work is accomplished in the actual place where it occurs.
Managing by Fact	Data-driven decision making that can only occur if accurate, valid data is analyzed.
Poka-yoke	Any effort to eliminate root causes of defects so that re-work-generating problems don't occur in the first place. Mistake-proofing.
Process Map	Working with staff who do the work to create a diagram of each step in the process. This helps with standardizing the work, identifying waste, and finding improvement opportunities. A value stream map shows all tasks, both value-creating and nonvalue-creating, from order to delivery of a product or service.
SIPOC Model	A high-level process map (usually 4 to 8 steps) that identifies your customers and the outputs they need, and identifies your suppliers and the inputs required from them.
Value	What your customer is willing to pay for. Value is providing the right products and services, at the right time, at the right price, and at the right quality.
Variation	There are two types of variation Natural variation is the normal differences in production Special cause variation means something has happened that affects the results (positively or negatively).
Visual Management	Helping employees see the status of something at a glance. Using a dashboard to keep track of where an organization is on specific areas of importance.
Waste	Any activity that uses resources but doesn't create value for the customer. Lean Six Sigma defines 7 types of waste (Muda) remembered with the acronym DOWNTIME: defects, overproduction, waiting, non-utilized talent, transportation, inventory, motion, and extra processing. Lean also takes into account waste created through overburden (Muri) and waste created through unevenness in workloads (Mura).



For more information, visit
www.piercecountywa.org/ccn

