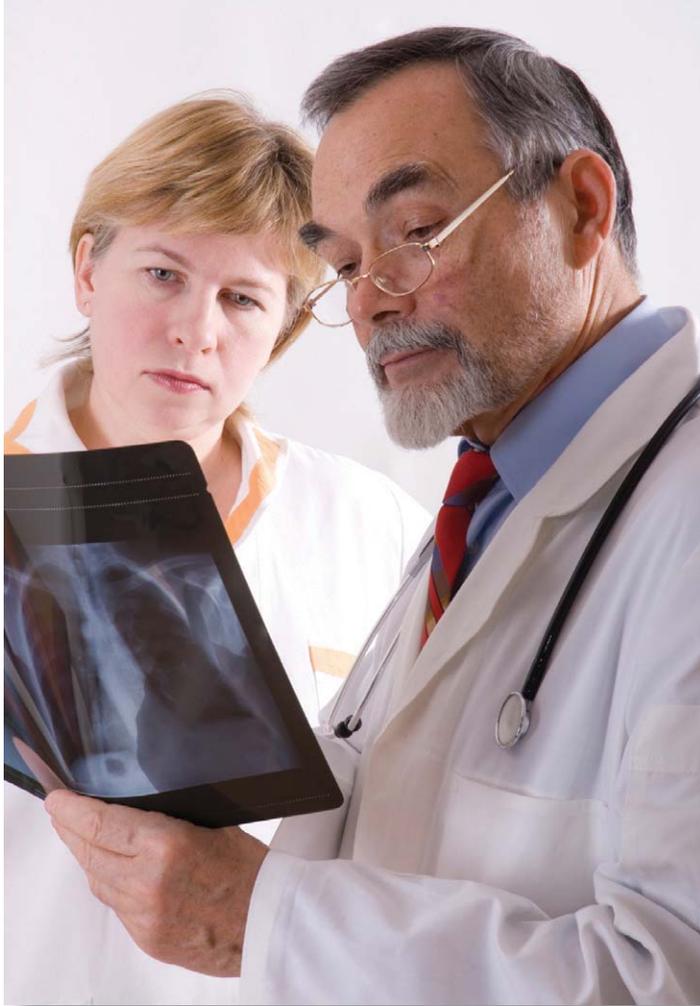


Enterprise Imaging & Radiology Assessment & Planning



McKENZIE STEPHENSON, INC.

Strategic Roadmap

This phase of the Enterprise Strategic Imaging Roadmap only encompasses phase I actions at a very high-level. All steps outlined in this document will ultimately correspond to the aggregate project plan which will expand into a detailed work tasks to include dependencies, resources and parallel processes.

Operations – Phase I

SCOPE OF SERVICES

- ◆ Begin planning for the addition of on-site CT, Ultrasound and Mammography services
- ◆ Begin planning for Corrections run Mobile MRI Services
- ◆ Expand hours of operation
- ◆ Determine state-wide fluoroscopic/C-arm needs

STAFFING

- ◆ Develop and seek approval of new/revised Imaging Organizational Chart
- ◆ Design new and revise existing job descriptions for all levels outlined in organizational chart
- ◆ Standardize staffing ratio model for each institution depending on scope of services
- ◆ Develop staff communication strategy and training regarding future changes

Equipment

- ◆ Develop and distribute RFP's for all needed modalities (RAD, CR, CT, MR, US, Mammography) Standardized DICOM conformance on all systems
- ◆ Apply equipment standards to existing equipment through upgrades
- ◆ De-install and replace existing equipment not meeting standards
- ◆ Begin building and site planning for additional onsite modality expansion such as: housing units Radiology services; Central CT; US and Mammography

Policies & Procedures

- ◆ Develop all new and relevant Policies & Procedures to cover all aspects of the imaging service line including coordinated efforts with contracted providers
- ◆ Develop standard documents and forms in support of newly established Policies & Procedures
- ◆ Develop current state workflow diagrams for guidelines and process mapping
- ◆ Implement process change to comply with new policies and procedures

Leadership

- ◆ Define the State-wide Imaging Leadership Team and provide roles and responsibilities
- ◆ Hire leadership team early to engage in change processes
- ◆ Engage new leadership in development of standards
- ◆ Create process for staff/management collaboration

Regulatory Requirements

- ◆ Follow newly establish Policies and Procedures related to regulatory requirements
- ◆ Seek Radiation Safety Officer compliance with all contracted professional services agreement
- ◆ Organize existing film libraries & processes to standardize on Policies and Procedures
- ◆ Develop offsite centralized film storage strategy to prepare for digital transition and RIS/PACS



Technology – Phase I

Network Infrastructure

- ◆ Begin collaborative work with Receiver's network team to ensure imaging needs are addressed (WAN, LAN, VLAN)
- ◆ Identify medical & dental imaging site specific needs (LAN, Telecom & Network)
- ◆ Begin space planning in the Data Center for RIS/PACS and centralized Dental systems servers and archives. (solution and configuration dependent)
- ◆ Estimate WAN and LAN traffic network for imaging services (configuration dependent)

Information Systems

- ◆ Develop and distribute RFP's for RIS/PACS solution
- ◆ Select and contract with vendor of RIS/PACS solution
- ◆ Begin RIS/PACS core database systems build out

Contracted Mobile Technologies

- ◆ Begin site planning for MRI (pad, power, telecom, network)

DICOM Readiness

- ◆ Standardize all current DICOM equipment and software

Dental Imaging Technologies

- ◆ Develop and distribute RFP for Dental HL7 Practice Management System (PMS)
- ◆ Determine central server configuration
- ◆ Purchase hardware and software for central server configuration

Professional Contracted Services – Phase I

Contract Language

- ◆ Temporarily extend existing contracts (6 month increments as needed)
- ◆ Review all existing imaging contracts with primary provider and sub-contracted providers
- ◆ Establish industry standard language for all imaging contracts to codify Corrections' SOW around terms & conditions, functional requirements, equipment specifications and professional expectations
- ◆ Collaboratively draft detailed scope of work criteria for each contracted vendor with very specific requirements and performance criteria

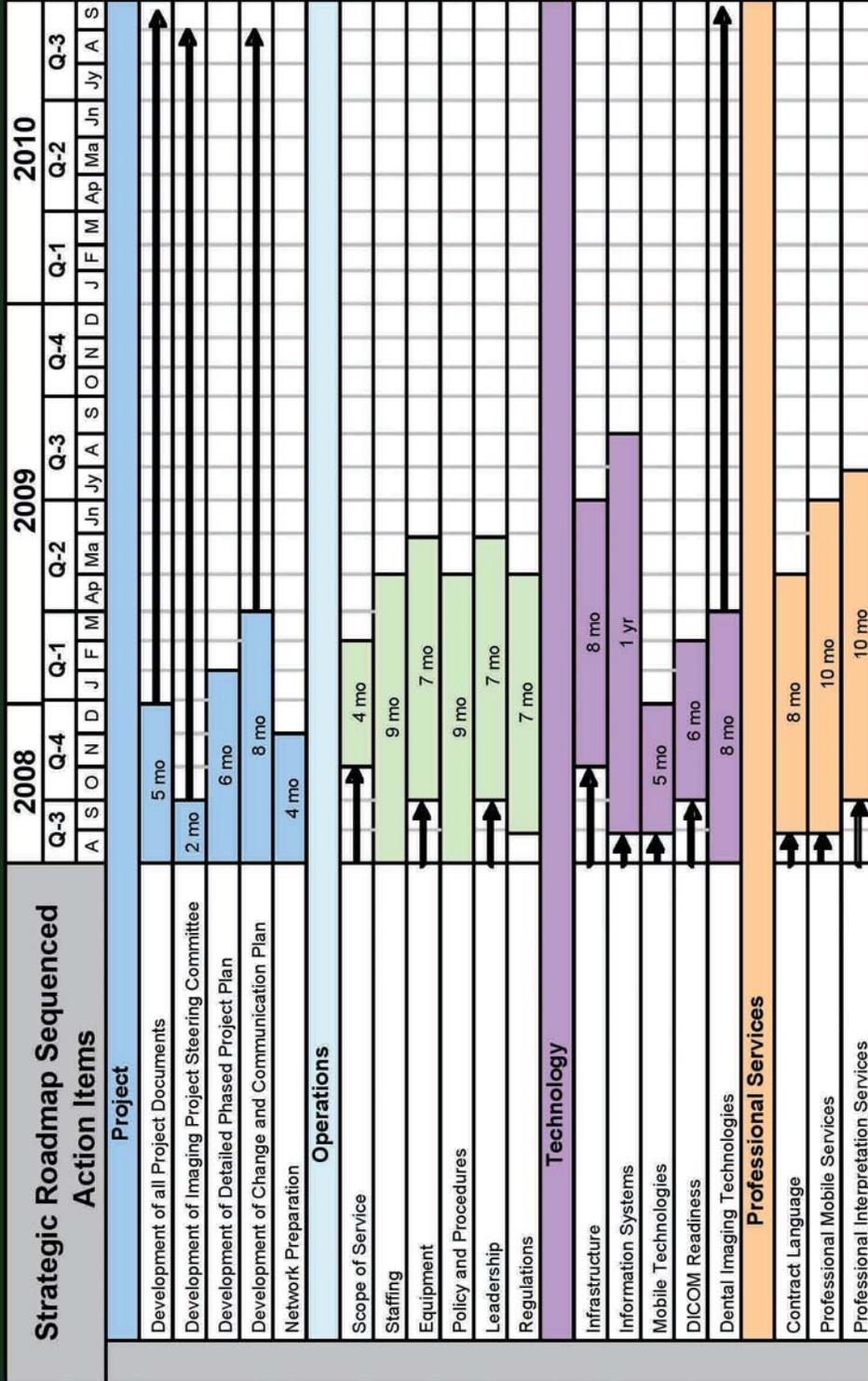
Mobile Services Providers

- ◆ Assess state-wide needs for mobile MRI service (routes, schedules, logistics)
- ◆ Develop and distribute RFP for mobile coaches and tractors (Corrections owned and operated)
- ◆ Select coach and tractor vendors

Professional Interpretation Services

- ◆ Define SOW, service requirements, service types and aggregate service level agreement related to performance metrics
- ◆ Determine professional services needs & vendors qualifications
- ◆ Complete strategy for immediate, interim and future professional interpretation needs (distributed service contracts to central service contracts once PACS is being rolled out)
- ◆ Identify potential radiology group vendors for interim needs and future centralized reading needs with PACS

Enterprise Imaging Project PHASE I (Planning & Stabilization Timeline Dashboard)



This phase of the Enterprise Strategic Imaging Roadmap only encompasses phase II actions at a very high-level. All steps outlined in this document will ultimately correspond to the aggregate project plan which will expand into a detailed work tasks to include dependencies, resources and parallel processes.

Operations – Phase II

Scope of Services

- ◆ Site and deploy radiology modular buildings and units to the individual yards designated in the planning of phase I
- ◆ Site and deploy modular buildings with CT and Ultrasound units to the CHS area designated in phase I
- ◆ Begin operating Corrections mobile MRI services with routes to all Corrections adult inmate sites
- ◆ Develop a state-wide mammography program with Corrections owned equipment

Staffing

- ◆ Develop staffing for centralized off-site storage location in preparation for PACS phased implementation

Equipment

- ◆ Begin using all newly installed imaging equipment (see Scope of Services)

Policy & Procedure

- ◆ Develop future state workflows to incorporate new services as they are instituted for active service
- ◆ Modify Policies and Procedures to incorporate new services in preparation for the implementation of RIS/PACS

Leadership

- ◆ Begin engaging new leadership in management roles and responsibilities
- ◆ Begin leadership team building to assist in change management and strategic visioning
- ◆ Engage new leadership in the process of state-wide standardization of services
- ◆ Begin transitioning all future initiatives to the leadership team

Regulatory Requirements

- ◆ Develop and distribute RFP for interim off-site film storage management
- ◆ Contract with film storage vendor (Interim Solution)
- ◆ Migrate five (5) years of film to off-site location for each prison site

Technology – Phase II

Network Infrastructure

- ◆ Develop AET, port and switch matrix for each medical and dental imaging device sitting on the network. (A standard naming convention should be adopted)
- ◆ Inventory and rack all medical and dental information system and image management system database and archive servers
- ◆ Conduct oversight of RIS/PACS vendor and Corrections IT collaboration

Information Systems

- ◆ Complete RIS/PACS (IT only) deployment
- ◆ Begin and complete RIS/PACS integration to site's modalities (including radiology reading vault) and other systems
- ◆ Conduct acceptance and integrated testing

Contracted or Owned Mobile Technologies

- ◆ Conduct and complete all site preparation for mobile MRI (pad, power, telecom, network)

DICOM Readiness

- ◆ Purchase and deploy new DICOM equipment as needed prior to RIS/PACS implementation

Dental Imaging Technologies

- ◆ Deploy PC's and software
- ◆ Integrate devices with central server and systems

Professional Contracted Services – Phase II

Contract Language

- ◆ Issue RFP's for new or extended contracts for those services not brought in-house (TBD)

Mobile Services Providers

- ◆ Begin and complete all final activities to begin Corrections Mobile MRI unit activation
- ◆ Determine final route logistics and schedules

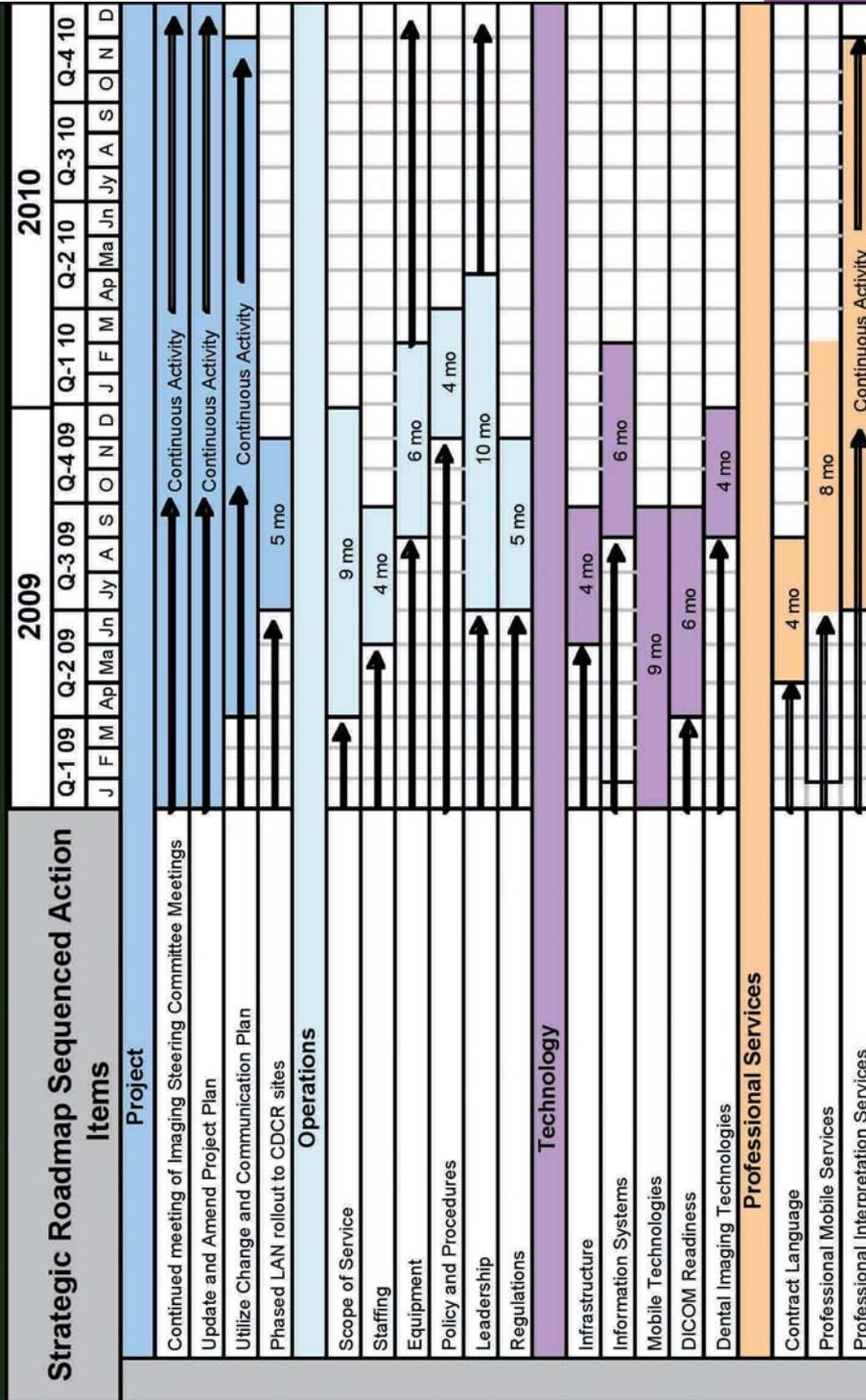
Professional Interpretation Services

- ◆ Shrink the professional radiology interpretation pool of vendors to coincide with the digital transitional calendar
- ◆ Move digital image interpretation over to contracted core radiology group vendor in coordination with RIS/PACS rollout strategy



Enterprise Imaging Project PHASE II

(Build and Integration Timeline Dashboard)



Phase II – Building & Integration



This phase of the Enterprise Strategic Imaging Roadmap only encompasses phase III actions at a very high-level. All steps outlined in this document will ultimately correspond to the aggregate project plan which will expand into a detailed work tasks to include dependencies, resources and parallel processes.

Operations – Phase III

Scope of Services

- ◆ Develop performance metrics to measure successes related to improved access, diagnosis and clinician satisfaction

Staffing

- ◆ Train staff on new RIS/PACS operational systems (phased rollout)
- ◆ Develop performance metrics to measure successes related to analog to digital process improvement

Equipment

- ◆ Purchase and deploy additional PC's and peripheral PACS devices (film digitizers, paper scanners) as necessary to support the RIS/PACS operational go-live
- ◆ Ensure all service contracts are active and in compliance
- ◆ Continue to evaluate and evolve the equipment inventory as necessary to support service levels

Policies & Procedures

- ◆ Develop new policies and procedures collaboratively with (IT Policies and Procedures) to incorporate RIS/PACS downtime procedures, remote viewing access and medical staff interaction with systems
- ◆ Begin measuring impact of new operational policies and procedures with regard to regulations and staff compliance

Leadership

- ◆ Assist in developing standardized performance dashboard reports for both operations and contracted services
- ◆ Continue transition of operational controls to Corrections imaging leadership team

Regulatory Requirements

- ◆ Construct or lease of central storage facility (This should have office space that will serve as a central radiologist reading vault)
- ◆ Phased migration of all films following the RIS/PACS site by site implementation
- ◆ Schedule and conduct Radiation Safety meetings

Technology – Phase III

Network Infrastructure

- ◆ Ensure each site has been appropriately cabled with network/telecom drops before RIS/PACS go-live
- ◆ Monitor network for bandwidth saturation as sites phase their go-live on RIS/PACS expands

Information Systems

- ◆ Complete phased go-live rollout of RIS/PACS deployment and operational adaptation
- ◆ Train staff on use of all new systems (rotational site by site)
- ◆ Activate remote reading vault location and physicians' digital reporting capabilities. (This coincides with activity around [bullet #1 Regulatory] with the build out of the centralized film library)
- ◆ Begin operations at the remote film storage and centralized reading vault location

Contracted or Owned Mobile Technologies

- ◆ Complete integration of all mobile MRI coaches with RIS/PACS
- ◆ Begin use of mobile pads

DICOM Readiness

- ◆ Monitor equipment as needed for software upgrades necessary for continued DICOM compliance

Dental Imaging Technologies

- ◆ Train new staff on the use of the central server configuration

Professional Contracted Services – Phase III

Contract Language

- ◆ Monitor compliance with awarded contracts

Mobile Services Providers

- ◆ Execute Corrections Mobile MRI operations across the state

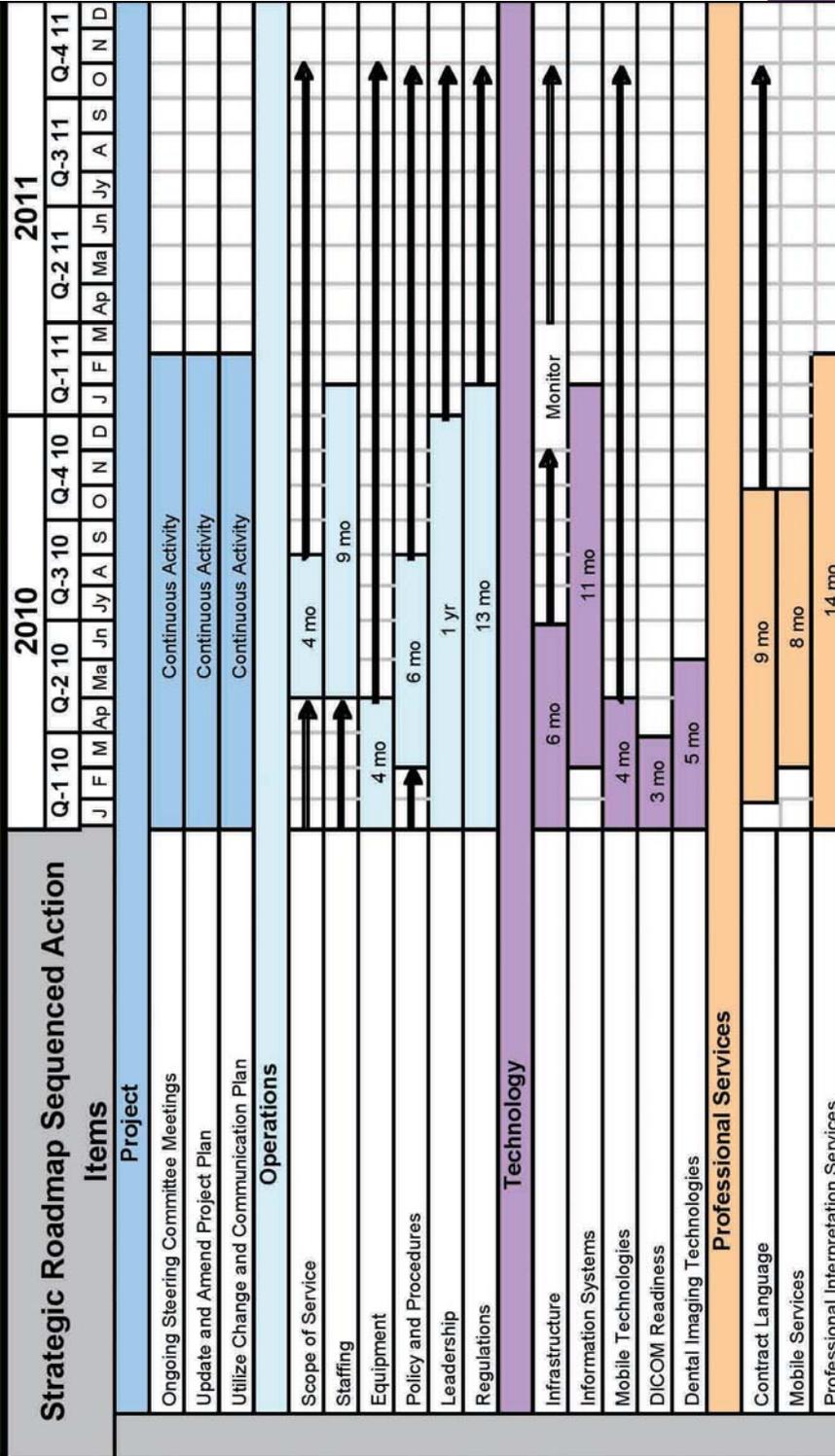
Professional Interpretation Services

- ◆ Establish and grow core service at remote location as more sites deploy and operate RIS/PACS



Enterprise Imaging Project PHASE III

(Operational Deployment and Adoption Timeline Dashboard)



Phase III – Operational Deployment & Adoption



Operations - Phase IV

Scope of Services

- ◆ Monitor procedural numbers and costs associated with use of off-site contract services. If justified, expand internal service offerings to meet the need of inmate-patients

Staffing

- ◆ Adjust staffing ratios as necessary to provide acceptable service levels. Use RIS to monitor technologist exam numbers to correlate for increase or decrease in FTE's
- ◆ Continue to monitor for quality control, continuing education, and P&P compliance

Equipment

- ◆ All new equipment must meet DICOM and integration standards. Always involve imaging SME's in equipment selection

Policies & Procedures

- ◆ Continually update and evolve the Policies and Procedures to reflect the current state of operations and regulatory requirements. Policies and procedures should coincide with (Information Technology P&P manuals) with regard to IT security, downtime and systems upgrades

Leadership

- ◆ Leadership must be measured for performance. The Corrections must define performance metrics for the imaging department and hold management accountable to meet or exceed expectations

Regulatory Requirements

- ◆ Continue to adhere and document compliance with all regulatory guidelines

Technology - Phase IV

Network Infrastructure

- ◆ Evolve the technology infrastructure to support additional applications and service areas as needed

Information Systems

- ◆ Monitor for new releases, upgrades or additional needs based on service development. Imaging must work closely with IT to ensure compatibility with any new systems architecture or upgrades
- ◆ Continue seeking higher levels of applications integration including the Electronic Health Record (EHR) when deployed

Contracted or Owned Mobile Technologies

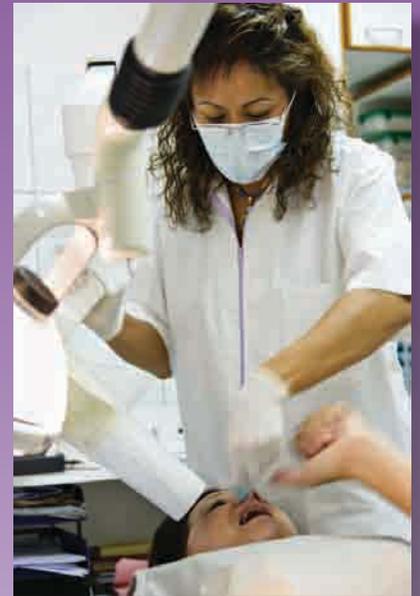
- ◆ Monitor owned and operated mobile MRI technologies for safety, maintenance, schedule, systems upgrades

DICOM Readiness

- ◆ Monitor new equipment purchase for adherence to DICOM standards

Dental Imaging Technologies

- ◆ Continue to monitor and evolve digital dental deployment for any new or re-designed Correction's sites



Professional Contracted Services - Phase IV

Contract Language

- ◆ Monitor all vendors for contract compliance. Continue to evolve contract language to replace any ambiguous language

Mobile Services Providers

- ◆ Monitor and measure performance for any mobile service providers. Ensure they are meeting expectations and adhere to the imaging P&P manual while operating on Corrections property

Professional Interpretation Services

- ◆ Build a good working relationship with the professional radiology group providing services to Corrections. Ensure they are active in regulatory and quality control compliance measures and participate as an active partner in providing quality services

Enterprise Imaging Project PHASE IV

(Monitor & Measurement)

Strategic Roadmap Sequenced Action Items	2011												2012										
	Q-1 10			Q-2 10			Q-3 10			Q-4 10			Q-1 11		Q-2 11		Q-3 11		Q-4 11				
	J	F	M	Ap	Ma	Jn	Jy	As	So	On	D	N	D	J	F	M	Ap	Ma	Jn	Jy	As	So	On
Operations																							
Scope of Service	Monitor & Measure																						
Staffing	Monitor & Measure																						
Equipment	Monitor & Measure																						
Policy and Procedures	Monitor & Measure																						
Leadership	Monitor & Measure																						
Regulations	Monitor & Measure																						
Technology																							
Infrastructure	Monitor & Evolve																						
Information Systems	Monitor & Evolve																						
Mobile Technologies	Monitor & Evolve																						
DICOM Readiness	Monitor & Evolve																						
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