California
DEPARTMENT OF TECHNOLOGY
STRATEGY INNOVATION DELIVERY

MARKET RESEARCH GUIDELINES

VERSION # 2.5.2

DOCUMENT HISTORY

Revision Number	Revision Date	Summary of Changes	Author
1	6/30/15	Published Guidelines	California Department of Technology
2	10/10/18	Revised to update web links	California Department of Technology
2.5	3/6/23	Revised to update content, and web links. Added information relevant to Blockchain, and AI systems	California Department of Technology
2.5.1	2/29/24	Corrected broken external links. Updated the Product Comparison Chart template. Added Guidelines for GenAI projects	California Department of Technology
2.5.2	11/31/25	Aligned GenAI guidance with GenAI Policy (SAM 4986.1-4986.13) and the Request for Innovative Ideas (RFI2) procurement framework	California Department of Technology

INTRODUCTION

Market Research is an organized effort to gather information about target markets or potential vendors. It is a very important component of business strategy. market research provides essential information to identify and analyze the market need, market size, new, and existing competition. Through market research information one can know the prices of different commodities and services in the market, as well as the supply and demand situation.

The results of market research must be substantial, credible, current, and supportable and aligned with the project's business, technical and functional objectives. Many State entity's make the mistake early on of thinking that they know their solution before conducting the appropriate level of research which often results in some very expensive mistakes later.

Market Research is a vital means of arming an Information Technology, (IT) Project Team with the expertise needed to conduct an effective procurement. This type of information helps determine the suitability of the marketplace for satisfying a need or requirement. market research is the continuous process of collecting information to maximize reliance on the commercial marketplace and to benefit from its capabilities, technologies, and competitive forces in meeting the state entity's needs.

Market Research is an essential process enabling the State to buy best-value products, services and solutions that solve mission-critical objectives. Also included in the Guidelines is information regarding how the California Department of Technology's (CDT), Project Approval Lifecyle (PAL), can affect your market research.

When little or no knowledge exists for the desired IT product, service, solution or available supplier resources, market research can help identify:

- New, existing, or innovative products, services, or solutions available in the marketplace that address the business problem or meet similar requirements as well as how other organizations have procured similar solutions.
- Accurate cost estimates (rough order of magnitude (ROM)) and/or realistic delivery schedules
- Industry practices such as service-level agreements (SLA's), warranty standards, and installation options
- Product distribution and maintenance support capabilities of potential suppliers
- Availability and status of potential supplier sources (i.e., Small Business Vendors)
- Competitive pricing obtained by other customers when acquiring products, services, or solutions.
- Refinement of business technical and/or functional requirements based on industry standards and best practices.
- Awareness of market vocabulary, industry trends, standards, service/product concepts, and competitive business trends

PURPOSE

The California Department of Technology developed Market Research Guidelines as a tool to support state entity's with the basics of conducting research and vetting industry input.

These Guidelines will assist in identifying research tactics and serve as a basis to create more robust market research results and ultimately, collect more reliable data. This guide also provides how to gather research for IT project needs, including business, technical and functional requirements, industry trends, risk factors, resourcing, schedules, and budgetary information.

Adherence to the California Department of Technology's Market Research Guidelines is not required to complete a Project Approval Lifecycle, (PAL), Stage 2 Alternative Analysis; however, the California Department of Technology *does* require market research to be conducted by state entity's to determine the suitability of the marketplace for satisfying an IT project's business, technical and functional needs and/or requirements. Having recent market research will aide in ensuring the alignment of the recommended solution with current and feasible industry offerings.

The results of market research are required to be submitted for California Department of Technology's assessment and review prior to a state entity moving into to the Stage 3, Solution Development phase.

Important Information - These Guidelines are not intended to take precedence over any applicable State or Federal Statutes, Rules, or Regulations. For IT Non-Delegated Projects contact your Departments CIO, AIO, CTO, or the California Department of Technology when initializing market research. Special care should be taken when the market research is complex, has high public visibility, proprietary, confidential in nature, or if the state entity has any questions on research activities that could potentially put the IT project at risk.

WHAT IS MARKET RESEARCH?

Market Research is the process of collecting valuable information to determine if there is a market for your proposed product, solution, or service. The information gathered from market research will assist the state entity to make wise and profitable business recommendations and ultimately, informed decisions.

Market Research is a process for gathering data on a product or solution characteristics, the suppliers' capabilities, any professional service offerings, and any business practices that surround the market.

Market Research requires collection and analysis of information about the market that can be used to determine whether the state entity's requirements can be met by products or services available in the current marketplace, such as information to:

- Determine if practices regarding customizing or modifying products, or tailoring services are available to meet customer needs.
- Discover practices, including standard warranty, maintenance and operations and pricing models.
- Learn about logistics support capabilities of potential suppliers to determine if they are sufficient to meet the needs of the chosen solution.

Market Research information is used to:

- Shape the procurement strategy for the recommended solution.
- Identify and develop the content for the product description or statement of work.
- Develop the maintenance support strategy.
- Refine the requirements and assist in the development of the evaluation factors used for the procurement.

Market Research may make the difference between the right and wrong decisions that affect project IT solutions. It may reveal unfilled needs, suggest different strategies, or identify a product or service strengths and weaknesses. Market Research could involve asking questions, researching, surveying the market with Requests for Information (RFI) questionnaires, recording information, and performing an analysis of the information gathered. Market Research is used as an information base to estimate a budget, develop a solution strategy, and decide how to approach the recommended solution alternatives.

Diligent Market Research provides valuable insight to help reduce business and technical risks, spot potential current and upcoming problems in the industry and identify feasible opportunities.

WHY DO MARKET RESEARCH?

Market Research is essential to optimize the use of commercial items, commercial services and to meet the state entity needs. The benefits of a competitive, supplier base can not only reduce costs but can also reduce the acquisition cycle times. Access to the most current trends in the commercial marketplace will also provide access to the latest advances in technology.

Knowing your market also means understanding external factors that could affect your success. Standards emerge, regulations change, economic conditions shift, and technological breakthroughs occur. Today's assumptions may not apply tomorrow. Conducting market research early - and often - will help you stay current with industry trends. Information obtained through market research will help you to focus your product or service development efforts, reduce risk and define project data needs to improve your procurement and ensure a project's success.

Market Research provides the basis for:

- Collecting relevant data to support industry capabilities, product availability, competitive market forces, and alternative sources
- Understanding status of potential supplier resources
- Supporting effective procurement planning
- Determining if the IT project requirements can/should be modified or enhanced.
- Defining and refining of new requirements
- Learning about project components such as Scope, Schedule, and Budget
- Recommending components to include in the Statement of Work (SOW)
- Providing information on specific risks or pitfalls specific to the solution
- Identifying unanticipated work, services, or products to be included
- Documenting lessons learned by other organizations.

Failure to conduct market research may result in significant negative consequences for your procurement, solution development, and/or resulting contracts. For example, if you find your solution is only available from one or a very limited pool of suppliers, you will need to procure the product or service via a non-competitive bid or conduct a procurement that limits competition due to a limited marketplace. In this scenario, the market research conducted must be compelling as it will play a very important supporting role it must be valid and well documented. If market research is not valid or incorrect, the procurement may be subject to protests. This could result in delays, as well as having to conduct procurement activities a second time and incurring additional project costs. New commercial market technology, capabilities, processes, or resources could be overlooked if market research is not conducted. Therefore, the market research is a critical factor and must not be overlooked or completed without a diligent effort. High quality market research creates signposts and guides on the roadmap of success for an IT project!

WHO SHOULD BE INVOLVED IN MARKET RESEARCH?

Important Information - The State of California does not have a specific group of people that conduct market research. Agencies and state entities may rely on their IT project team, their procurement official, or their contracting office to perform market research related activities. An organization may also request assistance from the California Department of Technology.

The level of knowledge performing market research within in the state entity may vary, depending on the state entity's staffing levels and experience an IT Project Team. Research that includes procurement official expertise is the best approach. The business, functional and technical requirements need to be researched repeatedly. Subject Matter Experts (SMEs) are involved to interpret and apply the results of the research information gathered. SMEs are vital to the resulting analysis.

For successful research that leads to successful procurements, consider the following questions when identifying who should have input to the market research:

- Who are the stakeholders (Counties, Local agencies, other state entity's)?
- Who would know what information is needed to make the decision to buy from the commercial market? To prepare the SOW you need to know the performance characteristics upon which product, solutions, and services are valued and distinguished from one another.
- Who would know of the product/services need, follow-on support, or maintenance and operations?
- Who Is testing or tracking success metrics for the product, services, or solution?
- Who would know the business practices and standards?
- What practices are standard for the insertion of new technology?

At minimum, market research results must involve an IT Project Team effort in the resulting analysis because of the business and technical aspects and dependencies involved. The state entity's research IT Project Team may be composed of the following:

- Procurement Analyst/Official or Contracting Office
- Executive management, CIO/AIO/OIS
- Enterprise Architecture
- Solution Architects, Technical Staff/Technical Leads
- Business/Functional/Project Management Staff
- Stake Holders/End Users/Users/Critical partners (may include outside agencies)
- Subject Matter Experts (SMEs)
- Cost Analysts/Rough Order of Magnitude (ROM)/Budgetary staff
- Legal Representatives

California Department of Technology roles that may participate in some capacity.

- Office of Information Security (OIS)
- Consulting and Planning (C&P)

- Enterprise Architecture (EA)
- OTech

Examples of the Knowledge, Skills, and Abilities (KSA's) necessary to perform market research include:

Knowledge of:

- Market Research activities and sources of collecting data on business trends, IT technology cycles, and forecasting.
- Fundamentals of supply and demand
- IT industry information systems and similar current applications in production for IT the area being researched.
- Using online information services and skills at performing internet searches such
- Identifying financial information on IT markets and individual firms (e.g.,), Dunn and Bradstreet, Moody's, Standard and Poor's
- Identifying:
    - Similar or like IT business goals and strategies
    - Market environments
    - Market measurement
    - Market segments and product differentiation
    - Product life cycles and market evolution
    - Market prices
    - Market channels/middlemen, physical distribution, industrial markets, and source selection factors and procedures in industrial and public markets

Skills and Abilities to:

- Identify market data relevant to State IT business decisions by collecting and analyzing information about capabilities within the market to meet Agency/State business entity needs or opportunity.
- Communicate effectively.
- Perform Internet/Intranet research.
- Perform Library research.
- Perform Literature research.
- Perform Classification and catalog of data.
- Assign importance and relevancy of data.
- Collate disparate pieces of information.
- Discern fact from fiction.
- Identify high public visibility concerns and policy implications.
- Maintain a focus of purpose and objectivity.

Market Research is typically performed based on a need to gain intelligence on a key business problem or opportunity that needs to be acted upon. Sometimes there is a lack of information (technical or non-technical), to make informed decisions. The job of a market researcher is to inform decision makers by providing solid data and allowing for a recommended solution to come forward that has current industry market research to support it.

WHEN IS MARKET RESEARCH DONE?

Market Research should be viewed as a continuous learning process in any state entity. Knowing what the environment has and keeping abreast of technology is always the recommended approach. Market Research is needed for IT Non-Delegated Projects early in the IT Project Approval Lifecycle (PAL) and typically leads up to the Stage 3 Solution Development phase. The level of specificity and scope varies at different points, but market research, performed early in the PAL process, provides information that can be used to shape the procurement strategy, support implementation, create metrics for test plans, development of SOW requirements and deliverables, solicitation evaluation factors, contract conditions, and performance metrics.

The first step in conducting market research is communicating the core business need or opportunity that is being researched and the application or solution requirements, if known, to the Vendor and IT industry. The information must reach the IT industry early in the process for many reasons:

- It allows vendors to identify potential a “commercial off-the-shelf” (COTS) available products or services that can meet the requirements and business needs. It may also identify, if suppliers can meet the requirement by modifying their products, as a “modified off-the-shelf” (MOTS).
- It provides the upfront analysis of flexibility in the industry solutions (i.e., to what degree cans a product me modified? Do vendors have to modify source code or customize it?). This may lead a project to modify their technical or business requirements to allow for the flexibility needed.
- Early communication with the IT industry of the solution requirements saves time in correcting or revising requirements later in the PAL process. This is especially evident in the procurement stages as fewer addendums will be required and will result in significantly fewer vendor questions. Early research allows the IT industry to better prepare responses during subsequent procurement phases, if applicable. It is important to communicate the requirements early so that the industry can easily understand the need and provide to the state entity's with the best and most current information.
- Provides the IT industry information to provide suggestions to aide in shaping the procurement strategy, support and test plans development, product description, SOW components, and assist in the development of the solicitation evaluation or post contract management factors.

Important Information - Market Research should be an ongoing process and can be performed continuously to assist state entity's to keep abreast of technology trends, products, and services. Specifically, a time when market research data analysis is required is in the California Department of Technology Project Approval Lifecycle (PAL). PAL Stage 2 Alternative Analysis (S2AA) asks for more comprehensive research and is conducted in response to a specific IT business solution need, opportunity, product and/or service. Mainly, early exchanges of information prior to procurement are a discipline that should be followed.

HOW IS MARKET RESEARCH DONE?

The state entity has many possibilities on how market research is developed and conducted. For example, if using written questionnaires/surveys it might be best to develop questions about how the agency would approach an identified need. The state entity researcher will want to contact the business and technical partners or Subject Matter Experts (SMEs) involved for assistance in developing the questionnaires. Market Research should not have to settle on one methodology either. The state entity may utilize any of (or a combination of) the following example methods to conduct market research:

- Acquire technical and or business analysis publications information about products, trends, product availability, business practices, product/service reliability and prices.
- Contact via phone, email, or physically knowledgeable individuals in State or other government and industry regarding market capabilities to meet requirements.
- Conduct unbiased industry briefings/ pre-procurement discussions via phone, email, or physically with potential suppliers to discuss solution needs. Ask about the purchase history of same or like solutions to collect data to help determine the level of competition, prices, and performance results. Be sure to seek advice with the California Department of Technology when conducting industry briefings for an IT project that is proprietary, complex, or publicly sensitive.
- Contact via phone, email, or physically the internal Procurement or Contracting office to discuss publishing and processing a RFI to survey the market. Remember the “Who should be involved” section above!

General steps to conduct market research.

Step 1. Define the Objective & the Business Problem

Perhaps the most important step in the market research process is defining the business problem, opportunity, and objectives of the project. The core of defining the objective(s), opportunity or problem(s) is to ask questions that will achieve quality market research outcomes. The questions developed in the questionnaires/surveys are imperative to the success. Examples of questions developed might be “How should we budget for this new widget?” or “Which features should we prioritize?” “What are the risk factors involved”.

By allowing the industry to understand the objective(s) clearly, it will keep the research focused and effective. The best technique is well before any research has been conducted, imagine what a “perfect” final research report would look like to address the business objectives(s). Consider preparing a mock-up report, with hypothetical data. Is there enough information to make an informed choice?” If yes, proceed with getting the real data. If no, continue working with the technical and business Subject Matter Experts (SMEs) until the objective is clear.

Step 2. Determine the Research Method

Now that the research objective(s) is known, plan out the type of research deliverable that will best obtain the necessary data. Think of the research method as the detailed plan of attack. In this step first determine the market research method (survey, focus group, etc.). Think through specifics about how to identify and choose a sample (who to go after? Where to find them? etc.). Keep the end goal in mind (outcome). Identify the types of data needed to conduct the analysis which will dictate the structure of questions to ask. This is also the time to plan where to conduct research (telephone, in-person, mail, internet, etc.). The research methodologies will be based on the nature of the data collected.

Research methodologies can be defined by classification type. This is a means to segment the data collected. For example, a state entity can differentiate the types of research by classification. Below are two types of classifications:

- Exploratory Research – This form of research is used when the topic is not well defined or understood, the hypothesis is not well defined, and/or the knowledge of a topic is vague. Exploratory research will help gain broad insights, narrow the focus, and learn the basics necessary to research further. Common exploratory market research techniques include focus groups, interviews, and demonstrations. An RFI at this level should contain high level details questions and/or surveys.
- Descriptive or Qualitative Research – Research requiring detailed data on a specific topic, is considered descriptive or qualitative research. The goal of this form of market research is to measure specific topics of interest, usually in a quantitative way. Surveys are the most common research instrument for descriptive research. There are also mini focus groups or focused vendor industry briefings/ pre-procurement discussions. An RFI at this level should contain detailed questions and/or possible sampling of requirements.

Step 3. Design & prepare the Research Deliverable

If using an RFI as the deliverable it may contain a survey or questionnaire. Begin by writing and forming the questions with the IT Project Team input. Include the business and technical requirements. If a focus group is the preferred choice to start the research development, start preparing questions and materials for the moderator. Voluminous written market research report deliverables may fail to connect with project stakeholders or not inspire executives to act. Sharing research RFI's or questionnaires via hands-on workshops or meetings can be a solution to better engage stakeholders. If complex research is needed, be sure to test the survey instrument or RFI with a small group prior to broad deployment. Take the sample data or develop a mock response to questions and add to a spreadsheet, verify there are no issues with the data being provided or how it is structured.

Prepare the deliverable with the outcome in mind. Let the questions drive the response and if not applicable, do not be prescriptive in the questions. All RFI's must provide a fair and equitable level of surveying.

Important Information - Do not prepare a RFI questionnaire or survey that acts in the same format of a solicitation document. Always seek to express to the industry that an

RFI deliverable is not a procurement/solicitation vehicle.

Step 4. Administer and Collect Your Data

Begin administering the RFI, survey, etc., running the focus groups, conducting the interviews, holding pre-bid conferences, and demonstrations. Collect and thoroughly record the answers, choices, and observations in spreadsheet format or create a way to organize your data. Collection of data can take many forms (e.g., spreadsheets, charts). Most importantly, the way it is collected should be meaningful and should be customized to provide, stakeholders, IT project teams, business and technical staff, end users, Subject Matter Experts and executives, clear and unbiased data that leads to sound decision making.

Step 5. Analyze Your Data and Beware of Cognitive Bias

Analyze the outcome and read through all the data. Compile the data in a clean organized format. Run summaries and scenarios with the information by building spreadsheets, tables, and graphs, and segment the results by groups or needs. If ratings and rankings are used for building recommendations, consider computing a mean, or average. Ensure that all IT project participants involved understand the feedback and have sufficient input to analysis, summary, or the outcome of results. Provide participants the chance to carefully review and discuss the findings.

What is Cognitive Bias?

Important Information - "A cognitive bias is a mistake in reasoning, evaluating, remembering, or other cognitive process, often occurring as a result of holding onto one's preferences and beliefs regardless of contrary information."

Different ways that Cognitive Bias impacts purchase decisions include:

1. **Confirmation bias** is where people seek, interpret, and remember information in a way that confirms their existing ideas.
2. **Loss aversion** describes how we fear loss considerably more than we value gaining something of the same worth. A commons sales tactic is to provide a signup discount to make you feel like you are receiving something of value now that you might lose if you don't take immediate action.
3. **Anchoring bias** is where people place more significance on the first piece of information they receive. For example, the first review someone reads about a product will have more impact upon them than the second or third.
4. **The bandwagon effect** explains a trend for people to purchase products that are generally popular or well known, within the buyer's circle. '*No one ever gets fired for buying an Acme product*', is a business idiom that plays into the bandwagon effect.
5. **The mere exposure effect**, otherwise known as the *familiarity principle*, explains why people are more likely to buy from brands they know well, and is a foundational basis in marketing and advertising. Will your CIO question a purchase from Acme, more or less than a purchase from a small local software implementation company -with fewer deployments?

6. **The endowment effect** describes a situation where people place a higher value on products that they already own/use.
7. **The Sunk cost effect** (sunk cost bias or sunk cost fallacy) occurs when people invest time or effort into something. In most cases, people don't want this time and effort to be wasted, which encourages them to persevere with something until their investment is justified.
8. **The halo effect** is a cognitive bias where our first impressions influence the way we interpret further information about things or people.
9. **The serial position effect** explains how people interpret the first and last pieces of information in a list, as being more important and are remembered more clearly.

Step 6. Document the Data and Communicate Results

Compile the data into a report or presentation. Start with the research objectives and business problem that were identified in Step 1. Restate the business questions, and present recommendations based on the data, to address those issues. When presenting the results, present insights, answers, and recommendations, not just charts and tables.

Important Information - When completing the steps to conduct market research, be aware this process requires time. Many State Entities are often strapped for time and have limited budgets. Taking shortcuts can later lead to negative outcomes.

Common pitfalls:

- Using only secondary research relying on the published work of others doesn't give the full picture. It can be a great place to start, but the information you get from secondary research can be outdated. It can miss other factors relevant to the business.
- Using only web resources. When you use common search engines to gather information, you get only data that are available to everyone, and it may not be accurate by surveying only known products. state entity's sometimes research only those commonly used or historically used products or services when conducting research. To get the most useful and accurate information, you need to talk to real customers about their needs, wants and expectations.

Market Research questions, information to include, or activities to consider:

- Availability of Commercial off-the-Shelf (COTS), Modified-off-the-Shelf (MOTS), or custom Software solutions.
    - Salient characteristics and past performance
    - Market shares and niches/corporate strategies
    - Price/feature tradeoffs
    - Support services
    - Product reliability and history
    - Typical customizing, modifying, or tailoring for customers.
    - Potential cost of modifying the item to meet needs.
    - Industry practices and trends
    - Industry specifications and industry standards
    - Industry terms and conditions (e.g., discounts, warranties, financing, tier pricing)
    - Laws and regulations unique to the item/service
    - Production and delivery lead-times
    - Technological/product changes and forecasts
    - Trends in market prices
    - Trends in supply/demand
    - Factors that affect market prices (e.g., cost and demand of product, raw materials prices)
    - Status of availability (e.g., small business, DVBE, other)
    - Production capability
    - Distribution and support capabilities
    - Technical strengths and weaknesses
    - Business and organizational strengths and weaknesses
    - Patent and data rights
- Practices and trends in State procurements of the same or similar requirements - Other State buyers
    - Trends in State demand
    - Trends in prices paid by the Government Agencies-Problems and issues in the award and administration of prior similar contracts.
- Review solicitation histories on current or prior project/contract files for the same or similar requirements
    - Prior project Files/Contract files
    - Contacts with other buyers (State and out of state) who have experience in buying the supply or service.
- Determine the scope and extent of research.
    - Review information already in hand (including your personal knowledge of the market from prior contract actions, information supplied by the requiring activity, and the findings of recent research on like requirements)
- Plan the collection of market information (i.e., when, and how)
- Consult the appropriate State Oversight/Procurement/Contracts teams about roles and responsibilities for conducting market research.

- Ensure the market research questions developed are reviewed and accepted by the IT project teams, users, executive management, legal (if applicable) oversight authorities and Procurement/Contracts teams.
- Ensure the planning of the market research and its evaluation activities are in place prior to gathering the data. Actively document solutions to problems, weighing the results and consequences of each solution. Evaluations typically will be simple, informal, efficient, practical, low- cost and easily carried out and understood by all.
    - Evaluations won't just be delegated to one person – highly encourage everyone in the team become involved in evaluating and reviewing the results.
    - Evaluations should be honest, and place emphasis on feasibility and credibility.
- Be sure to select a method or multiple methods for researching information. Research methods may include:
    - Industry panels
    - Request for Informal Market Survey/Research for Planning and Budgetary
    - Questionnaires/surveys
    - Pre-solicitation for Industry Comments
    - Pre-bid conferences
    - One-on-One Meetings
    - Presentations/Demonstrations
    - Forums
    - Forming of panels with members from State and the Vending community

Initiate the selected Research methods with fairness.

- For example, market research could include one-on-one meetings with multiple vendors who provide relevant solutions. Having meetings with the industry will minimize the perception that procurements are being steered toward a particular vendor. Moreover, by conducting one-on-one meetings prior to solicitation, the State can benefit from greater insight into vendor solutions — insight that vendors are hesitant to provide in an RFI, which is a public document. market research should also serve as a key input into the state entity's assessment of alternative solutions and approaches. Be sure to seek advice with the California Department of Technology when conducting industry briefings for an IT project that is proprietary, complex, or publicly sensitive.
- Example conference activities include:
    - Open conference and brief participants on the proposed requirement
    - Answer questions to aide in the industry understanding of State needs.
    - Obtain verbal feedback on SOW or technical requirements.
    - Identify interest in submitting response to future bids or phased procurements.
    - Provide information (location, time, map, contact info) to bidders for potential site visits.
    - Identify conditions under the existing contract that may impact new contract (where applicable)

Building an RFI document for Planning and Budgetary Purposes and/or to Survey the Industry

- Developing and conducting an RFI is a typical format to collect written information about the capabilities of various suppliers to provide identified IT solutions, services, or products.
- The RFI acts as an inquiry to the marketplace to determine which suppliers for IT products, services, or solutions are available in the market to solve an state entity's' IT business

problem. The information obtained through an RFI may be used in developing a subsequent Request for Offer (RFO), Invitation for Bid (IFB), or Request for Proposal (RFP) after determining that IT suppliers or solutions are available to satisfy the IT technical or business problem.

- An RFI is not a procurement method and the results of an RFI cannot be made into a contract. Responses to an RFI will assist the state entity in determining an appropriate course of action that may or may not involve a new procurement to solve their IT needs. An RFI can be best described as an effort to seek ideas, perspectives, and information on the proposed IT procurement from potential suppliers so that a formal project scope and set of requirements may be developed.

A lengthy and detailed RFI is typically used when robust or specific knowledge is needed regarding the availability of unique or custom set of IT suppliers, IT solutions, IT approaches, services or products are being sought and little is known about them in the general market or IT industry. Below are a few of the examples of specific instances where the use of an RFI can be helpful:

- When a state entity lacks in-house expertise or resources qualified to determine what type of solution may achieve its IT project's business goals and/or what types of solutions are available in the marketplace.
- When supplier responses to an RFI will assist a state entity's in developing future solution requirements. Suppliers may propose multiple solutions in response to an RFI inquiry and need not be limited to proposing one solution. Each solution proposed may be an option for consideration and may help a state entity shape their requirements.
- When vendors can educate a state entity on available options that will help mitigate risks and/or reduce overall technical needs.

Examples of RFI Topics

Important Information - Remember each project's business objectives are unique and the resulting RFI should be aligned with those unique needs, the following are general examples to follow in preparing a successful RFI. These examples are not intended to be a complete collection of topics to be covered in a RFI or survey nor are they expected to be used in every survey.

Generally, these examples below apply to both suppliers of products, suppliers, and services. However, in some cases they may apply only to products or only to services. Information available through other sources (tradeshows, forums) and not the RFI, should generally be retrieved through those sources and then combined in the analysis to keep the size and organization of the RFI consistent.

As a rule, the more succinct the RFI or survey, the faster the response rate. Some of this information you may already know because of your on-going market research. Each IT project's business objectives are unique and the resulting RFI should be aligned with those unique needs. There are general recommended examples to follow in preparing a successful RFI:

- Be concise and include a clear statement of the problem for which a solution may be solicited in the future.
- Request that suppliers respond to questions concerning the IT topic, business need or solution being considered.
- Inform vendor that they bear all costs in providing an RFI response and that there is no guarantee that a resulting contract will be issued.
- Inform vendors that the information provided is public and the State has the right to use it in any future solicitations, without stating which vendor it came from and by using it, the state has no liability in any way to the vendor who provided it. Ask suppliers to provide information on their qualifications, experience, and ability to solve the IT problem posed by the RFI.
- Ask vendors to provide lessons learned white papers or other credible data regarding the solution being considered to obtain sound information, facts, and knowledge.
- Do not use the RFI to select an IT vendor or a solution.
- Any subsequent IFB or RFP should not be written to a particular vendor, product, service, or solution discovered during the RFI process.
- The State may ask vendors for cost driver estimates for budgetary and planning purposes.

Information to obtain from Industry on performance, specifications, and product Information.

- Product data sheets
- Availability of product samples/length of time the product has been produced or service provided.
- Purchase item descriptions used by other State activities or used in commercial transactions, including commercial specifications standards and statements of work.
- Product quality, reliability, and maintainability experience of similar users
- List of products and company services satisfying identical or similar service requirements. Applicable regulatory and de facto standards
- Average time between model changes and practice of providing continued parts inventories, upgrades, or production for phased-out models.
- Supplier plans for handling upgrades and obsolescence.
- List of those currently using the product

Information to obtain for Supplier capability.

- Number of suppliers
- Size and location of suppliers and their current market
- Product distribution channels
- Business practices in sales and distribution from manufacturers to wholesaler, distributor or Value-Added Distributor or Master Value Added Reseller, Value Added Reseller, Reseller or Retailer, to User.
- Production capacity to meet requirements as part of commercial sales.
- Packaging, handling, storage, and transportation practices Information to obtain for Market acceptance criteria.
- Annual sales
- Anticipated future orders.

- Description of supplier/contractor's quality controls including extent of statistical process controls and any International Organization for Standardization (ISO), or other quality certifications
- Warranty terms and practices, annual returns under warranty
- Need for any pre-production or production qualification testing and special quality assurance requirements.
- Product evaluation criteria (including life-cycle criteria, if applicable)

Information to obtain for System Integration (SI) professional services.

- How are technology vendors adapting their services offerings to capitalize on the trend toward the solution be provided?
- What is the scope of the SI market, and what are the primary drivers that affect its growth and development?
- How is SI project delivery changing, and what impact will this have on skill sets going forward?
- Which are the leading SI vendors, and what is their market position?
- Which are the leading integrators for the specific industry and around specific solution areas?
- What are the industry benchmarks for key performance indicators such as hourly rates, utilization rates, breadth of services offerings, global delivery capabilities, etc.?

Information to obtain about supportability.

- Repair parts availability and lead times, documentation, pricing, and distribution systems
- Customer service, installation, checkout, user operation and maintenance instructions
- Requirements and provisions for manpower and personnel
- Competitive or sole source repair
- Training and training support requirements
- Requirements for and availability of tools, test equipment, computer support resources, calibration procedures, operations, and maintenance manuals
- Commercial repair capabilities
- Supplier calibration, repair, and overhaul practices and capabilities documentation
- Supplier commitment to maintenance and operation support
- Stability of current configuration of technology
- Security requirements

Information to obtain about Test data.

- Hardware, software, and manpower interface issues such as human factors and product safety as experienced by similar users
- Manufacturer test results
- Certification or test results from independent test organizations
- Information to obtain about Business Data
- Licensing model (one-time, subscription, per seat, etc.)
- Distribution practices
- Minimum order quantities or TIER or package pricing and practices
- Typical contract terms and conditions
- Warranty procedures
- Financing practices

- Typical Service Level Agreements

Information to obtain about supportably and maintenance.

- What are the anticipated staff requirements that the solution may require for the operation, administration, and maintenance of the system?
- What should be included in Knowledge Transfer activities
- What should the State know about Maintenance and Operations risks

Information to provide to vendors may include:

General Information

- Operating characteristics for hardware and software
- Environmental conditions for use

Logistics Support Information

- Planned maintenance echelons.
- Software maintenance plans
- Maintenance environment (weather, mud)
- Supply support, support equipment needs, limitations.
- Training needs
- Technical data needs
- Transportability

Services Information

- Description of services desired
- Period of performance
- Expected deliverables.
- Expected labor categories.
- Usage (e.g., fixed, airborne, tactically deployable)

System Interface or Integration Requirements

- Computer language, speed, throughput, ports, memory, and expansion potential
- Radio transmission frequency requirements and allocation status
- Rules for government use of frequency spectrum
- Human factors considerations

Maintainability Information

Self-test requirements

- Limitations, if any, on organizational-level support equipment

Communications-Computer System Interface Information

- Software portability to other communications-computer systems
- Interoperability
- Reliability, Maintainability, and Survivability data
- Input power quality (drops, surges, spikes, noise)
- Essential safety characteristics
- Operating duty cycle (e.g., 24 hours, intermittent)

Market Research disclaimers

- Inform Suppliers/Respondents to always read the RFI before responding.
- Always discuss with vendors that the RFI being issued is for information and planning purposes only and does not constitute a solicitation for services or products. I.e., “A response to this RFI is not an offer and cannot be accepted by the state entity to form a binding contract.”
- Suppliers/Respondents are solely responsible for all expenses associated with responding to an RFI.
- Suppliers/Respondents are advised that the responses to this RFI may be subject to the Public Records Act (California Government Code sections 6250-6276.48)
- Suppliers/Respondents are requested to respond to the requirements based on actual or planned product or service offerings which are available for delivery within the next (Insert Planned months)

Market Research Logistical Information

- Provide a Purpose Statement
- Provide a Scope Statement
- Provide Key Action Dates with activities tied to them.
- Provide Background Information
- Provide Contact and Correspondence information.
- Provide any additional information that might be of benefit to gather meaningful data.

Important Information - NOTE OF CAUTION:

- Always follow the applicable State and Federal Statutes, Rules, regulations.
- Refer to the State Contracting Manual (SCM) for competitive and non-competitive acquisition methods
- For IT Non-Delegated Projects seek California Department of Technology for guidance for Market Research assistance
- Do not allow for any unfair or biased discussions or activities. Always be open, competitive, and allow for data and statistics on competition!

Market Research Templates

- Comparing Products & Vendors
    - First, it's important to have buy-in on the specific objective criteria that you will use for your evaluation.

- Second, compare your criteria to each of the products equally, being aware to identify/avoid bias, and false equivalency.
- Third, use a diagram to represent your findings, like the Product Comparison Chart below

Features	Sectigo	Global Sign	AWS	App ViewX	Venafi	Service Now	DigiCert
Internal/ External Scanning	✓	✓	✓	✓	✓	✓	✓
Custom Reports	✓	✓	✓	✓	✓	✓	✓
Dashboard	✓	✓	✓	✓	✓	✓	✓
Notifications	✓	✓	✓	✓	✓	✓	✓
Certificate Authority	✓	✓	✓	-	-	-	✓
Automatic Renewal	✓	✓	✓	✓	✓	✓	-
Score	6	6	6	5	5	5	5

WHERE IS MARKET RESEARCH DONE

RESEARCH RESOURCES

- Reading Trade Journals
- Contacting knowledgeable people (state, government, and industry) in specific markets
- Contacting Procurement Officials, Program Managers, Contract Officers in other Federal/state agencies and private industry (other users). Take advantage of the lessons that these individuals have learned in previous solicitations.
- Contacting known sources or those communities of those providing services for the applicable IT solution being researched
- Reviewing market surveys prepared by independent companies.
- Attending trade shows, conferences, and symposia
- Querying State and other Government databases (eProcurement, FI$Cal, Bidsync, Govwin, FPDS-NG, PPIRS, GSA, FedBizOpps, SBA databases, that provide relevant information on acquisitions)
- Reviewing results of recent market research on similar or identical requirements.
- Reviewing catalogs and literature published by service providers.
- Reviewing State contracts, Federal Supply Schedule contracts, and other Government contracts
- CDT Community of Interest Forums

Important Information - Don't reinvent the wheel if it isn't necessary – Some of the most important questions may have already been asked by another entity… "Who else is using the solution/service I need" How did they solve this objective/problem? Who/What did they use? How current is the data? Is it viable? How is it different then how we do it today? What Knowledge transfer will I need? What is the maintenance?

INTERNET RESEARCH RESOURCES

General Search Engines

- Google
- Bing

Internet Research Reports

- Gartner
- InfoTech

Labor

- Published monthly by the Bureau of Labor Statistics. The Consumer Price Index (CPI) provides a guide to changes to "retail" prices. It is used as a price adjustment factor in some areas of procurement (leasing in particular) and as a general gauge of inflation. However, the Producer Price Index (PPI) is usually a better source of data on price trends for the Government, since the Government is usually a "wholesale" buyer
- Producer Price Index (PPI) from the Bureau of Labor Statistics - Published by the Bureau of Labor Statistics (BLS). It tracks changes in the prices which producers receive from the initial commercial purchasers of their products. It reflects the selling prices of selected manufacturers, or the prices quoted on organized exchanges such as the Chicago Board of Trade. The prices are generally F.O.B. (freight on board), origin for immediate delivery
- Search labor category ceiling rates applicable to GSA's Multiple Award Schedules
    - Calc+Quick Rate tool: This tool allows you to review fully burdened Not-to-Exceed Ceiling Rates awarded under GSA Multiple Award Schedule (MAS) contracts. You can use it to conduct market research and develop Independent Government Cost Estimates. The tool can be used to assess the relative competitiveness of a vendor's price to other vendors' prices on Federal MAS contracts. IMPORTANT: This tool is currently under development. The pricing data reflects Schedules contracts (primarily professional and IT services) as of April 2022.

Information Technology

- The appendices to the Council on Competitiveness Report on U.S. Research & Development Competitiveness, entitled Endless Frontier, Limited Resources U.S. R&D Policy for Competitiveness, contain studies of research & development practices in the Aircraft, Automotive, Chemical, Electronics, Information Technologies, and the pharmaceuticals industries can be found online at the National Institute of Standards and Technolgy
- Information Week - Information Technology news and research
- Washington Technology - Latest news and information on the business of delivering technology and services to government including government contractors, the integrator community
- Forbes Technology is a leading source for reliable news and updated analysis on Technology
- MIT Information Systems and Technology (IST)
- InfoWorld's IT news and technology stories cover all aspects of information
- Gartner and Infotech services that CDT can provide, or Agencies can purchase.

Commodities

- Industry Net Industrial marketplace search engine. Discover who makes it, who supplies it, and who does it among 430,000 manufacturers & suppliers. Silicon Valley, Inc.'s online database of seller information sorted by purchasing categories. A valuable tool for preliminary market research
- Office Equipment - Offers a guide to various kinds of office equipment. It does not accept advertising, to offer an unbiased analysis. There are Better Buys reports on all the major types

of office equipment -- copiers, fax, multifunctional equipment, printers, phones systems, mailing equipment, and more. You can either subscribe to all the guides or buy individual ones

State Resources

- Department of General Services (DGS) Resource
  - Cal eProcure which includes data from FI$Cal, the California State Contracts Register (CSCR), the State Contracting and Procurement Registration System (SCPRS), the online Small Business and Disabled Veteran Business Enterprise (DVBE) queries and the statewide Leveraged Procurement Agreements (LPAs).
- The California Department of Technology (CDT) has approval and oversight authority, as applicable, for California State Information Technology projects

Federal Resources

- Federal Procurement Data System
- U.S. General Services Administration (GSA) Advantage - Federal Supply catalogs
- Contract Opportunities. Contract opportunities are procurement notices from federal contracting offices. Anyone interested in doing business with the government can use this system to search opportunities. Opportunities include pre-solicitation notices, solicitation notices, award notices, and sole source notices at the GAS System for Award Management (SAM)

Financial Resources

- U.S. Securities & Exchange Commission (SEC) Corporate Information Database. This database contains financial filings required of companies as required by the SEC
- Dun and Bradstreet (D&B) - A catalog of tools to identify and assist in evaluating potential suppliers based on purchasing needs; demographics such as size, geography, woman, or minority owned business; ISO 9000 registration; past performance information; non-delivery or insolvency information. D&B offers reports, publications, supplier base analysis and software

General Business Search Engines

- D&B Hoovers - This database contains listings for over 10,000 companies. Hoover's Company Profile Database, which is only available to subscribers, contains in-depth profiles of over 2,480 companies
- Kompass - 2.3M Companies in 70 countries referenced by 57.000 product & service keywords 860.000 trade names and 4.6M executive names. A guide for worldwide sourcing

Artificial Intelligence

- The California Department of Technology Artificial Intelligence Community

- Frank Buytendijk, 'Digital Ethics: from "Why" to "How"', Gartner, 2021, https://cdt.ca.gov/wp-content/uploads/2021/09/CA-AI-Community-AI-Ethics-Sept-2021.pdf (PDF)

GenAI

- State of California EXECUTIVE ORDER N-12-23 (PDF)
- CDT's GenAI Policy State Administrative Manual (SAM) 4986.1
  - SAM 4986.1 – GenAI Policy Introduction
  - SAM 4986.2 – Definitions for GenAI
  - SAM 4986.3 – GenAI Use Identification and High-Risk Inventory
  - SAM 4986.4 – GenAI Training Data and Transparency
  - SAM 4986.5 – GenAI Hosting
  - SAM 4986.6 – GenAI Proof of Concept (POC) and Minimum Viable Product (MVP)
  - SAM 4986.7 – IT Projects Utilizing GenAI Planning and Approval
  - SAM 4986.8 – IT Projects Utilizing GenAI Project Management
  - SAM 4986.9 – GenAI Procurement
  - SAM 4986.10 – Privacy for GenAI
  - SAM 4986.11 – Security for GenAI
  - SAM 4986.12 – Acceptable Use of GenAI
  - SAM 4986.13 – GenAI Workforce Training
- Certification of Compliance with IT Policies (SIMM 71)
- Cloud Security Guide (SIMM 140)
- California Cloud Services Assessment Guide (SIMM 141)
- Generative AI Risk Assessment (SIMM 5305-F)
- State of California Generative Artificial Intelligence (GenAI) website: https://genai.ca.gov
- GenAI training resources: https://www.genai.ca.gov/choose-your-journey/get-training/

Blockchain and Cryptocurrencies

- Digital Currency Traders Alliance
- Frank Buytendijk, 'Digital Ethics: from "Why" to "How"', Gartner, 2021, https://cdt.ca.gov/wp-content/uploads/2021/09/CA-AI-Community-AI-Ethics-Sept-2021.pdf (PDF)
  - CA Blockchain Working Group
  - State of California, Towards Responsible Innovation. An Interagency Web3, Crypto Asset, and Blockchain Progress Report to the Governor of California, Government Operations Agency, 2022, https://www.govops.ca.gov/wp-content/uploads/sites/11/2022/12/Blockchain-Report-12-2-22.pdf (PDF)
  - State of California, Blockchain in California: A Roadmap, Government Operations Agency, 2020, https://www.govops.ca.gov/wp-content/uploads/sites/11/2021/06/BWG-Final-Report-2020-July1.pdf (PDF)

EMERGING TECHNOLOGIES

The California Department of Technology is continually looking at, engaging with, and testing new and emerging technologies that show promise to provide value, and benefits to the State of California.

Emerging technologies represent great challenges, and potential benefits, to our customers. The California Department of Technology is interested in discovering solutions that involve Blockchain (including Cryptocurrencies), Artificial Intelligence, and Drones, which are currently in the Monitoring and Planning phase of discovery. The California Department of Technology is looking for active projects at the Agency/State level to Pilot emerging technologies in projects that provide tangible benefit of the people of California.

If your Agency/State has started to evaluate delivering an IT system utilizing any emerging technology, especially Blockchain-based solutions, we encourage you to reach out to your procurements official / CIO / AIO, or your California Department of Technology representative, to begin the process.

Things to consider when evaluating emerging technologies:

Due to the highly complex, and rapid development / release cycles for Emerging Technologies, it is important to note that there are not clearly defined policies or legislation around the use of, or procurement of, solutions that fall outside of the normal processes. As such, you should engage with the California Department of Technology early in the process.

Artificial Intelligence (AI) solution notes:

- Beware of Bias (as discussed in this document earlier human bias can be coded into Artificial Intelligence solutions as easily as we can make decisions with the same flaws). Conversations about Bias regarding the steps that a vendor takes in identification and resolution of bias in their systems, and how it relates to automated decision making that can negatively impact outcomes.
- Engage with the California Department of Technology Artificial Intelligence Community (AIC)

Generative Artificial Intelligence (GenAI) solution notes:

The California Department of Technology (CDT) recognizes that GenAI technologies can create potential benefits to the Citizens of California, but that its adoption must be carefully monitored through a robust combination of a risk management frameworks and technology policies that reflects and enhances the comprehensive National Institute of Standards and Technology's AI Risk Management Framework (NIST AI RMF), California's existing state Administrative Manual (SAM),

State Contracting Manual (SCM2 GenAI Guidance), and State Information Management Manual (SIMM) policies and guidelines.

The California Department of Technology (CDT) will continue to develop policies and guidelines specific to GenAI that are necessary to ensure thoughtful responsive governance at the beginning of a technology's lifecycle to maximize equitable distribution of the benefits, minimize adverse impacts, abuse by bad actors, and reduce barriers to entry into emerging markets.

Please note that due to the risks with GenAI :

- Any procurement with GenAI requires the completion of the Generative AI Risk Assessment (SIMM 5305-F) and submit the completed form to CDT's GenAI Intake Portal.
- You should work with your CIO to discuss the use of GenAI in your project.
- You should refer to GENERATIVE ARTIFICIAL INTELLIGENCE (GenAI) POLICY (SAM 4986.1)
- You should consider the Terms and Conditions and/or Special Provisions needed to ensure compliance with government statutes, codes, and regulations using GenAI.
- You should consider the potential risks in using GenAI with State Data.

Blockchain (and Cryptocurrencies):

- What business, technology, security, M&O requirements are being considered?
- What type of resources are needed in considering, and planning for blockchain technology?
- What are the considerations needed to implement a private versus public blockchain network?
- What procurement approach should be considered?
- What are the terms and conditions needed to ensure compliance with government statutes, codes, and regulations using blockchain technology?
- What are the potential risks in using blockchain technology?

EMERGING METHODOLOGIES (RFI2)

The California Department of Technology is continually looking at, engaging with, and testing new and emerging procurement methodologies that show promise to provide value, and benefits to the State of California.

Request for Innovative Ideas (RFI2) is a procurement method that can leverage solutions to address some of the biggest challenges faced by state agencies / entities.

This procurement approach harnesses innovative solutions to tackle State agencies/entities' significant challenges. It is a variant of the Request for Proposal (RFP) process where government agencies define problems and invite bidders to develop solutions. RFI2 includes multiple phases, written responses, evaluations, and Proof of Concept (POCs).

When to consider the RIF2 approach:

RFI2 is particularly effective for challenges that lack well-defined solutions or involve rapidly evolving technology and where market research identified no viable commercial solution to your business problem.

Request for Innovative Ideas (RFI2) procurement may be helpful when:

- The solution to your business problem is not well known or well understood.
- When you have chosen a new, or emerging, technology like GenAI.
- When you are trying to solve a unique problem that has no or limited requirements.
- When you are acquiring a sub-system or component of a larger system/solution.
- When you are exploring an emerging or uncertain technology/solution.
- Seek to attract participation in non-traditional innovative ideas.

Request for Innovative Ideas (RFI2) notes:

Due to the highly complex procurement requirements for Emerging Methodologies like RFI2, you should engage with the California Department of Technology early in the process.

Only CDT and DGS have the authority to conduct a RFI2 Procurement (See Executive Order N-04-19).

FURTHER CONSIDERATIONS OF MARKET RESEARCH, RELATED TO THE PROJECT APPROVAL LIFECYCLE (PAL)

When undertaking market research, here are five general principles that need to be kept in mind:

1. Start early and often

Begin market research early at the Feasibility Study level, while the solution requirements are still flexible! In a California Department of Technology PAL process Stage 1 is approved at the CIO/AIO level or by CDT. Begin market research as early as possible, while the project needs, and objectives are being defined. Early research can support the development of the requirements document.

Further defined research in Stage 2 AA will be performed in the PAL to identify not only scope, budget, schedule, risks, and resources needed, but also the alignment of the S2AA recommendation of IT technical, business, functional approach and needs, the subsystems or components for the design and development of mature project requirements (specific details related to technical characteristics) and related market practices.

In addition, the PAL process also includes research activities in the Stage 3 Solution Development by providing the industry a draft of the solicitation.

Important Information - Stage 3 Solution Development, a draft of the solicitation process will be within the oversight of California Department of Technology for non-delegated IT procurements.

2. Always Involve Users (Critical Partners/Stakeholders)

Involve users in the market research process, not merely in just defining the requirements. Users can be active participants in the market research for some items and services or testers for others. Try to involve users formally in working groups and maintain constant lines of communication between them and the market research analysts. Users in the field most likely will have access to new technology and new product information that needs to be conveyed to those who define the business and technical project requirements. Users also play a major role in identifying problems with the current equipment or service.

3. Communicate

Good communication across all IT project members, functional, business, and technical areas, Subject Matter Experts, the Vendors/ industry, users, and executives is the most important factor to the success of market research. For this reason, an extensive and collaborative market research approach will always work best as a team effort. The effect of linking each member's prior experience and area of expertise with the information gathered will guarantee more balanced, "best-value" decisions.

Reminder, in communicating with industry, consider the use of multiple different types of formats (written, online, physical) to ensure you are communicating with all vendors, solution providers near and far – in addition to those incumbent contractors that are already providing services or that have traditionally dealt in the State market.

4. Tailor the research effort

The amount of time and money spent on market research should be related to factors such as the value of the Project/Procurement, the complexity of the Business need or opportunity. If market surveillance/research information tells you there is little potential for commercial use, further market research should be minimal. If commercial potential is high, extensive more detailed market research may be called for.

Important Information - Do not invest more resources (e.g., lead-time, available staff hours, and money) in market research than are warranted by the potential benefits received from the business need!

5. Refine as you proceed

The research should always proceed from the general to the specific. Acquire a little bit of information on many producers and products and a lot of information on the few products/services that are likely to fit and meet the requirements. The market research should be structured to acquire only enough information to decide whether to proceed to a more detailed examination of possibilities. In addition, keeping the end in mind, by including in the analysis, ways to determine (rankings, best value factors) the best fitting recommended solution(s).

Important Information - Market Research can in some rare cases even be ongoing even during the procurement process, this is highly cautioned, and you must seek California Department of Technology advice on this process, if applicable. Market research in most cases is used prior to any solicitation and is used to determine the availability of commercial capabilities, practices, items, and services available. It may also be done in different stages within the PAL process to confirm and identify commercial components available or for incorporation into systems already developed for the State to get more specific, detailed information or to make various decisions during PAL development. Research components may, if applicable, assist in providing negotiation drivers specific

to the solution or identify project risks after implementation.

WRAPPING UP WITH CHECKLISTS & NEXT STEPS

Market Surveillance/Research Checklist – General

- ❑ Start Early and Prepare
- ❑ Define your problem/opportunity (Statement of Need)
- ❑ Get approval of market research Deliverable (i.e., Sponsors/Stakeholders/Users)
- ❑ Communicate Openly – Involve users, teams, executives, state entity procurement.
- ❑ For IT Non-Delegated Projects, seek the advice California Department of Technology when initializing market research. Special care should be taken when the project is complex, high public visibility, proprietary, confidential in nature, or if the state entity has any questions on research activities that could potentially put the IT project at risk.
- ❑ Document results

Market Knowledge (Review the "How" section)

- ❑ What are the industry's current products and service capability?
- ❑ What new development programs are being worked on?
- ❑ What trends are noticed within the industry?
- ❑ Who are the industry leaders in terms of performance, quality, price, delivery capability, capacity, depth of products or services, etc.?
- ❑ What are the industries levels of quality and ability to maintain quality products and services?
- ❑ Listen to industry feedback.

Product/Service Knowledge (Review the "How" section)

- ❑ Seasonal trends that impact the industry
- ❑ Economic trends that impact the industry
- ❑ Other industries whose trends impact the industry.
- ❑ Distribution channels
- ❑ Look for products / services / works that best meet the needs of the state entity. Are there possible alternatives for consideration the vendor can provide?

Market Surveillance/Research Checklist Continued (Review the "How" section)

- ❑ Decide which product and alternatives need further specification? What are the going rates (level of prices/ Rough Order of Magnitude ROM)?

Company Knowledge (Review the "How" section)

- ❑ What is the company's financial condition? Are they financially stable?
- ❑ What markets do they serve? State of California, other states, Federal, Local, commercial?
- ❑ What is the company's degree of innovation in the marketplace? Are they a trend setter or a follower?
- ❑ What is the State's past performance experience with the vendor?
- ❑ What is the company's distribution make up? In some instances, you can obtain a better service/product dealing directly with a service provider or manufacturer Sometimes it is better to go through a distribution partner, Master Value Added Reseller, Value Reseller, Retailer, Authorized Service Provider etc. Find out how the industry operates and allow open competition to vet which vendor offers a better solution.

Next Steps – Research completed.

Below are the basic next steps (these should be documented):

- ❑ Has your documented market research been reviewed by the IT Project Team members for concurrence with the findings/recommendation?
- ❑ The market research will need to align with the S2AA recommended solution/approach chosen.
    - See California Department of Technology SIMM 19 instructions for further S2AA instructions on what criteria is needed for market research
    - For GenAI projects see SIMM 19-H for further instructions.
- ❑ The market research will need to be documented/attached and include a summary with the results and provide supporting documentation.
- ❑ Did the market research lead to current and applicable information?
- ❑ Did the market research requirements yield expected results?
- ❑ Did the agency develop core criteria (requirements/goals) and use these as a first step in the market research process?
- ❑ Did the agency obtain sufficient information through the preferred method(s) so that the information can be evaluated against the requirements; this would include costs.
- ❑ Did the state entity communicate and document the results from each responder/entity for further analysis and decision making? (A spreadsheet works well for this purpose – the California Department of Technology can be a resource for examples of previously used materials.)
- ❑ Be prepared to analyze and document results that are as different as "apples and oranges". Different types of market research will yield different results.
- ❑ Did the market research data fill in the gaps, risks, and support the business decisions?
- ❑ Did the market research assist the IT Project Team, Stakeholders and Executives be on the same page about priorities?

Important Information - Evaluation, analysis, clear unbiased data, and a well-informed feasible, and current decision or recommendation(s) should be the conclusion of the market research: Did the state entity evaluate all the facts and data open and fairly

when documenting their decision? (This should include documenting if the market offers no alternatives or if the state entity was not able to obtain viable information and why).