

**Global Justice Information Sharing Initiative (Global)
Global Privacy and Information Quality Working Group (GPIQWG)**

Information Quality Assessment Tool (IQAT) Task Team

Phoenix, Arizona
March 13, 2007

Meeting Summary

Background, Purpose, and Introductions

The U.S. Department of Justice (DOJ), Office of Justice Programs (OJP), Bureau of Justice Assistance (BJA), and the Global Justice Information Sharing Initiative's (Global) Privacy and Information Quality Working Group (GPIQWG) subgroup, the Information Quality Assessment Tool (IQAT) Task Team, convened a meeting on March 13, 2007, in Phoenix, Arizona, at 1:00 p.m. Mr. Owen Greenspan, SEARCH, The National Consortium for Justice Information and Statistics, and chairman of the IQAT Task Team, led the meeting in the furtherance of and alignment with the GPIQWG's *Vision and Mission Statements*.

Attendees

The following individuals were in attendance:

Ms. Lynne Bates (Presenter)
Phoenix Police Department

Master Sergeant Kathleen deGrasse
Illinois State Police

Ms. Jennifer Grow (Presenter)
Phoenix Police Department

Erin E. Kenneally, Esquire
eLCHEMY, Incorporated

Mr. Mark Motivans
*Bureau of Justice Statistics
U.S. Department of Justice*

Jeanette Plante, Esquire
*Justice Management Division
U.S. Department of Justice*

Ms. Judie Welch (Presenter)
Phoenix Police Department

Mr. Carl Wicklund, GPIQWG Chair
American Probation and Parole Association

Mr. Cabell C. Cropper
National Criminal Justice Association

Mr. Owen M. Greenspan
*SEARCH, The National Consortium for Justice
Information and Statistics*

Barbara Hurst, Esquire
Rhode Island Office of the Public Defender

Captain Tim McGrail
Missouri State Highway Patrol

Ms. Pat Nelson
Arizona Criminal Justice Commission

Ms. Robin Stark
*Criminal Justice Information Services Division
Federal Bureau of Investigation*

Staff

Ms. Christina Abernathy
Institute for Intergovernmental Research

Ms. Terri Pate
Institute for Intergovernmental Research

Meeting Overview and Goals

Mr. Owen Greenspan welcomed the attendees to Phoenix, Arizona, and requested comments and feedback on the February 27, 2007, IQAT Task Team meeting summary provided within the meeting packet. Mr. Greenspan then provided an overview of the half day's agenda (refer to Appendix A), which included the following key topics:

- IQAT Task Team Work Review
- Reassessment of Task at Hand
- Presentation: Phoenix Police Department—International Standardization Organization (ISO) Compliance
- Presentation: Federal Bureau of Investigation's (FBI) Criminal Justice Information Services (CJIS) Methods of Data Quality Control
- IQ Assessment Tool Structure and Questionnaire
- IQ Assessment Tool Outline—Status Report to GPIQWG

Mr. Greenspan went over the goals for the meeting: primarily to make progress in the development of the self-assessment tool (questionnaire) and to discuss and mutually decide upon a structure for this and future IQ tools. This group is trying to do two things at the same time: develop a self-assessment tool (or tools) and lay a foundation for future product development that the team can present to GPIQWG.

"We've had an opportunity to hear presentations from Delaware and Ohio, and today we will hear from Judie Welch and her staff at the Phoenix, Arizona, Police Department regarding their experience becoming ISO Specification 9001:2000-compliant, as well as hear the second half of a presentation by Robin Stark, FBI CJIS. Ms. Stark gave the first half of her presentation at the February 27, 2007, IQAT Task Team meeting in Washington, DC."

IQAT Task Team Work Review

Mr. Greenspan briefly reviewed the information presented at the February 27, 2007, meeting and the draft questionnaire that was developed. The following are key comments from the attendees during this discussion:

- Metrics:

"We should do something more objective rather than go down the road with metrics. I don't think we can do metrics. Instead, we should do something that highlights what each organization should have (that is common to each) in place in order to do a self-assessment—some guidance. We do have to address metrics but in the context of this is what you have to do if you're going to do metrics."

"You can't toss metrics out, but it's too involved to develop a specific metric tool. What is quantifiable with one organization may be different with another. We always go into this knowing that there is a multiple something, even if generic, that could be tailored to each discipline. We're not ready to focus specifically on metrics yet; it's premature. Right now, we need to decide where we need to go."

Guest presenter, Ms. Judie Welch, Phoenix Police Department, shared their experiences regarding the development of an internal assessment of internal processes. Ms. Welch stated that developing the metrics was the most

difficult process and that they found that their measurements had to be revised several times. “We had to make them more reasonable, develop baselines, and determine how to measure. We looked at completeness, timeliness, etc.—the terms we are talking about here. We do have an automated record management system, but there isn’t real tight control on what is entered into that system. Information is not always available in that system and not always checked. Those are the kinds of characteristics you might want to look at—for example, how data is entered into a system.”

- Single Specific Tool or General Guidance:
“Last time we talked about developing multiple resources rather than a single assessment tool. What we’ve been developing really has more to do with guidance. We are doing an information collection excursion, and we will turn over our findings to the larger group [GPIQWG]. Our purpose is to understand how IQ is being handled in the justice community and then take our suggestions to the working group. The working group is where we decide what the tool or product is.” Mr. Greenspan reiterated that it was his belief that the task team’s purpose was to come up with some sort of “this is what the tool should be.”
- Existing Works:
“Regarding Richard Wang, Ph.D., and Larry English’s works, they’ve spent a career in designing these types of tools. We haven’t fully utilized their products for this venue, and they are well versed in this area. The difficulty the group is having at this time, however, is to choose one or both of their works since they frequently contradict. We do need to involve them since they’ve been in the field on this work for a long time, however before then we need to come up with what we want to do or assess. Then we request their assistance once we have a better idea of the resource we want to develop. They both bring an incredible amount of work and metrics to the table. By group consensus, the plan is to continue to move forward from where we are, lay out a blueprint continuing on from the progress made at the last meeting, and then come back to the dimensions [IQ Fact Sheet] and see how it applies.”

Reassessment of Task at Hand

Mr. Greenspan suggested that it might be helpful to have an update on what is going on in IQ as we assess where we are. For example, the Bureau of Justice Statistics (BJS) has a contract with Nlets—The International Justice and Public Safety Information Sharing Network, to facilitate the expansion of the Rap sheet, particularly fields that relate to noncriminal functions, as well as others. As that Rap sheet expands, it will have things that we could never create, such as a summary page. It might be beneficial to hear from such projects on future GPIQWG agendas as quality updates from different agencies. Another suggestion is the American Society for Quality, which puts out a newsletter and magazine that list useful information about organizations (not necessarily government) throughout the country. It is important to note that there is a huge amount of overlap between organizations regarding information management and information quality.

Carl Wicklund, chair of GPIQWG, pointed out that our federal funding requires us to spend our time producing a solid information quality resource, so we should not spend too much time on presentations. Vice Chair Jeanette Plante stated that the best advice would be to

identify the primary problem or problems in IQ and then determine what other groups are doing. For example, it is generally at the creation and capture (data entry) phase that the largest number of errors occur. Once we identify the biggest problem or priority, it would be appropriate to identify speakers to present on approaches to this priority. Chairman Wicklund asked the group not to get myopic solely on law enforcement, but to keep in mind that Global has partners from all areas of the justice community (courts, corrections, prosecution, and public defenders) who create and share information throughout the justice system.

Phoenix Police Department—ISO Compliance

Ms. Judie Welch, Director, Records and Identification (R&I) Bureau, Phoenix Police Department (PPD), and staffers Ms. Lynne Bates, Process Planning, and Ms. Jennifer Grow, Quality Assurance, gave an in-depth presentation on the background, preparation, and experiences of the PPD as the first police department in the country to become certified as International Standardization Organization (ISO) 9001:2000-compliant in September 2003. Ms. Welch's team presentation coincided with the following slideshow topics:

- PPD's Mission Statement
- Quality Management System
- Why Choose ISO 9001:2000?
- Eight Principles of ISO 9001:2000
- Management Review Process 2005 and 2006
- Process Map of the System Approach to Management
- ISO 9001:2000 Standard Requirements
- R&I Bureau Quality Management System Timeline From Inception of ISO Certification to Full Certification
- Process Planning
- Benefits of ISO 9001:2000
- Future Plans

Ms. Welch explained that PPD's R&I Bureau chose ISO 9001:2000 as its standard because it was an internationally accepted standard that was industry-driven and proven to be sustainable over time. Over 140 countries have adopted this as their national standard, and it has been frequently revised and adapted to many types of organizations. ISO 9001:2000 incorporates value-added requirements that are applicable to any organization, and its eight principles (below) are both comprehensive and flexible:

1. Customer Focus
2. Leadership Commitment
3. Involvement of People
4. Process Approach
5. System Approach to Management
6. Continual Improvement
7. Factual Approach to Decision Making
8. Mutually Beneficial Supplier Relationships

Process Approach principle: Ms. Welch indicated that she and the PPD staff mapped out their inputs and outputs and the tools they needed to perform these processes; then they identified where their inputs came from, where the outputs go, how one process feeds into another (integration), and how they relate. Because the processes were closely related, they were able to identify 32 operational and administrative processes.

Systems Approach to Management principle: Ms. Welch stated that they developed control pages for each process and identified customers, metrics, corrective and preventative measures, work instruction, etc. They have a mission statement for each process so that employees know the goal of the process (thus process-driven).

Continual Improvement principle: Through this principle, a corrective and preventative action process as well as an improvement process are created. Improvements are prioritized and planned for in the future. The internal assessment team of 15 assessors assesses other departments' processes and identifies problems.

Factual Approach to Decision Making principle: This principle calls for more analysis of information, statistical measurements of processes, and analysis of data. The information provides better statistics and better problem resolution.

Mutually Beneficial Supplier Relationships principle: Officers are suppliers of information and employees enter data. Bad information entered is tracked and training provided.

Ms. Welch explained some of the benefits of ISO 9001:2000 compliance realized by the PPD, such as the consistency with which it offered 24/7 operations, the interrelatedness of the processes, employee understanding, the increase in employee participation, and better documentation. Future plans include examining the quality of the data. PPD is not sure how to do this. Will incorporating a different ISO standard meet this need?

The following are questions and discussion by the task team:

- Question: Is the "customer" defined by the PPD or by the standard?
Answer: ISO gives guidance to know who the customer is and what the customer's needs are; then we define who that is. We define our customers on a broader basis (internal and external), and we consider ourselves customers because we come to each other for information (as well as courts, corrections, etc.). We cannot really leave anyone out.
- Question: All this takes time and staff resources. What did this endeavor take away from, in regards to resources?
Answer: Ms. Welch indicated that she, Ms. Grow, and Ms. Bates did not receive additional employees or resources when the project began, but by the end of the implementation, it had been proven highly beneficial to the organization as a whole. There is now a lot of training for officers. When Ms. Welch first joined the PPD, a lot of the staff did not understand why they were doing the processes that they were doing. Now they are given that understanding via training.
- Question: How did you get the buy-in of those who will train those below them?
Answer: As we developed the system, we found that getting that buy-in was probably the most difficult aspect. We had to continually keep reiterating the purpose of the system and processes. Also, we allowed the employees to suggest changes to the processes they were required to perform. Now, the users are aware of the impact and end results if they do not follow processes. We have had to put controls into our processes because there are laws and rules we have to follow, so it may be less efficient but not inadvertently impacting other areas.

- Question: Is continual training part of the process?
Answer: Training is part of the prevailing process; then we follow up months later to determine whether the problem was fixed. We track external training issues.

The task team expressed their appreciation for the excellent presentation that Ms. Welch and her staff gave and the in-depth information that was provided. Ms. Welch stated that PPD's R&I Bureau will be looking to this group and the GPIQWG members to determine how to evaluate the quality of the information they collect and maintain. The ISO 9001:2000 standard does not yet require a process-based audit, but they are planning and preparing for it. Ms. Stark, FBI CJIS, stated that their audits are somewhat process-based, but mostly they audit data, not the process.

FBI CJIS Methods of Data Quality Control

Ms. Stark, Unit Chief, Audit Unit, FBI CJIS, and new GPIQWG member, provided a presentation at the February 27, 2007, IQAT Task Team meeting in Washington, DC, on her department's auditing methods and how they relate to the evaluation of information quality. As part two of the FBI CJIS methods presentation, Ms. Stark provided an overview of a software program developed by the CJIS Division and Dr. Samuel Berhanu, Crime Analysis, Research, and Development Unit, that will assist organizations with the issue of data quality.

Providing good and reliable information is the fundamental mission of the national Uniform Crime Reporting (UCR) Program. Since the UCR Program is founded upon the voluntary participation of the nation's law enforcement agencies, the integrity and the accuracy of its data rest upon two factors: (a) the efforts of individual law enforcement agencies in reporting accurate data and (b) the program's capability for data quality control (detecting and rectifying errors or aberrations in reported data). The primary concern of the presentation was with those data quality checks that involve reasonableness checks at data processing to detect outliers.

CJIS has developed a software program that, at the data processing stage, triggers UCR to conduct logical edits and statistical reasonableness tests. The logical edits relate to the elimination of incorrect data at the data-processing stage. Software and human reviews are combined to assess the validity of reported data in terms of logic. The reasonableness reviews are a statistical data checking in the aggregate as opposed to logical errors. The software program contains algorithms for data reasonableness reviews that detect cross-sectional, longitudinal, and proportional outliers that point to data quality errors.

This entire process still relies upon the best judgment of trained individuals and tries to avoid "false negatives." Benefits can cascade to other areas of data quality, suggesting more precise areas for training or audit.

The following are questions raised by IQAT Task Team members during the presentation:

- Question: What about demographics such as urban versus nonurban cities with high ratios of poverty and ethnic populations? Stratification can be controlled, in a rudimentary way; for example, the size of a jurisdiction. Different crime patterns might have a different potential or propensity for errors.
Answer: While demographics may affect or influence the kinds of crimes committed, they are not the cause of bad data.

- Question: Do you look at outliers to see if they are, in fact, errors?
Answer: Yes, we do that at the national level. Those are directed back to the agency that is responsible for determining whether they are, in fact, errors and need to be corrected and resubmitted.

IQ Assessment Tool Structure and Questionnaire

Mr. Greenspan began by guiding the group to come to a consensus on how to approach the IQ Assessment Tool—the set of high-level questions drafted at the February 27, 2007, meeting—stating that the lower-level questions would be more specific to each specialty (for example, law enforcement, courts, and corrections). “Whatever we settle on, we have to provide the user or reader with enough information to help them know or recognize that they aren’t doing enough in their current assessment processes.”

Ms. Plante discussed the importance of determining who the audience is. At a high level, the first step is to get someone to want to do this; thus, we need to decide who the audience is to prompt them to make that next step. Are we assuming that those reading are the ones responsible for IQ? Unless we make a determination up front of what we want them to assess, they are not going to get an end result that will improve the quality of information. When we began developing the privacy guide, we first laid out a list of assumptions. When we “drill down,” we need to develop some assumptions: whom are we targeting, what information do they have, and where do we want them to go with it? One motivation we might suggest is that readers need to self-assess, because grant money is awarded based upon this process being implemented. What are the things we want to measure, and how do we figure out how to develop resources to assist? Where do we start to do an assessment?

The high-level questions we develop do not have to specifically be answered for us to lay out the principles. The lower-level questions, however, we should apply to a specific process. Maybe we should say that the questions “are” the principles. For example: “You should assess the equality of your information.” Even if it is a questionnaire or an interview packet, we need to be able to 1) provide guidance to the organization to determine what it wants to assess and 2) instruct them how to do it. For example, “Increase your security and integrity tools to meet a certain standard.”

Action: Ms. Plante will get sources for citing the definitions of each phase and component of the information life cycle. With definitions, we should be able to slot in the questions from the high-level column. Mr. Mark Motivans suggested that we might consider developing both a structural component and then a cultural component to this product; the cultural component would provide help to people to understand their role in the process and their impact on the outcome. Maybe a questionnaire for the cultural component could be developed with questions such as, “Do you know what change happens to the data you enter?”

After much discussion, the task team produced the following process outline and structure for approaching this product:

- Establish basic high-level principles (one size does not fit all).
- Define life cycle phases and components.
- Plug in the high-level principles into the life cycle.
- Illustrate the principles and how they apply to processes.

For reference, below is the Information Life Cycle matrix suggested by Ms. Plante at the February 27, 2007, IQAT Task Team meeting.

	Components of Each Phase		
Information Life Cycle Phases (below):	Program Management	Policies and Procedures	Information Technology
Creation and Capture			
Use and Maintenance			
Disposition			

The group spent some time refining the draft questionnaire that was developed at the February 27, 2007, IQAT Task Team meeting in Washington, DC. As part of the breakout session planned for the March 14, 2007, GPIQWG meeting, the task team will continue working on the questionnaire. To view the draft, refer to the March 14, 2007, GPIQWG Meeting Summary, Appendix B, Information Quality Assessment Questionnaire.

IQ Assessment Tool Outline—Status Report to GPIQWG

Mr. Greenspan and the attendees worked to develop a PowerPoint status report for the presentation scheduled for the following day's GPIQWG meeting. The status report included the following information:

Research Performed

- *Information Quality: The Foundation for Justice Decision Making*, a GPIQWG product
- "The Multiple Dimensions of Information Quality," excerpt from *Introduction to Information Quality*, an MIT Information Quality publication by Fisher, Lauria, Chengalur-Smith, and Wang
- *Methods of Data Quality Control: For Uniform Crime Reporting Programs*, presented by Robin Stark, Unit Chief, FBI CJIS, written by Dr. Samuel Berhanu, Chief, Crime Analysis, Research, and Development Unit, FBI CJIS
- Delaware State Police Auditing Methods, presented by Michael McDonald and Barbara Pollitt, Delaware State Police
- Ohio Law Enforcement Automated Data System (LEADS)—Auditing Methods, presented by Lieutenant Don Grimwood, Ohio State Highway Patrol
- ISO 9001:2000 Standards Compliance Presentation by Judie Welch and staff, Records and Identification Bureau, Phoenix Police Department

Information Life Cycle Matrix (see chart above)

Next Steps

- Develop high-level principles.
- Provide definitions of the information life cycle phases and components.
- Plug high-level principles into the applicable phases and components of the information life cycle.
- Illustrate principles by applying them to a specific process.

Mr. Greenspan informed the group that the next meeting would be a half-day afternoon meeting on Monday, June 25, 2007, and a half-day morning meeting on Tuesday, June 26, 2007, in conjunction with the GPIQWG meeting that will follow. All meetings will be held in Washington, DC.

Mr. Greenspan adjourned the meeting at 5:15 p.m.

Appendix A

IQAT Task Team Meeting Agenda

March 13, 2007

Global Justice Information Sharing Initiative (Global) Privacy and Information Quality Working Group (GPIQWG)

Information Quality (IQ) Assessment Tool Task Team Meeting



Sheraton Crescent Hotel Phoenix
2620 West Dunlap Avenue
Phoenix, Arizona 85021 ♦ (602) 943-8200



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Crescent 3 Banquet Room

- 1:00 p.m.-1:15 p.m. **Welcoming Remarks and Introductions**
Owen Greenspan, Director, Law and Policy Program, SEARCH, The National Consortium for Justice Information and Statistics
- Anticipated Discussion Topic
- ♦ *Overview of meeting agenda and meeting goals*
- 1:15 p.m.–1:45 p.m. **IQ Assessment Tool Task Team Work Review**
Owen Greenspan
- Anticipated Discussion Topic
- ♦ Brief review of issues and work accomplished at February 27, 2007, meeting
- 1:45 p.m.–2:15 p.m. **Reassessment of Task at Hand**
Owen Greenspan
- Anticipated Discussion Topics
- ♦ Feasibility of IQ Assessment Tool
 - ♦ Based on research to date, do we go forward?
- 2:15 p.m.–2:45 p.m. **Phoenix Police Department—ISO Compliance**
Judie Welch, Director, Records and Identification Bureau, Phoenix Police Department
- Anticipated Discussion Topic
- ♦ Quality Systems Standard—International Standardization Organization (ISO) Specification 9001:2000
- 2:45 p.m.–3:00 p.m. **Break**
- 3:00 p.m.–3:15 p.m. **FBI CJIS Methods of Data Quality Control**
Robin Stark, Unit Chief, Audit Unit, Criminal Justice Information Services (CJIS) Division, Federal Bureau of Investigation (FBI)
- Anticipated Discussion Topic
- ♦ *Methods of Data Quality Control: For Uniform Crime Reporting Programs, Dr. Samuel Berhanu, Chief, Crime Analysis, Research, and Development Unit, FBI CJIS*

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Crescent 3 Banquet Room

3:15 p.m.–4:15 p.m.

IQ Assessment Tool Breakouts

Owen Greenspan

Anticipated Discussion Topics

- ♦ Charge to breakout groups
- ♦ Breakout groups continue work on assessment tool
 - Management/use of information questions
 - Disposition of information questions
 - Categorize questions according to Information Lifecycle components: Program Management, Policies and Procedures, and IT
 - Apply questions to operational activity (e.g., booking)
 - Instrument for single-agency law enforcement data
 - Instrument for data shared between justice agencies in an integrated justice information system

4:15 p.m.–4:45 p.m.

IQ Assessment Tool Outline

Owen Greenspan

Anticipated Discussion Topics

- ♦ Breakout group presentations
- ♦ Presentation for March 14, 2007, GPIQWG meeting

4:45 p.m.–5:00 p.m.

Next Steps

Owen Greenspan

Anticipated Discussion Topics

- ♦ Action Items
- ♦ Recommendations to GPIQWG

5:00 p.m.

Adjournment

