

# The Corporate Reporting System (CRS) in the Correctional Service of Canada

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The Corporate Reporting System<sup>2</sup> (CRS) used by the Correctional Service of Canada was designed to make consistent, accurate offender-based information readily accessible to all staff members. Due to the fact that the data is available to approximately 10,000 staff members, it is essential that the system be as user-friendly and intuitive as possible. The CRS has evolved since 1991, when the first prototype was created, into the highly sophisticated system that exists today.

The CRS has been designed to satisfy the needs of all staff members, from the inexperienced user to the sophisticated analyst, by providing the tools with which to do his/her job to monitor corporate performance or the performance of a specific institution or activity against another. The following are the basic principles upon which the CRS was founded:

- All information should be available to all staff using the corporate intranet;
- The Service operates in a transparent manner and the CRS should reflect this philosophy;
- Information should be developed in conjunction with the group responsible and regional/national consultation should occur to ensure that consistent definitions are used for data reporting. For example, the Security Branch is totally responsible for their data cubes and assist in the design and development and take a major lead in the consultation process. In addition, if concerns arise about the Security data display, usage or access, the Security Branch has overall control;
- A “guided” analysis section should be provided that is designed to lead the user to the most important elements that are impacting the Service;
- Information should be provided first at a high level using graphs with accompanying tables. This facilitates analysis and provides a general overview of the Service’s performance;
- Secondary, more detailed graphs and tables should be provided on pertinent population sub-groups, for example, women and aboriginal offenders;
- Wherever possible “related analyses” are developed to enable the user to examine related

information on issues such as the escapes from minimum security in relation to the direct placements to minimum security;

- An interactive component should be available to allow anyone to analyze the information at a more detailed level using multi-dimensional data cubes; and
- All information in the CRS on the intranet should be linked to the corporate data warehouse, also known as CJIL (Criminal Justice Information Library), in such a way as to permit seamless updating and to reduce manual intervention.

The CRS is composed of several completely integrated layers:

1. The foundation of the CRS is the corporate Data Warehouse that contains complete information on every offender, current and past. Additional data elements that do not exist in the raw data are calculated when the Data Warehouse is updated in order to provide more power and consistent data definitions. These data elements typically take the form of flags. For example, if information is needed on offenders who have been convicted of murder, it is not necessary to know what sections of the Criminal Code of Canada are pertinent but simply to access the “murder flags” that are calculated. Needless to say all of this information requires a thorough knowledge of both the offender-based systems and a data retrieval query language in order to retrieve information. This level of access is therefore strictly controlled.
2. Data cubes have been developed that extract raw data from the Data Warehouse and display trend information using very powerful analytical tools. The cubes, displayed in a similar layout as pivot tables, allow an experienced user to drill-down to lower levels or to create individualized reports. This data is not restricted as it is aggregated and no personal data is presented. These data cubes are used to maintain historical information such as the profile of the offender population on specific dates. Presently, there are cubes concerning the offender profile, inmate discipline, admissions, releases, transfers, absences, institutional incidents, community incidents, escapes, overtime,

programs, religion, urinalysis, grievances, and population planning.

3. The final layer is aimed at the less experienced user who has specific information requirements. A question and answer format has been developed such that a user can simply press on a specific question and obtain the correct answer without the need to know anything about the operational systems or data retrieval languages.
4. In addition to the above, the CRS includes data dictionaries that define, in plain language, all of the data that is available, pictorial help screens that show a first-time user exactly how to navigate through a system and finally more detailed explanations about specific questions and their answers.

The CRS is an integral tool used by the Service to report on corporate performance to executives, central agencies and other internal and external bodies. The CRS, in addition to other Criminal Justice Information Library (CJIL) Data Warehouse tools, is used to provide timely information which accurately reflects the data contained in existing operational systems in a simple easy-to-use format that can meet the needs of managers, for regular trend reports, and of the analysts who require detailed data manipulation functionality.

Prior to the development of the CRS and the CJIL Data Warehouse, reporting on performance was often done inconsistently. In addition, the implementation of a new offender management system in the mid-1990s increased the quantity of operational data that was accessible while, at the same time, there was a manifold increase in the level of expertise required to accurately extract and interpret the data. Due to these complexities, the extraction and interpretation of the data remained the domain of a few expert programmers and analysts.

Over time, each region and each sector in the National Headquarters had developed a data extraction and analysis capability independently of each other. The regular meetings of the Executive Committee reflected this factor in that the regions and sectors would be reporting different figures and therefore disagreements would ensue about who had the correct numbers and what the correct interpretation should be. The majority of the confusion was not caused because a group had presented incorrect numbers but because the numbers had been extracted using different definitions. Varying definitions of the same data will lead to different and often equally correct numbers.

To overcome the problems of differing numbers, the Service mandated that the responsibility for corporate reporting should be centralized. This occurred in the early 1990s and the CRS is the result.

Within CSC, great strides have been made utilizing data capture process/procedures. Tasks that often took days or weeks can now be performed in minutes or hours. For example, the analyses of overtime utilization used to take several days to summarize and analyze the data whereas, using the CRS, this task is now completed in a fraction of the time.

In order to provide accurate, consistent and timely information to all, it is necessary to operate and maintain an efficient, effective and user-friendly vehicle for this information. The CRS is successful in presenting accurately what is contained in the operational systems on a regular basis. The ease with which the CRS has made information available has caused managers to expect a wider range of trend information to be available instantaneously. The realization that accurate information is available through the CRS at the touch of a button has increased the demand and expectations of the Service towards its information providers. For instance, a number of years ago, it was acceptable to provide data on corporate performance on a quarterly basis. With the development of the CRS, the demands for accurate and timely information have grown exponentially so that it is now necessary to display the performance data on a weekly basis in most cases.

The future of the CRS is bright and other systems such as Reports of Automated Data Around Reintegration (RADAR) are linking to it. In addition, the CRS technology is being used as a primary component in a new interface being developed, the Portal on Results, Information, Measurement and Evaluation (PRIME). This site will provide managers with a single site that is seamlessly integrated to include information from various systems such as the CRS, RADAR, NPB's CRIMS application, or other performance measurement sites.

The amount of information and its complexity is increasing all of the time but, with the CRS tool, it is possible for a very limited number of staff to make complex trend information readily available to all staff members in a simple, readily understandable interface. ■

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