



Human Resources Development Canada Développement des ressources humaines Canada
Internal Audit Bureau Bureau de vérification interne

HRDC Year 2000 Project

Risk Assessment of Mission Critical and Non-Mission Critical National Applications; Products and Linkages

Update No. 4

Project No. 964/98

Internal Audit Bureau

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1.0 EXECUTIVE SUMMARY

Background

The Department of Human Resources Development Canada (HRDC) is committed to a strategy for achieving Y2000 (Y2K) compliance of all Non-Mission Critical Applications by a departmental imposed deadline of June 30, 1999. These Applications have Linkages and underlying software Products, which all must be certified Y2K compliant. To deliver these Applications, a compliant Infrastructure is required.

Process Overview

The Year 2000 risk assessment process began in fiscal year 1997/98 with the first risk assessment report published, January 1998. A second update of the risk assessment process was published in May 1998 with the third completed during December 1998.

This fourth update of the risk assessment was initiated in January 1999 and is divided into the following assessment areas:

- Non-Mission Critical Applications - include prioritization of non-mission critical applications
- Infrastructure Compliance - includes hardware, software and network infrastructure;
- Operations - include mainframe and LAN/WAN;
- Linkages - include internal and external applications linkages;
- Products - include underlying software products that enable the hardware and applications to work;

The risk assessment process is part of the overall Systems Under Development Audit (SUD) of Year 2000 activities currently under review by the Internal Audit Bureau (IAB).

This report covers three Applications' groups as well as Infrastructure and Operations. The IAB Risk Assessment team created specific Year 2000 questionnaires as guidelines to assist with these interviews.

Subsequently, answers to these questions given by Y2K Systems' Coordinators were quantified according to their risk factor on a scale of 1 (low) to 5 (high) and entered into a risk calculation model to obtain a final overall risk rating as of February 1999. For Applications Groups, the ratings have been applied to each Non-Mission Critical Application, Linkages and Products. However, because of the volume of the aforementioned, we first prioritized these areas to include only the "very important" items, judged by the Y2K Systems' Coordinators and the IAB.

2.0 OVERALL FINDINGS

The main findings of Risk Assessment Update # 4 follow:

Applications

- The IAB is currently tracking one remaining Mission Critical Application, CMS/LMSS. While there is progress in resolving testing, it still remains a high corporate risk. All associated Non-Mission Critical Applications were rated at 5 because of the importance of LMSS. These include:

FIS-ARADS
FIS-CSLP6
FIS-TRANSA
CMSMI-HRIF

- For this review no Applications, other than the above, received a ranking of 5. However, certain “very important” Applications whose dates went beyond the June 30, 1999 deadline were rated at 4 and require close attention of the Y2K GMC. These include:

EGS (Executive Group Services)	August 1999
CS-CIMS (Client Server Correspondence and Issues Management System)	December 1999
PIPS (Property Information and Planning System)	September 1999

Although there were other Applications that went beyond the June 30, 1999 deadline, their severity ratings were low, which was determined by the IAB in discussions with the Y2K Systems’ Coordinators.

Products

From a list of more than 2000 Products, the IAB along with input from Y2K Systems’ Coordinators, prioritized 78 of which the following seven are Mission Critical and should be tracked as high priorities:

SCO Unix	Micro Focus Cobol	DoctoHelp
Powerbuilder	SQL Server	
Sybase	Funcy	

This leaves 71 Non-Mission Critical Products that are linked to important Mission Critical Applications and functions. A rating of 4 was determined for 10 Non-Mission Critical Products that were deemed “very important” or were missing key information. These included:

Rocket	Doctor (CMA)	STX 70
G/Max	DynaText	Xorg Plus
Reel Backup	Open Access 4	
CMA Directory	Our Changing	

It is not clear who is accountable and responsible for ensuring that Products identified for retirement and removal are in fact retired and removed. Also, there are concerns that after the Products have been retired and removed, that they could find their way back onto the platforms.

Also, Y2K Systems’ Coordinators have identified resourcing as another issue, especially when considering the number of Servers and PCs involved.

Linkages

Most of the Mission Critical Linkages have been completed. HRDC’s internal Linkages are well under control and our external Linkages with other federal government departments are progressing slowly, but are on track in meeting their target dates. However, there are concerns with Linkages to the provinces where information has been requested (test scripts) and no response has been received.

As with Applications, Linkages used by our Financial Systems remain a high priority. The unknown disposition of certain LMSS Linkages remains a critical problem. These include all Linkages with:

- LMSS/CMS-FAS
- CMS-HR

It is unclear to the IAB why Linkages for Financial Systems (CMS/LMSS) have not been established, when all other Mission Critical Application Linkages have been.

The Non-Mission Critical Linkages seem well in hand with none dated beyond the June 30, 1999 deadline. However, CSL received a rating of 4 because of its high number of connections with external partners.

Recommendations:

- That all Senior Executives at RHQ/NHQ and HRCC Directors/Managers be held accountable to ensure that all products identified as “retired”, be removed from all PCs and Servers within their organizations. Further, that these Senior Executives, Directors and Managers be accountable for any business disruption resulting from the failure to remove these products. In addition, the Y2K Project Office should update the accountability section of “HRDC’s Year 2000 Project Accountability and Organization” document with appropriate Executive Steering Committee approval.
- Y2K, GMC should require an action plan and monitor the identification and testing of LMSS Linkages.

APPENDIX A

APPLICATION RISK RATINGS

Overall risk ratings for the Non-Mission Critical Applications as of February 26, 1999 follow:

Priority Non Mission Critical Applications					
			Description	Ranking	
Apps 1	HRIB	CSL/Legacy	Canada Student Loans	4	
			Telemp-CT	Telemessaging (Computer Talk)	3
	Insurance		CDA	Common Data Architecture	3
			Telemp-SP	Telemessaging (SPRINT)	®
			Teleins-CT	Telemessaging (Computer Talk)	®
			Teleins-SP	Telemessaging (SPRINT)	3
Apps 2	Insurance	SPS	Special Pay System	3	
			ADMS	Appeal Delivery System	3
			COD	Combine Overpayment System	3
			ICCM	Investigation & Control/Case Management System	3
		Labour	MARS	Mediation and Arbitration	3
			CAIRS	Collective Agreement Info Retrieval System	3
			NEGOTECH	Information Dissemination System	3
		FCCS	Contractor System	3	
		SH&D	Safety and Health Exemption	3	
	Apps 3	ISP	DEBT DB	Controlling Overpayments/Fraud Records	3
			BTS	Retired - replaced by "IGBTS" Budget Tracking	3
			IGBTS	On Time Budget Tracking System	3
			IGMTS	On Time Mail Tracking System	3
			ATS	Appeals Tracking	3
			DRCT DPST	Direct Deposit Audit Tool	3
			NTAX 1.0	Y2K Ready	3
CMServices			CPFS	Corporate Planning and Forecasting System	3
			CS-CIMS	Client Server Correspondence and Issues Management System	4
			CSICS	Computerized Stock Inventory Control System	4
			EGS	Executive Group Services	4
			FIS-ARADS	Uploads Payment Transactions	4
			FIS-CSLP6	Uploads Transactions from Student Loan Program	4
			FIS-TRANSA	Uploads Transactions from Supply Store	4
			CMSMI-HRIF	Uploads Units of Business from HRIF Micro Systems	4
			PIPS	Property Information and Planning System	4
		HR	HRS-PS	Human Resources Print System	3

APPENDIX B

PRODUCT RISK RATINGS

Overall risk ratings for the Mission Critical and Non-Mission Critical Products as of February 26, 1999 follow:

Priority Non Mission Critical Products				
			Description	Ranking
Apps 1	A. Gauthier	SQL Navigator	Quest Software	3
	Ron Prosper	M204	Computer Corporation of America	3
Apps 2	M. Aaftink	Clipper	Computer Associates of Canada Ltd.	3
	B. Hannam	SCO Unix	Santa Cruz Operations (SCO)	4
	L. Johnson	Powerbuilder	Sybase Canada Inc.	4
	L. Johnson	Sybase	Sybase Canada Inc.	4
		Reflection 2 for Windows	Unknown	3
		CrossTalk	CrossTalk	3
	T. McClean	Micro Focus	Micro Focus Cobol (16 bit) MC	4
	L. Johnson	ODBC Driver	Microsoft Canada Corp.	3
	T. McClean	Microsoft C	Microsoft Canada Corp.	3
	Y. Thibault	SQL Server	Microsoft	4
		Funky	dLesko	4
Apps 3	S. Levesque	Foremost	Provenance Systems	3
	O. Jama	Rocket	Luxent Software	4
		PROVISION	Softdesign	3
		Orgplus	Borderbund	3
		G/Max	Anthony MacAuley	4
		Gauge	BeCubed	3
		Microtest	MicroTest	3
		StationView	Peregrine	3
		DataEase	Sapphire	3
		Rexware	Simware Inc.	3
		Image Lib	Skyline Tools	3
		Reel Backup	Software Clearing House	4
		Reel Exchange	Software Clearing House	3
		CMA Directory	Unknown	4
		Doctor (CMA)	Unknown	4
		DynaText	Unknown	4
		Open Access 4	Unknown	4
		Our Changing World	Unknown	4
		STX70	Unknown	4
		Xorg Plus	Unknown	4
		VS-OCX	Video Soft	3
	Doroszkiwicz	DoctoHelp	WexTech Systems	4

Priority Non Mission Critical Products					
			Description	Ranking	
Infrastructure	J. Carson	C++	Microsoft	2	
	C. Hum	EICON AVIVA	EICON Technologies	®	
	J. McIntyre	HRDCON	HRDC	®	
	D. Orr	CABLETRON	Cabletron Systems	2	
		NetID	Bay Networks	®	
		CTALK	Computer Talk Tech.	®	
		DNS-Bind	Hewlett-Packard	®	
		Exceed	Hummingbird Comm.	®	
		NPLEX	Isocor	®	
		Meridian Products	Nortel - IVR	3	
		Periphonics	Periphonics Corp	®	
		E-mail Virus Wall	Trend Micro	®	
		RTS400 Gateway	Zoomit Corp.	®	
		NEAX 2000SW	NEC Tech.	®	
		NEC 1400 PBX	NEC Tech.	®	
		A. Schwarzer	Entrust	Entrust Tech.	®
		M. Levac	Cold Fusion	Allaire Software	®
			Excite	Excite	®
			Active Server Pages	Microsoft	2
			Netscape Enterprise Server	Netscape Comm. Inc.	®
		B. Berger	Street-Talk for NT	Banyan Systems Inc.	®
		D. Bourgeois	OSR1/OSR2	Microsoft	®
			Install Shields	Install Shield Software	®
		Rene Lalande	NT Workstation	Microsoft	®
			GTIS Carrier Service	GTIS	3
			Novell Netware	Novell Canada	2
	Operations		Microfiche (said non-compliant by vendor)	Belleville ITC - developing MOUs for contingencies with client groups	3
Kim Frostad		ComPas	HRDC	3	
Max Little		Quanta	HRDC	®	
		OCR	Banctec Canada Inc.	®	
D. McIntyre		Mailstar	Bell & Howell	3	
		SYMON	SYMON Communications Inc.	®	
P. Kasljevich		Key Entry III	Southern Computer	®	
D. Gray		B&L Library	B&L Associates	®	
G. Wright		SPO	Unisys Canada	®	
		Opcon-XPS	Software & Management Associates	3	
		Systems V/486	Unisys Canada	3	
C. Scharf		AT&T Definity	AT&T	3	
J. Kok		ARS 9000	Unisys Canada	®	
Peter Ringlet		CP 2000	Unisys Canada	3	
		CD Redirector	LanShark	3	
	Mail Inserters (Atari)		3		
J. Racicot	PowerChute	APC Power Conversion	3		

APPENDIX C

LINKAGES RISK RATINGS

Overall risk ratings for the Mission Critical and Non-Mission Critical Linkages as of February 26, 1999 follow:

Priority Non Mission Critical Linkages				
			Description	Ranking
Apps 1	HRIB	CSL	External Linkages with Banks	4
		CDA	ICCM	3
		SICOP	CJS	3
		TBG	CMS Reports	3
		ACS	NESS	3
		COM-EX	CJS	3
		Finance	CJS Batch/LMSS Batch	3
		N343-CRS	NESS	3
		NLMIQC	NESS	3
		NVR	NESS	3
		OS-PC	CJS	3
		SPS	CJS	3
		Apps 2		BRAC (NHQ)
FAS	EIDU,Develop(NHQ)		LMSS ONLINE	5
Insurance	NAVS-Nat.Addr(NH)		DataTechSmart Address	3
	CIS-Control Ind(NH)		BNOP Daily EIBenefits Overpaymn	3
	COD-Combined(NH)		AERS-Automated Earnings Report	3
	ICCM-Inv&Cont(NH)		CIS-Control Indicator System	3
	ICCM-Inv&Cont(NH)		COD-Combined Overpay'ts Determ	3
	ICCM-Inv&Cont(NH)		IEM Insured Earnings Match Syste	3
	LMSS Batch (NHQ)		EIDU-EI Development Uses Accrua	3
			CJS-2 ONLI-EI Online System	®
Apps 3	CMS	CMS-FAS	PWGSC	5
			CJS	
			OLIS	5
			Justice	5
		CMS-HR	PWGSC	5
	ISP	COD	CPP Benefits (National)	3
	FAS	DEDB 36	FIS-ARADS (National)	3
		DEDB 69	FIS-ARADS (National)	3
		LMSS BATCH	Allied International Credit	5
		OPG-ONT	CMS-FAS	5
		CMS	CMS-DARS	
		SPS-Special Pay	CMS-DARS	5

Risk Rating

- 1 to 2 = Low risk, calls for standard project monitoring
- 3 to 4 = Moderate risk, calls for close tracking of key activities
- 5 = High risk, calls for activating a contingency plan
- N/R = Risk not rated or not applicable
- ® = Y2000 Ready

APPENDIX D

PERSONS INTERVIEWED

The following Table lists the persons interviewed for each of the risk areas assessed in Applications Groups 1, 2, 3, Infrastructure, Operations, Products and Linkages.

Groups	Persons Interviewed
Applications 1	Jim Wagdin, Ken Werk, Jim Whyte, Ron Prosper, Mike Egan
Applications 2	Norman Smith, Bill Hannam
Applications 3	Kim White, Ron Parsons, Jim Walton, Lucie Duval, Omar Jama
Infrastructure	Carl Brazeau, Bryan Rogers, Doreen Hartling
Operations	Steve Huard, Joe DaCosta, Joanne Racicot
Products	Gerry Montigny
Linkages	Anu Emery, Bob Robinson