



**BUSINESS REGISTRY PROJECT
OPERATIONS RUN BOOK**



USAID-Funded Economic Governance II Project

PREPARED FOR:

Ministry of Trade of Iraq, Business Registry

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TABLE OF CONTENTS

1. INTRODUCTION	4
2. CONTACT LIST.....	4
3. ENVIRONMENT OVERVIEW	4
4. SERVERS.....	5
4.1. PRODUCTION SERVERS.....	5
5. BACKUP AND RECOVERY.....	8
5.1. PRODUCTION BACKUP SYSTEM	8
5.2. PRODUCTION BACKUP SCHEDULE.....	8
6. NETWORK	9
PRODUCTION NETWORK DIAGRAM.....	10
6.1. PRODUCTION VIRTUAL PRIVATE NETWORK (VPN).....	10
6.2. PRODUCTION SATELLITE	10
7. GENERAL INFORMATION	11
7.1. DEFINITIONS, ACRONYMS, AND ABBREVIATIONS	11

INTRODUCTION

This document contains the Business Registry (BR) Data Center full Operations Support Manual. The content cover all definitive parts of the Data Center, including hardware, software, configuration, contacts and any key information used during the installation of the center. This Run Book is designed to outline all operational and physical requirements that are needed to meet the goals of the project’s service agreements. The entire system configuration, including hardware and software is included, along with notes and special procedures and/or operations that take place within the center. This document also defines routine procedures that must be performed as required by the installation/technical team. Finally, the document will stand to support the operations of the environment in the event that an emergency occurs.

CONTACT LIST

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ENVIRONMENT OVERVIEW

To assist the Iraqi government meet generally accepted standards in business registration, the United States Agency for International Development (USAID) teamed with BearingPoint to implement a modern business registration system, which is composed of a web-based business registration application, supporting hardware infrastructure, and the Business Registration (BR) local area network (LAN). This system provides the Iraqi government the basic tools for national business registration, combined with the flexibility to adjust to a fluid political environment during this period of reconstruction. The Iraqi Business Registration System (BRS) will provide automated business registration services, and will be accessed on a regular/daily basis by BR staff and officials in Baghdad and remote sites.

This Production Environment Plan (Plan) provides the technical design specifications for BRS at the BR Data Center. The BR Data Center, located in Baghdad, is a critical facility designed and constructed to house computing resources related to both the operations of the BR and BRS, the Iraqi Federal Government business registration system. These resources include computer servers , network switching equipment, satellite communication systems, monitoring devices, and supporting hardware and software. This Plan targets the establishment of the infrastructure and production environment for the BRS, and will be updated periodically to reflect maturing business processes and other system changes

SERVERS

Production Servers

Server 1

HOSTNAME	BR-DC-01.BR.MOT.GOV.IQ
SERVERNAME	BR-DC-01
SERVER PURPOSE	Active directory and authentication services, DNS, and DHCP to BR Data Center Network
SERIAL NUMBER	JO1KLG72T
LOCATION	BR Data Center

HARDWARE LAYOUT	Component	Detail
	System	HP Prolaint DL 360 G3
	Processors	X86 Family 15 Model 2 Stepping 5 Genuine Intel ^3119 MHz
	Memory	1,024.00 MB
	Disk	SCSI HDD 72.8 GB (dual)

NETWORK CONFIGURATION	EXTERNAL IP	IP Address	Subnet Mask	Default Gateway
		192.168.10.2	255.255.0.0	192.168.10.1
	SWITCH NAME	BR-SW-01		
	SWITCH PORT	4		
	DNS INFORMATION	BR.MOT.GOV.IQ		

OPERATING SYSTEM AND CORE SYSTEM SOFTWARE	Software	Type/Version
	Microsoft Widows Server	Standard/2003/SP1

APPLICATIONS	Software	Type/Version
	DHCP	Windows Server 2003 SP1
	DNS	Windows Server 2003 SP1
	Active directory	Windows Server 2003 SP1

REBOOT / RESTART SVCS	Services Auto Start
SERVICE LEVEL	SP1
STATUS	In Production
OTHER SERVER INFORMATION	Domain Controller / Global Catalog

Server 2

HOSTNAME	BR-EXCH-01.MOT.GOV.IQ
SERVERNAME	BR-EXCH-01
SERVER PURPOSE	Microsoft Exchange Services
SERIAL NUMBER	J04WLG72W
LOCATION	BR Data Center

HARDWARE LAYOUT	Component	Detail
	System	HP Prolaint DL360 G3
	Processors	X86 Family 15 Model 2 Stepping 5 Genuine Intel ^3119MHz
	Memory	1,024.00 MB

	Disk	SCSI HDD 72.8 GB (dual)
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NETWORK CONFIGURATION	EXTERNAL IP	IP Address	Subnet Mask	Default Gateway
		192.168.10.4	255.255.0.0	192.168.10.1
	SWITCH NAME	BR-SW-01		
	SWITCH PORT	5		
	DNS INFORMATION	BR.MOT.GOV.IQ		

OPERATING SYSTEM AND CORE SYSTEM SOFTWARE	Software	Type/Version
	Microsoft Widows Server	Standrd/2003/SP1

APPLICATIONS	Software	Type/Version
	Exchange Server 2003	SP2
	SMTP	
	IIS/OWA	

REBOOT / RESTART SVCS	Services Auto Start
SERVICE LEVEL	SP1
STATUS	In Production
OTHER SERVER INFORMATION	Exchange Services, SMTP, Outlook Web Access (OWA)

Server 3

HOSTNAME	BR-APPS-01.BR.MOT.GOV.iQ
SERVERNAME	BR-APPS-01
SERVER PURPOSE	Application server
SERIAL NUMBER	J01YLGP72T
LOCATION	BR Data Center

HARDWARELAYOUT	Component	Detail
	System	HP Prolaint DL360 G3
	Processors	X86 Family 15 Model 2 Stepping 5 Genuine Intel ^3119MHz
	Memory	1,024.00 MB
	Disk	SCSI HDD 72.8 GB (dual)

NETWORK CONFIGURATION	EXTERNAL IP	IP Address	Subnet Mask	Default Gateway
		192.168.10.3	255.255.0.0	192.168.10.1
	SWITCH NAME	BR-SW-01		
	SWITCH PORT	6		
	DNS INFORMATION	BR.MOT.GOV.IQ		

OPERATING SYSTEM AND CORE SYSTEM SOFTWARE	Software	Type/Version
	Microsoft Widows Server	Standard/2003/SP1

APPLICATIONS	Software	Type/Version
	BRS Application	1.2

	Backup server	NT Backup
	File server	Windows Server 2003 SP1
	SQL Server 2000	SP4
	IIS	6.0

REBOOT / RESTART SVCS	Services Auto Start
SERVICE LEVEL	SP1
STATUS	In Production
OTHER SERVER INFORMATION	Application Server

Server 4

HOSTNAME	BR-ISA-01.BR.MOT.GOV.IQ
SERVERNAME	BR-ISA-01
SERVER PURPOSE	Firewall/Cache Server
SERIAL NUMBER	
LOCATION	BR Data Center

HARDWARE LAYOUT	Component	Detail
	System	HP Prolaint DL360 G3
	Processors	X86 Family 15 Model2 Stepping 5 Genuine Intel ^3119MHz
	Memory	1,024.00 MB
	Disk	SCSI HDD 72.8 GB (dual)

NETWORK CONFIGURATION	EXTERNAL IP	IP Address	Subnet Mask	Default Gateway
		82.146.165.190	255.255.255.240	NA
	INTERNAL IP	IP Address	Subnet Mask	Default Gateway
		192.168.10.1	255.255.255.0	NA
	SWITCH NAME	BR-SW-01		
	SWITCH PORT	7		
DNS INFORMATION	BR.GOV.IQ			

OPERATING SYSTEM AND CORE SYSTEM SOFTWARE	Software	Type/Version
	Microsoft Widows Server	Standard/2003/SP1

APPLICATIONS	Software	Type/Version
	Microsoft ISA server2004	Standard/SP1

REBOOT / RESTART SVCS	Services Auto Start
SERVICE LEVEL	Basic
STATUS	In Production
OTHER SERVER INFORMATION	Production net work firewall

BACKUP AND RECOVERY

Production Backup System

Veritas Net Backup Data Center Media Server will provide backup infrastructure for the Data Center. Veritas Net Backup will be installed on all servers requiring backup, with the primary server designated the 'master server', and each subsequent server designated as the 'media server.' VERITAS Net Backup software accommodate multiple servers working together under the administrative control of one of the servers. The master server can also function as a media server.

All Netback up administrative functions are performed centrally from the master server, and the master server controls all backup scheduling for each media server. Each of the media servers performs the actual backup operations under direction from the master, and backup data stays local to the media servers and their respective storage devices. A master server and its associated media servers are referred to collectively as a Net Backup storage domain, and large networks may have more than one domain. Client systems backup data to Netback up servers.

Production Backup Schedule

The Master Server and all Media Servers should have a full backup done on Friday each week, with incremental backups each day thereafter.

Server 1

HOSTNAME	BR-DC-01
SYSTEM	Backup Exec.
FREQUENCY	1 Per week
TYPE	HP DL360 G3
DAYS	Friday
START TIME	4:00 PM
END TIME	6:00 PM
DESCRIPTION	Incremental Backup

Server 2

HOSTNAME	BR-EXCH-01
SYSTEM	Backup Exec.
FREQUENCY	1 Per week
TYPE	HP DL360 G3
DAYS	Friday
START TIME	6:00 PM
END TIME	8:00 PM
DESCRIPTION	Incremental Backup

Server 3

HOSTNAME	BR-APPS-01
SYSTEM	Backup Exec.
FREQUENCY	1 Per week
TYPE	HP DL360 G3
DAYS	Friday
START TIME	8:00 PM

END TIME	10:00 PM
DESCRIPTION	Incremental Backup

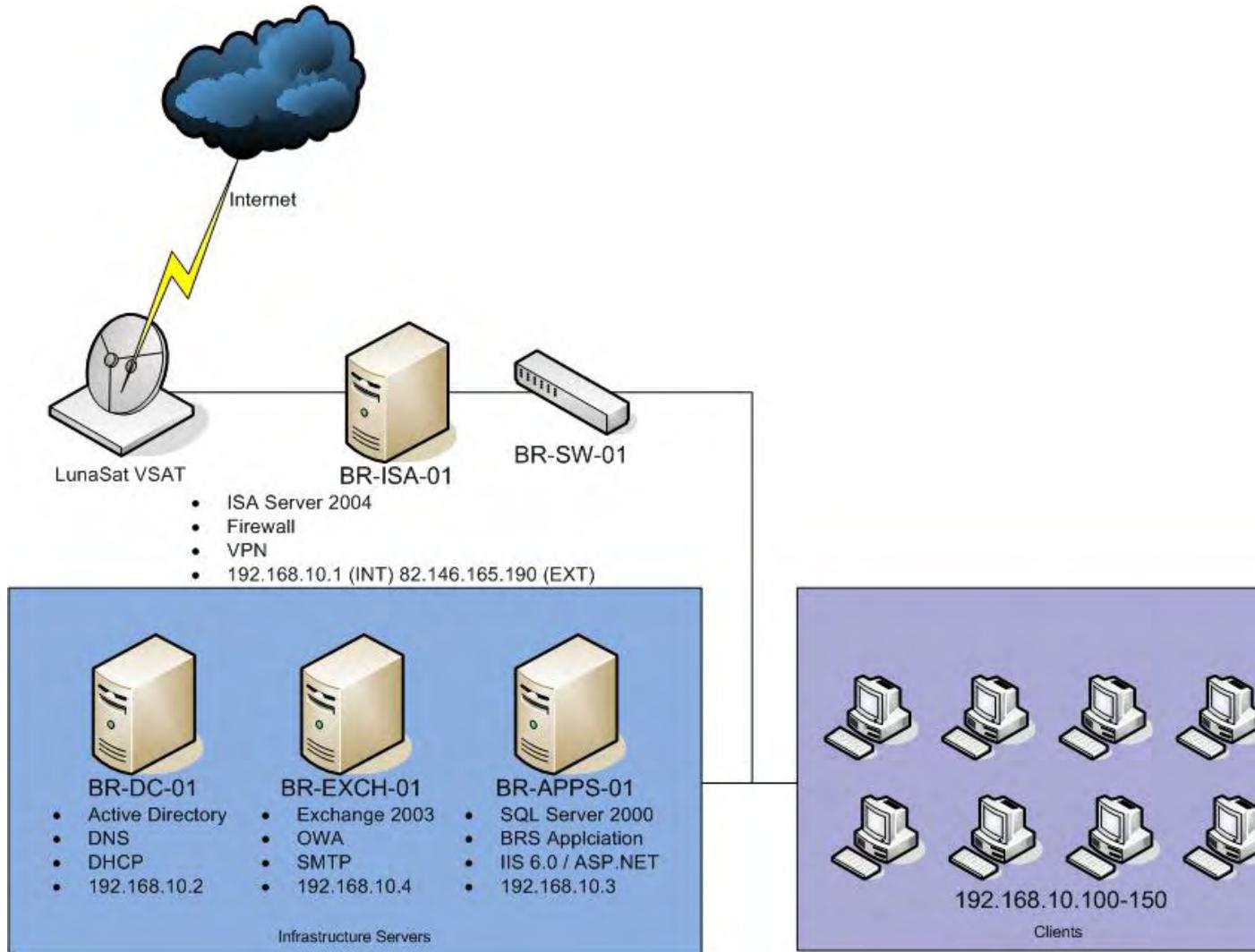
Server 4

HOSTNAME	BR-ISA-01
SYSTEM	Backup Exec.
FREQUENCY	1 Per week
TYPE	DL360 G3
DAYS	Friday
START TIME	10:00 PM
END TIME	12:00 AM
DESCRIPTION	Incremental Backup

NETWORK

The BR Data center contains is local area network, connected by a series of 100mbps and 1000mbps Ethernet switches. This network supports the application and supporting infrastructure at theBR. This includes the production network, data entry and training environments.

Production Network Diagram



Production Virtual Private Network (VPN)

ISA Server 2004's PPTP VPN client is the preferred access method to connect to the data center. It is the only access method for the BR Data Center's network from remote locations.

Production Satellite

The satellite modem is connected to the ISA Server, which publishes the application and provides connectivity to the Internet. A satellite modem is connected to the dish, the ISP is Luna Sat and the bandwidth capabilities are 1Mbps Uplink, 1Mbps downlink. The satellite in use is the NSS6.

GENERAL INFORMATION

Definitions, Acronyms, and Abbreviations

AD	Active Directory
BRS	Business Registration System
IT	Information Technology
LAN	Local Area Network
MBSA	Microsoft Baseline Security Analyzer
BR	Business Registry
MS	Microsoft
PC	Personal Computer
UPS	Uninterrupted Power Supply
USAID	United States Agency for International Development
DAS	Direct Attached Storage



Appendices
