Kuwait Finance House

INTERNET BANKING SYSTEM

PRE-DISASTER RECOVERY PLAN DOCUMENT

Prepared By

Kuwait Finance House, Malaysia

&

VERSION: 1.0

Revision

Revision	Amendment	Ref In Doc	Updated By	Date
1.0	New Document	All	Ivan Lai	16/09/2009

Table of Contents

2.1 System Readiness

This document shall contain all the operating system, system environment configuration, network connectivity and NetBackup setup check list. Please refer to *Appendix 1*.

No	Hostname-DR lan	Hostname-DR backup lan	Application	IP Address-Production	Netmask	IP Address-backup	Netmask	Default Gateway	Server Serial Number
1.	KFHIB13	KFHIB13-b	Sun One Web server 6.1 SP10	192.168.151.1	255.255.255.128	192.168.3.13	255.255.255.0	192.168.151.123	NNL0914058
2	KFHIB14	KFHIB14-b	BroadVision Portal 8.1 (running on top of JBoss)	10.30.208.1	255.255.255.128	192.168.3.14	255.255.255.0	10.30.208.126	NNL092303H
3	KFHIB15	KFHIB15-b	Intergration / ESB	10.30.208.2	255.255.255.128	192.168.3.15	255.255.255.0	10.30.208.126	NNL0923034
4	KFHIB16	KFHIB16-b	Oracle 10g	10.30.208.3	255.255.255.128	192.168.3.16	255.255.255.0	10.30.208.126	NNL0914056
5	KFHIB17	KFHIB17-b	Veritas backup server	10.30.208.4	255.255.255.128	192.168.3.17	255.255.255.0	10.30.208.126	NNL0923033

APPENDIX 2 – SYSTEM READINESS

System readiness checklist

Server Readiness	Description	Remark
Web Server	System Specification Ready	
	Power Redundancy Ready	
	NIC Teaming Ready	
	Software RAID Ready	
	Backup LAN Ready	
Application Server	System Specification Ready	
	Power Redundancy Ready	
	NIC Teaming Ready	
	Software RAID Ready	
	Backup LAN Ready	
Integration/Authentication Server	System Specification Ready	
	Power Redundancy Ready	
	NIC Teaming Ready	
	Software RAID Ready	
	Backup LAN Ready	
Database Server	System Specification Ready	
	Power Redundancy Ready	
	NIC Teaming Ready	
	Software RAID Ready	
	Backup LAN Ready	
Veritas Netbackup Server	System Specification Ready	
	Power Redundancy Ready	
	NIC Teaming Ready	
	Software RAID Ready	
	Backup LAN Ready	

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Web Server Readiness

System Specification Ready

Test: DR Web Server	Type of Test: Server Spec	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	To verify the server specification					
Pre-requisites	The system has been configured					
Test Procedures	Execute specific command eg: a) Prtdiag b) Cat /et/release c) Prtconf | grep Memory d) Format e) Ifconfig –a f) Netstat -rn					
Expected Result	All specification matches with expected result.					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :
Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :
Signature   :

Power Redundancy Ready

Test: DR Web Server	Type of Test: Power redundancy	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	Test power redundancy for each of servers					
Pre-requisites	All servers should connected to the power					
Test Procedures	Unplug one cable on each system					
Expected Result	The system should stay powered up and working fine					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :

SBU/Name   :
Contact Number   :

Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

NIC Teaming Ready

Test: DR Web Server	Type of Test: Network	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	To test the NIC teaming configuration					
Pre-requisites	NIC team configured					
Test Procedures	a. Logon any system b. Open terminal and ping any servers c. Unplug one of the network cable from the system d. The ping process should show the connection is ok e. Plug back and try another cable					
Expected Result	The connection should stay connected					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :

Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

Software RAID Ready

Test: DR Web server	Type of Test: System Reboot Integrity	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	This test is to demonstrate the successful normal boot of the system					
Pre-requisites	System has been configured with RAID 1					
Test Procedures	a. Connect to the system using the management console b. Shut down any application or database running on this system c. Shut down the server d. Boot the system again					
Expected Result	The system should successful boot from the mirror disk without any error					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :

Verify by   :

I ,Hereby confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.
Name   :

Signature   :

Backup LAN Ready

Test: DR Web server	Type of Test: Backup LAN	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	This standard test for backup LAN configuration to ensure all production servers are configured in Backup LAN					
Pre-requisites	Backup LAN configured					
Test Procedures	a. Logon to the kfhib13 b. Ping each of the servers					
Expected Result	All servers are ping able					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :

SBU/Name   :
Contact Number   :

Verify by   :

I ,Hereby confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

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Application Server Readiness

System Specification Ready

Test: DR Application Server	Type of Test: Server Spec	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	To verify the server specification					
Pre-requisites	The system has been configured					
Test Procedures	Execute specific command eg: g) Prtdiag h) Cat /et/release i) Prtconf | grep Memory j) Format k) Ifconfig –a l) Netstat -rn					
Expected Result	All specification matches with expected result.					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :
Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :
Signature   :

Power Redundancy Ready

Test: DR Application Server	Type of Test: Power redundancy	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	Test power redundancy for each of servers					
Pre-requisites	All servers should connected to the power					
Test Procedures	Unplug one cable on each system					
Expected Result	The system should stay powered up and working fine					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :

SBU/Name   :
Contact Number   :

Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

NIC Teaming Ready

Test: DR Application Server	Type of Test: Network	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	To test the NIC teaming configuration					
Pre-requisites	NIC team configured					
Test Procedures	a. Logon any system b. Open terminal and ping any servers c. Unplug one of the network cable from the system d. The ping process should show the connection is ok e. Plug back and try another cable					
Expected Result	The connection should stay connected					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :

Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

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Software RAID Ready

Test: DR Application server	Type of Test: System Reboot Integrity	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	This test is to demonstrate the successful normal boot of the system					
Pre-requisites	System has been configured with RAID 1					
Test Procedures	a. Connect to the system using the management console b. Shut down any application or database running on this system c. Shut down the server d. Boot the system again					
Expected Result	The system should successful boot from the mirror disk without any error					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :

Verify by   :

I ,Hereby confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

Backup LAN Ready

Test: DR Application server	Type of Test: Backup LAN	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	This standard test for backup LAN configuration to ensure all production servers are configured in Backup LAN					
Pre-requisites	Backup LAN configured					
Test Procedures	c. Logon to the kfhib14 d. Ping each of the servers					
Expected Result	All servers are ping able					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :

Verify by   :

I ,Hereby confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

Integration/Authentication Server Readiness

System Specification Ready

Test: **Integration/Authentication Serve**r	Type of Test: Server Spec	Testi ng time		Status Ok or not	Action by /Initial	Remarks
Test Description	To verify the server specification					
Pre-requisites	The system has been configured					
Test Procedures	Execute specific command eg: m) Prtdiag n) Cat /et/release o) Prtconf | grep Memory p) Format q) Ifconfig –a r) Netstat -rn					
Expected Result	All specification matches with expected result.					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :
Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been
successfully completed.

Name   :
Signature   :

Power Redundancy Ready

Test: DR Integration/Authentication Server	Type of Test: Power redundancy	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	Test power redundancy for each of servers					
Pre-requisites	All servers should connected to the power					
Test Procedures	Unplug one cable on each system					
Expected Result	The system should stay powered up and working fine					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :

SBU/Name   :
Contact Number   :

Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

NIC Teaming Ready

Test: DR Integration/Authentication Server	Type of Test: Network	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	To test the NIC teaming configuration					
Pre-requisites	NIC team configured					
Test Procedures	a. Logon any system b. Open terminal and ping any servers c. Unplug one of the network cable from the system d. The ping process should show the connection is ok e. Plug back and try another cable					
Expected Result	The connection should stay connected					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :

Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

Software RAID Ready

Test: DR Integration/Authentication Server	Type of Test: System Reboot Integrity	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	This test is to demonstrate the successful normal boot of the system					
Pre-requisites	System has been configured with RAID 1					
Test Procedures	a. Connect to the system using the management console b. Shut down any application or database running on this system c. Shut down the server d. Boot the system again					
Expected Result	The system should successful boot from the mirror disk without any error					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :

Verify by   :

I ,Hereby confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

Backup LAN Ready

Test: DR Integration/Authentication Server	Type of Test: Backup LAN	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	This standard test for backup LAN configuration to ensure all production servers are configured in Backup LAN					
Pre-requisites	Backup LAN configured					
Test Procedures	e. Logon to the kfhib15 f. Ping each of the servers					
Expected Result	All servers are ping able					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :

SBU/Name   :
Contact Number   :

Verify by   :

I ,Hereby confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

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Database Server Readiness

System Specification Ready

Test: DR DataBase Server	Type of Test: Server Spec	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	To verify the server specification					
Pre-requisites	The system has been configured					
Test Procedures	Execute specific command eg: s) Prtdiag t) Cat /et/release u) Prtconf | grep Memory v) Format w) Ifconfig –a x) Netstat -rn					
Expected Result	All specification matches with expected result.					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :
Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :
Signature   :

Test: DR DataBase Server	Type of Test: Power redundancy	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	Test power redundancy for each of servers					
Pre-requisites	All servers should connected to the power					
Test Procedures	Unplug one cable on each system					
Expected Result	The system should stay powered up and working fine					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :

SBU/Name   :
Contact Number   :

Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

NIC Teaming Ready

Test: DR DataBase Server	Type of Test: Network	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	To test the NIC teaming configuration					
Pre-requisites	NIC team configured					
Test Procedures	a. Logon any system b. Open terminal and ping any servers c. Unplug one of the network cable from the system d. The ping process should show the connection is ok e. Plug back and try another cable					
Expected Result	The connection should stay connected					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :

Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

Software RAID Ready

Test: DR DataBase Server	Type of Test: System Reboot Integrity	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	This test is to demonstrate the successful normal boot of the system					
Pre-requisites	System has been configured with RAID 1					
Test Procedures	a. Connect to the system using the management console b. Shut down any application or database running on this system c. Shut down the server d. Boot the system again					
Expected Result	The system should successful boot from the mirror disk without any error					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :
Verify by   :

I ,Hereby confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

Backup LAN Ready

Test: DR Database Server	Type of Test: Backup LAN	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	This standard test for backup LAN configuration to ensure all production servers are configured in Backup LAN					
Pre-requisites	Backup LAN configured					
Test Procedures	g. Logon to the kfhib17 h. Ping each of the servers					
Expected Result	All servers are ping able					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :

SBU/Name   :
Contact Number   :

Verify by   :

I ,Hereby confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

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Veritas Netbackup Server

System Specification Ready

Test: DR Veritas Netbackup Server	Type of Test: Server Spec	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	To verify the server specification					
Pre-requisites	The system has been configured					
Test Procedures	Execute specific command eg: y) Prtdiag z) Cat /et/release aa) Prtconf | grep Memory bb) Format cc) Ifconfig –a dd) Netstat -rn					
Expected Result	All specification matches with expected result.					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :

Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :
Signature   :

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Power Redundancy Ready

Test: DR Veritas Netbackup Server	Type of Test: Power redundancy	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	Test power redundancy for each of servers					
Pre-requisites	All servers should connected to the power					
Test Procedures	Unplug one cable on each system					
Expected Result	The system should stay powered up and working fine					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :

SBU/Name   :
Contact Number   :

Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

NIC Teaming Ready

Test: DR Veritas Netbackup Server	Type of Test: Network	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	To test the NIC teaming configuration					
Pre-requisites	NIC team configured					
Test Procedures	a. Logon any system b. Open terminal and ping any servers c. Unplug one of the network cable from the system d. The ping process should show the connection is ok e. Plug back and try another cable					
Expected Result	The connection should stay connected					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :

Verify by   :

I ,Here by confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

Software RAID Ready

Test: DR Veritas Netbackup Server	Type of Test: System Reboot Integrity	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	This test is to demonstrate the successful normal boot of the system					
Pre-requisites	System has been configured with RAID 1					
Test Procedures	a. Connect to the system using the management console b. Shut down any application or database running on this system c. Shut down the server d. Boot the system again					
Expected Result	The system should successful boot from the mirror disk without any error					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :
SBU/Name   :
Contact Number   :
Verify by   :

I ,Hereby confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

Backup LAN Ready

Test: DR Veritas Master Server	Type of Test: Backup LAN	Testing time		Status Ok or not	Action by /Initial	Remarks
Test Description	This standard test for backup LAN configuration to ensure all production servers are configured in Backup LAN					
Pre-requisites	Backup LAN configured					
Test Procedures	i. Logon to the kfhib18 j. Ping each of the servers					
Expected Result	All servers are ping able					
Date						
Performed by						
Actual Result	Passed / Failed / Waived / Postponed					
Notes						

Name of person in charge :

SBU/Name   :
Contact Number   :

Verify by   :

I ,Hereby confirm that the above Pre-Disaster Recovery Plan verification test have been successfully completed.

Name   :

Signature   :

2.2   Acceptance Signoff

KFHMB and Penril Datability S/B hereby acknowledge, by signing in the appropriate fields below that they have successfully completed the UAT System & Hardware Procedure contained in this document.

Kuwait Finance House (M) Berhad Representative	Penril Datability Sdn Bhd Representative
Name :	Name :
Designation :	Designation :
Time :	Time :
Date :	Date :
Signature :	Signature :
Company Stamp :	Company Stamp