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# Central Trade & Auto Company

## - Markazia -

Document Type	IT Infrastructure Assessment Report
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Creation Date:	January 9 <sup>th</sup> 2016
Last Modification	January 13 <sup>th</sup> 2016
Version:	1.2 Final
Distribution:	Markazia Board of Directors , Director of Finance, IT Manager,
Classification	Confidential, for internal use only

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## DOCUMENT CHANGE CONTROL

Version	Author	Date	Changes
1.0	Vatche G. Dakessian	January 9 <sup>th</sup> 2016	None
1.1	Vatche G. Dakessian	January 10 <sup>th</sup> 2016	Added missing info received from Markazia on January 10 <sup>th</sup> 2016
1.2 Final	Vatche G. Dakessian	January 13 <sup>th</sup> 2016	Added changes requested by Firas ISTAIH on January 12 <sup>th</sup> 2016 Added changes requested by Suleiman SKAFI on January 12 <sup>th</sup> 2016

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# CONTENTS

ABBREVIATIONS.....	6
EXECUTIVE SUMMARY.....	8
ASSIGNMENT BACKGROUND .....	8
THIS REPORT .....	8
<b>1 IT DEPARTMENT ORGANIZATION.....</b>	<b>12</b>
1.1 CURRENT STATUS .....	12
1.2 BEST PRACTICE.....	13
1.3 RECOMMENDATIONS .....	13
R1.A APPOINT A CHIEF TECHNOLOGY OFFICER.....	14
R1.B APPOINT AN INFORMATION SECURITY OFFICER .....	14
R1.C CREATE A NETWORKING & COMMS SECTION .....	15
R1.D CREATE A DATABASE MANGEMENT SECTION .....	15
R1.E CREATE AN APPLICATION MANGEMENT SECTION .....	15
R1.F JOB FUNCTIONS & DESCRIPTIONS.....	15
R1.G SALARY SCALE ANLAYSIS.....	15
1.4 RISK IMPACT OF RECOMMENDATIONS.....	16
<b>2 BUSINESS APPLICATIONS.....</b>	<b>17</b>
2.1 CURRENT STATUS .....	17
2.2 BEST PRACTICE.....	18
2.3 RECOMMENDATIONS .....	19
R2.A USER ACCESS AUTHORITY MATRIX.....	19
R2.C ISC CONTROLS EXERCISE .....	19
R2.D UPGRADE TO MORE RECENT WINDOWS.....	20
2.4 RISK IMPACT OF RECOMMENDATIONS.....	20
<b>3 HARDWARE.....</b>	<b>21</b>
3.1 CURRENT STATUS .....	21
3.2 BEST PRACTICE.....	25
3.3 RECOMMENDATIONS .....	25
R3.A REPLACE OR UPGRADE CURRENT SERVERS.....	26
R3.B VIRTUALIZATION SERVER TECHNOLOGY .....	26
R3.C THIN CLIENT DESKTOPS.....	26
R3.D CLOUD BASED VIRTUAL SERVERS.....	27
3.4 RISK IMPACT OF RECOMMENDATIONS.....	27
<b>4 LAN COMMUNICATIONS.....</b>	<b>28</b>
4.1 CURRENT STATUS .....	28
4.2 BEST PRACTICE.....	30
4.3 RECOMMENDATIONS .....	30
R4.A COMPLETE LAN REDESIGN .....	30
R4.B INSTALL FIREWALLS.....	31
R4.C IMPLEMENT VIRTUAL LANS.....	31
R4.D PERFORM NETWORK PENETRATION TEST .....	31
4.4 RISK IMPACT OF RECOMMENDATIONS.....	31
<b>5 WAN COMMUNICATIONS.....</b>	<b>32</b>
5.1 CURRENT STATUS .....	32

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5.2	BEST PRACTICE.....	34
5.3	RECOMMENDATIONS .....	34
R5.A	MIGRATE TO CLOUD COMPUTING SERVICES.....	34
R5.B	EXTERNAL NETWORK PENETRATION TEST.....	34
R5.C	INSTALL FIREWALLS ON WAN CONNECTIONS .....	35
R5.D	IMPLEMENT UPGRADES & PATCHES.....	35
5.4	RISK IMPACT OF RECOMMENDATIONS.....	35
<b>6</b>	<b><u>DISASTER RECOVERY &amp; BC .....</u></b>	<b><u>36</u></b>
6.1	CURRENT STATUS .....	36
6.2	BEST PRACTICE.....	37
6.3	RECOMMENDATIONS .....	37
R6.A	UPGRADE CURRENT HARWDARE.....	37
R6.B	DR & BC ASSESSMENT .....	37
R6.C	DR & BC POLICIES & PROCEDURES .....	38
R6.D	DUAL REDUNDANT ONLINE UPS.....	38
R6.E	POWER GENERATOR .....	38
R6.F	SELECT CLOUD SERVICES PROVIDER .....	38
R6.G	CENTRAL BACKUP SOLUTION.....	38
R6.H	HARDRWAE UPGRADE FOR DR .....	39
6.4	RISK IMPACT OF RECOMMENDTAIONS.....	39
<b>7</b>	<b><u>THREE YEAR IT STRATEGY .....</u></b>	<b><u>40</u></b>
7.1	CURRENT STATUS .....	40
7.2	BEST PRACTICE.....	40
7.3	RECOMMENDATIONS .....	41
R7.A	DEVELOP A 3 YEAR IT STRATEGY.....	41
7.4	RISK IMPACT OF RECOMMENDATIONS.....	41
<b>8</b>	<b><u>IT POLICIES &amp; PROCEDURES .....</u></b>	<b><u>42</u></b>
8.1	CURRENT STATUS .....	42
8.2	BEST PRACTICE.....	42
8.3	RECOMMENDATIONS .....	42
R8.A	FORMULATE IT POLICIES & PROCEDURES.....	43
R8.B	STRUCTURE OF IT POLICIES & PROCEDURES .....	43
8.4	RISK IMPACT OF RECOMMENDATIONS.....	44
<b>9</b>	<b><u>IS POLICIES &amp; PROCEDURES.....</u></b>	<b><u>45</u></b>
9.1	CURRENT STATUS .....	45
9.2	BEST PRACTICE.....	45
9.3	RECOMMENDATIONS .....	45
R9.A	FORMULATE IS POLICIES & PROCEDURES .....	46
R9.B	STRUCTURE OF IS POLICIES & PROCEDURES.....	46
9.4	RISK IMPACT OF RECOMMENDATIONS.....	47
<b>10</b>	<b><u>IT SPACE &amp; PHYSICAL SECURITY.....</u></b>	<b><u>48</u></b>
10.1	CURRENT STATUS .....	48
10.2	BEST PRACTICE.....	49
10.3	RECOMMENDATIONS .....	49
R10.A	SECURE ACCESS DOOR.....	50
R10.B	SERVER ROOM UPGRADE.....	50
R10.C	PHYSICAL INTRUSION DETECTION .....	50
R10.D	CCTV MONITORING.....	50
10.4	RISK IMPACT OF RECOMMENDATIONS.....	51
<b>11</b>	<b><u>CLOUD SERVICES .....</u></b>	<b><u>52</u></b>

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11.1	CURRENT STATUS .....	52
11.2	BEST PRACTICE.....	53
11.3	RECOMMENDATIONS .....	53
R11.A	CLOUD BASED VIRTUAL SERVERS FOR DR .....	53
R11.B	IMPLEMENT DRAAS AND BAAS SERVICES .....	53
11.4	RISK IMPACT OF RECOMMENDATIONS.....	53
<b>12</b>	<b><u>NEW ERP IMPLEMENTATION.....</u></b>	<b>54</b>
12.1	CURRENT STATUS .....	54
12.2	BEST PRACTICE.....	55
12.3	RECOMMENDATIONS .....	55
R12.A	PROJECT PLAN TIMELINE.....	55
R12.B	COA MAPPING .....	56
R12.C	HISTORICAL DATA IMPORT .....	56
R12.D	MODIFICATIONS TO ERP AGREEMENT.....	56
12.4	RISK IMPACT OF RECOMMENDATIONS.....	56
<b>13</b>	<b><u>CCTV SYSTEM.....</u></b>	<b>57</b>
13.1	CURRENT STATUS .....	57
13.2	BEST PRACTICE.....	58
12.3	RECOMMENDATIONS .....	58
R13.A	DESIGN & SPECIFICATIONS DOCUMENT .....	59
R13.B	LIST CCTV SYSTEM IN IT STRATEGY .....	59
R12.C	DIGITAL VIDEO RETENTION LIBRARY .....	59
13.4	RISK IMPACT OF RECOMMENDATIONS.....	59
<b>APPENDIX I</b>	<b><u>RECOMMENDED CONFIGURATIONS.....</u></b>	<b>60</b>
A1.1	RECOMMENDED HEAD OFFICE HARDWARE.....	61
A1.2	RECOMMENDED HEAD OFFICE LAN.....	62
A1.3	RECOMMENDED WAN .....	63
<b>APPENDIX II</b>	<b><u>CURRENT CONFIGURATIONS.....</u></b>	<b>64</b>
A2.1	CURRENT HEAD OFFICE HARDWARE & LAN .....	65
A2.2	CURRENT BRANCH HARDWARE & LAN.....	66
A2.3	CURRENT INTERNET ACCESS.....	67
A2.4	CURRENT WAN.....	68

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# ABBREVIATIONS

ARC	<i>Annual Recurring Charges</i>
BAAS	<i>Backup as a Service</i>
BC	<i>Business Continuity</i>
CCTV	<i>Closed Circuit Television</i>
CFG	<i>Current, Future, Gap, Implementation</i>
COA	<i>Chart Of Accounts</i>
COBIT	<i>Control Objectives for Information Technology</i>
CTO	<i>Chief Technology Officer</i>
DB	<i>Database</i>
DBA	<i>Database Administrator</i>
DDOS	<i>Distributed Denial of Service</i>
DR	<i>Disaster Recovery</i>
DRAAS	<i>Disaster Recovery as a Service</i>
DVR	<i>Digital Video Recorder</i>
ERP	<i>Enterprise Resource Planning</i>
EPC	<i>Electronic Parts Catalogue</i>
FOC	<i>Fiber Optic Cable</i>
ISC	<i>Information Security Controls</i>
ISO	<i>Information Security Officer</i>
IT	<i>Information Technology</i>
ITIL	<i>Information Technology Infrastructure Library</i>
ISO	<i>International Standards Organization</i>

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<i>IS</i>	<i>Information Security</i>
<i>KPI</i>	<i>Key Performance Indicator</i>
<i>LAN</i>	<i>Local Area Network</i>
<i>LLC</i>	<i>Limited Liability Corporation</i>
<i>MPLS</i>	<i>Multi Protocol Label Switching</i>
<i>OS</i>	<i>Operating System</i>
<i>RFP</i>	<i>Request for Proposals</i>
<i>RTO</i>	<i>Recovery Time Objective</i>
<i>SAN</i>	<i>Storage Array Network</i>
<i>VLAN</i>	<i>Virtual Local Area Network</i>
<i>VM</i>	<i>Virtual Machine</i>
<i>VPN</i>	<i>Virtual Private Network</i>
<i>WAN</i>	<i>Wide Area Network</i>
<i>WAP</i>	<i>Wireless Access Point</i>
<i>WLAN</i>	<i>Wireless Local Area Network</i>

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# EXECUTIVE SUMMARY

## ASSIGNMENT BACKGROUND

The Central Trade & Auto Company CTA - Markazia was established in 1999 as the Toyota and Lexus distributor in Jordan. Markazia operations include Automobile Sales, Service and Parts. It is supported by five dealers spread over the Kingdom, two service centers and a parts depot. Markazia has set the following mission objectives:

- ◆ Provide high quality services that meet and exceed customers' expectations.
- ◆ Respect and preserve the environment in all its practices and activities.
- ◆ Upgrade the corporate culture through mutual respect and continuous improvement.

Markazia has engaged Amon Technologies LLC an information technology consulting company with experience and qualifications to provide targeted technical recommendations by performing an IT Infrastructure Assessment consisting of a review of the current hardware, software and communications infrastructure at Markazia. The assessment is aimed at determining constraints and risks - from the new ERP System perspective- while building on existing IT investments wherever possible.

The IT Infrastructure Assessment focuses on the current IT infrastructure situation at Markazia in terms of constraints and existing IT assets, ensuring their operational reliability, security and performance for current applications and for the new ERP System that was purchased in mid 2015. The report lists best practice recommendations for corrective and/or necessary improvements.

## THIS REPORT

This IT Infrastructure Assessment Report was prepared as a deliverable of the PO from Markazia dated December 10<sup>th</sup> 2015. The report comprises of the full results of IT Infrastructure Assessment task undertaken for Markazia consisting of ten (12) sections:

1. IT Department Organization: This section reviews the existing organization structure and staffing requirements of the IT Department.
2. Business Applications: This section normally reviews the various business applications in terms of completeness, confidentiality, accuracy, validity and security. The functional suitability review of applications does not typically constitute a part of an ICT Infrastructure Assessment.
3. Hardware: This section lists the various servers that are deployed, their purpose of use and configurations.

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4. LAN Communications: This section reviews the existing LAN infrastructure in place at the Head Office and branches in terms connectivity, physical and logical configurations.
5. WAN Communications: This section reviews the existing WAN infrastructure in place in terms of connectivity, physical and logical configurations.
6. Business Continuity & Disaster Recovery: This section reviews the current status disaster recovery and business continuity infrastructure and procedures.
7. IT Strategy: This section reviews the current status of any plans or strategies governing IT systems and services.
8. IT Policies: This section reviews the existing Information Technology Policies & Procedures in terms of scope, structure and content in accordance with international best practices.
9. IS Policies: This section reviews the existing Information Security Policies & Procedures in terms of scope, structure and content in accordance with international best practices.
10. IT Space & Physical Security: This section reviews the existing office space of the IT Department and associated physical security systems.
11. Cloud Services: This section reviews the existing Cloud Services Agreement and in terms of providing additional services.
12. New ERP System: This section reviews the background and steps leading to the decision taken regarding the selection and implementation of the new ERP System.
13. CCTV System: This section reviews the existing CCTV System and the ongoing efforts to upgrade it.

This report also has two (2) Appendices:

Appendix I Recommended Configurations

- A1.1 Recommended Hardware Configuration
- A1.2 Recommended Local Area Network Configuration
- A1.3 Recommended Wide Area Network Configuration

Appendix II Current Configurations

- A2.1 Current head Office Hardware Configuration
- A2.2 Current Local Area Network Configuration
- A2.3 Current Internet Services Connectivity
- A2.4 Current Wide Area Network Configuration

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Our recommendations are grouped by domain as follows:

#	Domain	Subject	Owner
R1.A	IT Organization	Chief Technology officer	Markazia Management
R1.B	IT Organization	IT Security Officer	Markazia Management
R1.C	IT Organization	Networking & Comms Section	Markazia Management
R1.D	IT Organization	Database Management Section	Markazia Management
R1.E	IT Organization	Application Management Section	Markazia Management
R1.F	IT Organization	Job Functions & Descriptions	Markazia Management
R1.G	IT Organization	Salary Scale	Markazia Management
R2.A	Software	User Authority Matrix	Markazia Management
R2.B	Software	Business Controls Compliance	Markazia Management
R2.C	Software	Information System Controls	Markazia IT Dept.
R2.D	Software	Latest Windows Versions	Markazia IT Dept.
R3.A	Hardware	Upgrade Server Topology	Markazia IT Dept.
R3.B	Hardware	Virtualization Technology	Markazia IT Dept.
R3.C	Hardware	Thin Client Desktops	Markazia IT Dept.
R3.D	Hardware	Cloud Based Virtual Servers	Markazia IT Dept.
R4.A	Local Area Network	Complete LAN Redesign	Markazia IT Dept.
R4.B	Local Area Network	Install Firewalls	Markazia IT Dept.
R4.C	Local Area Network	Implement Virtual LANs	Markazia IT Dept.
R4.D	Local Area Network	Penetration Test	Markazia IT Dept.
R5.A	Wide Area Network	Cloud Computing	Markazia IT Dept.
R5.B	Wide Area Network	Penetration Test	Markazia IT Dept.
R5.C	Wide Area Network	Firewalls	Markazia IT Dept.
R5.D	Wide Area Network	Upgrades & Patches	Markazia IT Dept.
R6.A	DR & BC	Upgrade Current Hardware	Markazia IT Dept.
R6.B	DR & BC	Conduct DR & BC Assessment	Markazia IT Dept.
R6.C	DR & BC	Policies & Procedures	Markazia IT Dept.
R6.D	DR & BC	Dual Redundant Online UPS	Markazia IT Dept.
R6.E	DR & BC	Power Generator	Markazia IT Dept.
R6.F	DR & BC	Select Cloud Services	Markazia IT Dept.
R6.G	DR & BC	Central Backup Solution	Markazia IT Dept.
R6.H	DR & BC	Hardware Upgrade For DR	Markazia IT Dept.
R7.A	IT Strategy	Formulate IT Strategy	Markazia Management
R8.A	IT Policy	IT Policy Manual	Markazia Management
R8.B	IT Policy	IT Policy Structures	Markazia Management
R9.A	IS Policy	IS Policy Manual	Markazia Management
R9.B	IS Policy	IS Policy Structures	Markazia Management
R10.A	IT Space Physical Security	Secure Access Door	Markazia IT Dept.
R10.B	IT Space Physical Security	Server Room Upgrade	Markazia IT Dept.
R10.C	IT Space Physical Security	Physical Intrusion Detection	Markazia IT Dept.
R10.D	IT Space Physical Security	CCTV Monitoring	Markazia IT Dept.
R11.A	Cloud Services	Cloud Based Virtual Servers	Markazia IT Dept.
R11.B	Cloud Services	Implement DRAAS & BAAS	Markazia IT Dept.
R12.A	New ERP System	Project Timeline	Markazia Management
R12.B	New ERP System	COA Mapping	Markazia Management
R12.C	New ERP System	Historical Data Imports	Markazia Management
R12.D	New ERP System	Modify ERP Agreement	Markazia Management

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R13.A	CCTV System	Proper Design & Specifications	Markazia Management
R13.B	CCTV System	List CCTV In IT Strategy	Markazia Management
R13.C	CCTV System	Video Retention Library	Markazia Management

Within each domain section, the risk impact of our recommendations on the implementation of Markazia’s new ERP System project is classified as follows:

Recommendation	RISK IMPACT		
	Low Risk (L)	Moderate Risk (M)	High Risk (H)
RI.A	-	-	<b>Immediate Action</b>
R.IB	-	<b>Short Term Action</b>	-
RI.n	<b>Medium Term Action</b>	-	-

The recommendations are self explanatory and a reasonable number of them can be implemented by Markazia’s IT Department after setting priorities and obtaining the necessary funding and approvals from management. Some of the recommendations will require securing the services of external professional services providers for implementation, assistance and/or supervision.

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