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JORDAN WATER SECTOR – IT MASTER PLAN

FINAL REPORT TO USAID – AUGUST 2006

VOLUME II – APPENDICES

August 31, 2006

This publication was produced for review by the United States Agency for International Development.
It was prepared by Emerging Markets Group, Ltd.

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VOLUME II - APPENDICES

Submitted by:

Emerging Markets Group, Ltd.

Submitted to:

USAID Jordan

Contract No.:

AFP-I-00-03-00029-00, Task Order 518

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ANNEX 1 - IT ORGANIZATIONAL STRUCTURE

IT ORG-ROLES & RESPONSIBILITIES

Org Roles and Responsibilities	Justification	Comments	Best located with
JVA			
WMIS system	Through this system JVA manages and controls water distribution and consumption in the Jordan Valley.		
Dams department	This department is responsible for supervising over water collecting and controlling water levels in the dams.		
Administration systems (FAS)	This system provides accurate and reliable cost and revenue information in a timely manner to support management decision-making process.		
GIS system	Through this system JVA can store, retrieve, view and analyze geographical data that can be utilized by the top management in planning, evaluating and decision-making.		
Archiving system	This system provides a database for storing all the documents kept by the divan department in binary format.		
Land department	This department is responsible for land acquisition, allotment of agriculture units, lease of pieces of land for investment purposes and other land related responsibilities.		
Maintenance department	It is responsible for carpentry, ironsmith work and the maintenance of all the vehicles that belong to JVA.		
Technical Support HW, SW and NW for HQ and Remote sites	Essential for HQ users and Activities	Excluding the Units LEMA, Aqaba, NGWA	
LEMA			
Keep and Maintain Data dictionary	Essential for MWI data Standards	Team work with the Units	
MWI Web management	One Interface for MWI, It reduces the customer confusion since it is one gateway to water information	Provides links to units web sites	

Org Roles and Responsibilities	Justification	Comments	Best located with
Email System Management	Essential for the business Communication		
Follow-up the HQ Maintenance Contracts with 3rd parties	Essential for the business process		
Coordinate the Implementation of backbone network	Keep standard and insure reliable connectivity		
Coordinate the Implementation of backbone Applications	Insure the Applications standard and the Integrity		
Procurement of HQ Hardware	One standard in one body, Lower prices, minimize points of contacts,		
Procurement or Development of HQ Software	Essential to facilitate the HQ business		
PMU			
Help Desk	Provide technical support to clients (PMU network users) both hardware and software support.	Essential role for the IT department in the PMU	PMU
LAN Operations(Managing users, groups, users data, services, shared resources, backup and restore, managing servers, etc...)	Run and maintain the LAN to ensure that a good infrastructure with high level of security and availability.	Data and servers belong to the unit with shared services	Infra structure MWI, but servers, data, backup , restore and service should be within PMU
Web Publishing	Publishing information about PMU, its mandate, vision and mission, projects, tenders, vacant positions, events and news. To promote it locally and internationally both in Arabic and English languages	The design and contents owned by the UNIT	PMU and/or MWI
WWW and E-mail	Provide connectivity with local and international partners, customers and stockholders.	Web browsing and e-mailing	MWI
Applications	Run and maintain business applications	Like dewan system, ACCPAC and KPI	PMU
WAJ			
Operation & Maintenance	<p>Keeping H/W and S/W in perfect status and high performance by :</p> <ul style="list-style-type: none"> • Technical support & maintenance through qualified IT staff. • Outdoor service providers 		

Org Roles and Responsibilities	Justification	Comments	Best located with
	(contracts) <ul style="list-style-type: none"> Spare parts should be available with international standard all around year. 		
Support	<ul style="list-style-type: none"> Users should be provided by all necessary items related with their actual needs to improve the performance. 		
Research & development	Establishing policies and procedures for data quality assurance based on in international standard.		
Risk Management	Unifying risk management in order to : <ul style="list-style-type: none"> Improve information security by establish backup and disaster recovery strategy and level of access. Decrease the high turnover rate by out sourcing staff salaries and special contracts conditions. 		
Data flow & Data support	<ul style="list-style-type: none"> Establishing policies and procedures for data collection and flow Supporting leadership by providing right information. Support E-government 		
NGWA			
Introduce The Technical Support for the users connected to it (MWI Building, Gov. not have IT units)	It is exist in the main building	Introduce The Technical Support for the users connected to it (MWI Building, Gov. not have IT units)	It is exist in the main building
Coordinate Implementing Backbone Systems	It is related(connected) to all IT units	Coordinate Implementing Backbone Systems	It is related(connected) to all IT units
Coordinate Buying Hardware & Operating Systems for Backbone systems	It is related(connected) to all IT units	Coordinate Buying Hardware & Operating Systems for Backbone systems	It is related(connected) to all IT units

Org Roles and Responsibilities	Justification	Comments	Best located with
Introduce any new systems needed for the users connected to it (MWI Building, Gov. not have IT units)	It is exist in the main building	Introduce any new systems needed for the users connected to it (MWI Building, Gov. not have IT units)	It is exist in the main building
Coordinate the proper training for the users connected to it (MWI Building, Gov. not have IT units)	It is exist in the main building	Coordinate the proper training for the users connected to it (MWI Building, Gov. not have IT units)	It is exist in the main building
Coordinate Buying Hardware for the users connected to it (MWI Building, Gov. not have IT units)	It is exist in the main building	Coordinate Buying Hardware for the users connected to it (MWI Building, Gov. not have IT units)	It is exist in the main building
Coordinate with other units about policies & Plans done by the new tool	It is related(connected) to all IT units	Coordinate with other units about policies & Plans done by the new tool	It is related(connected) to all IT units
NGWA IT Tool			
<ul style="list-style-type: none"> - Define the main strategies, policies - Define the main systems (Backbone systems) to be implemented in the water sector - Define the proper Operating Systems & Hardware needed to meet the main Systems - Define the needed Standards - Define the Plans needed <p>Offcourse, such responsibilities should meet the business requirements, needs for the water sector</p>	To Improve & Enhance the decision making related to the IT Activities in the Water Sector, and in order to define the responsibilities for all parties , and to avoid the previous mistakes done		

Consolidated Roles and Responsibilities

Roles & Responsibilities	Justification
Provide HW Technical Support for all systems & Peripherals in HQ buildings and in the remote offices who belongs to HQ Directly (Units such as LEMA, NGWA, Aqaba.. are not included)	Important to keep the Activities in HQ Running smoothly
Provide SW Technical Support for users using SW and Applications in the HQ and its remote locations	
Provide NW Technical Support for HQ and its locations	
MWI WEB site Management	
E-Mail System Management for HQ Users	
Follow-up the HQ Maintenance Contracts with 3rd parties	
Risk Management	
Coordination Data Flow and data Support	
Research and Development	
Coordinate the Implementation of backbone network	
Coordinate the Implementation of backbone Applications	
Procurement of HQ Hardware	
Procurement or Development of HQ Software	
Keep and maintain a data dictionary with coordination of Units).	
Provide Entities with regular updates about the new changes and requirements occurred in the HQ	
Provide regular reporting to the proposed IT tool (Committee, Board).	

On the Top of All

A common IT Body, Committee, Or Board is required to:

- Insure the coordination availability among all water sector units and HQ as well
- Insure one Standard for various types of data distributed in sector's units
- Insure Knowledge transfer among the units
- exchange experiences
- improve and facilitate the decision making process for top Management

How:

- Define the main strategies, policies
- Define the main systems (Backbone systems) to be implemented in the water sector
- Define the proper Operating Systems & Hardware needed to meet the main Systems
- Define the needed Standards
- Define the Plans needed
- Units and HQ report to the IT body regularly
- Common decision making
- Regular Meetings for members

Who are the members?

- Water Sector IT managers or their delegates

IT Body reporting to sHE the Minister directly to keep comprehensive decisions for the water sector

IT ORG-HQ INFORMATION

Information	JVA	WAJ	MWI	PMU	Totals
# IT Staff					
· By Level					
1. PHD					
2. MSc.			2		2
3. BS.c	12	13	6	2	33
4. Diploma	7	14	2	1	24
5. Tawjehee		1	0	2	3
Total	19	28	10	5	62
Staff					
· Qualification					
1. MS.c			2	30	32
2. BS.c	12	12	6		30
3. Diploma	7	16	2	10	35
4. Tawjeehi			0		0
Total	19	28	10	40	97
· Skills					
1. High skill	2	11	4	15	32
2. Medium Skill	17	7	6	10	34
3. Low Skill	0	10		15	25
Total	19	28	10	40	97
· Age distribution					
1. 20-29	13	5	2		15
2. 30-39	6	13	6	30-40	21
3. 40-50		10	2		12
Total	19	28	10	0	57
Turnover level		45%/5years		15%	Normal

Information	JVA	WAJ	MWI	PMU	Totals
· By Type					
1. System Engineer	3	3	1		7
2. Network Admin		2	1	1	4
3. Programmer	6	8	2		17
4. Prog. Assistant	3	11			14
5. Data-entry	7		0	1	8
6. DbA			2		3
7. Maintenance Eng		2	2	1	6
8. Reporting Officer		1		1	2
9. IT Manager		1	1	1	3
10. Systems Analyst			1		1
Total	19	28	10	5	62

· Contract Vs full time			2 / 10	
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# Hardware	JVA	WAJ	MWI	PMU	Totals
· PC	250		95	40	385
· Server		2	2 Shared with WAJ for FAS		2
1. Unix Server	3				3
2. Windows server	19	18	8	5	50
3. Open-VMS server	2	1			3
Total	24	19	8	5	56
· Routers	6		2	1	9
· SAN		1	Shared with WAJ for FAS		1
Total	6	1	2	1	10
· Printers			8	2	10
1. Heavy Duty or NW	4				4
2. Laser	120	350	20	10	500
3. DeskJet	40	20			60
4. Plotter	5	6	2	2	15
5. Dot-Matrix	13	15	5		33
6. Scanners		12	4	1	17
Total	182	403	31	13	629

Information	JVA	WAJ	MWI	PMU	Totals
# of systems supported					
· Sector wide	2	8	1		11
· HQ Only	2	6	4	3	15
Total	4	14	5	3	26
Supporting "Technical" Staff				5	5
Budgets					
· Hardware	JOD 20,000.00		JOD 60,000.00		JOD 80,000.00
· Licenses	JOD 20,000.00		JOD 20,000.00		JOD 40,000.00
· New Projects					JOD 0.00
· Support – Dfine	JOD 50,000.00				JOD 50,000.00
· Total Salaries					JOD 0.00
Total	JOD 90,000.00	JOD 0.00	JOD 80,000.00	JOD 0.00	JOD 170,000.00
Training Courses attended					
1. ICDL	60	3	30	4	97
2. MS-Office	4	5			9
3. Windows Server 2003	6	2			8
4. MSCSE	6	1			7
5. Oracle Introduction	10	5	4		19
6. Oracle Advanced	4	5	3		12
7. LAN Design	3		3		6
8. CCNA		3			3
Total	93	24	40	4	161
Salary Levels	Av (250) JD			EC	
Less than 200 JD		5			5
200-300 JD		13	3	3	19

Information	JVA	WAJ	MWI	PMU	Totals
300-400 JD		8	6		14
400-500 JD		0			0
500-700 JD		2	1	1	4
More than 700 JD				1	1
Total	0	28	10	5	43

Mandate	-		Yes	
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Policies and Procedures		VMS Backup policy End of Water Billing Cycle Procedure SAN Backup	LAN Security	
# of Users Supported	250		95 +LAN Support for all staff of MWI	40

IT ORG-CONSOLIDATED ROLES FOR THE NEW HQIT

#	Mandate	Function	Justification							
			Assuring Data Integrity	Manage Risk	Purchasing Power	Back Bone Systems & Infrastructure	Staff Sustainability	HQ Systems & Infrastructure	R&D & Knowledge / Expertise	Bus. Performance & Decision-Making Support
1	Maintain backbone systems (Coordinatation, impliminetation and Support)	Financial Accounting System (9 Modules)	✓	✓	✓	✓		✓		✓
		GIS	✓	✓	✓	✓		✓		✓
		Archiving	✓	✓	✓	✓		✓		✓
		Land / Property Management	✓	✓						✓
		E-mail and Collaboration and Doc Mgmt	✓	✓		✓		✓		✓
		AM/FM/MM	✓	✓	✓	✓		✓		✓
		Customer Info. System Used by Multiple OE	✓	✓					✓	
2	Maintain and support backbone infrastructure and manage it is an economic reasons)	Network Management	✓	✓		✓		✓		✓
		WEB Publishing				✓		✓		✓
		Technical Support / Help Desk		✓				✓	✓	✓
		E-Government / e-Services		✓		✓		✓		✓
		Facilitate access to backbone systems from remote sites (work remotely)				✓		✓		✓
		Intranet				✓	✓	✓	✓	
3	Maintain the integrity of all data and information needed for system planning (water balance and capital budgeting/O&M subsidies), and performance oversight (regulation)	Research & Development		✓		✓	✓		✓	
		Unified Data Dictionary on Sector Wide Info (Knowledge Management/Center)	✓	✓						✓
		Act on Representative of water Sector with other Government Agencies	✓	✓						✓
		Establishing Policies & Procedures for Data Collection & Flow	✓	✓						✓
4	Provide staff development, training and rotation to build sustainability	Staff Development		✓			✓		✓	✓
5	Ensure Projects Monitoring & Evaluation & Conduct Processes Quality tests	Software Licensing	✓	✓	✓	✓		✓		✓
		PMO	✓	✓				✓		✓
6	Manage risk – backup, disaster recovery, access control + software development standards	Info Policy Management	✓	✓	✓	✓		✓	✓	✓
		Security	✓	✓	✓	✓		✓	✓	✓
		Risk Management	✓	✓	✓	✓	✓	✓	✓	✓
		Supporting Leadership by providing right data	✓	✓					✓	✓
		Backup & and Disaster Recovery = Business Continuity Planning	✓	✓	✓	✓	✓	✓	✓	✓
7	Procurement according to applicabile laws and bylaws	Procure and License backbone systems and infrastructure in addition to IT HQ own systems, hardware and other requirements		✓	✓			✓		
		Act as purchasing power for sector-wide procurement on behlaf of OE in order to utilize gov agreements and discounts		✓	✓					
		Seek to built special agreement for massive software and hardware procurement with main vendors		✓	✓					

IT ORG-CONSOLIDATED ROLES FOR NEW HQ IT ORG-SLIDING SCALE DEFINITION

#	Mandate	Responsibility of HQ	Responsibility of Operating Entity (O.E.)	IT Board	Comment
1	Maintain backbone systems (Coordination, implementation and Support)	Shared with O.E	Shared with HQ		Business Requirements/Needs Analysis is to be a shared responsibility between the IT HQ and O.E.
		Shared Among with O.E and IT Board	Shared with IT HQ and IT Board	Shared with IT HQ and O.E.	Procurement phase starts with RfP preparation, review, market survey, approval of the RfP and releasing to public tender
		Shared Among with O.E and IT Board	Shared with IT HQ and IT Board	Shared with IT HQ and O.E.	Evaluation criteria preparation, evaluate proposal, attend evaluation presentation, negotiate technical and financial term, and prepare evaluation report. A shared committee needs to be formed; the board will need to endorse the evaluation report for acquiring any backbone system. HQ Can sign the contract on behalf of the water sector
		Shared with O.E	Shared with HQ		Implementation plans need to be coordinated between IT HQ and all O.E. so as planning resources, hardware and related infrastructure can be ensured
		Coordinated with O.E	Coordinated with HQ		Training of End Users and Key Users need to be coordinated
		Shared with O.E	Shared with HQ		Preparing test cases and user acceptance test is to be planned jointly between HQ and OE, nevertheless each can prepare its own User Acceptance Test Cases according to business requirements and cycles
		Shared with O.E.	Shared with HQ	Oversee Rollout	Roll-out or go-live need to be jointly planned and coordinated between HQ and OE, involvement of resources, planning for business continuity and data conversion needs to be planned ahead and coordinated
		Shared with O.E.	Shared with HQ		A core support team needs to be formed by logically grouping dedicated backbone support/admin key users from HQ and OE, the core support team will be responsible for support backbone users, each within his organization. Nevertheless, in case a resource is not available within a certain organization, the counterpart from the core support team can replace

		Ensure Own Data Integrity	Ensure Own Data Integrity		Assuring data integrity and data quality is the responsibility of each organization
		Shared Among with O.E and IT Board	Shared with IT HQ and IT Board	Shared with IT HQ and O.E.	Renew of software licensing need to be collectively managed
2	Maintain and support backbone infrastructure and manage it is an economic reasons)	See LAN/WAN Scale Sheet	See LAN/WAN Scale Sheet		LAN WAN Scale Sheet!A1
		Maintain sector wide web presence & Provide Link to O.E	Maintain its own in case it exists else OE has to provide content to be included within sector wide web presence		
		Other than backbone systems, IT HQ provides tech support for its users	Other than backbone/shared systems, OE is responsible for providing support for its users		
		HQ is the gateway to e-gov services where it will provide one-window shop for water services and forward requests to the responsible OE	OE perform detailed e-gov transactions and communicate results to HQ		
		IT HQ Own Responsibility	OE Own Responsibility		Remote Access is facilitated to either - Provide Access to own data - Be able to remotely support critical and backbone systems in both cases, the agreement is that each organization is responsible for ensuring secure and proper remote access, nevertheless all need to implement and adhere to security and best of practice standards to minimize risk and ensure business continuity

		IT HQ is responsible for designing and implementing a sector wide Intranet			
3	Maintain the integrity of all data and information needed for system planning (water balance and capital budgeting/O&M subsidies), and performance oversight (regulation)	- Recommend New Systems - Provide Information on Technical Standards - Provide Analyst Reports - Disseminate Info & Reports	- Recommend Operational Software such as BMFO, Sewerage System..etc		
		- Consolidate Data and Information - Maintain Unified Data Dictionary - Provide Information for SG & Minister - Design Standards	Maintain its own data dictionary and Update HQ		
		Official Representative	Provide Information to HQ		
		Co-Design with OE	Co-Design with HQ	Review and Approve	
4	Provide staff development, training and rotation to build sustainability				
		Shared with OE	Shared with HQ		Defining the needs is seen as a shared activity between IT HQ and OE on a sector-wide and in order to focus on building capacity for core team and backbone support
		Shared with OE	Shared with HQ		Career development, certification and capacity building is also seen as a shared activity
		IT HQ Responsibility			Tendering is the responsibility of the IT HQ and update OE

		Shared with OE	Shared with HQ		evaluation of training, career development plans is seen as a shared activity between IT HQ and OE
		Shared with OE	Shared with HQ		Follow-up on the progress of staff development plans is a shared activity among IT HQ and OE
5	Ensure Projects Monitoring & Evaluation & Conduct Processes Quality tests	- IT HQ is to forecast and plan for own needs - IT HQ do collective procurement	- OE forecast its needs and communicate it to IT HQ for procurement		IT HQ and OE forecast needs and authorize IT HQ to collectively procure licenses and use government agreements
		IT HQ is to create and draft	OE Review and Provide Comments	Approve and Endorse	
		Enforce on all its projects	Enforce on all its projects	Monitor	
		Keep Updating PMO Standards	Implement latest PMO Standards		
		IT HQ monitor the implementation of PMO standards	Report any noted exceptions	Ensure implementation	
6	Manage risk – backup, disaster recovery, access control + software development standards				
		IT HQ is to research for the best practice information policy, customize and adapt to the water sector needs	OE is to review and provide input	Approve and Enforce	
		IT HQ needs to implement the STDs to all its offices	OE implement STDs	Monitor	

	- Monitor the implementation of STDs across the water sector - Provide compliance reports and exceptions to board/OE	Report any exception	Monitor and Resolve Exception	
	IT HQ is to research for best practice security policy and adapt to sector-wide needs	OE is to review and provide input	Approve and Enforce	
	IT HQ needs to implement the STDs to all its offices	OE implement STDs	Monitor	
	- Monitor the implementation of STDs across the water sector - Provide compliance reports and exceptions to board/OE	Report any exception	Monitor and Resolve Exception	
	Develop Risk Management and Mitigation Plans	Review plans, recommendations and provide input	Approve and Enforce	
	Provide compliance report and note new risks and provide mitigation	Report risk and provide mitigation	Monitor	
	Consolidate and	Ensure Data Flow and	Monitor	

		Update EIS	Quality		
		Co-Plan, Co-Implement backup and business continuity scenarios	Co-Plan, Co-Implement backup and business continuity scenarios	Monitor	
7	Procurement	HQ Procure own hardware, software and other items. After board approval, manage the procurement cycle for backbone systems.	Be part of evaluation committee for selecting backbone systems	Review, Approve	
		HQ to procure on behalf of OE in case needed and deliver commodities directly to Oes	Inform OE with requirements and coordinate on specifications	Review, Approve	
		HQ utilizes its government relationship to build discounts	Inform of needs		

IT ORG-CONSOLIDATED ROLES FOR NEW HQ IT ORG -LAN_WAN SCALE SHEET

Network Management - LAN/WAN Responsibilities		Scale	Responsibility of HQ	Responsibility of Operating Entity (O.E.)	Responsibility of IT Board	Comment	
Network Management	Local Area Network (LAN)	Needs Definition and Requirements		Define Own	Define Own		Each organization defines its LAN needs and requirements
		LAN Network Design		HQ is to develop/propose best practice standards	Use Design Standards		IT HQ needs to play an active role in documenting and recommending design standards and latest technologies for LAN, OE need to use the standards and follow it
		Procurement and Acquisition		Procure Own	Procure Own		Procurement to be done separately according to applicable laws/bylaws
		Installation and Supervision		Install Own	Install Own		Installation to be done separately unless a collective tender has been released
		Maintenance and Support		Maintain its Own	Maintain its Own		Maintenance to be managed separately
	Wide Area Network (WAN)		Between HQ and OE		O.E. and its Offices	HQ and Other Gov Agencies and Semi-IT	
	WAN	Needs Definition and Requirements		Bandwidth, Topology and other WAN connectivity design specifications needs to be jointly agreed with OE	Bandwidth, Topology and other WAN connectivity design specifications needs to be jointly agreed with OE	OE is responsible for interconnecting its offices and make sure its consistent with WAN topology	HQ is responsible for connecting its semi-IT to its WAN and provide connectivity with other gov agencies such as MoICT of E-Gov network
		WAN Network Design		Designing OE connectivity WAN needs to be coordinated between HQ and OE	OE needs to understand the connectivity requirements and provide input based on its operations and number of its offices	When interconnecting its offices, OE needs to ensure compatibility with HQ WAN for bandwidth requirements	HQ is in charge of designing WAN connectivity for its semi-IT and e-gov and need to make sure its consistent with other WAN branches
		Procurement and Acquisition		IT HQ is in charge of purchasing WAN connectivity equipment and related items to interconnect its O.E.s		OE procure WAN connectivity equipments and related items to connect its offices	IT HQ is in charge of purchasing WAN connectivity equipment and related items to interconnect its semi-IT and other E-Gov
		Installation and Supervision		Shared with OE	Shared with HQ	OE Own Responsibility	HQ Own Responsibility
Maintenance and Support		Shared with OE		Shared with HQ	OE Own Responsibility	HQ Own Responsibility	

IT ORG-GENERAL PRINCIPLES OF RELATIONSHIPS SHEET FOR NEW IT ORG TO IT BOARD, OPERATING ENTITIES, SEMI-IT SECTIONS

	IT Org	IT Board	O.E.	Semi-IT
IT Org		Rel - 1	Rel - 2	Rel - 3
IT Board	Rel - 1		Rel - 4	No Relation
O.E.	Rel - 2	Rel - 4	Rel - 5	No Relation
Semi-IT	Rel - 3	No Relation	No Relation	

Rel - 1 : Relation - 1 between IT Org and IT Board

#	During IT Master Plan Implementation	Post Master Plan Implementation
1	Actively participate in backbone system selection and procurement	Continue to be involved in backbone system selections
2	Oversee implementation of backbone systems	Monitor Project(s) Progress
3	Report on project progress, risks and obstacles	
4	Actively be involved in selection and acquisition of common infrastructure components	
5	Co-Design Policies and Procedures, approve and implement	Work as a regulator for IT projects sector-wide
6	Co-Recommend New Systems	Co-Recommend New Systems
7	Review and Approve Staff Development Plans Sector-Wide - IT Related	Monitor that plans are maintained
8	Co-Setup PMO for water sector with O.E. IT HQ is to keep updating PMO	Monitor PMO, Review and Approve Updates
9	Monitor the performance of IT HQ and assist in KPI's definition	Monitor KPI
10	Be responsible for successful implementation of IT Master Plan	Update Master Plan
11	Co-Implement best practices, standards in IT management, operations, security ... etc	Oversee continuity of implementing selected standards

IT ORG-IT BOARD MEMBERS

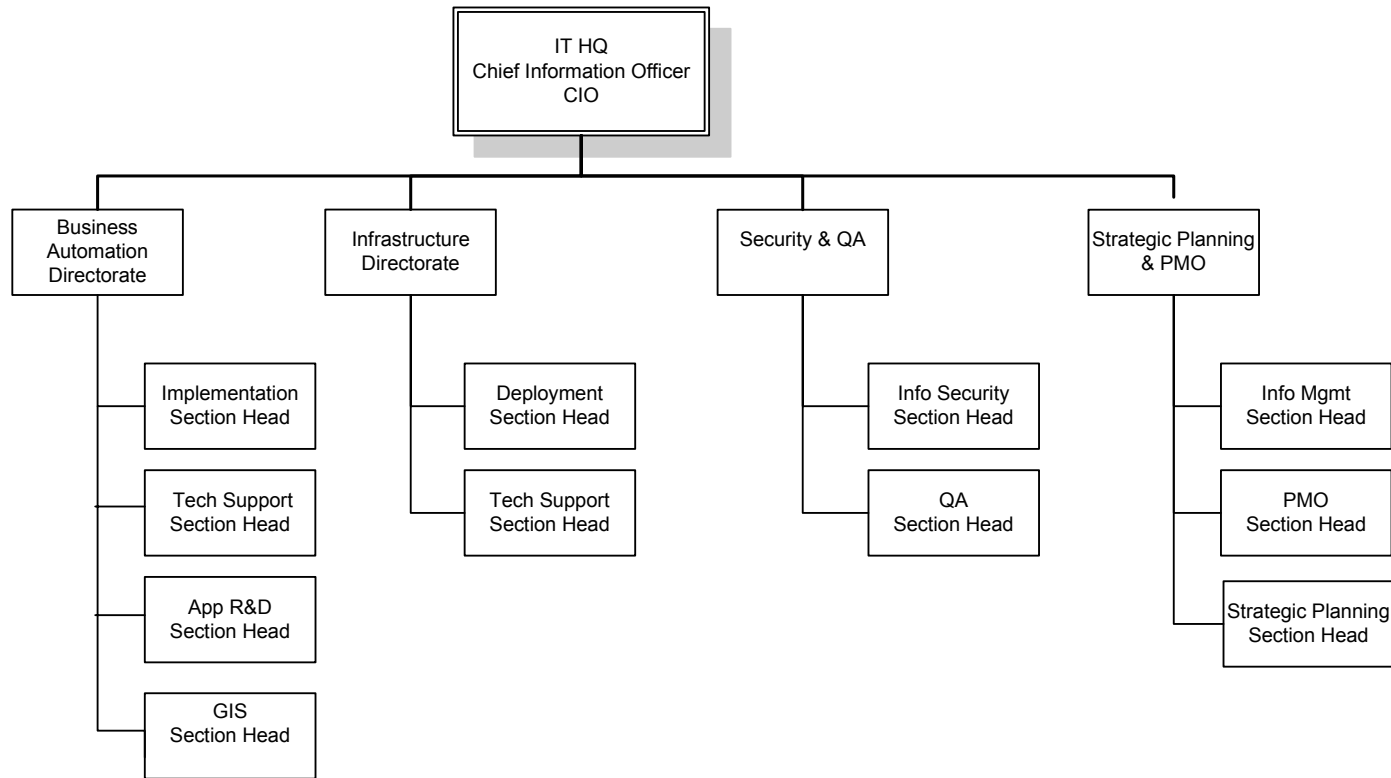
Voting (Equal Power)	Observers
IT HQ - CIO	USAID - One Seat
NGWA - CIO	GTZ - One Seat
LEMA - CIO	
AWC - CIO	MolCT - One Seat, by Invitation
Future OE(s) - CIO	PMU - CIO
	Semi-IT, on need basis

Some Guidelines

- 1 Head of IT Board is to be selected on yearly basis and must be either an SG or ASG
- 2 75% is passing grades for an acceptable voting process to be endorsed
- 3 Observers are called by invitation
- 4 Others ???

IT ORG-ITHQ ORG, MODEL

Model



IT ORG-IT HQ ORGANIZATION ROLE

1. Business Application Directorate

- Implement and Support backbone systems
- Maintain and Develop in-house built application
- Act as a research and development for utility based business applications
- Provide training services for backbone systems and other developed applications
- Ensure that applications are running on 24x7 basis
- Liaise with other directorates and operating entities on application related issues
- Communicate business needs and requirements to PMO for project initiation and procurement.
- Implement Security and Quality Assurance Recommendations
- Update sector-wide intranet and web portal from an application perspective

2. Infrastructure Directorate

- Implement and support HQ Local Area Network and WAN as per the IT consolidated roles.
- Co-Plan and Design WAN in cooperation with Operating Entities
- Implement security and quality assurance recommendations
- Acquisition of HQ hardware, operating system and infrastructure equipment
- Ensure that HQ IT environment is running on 24x7 basis
- Liaise with other directorates and operating entities on infrastructure related issues
- Cooperate with operating entities to design a business continuity and fail-over strategies
- Maintain sector-wide intranet and web portal from an infrastructure perspective
- Provide technical support for end-users

3. Security and QA

- Review, adapt and implement best practices in information security (example: ISO 17799)
- Develop, Manage and Mitigate risks within IT HQ directorates
- Audit for security compliance and provide recommendations to all directorates
- Cooperate with operating entities on adopting risk management, risk mitigation and information security policy and management
- Review and recommend best practice standards and procedures for other directorates such as ITIL and SDLCs.
- Act as a quality assurance for all IT HQ related projects, applications, processes and deliverables.

4. Strategic Planning and PMO

- Develop Project Management Practice policies, procedures and forms
- Act as project management office
- Be responsible for ensuring that PMO standards are adopted on all projects and properly communicated to operating entities
- Cooperate with operating entities to ensure endorsement of PMO
- Consolidate sector-wide information and be responsible to providing CIO and EIS with decision-making data and related information.
- Prepare tender documents and be responsible for procurement and negotiation of services, products and other IT commodities.
- Perform technology watch services and provide sector-wide with analyst reports on latest technologies and standards.

IT ORG-PLANNED TRAINING COURSES:

Training Course	LOE / Base
Oracle Applications	
Financials	2
Supply Chain	2
HRMS	2
Administration, installation & tuning of Oracle ERP	4
Oracle	
Oracle Application Developer - Rel. 2	4
Oracle Internet Application Developer- Dev. Rel. 6/6i	4
Oracle Java Developer - Oracle Java Developer	4
Oracle 9i Certified Professional Database Administrator	4
Oracle 9i Database Certified Master	2
Sun	
Sun Certified Programmer for the Java 2 Platform	2
Sun Certified Developer for the Java 2 Platform	2
Sun Certified Enterprise Architect for the Java 2 Platform, Enterprise Edition	2
Sun Certified Web Component Developer for the J2EE Platform	2
Microsoft	
MCP - Microsoft Certified Professional	6
MCSA - Microsoft Certified Systems Administrator	6
MCSE - Microsoft Certified Systems Engineer	4
MCDBA - Microsoft Certified Database Administrator	4
MCSD - Microsoft Certified Solution Developer	6
MCDST - Microsoft Certified Desktop Support Technician	10
Cisco	
CCDA® - Cisco Certified Design Associate	4
CCDP® - Cisco Certified Design Professional	4
CCNA® - Cisco Certified Network Associate	6
CCNP® - Cisco Certified Network Professional	2
CCIP® - Cisco Certified Internetwork Professional	2
Others	
ITIL Foundation Certificates and Service Managers	5
BS7799 Information Security Management	2
Certified Ethical Hacker	2
Security5 Certification for Knowledge Workers	2
Network5 Certification for Knowledge Workers	2
ISO 9001	4
ISO 25000 (Software & Systems Engineering)	2
Certified Software Test Engineer	2
Performance Management	15
Train the Trainer	15
Project Management	
Project Management Professional	6