



**GLOBAL
HEALTH**
SUPPLY CHAIN SUMMIT



Leading Commodity Security Efforts in Pakistan through Innovations in Technology and Interfacing with Vertical MISs

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2018 Global Health Supply Chain Summit
Lusaka, Zambia

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Case Study: Pakistan Contraceptive LMIS

Implementation

- Originally piloted in 19 districts and upon successful implementation was scaled up to all 151 districts and towns.
- This LMIS aggregates and calculates different logistics indicators in the form of reports and graphs



Where we are

80%
Full Stock Availability

96%
Reporting Rate

17,300
Reporting Points

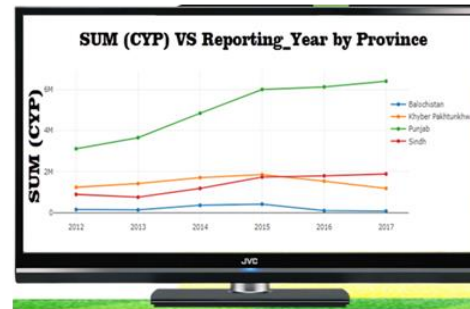
19,000
Transactions per Month

2.4 Million
GoP Financing



Analytics and Decision Support

- ✓ Stock Sufficiency
- ✓ VAN
- ✓ FASP



2018

2017

- Interfacing with vertical MISes
- Business Intelligence
- FASP module introduced
- Executive Dashboard
- End to end stock Requisitioning process
- LMIS Stats

2015

- Policy Level dashboards developed
- GSI compliance
- Stock Requisitioning Process



2014

- Warehouse Mgmt.
- \$100 m domestic financing
- Analytics and Dashboards



2011

- Consumption data entry via 7000 GoP trained staff across the country

2010

- Storage data visibility
- Distribution

- District level Inventory Management introduced
- Stock optimization for SDP to SDP distribution
- Bulk Notifications and Alerts



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Sequence

- Pakistan LMIS Executive Dashboard & Alerts System
- Optimal Stock Distribution/Optimization Intelligence
- Use of technology to generate quantitative and qualitative analysis for performance improvement in Pakistan (M&E dashboards)
- Handling vertical health system datasets through interfacing
- Sustainability and ownership by the Government of Pakistan



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Pakistan cLMIS Executive Dashboard & Alerts System

Filter by

Reporting Month: 2018-09-30
Province: Punjab
District: All
Funding Source: All
 Show All Products

Provides stocks for central warehouse and districts

Condom
COC
Copper-T-380A
3-Month Ini

Go

Monthly Data

100 %

Average stock availability rate of Punjab District Stores for 4 products

98 %

Average stock availability rate of Punjab Service Delivery Points for 4 products

Average product availability status at district stores & service delivery points (SDPs)



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Pakistan cLMIS Executive Dashboard & Alerts System

Executive Dashboard Transactional Data

Products	Unit	Status	01-Sep-2018	
			Quantity	MOS
Condom (AMC**: 7,929,991.72)	PCs	Stocks at CW&S Expiring on and after: Jun-2021	136,640,085	17.23
		Pipeline	57,182,510	7.21
		Total	193,822,595	24.44
COC (AMC**: 672,428.78)	Cycles	Stocks at CW&S Expiring on and after: Jun-2019	12,783,638	19.01
Copper-T-380A (AMC**: 58,600.39)	IUD	Stocks at CW&S Expiring on and after: Jun-2020	1,603,668	27.37
		Pipeline	675,995	11.54
		Total	2,279,663	38.90
3-Month Inj (AMC**: 188,529.17)	Vials	Stocks at CW&S Expiring on and after: Mar-2020	3,721,854	19.74

Indicates months of stock and quantities of condoms at central warehouse

Indicates months of stock and quantity of condoms in pipeline at central warehouse

Indicates product stock status, i.e. stockout, under stock, overstock and satisfactory as per defined min/max

Indicates product expiry

Total CYP : 404,996

Indicates CYP of existing stock available

MOS Legend : ■ Stock Out (0 - 4.99) ■ Under Stock (5 - 6.99) ■ Satisfactory (7 - 14.99) ■ Over Stock (15 - 999999)

- ReOrdering Dates are calculated in order to maintain stock sufficiency level of 12-18 months
- Shipments may take estimated delivery time of 2 - 6 months.
- Key: POP (Progesterin only Pill), COC (Combined Oral Contraceptive); ECP (Emergency Contraceptive Pill), MoS (Months of Stock), AMC (Average Monthly Consumption)
- *All above estimated MoS represents provincially procured and MoNHSR&C allocations from past USAID support
- AMC** : Average Monthly Consumption calculated on last 12 Non-Zero months
- ReOrder On : Estimated Date to order , for maintaining minimum stock level.
- ReOrdering Quantity : Estimated quantity to be ordered.
- ReOrdering Quantity : Calculated only on current month.
- LHW Program reports only 3 products i.e. Condom ,COC , 3-Month Inj

Helps executives to initiate timely international procurement process as per dashboard product status



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Pakistan cLMIS Executive Dashboard & Alerts System

Stock Availability Rate at Districts of Punjab - PWD for Jun-2018

Product Wise



MOS at districts of Punjab - PWD - Condom for Jun-2018

■ Stock Out
 ■ Under Stock
 ■ Satisfactory
 ■ Over Stock

District	Stakeholder	SOH	Months of Stock (MOS)	Contact
Attock	PWD	62,300	0.33 ■	Email Message Call
Bahawalnagar	PWD	627,360	3.35 ■	Email Message Call

- Captures availability and reporting frequency of districts in the province
- Distribution planning and buffer stocks
- Unified collaboration
- Risk mitigation

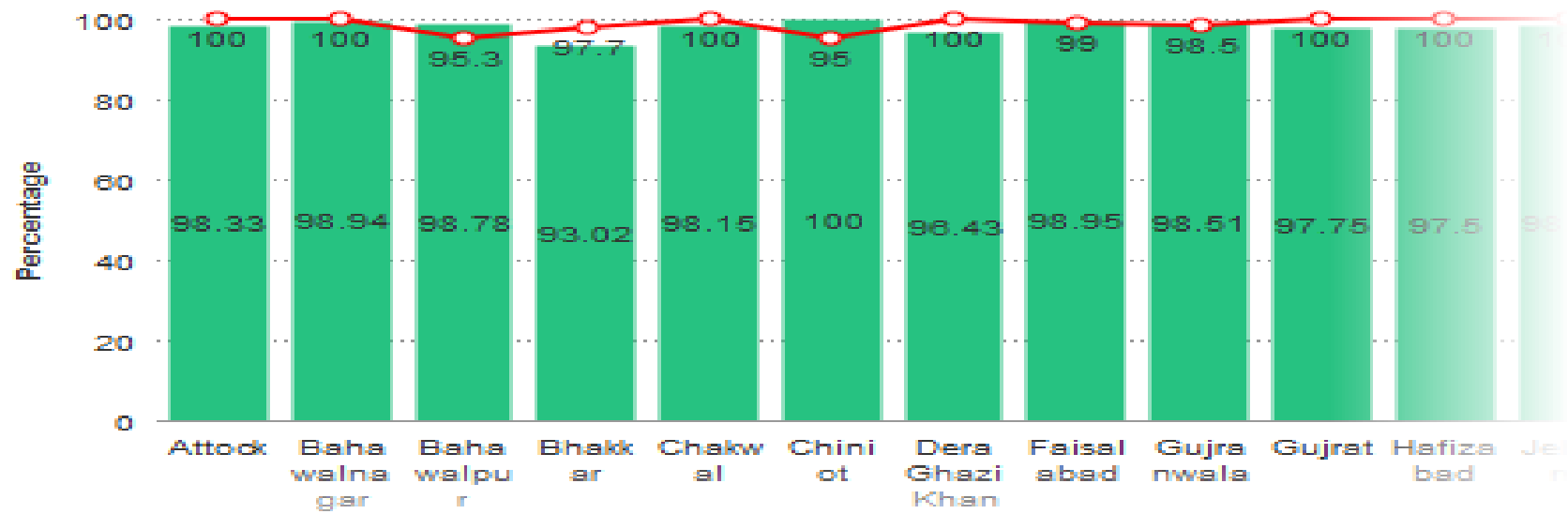


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Pakistan cLMIS Executive Dashboard & Alerts System

Stock Availability Rate at SDPs - Punjab - PWD - Copper-T-380A for Jun-2018



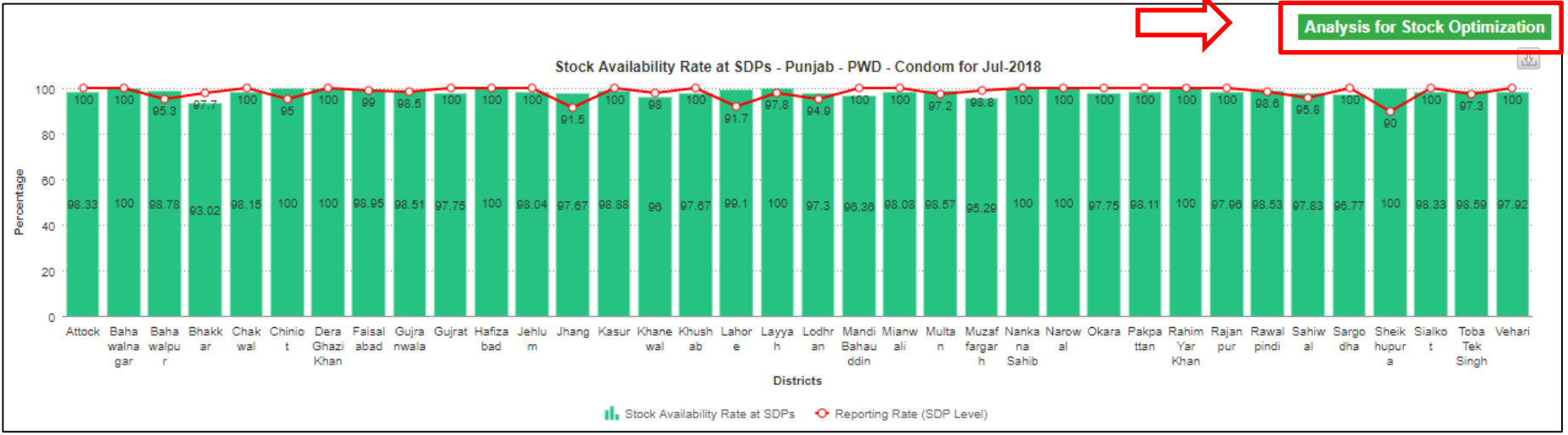
#	District	Reporting Rate	Stock Availability Rate	Action
1	Attock	100.00 %	98.33 %	Email Message
2	Bahawalnagar	100.00 %	98.94 %	Email Message



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Optimal Stock Distribution/Optimization Intelligence



(1) List of SDPs with stock status

Filter by

Month: 01-Jul-2018 | Stakeholder: PWD | Province: Punjab | District: Vehari | Product: Condom | **Go**

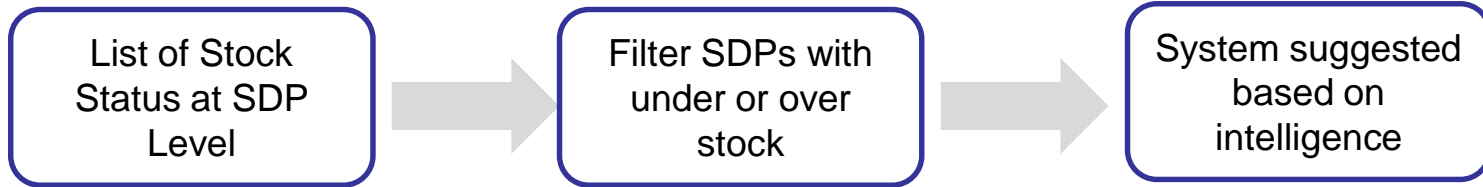
(1) List of Stock Status at SDP Level → **(2) Filter SDPs with unusual stock** → **(3) Analyze Stock:**

#	Facility Name	SOH	AMC	MOS	MOS Required	Status	Transferrable
1	FWC Haji Faqir	6,270	1,793	3.50		3 Over Stock	896
2	FWC RHC-Ludden	9,100	2,857	3.19		3 Over Stock	542
3	FWC 107/WB	6,300	1,977	3.19		3 Over Stock	375

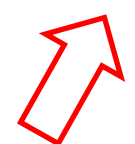


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Optimal Stock Distribution/Optimization Intelligence



#	Facility Name	From				To		
		SOH	AMC	MOS	Over Stock Qty	Transfer Qty	Transfer To	
1	FWC Haji Faqir	6,270	1,793	3.50	896	896	FWC 367/EB	
2	FWC RHC-Ludden	9,100	2,857	3.19	542			
3	FWC 107/WB	6,300	1,977	3.19	375			
4	FWC Temour Shaheed Colony	7,790	2,477	3.14	347			
5	FWC 8/WB	7,050	2,243	3.14	314			
6	FWC Muhammad Shah	5,800	1,843	3.15	276			
7	FWC Muslim Town	6,000	1,987	3.02	40			
8	FWC RHC-Gaggoo	5,420	1,800	3.01	18			





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Use of technology to generate quantitative and qualitative analysis for performance improvement in Pakistan (M&E Dashboard)

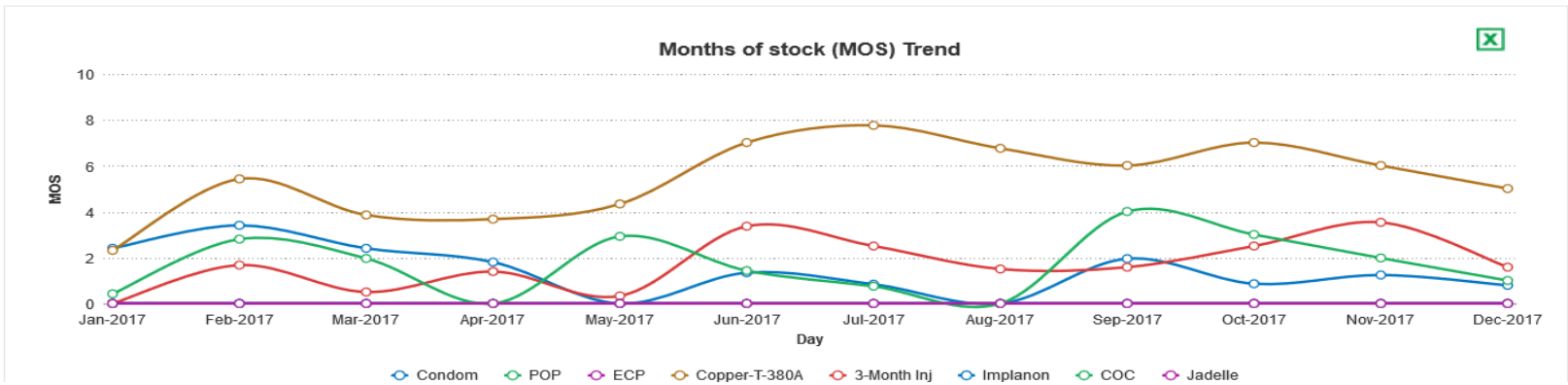
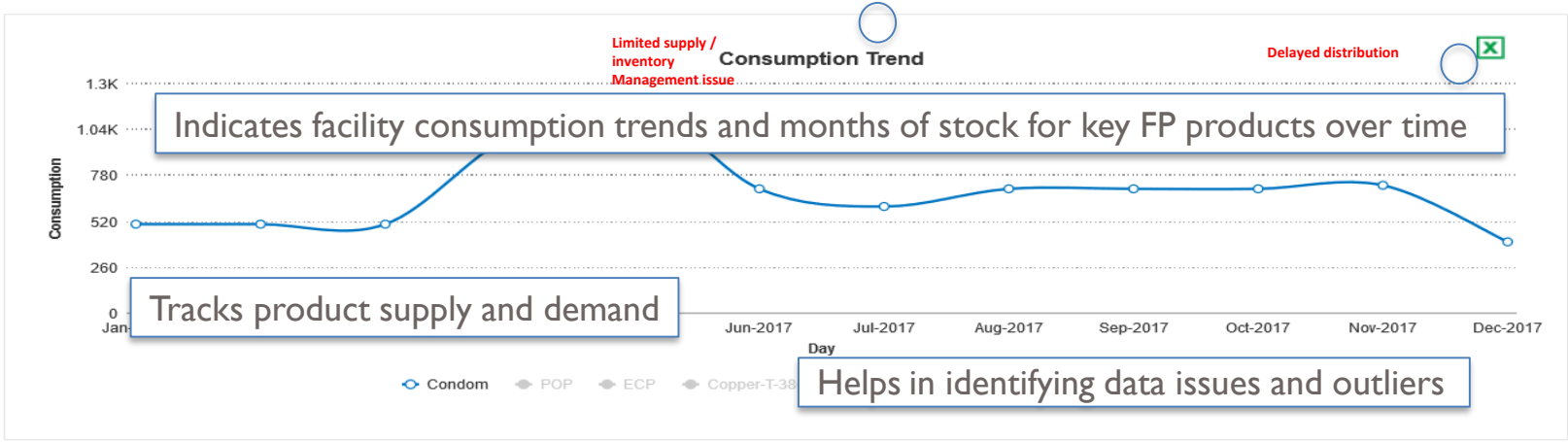
Filter by ▼

Improvement in distribution

Ending Month: Dec | Year: 2017

Improves requisitioning and planning of commodities at district level

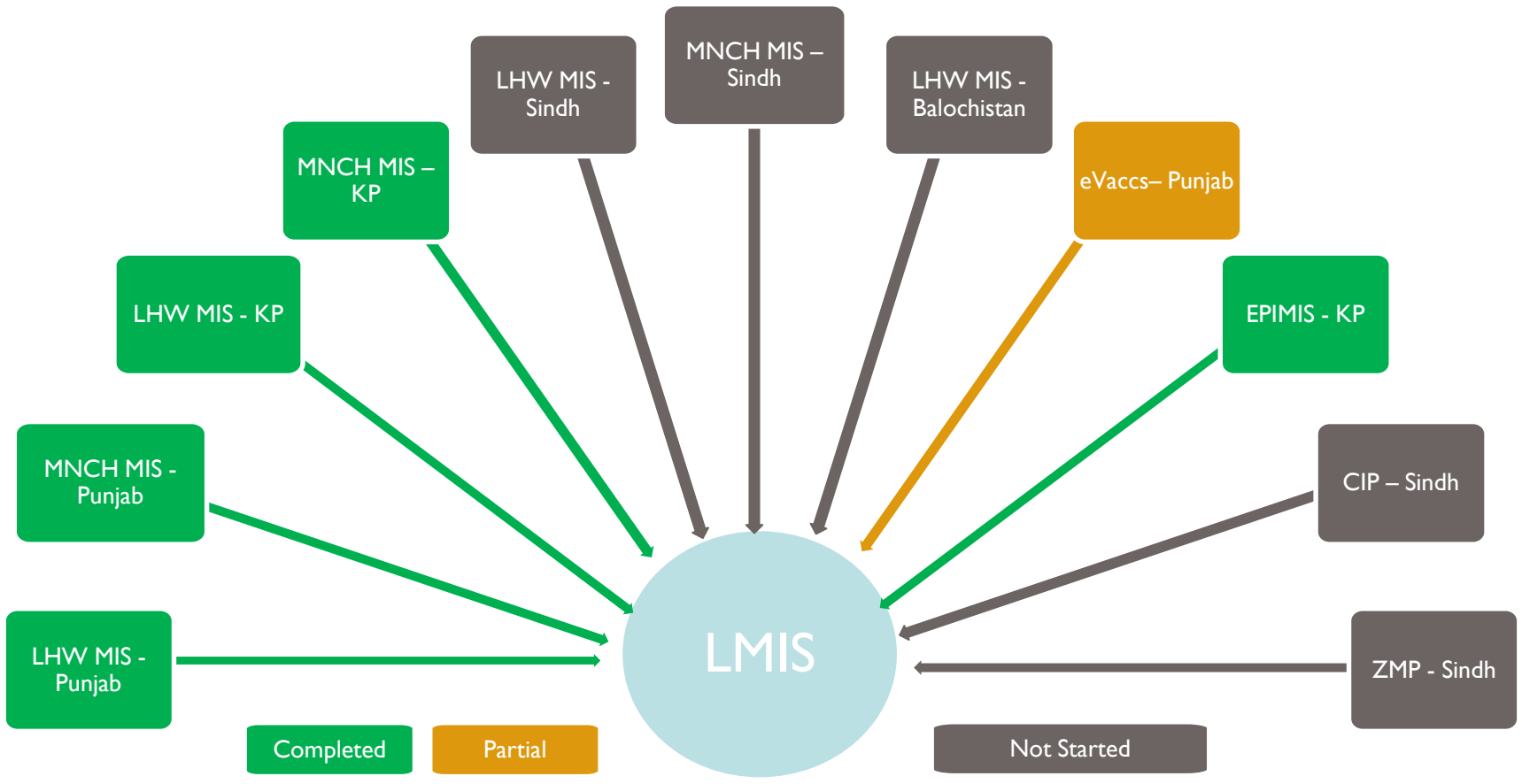
FWC Torawari - M&E Dashboard





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Handling vertical health system datasets through interfacing



Defragmentation



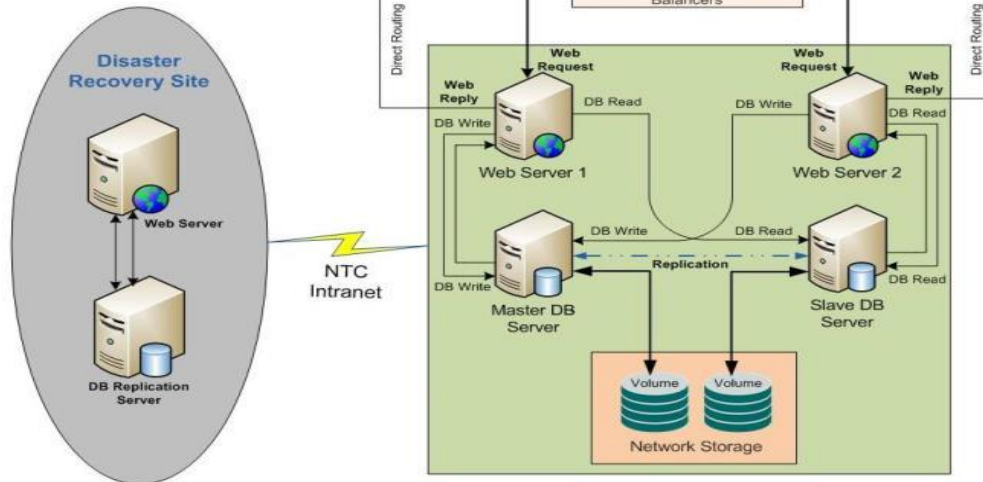
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Sustainability and Ownership by the Government of Pakistan

Software Details

Web Servers: WHM latest, CentOS 6.6, Apache, PHP
DB Servers: CentOS 6.6, MySQL
MySQL Replication is implemented for load balancing and high availability.
*Servers are virtualized by VMware Hypervisor



- USAID donated hosting infrastructure to National Data Center (GOP owned)
- Federal Ministry bears hosting charges
- LMIS enhancements 100% driven by government users
- Handing over to private entity under contract with GOP in process



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