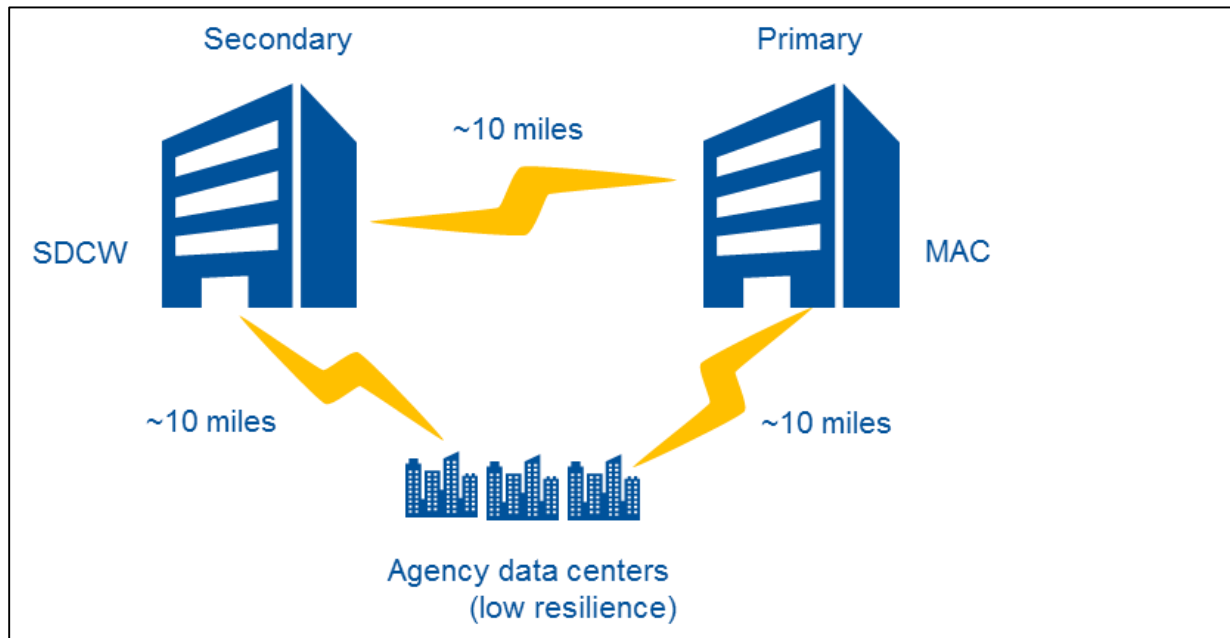# Attachment C

Network and Security Details

RFP #: SP-19-0025

1. Overview

This enclosure provides an overview of the network architecture in the current State of Arkansas DIS environment. The DIS network environment is distributed across MAC, SDCW and agency data centers. The current network environment incorporates LAN, WAN and WLAN equipment. Where appropriate, cost effective and feasible, the existing network equipment from MAC will be migrated to SDCW and/or the new colocation facility as part of the MAC migration initiative. The current SDCW data center will become the primary production data center. The new colocation facility, located at least 100 miles from Little Rock, will serve as a second production data center. The State's data center operations shall run as a shared services infrastructure across these two active data centers with hybrid cloud capabilities (public and private).

The high-level current state architecture has been shown below; the details regarding the network components are covered in the subsequent sections.

2. LAN and WAN equipment details

The LAN and WLAN environment of State of Arkansas is comprised of 203 network and security devices hosted in the MAC and SDCW data centers. The detailed breakdown for the equipment by location and by OEM is shown below.

Table 1: LAN & WAN devices

Location / DC	Switches	Routers	Firewalls	VoIP Gateways	Load Balancers	Access Points	WLAN Controllers	IDS/IPS	Any others
MAC									
Data Center Network	64	2	6	9	2	2	Cloud		
WAN Network	2	15						5	
Customer Owned	16	2	9					2	
Total MAC	82	19	15	9	2	2		5	0

Location / DC	Switches	Routers	Firewalls	VoIP Gateways	Load Balancers	Access Points	WLAN Controllers	IDS/IPS	Any others
SDCW									
Data Center Network	11		2	1	2	2	Cloud		
WAN Network	4	3						3	
Customer Owned	34	1	6						
Total SDCW	49	4	8	1	2	2		3	0
Total both locations	131	23	23	10	4	4		8	0

The table below provides details regarding the network equipment OEM.

Table 2: Vendor details of the LAN & WAN devices for MAC and SDCW, including equipment owned by other DIS customers, i.e. State Agencies

Devices	Vendor 1	Vendor 2	Vendor 3	Vendor 4	Vendor 5 & 6
Switches	Cisco		HP (DIS and Customer owned)		
Routers	Cisco	Juniper (DIS and Customer owned)	HP at SDCW West		
Firewalls	Cisco	Juniper (DIS and Customer owned)		Checkpoint (Customer owned)	Fortinet (Customer owned)
VOIP Gateway	Cisco				
Load Balancers	F5				
Access Points	Meraki				
WLAN Controllers					
IDS/IPS	Cisco				

Table 3: WAN management services

Site A	Site B	Provider	Product	Capacity (kb/s)	Technology
MAC	SDCW	UPN	Dark Fiber	40Gbps	Routed
MAC	SDCW	Ritter	Dark Fiber	40 Channels	DWDM
MAC	Fayetteville	Ritter	Ethernet	10Gbps	Routed via NLR Are-ON Hut
SDCW	Fayetteville	Ritter	Ethernet	10Gbps	Routed

3. Network Architecture

The network architecture of State of Arkansas is distributed across MAC and SDCW data centers.

A high-level network topology is shown below and captures the following elements:

- Network connectivity and bandwidth between the MAC and SDCW data center and the agency data centers, as applicable

- The security architecture comprising of firewalls, IDS/IPS, DMZ