

# DE24007 DTS Zero Trust Access Model

State of Arizona – DES/DTS

Project Investment Justification (PIJ)

ITAC - September 20th, 2023



## Agency Vision

All Arizonans who qualify receive timely DES services and achieve their potential

## Agency Mission

DES will ensure the strength and economic stability of Arizona by providing timely, temporary benefit assistance, and aid to vulnerable, qualifying Arizonans.



# Team Introduction

## Roles Present at ITAC

- Mark Darmer - DES Chief Information Officer
- Dan Wilkins - DES Chief Information Security Officer
- Clay Sikes - DES Deputy Chief Information Officer

# Project Introduction

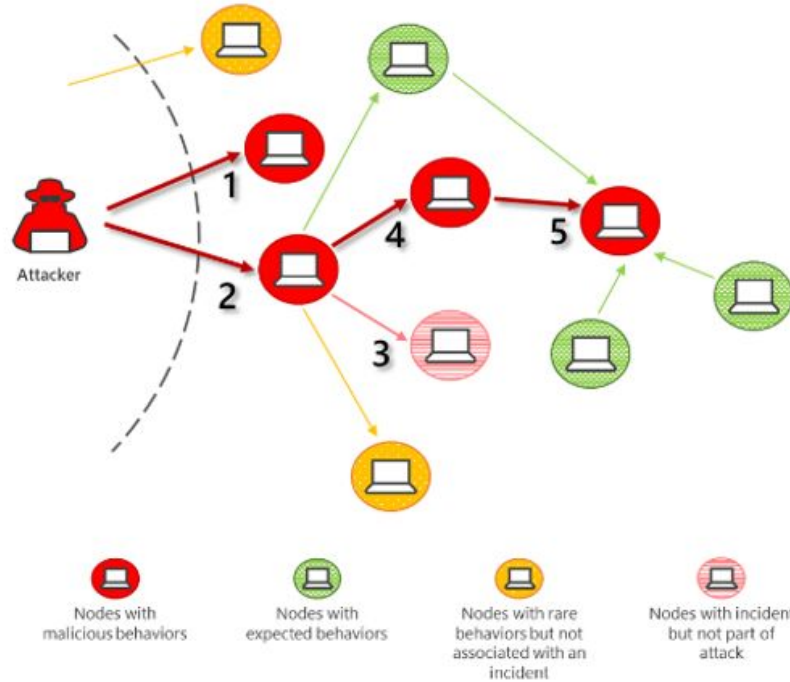
## Stated Operational/Business Issue

- Device and application access is currently provided via single authentication and implicit trust model which provides an attacker the ability to steal credentials, exploit weaknesses and gain unchallenged access to protected resources.
- Network architecture that impacts the agency's ability to use modern security solutions.
- Limited ability to isolate threats in a virtual environment (sandbox) to prevent threats from being introduced into the DES environment.

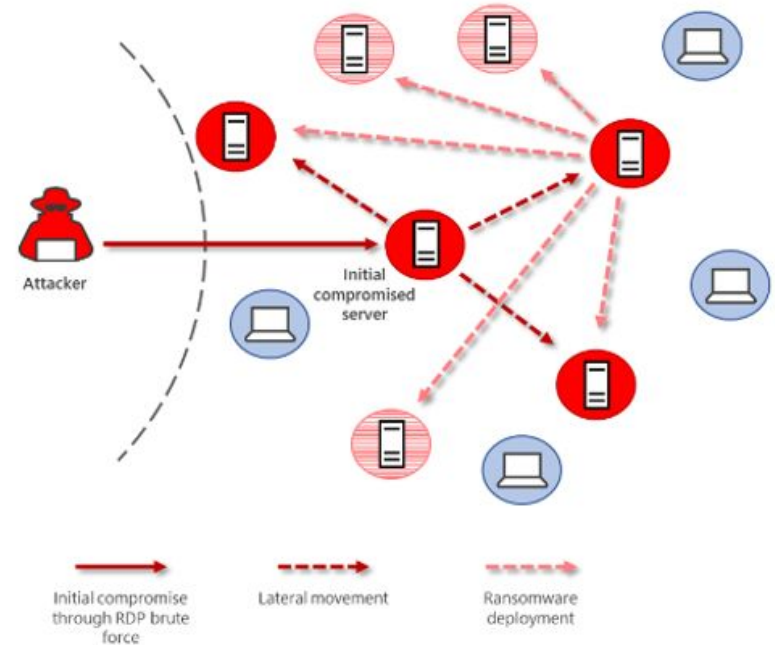
## Benefit to the State Agency and Constituents

- Implementation of this this zero trust strategy will provide enhanced security to protect agency resources.
- Network architecture micro-segmentation to support modern security solutions and layered defence model..
- Improves the agency's ability to mitigate malicious activity by adding a layer of protection against zero-day threats and Advanced Persistent Threats (APTs) through in-line and near real time Sandbox analysis.

# Single Authentication Attacks



In an implicit trust, single authentication model, an attacker can easily compromise a host.



From compromising a host, an attacker's ability to move laterally increases.

# Proposed Solution

## Overview of Proposed Solution

- Expert professional resources assessment and configuration of the DES infrastructure to support the zero trust architecture.
- Implementation of additional Zscaler module Digital Experience (ZDX) to proactively monitor any errors, staff interaction and critical application performance through isolation.
- Implement Zscaler's Advanced Sandbox to minimize Advanced Persistent Threats (APT's) and zero-day threats.

# Proposed Solution

## Due Diligence and Method of Procurement

- Provided vendors with project requirements.
- Reviewed vendor professional services quotes/statement of work from three vendors.

## Technology

- ZScaler is currently used within DES and other state agencies. Carahsoft is the current Zscaler software provider. Therefore only one quote for Software was obtained.
- 3 quotes obtained for Professional Services
  - WWT
  - CStor - Selected
  - GMI

CStor was the vendor selected for Professional Services. Lowest cost meeting the requirements.

# Project Responsibilities

## Identify Proposed Solutions Responsibilities

### Agency

1. Security review and approval
2. Risk and Compliance review and approval
3. Infrastructure execution of changes
4. Authentication and account management
5. Project management








### Shared

1. Project planning
2. Assessment review
3. Implementation
4. Architectural design
5. Configuration

### Vendor/Contractor

1. Environment and architectural assessment
2. Environment and architectural changes

# Project Timeline

Date	Oct 23	Dec 23	Feb 24	Apr 24	Jun 24	Sep 24
Kickoff meeting						
Assess current DES architecture						
Design system architecture based on best practices						
Configure systems to meet zero trust architecture requirements						
System health check						
Lessons learned						
Payment of Final Invoices						



# Project Costs

<b>Project Costs by Category</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Total</b>
Professional & Outside Services (Contractors)	\$729,356.21	\$53,674.02	\$56,357.72	\$59,175.61	\$62,134.39	\$960,697.95
Software	\$527,470.20	\$0.00	\$0.00	\$0.00	\$0.00	\$527,470.20
License & Maintenance Fees	\$0.00	\$388,570.80	\$407,999.34	\$428,399.31	\$449,819.27	\$1,674,788.72
<b>Total Development</b>	<b>\$1,256,826.41</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$1,256,826.41</b>
<b>Total Operational</b>	<b>\$0.00</b>	<b>\$442,244.82</b>	<b>\$464,357.06</b>	<b>\$487,574.91</b>	<b>\$511,953.66</b>	<b>\$1,906,130.45</b>
<b>Total</b>						<b>\$3,162,956.86</b>

# What Success Looks Like

## Change Management

### Project Milestones

- Kickoff meeting
- Assess current DES architecture
- Design system architecture based on best practices
- Configure systems to meet zero trust architecture requirements
- System health check/Testing
- Lessons learned
- Processing payments

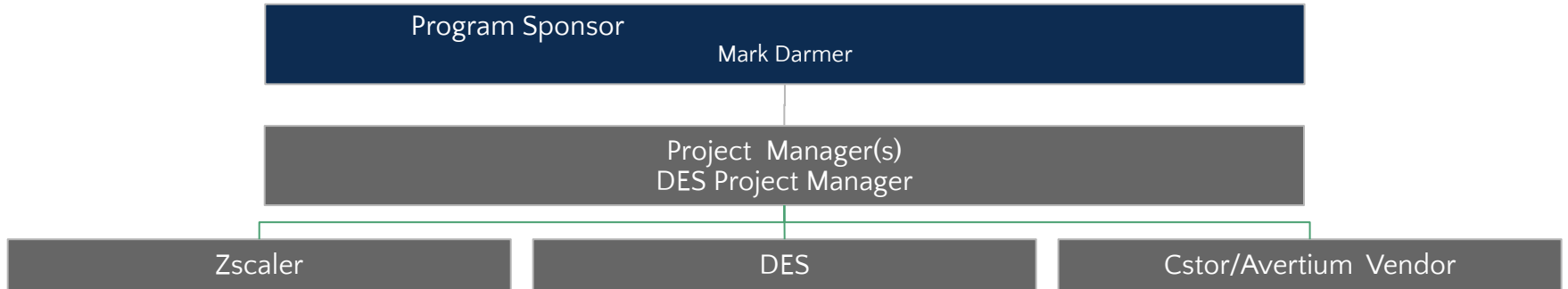
## Measures of Success

By the end of June 2024:

- a. Key configurations to the agency environment will be completed to support zero trust architecture.
- b. DES will be able to monitor end user workstations for performance when connecting to critical DES applications. This can potentially decrease problem resolution times by 30%.
- c. Ability to isolate and prevent emerging threats from compromising DES staff workstations, protecting 100% of 10,000 workstations from emerging threats.

# Q & A Session

# Project Structure



# Financial Impact (If Applicable)

## Breakdown of Financial Impact

Project Development Funding	
Base Budget - Available	\$495,951.64
Base Budget - To Be Requested	0
APF Budget - Available	0
APF Budget - To Be Requested	0
Other Appropriated - Available	\$17,712.56
Other Appropriated - To Be Requested	0
Federal - Available	\$1,201,923.61
Federal - To Be Requested	0
Other Non-Appropriated - Available	\$1,447,369.06
Other Non-Appropriated - To Be Requested	0

Total Development Project Funding	
Available Budget	\$ 1,256,826.41
To Be Requested Budget	0

Total Operational Funding - Project	
Available Budget	\$ 1,906,130.45
To Be Requested Budget	0