# IT Strategic Planning and Infrastructure for Vitech Project

## Presentation to Dallas ERF Board

Jan. 9, 2018

Employees' Retirement Fund of the City of DALLAS ®

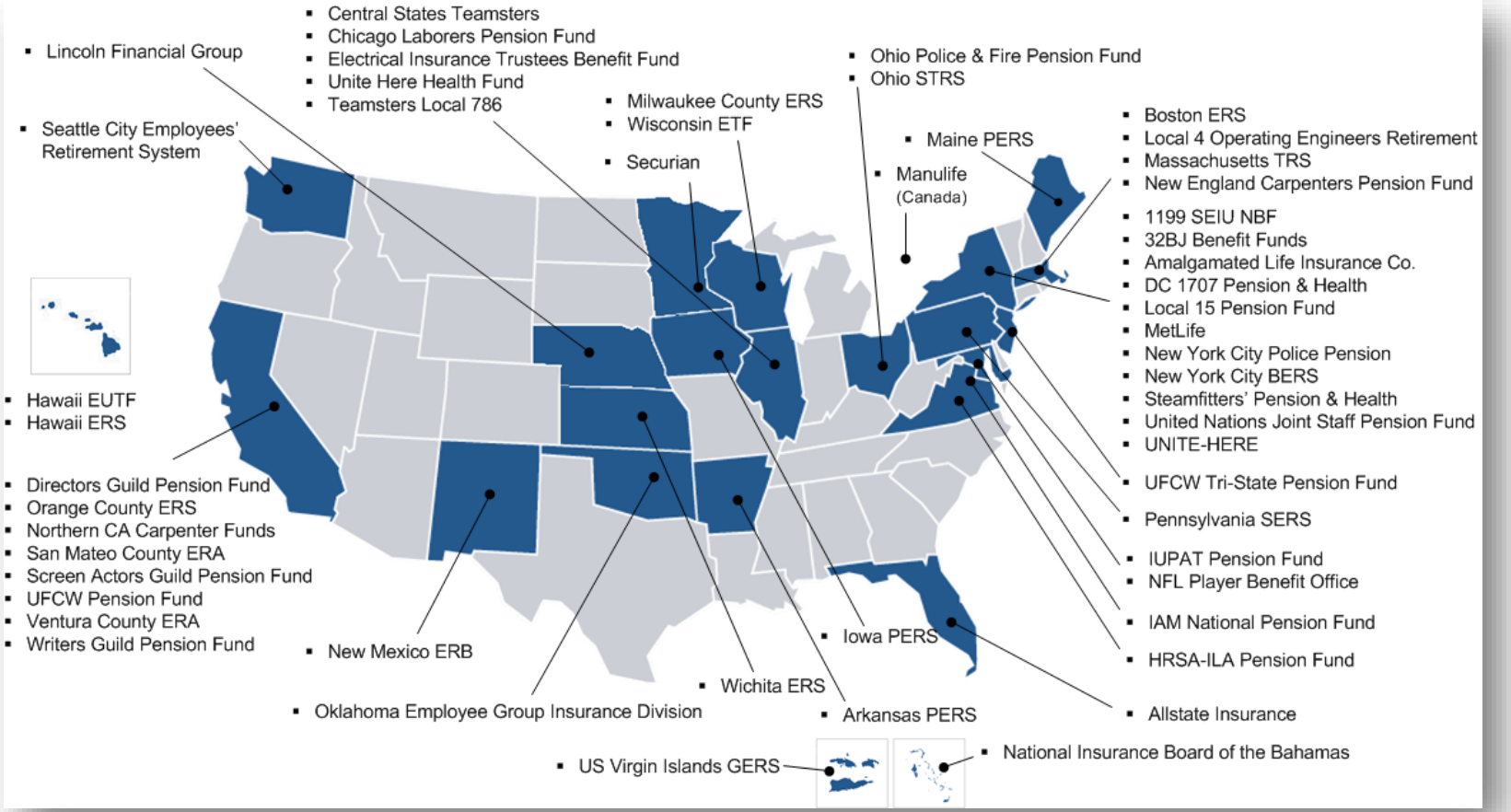
vitech

# Agenda

- Purpose
- Vitech and the Vitech Team
- Technology Team
- Cloud Solutions
- Technology Current Model & Strategic Plan
- Architecture to support Vitech Software
- Vitech Software Project Summary
- Key Partnership Success Factors
- Partnership with Vitech and iland through Project Lifecycle

# Vitech

- 850+ Employees
- 100+ Clients
- 25+ Years of Successful Operations
- 3 US Development Centers
- 1 Off Shore Development Center
- 2 Data Centers
- 1 Product… The V3 System

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# Vitech Team

| | | |
|---|---|---|
| • Jamie Vitiello | Executive Vice President | 22 Years with Vitech |
| • Chris Lodge | Senior Vice President: Delivery | 18 Years with Vitech |
| • Bob Vedilago | Vice President: Project Oversight | 17 Years with Vitech |
| • Darren Spindel | Project Manager | 6 Years with Vitech |
| • Raju Avanampudi | Solution Lead | 11 Years with Vitech |
| • Paul Kelly | Senior Director: Infrastructure Delivery | 18 Years with Vitech |
| • Alice Rischert | Data Conversion Lead | 12 Years with Vitech |
| • Arvind Gupta | Technical Lead | 11 Years with Vitech |

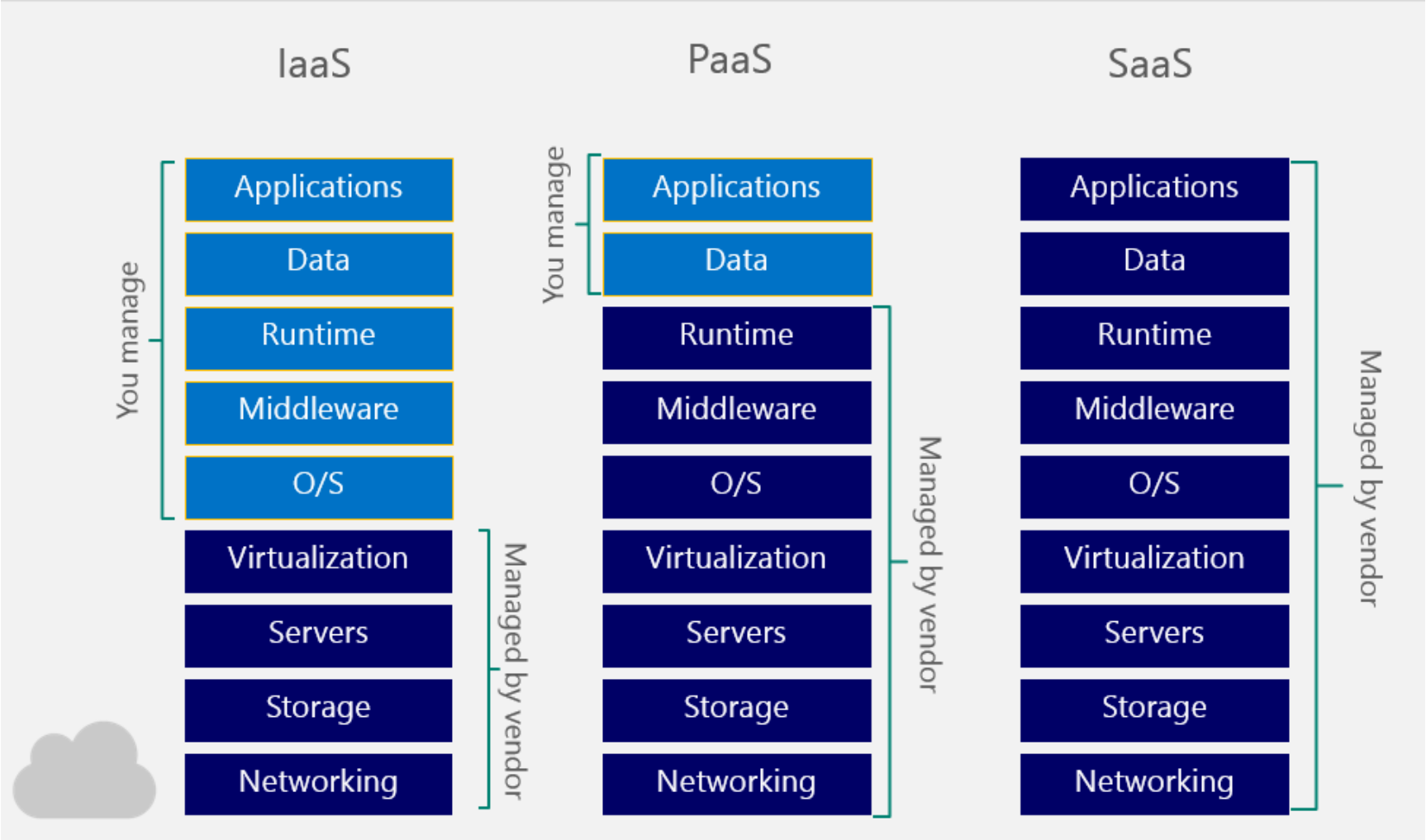
# Technology Team

- Duc Lam
  - Project Management
  - Architecture Solution
  - Database Analysis, Administration and Integration
  - Pension System Administration
- Jason Thompson
  - System Administration
  - Configurator
  - Desktop Support
- Ervin Frenzel
  - Security/Network Administration
  - Cybersecurity Validation (detection, monitoring, and prevention)
  - Desktop Support
- Jody Thigpen
  - Web Application Development
  - Portal Data Management
  - Web Services Framework Maintenance and Updates
  - Web Application Support

# Cloud Solutions

| Service | Service Definition |
| --- | --- |
| IAAS | IAAS is "Infrastructure As A Service". Here you are provided the physical infrastructure (server , storage , Network, etc ) by a vendor which you can access over internet and use to install your software , build or deploy your applications. |
| PAAS | PAAS is "Platform As A Service". Here a server along with a software environment(e.g Database , web server, etc) is provided. You can use the environment to build your applications and deploy it for use by your organization. |
| SAAS | SAAS is "Software As A Service". In this you have the complete application for a given purpose (CRM , payroll ,etc) which you use with/without customization. |

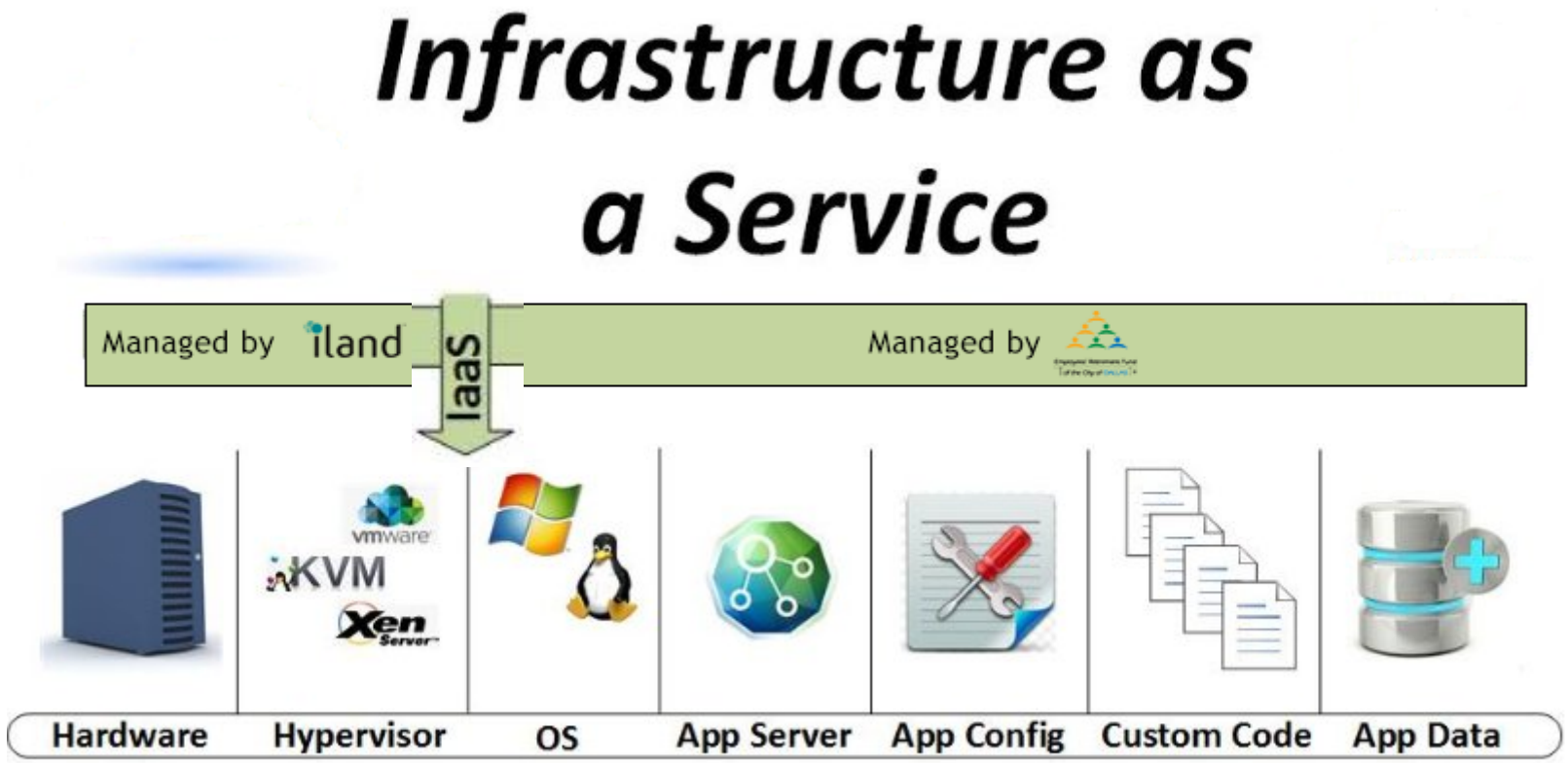
# Cloud Solutions (cont'd)



# Cloud Solutions (cont'd)

- Global cloud provider, started 1994 in Boston & Houston, headquartered in Houston since 1995, offering IaaS, DRaaS, BaaS
- Gartner Magic Quadrant for IaaS, DRaaS, top ten Forrester Wave Report for DRaaS
- Initially used by ERF for DRaaS before evolving into IaaS & DRaaS
- IaaS allows for ERF retention of VM ownership/control/portability
- Reserved Resource Reservation – Predefined compute resources such as CPU, RAM, Storage, Network are reserved for exclusive use by ERF
  - Granular control of resources – pay for what is needed
  - ERF control of resource allocation – many small VM's, single large VM, or any combination
- Pricing - Reservation, Burst, Reservation + Burst
  - Reservation – Compute resources such as CPU, RAM, Storage, Network are reserved for exclusive use
  - Burst – pay for resources as they are consumed
  - Reservation + Burst – Baseline compute resources with room to grow

# Information Technology Current Model



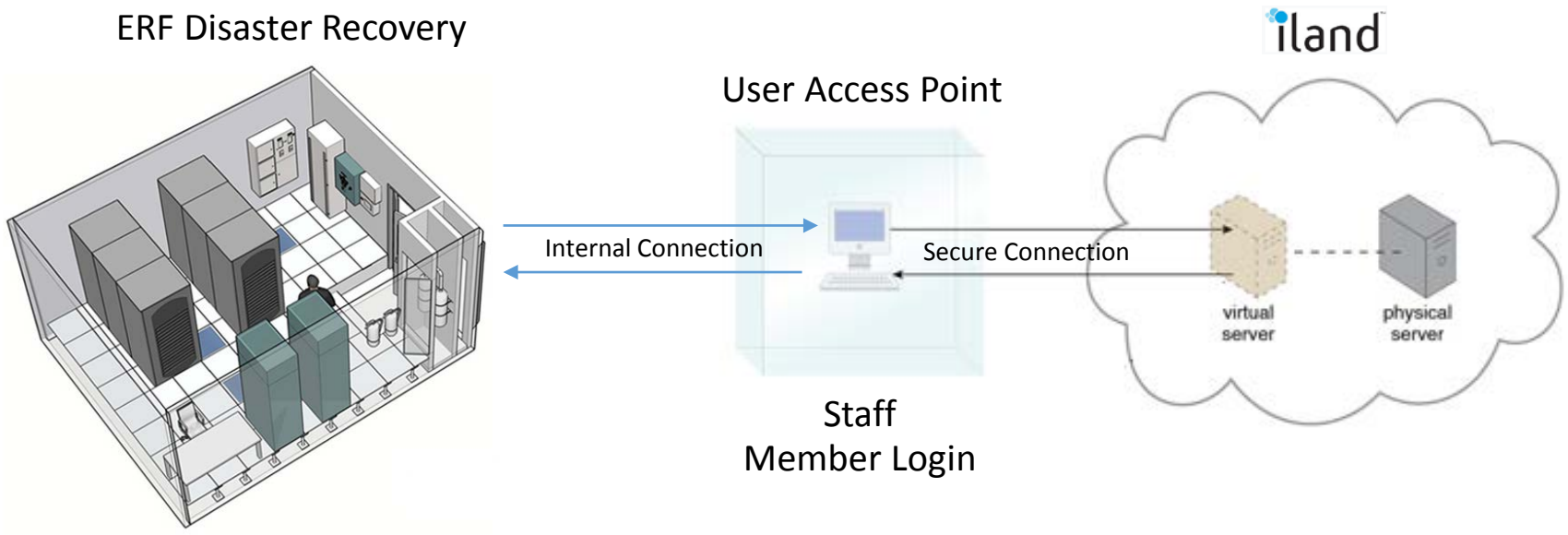
# Information Technology Current Model (cont'd)

- IT Infrastructure
  - Cloud based infrastructure with local Disaster Recovery
  - Encrypted tunnels to all partner sites (iLand, City of Dallas, and phone services)
  - We have complete visibility (including PC's, Routers, Switches, Servers, and printers)
  - Ability to identify, remediate, and verify known threats and vulnerabilities on premises and in cloud locale
  - Ability to control VPN access for all devices with connectivity to ERF resources
  - Cloud based Pension/Payroll System, Imaging System and Data mining/reporting
  - On Premise Development and Testing environments

# Information Technology Current Model (cont'd)

- Member Portal Services
  - Web Application Server / Oracle Database (MySQL/XE)
  - All access encrypted & systems access limited to specific required resources
  - Primary ERF website providing: all digital forms, plan information, communications content, member resources , schedules and calendars
  - myERF:  Active Member Portal, Retiree Portal , Communications Events Management, Death Report Management Application
  - Other Applications: RFP Management (RFP distribution and responses), Next Generation Registration Management, Healthcare/Disability Document Management

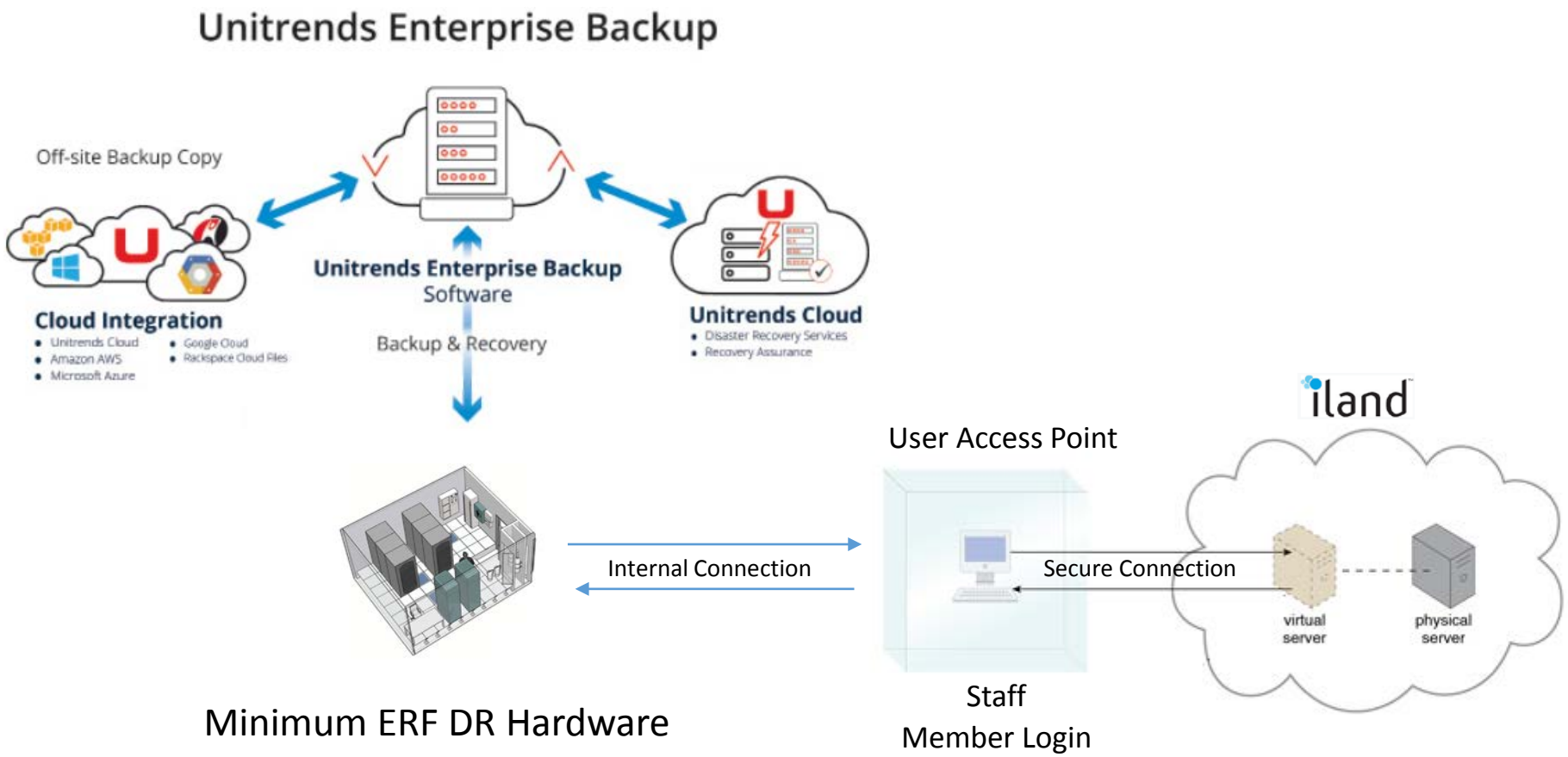
# Information Technology Current Model (cont'd)



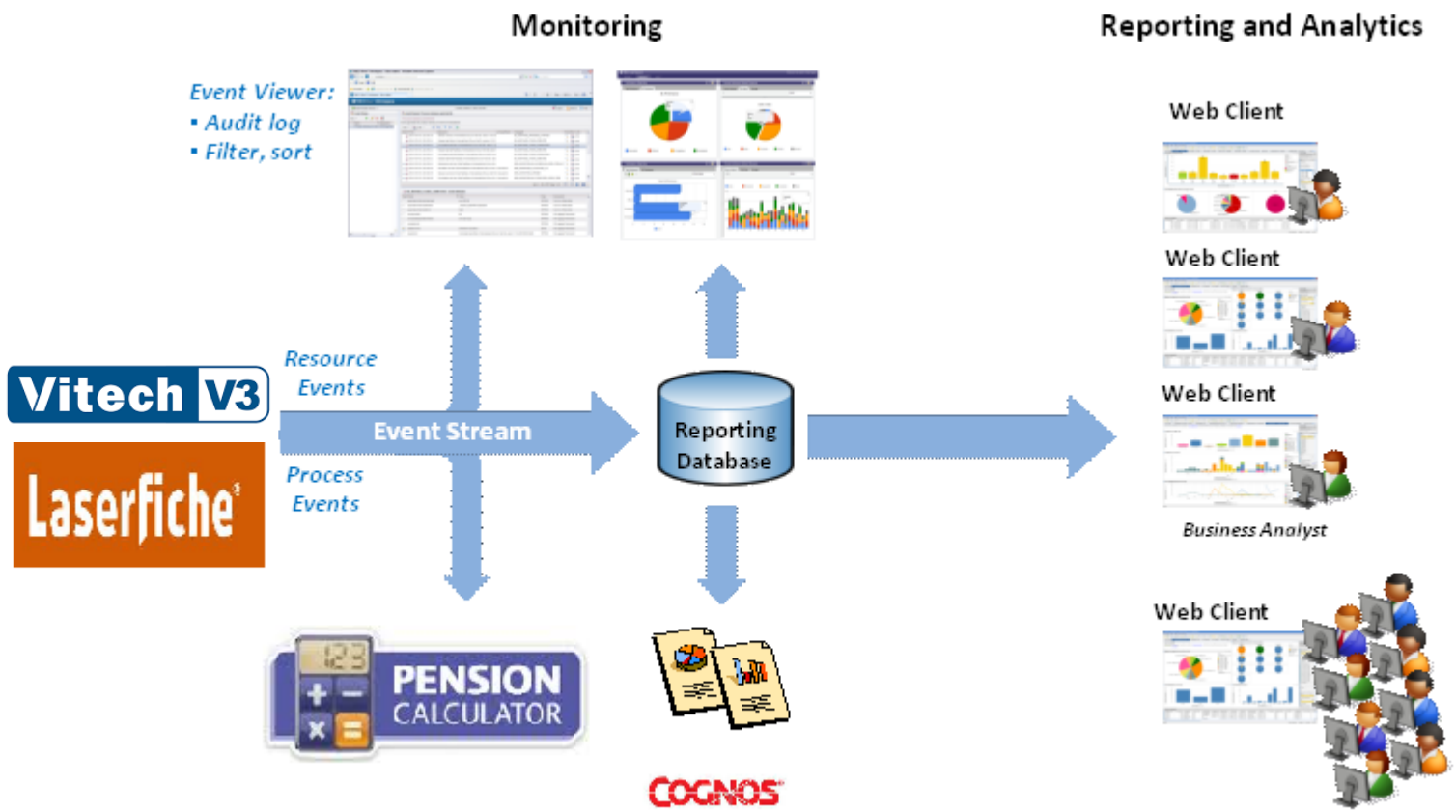
# Information Technology Strategic Plan

- ✓ Communications with partner sites secured through AES-256 encryption
- ✓ Isolated data and phone systems
- ✓ Physical system encrypted using Best in class encryption
- ✓ System security scanned with Rapid 7 (leading security vulnerability scanning engine)
- ✓ Systems patched (remediated) by systems/security administrator then validated for proper configuration
- o Implementation of Data governance plan for all ERF assets
    - o Categorization of data into two distinct groupings:
        - o Public (falls into Public records requests)
        - o Sensitive (contains non-public information not for public consumption ie. Social Security Numbers or other Personally Identifiable Information)
    - o Personally Identifiable Information (PII) categorized per National Institution Standards and Technology (NIST) into two distinct group:
        - o Personal Health Information (PHI)
        - o Payment Card Information (PCI)

# Information Technology Strategic Plan (cont'd)

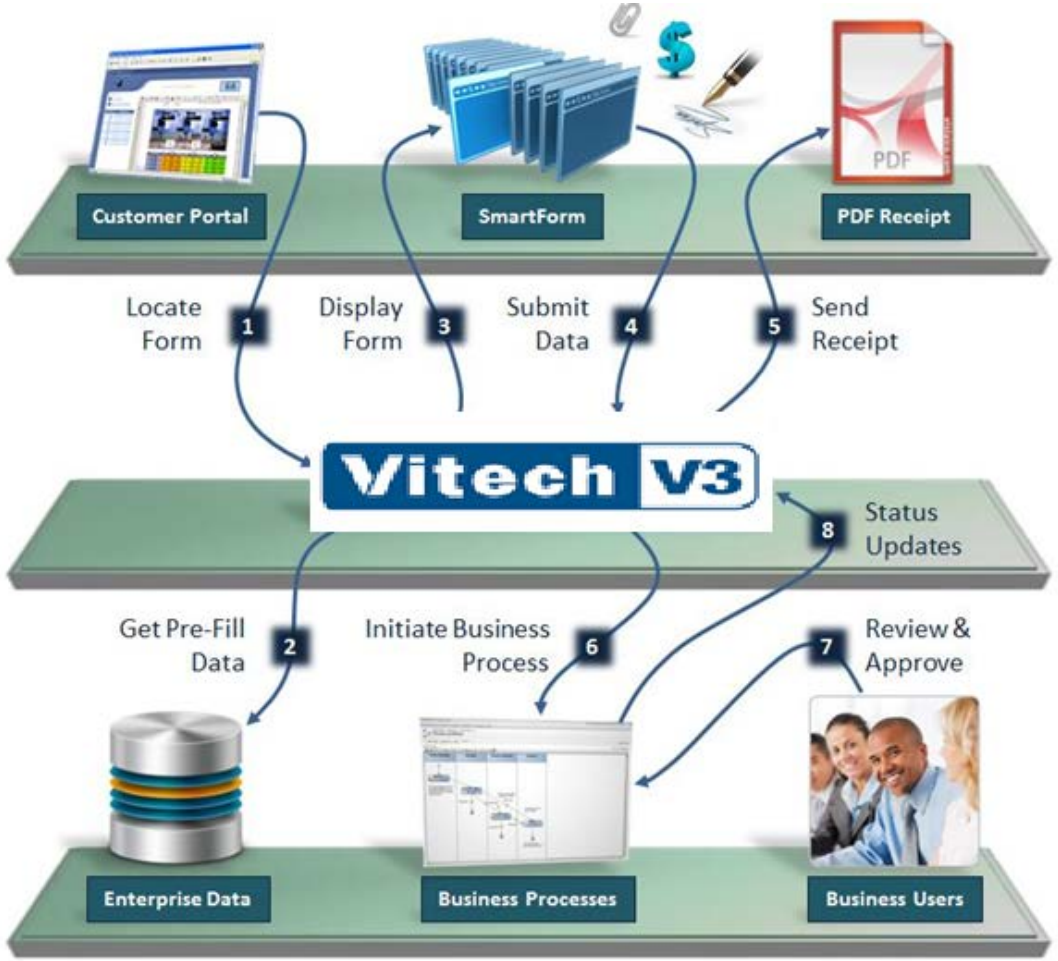


# Information Technology Strategic Plan (cont'd)



# Information Technology Strategic Plan (cont'd)

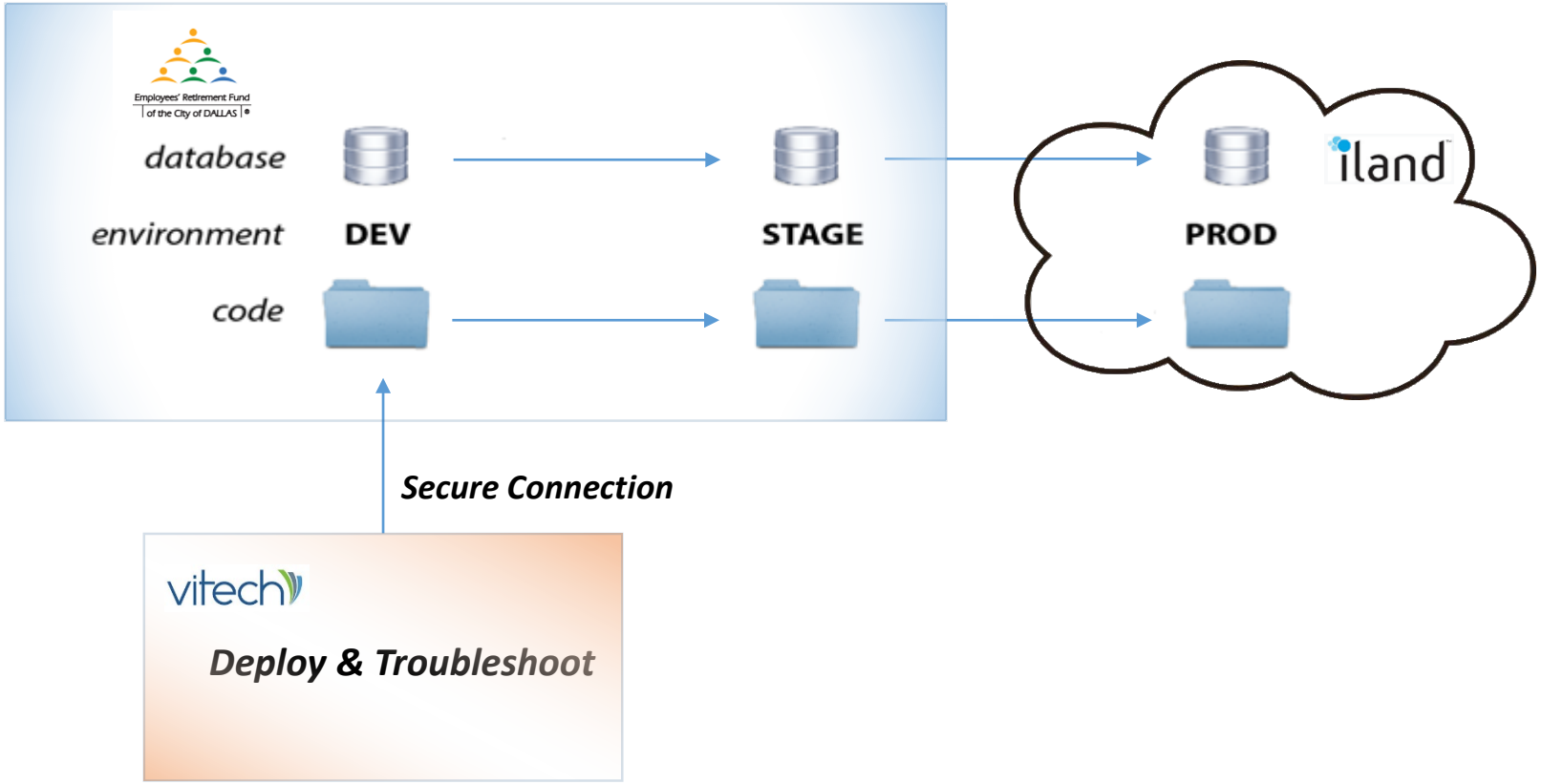
Workflow Process



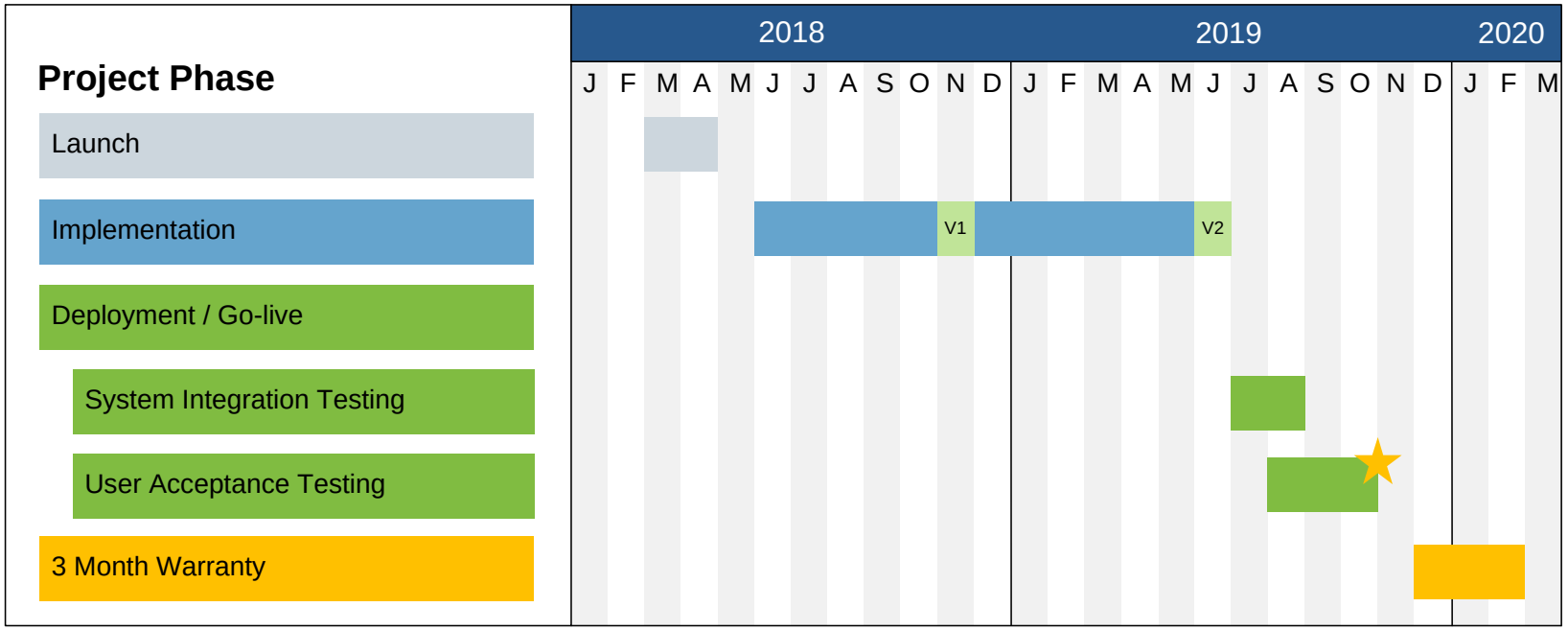

- Pension Administration System
- Member Portal Service
- eForm and SmartForm
- Imaging System
- Physical File Management

# Architecture to support Vitech's Software

- Create 3 vmware environments to support PAS project



# Vitech Software Project Summary




## 20-month Plan with Single Production Rollout

- Launch Phase
- Two Implementation Validation Testing Phases
- Vitech System Test Phase
- ERF User Acceptance Testing Phase
- Cutover and Production Rollout
- 3-month Warranty Phase
- 6-month grace period for project extensions

# Key Partnership Success Factors

## Technology
Cloud-Enabled
Supported/Runs on Multiple Platforms
Each Tier Can Scale Independently
Industry-Standard Security Framework
Multiple Integration Capabilities

## Communication
Change Management
Triage and Resolution
Risk Management and Reporting
Documented Procedures

PARTNERSHIP

## Responsibilities
Clear Delineation of Who Does What
All Parties Involved and Agree
Done Early
Documented for All Parties

## Project Management
Lead from Each Organization
Regular Recurring Meetings
Track to Overall Project Timeline
Manage Scope

# Partnership with Vitech & iland Strategy

| iland | Vitech | ERF |
|---|---|---|
| Provide Physical Resources | Data Conversion | Provide Operating Systems |
| Provide Underlying Network Infrastructure | Install and Configure V3 Application | Provide Network and Connectivity |
| Provide Security Requirements | Implement Security Requirements | Provide Cybersecurity Protection/Prevention |
| Provide Web-based access to VMs | Help Build ERF Business Requirements | Install and Maintain 3rd-party Software |
| Provide Replication For DR Purposes | Provide V3 Application Updates | Implement Retention Policies |
| Execute Failover & Scalability | Construct ERF Business Workflows | Implement Security Requirements |
| Execute Vulnerability Tests | Provide Integration Expertise | Provide Backup and Recovery |
| | Patch and Update V3 Application | Patch and Monitor Operating Systems |
| | Tuning of V3 Application | Desktop, System and Network Support |