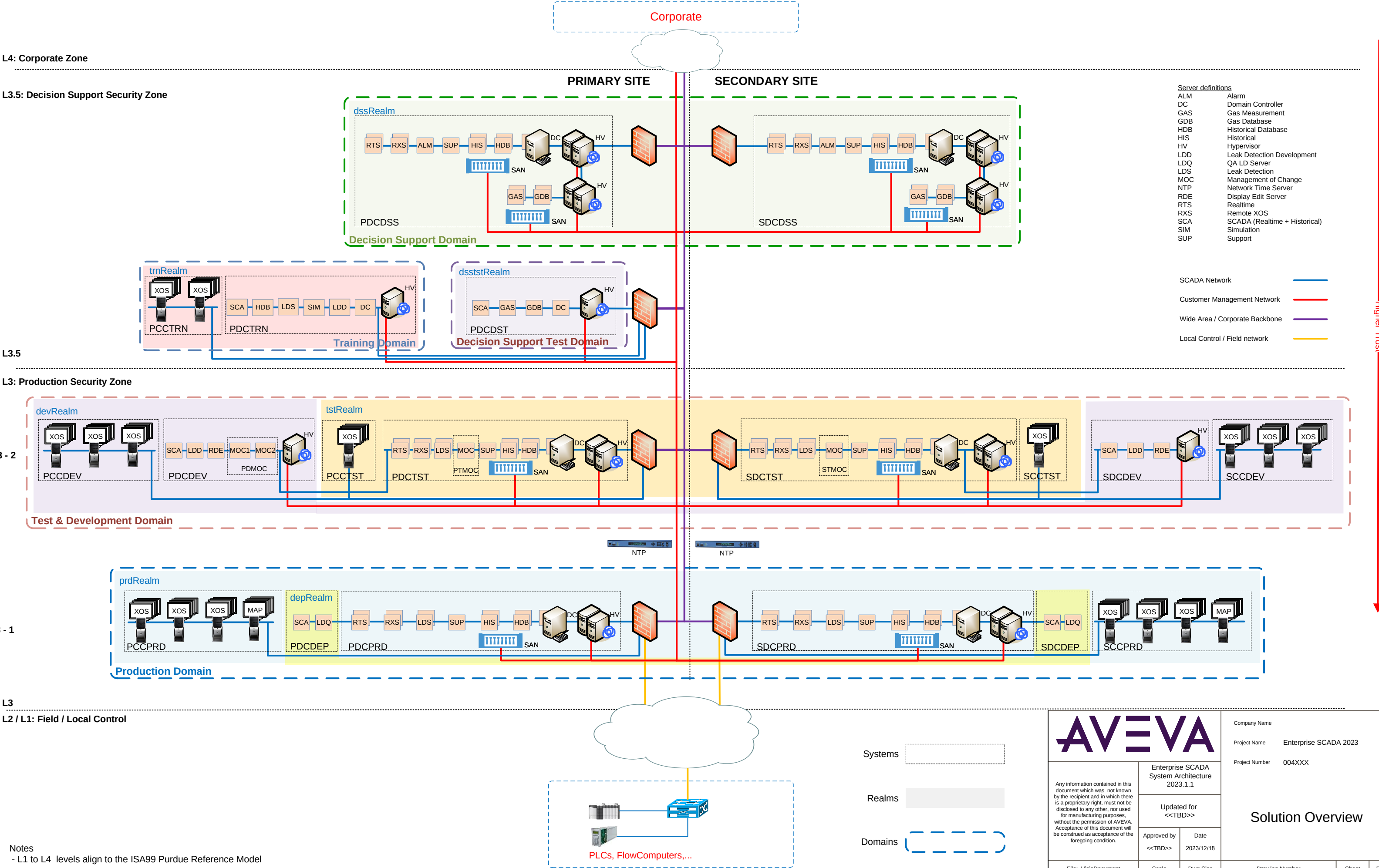




L3.5

L3: Production Security Zone

devRealm

XOS

XOS

XOS

SCA

LDD

RDE

MOC1

MOC2

HV

PCCDEV

PDCDEV

PDMOC

tstRealm

XOS

RTS

RXS

LDS

MOC

SUP

HIS

HDB

DC

HV

SAN

PTMOC

PDCTST

Test & Development Domain

SDCTST

RTS

RXS

LDS

MOC

SUP

HIS

HDB

DC

HV

SAN

STMOC

SCCTST

XOS

SCA

LDD

RDE

HV

SDCDEV

SCCDEV

XOS

XOS

XOS

NTP

NTP

prdRealm

XOS

XOS

XOS

MAP

SCA

LDQ

RTS

RXS

LDS

SUP

HIS

HDB

DC

HV

SAN

PCCPRD

PDCPRD

PDCDEP

Production Domain

SDCPRD

RTS

RXS

LDS

SUP

HIS

HDB

DC

HV

SAN

SDCDEP

SCCPRD

XOS

XOS

XOS

MAP

L3 - 1

L3 - 2

L3

L2 / L1: Field / Local Control

PLCs, FlowComputers,...

Server definitions

ALM

DC

GAS

GDB

HDB

HIS

HV

LDD

LDQ

LDS

MOC

NTP

RDE

RTS

RXS

SCA

SIM

SUP

Alarm

Domain Controller

Gas Measurement

Gas Database

Historical Database

Historical

Hypervisor

Leak Detection Development

QA LD Server

Leak Detection

Management of Change

Network Time Server

Display Edit Server

Realtime

Remote XOS

SCADA (Realtime + Historical)

Simulation

Support

SCADA Network

Customer Management Network

Wide Area / Corporate Backbone

Local Control / Field network

Systems

Realms

Domains

AVEVA

Enterprise SCADA System Architecture 2023.1.1

Updated for <<TBD>>

Approved by <<TBD>>

Date 2023/12/18

File: VisioDocument

Scale NTS

Dwg Size B

Drawing Number AV-ZH-004XXX-DWG-001

Sheet 1 of 8

Rev 0.1

Company Name

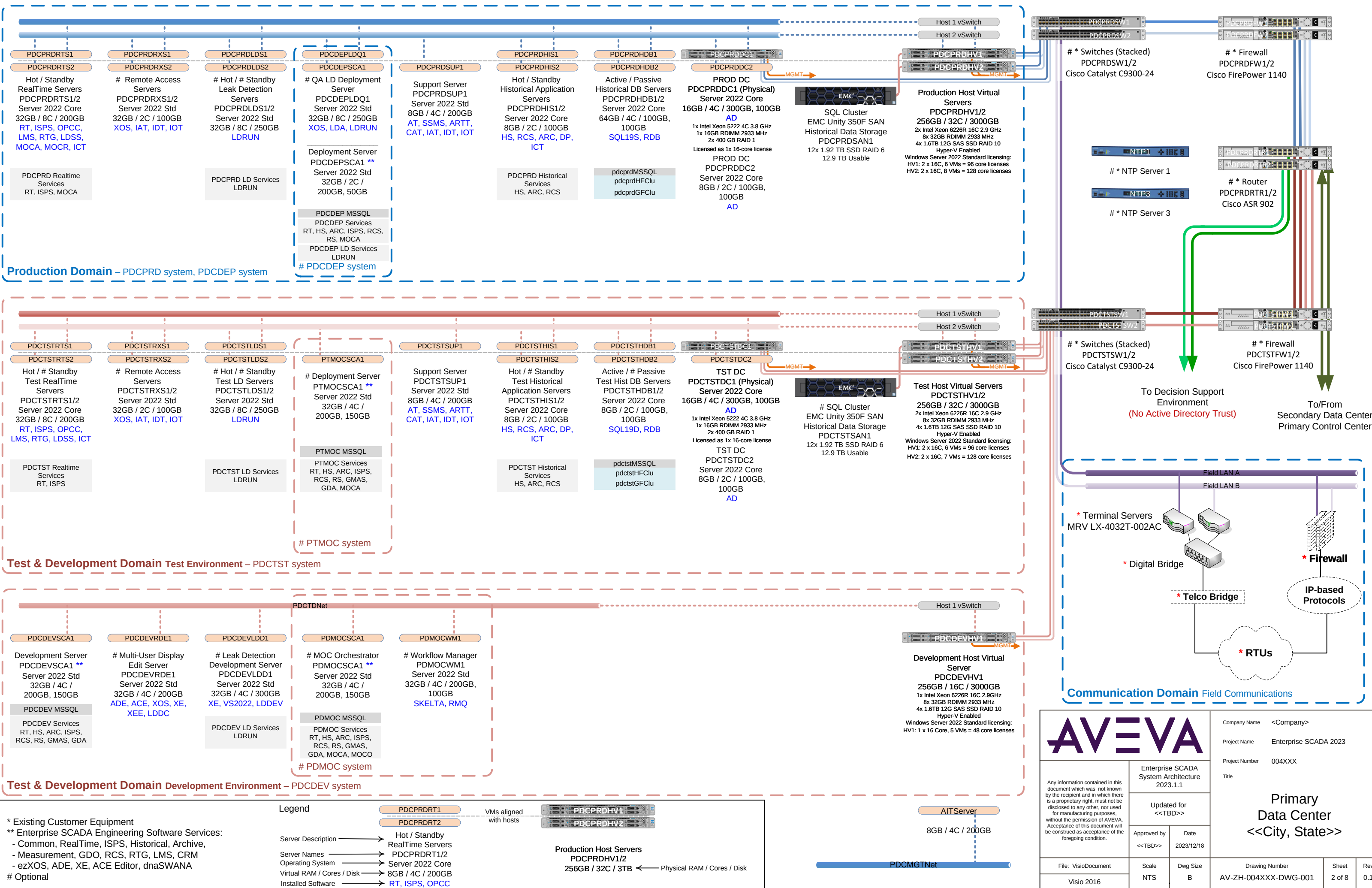
Project Name Enterprise SCADA 2023

Project Number 004XXX

Solution Overview

Notes

- L1 to L4 levels align to the ISA99 Purdue Reference Model



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Approved by <<TBD>>

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Visio 2016

Sheet 2 of 8

Rev 0.1

Company Name <Company>

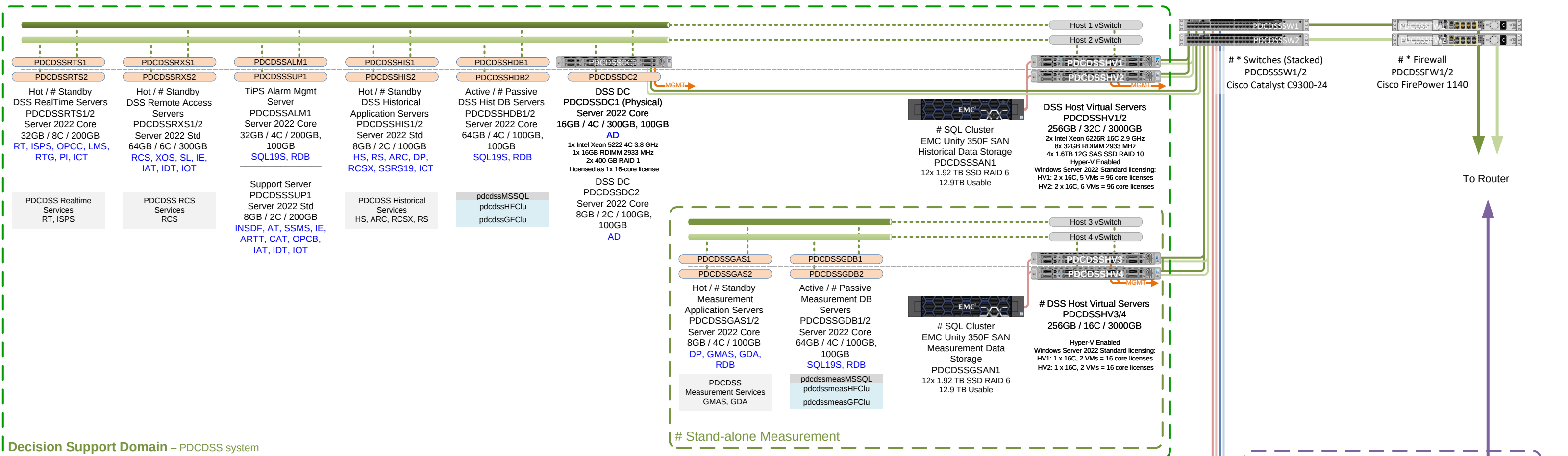
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Project Number 004XXX

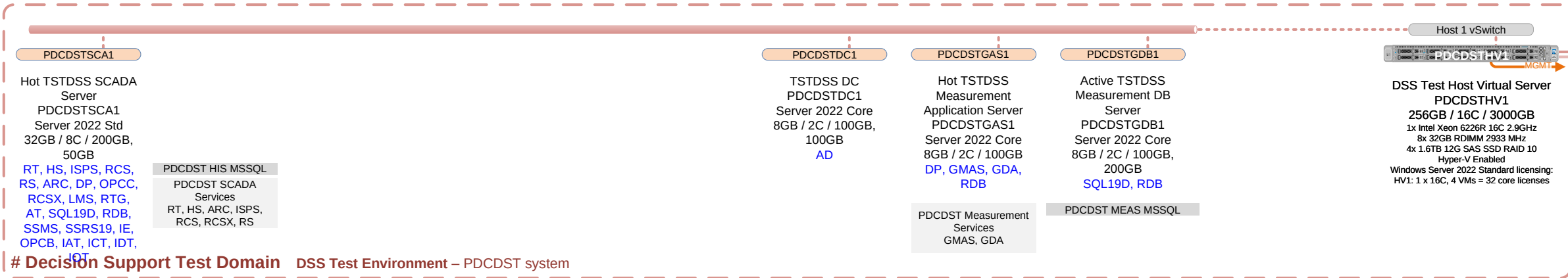
Title

Primary Data Center <<City, State>>

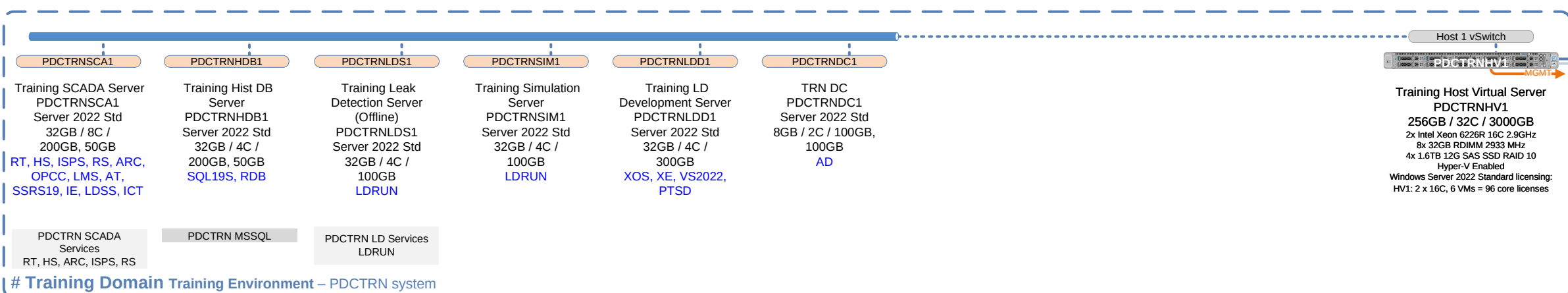
Drawing Number AV-ZH-004XXX-DWG-001



Decision Support Domain – PDCDSS system



Decision Support Test Domain DSS Test Environment – PDCDST system



Training Domain Training Environment – PDCTRN system

Legend

* Existing Customer Equipment

** Enterprise SCADA Engineering Software Services:

- Common, RealTime, ISPS, Historical, Archive,
- Measurement, GDO, RCS, RTG, LMS, CRM
- ezXOS, ADE, XE, ACE Editor, dhaSWANA

Optional

Server Description →

Server Names →

Operating System →

Virtual RAM / Cores / Disk →

Installed Software →

Hot / Standby RealTime Servers

PDCPRDRT1/2

Server 2022 Core

8GB / 4C / 200GB

RT, ISPS, OPCC

Production Host Servers

PDCPRDHV1/2

256GB / 32C / 3TB

Physical RAM / Cores / Disk

Company Name <Company>

Project Name Enterprise SCADA 2023

Project Number 004XXX

Title

Enterprise SCADA System Architecture 2023.1.1

Updated for <<TBD>>

Approved by <<TBD>>

Date 2023/12/18

Primary Decision Support Data Center <<City, State>>

File: VisioDocument

Scale NTS

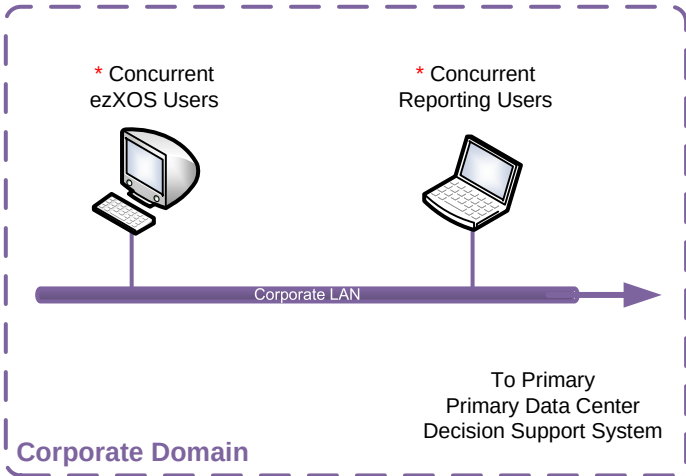
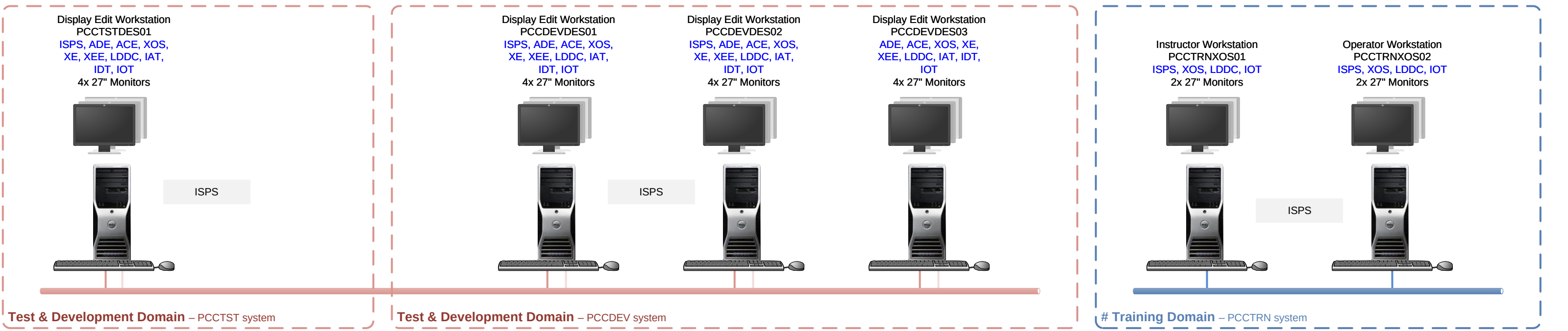
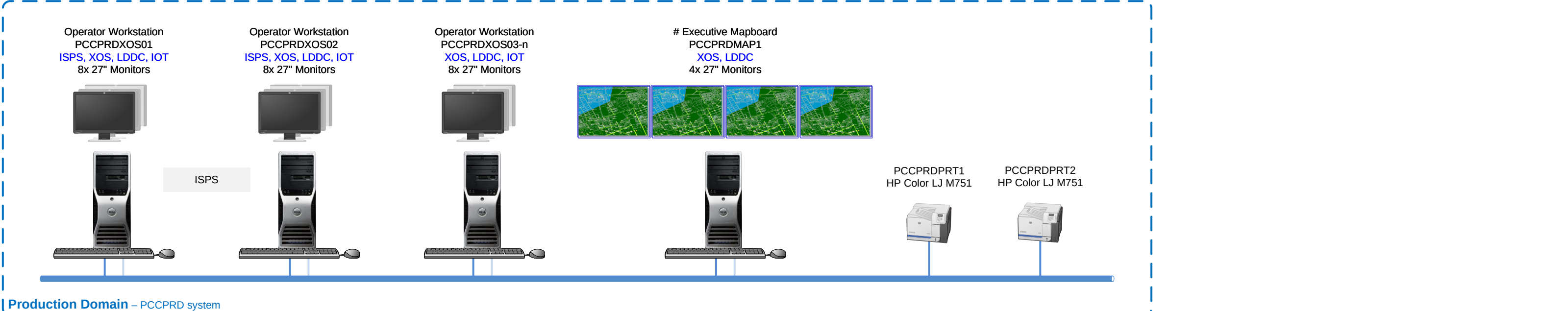
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Visio 2016

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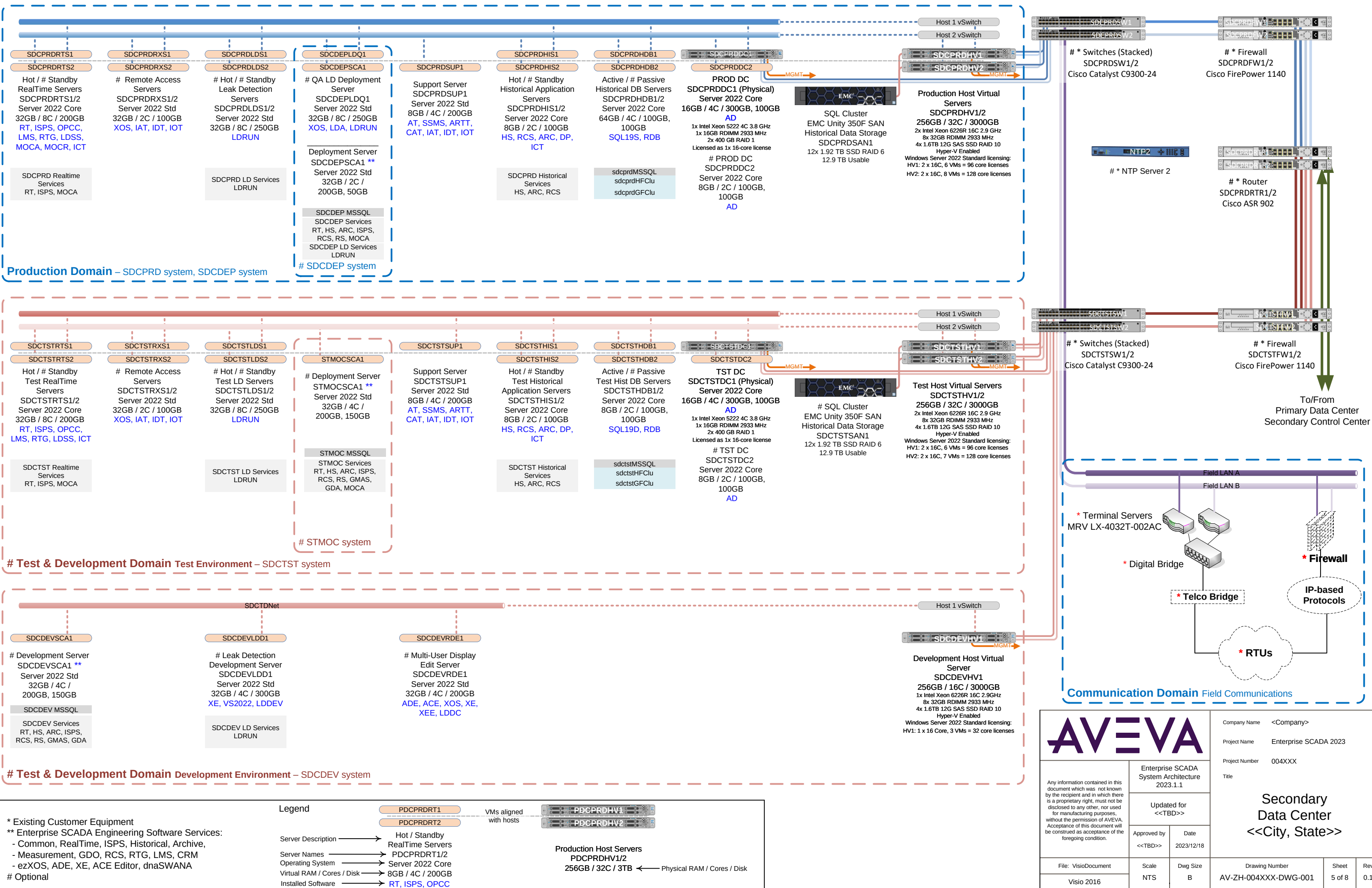
Sheet 3 of 8

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* Existing Customer Equipment
Optional

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			Project Number 004XXX		
			Title		
Enterprise SCADA System Architecture 2023.1.1			Primary Control Center <<City, State>>		
Updated for <<TBD>>					
Approved by <<TBD>>	Date 2023/12/18				
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Enterprise SCADA System Architecture 2023.1.1

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Date 2023/12/18

File: VisioDocument

Scale NTS

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Visio 2016

Company Name <Company>

Project Name Enterprise SCADA 2023

Project Number 004XXX

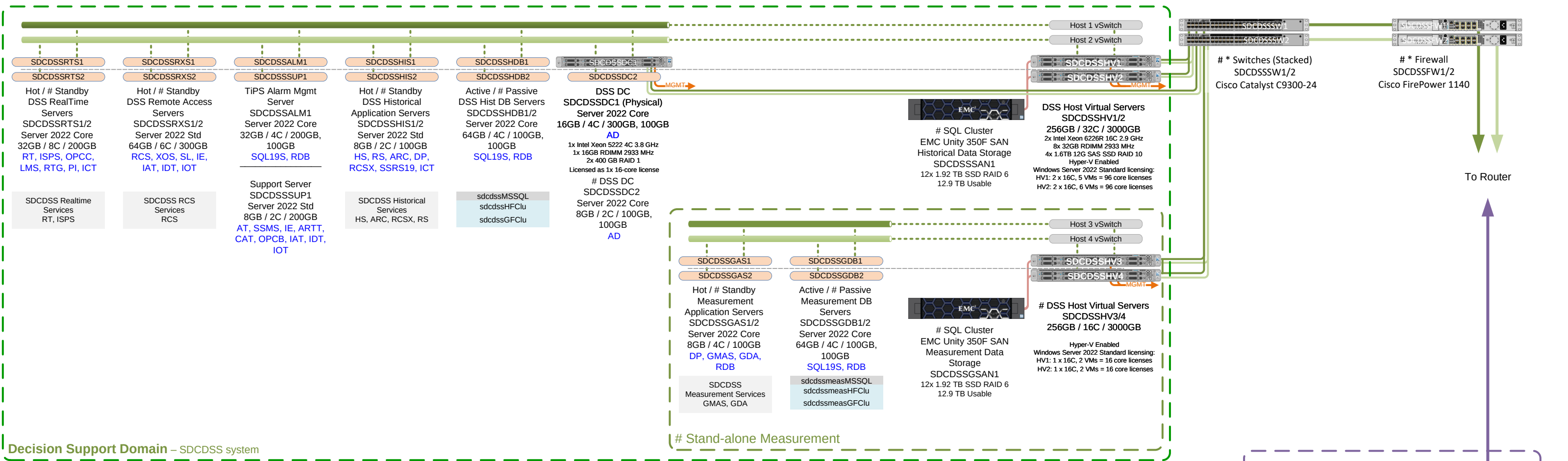
Title

Secondary Data Center <<City, State>>

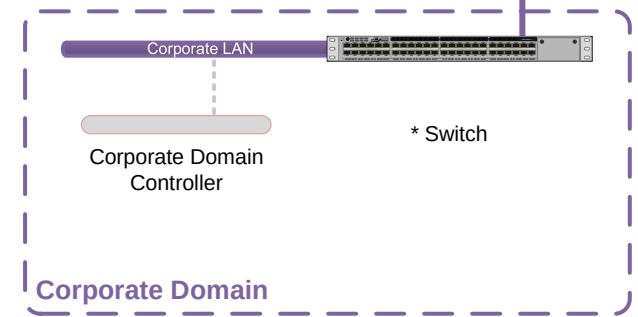
Drawing Number AV-ZH-004XXX-DWG-001

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Rev 0.1



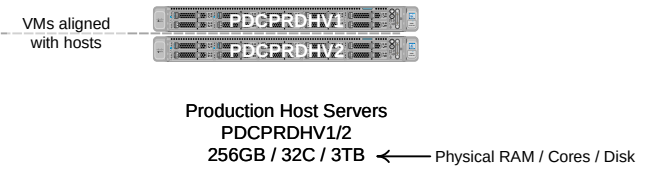
Decision Support Domain – SDCDSS system



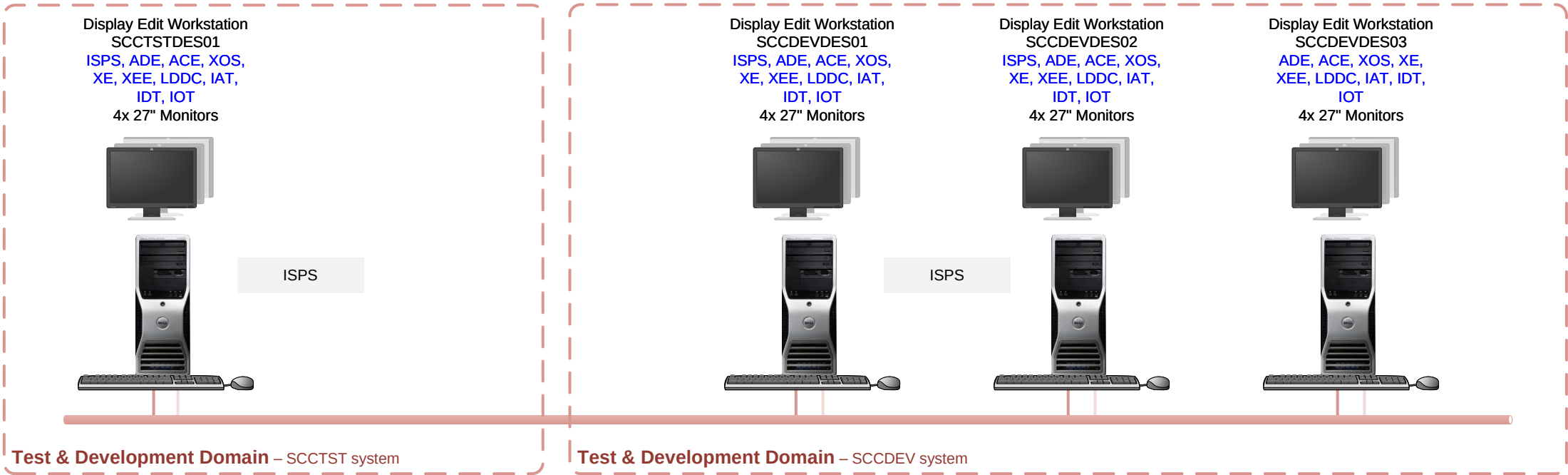
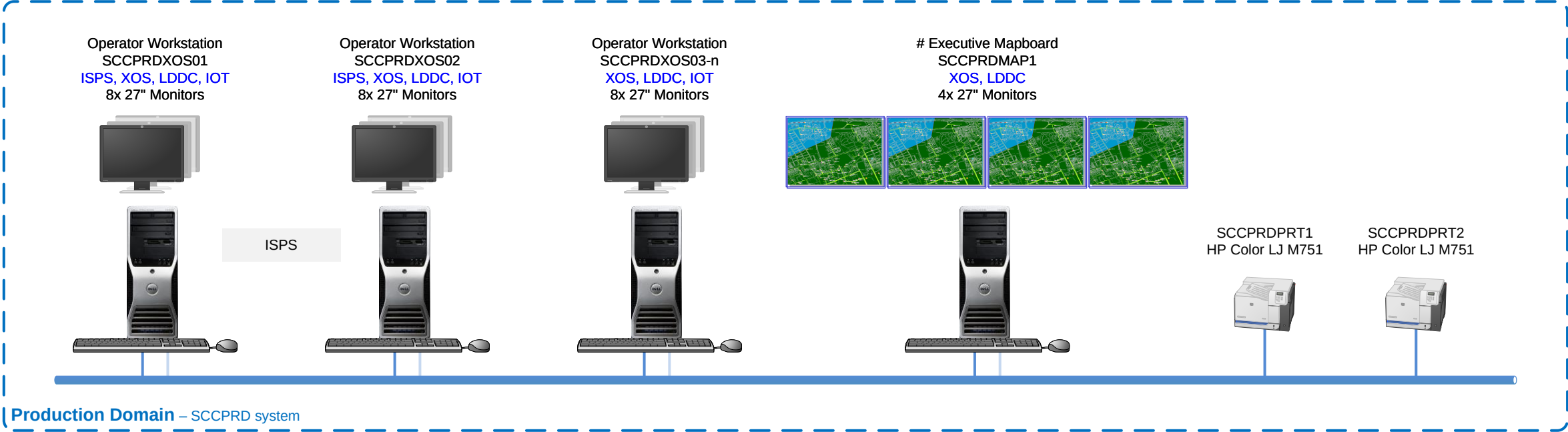
* Existing Customer Equipment
** Enterprise SCADA Engineering Software Services:
- Common, RealTime, ISPS, Historical, Archive,
- Measurement, GDO, RCS, RTG, LMS, CRM
- ezXOS, ADE, XE, ACE Editor, dnaSWANA
Optional

Legend

Server Description → Hot / Standby
Server Names → PDCPRDRT1/2
Operating System → Server 2022 Core
Virtual RAM / Cores / Disk → 8GB / 4C / 200GB
Installed Software → RT, ISPS, OPCC



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		Project Number 004XXX				
		Title				
Enterprise SCADA System Architecture 2023.1.1		Secondary Decision Support Data Center <<City, State>>				
Updated for <<TBD>>						
Approved by <<TBD>>		Date 2023/12/18				
File: VisioDocument		Scale NTS	Dwg Size B	Drawing Number AV-ZH-004XXX-DWG-001	Sheet 6 of 8	Rev 0.1
Visio 2016						



* Existing Customer Equipment
Optional

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		Approved by <<TBD>>		Project Number 004XXX					
		Date 2023/12/18		Title					
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Visio 2016									
				Secondary Control Center <<City, State>>					

Software Components		
Category	Abbreviation	Long Name
Enterprise SCADA	ACE	ACE Editor
	ACES	ACE Server
	ADE	Advanced Database Editor
	ADEE	Advanced Database Editor - Extensions
	ARB	Arbitration
	ARC	Archive Service
	CMN	Common
	DP	Datapump
	HS	Historical
	HS-S	Historical Subordinate
	ISPS	ISPS
	OPCC	OPC Client
	OPCD	OPC Dataserver
	RCS	Remote Client Service
	RCSX	RCSXFER Service
	RES	Responsibility Manager Service
	RS	Enterprise SCADA Reporting Services
	RT	RealTime
Enterprise SCADA HMI	DR	Display Repository
	XE	Display Editor
	XEE	XE Elements
	XOS	ezXOS Display Station
Enterprise SCADA Applications	ASRS	Application Socket Server Relay Service
	GDA	Gas Day Advisor
	GDAHMI	Gas Day Advisor HMI
	GMAS	Gas Measurement
	INSDF	InSight Datafeed
	LMS	Liquid Management System
	PI	PI Interface
	RTG	Realtime Gas
	SL	Measurement Advisor Client (Sightline)
Integrity Operations	LDA	Pipeline Simulation Analyst
	LDDC	Pipeline Simulation Display Console
	LDDEV	Pipeline Simulation Development
	LDRUN	Pipeline Simulation Runtime
	LDSS	Pipeline Simulation SCADA Server
	PTSD	Pipeline Training Simulation Developer
	PTSI	Pipeline Training Simulation Instructor
	PTST	Pipeline Training Simulation Trainee
	SSPD	SimSuite Pipeline Draw
Windows	AD	Active Directory
	AT	AD Administrative Tools
	CA	AD Certificate Services
Management of Change	MOCA	MOC Agent
	MOCH	MOC Historical
	MOCO	MOC Orchestrator
	MOCR	MOC RealTime

Software Components		
SQL Server	SQL19D	SQL Server 2019 Developer Edition
	SQL19E	SQL Server 2019 Enterprise Edition
	SQL19S	SQL Server 2019 Standard Edition
SQL Server Accessories	RDB	RDBMS Infrastructure
	SSMS	SQL Server Management Studio
SQL Server Reporting Services	SSRS19	SQL Server 2019 Reporting Services
Development Tools	VS2019	Visual Studio 2019 Professional
Tools	ARTT	Automated Regression Testing Tool
	CAT	Configuration Auditing Tool
	EDGE	MS Chromium-based Edge Browser
	IE	Internet Explorer
	OPCB	OPC - Browse
	RMQ	RabbitMQ
	RTUCm	RTU Composer
	RTUCo	RTU Common
	RTUP	RTU Player
	SKELTA	Workflow Management 2019 (Skelta)
Infrastructure Tools	IAT	Infrastructure Administation Tools (NMC,SWANA,LogViewer,TCPListener)
	ICT	Infrastructure Configuration Tools (DAL,License)
	IDevT	Infrastructure Development Tools (Make,ResString,ResWrapper)
	IDT	Infrastructure Debugging Tools (BLT,DAL,MultiPub,MultiSub)
	IOT	Infrastructure Operational Tools (AdminPager)

Machine Naming	
Suffix	Description
DC	Domain Controller
DES	Display Edit Workstation
GAS	Measurement Application Server
GDB	Measurement Database Server
HDB	Historical Database Server
HIS	Historical Application Server
HV	Hypervisor
LDD	Leak Detection Development Server
LDQ	Leak Detection Quality Assurance Server
MAP	Mapboard Workstation
RDE	Remote Display Edit Server
RTS	RealTime Server
RXS	Remote Access Server (May host RCS and/or multi-user XOS server)
SCA	SCADA Server (Combined RealTime and Historical)
SIM	Leak Detection Simulation Server
SUP	OASyS Support Server
XOS	Operator Workstation
WM	Workflow Manager



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Sheet 8 of 8

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Company Name <Company>

Project Name Enterprise SCADA 2023

Project Number 004XXX

Legend