

# Network Architecture Overview

Version 3.0 -- Revision 2024-08-19

Author: J. Harris, Senior Network Engineer

Department: Infrastructure & Security

**WARNING:** This document contains sensitive network topology information. Distribution is restricted to Infrastructure team members and senior management only. Do not print, forward, or store outside of approved E Corp systems.

## 1. Executive Summary

This document describes the current network topology for E Corp Industries' primary data center and office environments. It covers the segmented network design including the DMZ, production VLAN, management subnets, and remote access infrastructure. All architecture decisions have been reviewed by the Infrastructure Security team as of Q3 2024.

## 2. Network Topology Overview

### 2.1 Network Segments

The E Corp network is divided into four primary segments to enforce security boundaries between external-facing services and internal systems:

Segment	VLAN ID	Subnet	Purpose
DMZ	10	10.0.10.0/24	Public-facing web and mail servers
Production	20	10.0.20.0/24	Internal application servers
Management	99	10.0.99.0/24	Network devices and monitoring
Corporate	50	10.0.50.0/24	End-user workstations and printers

### 2.2 Perimeter Security

The perimeter is protected by a Palo Alto PA-3260 next-generation firewall with IDS/IPS capabilities enabled. Inbound traffic from the internet is restricted to ports 80, 443, and 25 on the DMZ segment only. All other inbound connections are denied by default policy.

### 2.3 Remote Access

Remote employees connect via GlobalProtect VPN using certificate-based authentication combined with Duo MFA. VPN concentrators are hosted in the DMZ segment. Split tunneling is disabled -- all traffic is routed through the E Corp network when connected.

### 3. Server Inventory (Partial)

The following table lists primary infrastructure servers. Full inventory is maintained in the CMDB system (ServiceNow).

Hostname	IP Address	Role	OS
tc-web-01	10.0.10.10	Public web server	Ubuntu 22.04
tc-mail-01	10.0.10.20	Mail relay (Postfix)	Ubuntu 22.04
tc-app-01	10.0.20.10	Internal app server	RHEL 9.2
tc-db-01	10.0.20.30	Primary database	Windows Server 2022
tc-mgmt-01	10.0.99.10	Network monitoring	Ubuntu 20.04

### 4. Change Log

Date	Author	Change
2024-08-19	j.harris	v3.0 -- Added management VLAN documentation
2024-05-02	r.chen	v2.1 -- Updated firewall ruleset reference
2024-01-15	j.harris	v2.0 -- Migrated to new subnet scheme
2023-06-30	d.hargrove	v1.0 -- Initial document