A

Identity and Access
Management (IAM)

Identity and Access
Management (IAM) Rol

Netsork Firewall

Firewall Manager

Relational Database (RD

Elastic Load Balancer
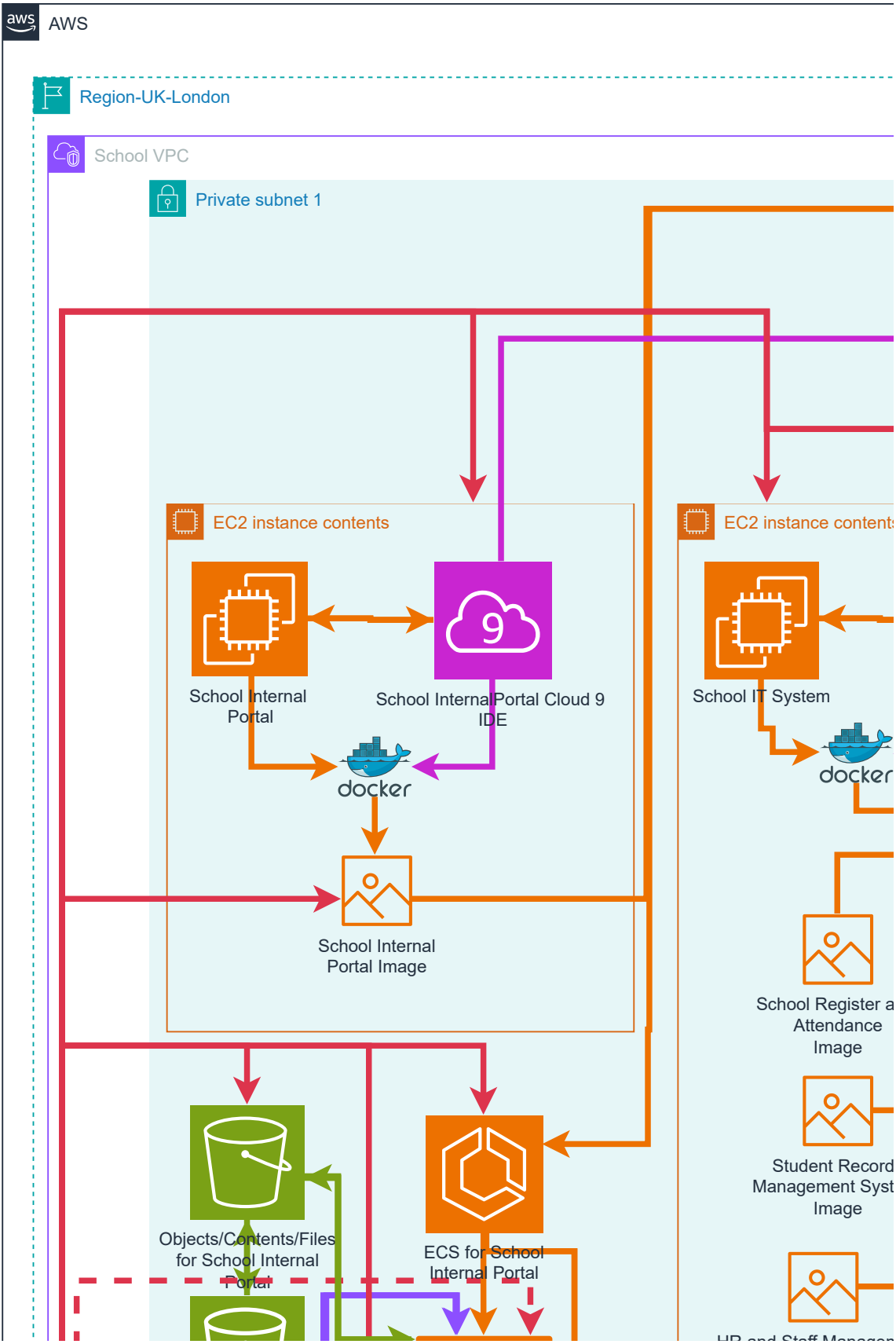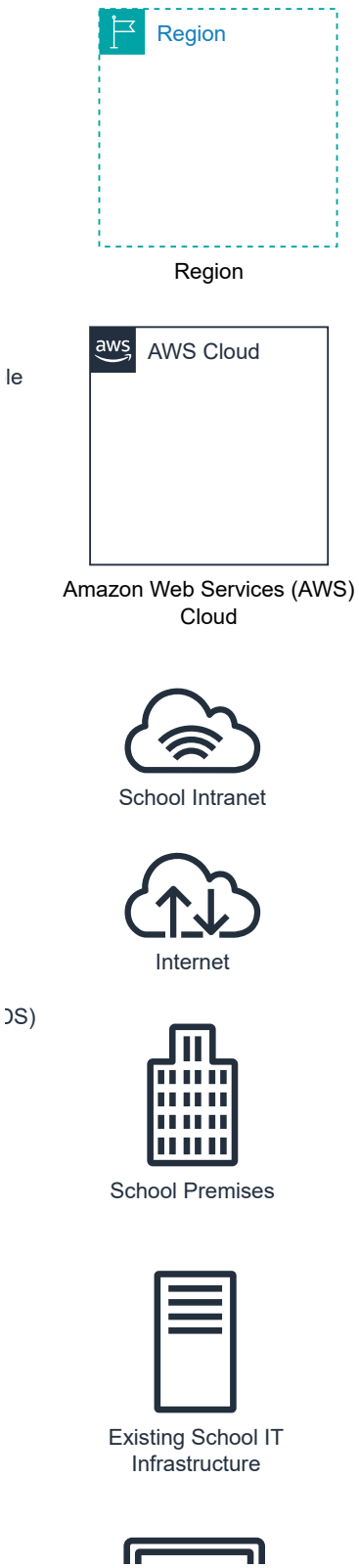

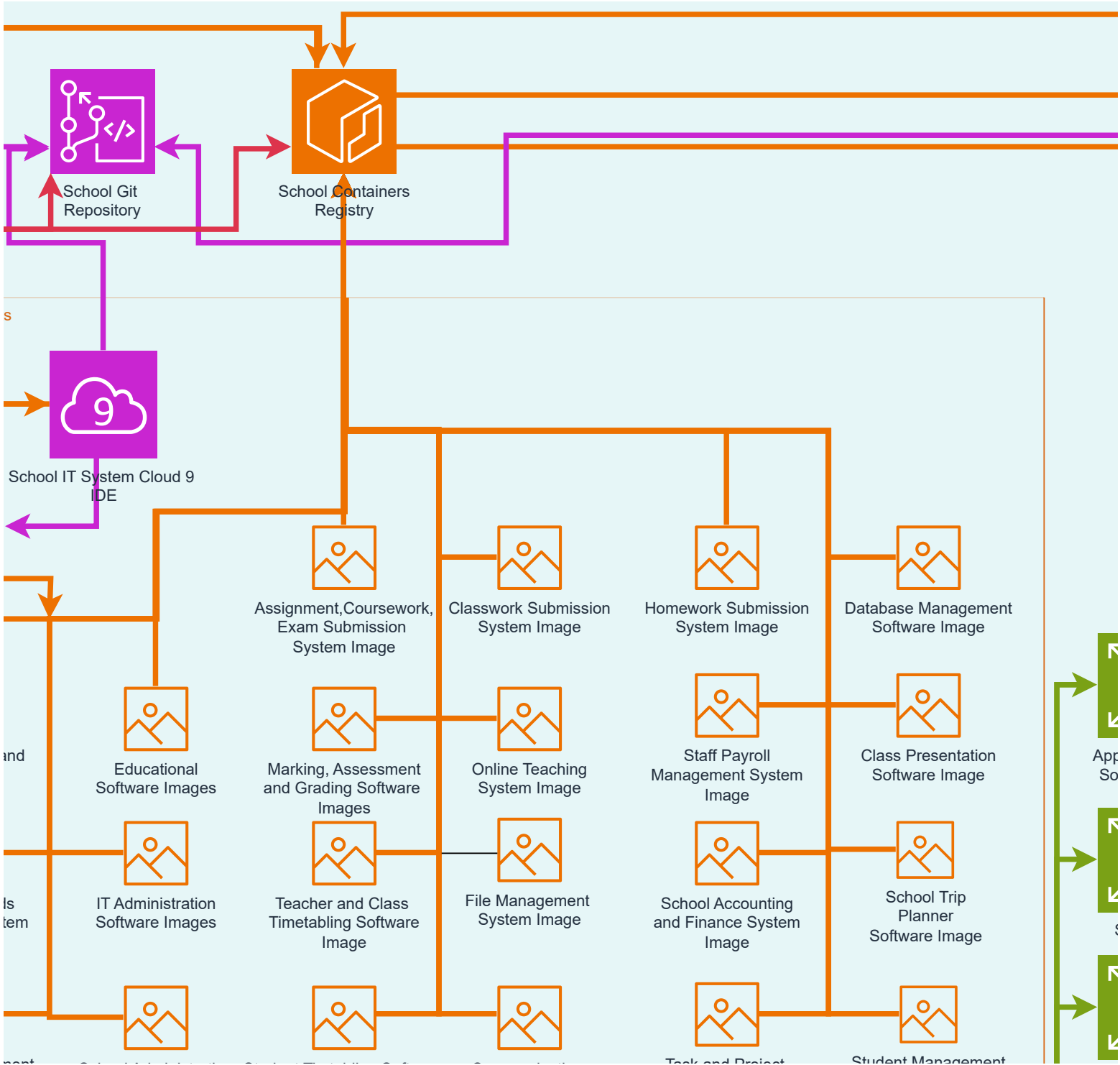Internet Gateway

Amazon Web Services (Syst

Legend:

Region

Amazon Web Services (AWS) Cloud

School Intranet

Internet

School Premises

Existing School IT Infrastructure

AWS

Region-UK-London

School VPC

Private subnet 1

EC2 instance contents

School Internal Portal

School Internal Portal Cloud 9 IDE

docker

School Internal Portal Image

EC2 instance contents

School IT System

docker

School Register a Attendance Image

Student Record Management Syst Image

Objects/Contents/Files for School Internal Portal

ECS for School Internal Portal

HR and Staff Managem

School Git
Repository

School Containers
Registry

School IT System Cloud 9
IDE

Assignment,Coursework,
Exam Submission
System Image

Classwork Submission
System Image

Homework Submission
System Image

Database Management
Software Image

Educational
Software Images

Marking, Assessment
and Grading Software
Images

Online Teaching
System Image

Staff Payroll
Management System
Image

Class Presentation
Software Image

IT Administration
Software Images

Teacher and Class
Timetabling Software
Image

File Management
System Image

School Accounting
and Finance System
Image

School Trip
Planner
Software Image

Student Management

Private subnet 2

EC2 instance contents

School Website
EC2 Instance

School Website Cloud 9
IDE

docker

School Website
Image

School Website
Backup

Objects/Contents/Files
for School Website

ECS for School
Website

plication and
oftware Files

Applications and
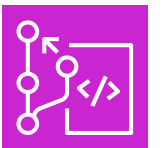Software Backup

Staff Files

Staff Files Backup

Simple Storage Service
(S3) Bucket

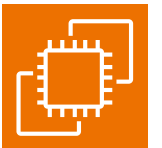Simple Storage Service
(S3) Glacier for Backup

Elastic Block Store

AWS Cloud 9 IDE

AWS CodeCommit
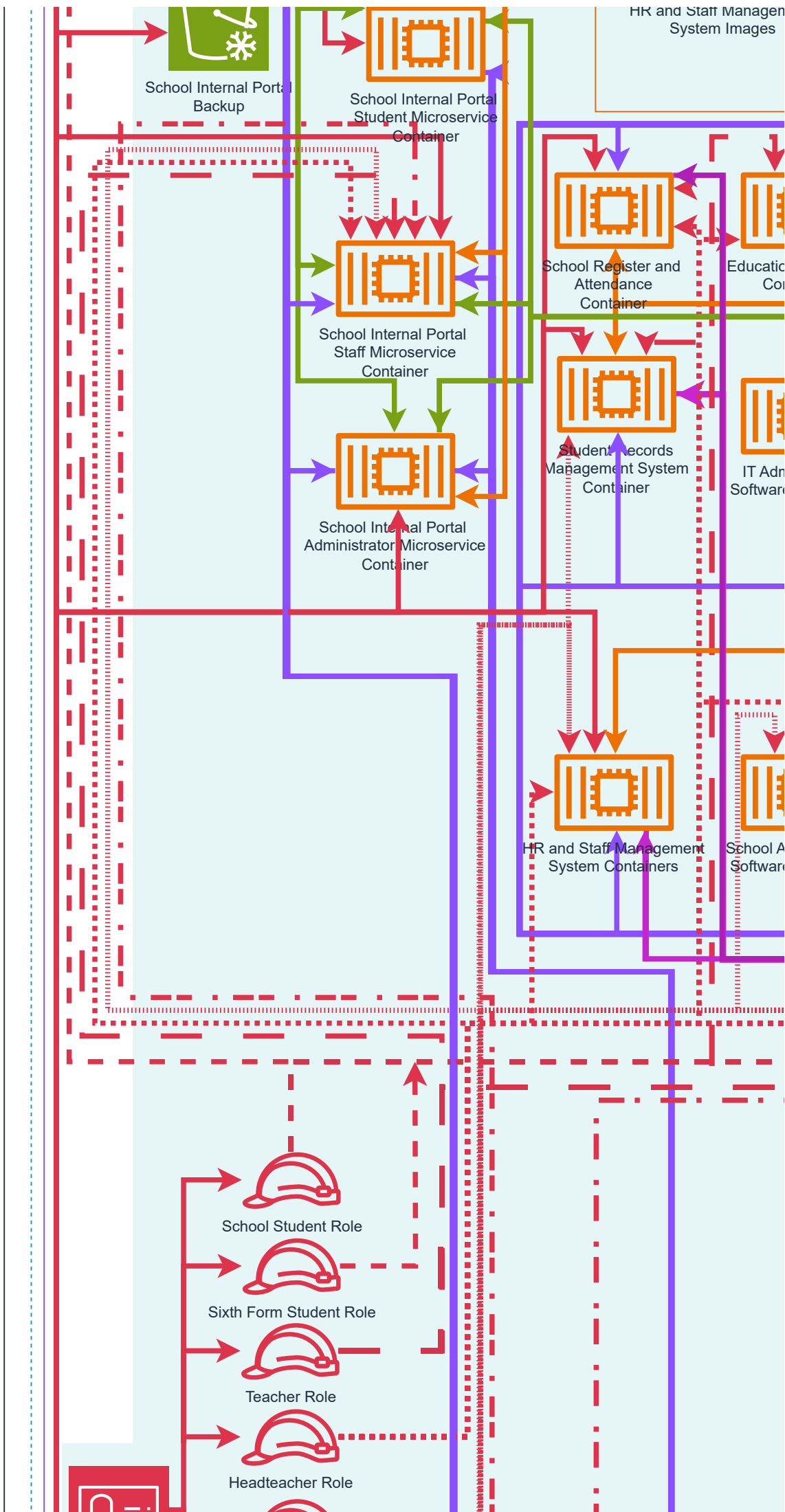Git Repository

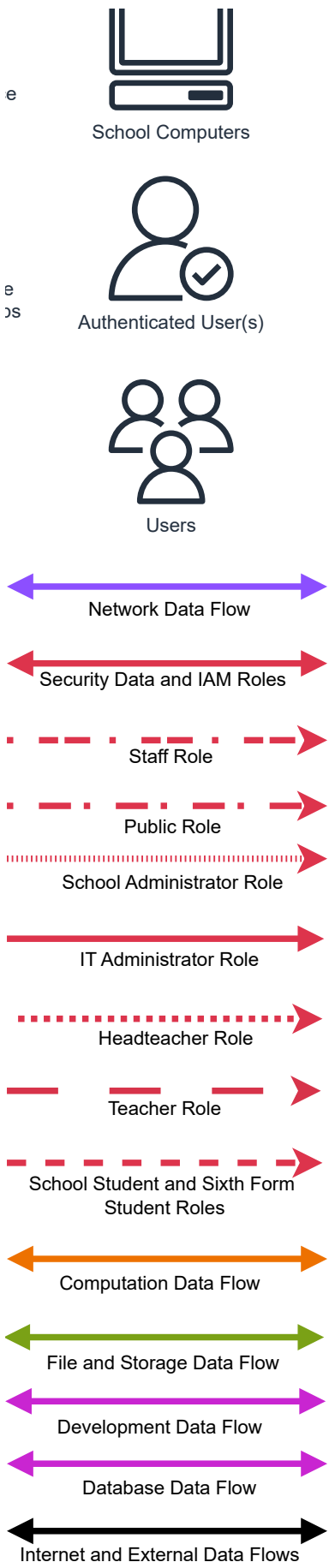AWS Elastic Cloud
Compute (EC2)
Instance
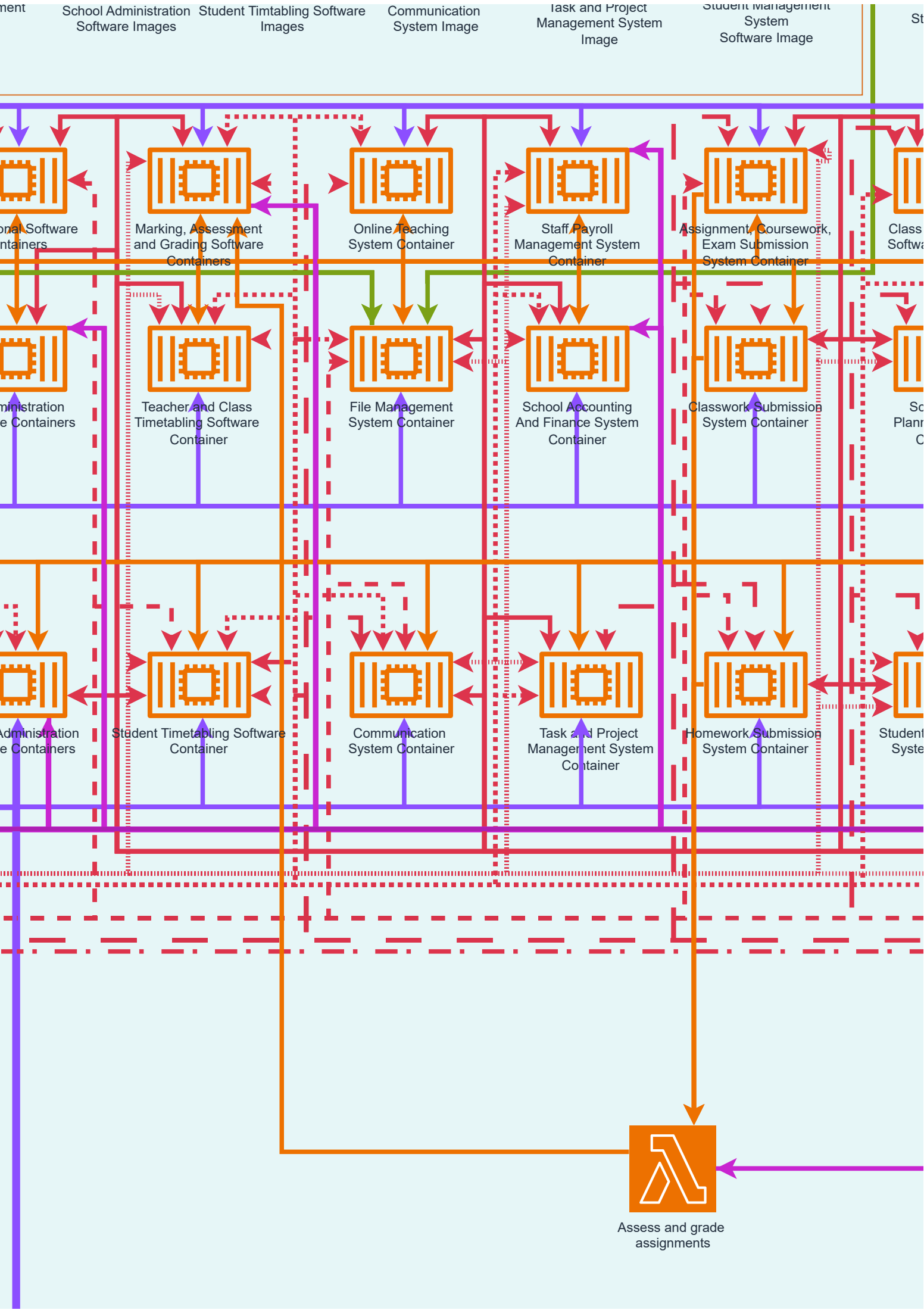
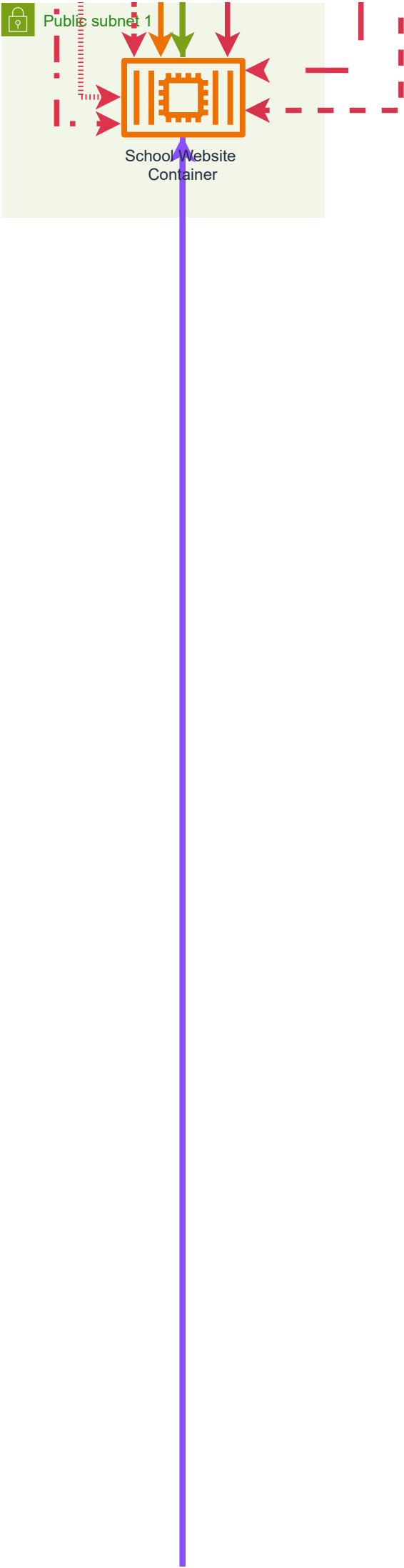Lambda Function

Elastic Container
Service (ECS)

Elastic Container
Registry

Container Image

School Computers

Authenticated User(s)

Users

Network Data Flow

Security Data and IAM Roles

Staff Role

Public Role

School Administrator Role

IT Administrator Role

Headteacher Role

Teacher Role

School Student and Sixth Form Student Roles

Computation Data Flow

File and Storage Data Flow

Development Data Flow

Database Data Flow

Internet and External Data Flows

HR and Staff Management System Images

School Internal Portal Backup

School Internal Portal Student Microservice Container

School Register and Attendance Container

Education Con

School Internal Portal Staff Microservice Container

Student Records Management System Container

IT Adm Softwar

School Internal Portal Administrator Microservice Container

HR and Staff Management System Containers

School A Softwar

School Student Role

Sixth Form Student Role

Teacher Role

Headteacher Role

School Administration
Software Images

Student Timtabling Software
Images

Communication
System Image

Task and Project
Management System
Image

Student Management
System
Software Image

onal Software
ntainers

Marking, Assessment
and Grading Software
Containers

Online Teaching
System Container

Staff Payroll
Management System
Container

Assignment, Coursework,
Exam Submission
System Container

Class
Softwa

dministration
e Containers

Teacher and Class
Timetabling Software
Container

File Management
System Container

School Accounting
And Finance System
Container

Classwork Submission
System Container

Sc
Plann
C

Administration
e Containers

Student Timetabling Software
Container

Communication
System Container

Task and Project
Management System
Container

Homework Submission
System Container

Student
Syste

Assess and grade
assignments

Student Files | Student Files Backup

Presentation
ware Container

School Trip
ner Software
Container

ECS for School
IT System Containers

School Records
Backup
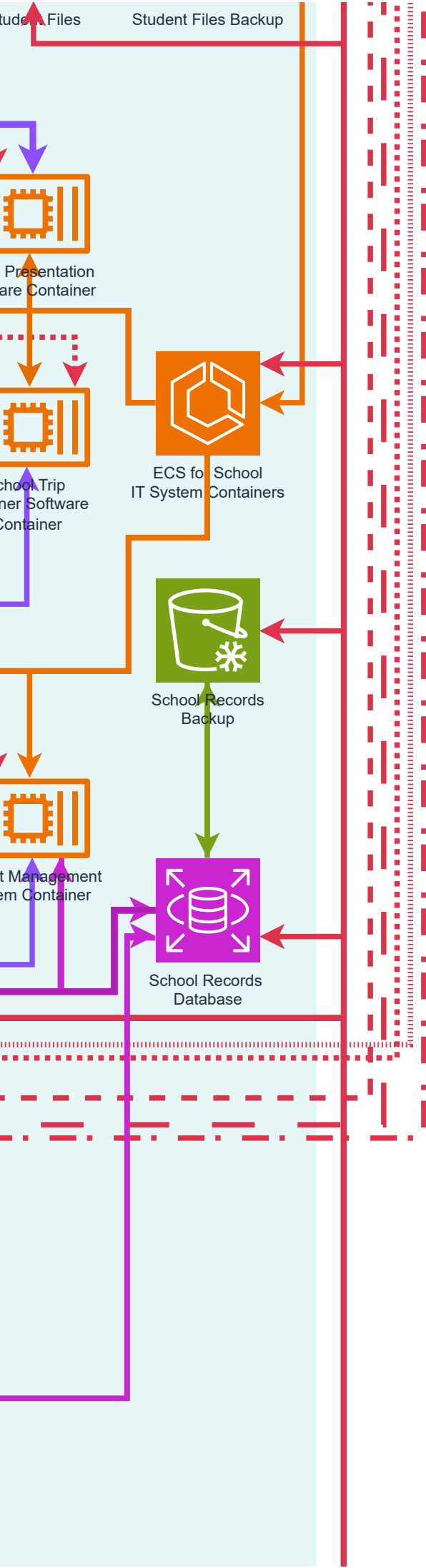
t Management
em Container

School Records
Database

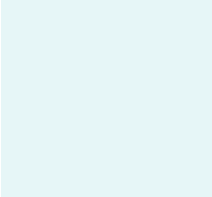Public subnet 1

School Website
Container

Container

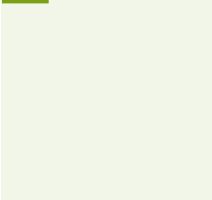Docker Containerisation
Platform and Software

Private subnet

Private Subnet
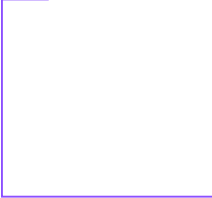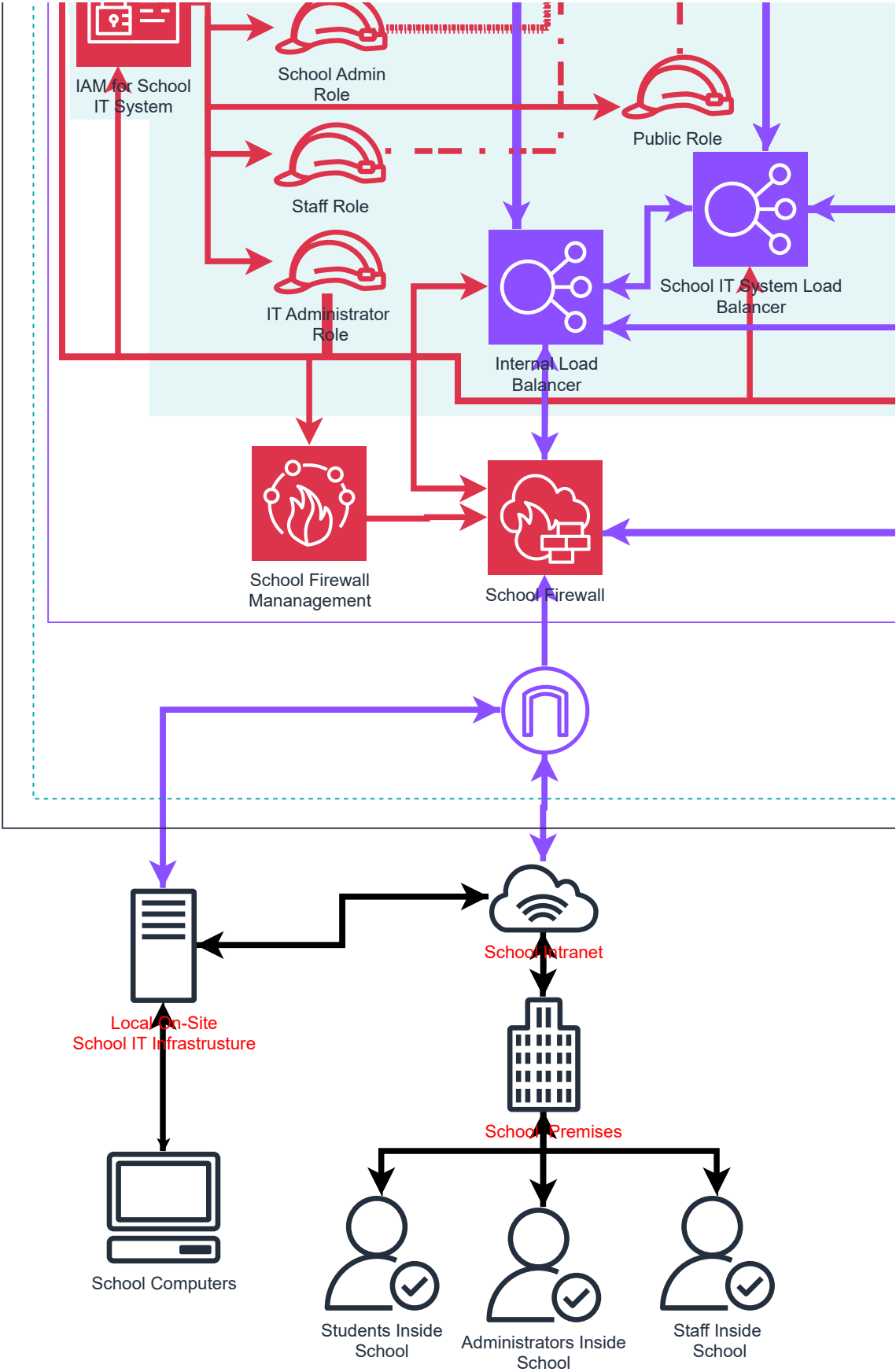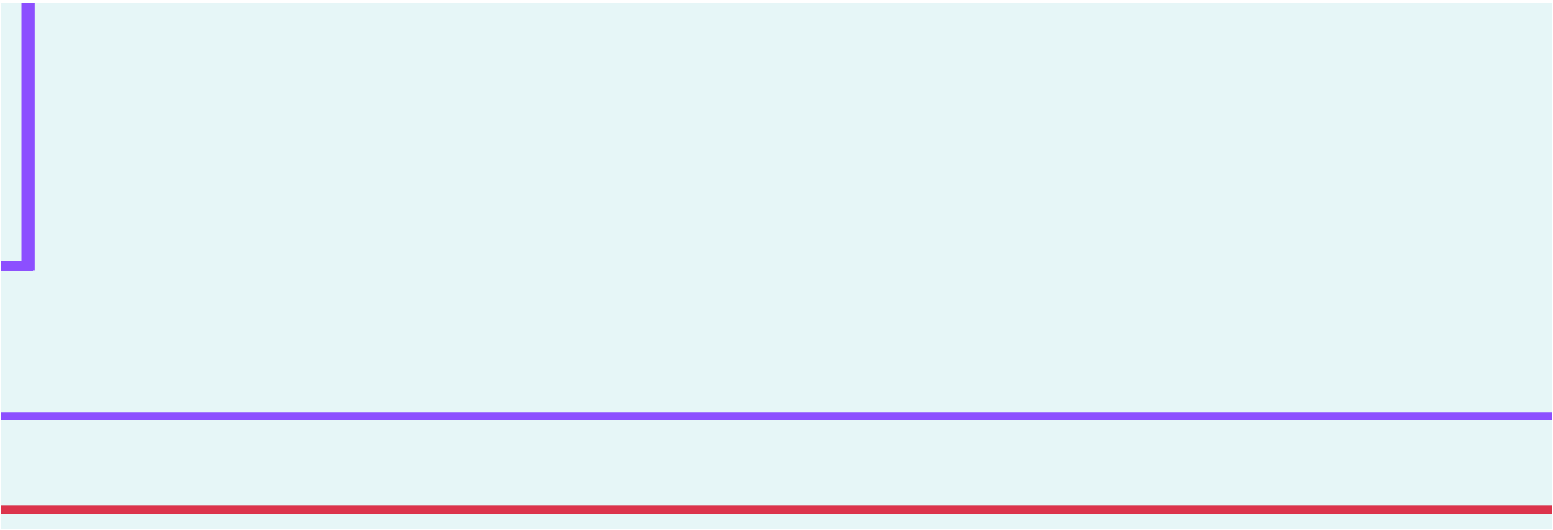
Public subnet

Public Subnet

VPC

Virtual Private Cloud

IAM for School
IT System

School Admin
Role

Public Role

Staff Role

School IT System Load
Balancer

IT Administrator
Role

Internal Load
Balancer

School Firewall
Mananagement

School Firewall

Local On-Site
School IT Infrastrusture

School Intranet

School Premises

School Computers

Students Inside
School

Administrators Inside
School

Staff Inside
School

Students
Sch

External Load
Balancer

Internet

Outside
hool

Administrators Outside
School

Staff Oustide
School

Members of the Public