

Virtual Telco Chassis

Highly Available Clusters in the Cloud

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- Hype
- Opportunities
- Challenges
- Context of Focus
- Enea Element in the Cloud

Hype: *What if you could...*

- Manufacture, Deliver, and Deploy a Product
 - ...in less than 15 minutes
- Grow or Reduce a Chassis
 - ...from 1 to 10s or 100s of nodes
 - ...on demand
 - ...within minutes

Opportunities

Rapid Deployment of Scalable Solutions

- Private Clouds: Purpose-Built Hardware
- Solution Portability
 - from ATCA to Datacenter to Cloud Infrastructure
 - Private Clouds: Purpose-Built Hardware
 - Commercial Cloud Infrastructure (IaaS)
- Use Cases
 - Complete Products
 - PaaS – Platform as a Service
 - SaaS – Software as a Service
 - Evaluations
 - Demonstrations
 - Test Platforms

Challenges

- SaaS Challenges
 - Locality – Latency
 - Security – Physical and Network
- IaaS and PaaS Challenges
 - Inter-Node Network not Private L2/L3
 - Support Migration Between ATCA and Cloud

Layers in the Cloud: Typical Web 2.0

SaaS

Social Networking

Retail

B2B

Travel

Games

PaaS

Google App Eng

AWS

Proprietary

Value-Add (e.g. Heroku)

Popular PaaS

IaaS

AWS-EC2

Rackspace

GoGrid

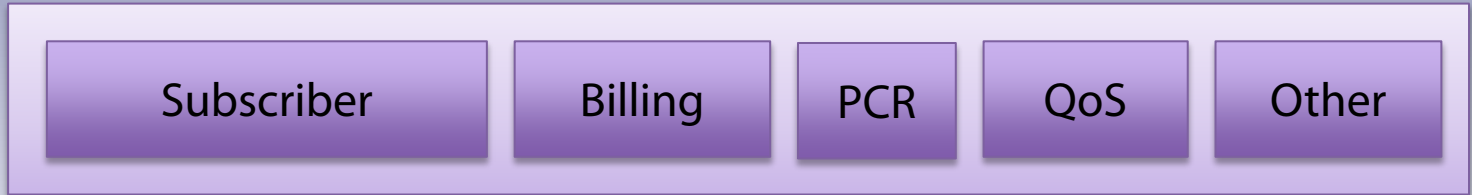
HP

Dell

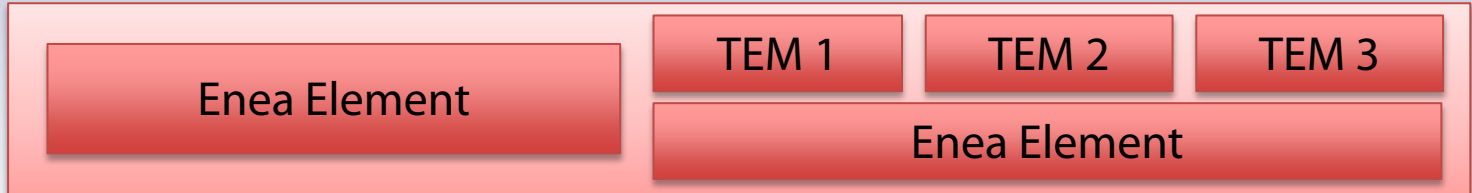
Terramark

Layers in the Cloud: Telco

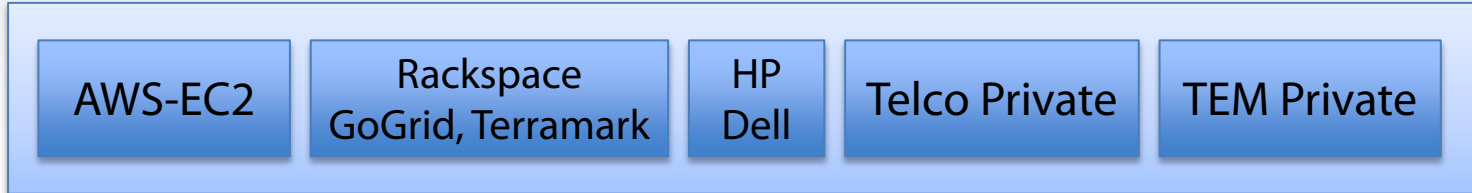
SaaS



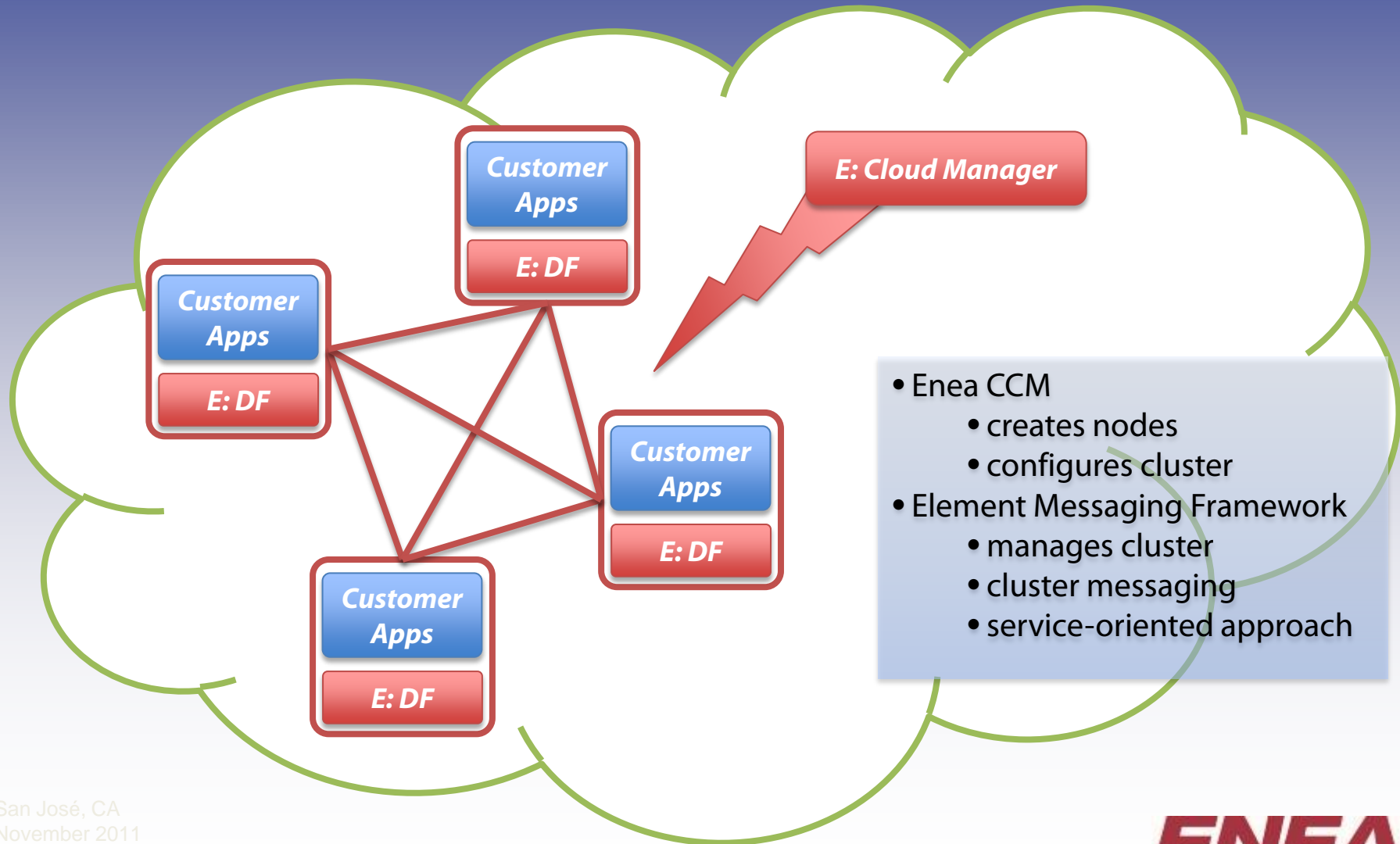
PaaS



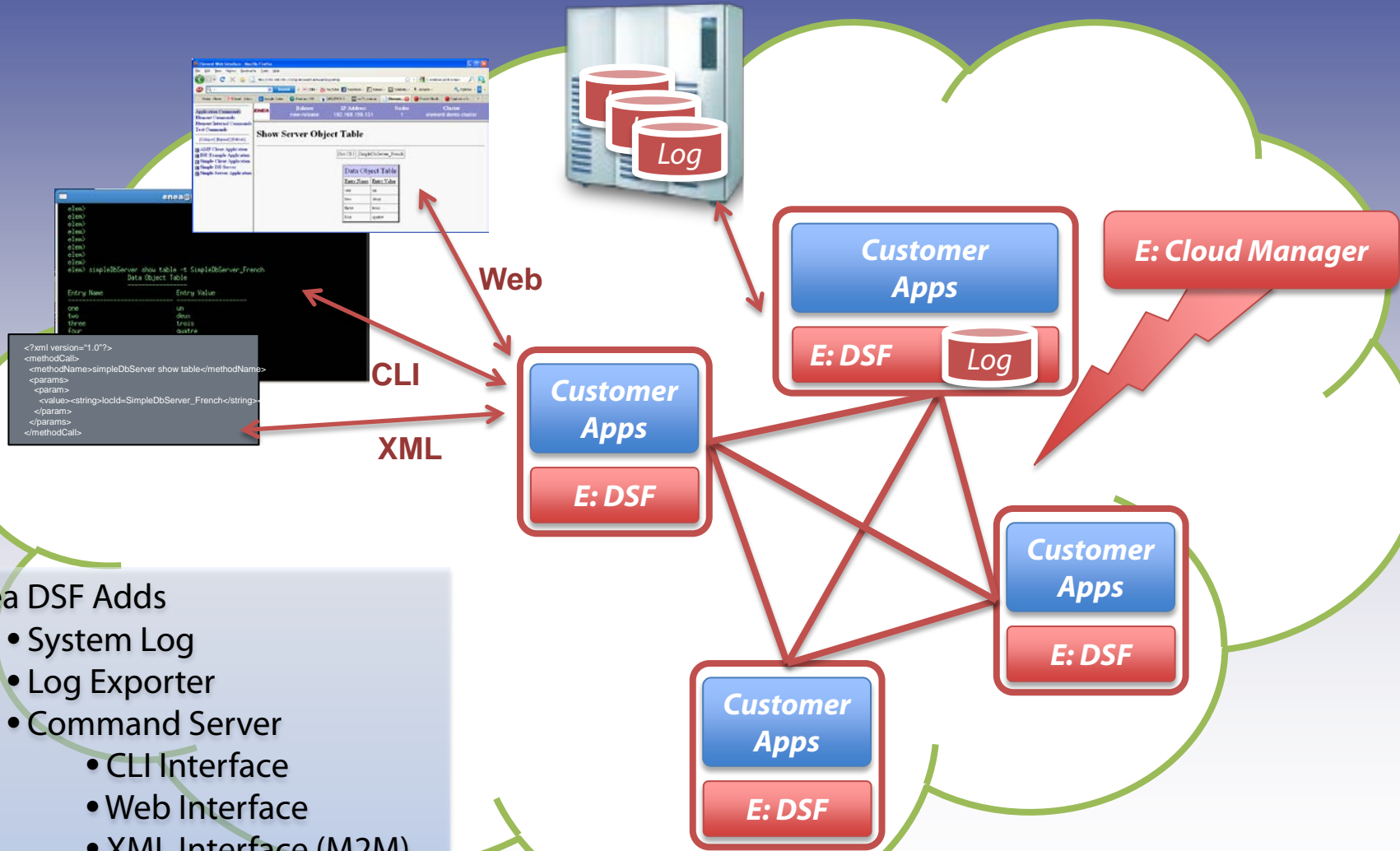
IaaS



Element: Messaging Framework (DF)

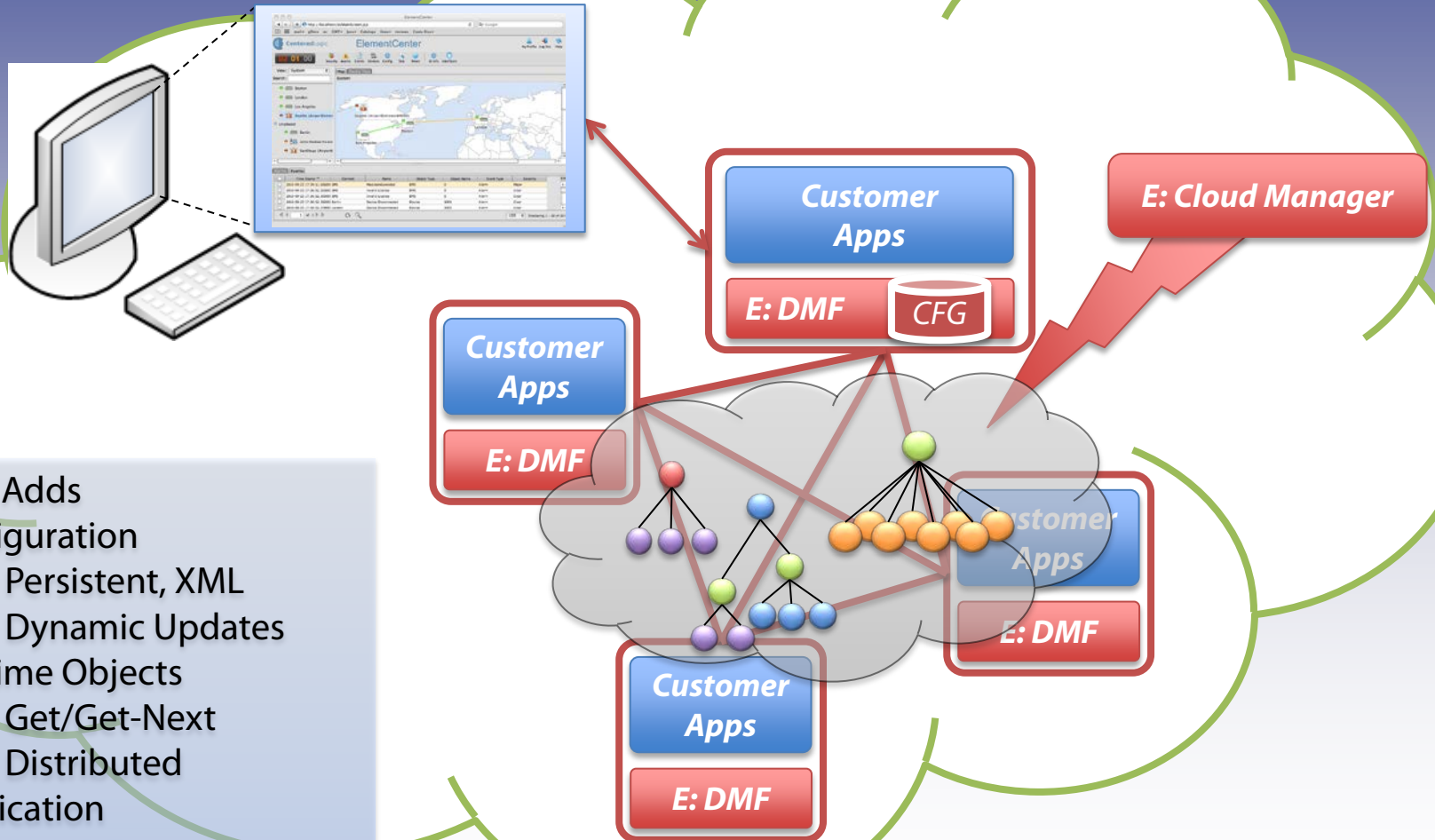


Element: Instrumentation Framework (DSF)



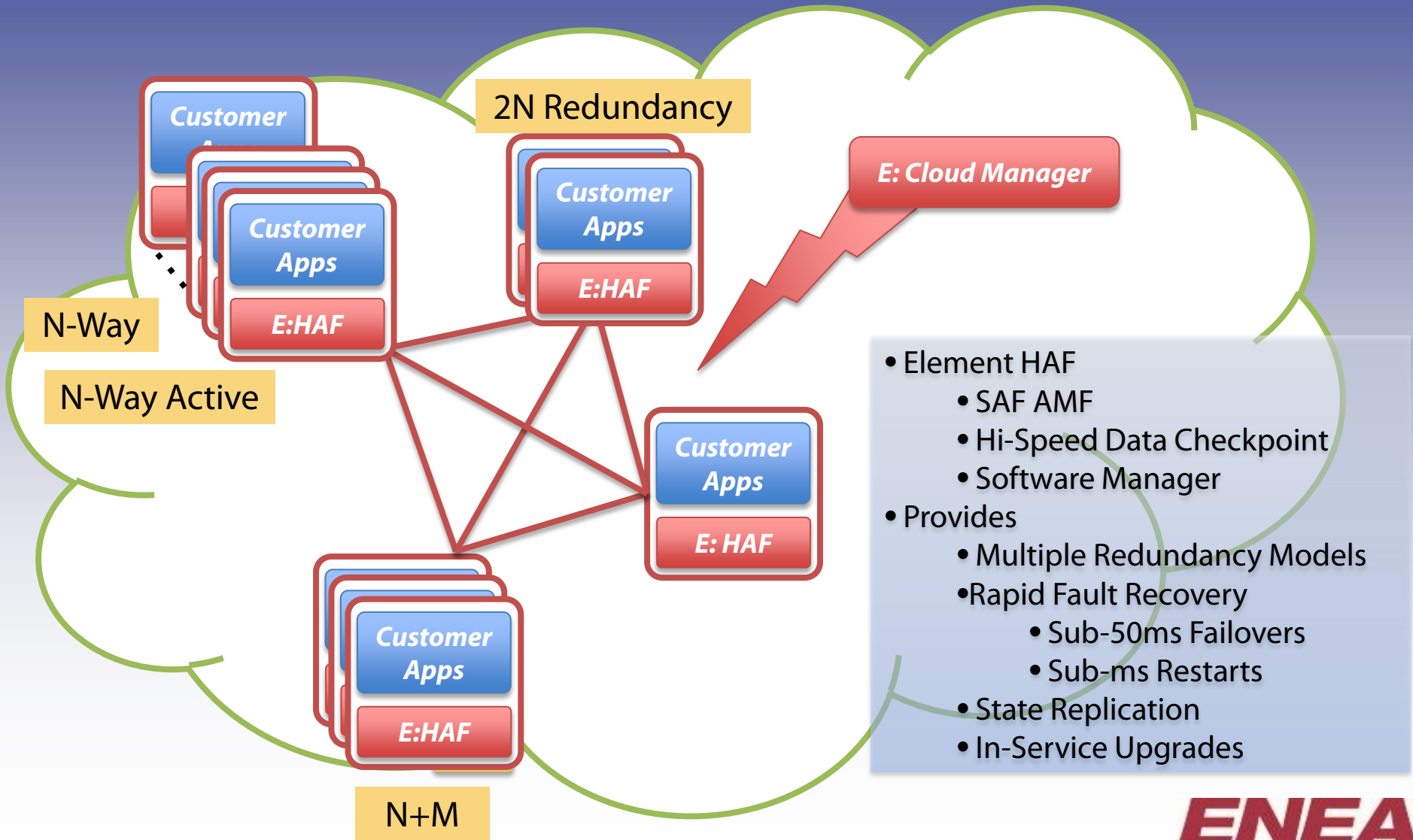
- Enea DSF Adds
 - System Log
 - Log Exporter
 - Command Server
 - CLI Interface
 - Web Interface
 - XML Interface (M2M)

Element: Management Framework (DSF)



- Enea DMF Adds
 - Configuration
 - Persistent, XML
 - Dynamic Updates
 - Runtime Objects
 - Get/Get-Next
 - Distributed
 - Notification
 - SNMP Traps
 - Alarm Manager

Element: High Availability Framework (HAF)



Summary

- Opportunities Provided by a Telco-Grade PaaS
 - Migrate Services to “Right-Sized” Infrastructure
 - Ranging from ATCA to Cloud
 - Dynamic or Temporary Product Deployment
 - True Products
 - Testing
 - Demos, Evaluations, and Training
- Challenges
 - Security
 - IP Access
 - Choosing the Right “Cloud Infrastructure”