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**TRANSBAY TRANSIT CENTER
IT BASIS OF DESIGN UPDATE**

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[AGENDA]

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- IT Basis of Design
 - Technology Needs Assessment
 - Basis of Design
- IP Converged Network
- Next Steps
 - Design Phase

The IT Basis of Design is the primary document(s) or roadmap that translates the Transbay needs into Information Technology components such as the local area network, wireless network and other technology systems that will support and operate the Transbay Transit Center.



Transbay Joint Powers Authority
Transbay Transit Center

Technology Needs Assessment Report | Volume 1

July 11, 2012



Transbay Joint Powers Authority
Transbay Transit Center

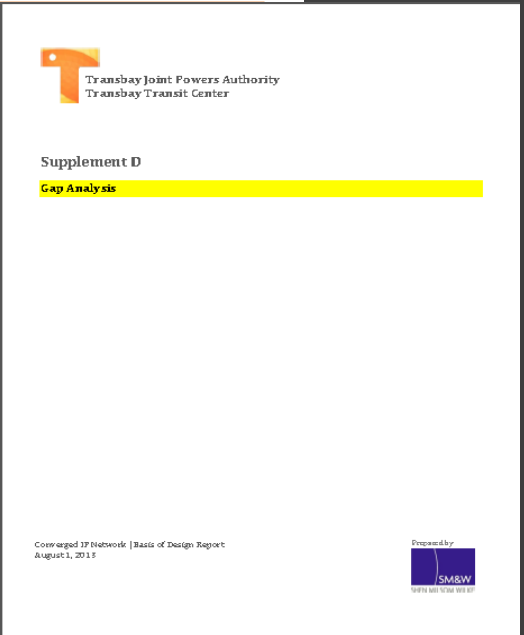
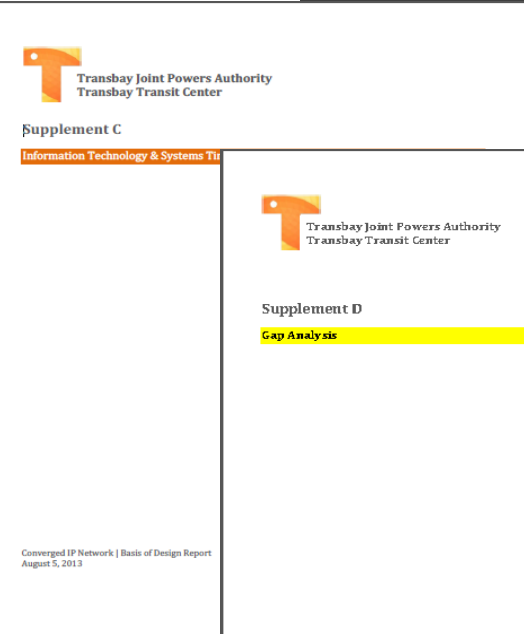
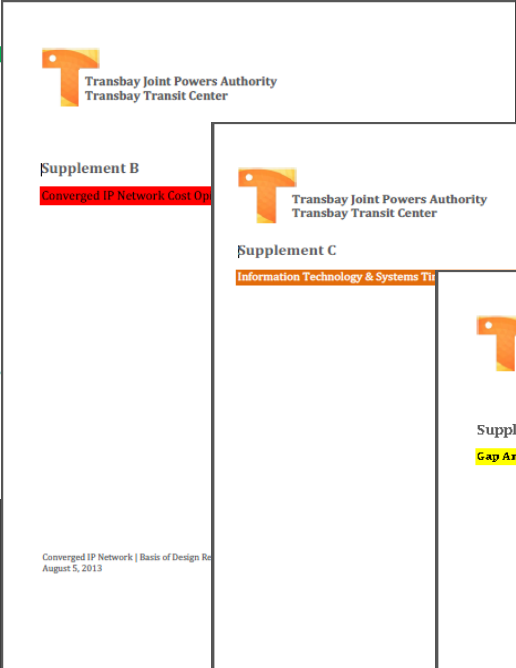
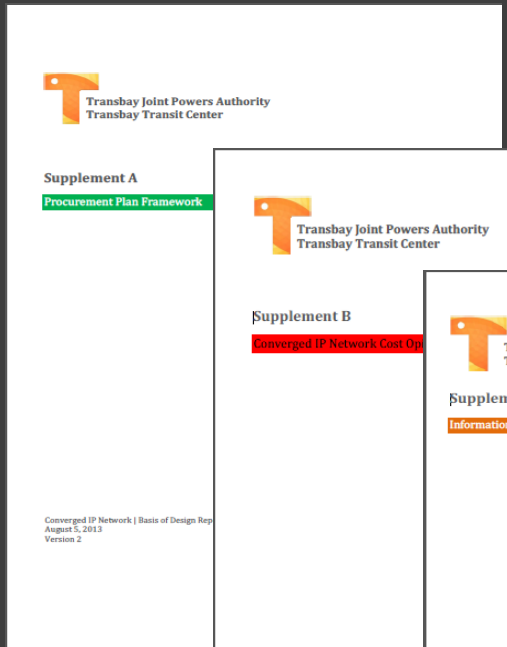
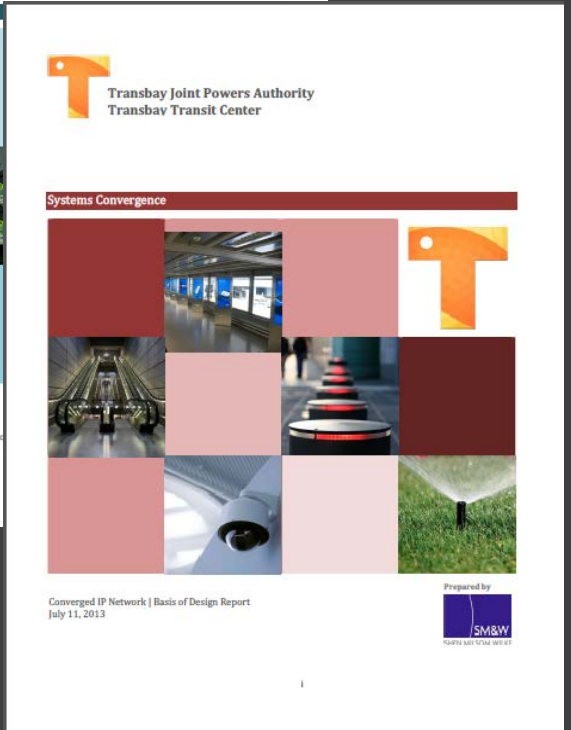
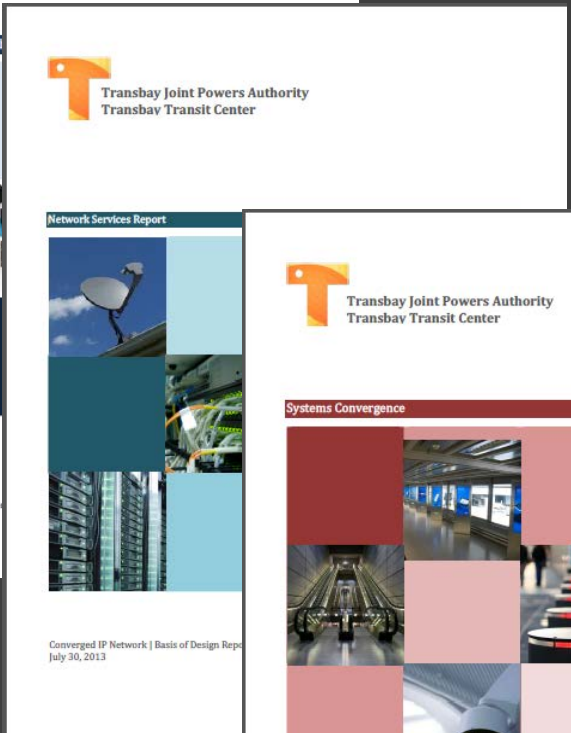
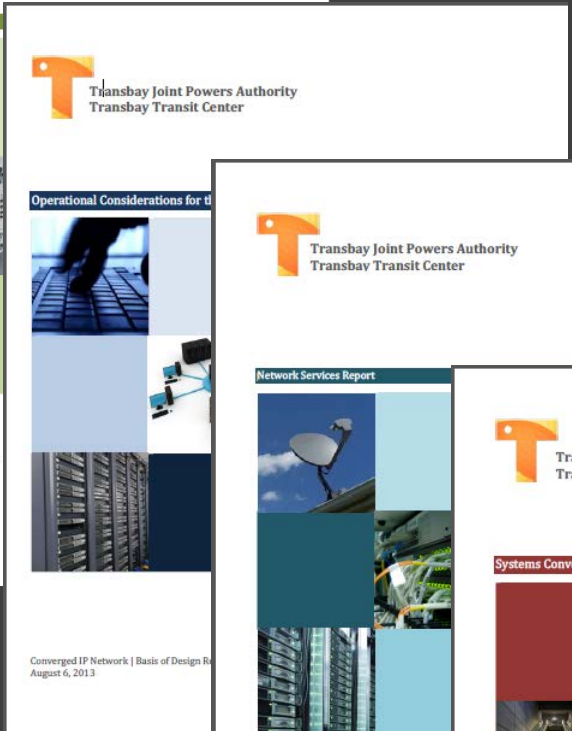
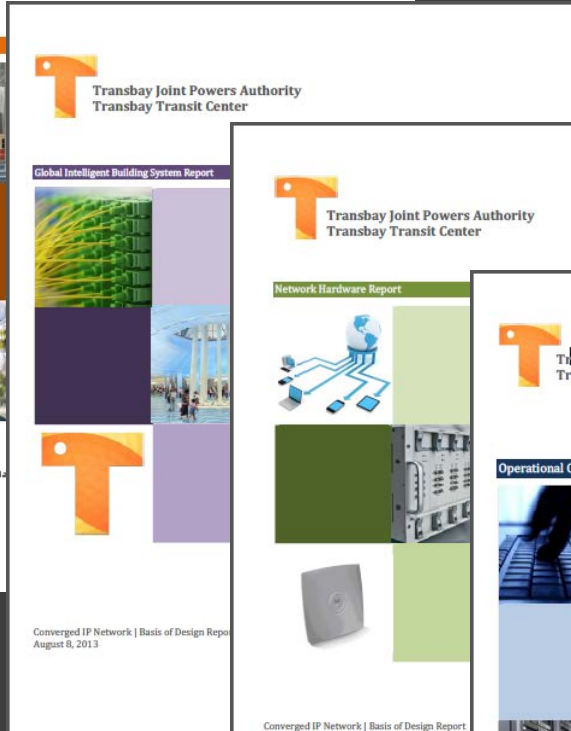
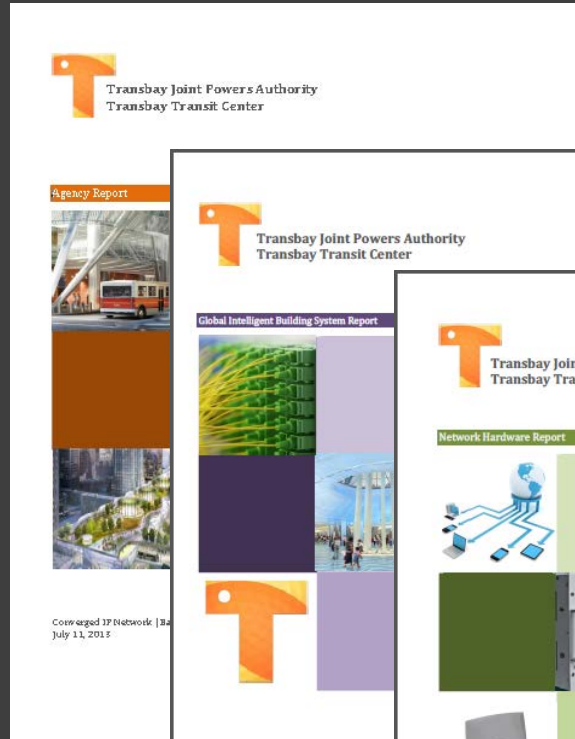
Technology Needs Assessment Report | Volume 2

July 11, 2012

Technology Needs Assessment

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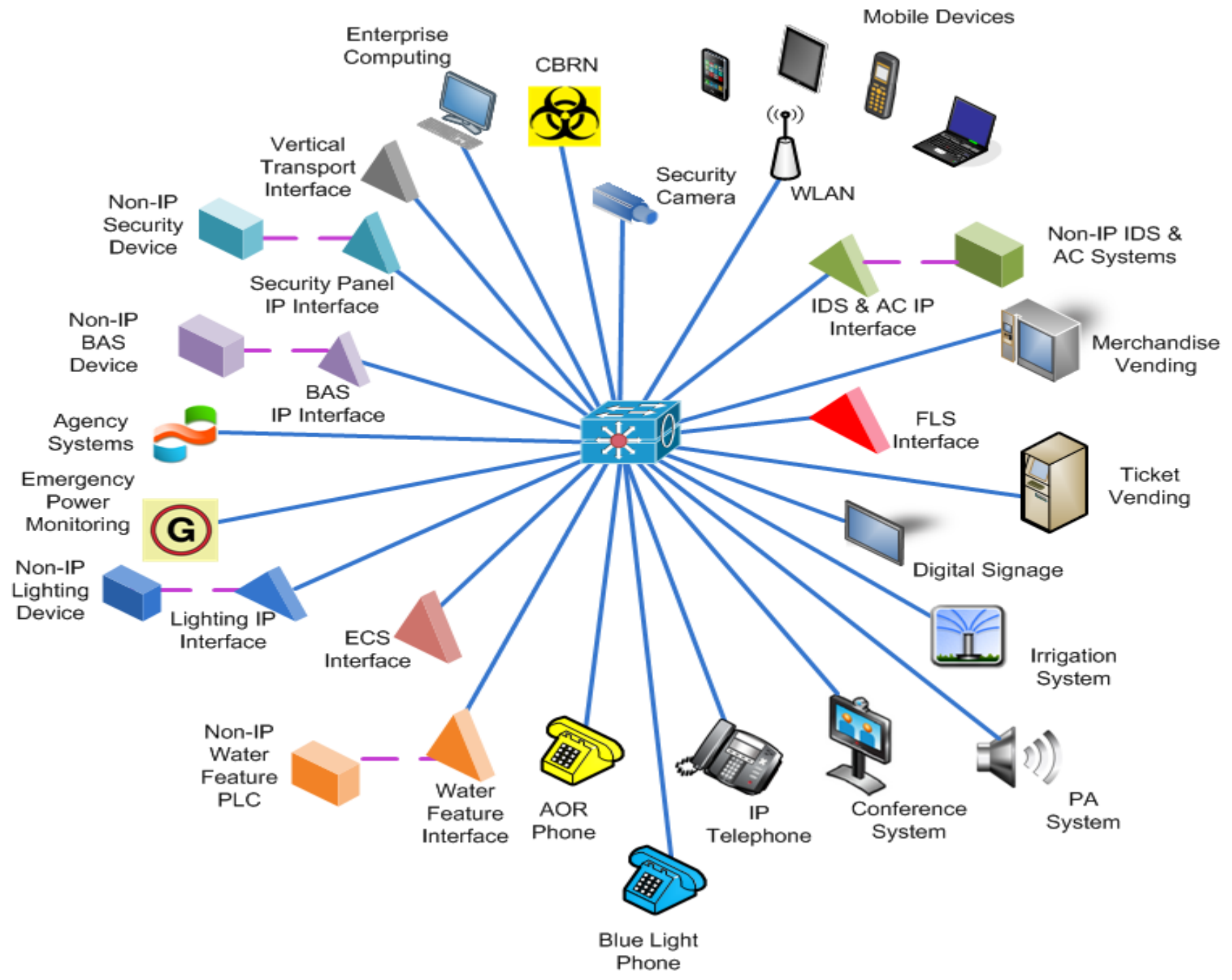
Basis of Design Reports

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[IT BASIS OF DESIGN]

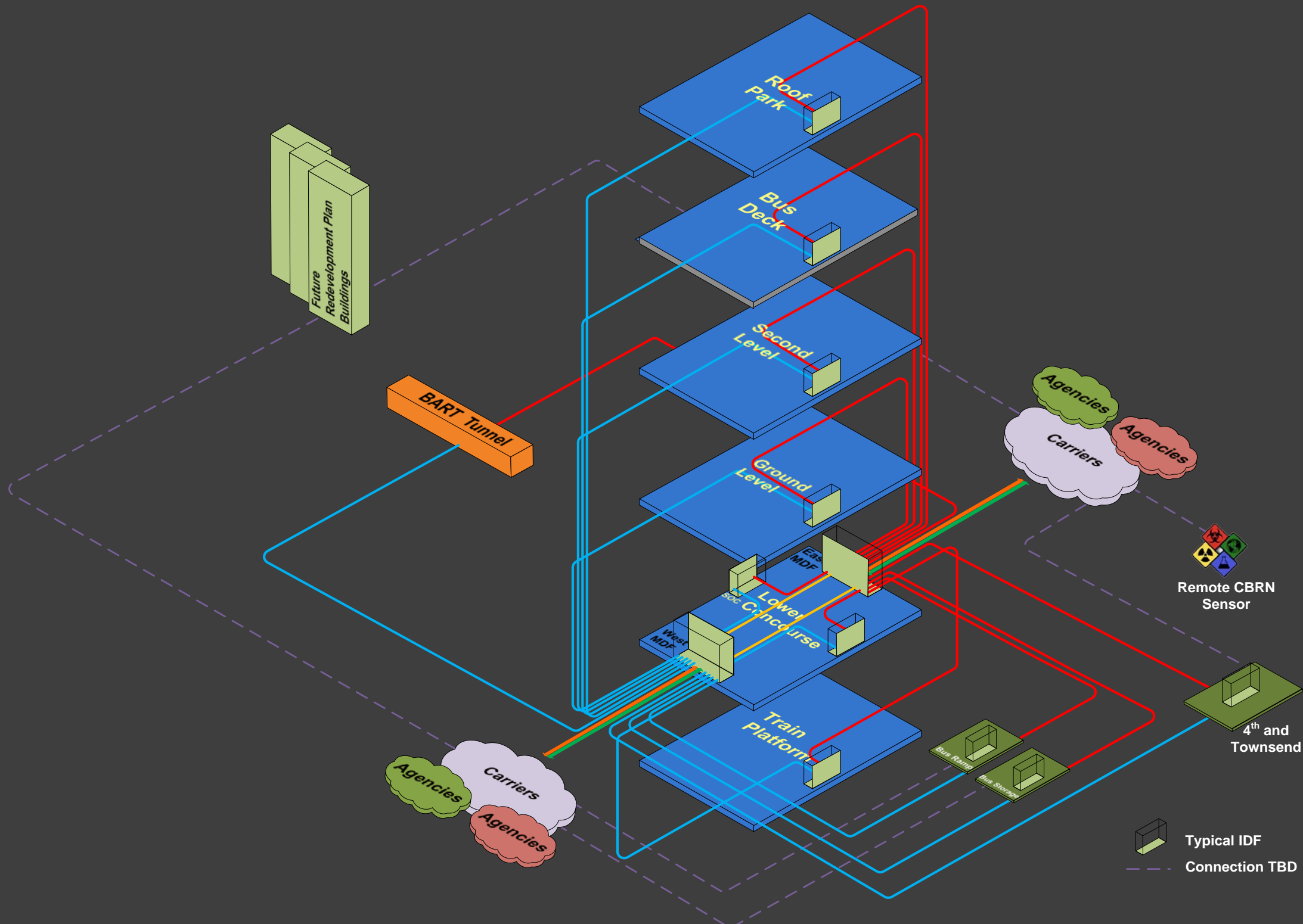
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Getting to a IP Converged Network

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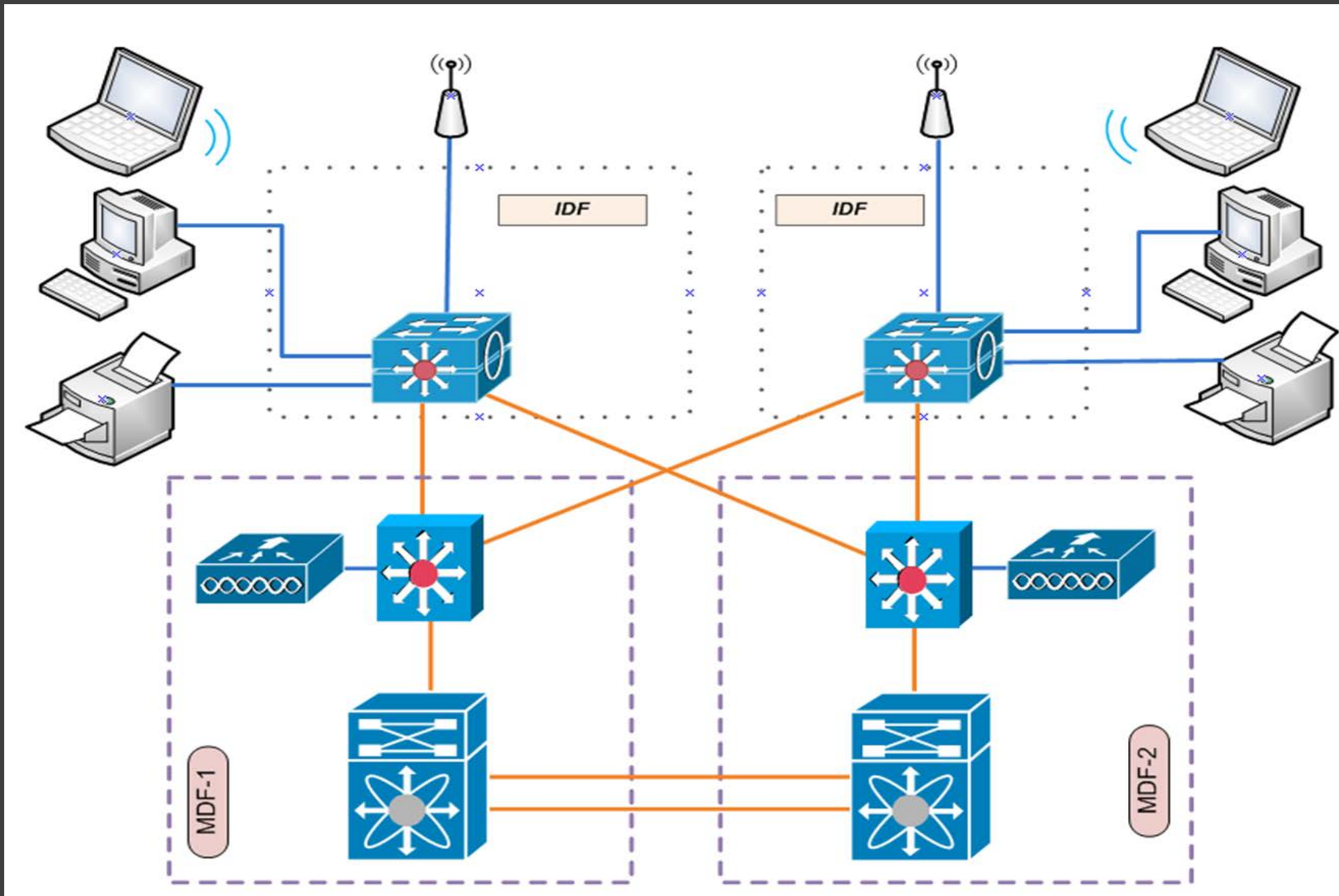




Infrastructure

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Access/Edge

Distribution

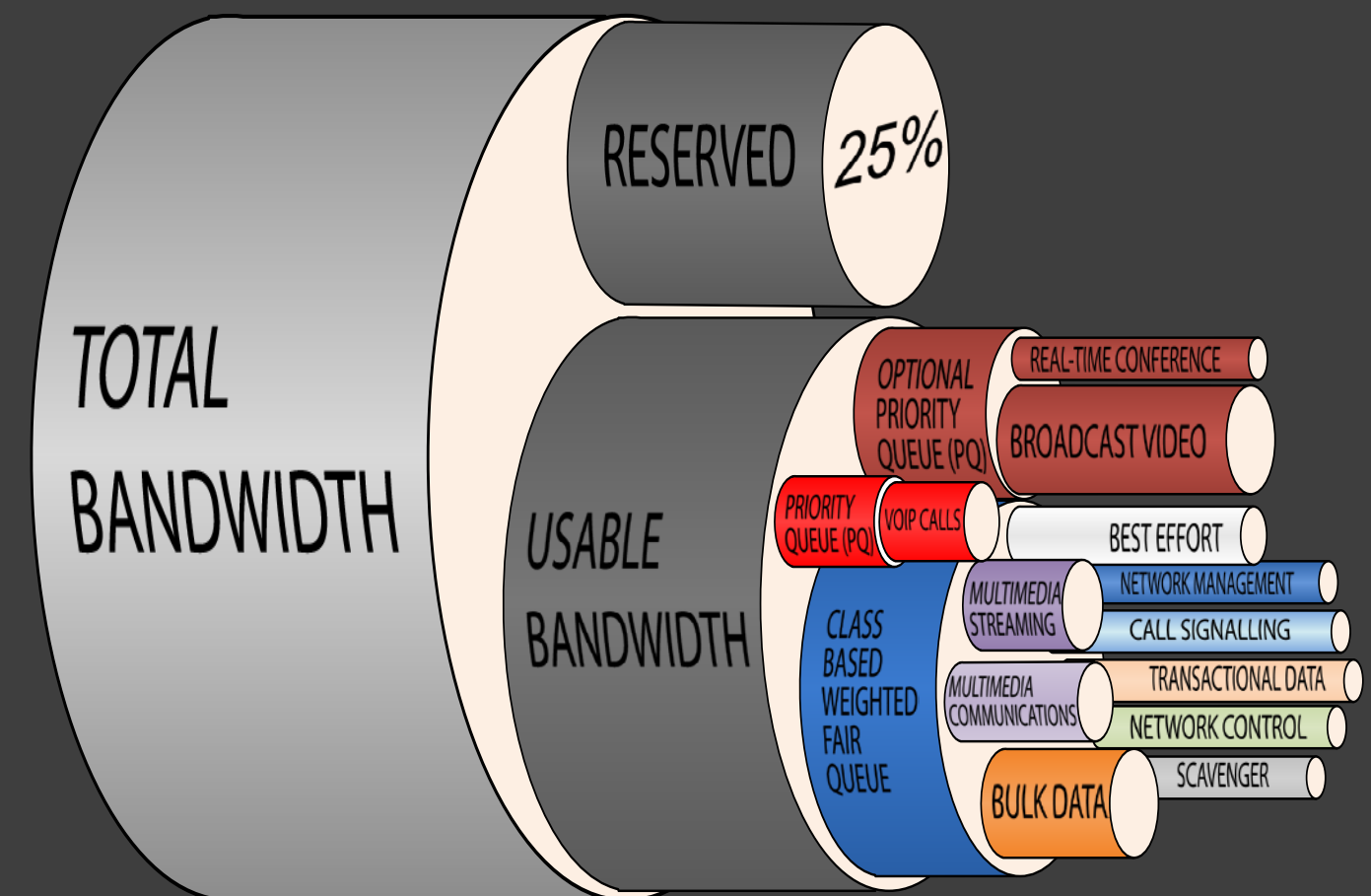
Core

Basis of Design – Local Area Network

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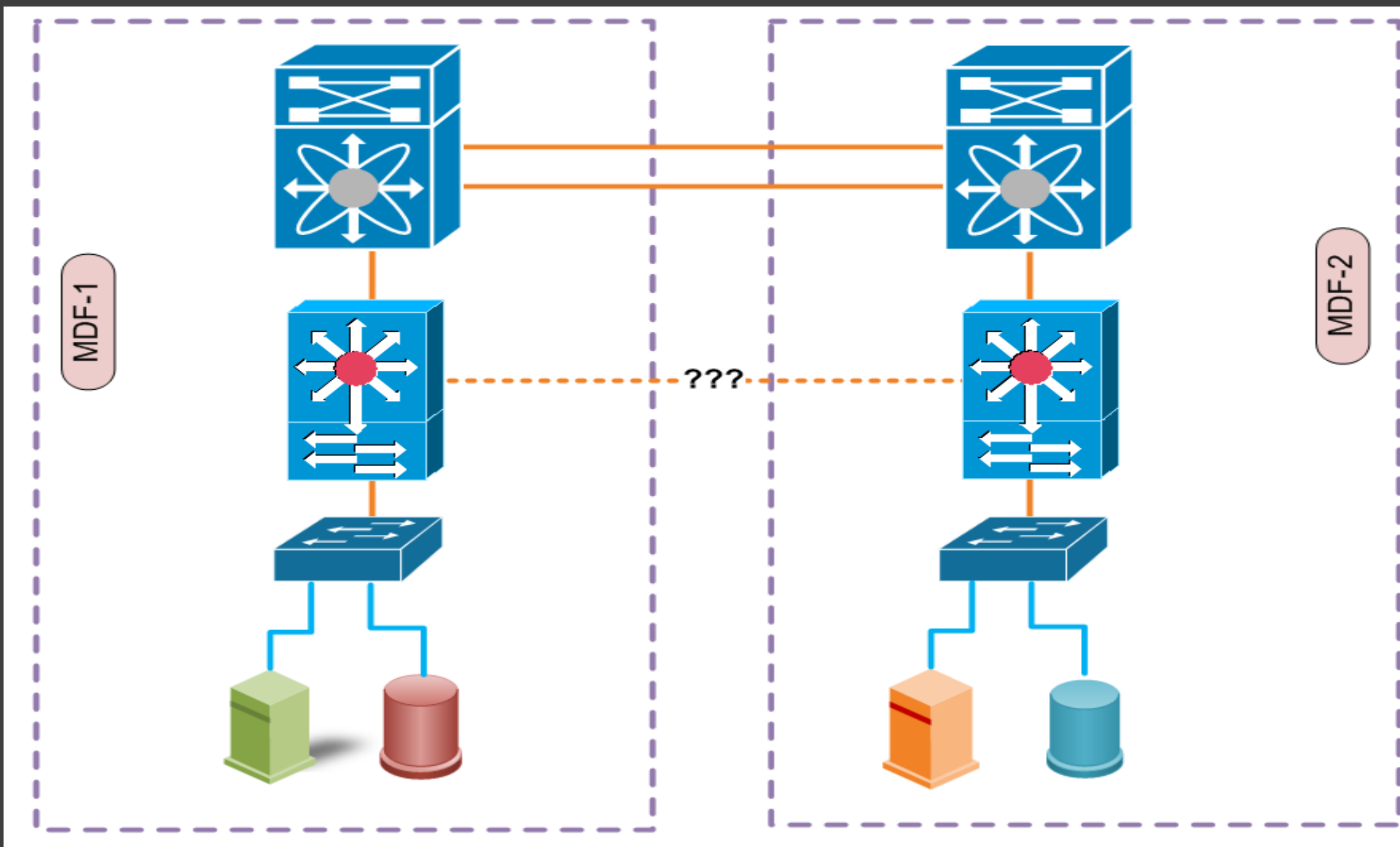
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VoIP Telephone	EF	Required	Priority Queue (PQ)	IP Phones
Broadcast Video	CS5	Required	Optional PQ	IP video surveillance, IPTV
Real-time Interactive	CS4	Required	Optional PQ	Telepresence, videoconferencing
Multimedia Conferencing	AF4	Required	BW Queue + DSCP WRED	Unified Collaboration
Multimedia Streaming	AF3	Recommended	BW Queue + DSCP WRED	Video on Demand, video advertising
Network Control	CS6		BW Queue	Routing protocols EIGRP, OSPF, BGP, HSRP
Call Signaling	CS3		BW Queue	SIP, H.327, H.323
OAM	CS2		BW Queue	SNMP, SSH, Syslog
Transactional Data	AF2		BW Queue + DSCP WRED	Web Ex, Skype collaborative
Bulk Data	AF1		BW Queue + DSCP WRED	Email, FTP, Back-ups
Best Effort	Default		Default Queue + RED	Default Traffic Class
Scavenger	CS1		Min BW Queues (differential)	YouTube, iTunes, BitTorrent, Xbox live



Network Basis of Design – Planned Capacity

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Core

Distribution

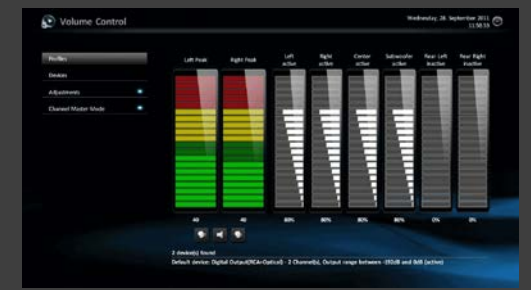
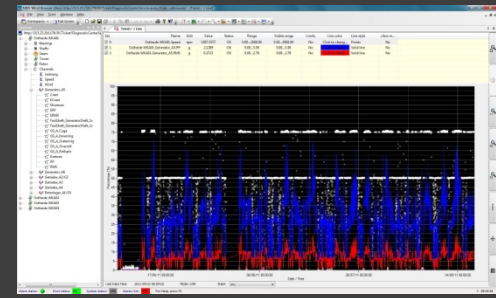
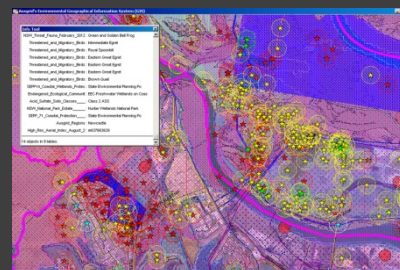
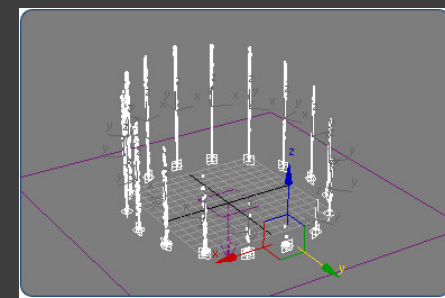
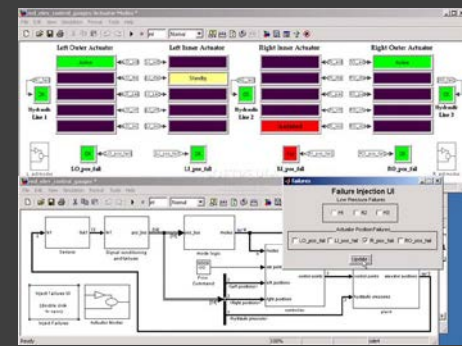
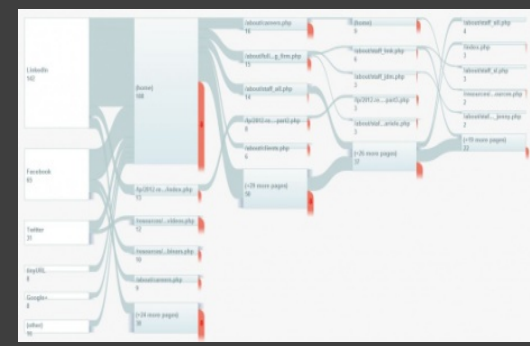
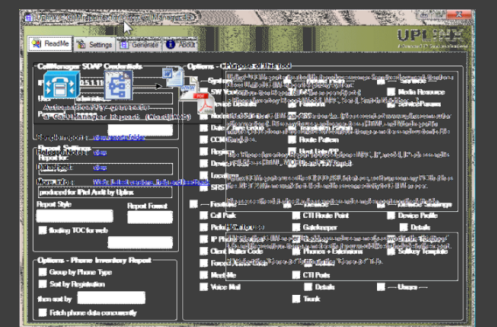
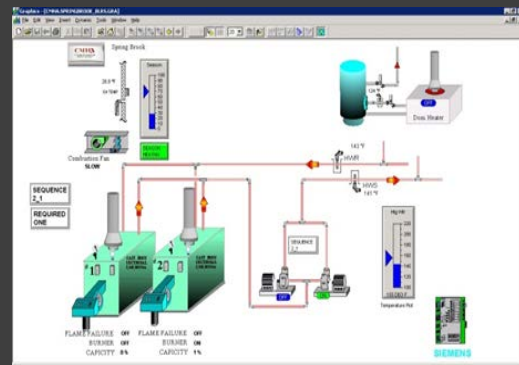
Server Access

Server/Storage
Equipment

Basis of Design – Server Room Topology

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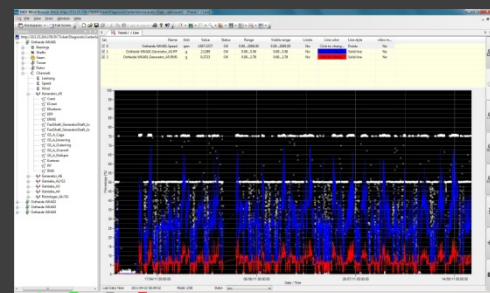
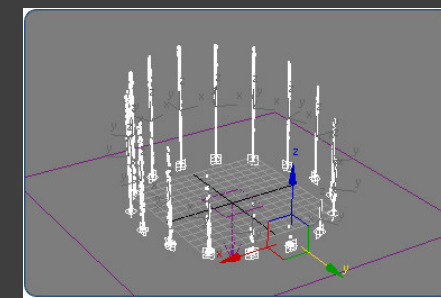
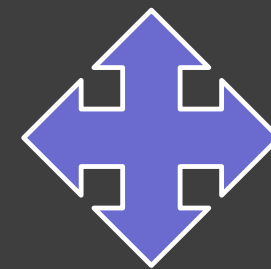
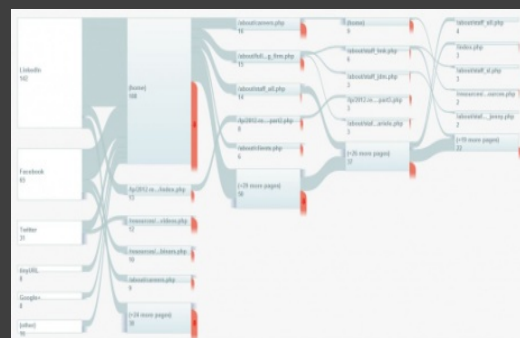
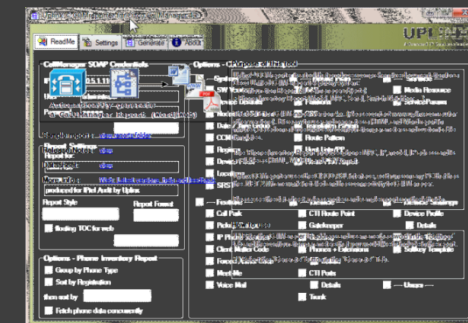
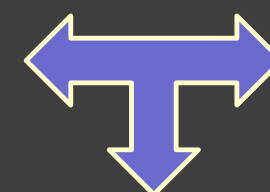
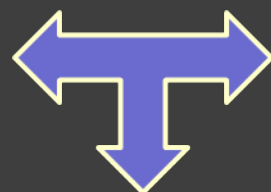
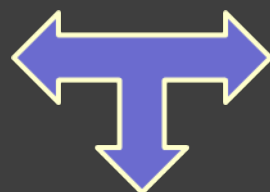
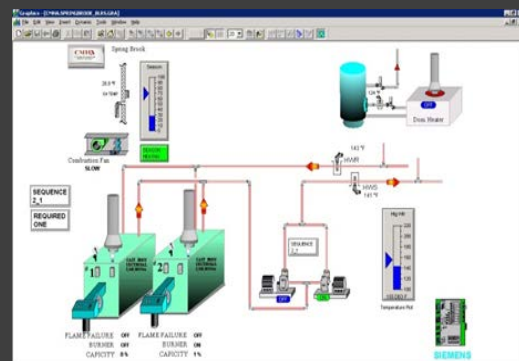




Silos of Operations

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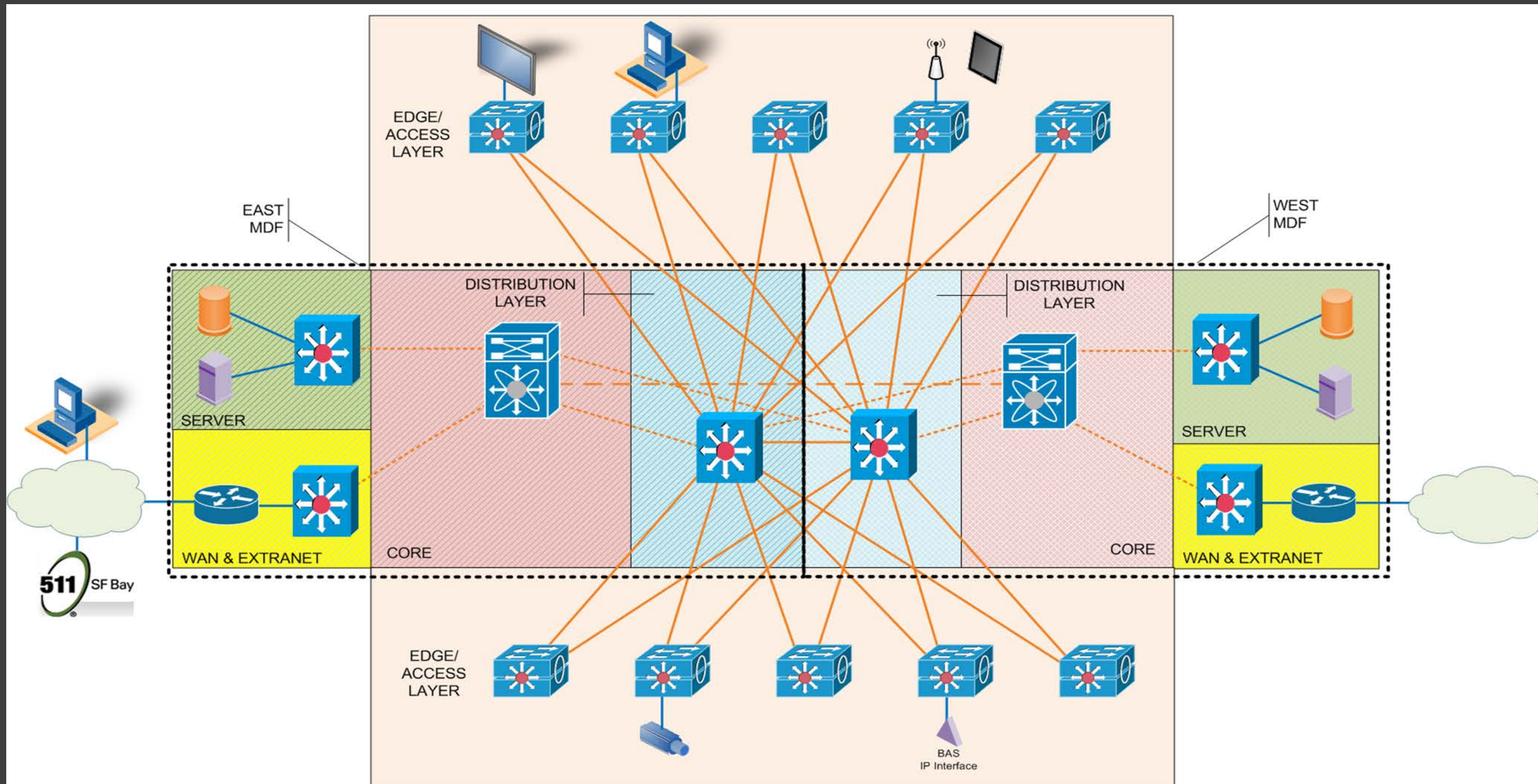




IT Systems Converged Approach

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Basis of Design – Wide Area Network & Internet Edge

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[NEXT STEPS]

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- Network Design
 - Wide Area Network
 - Local Area Network
 - Wireless Local Area Network
- Distributed Antenna Design
- Network Security
- System Design
- Planning & Coordination
- TJPA
- Design Team
 - Agencies
 - Transit
 - Public Safety
 - Tenant
 - Webcor-Obayashi



Design Phase

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Questions



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MANAGING
TECHNOLOGY
IN
TRANSITION

[BASIS OF DESIGN]

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