

MERA: *WHEN SECONDS SAVE LIVES –*

MERA Connectivity

A Briefing for the Governing Board

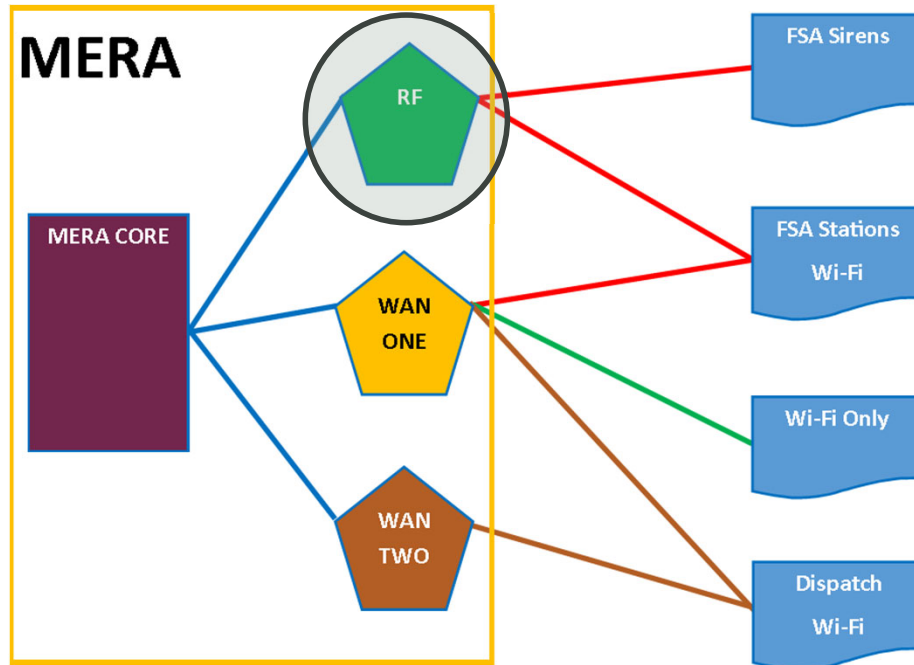


Agenda

- System Overview
- Cost Centers
- Funding Options
- Discussion



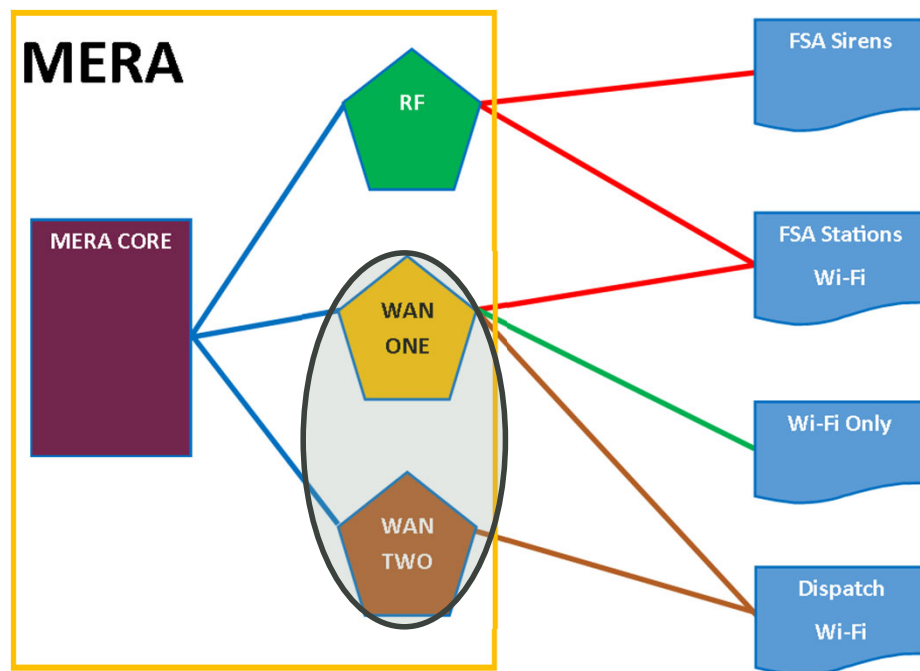
System Overview: Links



- Connectivity Links
 - **RF (MERA Radio) – Redundant link for FSA, Only link for Sirens.**
 - WAN One and Two – MERA Network IP links

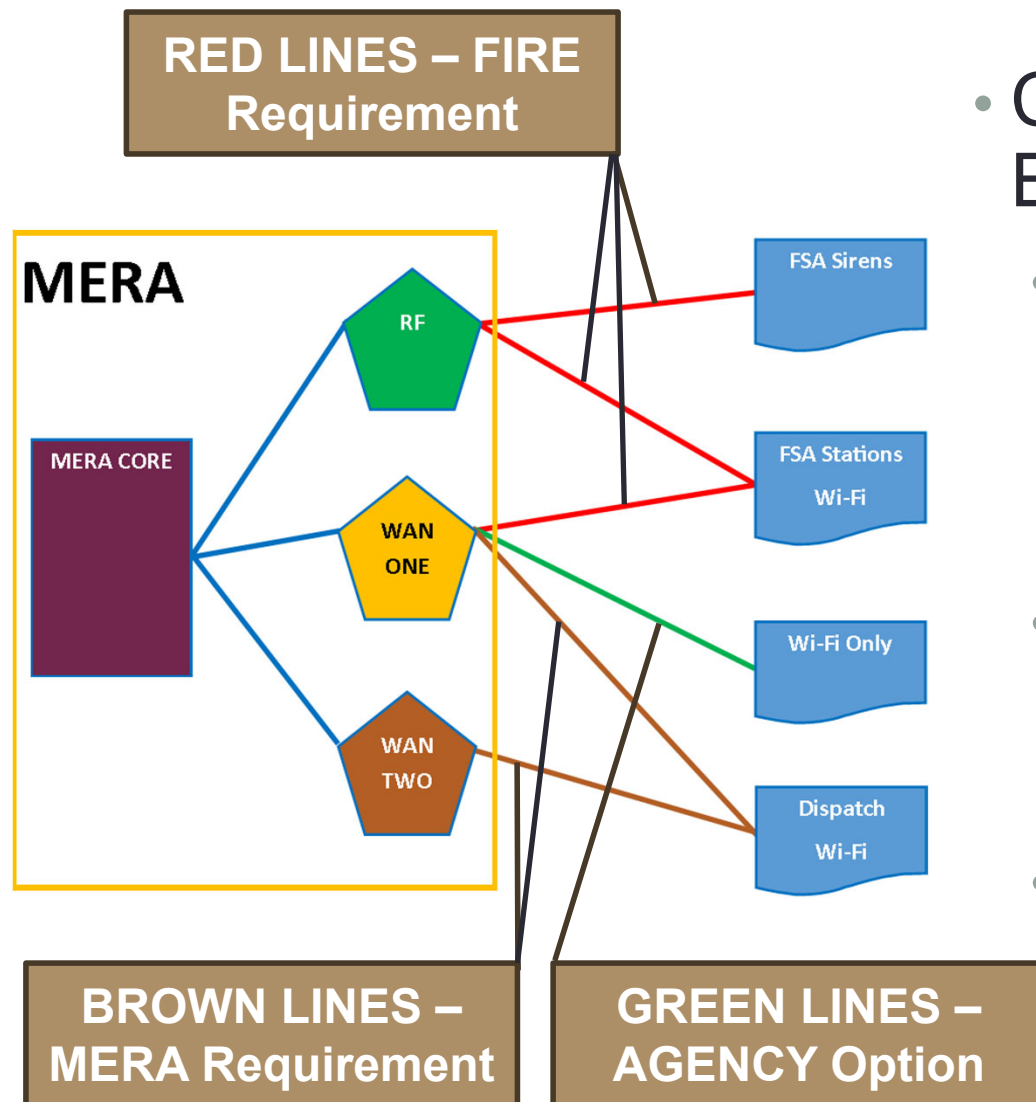
Gen I Method for FSA and Sirens

System Overview: Links



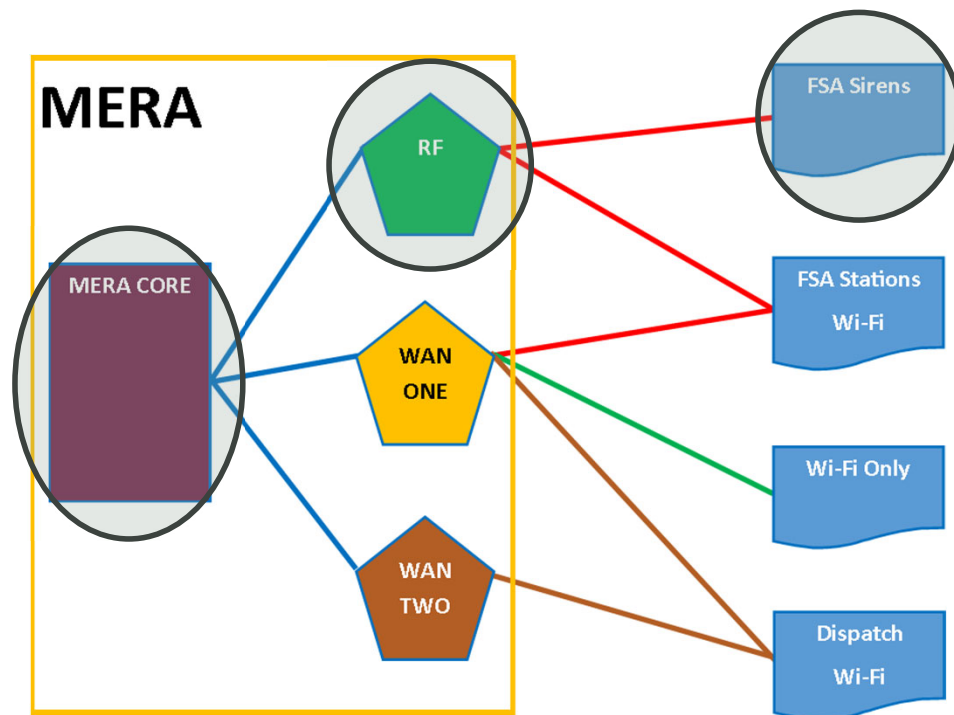
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 - RF (MERA Radio) – Redundant link for FSA, Only link for Sirens.
 - **WAN One and Two** – **MERA Network IP links**

System Overview: Connections



- Connecting Core at EOF with:
 - 3 Dispatch Centers (NPD, SRPD, FPD) SO/FD already connected
 - 33 Fire Stations for Fire Station Alerting and 7 sirens
 - Wi-Fi Programming (Agency option)

System Overview: End Points



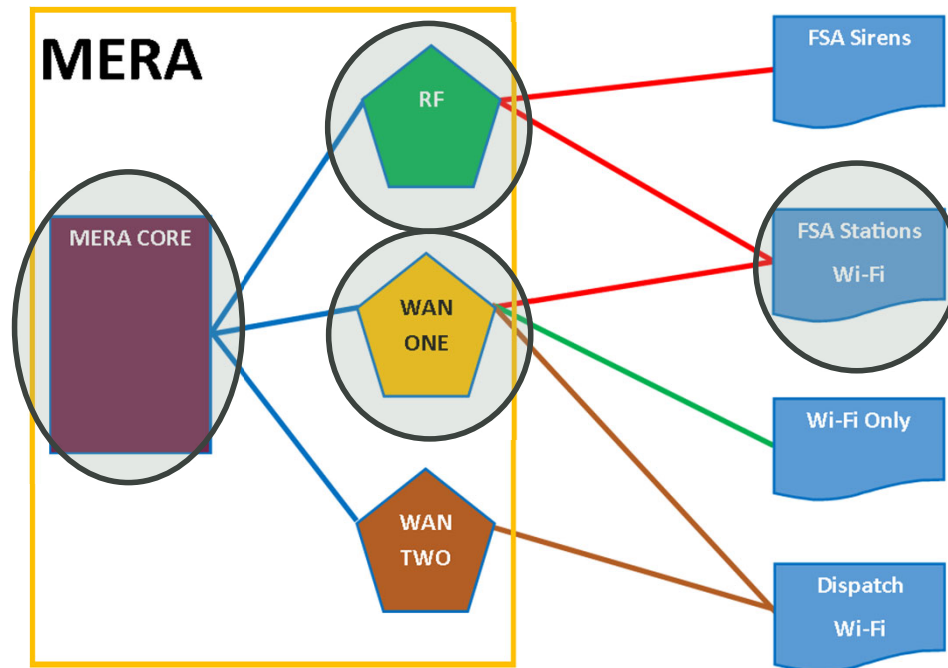
• End Points

- **FSA Sirens: RF Only**
- FSA & Wi-Fi (And 4 sirens): Wan One & RF
- Wi-Fi Only: WAN One & WAN Two
- Dispatch & Wi-Fi: WAN One and & Two

Stand Alone Sirens:

Muir Woods Community Center
Stinson Beach
CMFD Station #13

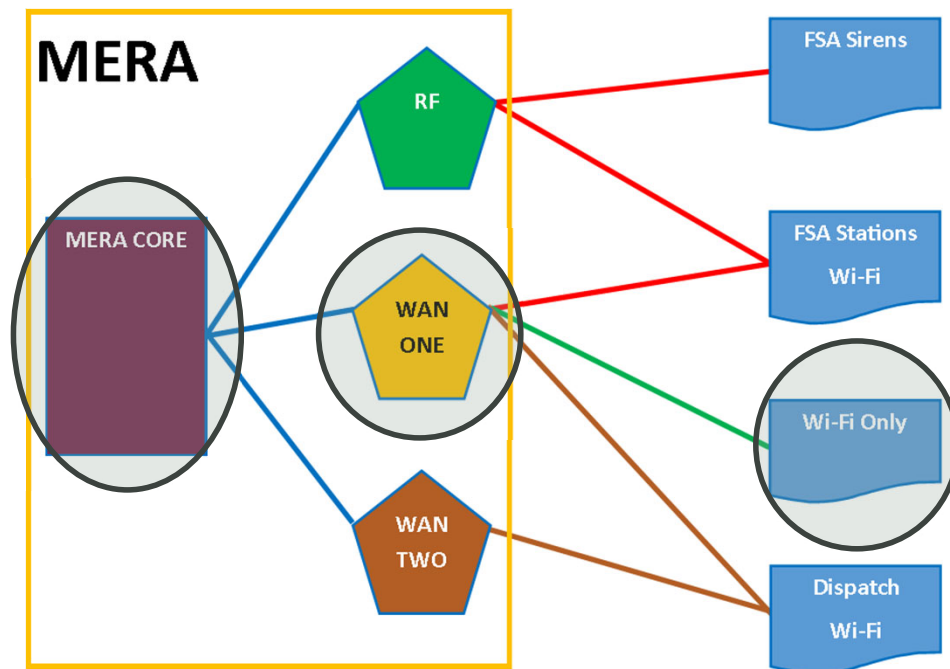
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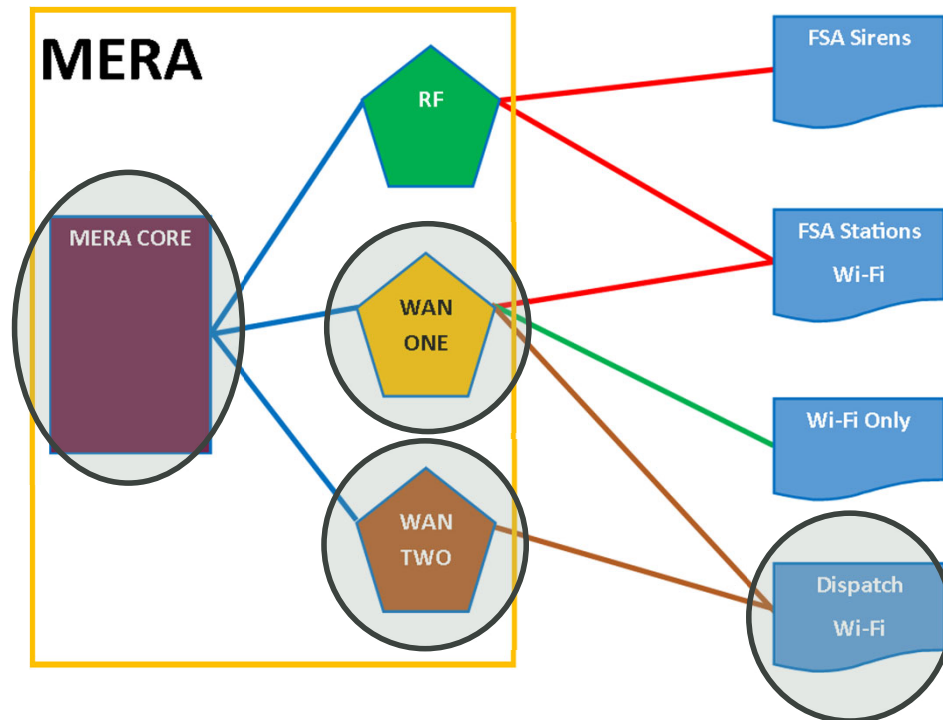
System Overview: End Points



• End Points

- FSA Sirens: RF Only
- FSA & Wi-Fi (And 4 sirens): Wan One & RF
- **Wi-Fi Only: WAN One**
- Dispatch & Wi-Fi: WAN One and & Two

System Overview: End Points



• End Points

- FSA Sirens: RF Only
- FSA & Wi-Fi (And 4 sirens): Wan One & RF
- Wi-Fi Only: WAN One & WAN Two
- **Dispatch & Wi-Fi: WAN One and & Two**

Two redundant IP pathways for Dispatch Sites: AT&T and One Other

Cost Centers: Connectivity (On-Going)

MERA Core – MERA Costs

- AT&T: \$1,650.00/month (est)
- Router/Firewall Updates: \$2,000/month (est)

End User Costs

- Dispatch Site
 - AT&T: \$1,400 per site/month for dual path (required)
 - Router Updates: \$20/per site/month (est) for dual path
- FSA/Wi-Fi Site
 - AT&T: \$350/per site/month (est)
 - Router Updates: \$10/per site/month (est)

Cost Centers: Equipment

MERA Core

- Equipment previously required and installed by MERA, approved by Pilot Program.

End User

- Dispatch Site: MERA Completed except for Fairfax.
 - Equipment: \$12,000/per site
 - Install: \$2,500/per site
- FSA/Wi-Fi Site
 - Equipment: \$2,600/per site
 - Install: \$2,000/per site

Cost Considerations

DISPATCH CENTERS

- **Connectivity**
 - Primary Connectivity Link: AT&T
 - Secondary Connectivity Path: Agency Option – Must be Fiber Circuit (Private Line) – Pending Agency Cost
 - Risks if Secondary is also AT&T.
 - VPN / Commodity Internet is not an option.
 - Costs: LOCAL AGENCY
- **Equipment:**
 - MERA Acquired for San Rafael PD and Novato PD Dispatch as part of pilot program.
 - MCSO and Marin ECC are co-located with MERA Core and connect internally.
 - Fairfax Police – Recommend MERA acquire equipment and assist establishing primary connection. (\$15,000)

Cost Considerations

FSA and Wi-Fi

Depending on the number of non-AT&T connections and the number of different vendors involved, connection costs at the MERA Core may change.

- **Connectivity**
 - Recommended Connectivity Link: AT&T
 - Options:
 - Dedicated Fiber Circuit (Private Line)
 - Commodity Internet / VPN (*Wi-Fi Only – Not acceptable for FSA*)
 - Option Risks:
 - Less Security, Reduced network control, Could impact QOS/SLA/Reliability
 - Option Benefits:
 - Reduced On-going Connection Costs
 - Costs: LOCAL AGENCY
- **Equipment:**
 - Equipment needs at each end would remain the same, regardless of AT&T or either option.

Staff Direction

1

Confirm Staff Recommendation that End User Equipment costs and on-going costs are a Local Agency item

2

Support use of Non-AT&T and VPN connections for Wi-Fi Programming

3

Approve MERA acquisition of End User Equipment for Fairfax Police Dispatch (\$15,000)



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www.MERAonline.org

QUESTIONS?

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