Benefits of Wireless Mobile Worker during Turnaround

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Thank you.
Presenters

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Agenda

- Mobile Worker Project Approach
- Project Execution Process
- Wireless Plant Network Technology
- Integration of Wireless Mesh, Tablet and DeltaV
- DeltaV Remote Operator Station in hands of field personnel
Ergon Refining Inc.

- Ergon Refining Inc. is the largest manufacturers of naphthenic process oils in the world and currently has a processing capacity of up to 25000 barrels of crude oil per day.

**Ergon Mission:**
- To provide retail service at a wholesale level.
Ergon Mobile Worker Project

- TAR DCS Project
- Deltav migration / Charms
- Use of Mobile Worker
Ergon Refining Inc

- Processing 25,000 Barrels Per Day
- At present 8 units at Vicksburg facility.
- 6 Products
- 2 tank farm areas
- 1 flare
- 3 Barge / Dock areas
- 1 DeltaV system and AMS.
- Currently operating 61 wireless devices.
- 2 Mobile Worker Tablets and 4 access points
Mobile Worker Application Selection Process

- Traditional Turnaround or Extend DeltaV on mobile tablet?
  - Benefits of making field technicians and operators truly mobile
  - 60% man-hour savings

- Remote Desktop or RAS
  - Flexibility using a RAS server vs RDP
  - Redundancy, access multiple DeltaV systems, automated disconnect/reconnect process with visual feedback

- Support for system
  - Single point of contact for support
Project Execution Process

- Preconfigure hardware (FAT)
- Site Survey
- Finalize locations for access points (AP)
- Optimize AP locations based on available networking infrastructure
- Temporary Installation
- DeltaV Mobile Worker set up and Startup
- Start realizing benefits
- Procure equipment
- Ship new hardware to Ergon for final installation
Access Point Installation
Integration of Wireless Mesh Network with DeltaV
DeltaV Operate on Panasonic Toughbook (Model CF-19)

- RAS was installed on the Pro+
- A remote node was created in DeltaV Explorer
- DeltaV was installed on the toughbooks
- A license was assigned to the toughbooks
DeltaV Operate on Panasonic Toughbook (Model CF-19)
Wireless Plant Network (WPN) Technology

- **Mesh Access Point**
  - Communicate among themselves and to the wired network using wireless connections over the 802.11a/n radio backhaul. They also provide client access on 802.11b/g/n radios.

- **Wireless LAN Controller**
  - Provides a centralized control of Access Points

- **Network Control System (optional)**
  - Provides a visualized system view of the network for RF planning and management.
Business Results Achieved

- Total Man Hours savings of 1,440 hours with Emerson Wireless Mobile Worker Application
- The dollar amount based on industry average is approximately $187,200
- How did efficiency improve with mobile worker?
- Future capabilities such as wireless cameras for Flare monitoring
Summary

- Mobile Worker with Emerson’s Wireless Plant Network:
  - Gave Ergon the flexibility......
  - Increased efficiency......
  - Allowed cost savings......
  - Opened the door for future applications such as wireless cameras......
  - May be used as a tool by Engineering / Operations in the future.
Where can I find more information?

www.wirelessplantnetwork.com
Where can I find more information?

- Visit the Smart Wireless booth
- Visit www.emersonprocess.com/smartwireless
- Contact your local Emerson representative