

Building a 21st Century SCADA System

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Chief Information Officer

Owner Requirements

TRUCKEE DONNER
Public Utility District

100% Uptime

Merging IT with OT

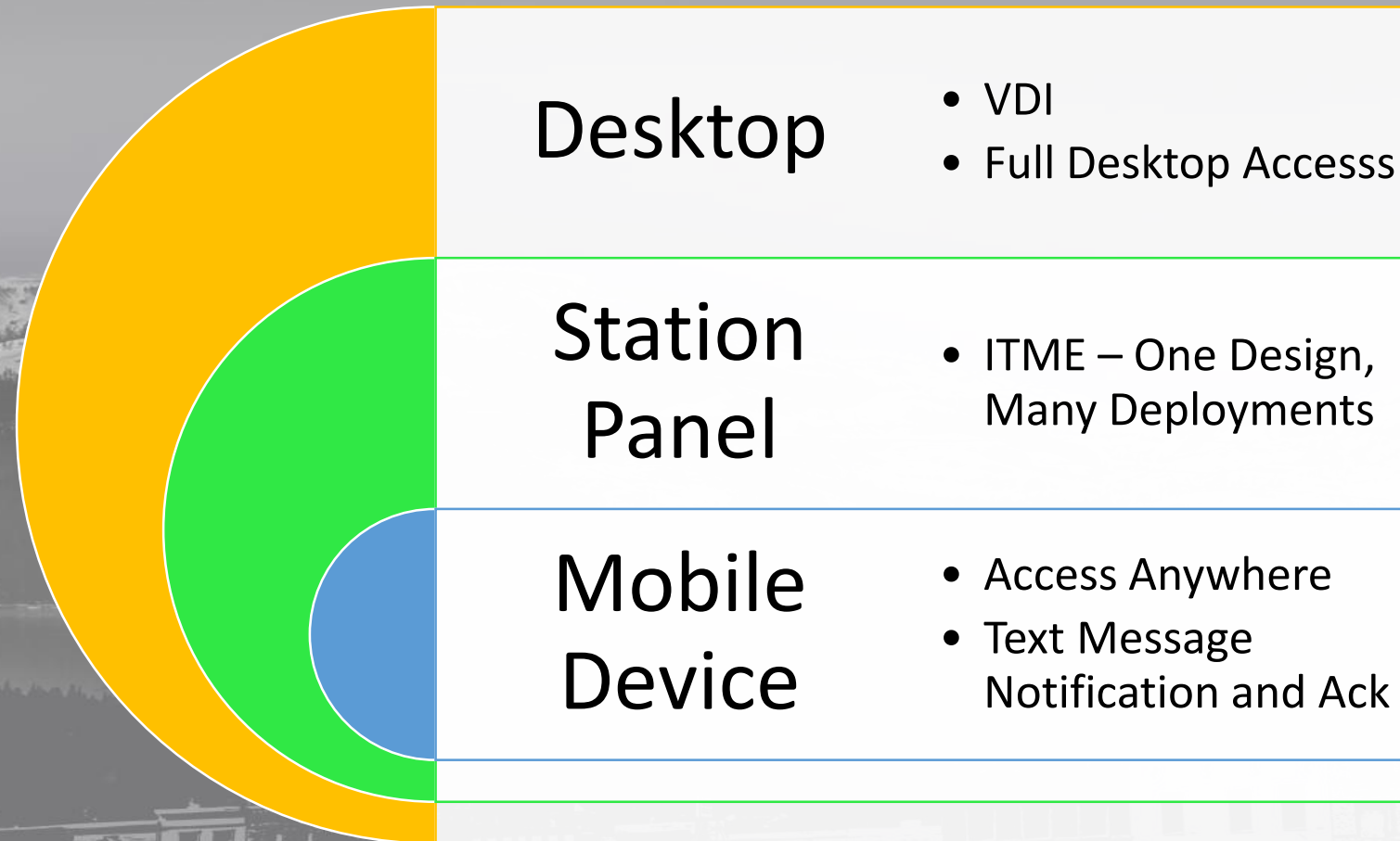
Simple to
Use

Access
Anywhere

Real Time
Alerts

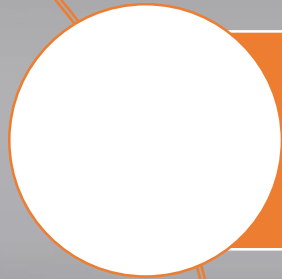
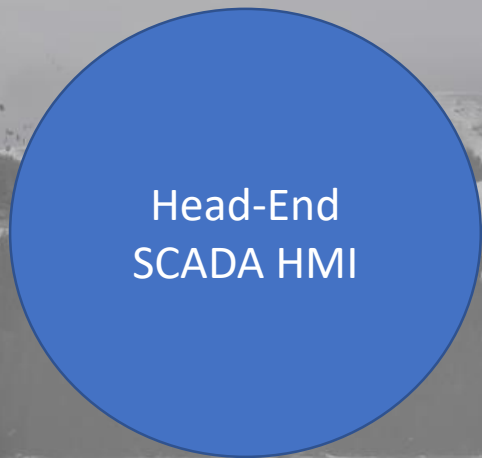
Zero Loss
of Data

Access Anytime From Any Device



Communication Design

100% Uptime



High Bandwidth – Fiber Optics, Microwave, LTE

- Active Mode
- Full suite of data



↑ PLC Control ↓ / Historian @ Edge ↑

- Ping clocks set on HBW
- Loss of ping reverts to LBW, regain of ping reverts to HBW



Low Bandwidth – 220 MHz Radio

- Standby Mode
- Subset - Absolute needed data

IOT Cyber Defense

Merging IT with OT



- Stops Outside Attacks



- Finds latest vulnerabilities



- Firewalls between IT and IOT



- Signature based attacks



- Behavior Changes