ADVANTECH

Enabling an Intelligent Planet

Connecting to the Sustainable Future with 5G Wireless and M2M Gateway Technology

Presented by

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Securely deploying large-scale cellular SCADA connectivity with Energy DSOs

Markus Ahonen

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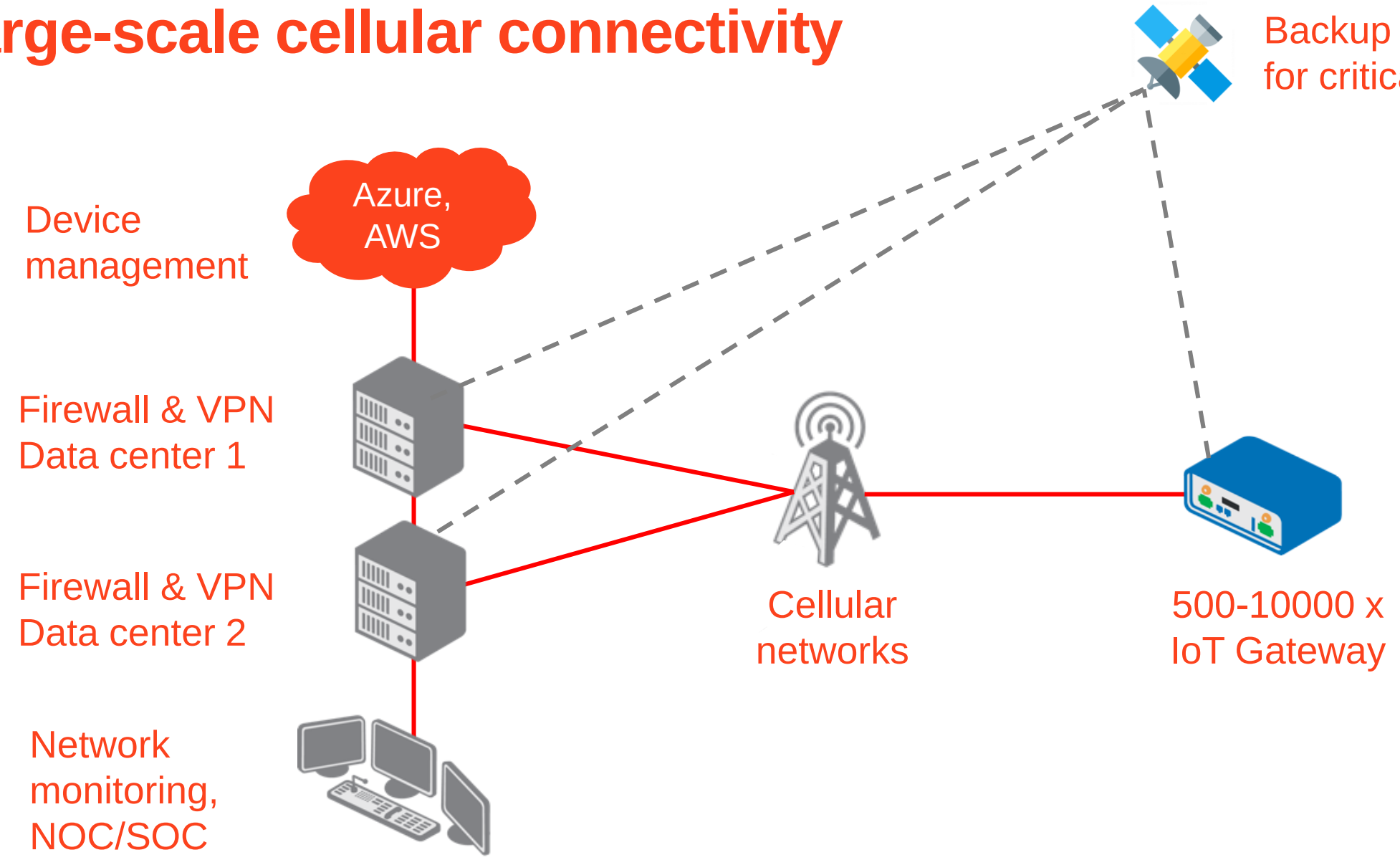
Cinia

Large-scale cellular connectivity



NDC NETWORKS
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Grid trends

- Automation increasing everywhere in grids
- Volumes up, prices down
- IT departments taking control of IoT projects
- Result:
  - Huge cloud of edge devices
  - Build & operate with low OPEX per node
  - Must be secure

NDC NETWORKS
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Lessons learned: Security & deployment

- Cybersecurity
  - Seek network simplicity to improve reliability
  - Firewall as VPN is the only viable VPN solution
  - Isolating from the internet is not a strategy; defence-in-depth is mandatory
  - Cloud security is critical for DSOs
  - Scrutinize the minute details of how your vendor establishes chain of trust in zero touch
- Deployment
  - You need Design Thinking to create fluid operations (physical & digital)
  - Device management automation & zero touch is the key tool

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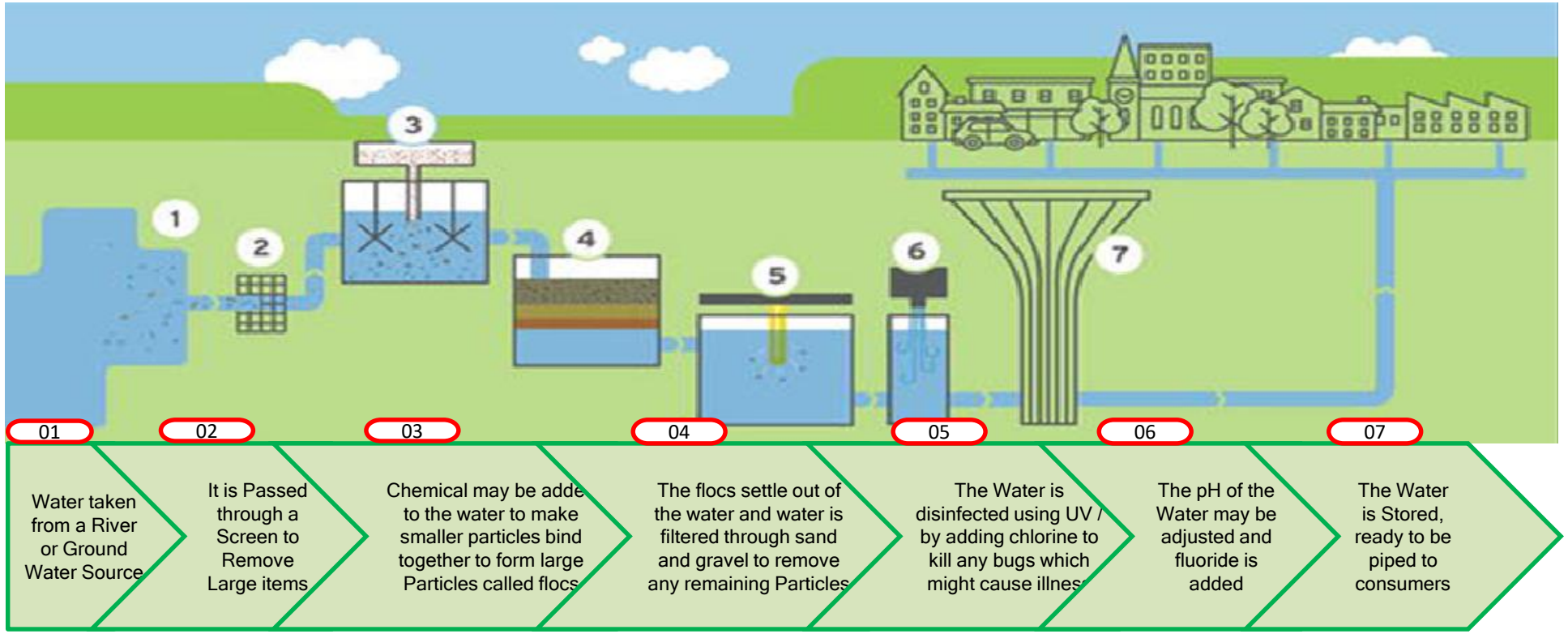
WE BUILD DIGITAL
SUCCESS STORIES

Automation Requirement of Typical SCADA Based Water Treatment & Distribution Project



Specification Requirement:-

1. Redundant SCADA Server with Historian -Mitsubishi direct offering
2. Redundant Hot-Standby PLC System for WTP(Water Treatment plant) -Mitsubishi direct offering
3. Standalone PLC and HMI System for RWPH(Raw Water Pumping Station) -Mitsubishi direct offering
4. Redundant PLC System for CWPH(Clear Water pump House) -Mitsubishi direct 0ffering
5. RTU on GPRS Based communication over DNP3 Protocol for OHSR(Over head Service Reservoir)-210nos
   - Offering with help / product support from Advantech
1. RTU on GPRS Based communication over DNP3 Protocol for MBR(Membrane Bio Reactor Technology)-04nos
   - Offering with help / product support from Advantech

Mitsubishi Electric - Process Automation Business

Objectives:

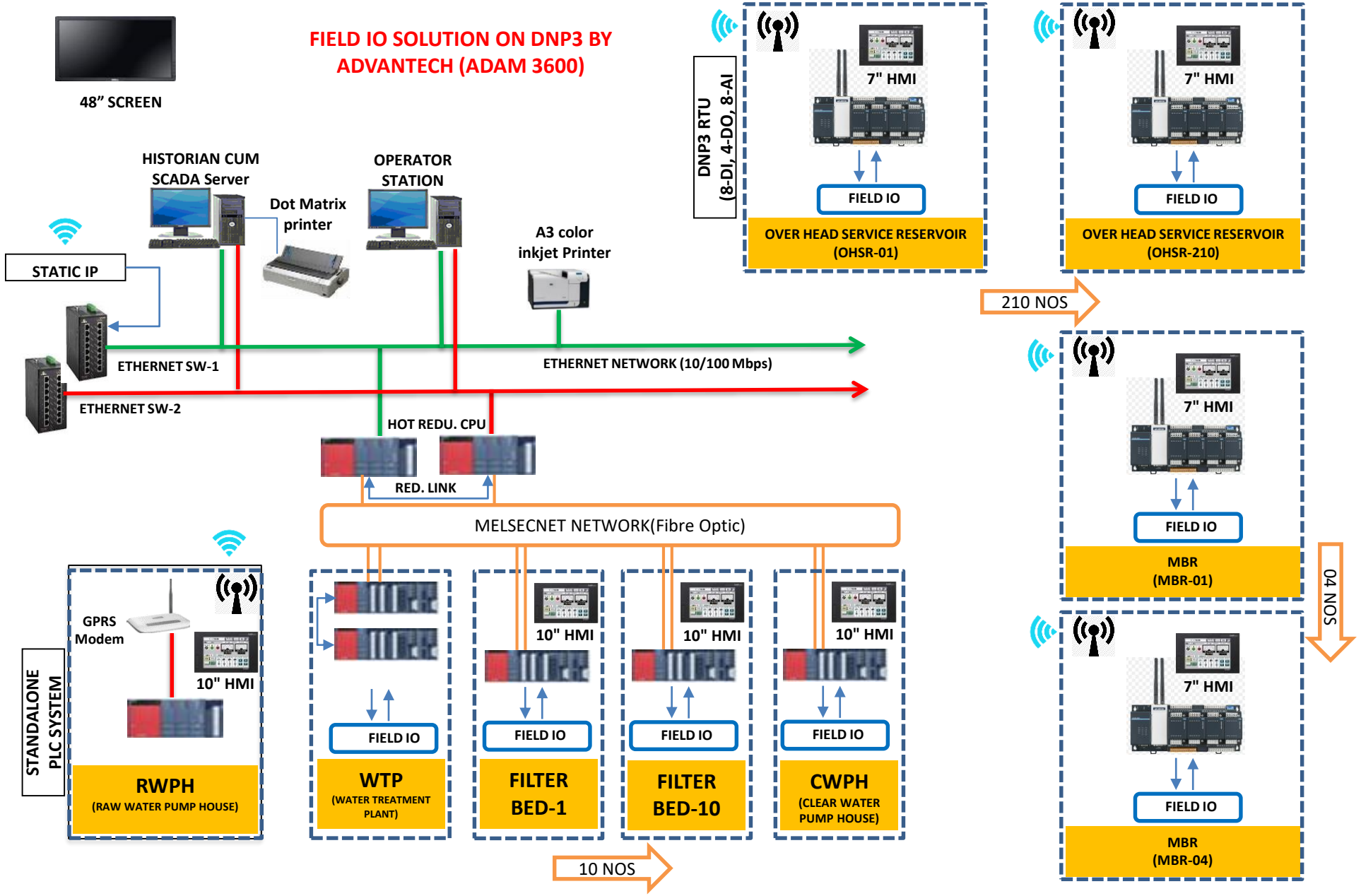
- Process Automation Dept. in India formed in the Year -2014.
- Approval from various Govt. Sectors applied and successfully achieved.
- Tie up with various EPC's for the supply of Automation System

Offering:

Turnkey solutions: STIC (Supply, Test, Install & Commission)

- Concept, Design, Engineering , Manufacturing and Commissioning
  - Preparation of functional design specifications
  - Design, Configuration & Programming of PLC/DCS System
  - Design & Development SCADA & Interface configurations.
  - Electrical & Control Panels – Engineering, Assembly & Testing
  - Preparation of Detailed Drawings & Documentation.
  - Offer Factory Acceptance Tests
  - Installation , Commissioning & Site Acceptance Tests
  - Training , Maintenance Procedures for System
  - O&M Support

System Configuration



Co-Creating the Future of the IoT World