

# **Business Track: Business Migration**

Presented by:

John Dorn, IBM

Mike Malone, Microwave Data Systems

4:45 – 5:30 p.m.

Bandera Room

# M2M United – Business Migration *Considerations for Transitioning Your Wireless Business Model*

**Presented by:**

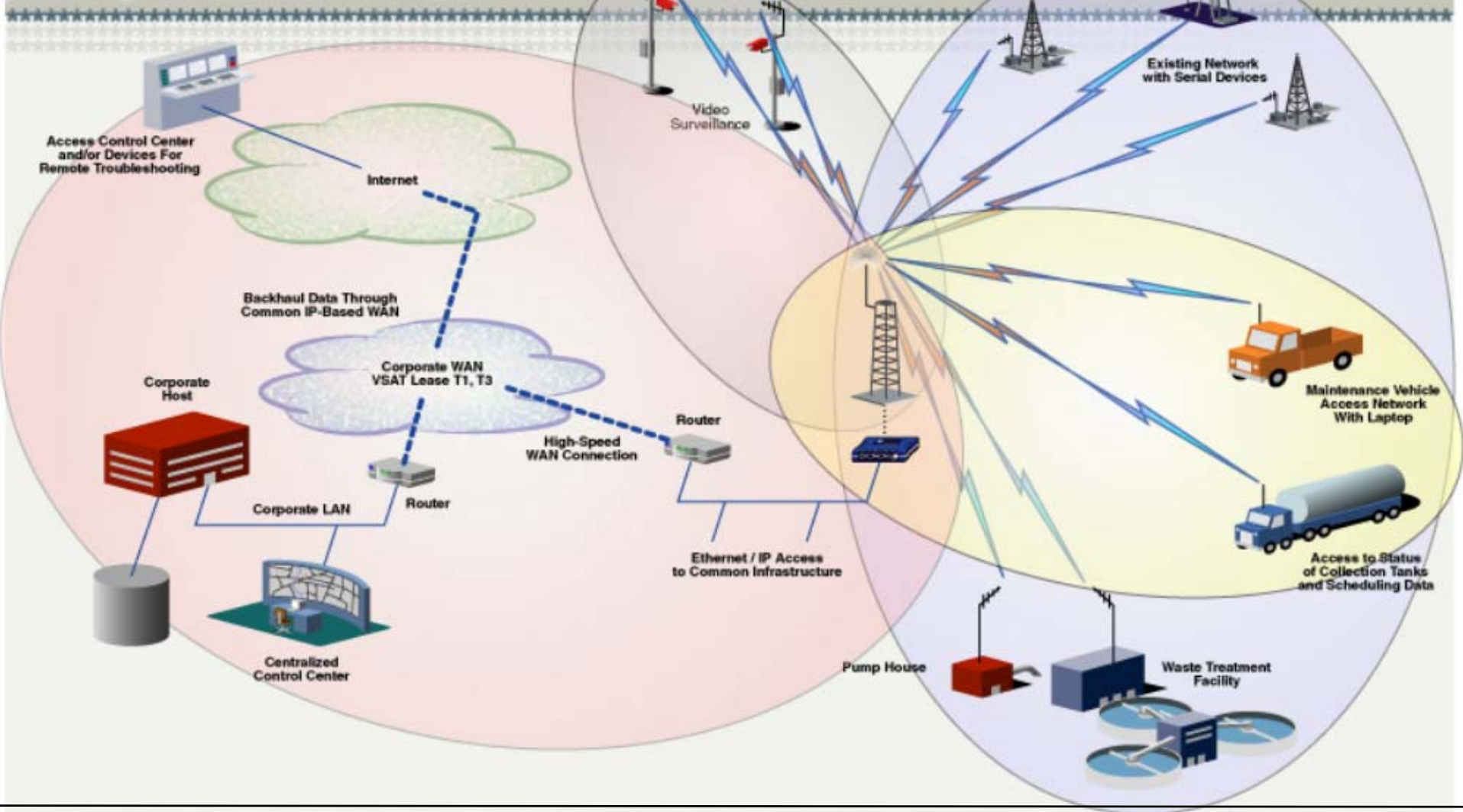
**Mike Malone**

*Microwave Data Systems*

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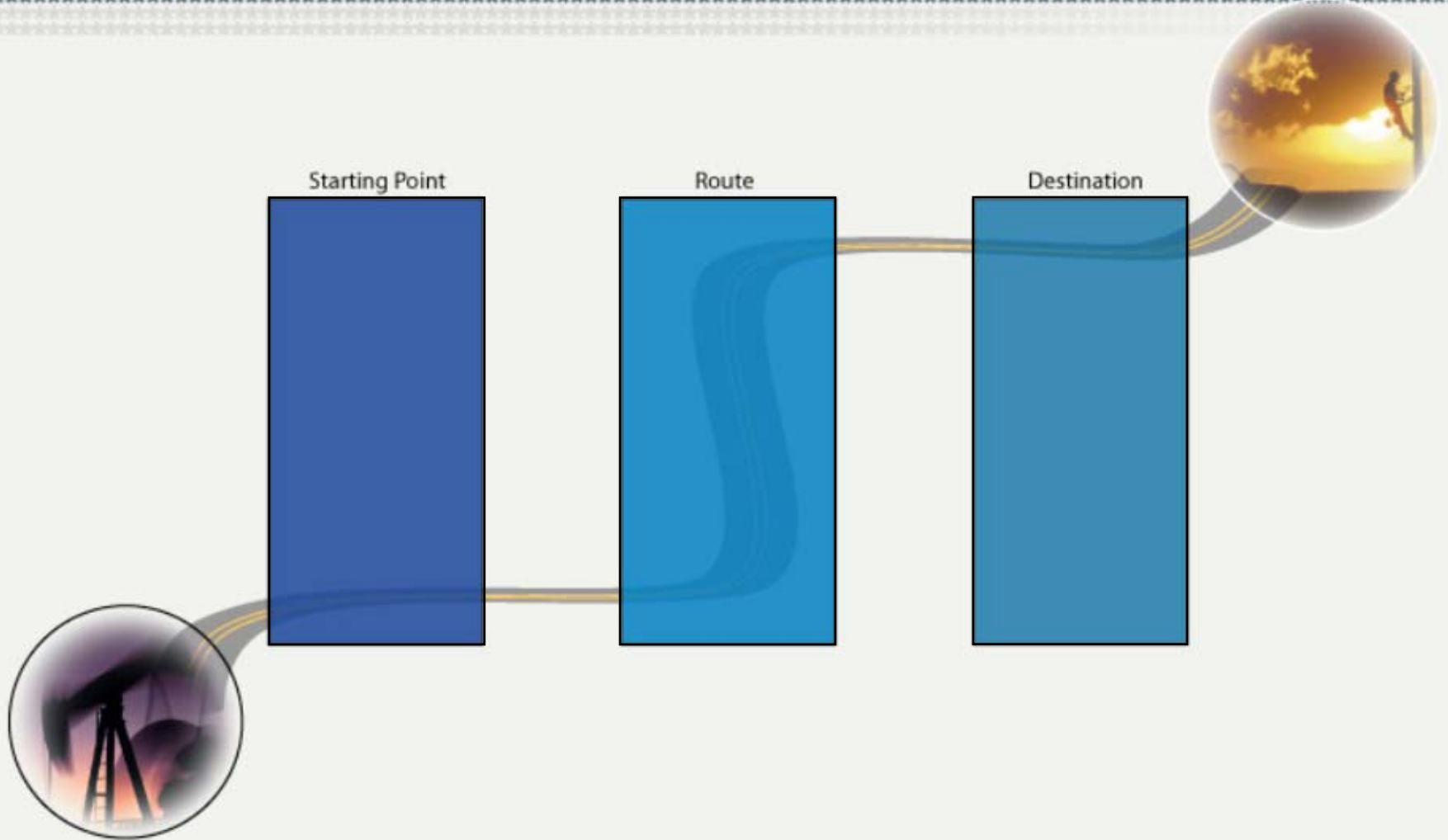


People  $\diamond$  Devices  $\diamond$  Systems



## *The Wireless Landscape: Convergent Networks*

*The convergence objective: a single, integrated, manageable, secure network.*



Starting Point



- **Massive legacy infrastructure**
- **Site diversity**
  - PLCs, EFMs, RTU's and other devices
  - Protocols
  - Communications
  - Applications
  - Terrain and propagation characteristics
  - Age of infrastructure
  - Varying degrees of expertise, resources and budgets
  - Baud rates and interfaces
- **Organizational Friction**
  - Communication Needs – No single wireless solution
    - Device vs. Facility vs. Enterprise
    - Technology is different at each level
  - Departmental Responsibility vs. Enterprise Needs
    - IT vs. Production vs. Manufacturing vs. Operations
    - Rigid Domains no longer possible
    - Security and Network Management Tools



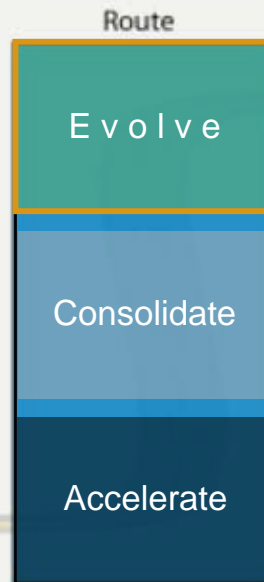
## Communication network requirements:

- Increased on-demand data access in real time
- Accommodation for video, voice and other high bandwidth services
- Support for fixed and mobile devices
- Data access is Enterprise-wide
- Standards based wireless technology and interfaces
- **Wireless Connectivity Flexibility**
  - Between Systems
  - Between Facilities
  - Between Devices
  - Out to a single I/O point

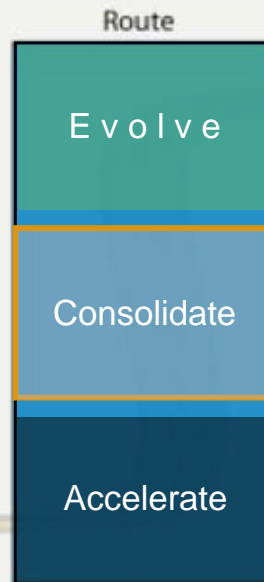


*Forthcoming applications will use a wide variety of advanced technologies within multiple, hybrid networks that interact seamlessly.*

- Leverage existing networks if they exist, core competencies, and in-house knowledge and expertise
- Develop strategy that supports the wireless diversity your enterprise requires – avoid technology rigidity
  - Wireless I/O
  - IP/Ethernet and Serial
  - Power – line, battery, solar
  - Licensed vs. license-free
  - Bandwidth scaled to application and distance

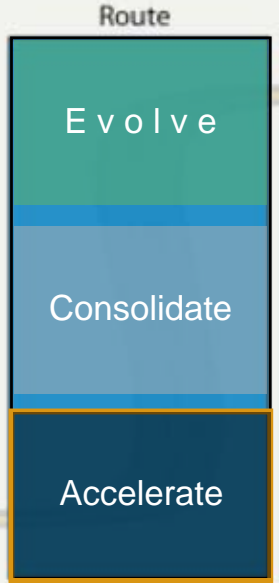


- **Combine** protocols, devices, communications, common infrastructure, and applications *in one cohesive wireless network*
- **Maintain flexibility**
  - 802.xx.x
  - 2.4GHz, 900 MHz. 5.8 GHz
  - Point to Point and backhaul
  - Networkable and real-time
  - Wireless I/O and wireless sensors
- **Platforms that accommodate security and common network management tools are critical**





- Leverage existing networks if they exist, core competencies, and in-house knowledge and expertise
- Combine protocols, devices, communications, common infrastructure, and applications *in one wireless network*
- Common Network management platform



- Increase Connectivity
  - Enterprise Wide
  - Facility, device, I/O Point
  - IT, control, preventive maintenance, ERP
- Increase speed
  - Real-time monitoring and control
  - Video, voice and data rich SCADA and serial applications
- Create a scalable solution that grows with the enterprise

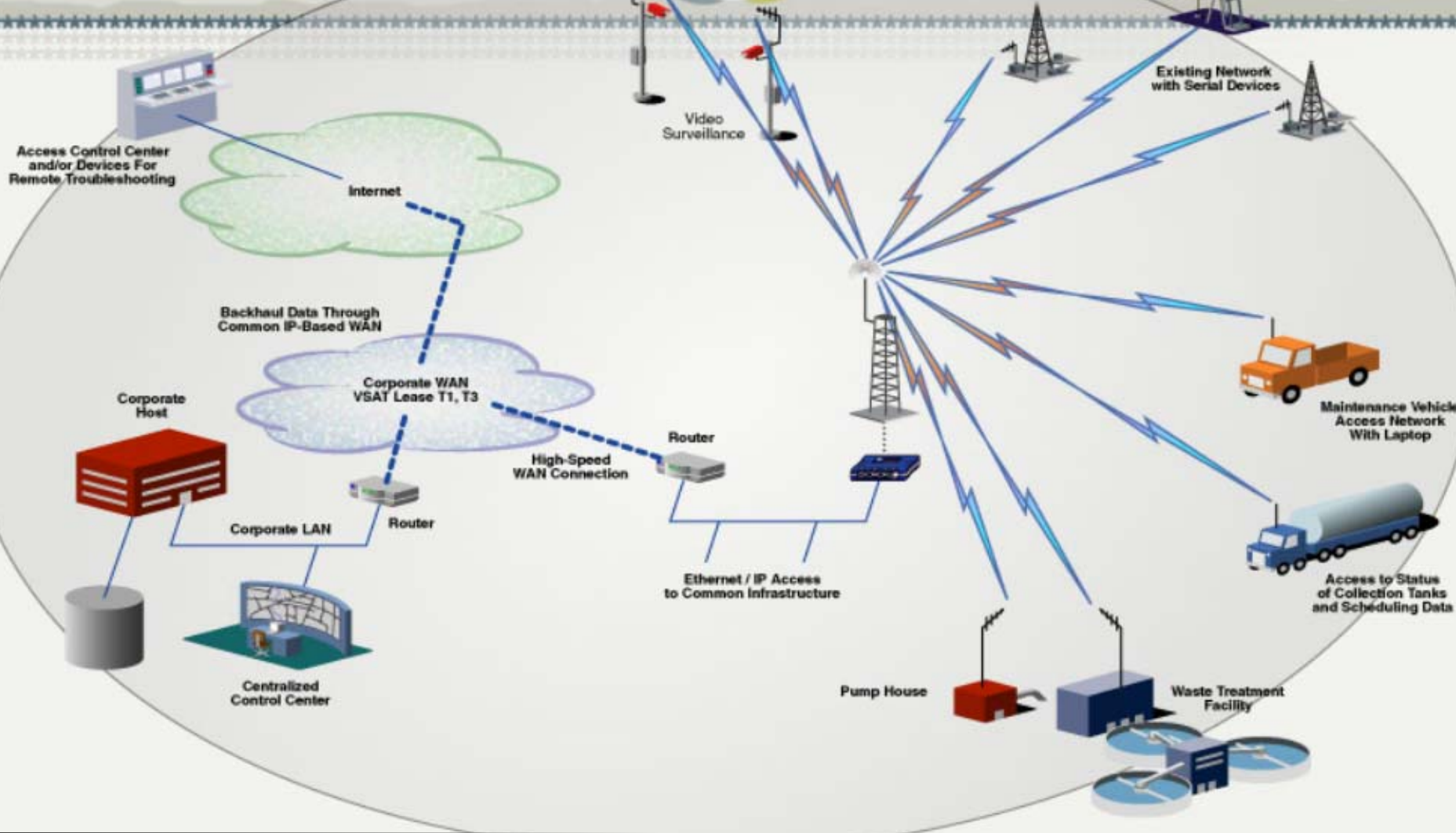


*Adopt a migration plan which protects asset base and evolves network capability based upon individual needs. **Evolve, Consolidate, Accelerate***

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People ◀ Devices ▶ Systems



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**MDS**