SMARTROADS

FORCES — FOUNDATIONS OF RESILIENT CYBER-PHYSICAL SYSTEMS

Berkeley — UNIVERSITY OF CALIFORNIA

VANDERBILT UNIVERSITY

ISIS

NSF FORCES and Connected Corridors Projects, UC Berkeley
Institute for Software-Integrated Systems, Vanderbilt University

The **Smart Roads** testbed / system integrates advanced control algorithms and high-fidelity simulation software with real-time data to *predict* and *manage* traffic flows, to support **resilience** to cyber attacks.

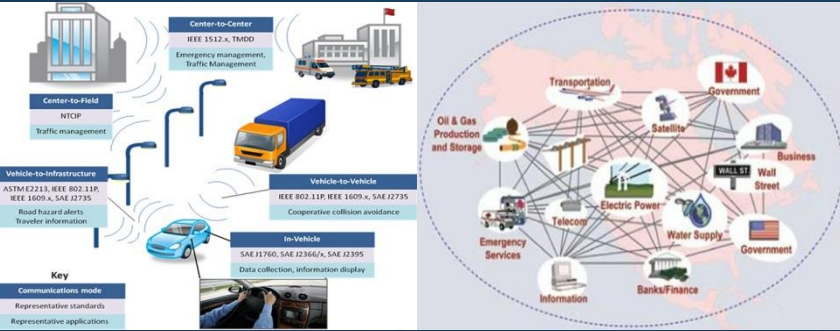## The Status Quo:

Complex and interconnected road networks

Emergency vehicles delayed due to traffic

World's largest traffic jam: 100+ Km/10+ days

Vulnerable Communication & Control:
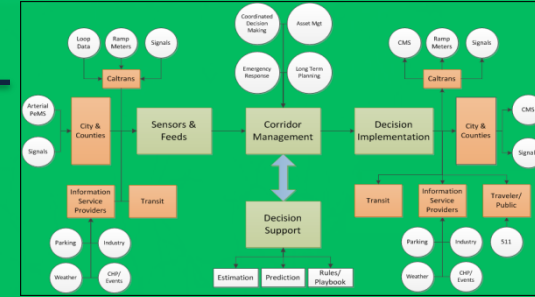

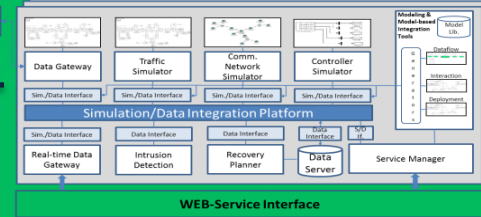**FHWA ITS Connections**

Cobweb of global critical IT Infrastructure

Cyber Attacks

Our Solution:

Connected Corridors (CC)

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High-fidelity simulation software (C2WT)

Cloud-Deployed Model-based Integration Platform Instances

WEB-Service Interface

Testbed Integration Center

User Site

User Site

Well-managed and resilient traffic flows