



412th Test Wing



War-Winning Capabilities ... On Time, On Cost



U.S. AIR FORCE

Growing Distributed Test

15 May 2019

Thomas Kegel

412 RANS

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Integrity - Service - Excellence



Control Room Configuration



Mission Control System (MCS)
Nodes - R630s



IADS CDS -
R730, R900



CSRA DxDecoms



Video Processor - T5400



IADS Displays -
T5810s,
T5500s,



Bootserver -
R730, R2850




Chapter 10
Recorder



VM Control Rooms



Software Decom
IADS CDS/Client
Aux SW Processing
Video Support
Soft RMOR
PCM Sim
SA Software
Software Recording



Multi-Node Virtual Machine Architecture

VDI Clients



What we hope to make better...

Scope of Improvements



- **Reduce Vendor Specific (Discrete) Hardware**
- **Reduce Hardware Costs in Control Rooms**
- **Reduce Multiple Hardware Configurations in Control Rooms**

- **Reduce Turn Around Times**
- **Streamline Mission Management**
- **Reduce Hardware Administration**
- **Reduce Manpower**

- **Improve Cyber Security**



Standardize



412TW



VM Host



VDI Clients

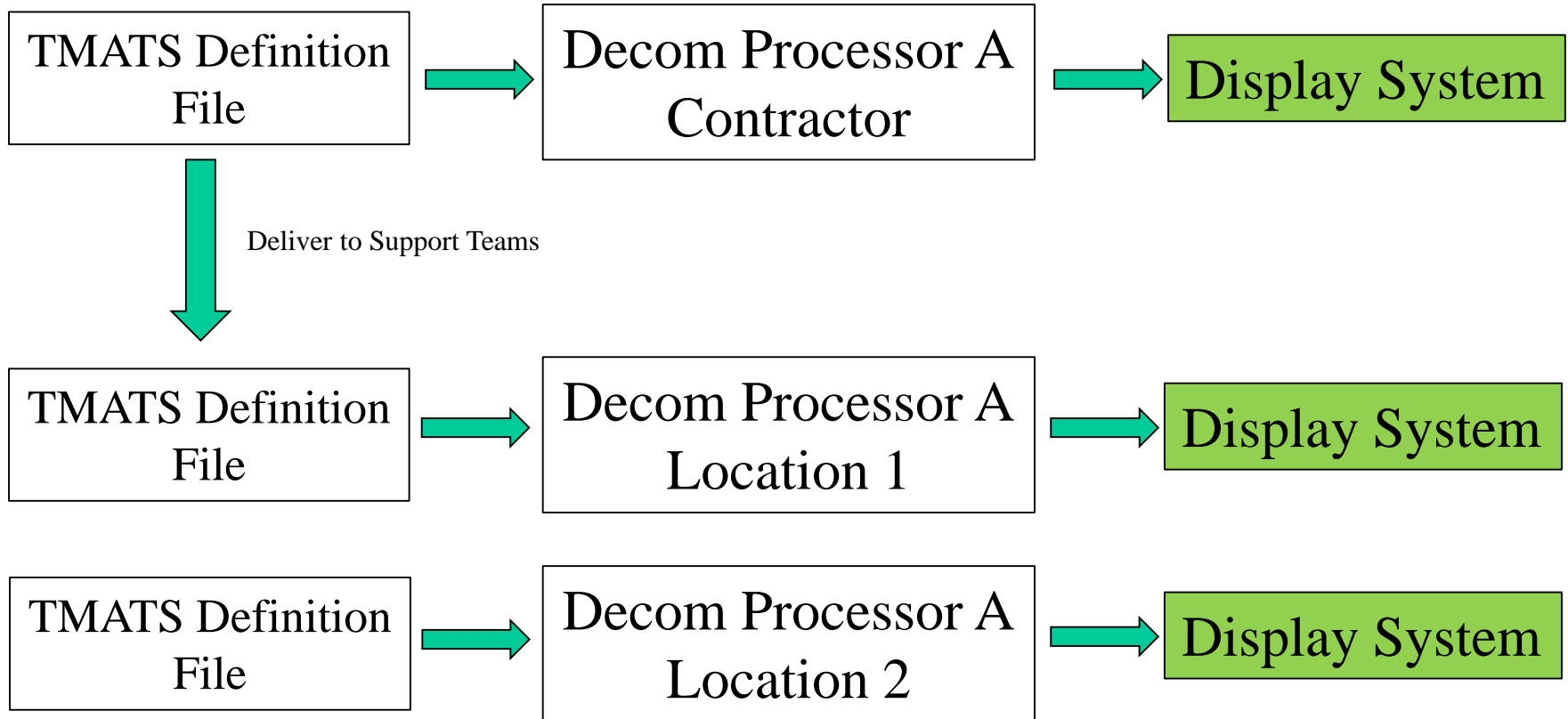
Virtual Machine Architecture
Processing RT Software Suite



- Software Decom
- IADS CDS/Client
- Aux SW Processing
- Video Support
- Soft RMOR
- PCM Sim
- SA Software
- Software Recording



Distribute for Commonality



⋮



Distribute for Commonality



Deployed Van



Instrumentation Lab

Instro Van

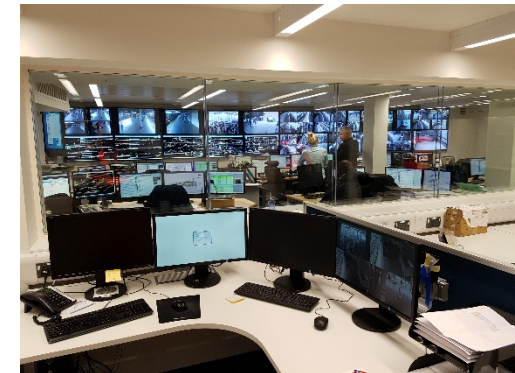


Primary Control Room



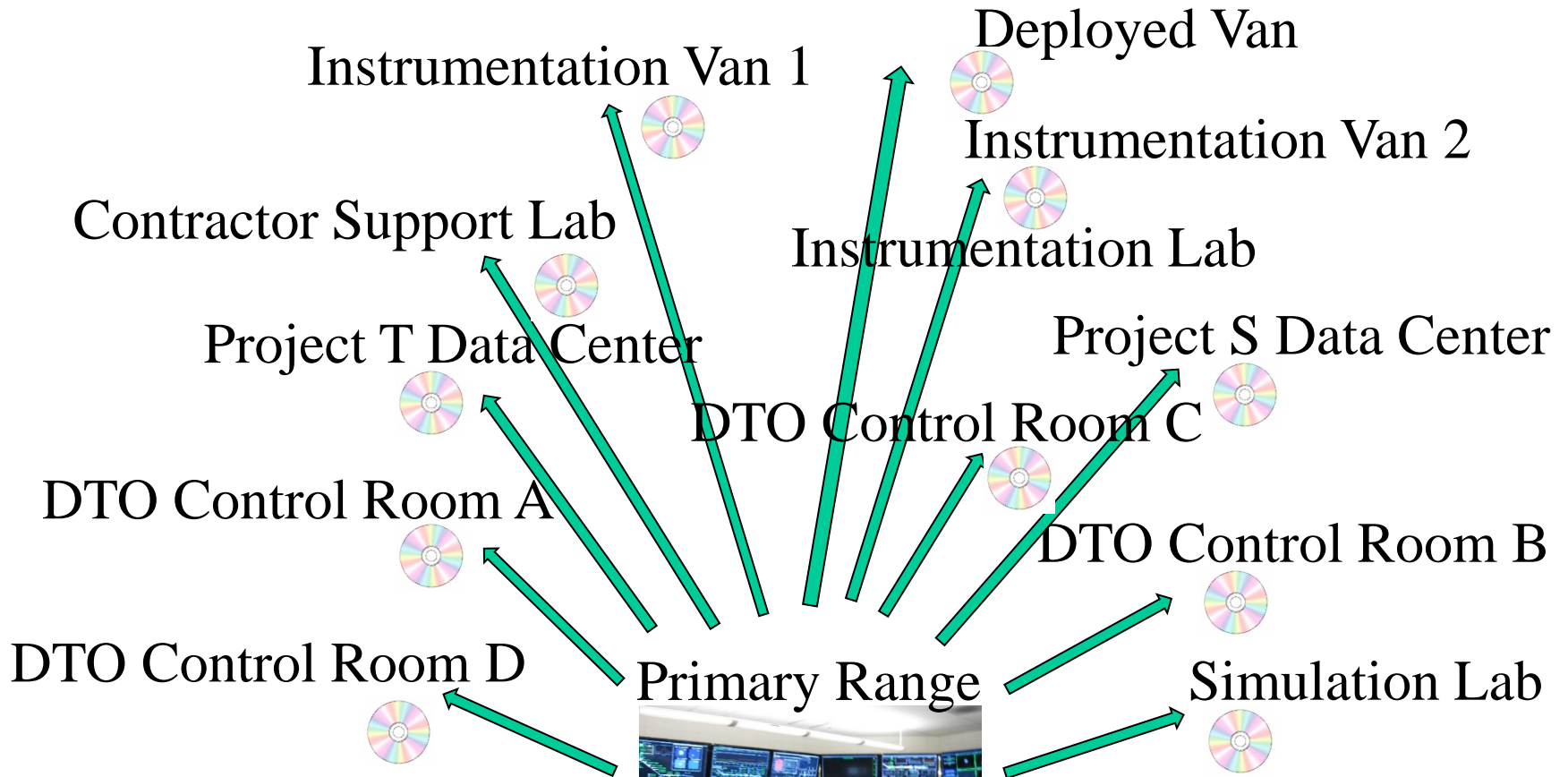
DTO Control Room A

DTO Control Room B



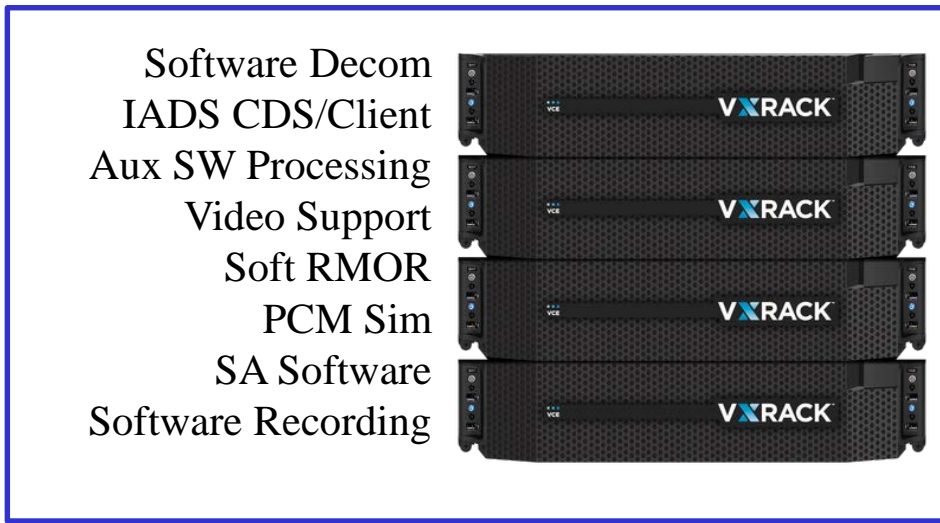


Logistics Challenge





Everyone on the network

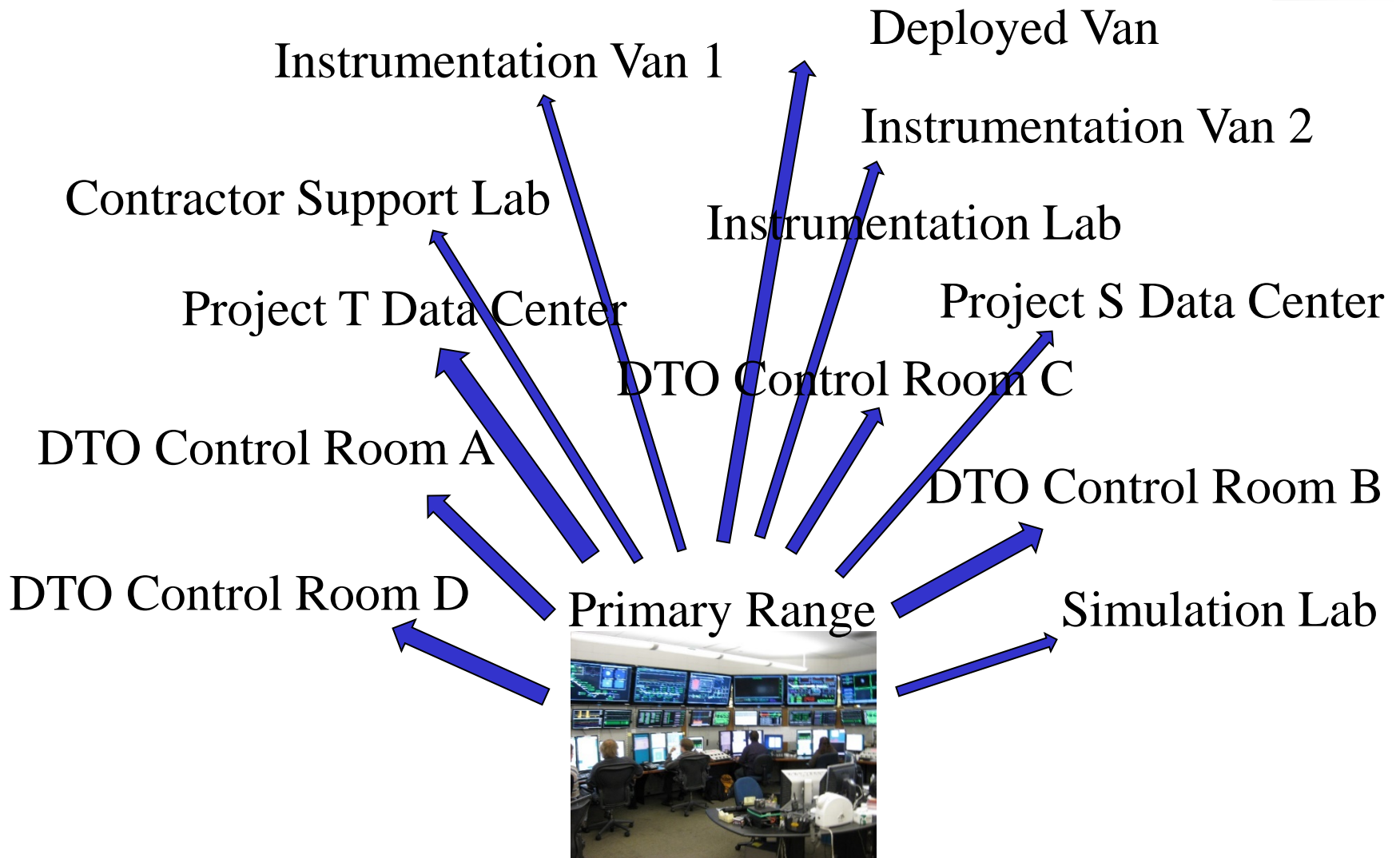


Multi-Node Virtual Machine Architecture

VDI Clients



Huge Bandwidth

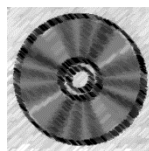




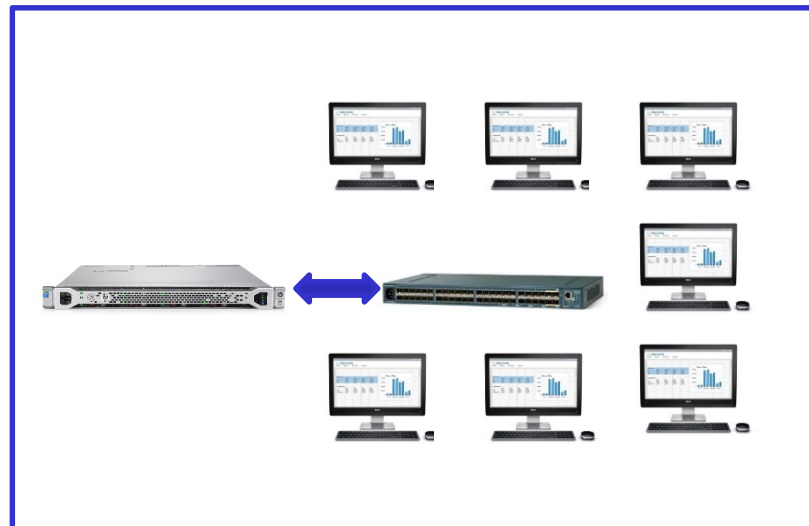
Distributed Shadow Image



Primary Range System



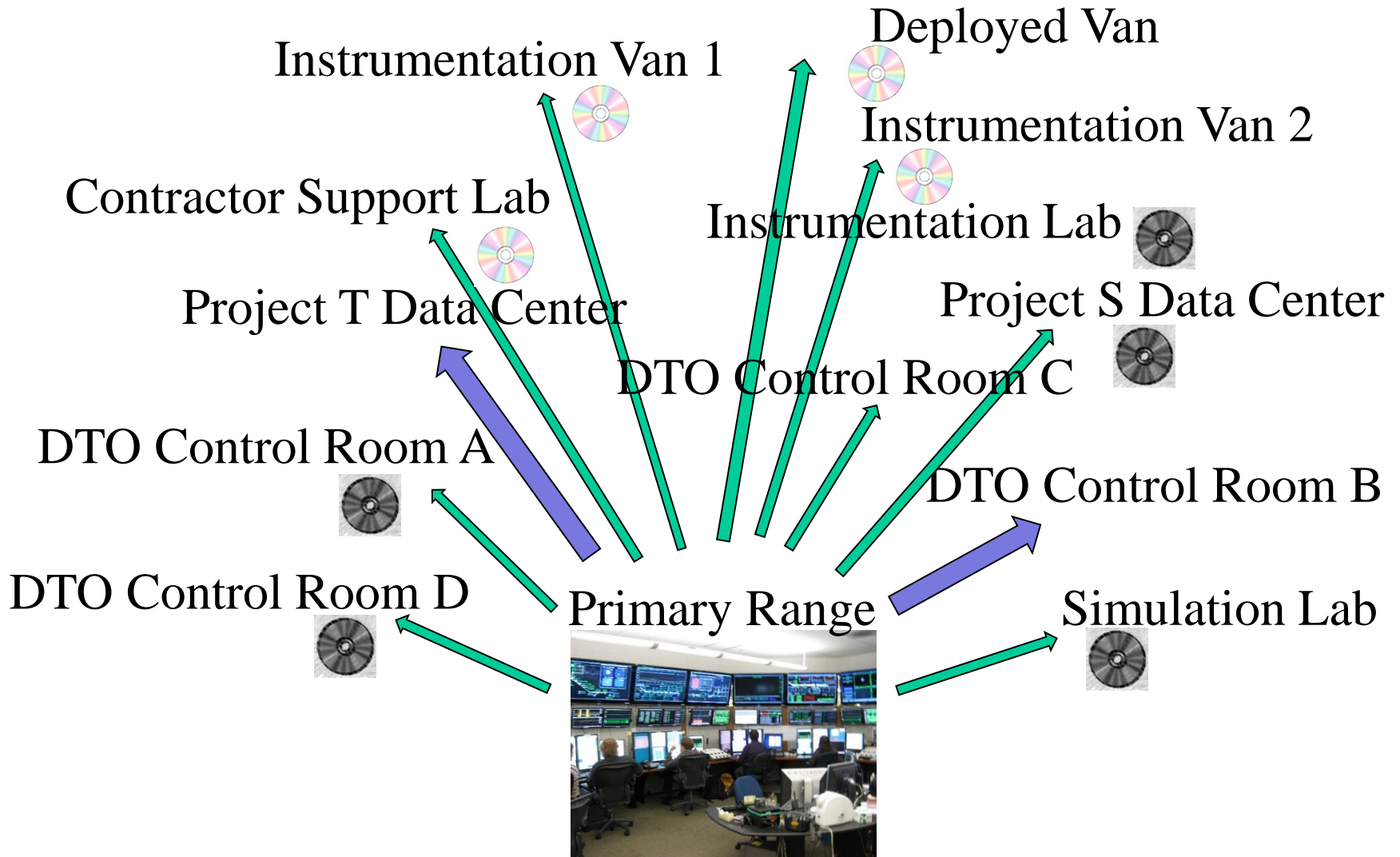
Shadow Image



Remote System



Hybrid Deployment





Real-Time for the Future

A New Community with Today's Capabilities

REPORT DOCUMENTATION PAGE

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