

Data Integration in Public Safety

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URISA-BC
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What we do

- 9-1-1 Public Safety Answer Point (PSAP)
- Wide-Area Radio System
- Emergency Dispatch
- Public Safety Technology Support



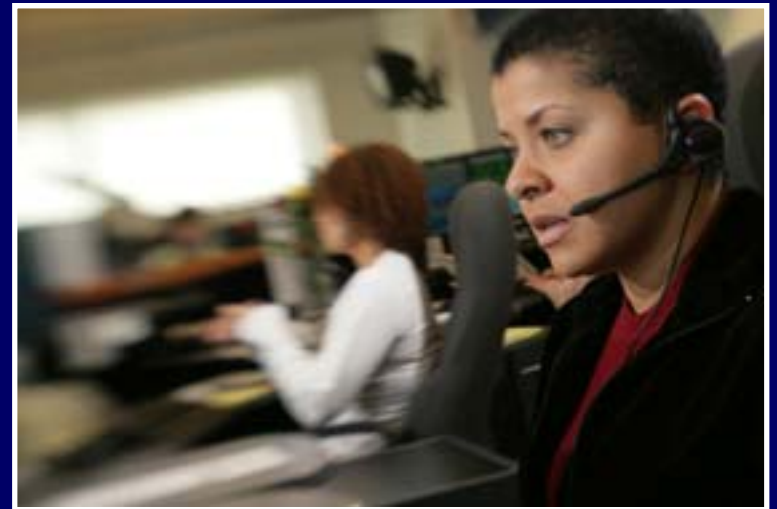
Stanley Cup Riot – Vancouver- June 1994

9-1-1 Service



Metro Vancouver

Sunshine Coast / Howe Sound



1.1 million calls for help in 2006

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Who we dispatch for...

Vancouver Police Department

RCMP

- Ridge Meadows
- Richmond
- Traffic Services (Freeway)
- UBC
- Bowen Island
- Sunshine Coast
- Whistler, Pemberton, Tribal Police
- Squamish

Fire Departments

- Vancouver
- Port Moody
- Sunshine Coast (5)
- Whistler/Garibaldi
- Richmond
- Delta
- New Westminister
- Squamish



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GIS at E-Comm...

■ GIS Technology

- ESRI
 - ArcGIS Server, ArcInfo, ArcView
- Intergraph
 - GeoMedia, MicroStation
- FME
- CAD Vendors (proprietary systems)

GIS at E-Comm...

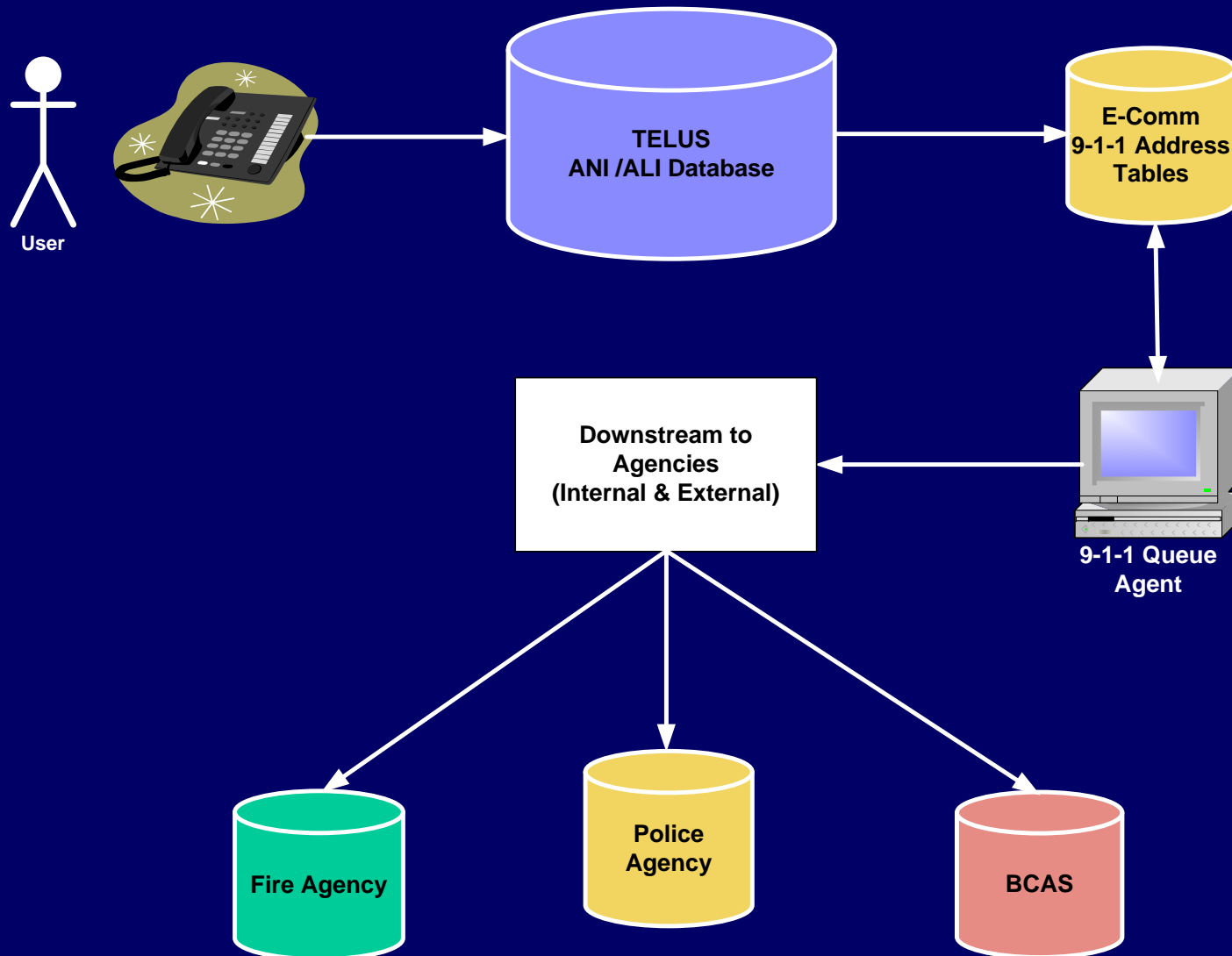
■ GIS Data and Services

- 9-1-1 (ANI / ALI)
- Computer Aided Dispatch (CAD)
 - AltarisCAD (current BCAS & Fire)
 - PoliceCAD
 - BCAS NetCAD
 - E-Comm Fire CAD
- Records Management Systems (RMS)
 - PRIME-BC (Police Records Information Management Environment)
 - Project Fires

GIS Data Maintenance...

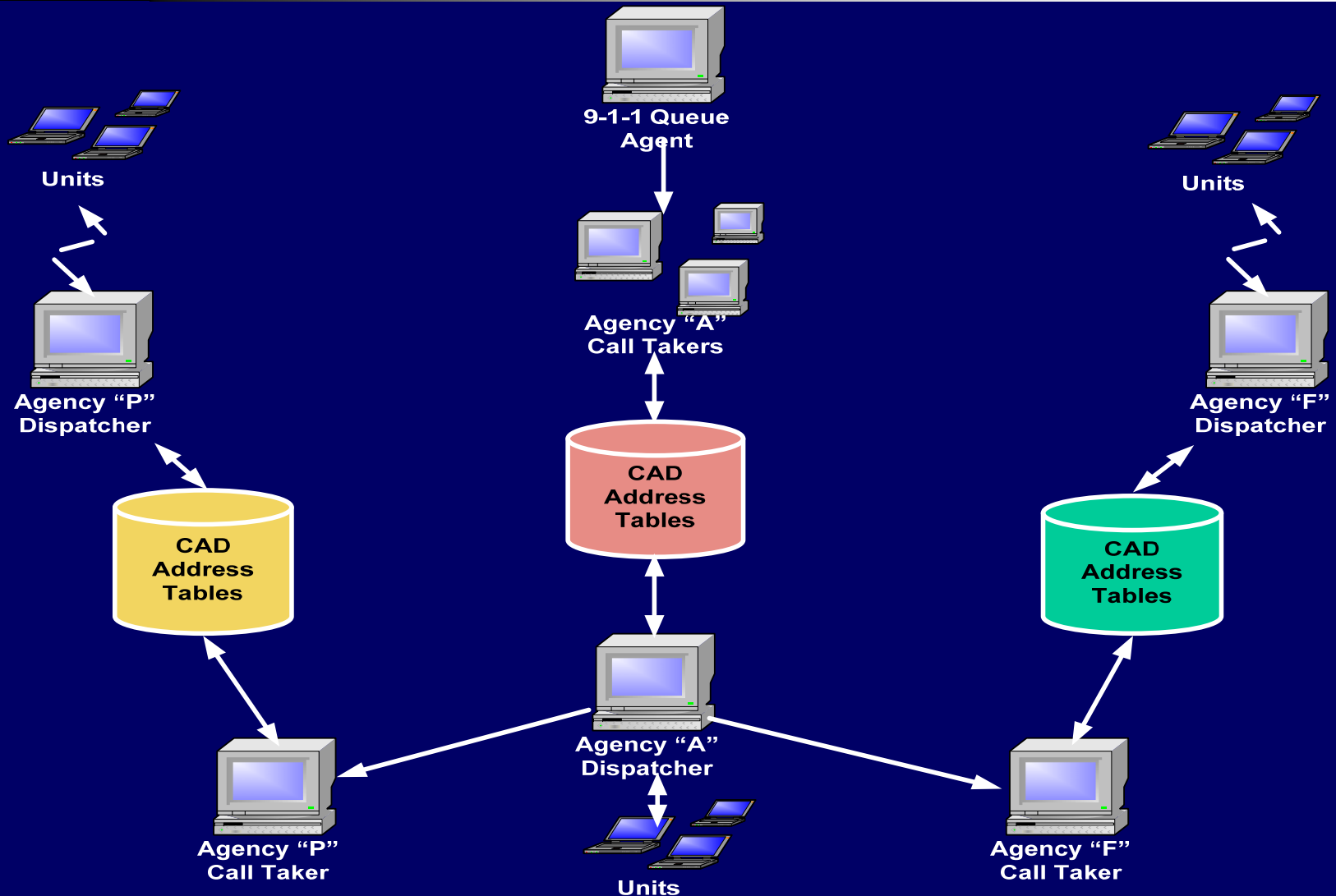
- Jurisdictional Data
 - Police, Fire and Ambulance
- Business Rules
 - Multi-jurisdictional Issues
- Street Tables
 - Daily Maintenance
 - Complete Updates
- Tactical Map Displays
 - Event & Unit Information

How 9-1-1 Works (Process Model)...



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How Computer Aided Dispatch Works...



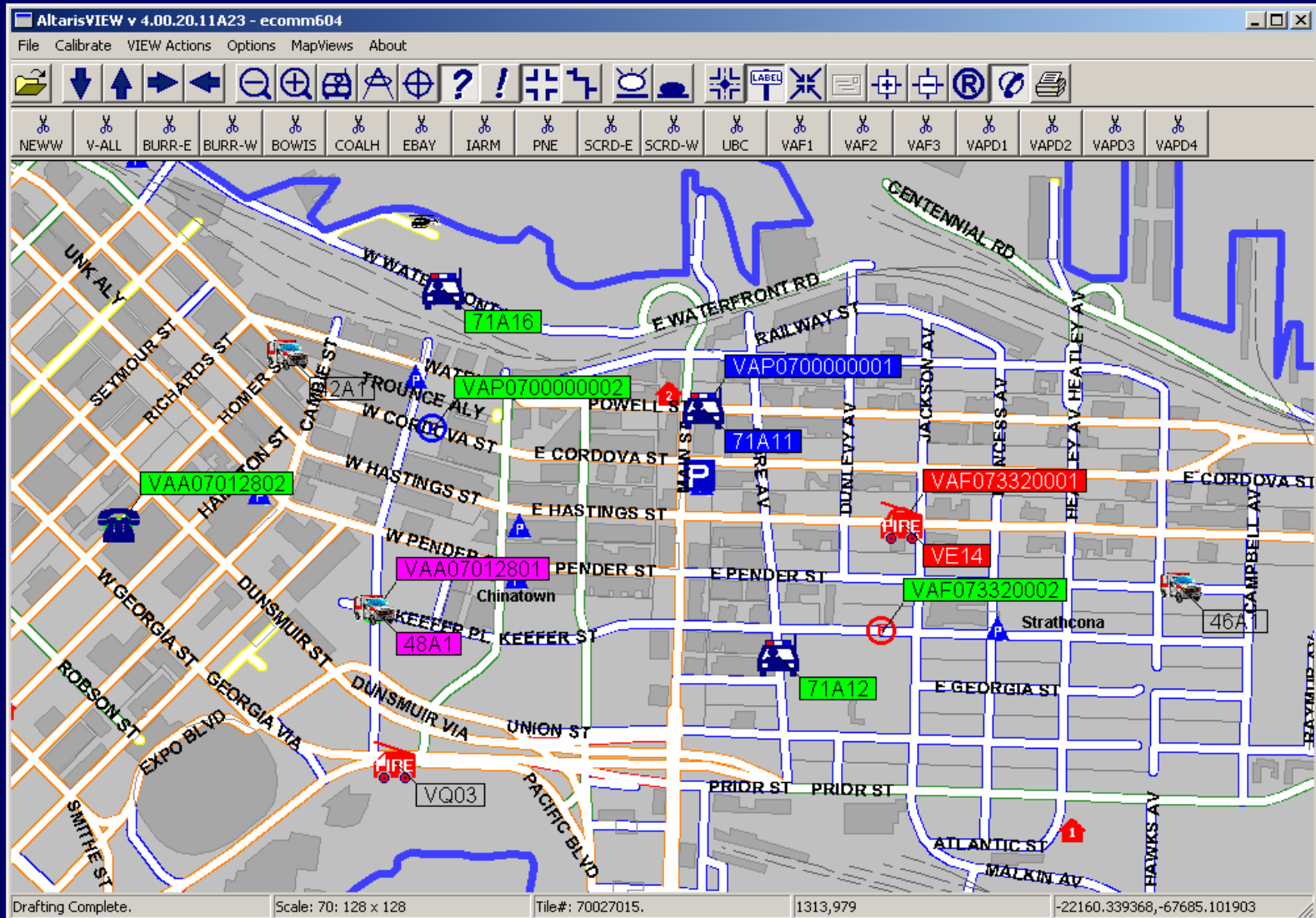
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Data Integration...

■ The Past

- 3 classes of Service... 1 CAD
 - AltarisCAD
 - Regional (Lower Mainland) CAD
 - All classes of service (Police, Fire and Ambulance)
- Sharing of information in real time
- Emergency Events and Units all viewable via single display

Past (3 classes, 1 CAD)...



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Data Integration...

■ Present Day

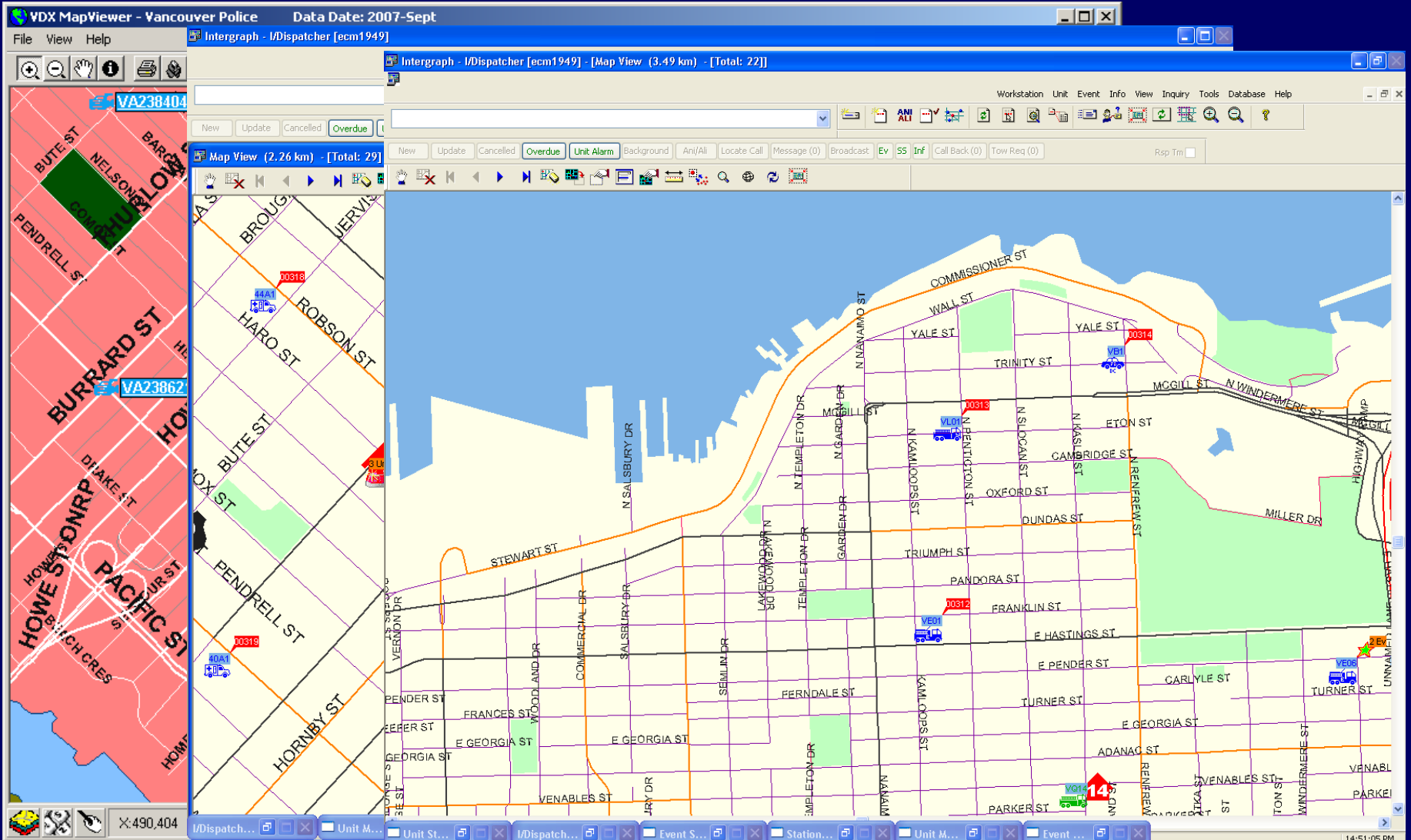
- 3 classes of Service... 2 CADs
 - PoliceCAD (Province-wide CAD & RMS)
 - AltarisCAD (Fire and Ambulance)
 - Lower Mainland Region
- Loss of real time data sharing
- Multiple / disparate displays of data

Data Integration...

■ The Future

- 3 Classes of Service... 3 CADs
 - PoliceCAD (Province-wide CAD & RMS)
 - FireCAD (Province-wide capability CAD)
 - BCAS NetCAD (Province-wide CAD)
- Further loss of real time data sharing
- Increase in disparate displays of data

Future (3 classes, 3 CADs)...



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Data Integration...

■ Data (Dis)Integration Issues

- Significant loss of real time data sharing
 - Operational Issues arise from a lack of situational awareness
- Increase in disparate displays of data
 - Multiplication of data maintenance support issues resulting in increased workloads AND possibility of data inconsistency between systems.

Data Integration...

- Our Solution for Public Safety

E²MV

Emergency Event MapViewer

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E²MV Project Scope...

- Web-based mapping application
- Display of active events in geographic area (tabular and map)
- Access to functions determined by user role and agency class
- Importing of event data from multiple CADs
- Event / unit creation and manipulation

Why E²MV...

■ Operational Benefits

- Single geographic display for:
 - Demand Mitigation
 - Situational Awareness
 - Address Verification Backup
 - CAD (Event Management) Backup

■ Technical Benefits (future potential)

- Single CAD geographic display, regardless of CAD vendor.

E²MV Technology...

■ Technical Platforms

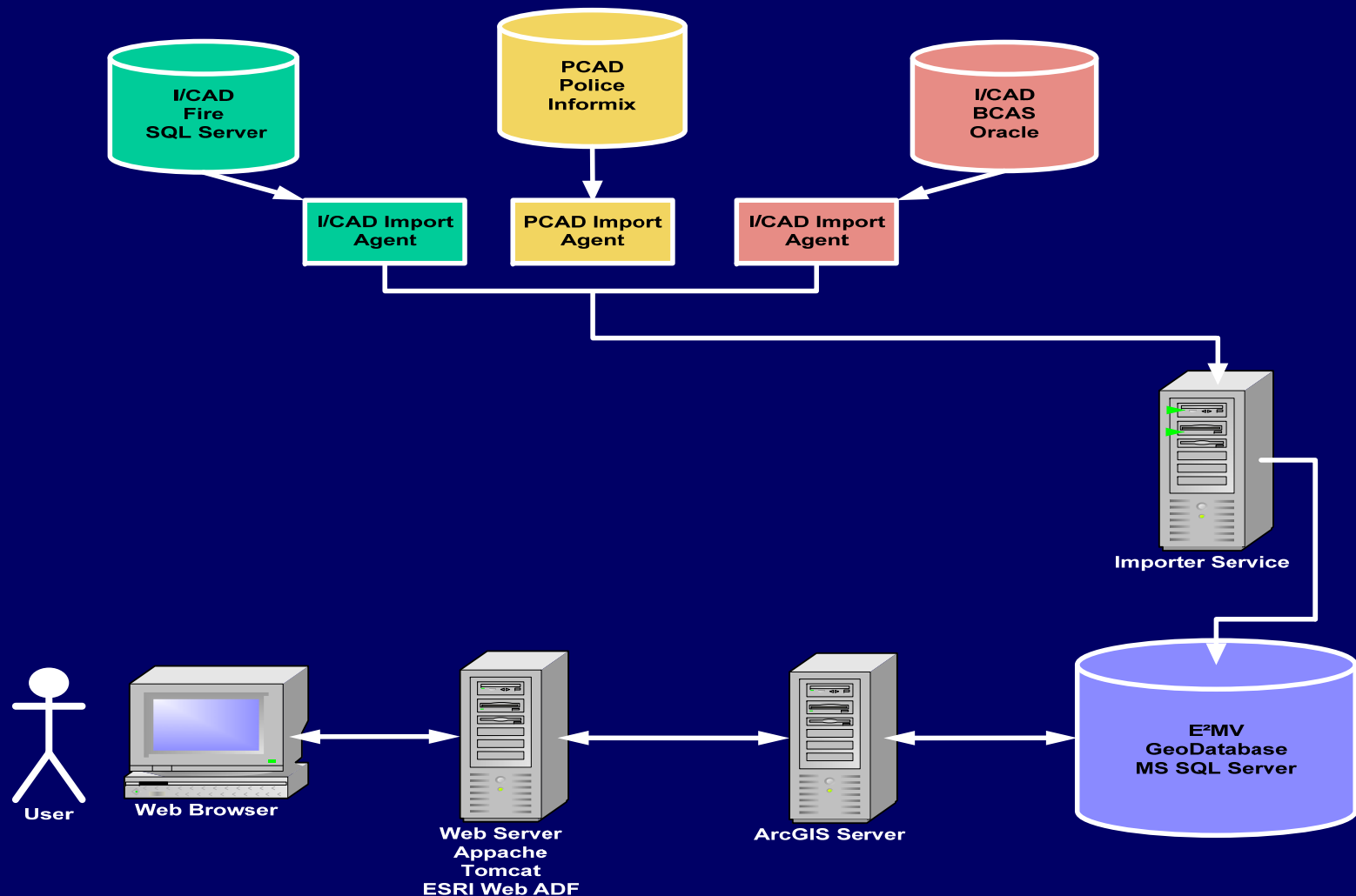
– Server Platform

- Windows Server 2003 on VMWare
- ESRI's ArcGIS Server Standard, Enterprise
- SQL Server

– Client Platform

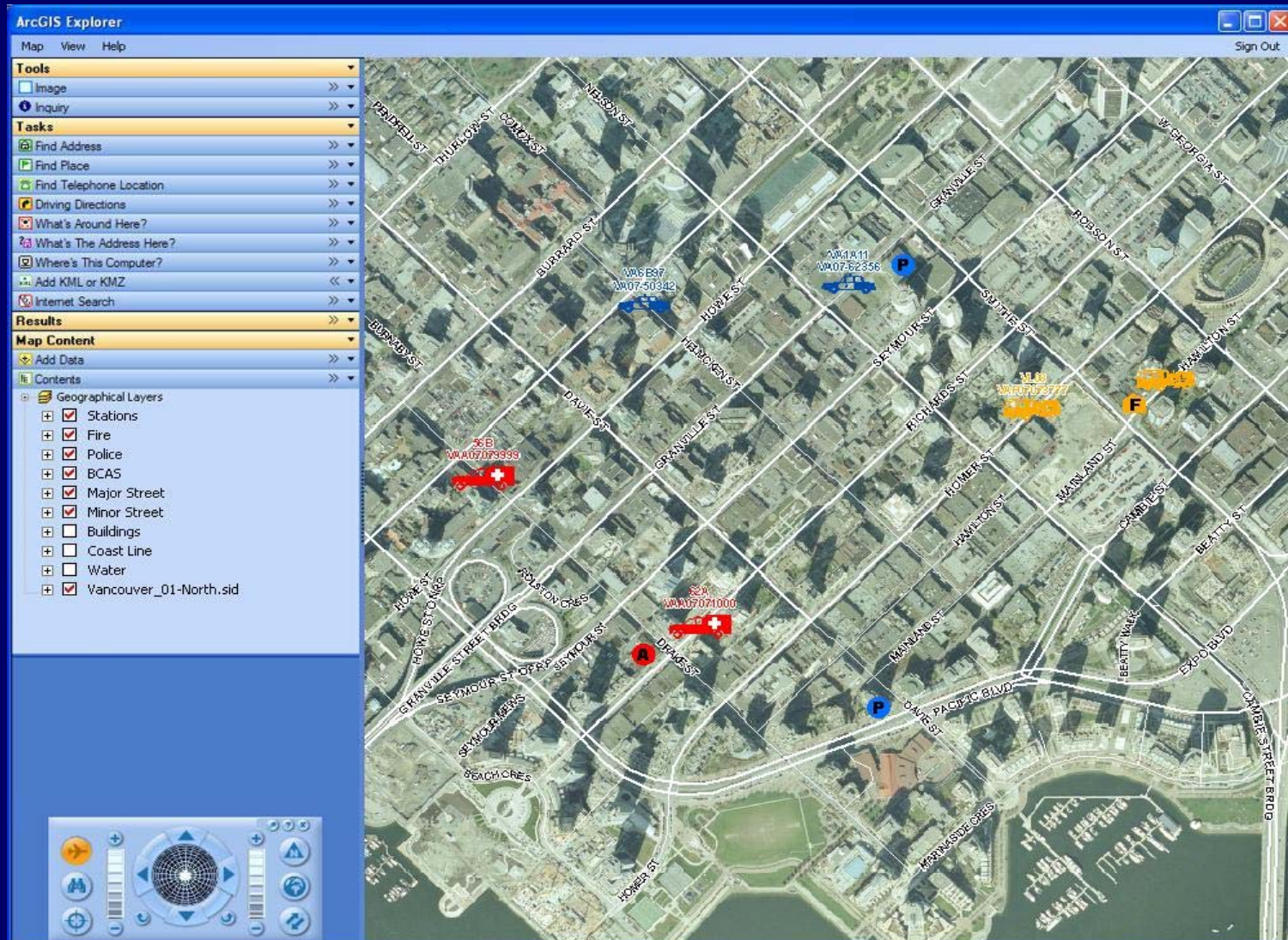
- Windows XP SP2
- Internet Explorer 6+
- Mozilla Firefox 2+

E²MV System Design...



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E²MV Mock-up...



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E²MV Collaboration...

- Partners
 - E-Comm
 - BCAS
 - BMGS
 - ESRI Canada

- Further funding
 - GeoConnections

- Possible integration with
 - IPSU (Integrated Public Safety Unit)
 - 2010 Operations and Transportation
 - Other Fire Agencies
 - PRIME-BC
 - Office of the Fire Commissioner
 - Ministry of Forests and Range

Future Data Integration...

- SDE Replication to E-Comm
 - From Municipalities
 - From BMGS
- Single CAD Viewer (E²MV)
 - Multiple CADs... single Map and address verification

Questions & Contacts...

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