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# The Tren Urbano Operation Control Center



for the Puerto-Rico Highways and Transportation Authority

## Tren Urbano OCC Presentation SIEMENS

Presentation prepared by  
Siemens Transportation Systems  
Tren Urbano OCC Team

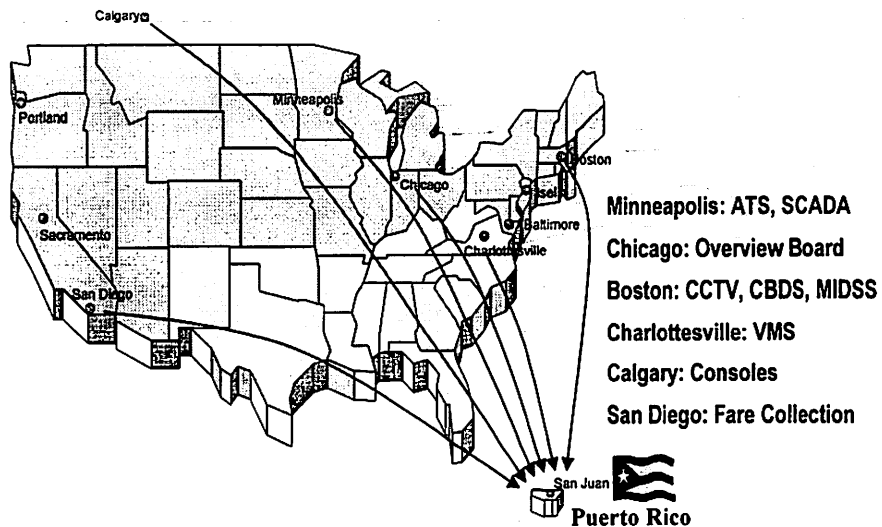
Presented by:  
Dr. Carsten Berendsen  
Implementation Manager

7th UPR-MIT Conference on Tren Urbano

Jan 16, 2001

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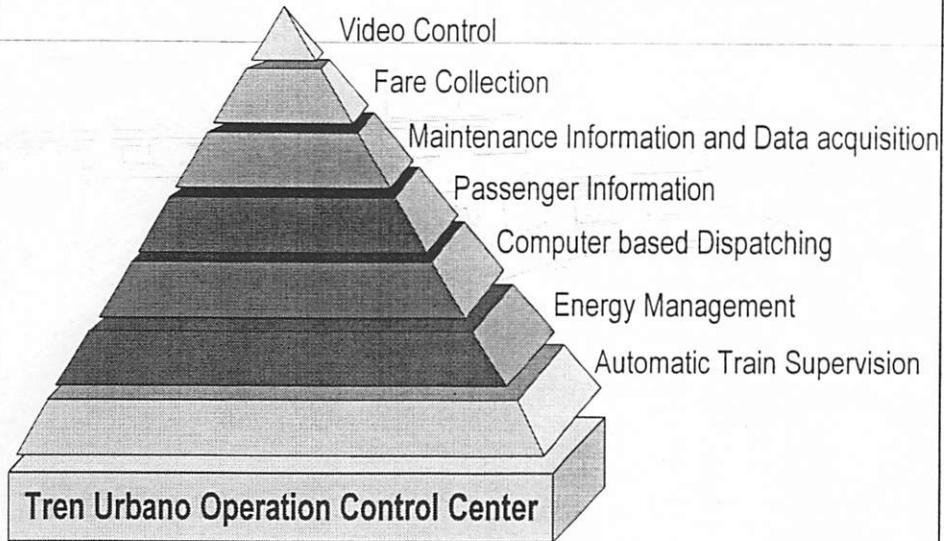
# OCC Systems Supplier



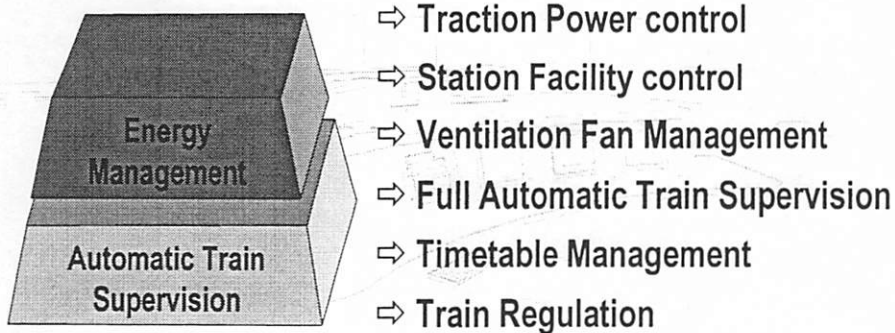
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# OCC Systems Functionality

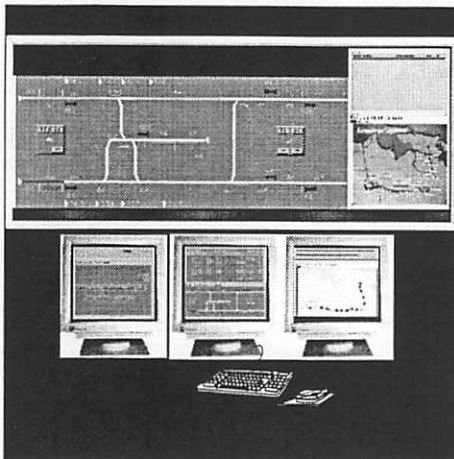


# Automatic Train Supervision and Energy Management



## What is the OCC?

### OCC (OPERATIONS CONTROL CENTER)



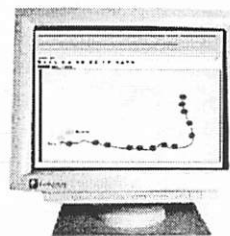
#### The OCC functions are

- ✓ Receive information from all systems
- ✓ Control and direct all the systems in accordance with the needs of the passengers
- ✓ Assist the operators, station officials in emergency situations

## Systems in the OCC

### OCC (OPERATIONS CONTROL CENTER)

- ✓ ATS - Automatic Train Supervision
- ✓ SCADA - Supervision Control and Data Acquisition from all Systems
- ✓ CCTV - Closed Circuit Television cameras in all stations, yards & shops
- ✓ CBDS - Computer Based Dispatch System-, PA-, radio- & VMS
- ✓ VMS - Variable Message Signs - passenger information for train arrival, destination, or emergency notification



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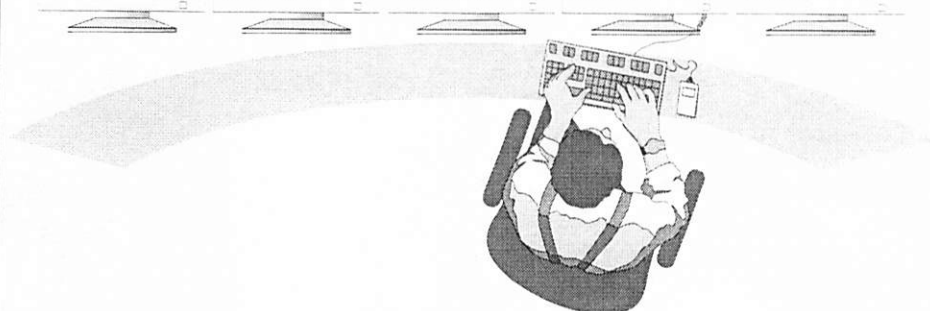
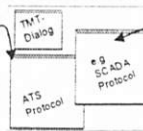
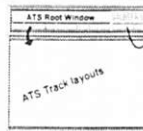
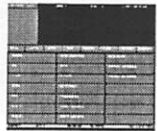
# Line Controller Console



CCTV

CBDS

Train Control and Energy Management



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# Security Console



CCTV

CBDS

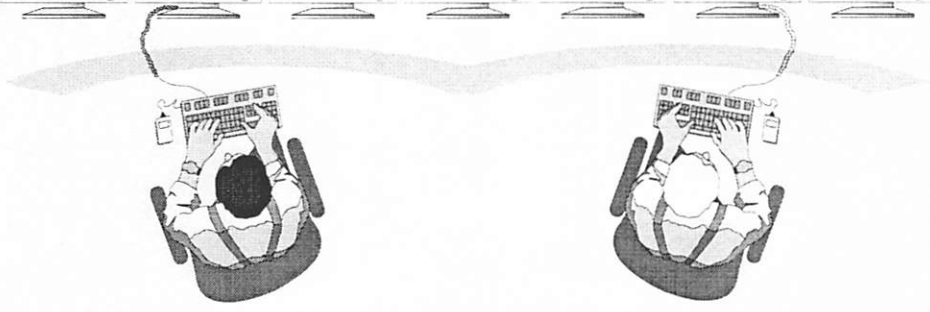
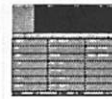
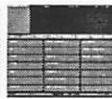
SCADA

VMS

SCADA

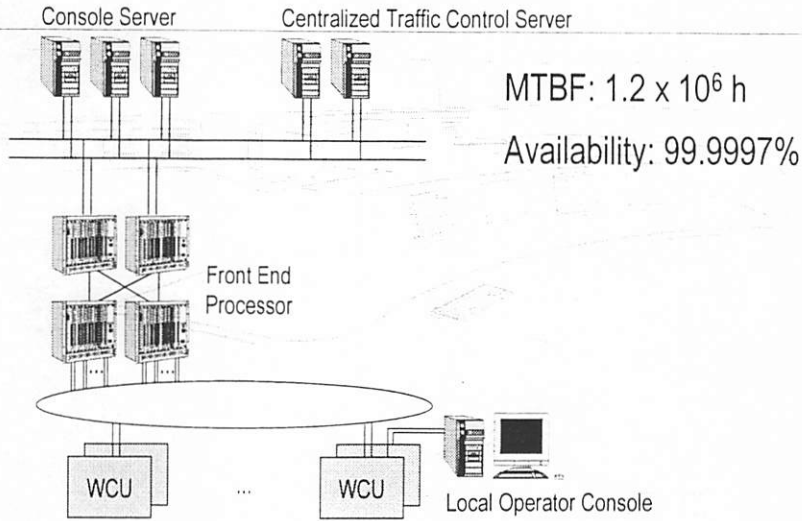
CBDS

CCTV



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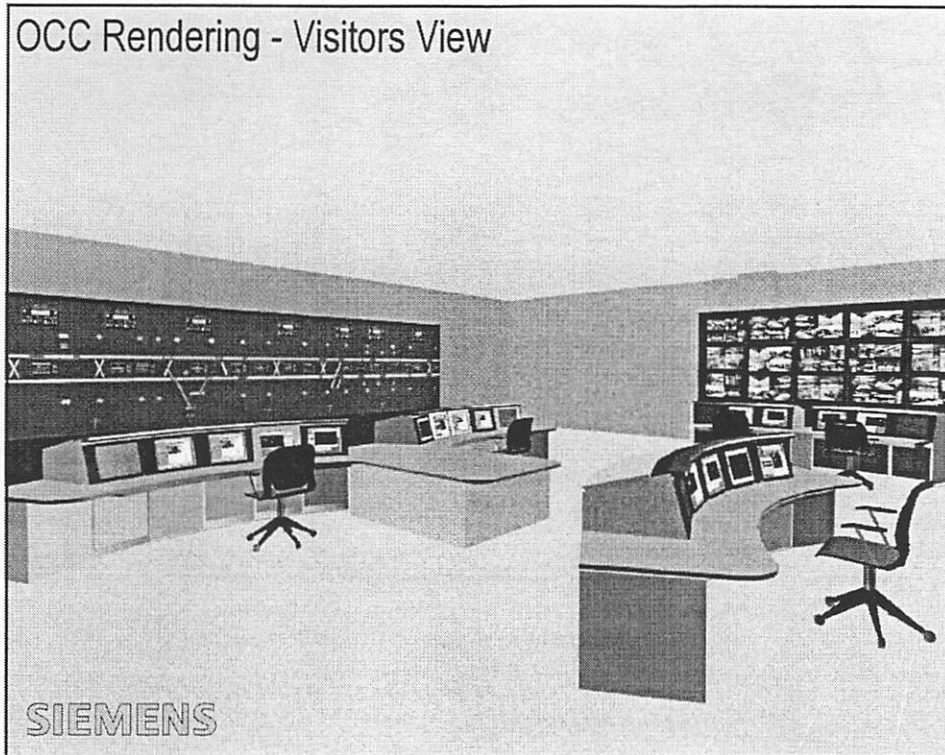
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### OCC Rendering - Visitors View



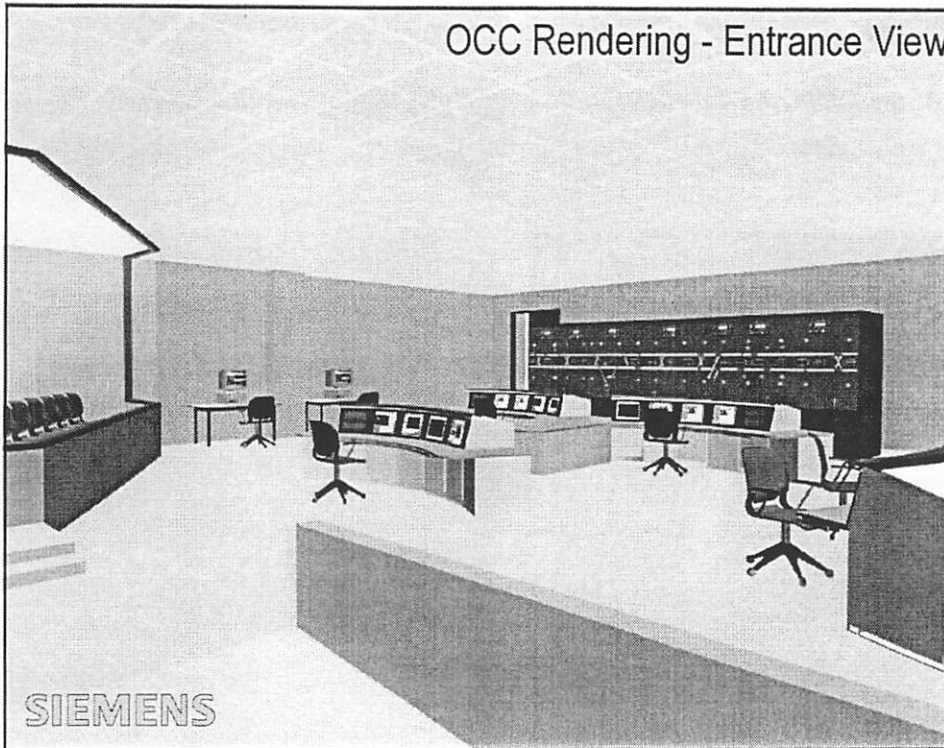
LC Console, Overview Board



Security Console



OCC Rendering - Entrance View



OCC Rendering - Amphitheater

