

The Intelligent Building

Chicago Advanced Energy



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The Intelligent Building Innovation and Technology



Dynamically Connected Set of Smart Systems

Converged Over Common Platform

Continuously Interoperates

Open Data Sharing

Real-Time Bi-Directional Communication / Action

Advanced Diagnostics / Analytics

Leverages Portals & Visualization

Facilitates / Optimizes Persona Experience

Current State Converged Symbiosis



Current State Converged Symbiosis



Use Case Universe of Possibilities & Outcomes



Personal Geo-Location Personal Control User Portals **Demand Response**
Intelligent Ventilation Visualization People Counting **Pervasive WiFi** Interactive Media
Load Shedding Wind Power Mobility **Digital Credentialing** Fuel Cell Photovoltaic
Daylighting Lighting Controls Analytics Destination Dispatch Adaptive Shading
Personal Control Peak Shave Ride Sharing Guest Management System **Smart Grid**
Intelligent Irrigation **Energy Generation** Fault Detection **Analytic Optimization**
Visitor Management **Unified Communications** **Micro-Grid** O&M Contractor Mobility
Systems User Interface Fault Detection CMMS Integration **Diagnostics** DAS Human-
Centric Networks IWMS/IFMS **Adaptive Traffic Control** Demand-Based Parking
Tenant Onboarding **Digital Parking** Tele-Health **Space Utilization Management**
Tele-Care **Digital Wayfinding** Facial Recognition Data Warehousing Open Data
Transit Integration Ho-Desking Tenant Dashboarding **Visualization** Direct Invoicing

Economic

Lower OpEx / CapEx

Less Maintenance

Increased Lifespan

Asset Demand

Asset Valuation

Future Ready

Competitive Advantage

ROI

Environmental

Sustainability

Stewardship

Utility Optimization

Energy Conservation

Grid Stress

Prestige

Competitive Advantage

ROI

Experiential

Comfort / Security

Efficiency / Productivity

Awareness

Empowerment

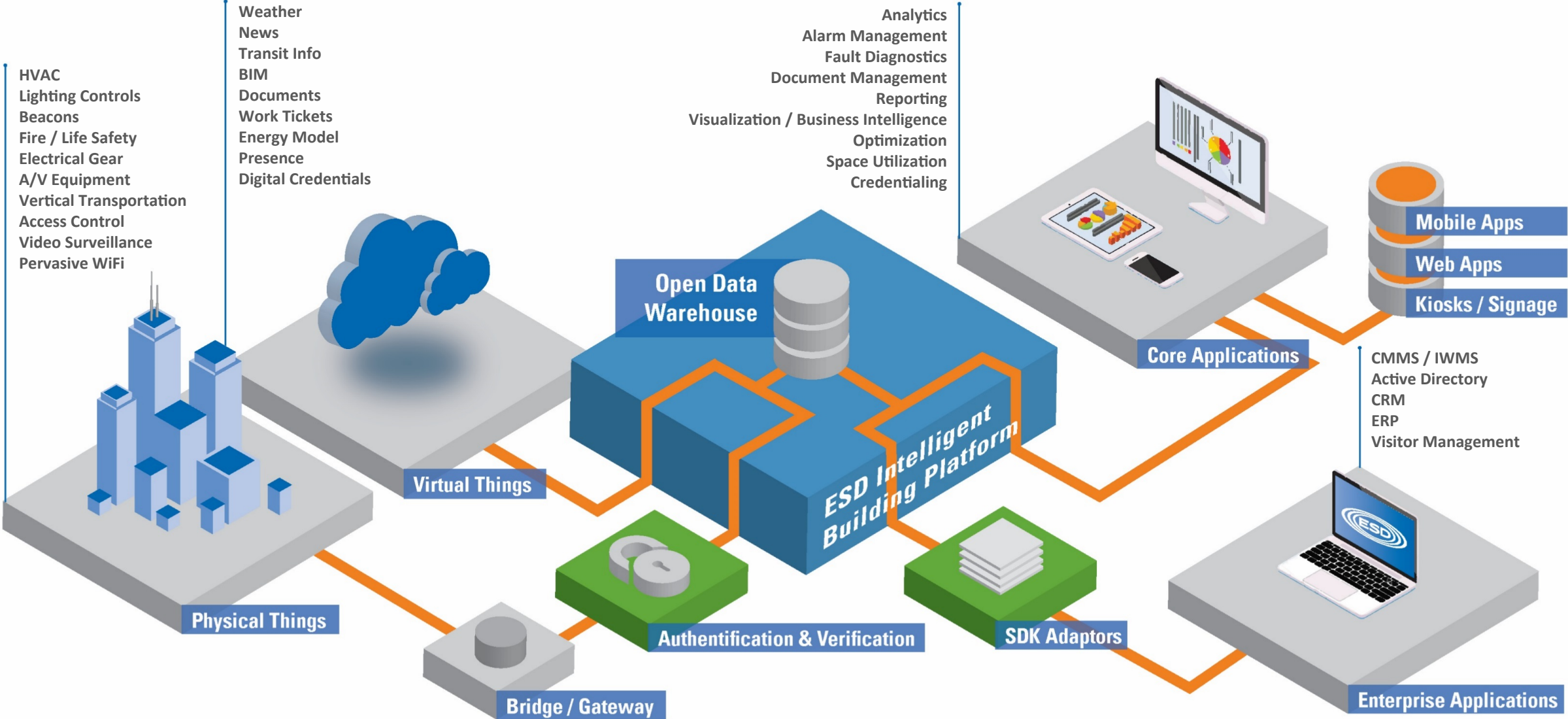
Satisfaction

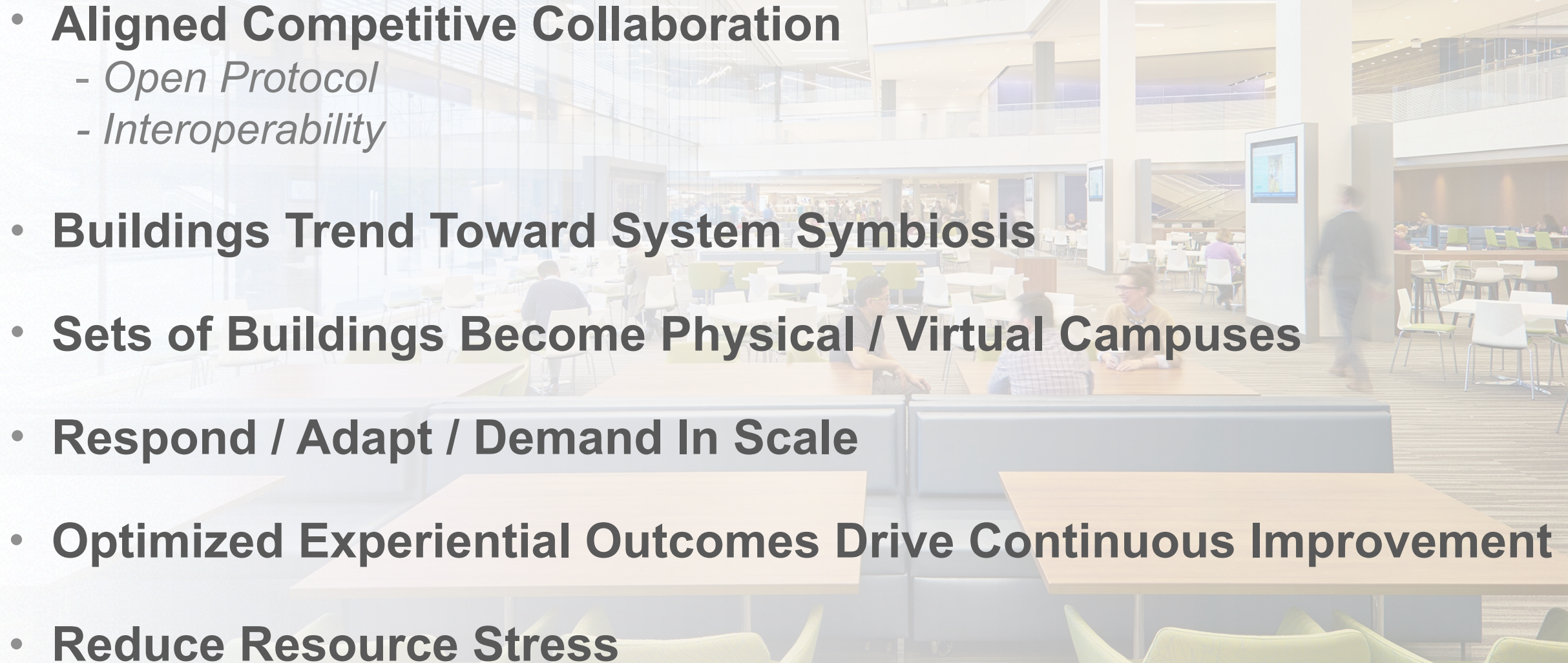
Demand

Competitive Advantage

ROI

Systems Convergence Platform & Portal



- **Aligned Competitive Collaboration**
 - *Open Protocol*
 - *Interoperability*
 - **Buildings Trend Toward System Symbiosis**
 - **Sets of Buildings Become Physical / Virtual Campuses**
 - **Respond / Adapt / Demand In Scale**
 - **Optimized Experiential Outcomes Drive Continuous Improvement**
 - **Reduce Resource Stress**
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- The background of the slide is a photograph of a modern, multi-level office interior. The space is bright and open, with large glass windows and high ceilings. People are seen sitting at tables in a common area, engaged in conversation. The furniture is contemporary, with light-colored wood tables and green chairs. The overall atmosphere is one of a collaborative and dynamic work environment.

Thank you

