



Five Ways to Thrive: Business Imperatives for Manufacturing in a Dynamic World



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Agenda



Challenges in this Dynamic Economy

Imperatives on Which to Focus

Offerings to Help You

How to Get Started

Questions and Open Discussion



What keeps Manufacturing Executives up at night?



**Optimizing Productivity
around the Globe**



**Developing More
Resilient Supply Chains**



**Fostering Product
Innovation**



**Achieving Greater, Longer-
Lasting Customer Relevancy**

... Events like The Global Financial Crisis:

Manufacturing Demand & Production Worldwide now at Recessionary Levels

Has the Sky Now Fallen in 2009?

Global Crisis → Factory Order Fallout...

- “December Freeze For U.S. Factories”
- “China Manufacturing Sector Verging on Recession”
- “Japan's Auto Sales Fall to 34-year Low”

Cost Controls, Layoffs...

- “US Jobless Claims Hit All-Time High”
- “39% of Mass Layoffs in Manufacturing”

...Paradoxical Shortages

- Skills—machinists, tool and die, welders, etc.
- Suppliers—supply base of parts and components
- Technology—investments flowing to China, EM

Globalization: the Manufacturing Imperative

- Operations more complex
- Distributed and multicultural teams
- Scarce resources
- M&A: strong balance sheets looking for buys



Source: Industry Week, BW, Manufacturing.net

Major Inflection Point that is Changing the Way People Work

Business and Financial

- Globalization
- Scale → speed
- Productivity

Technological

- Continuous connectivity
- Real-time information
- Web 2.0 and SaaS

Legal

- Compliance
- Governance
- Policy
- Security

Societal

- Green
- Mobility
- Consumer-directed

Competitive

- Empowered employees
- Communications-directed workflow



Concerns and Opportunities

Industry Consolidation

Globalization

Stock Price

Job Uncertainty

Employee Morale

New Partnerships

Revenue Growth

Productivity

Retaining Talent

Competitive Differentiation

Customer Loyalty

Cost Containment

Supplier Viability

Innovation

Time to Market

Quality



Business Imperatives

Five Critical Steps to Thrive



Save to Invest...

... so that you can free human and capital resources to ...



Unlock Employee Potential...

... by investing in tools and processes that improve leadership and employee effectiveness, innovation, and motivation, allowing them to ...



Drive True Customer Intimacy...

... by getting closer to key customers, driving loyalty and increased wallet share, and truly understanding and meeting customer needs, which will enable you to ...



Outpace Your Competition...

... by increasing speed and scaling faster, focusing on strategic initiatives that harness the capabilities of new technology-enabled business models, so that you can ...



Transition to a Borderless Enterprise...

... where you can capitalize on the full potential of your global eco-system, to optimize profitability for you and them in a cost-effective, timely manner

Business Imperatives

Principles to Adopt



Save to Invest

- Intelligently reduce costs to fund investments for improvement
- Focus on profitability and capital efficiency



Unlock Employee Potential

- Augment process with collaborative solutions
- Harness the collaborative power of all employees for process efficiencies and effectiveness
- Nurture key employees; focus on motivation and morale



Drive True Customer Intimacy

- Get closer to your most important customers
- Embrace customers in your decision making
- Help your customers get closer to theirs



Outpace Your Competition

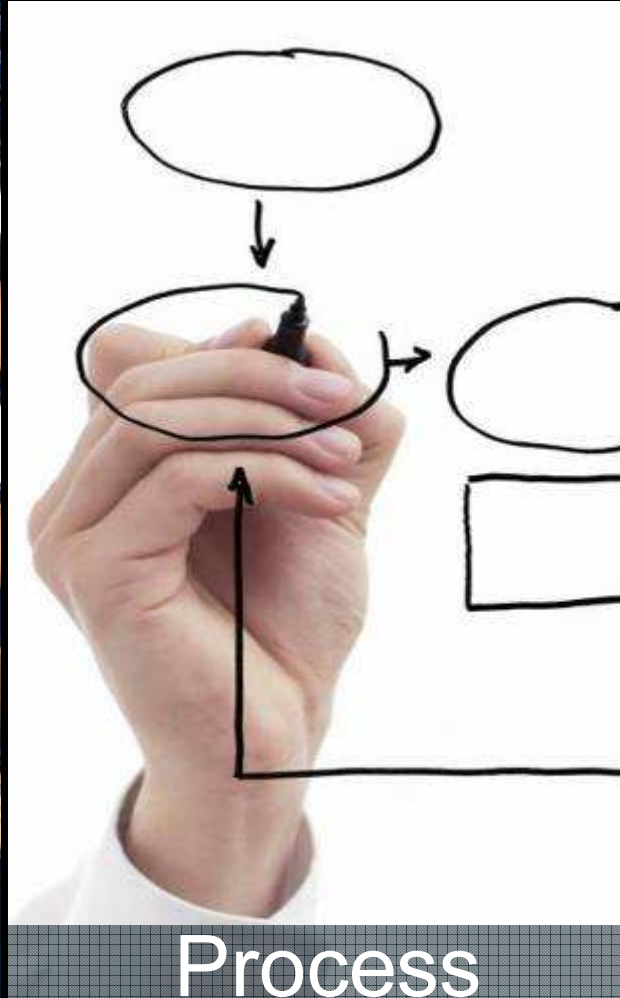
- Align the business on strategic initiatives, the vital few
- Invest to gain share and pull away from competition
- Create business velocity: speed and scale



Transition to a Borderless Enterprise

- Make full use of your global business ecosystem for greater effect, better results
- Include all stakeholders in ideation, improvement, and expansion

Addressing the Imperatives Requires Change at All Levels



Save to Invest

R&D

Increase distributed design team collaboration while reducing travel.

Supply Chain

Reduce supply chain waste with faster escalation of critical events.

Production

Improve efficiency of people and equipment through integration of unified communications with MES and ERP systems.

Sales and Service

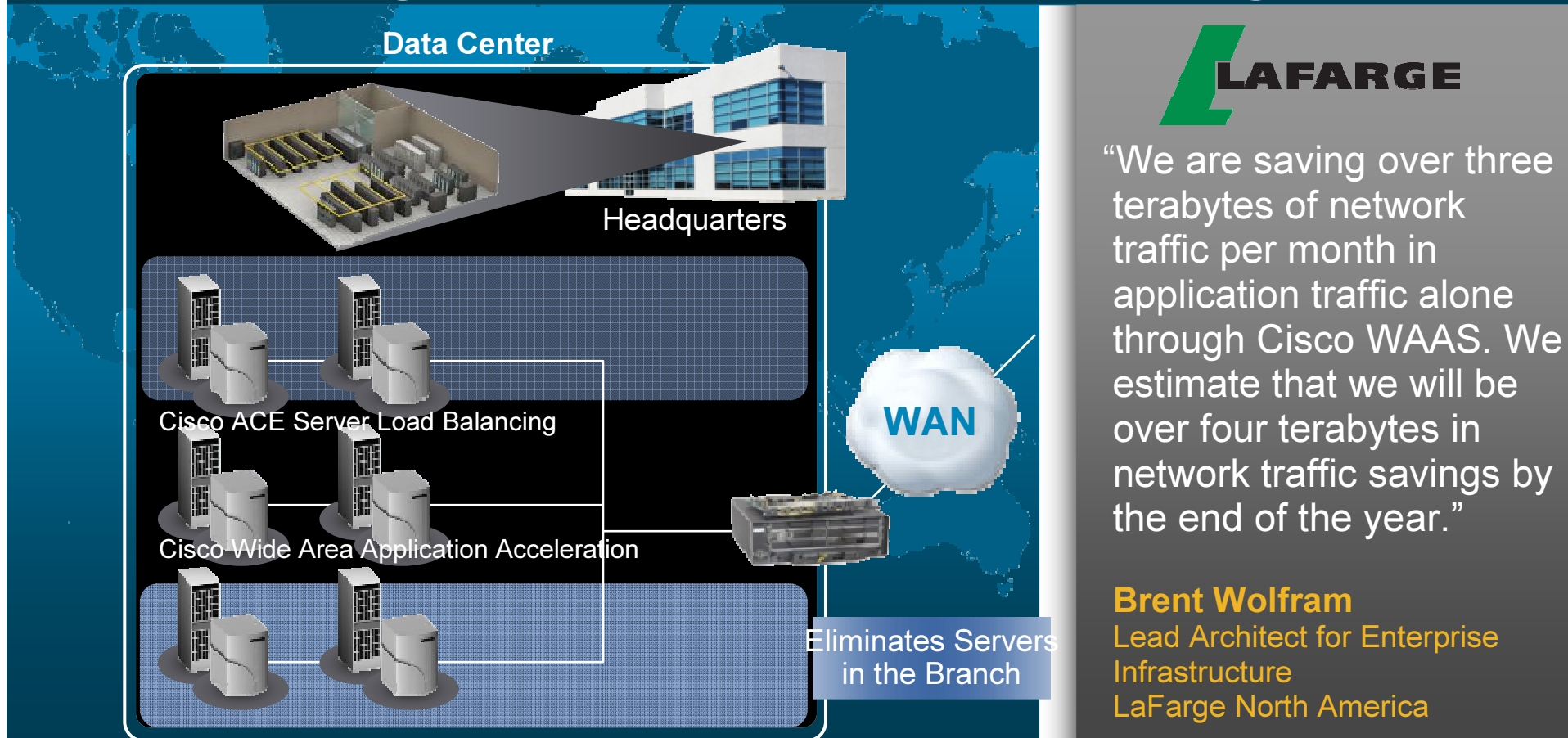
Reduce on-boarding and training costs for sales and service representatives.

Culture

Process

Technology

Centralizing Branch Office Servers to Reduce Operating Costs and Streamline Management



“We are saving over three terabytes of network traffic per month in application traffic alone through Cisco WAAS. We estimate that we will be over four terabytes in network traffic savings by the end of the year.”

Brent Wolfram
Lead Architect for Enterprise Infrastructure
LaFarge North America

Benefits

Centralized, scalable storage in the Data Center
WAN optimization to eliminate

Result

>\$700,000USD annual operating expense reduction
Streamlined IT management of

Unlock Employee Potential

R&D

Integrate collaboration tools with Product Lifecycle Management (PLM) applications to accelerate design workflows.

Supply Chain

Speed supplier problem resolution, without travel downtime, using rich-media collaboration tools.

Production

Connect the plant floor to technical experts to reduce downtime.

Sales and Service

Improve customer experience with agents' access to pertinent customer information anywhere, anytime.

Culture

Process

Technology

Increase Engineering Productivity with Faster, More Collaborative Design Changes

Improved Productivity Optimizes Design Changes for Manufacturers Through Faster, More Collaborative Processes that Reduce Cycle Time, Minimize Data Errors, Connect Appropriate Skill Sets, and Provide a Recorded Audit Trail.

9 a.m. EST: Designer Writes Change Description



PLM Converts Text to Speech and Calls Engineer



- Engineer receives call
- Accesses design data on PDA
- Reviews proposed design change

Approvers Are Contacted for Web Conference



Team reviews change to 3D design and suggests improvements
Team collaborates on changes until satisfied
Team reviews and approves final design
Design change approved at 1p.m. EST



Drive True Customer Intimacy

R&D

Include customers in your innovation process using virtual workspaces.

Supply Chain

Speed response to order fulfillment delays using collaboration-directed automated notifications.

Production

Faster collaboration between sales and production encourages greater customer responsiveness.

Sales and Service

Speed customer concern resolution by connecting with the right expertise the first time.

Culture

Process

Technology

Engaging Customers with Executives and Experts Using Cisco TelePresence

SAP



“We will take collaboration to the next level by overcoming geographical barriers and enabling employees, customers and partners to work together more effectively.”

Uwe Herold
CIO, SAP AG

Benefits

Faster Decision Making with Internal Experts

Result

Speeding Product Development

Optimizing Customer

Outpace Your Competition

R&D

Speed innovation and time to market through transparent collaboration between distributed design and manufacturing teams.

Supply Chain

Create collaborative communities of suppliers and partners to achieve supply chain agility.

Production

Build advantaged cost structures by eliminating labor and process inefficiencies.

Sales and Service

Take full advantage of executives and subject matter experts to reach more customers.

Culture

Process

Technology

Accelerating Plant-Floor Problem Resolution with Video Collaboration



Medical Devices
Manufacturer
Example

- Technical problem on plant floor needs R&D team to be brought in
- Plant supervisor calls relevant R&D and manufacturing team members using Wi-Fi IP phone

- Engineer initiates conversation with R&D team
- Better visibility into problem is achieved by escalating meeting to desktop video conference on factory floor

- Singapore, California, and China collaborate quickly to resolve complex problems
- Pending concerns are resolved in weekly problem status meetings held through a Cisco TelePresence™ conference

Business Value

- One–two week reduction in ~2.5 month prototype implementation process
- Potential savings of \$2 to 3M per major project
- \$35 to 50M in incremental margins from four–six-week reduction in overall time to market for new products through enhanced collaboration throughout design process

Transition to a Borderless Enterprise

A Globally Connected and Aligned Ecosystem...

That Innovates and Executes Faster and More Effectively...

To Differentiate Your Business Through Collaboration with Video ...

On Any Device, Anytime, Anywhere, and with Anyone...

Because the Network Is the Platform...



Connected Manufacturing

The Network is the Platform



Customer Intimacy

- Enhance collaboration and integrated service with a networked channel, sales, production, supply chain, and R&D



Continuous Innovation

- Speed time to market, increase product pipeline success rate, and improve new product vitality
- Reduce R&D costs with enhanced collaboration between customers, engineering, manufacturing, sales, and channel



Supply Chain Agility

- Provide one source of truth across the manufacturing enterprise chain of supply and production
- Secure, real-time, multitier visibility enables root-cause responsiveness with the right information to the right decision maker at the right time



Operations Excellence

- Secure real-time access through converged IT, control, and wireless networks enhances plant efficiency, throughput, safety, physical security, and return on assets



Customer Intimacy

Creating Ubiquitous Customer Connections

Remote Design Center



Identify the Right Products and Features to Satisfy Customers and Maximize ROI Through Better Application Performance.

Sales Office or Service Center

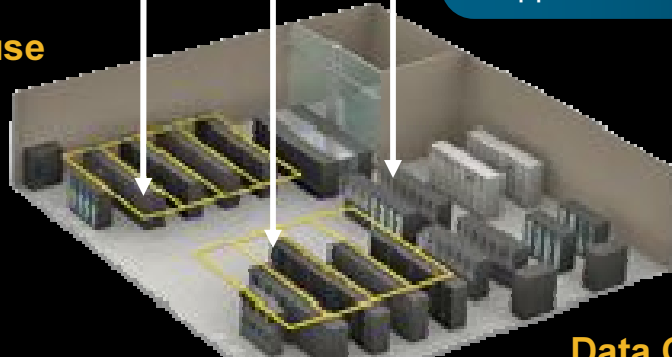


Increase Customer Satisfaction with Improved Responsiveness to Customers Through Faster Application Deployment to Sales and Service Centers.



Manufacturing or Warehouse

View Real-Time Parts and Inventory Availability to Respond Immediately to Customer Queries Through Improved Application Networking.

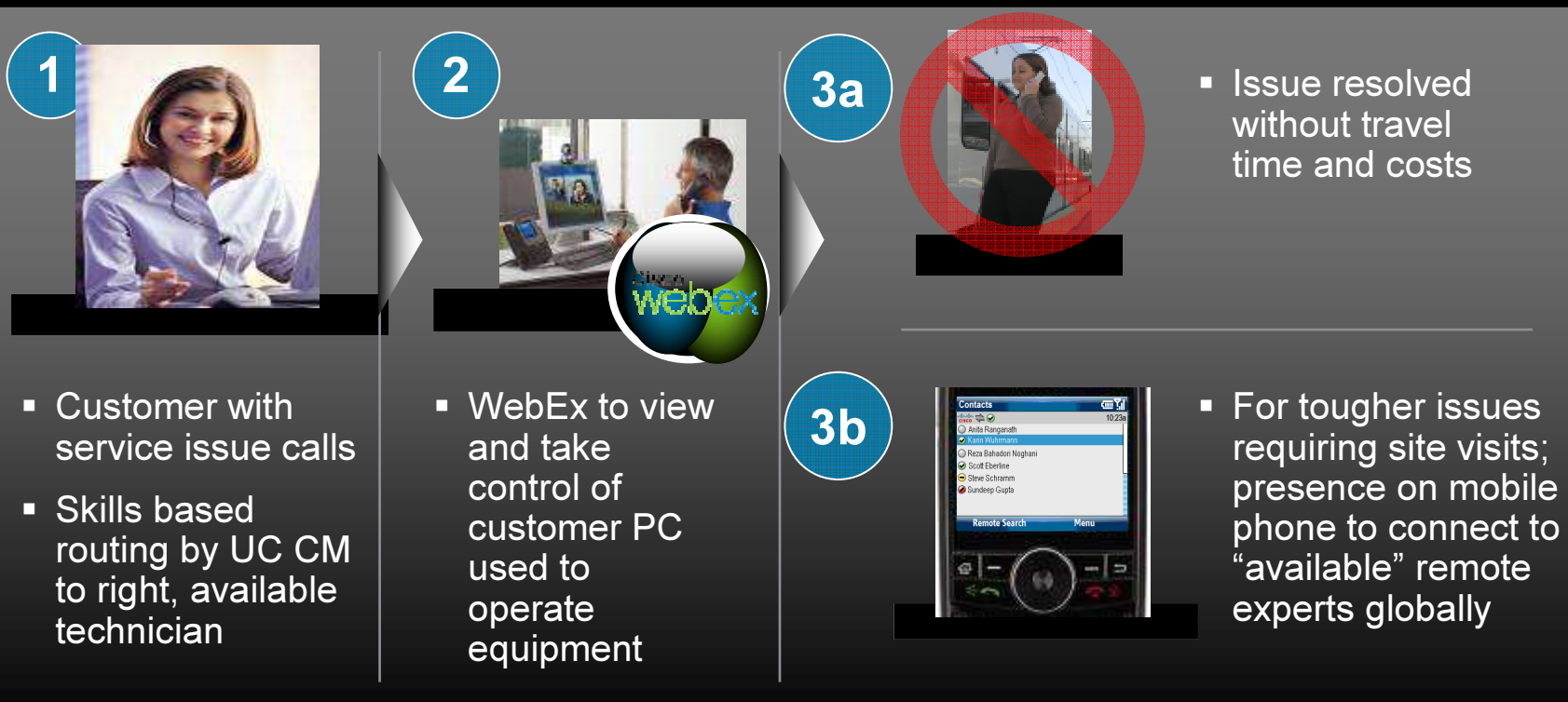


Data Center



Example Solution: Customer Service Resolution with WebEx

Improves Customer Satisfaction by Reducing Service Resolution Time by Hours, sometimes Days, Eliminates Most Customer Service Related Travel Costs using Secure Remote Access, and Dramatically Enhances Service Technician Productivity and Reduces Wear-and-Tear.





Continuous Innovation

Example Solution: Collaborative Research and Development

Provides Manufacturing Designers and Engineers with Real-Time Collaboration Which Accelerates Time to Market, Improves the Quality of Collaboration, Gains Efficiency Through Reduced Travel, all in a Secure Environment.

Main Design Center TelePresence



Supply Partner TelePresence

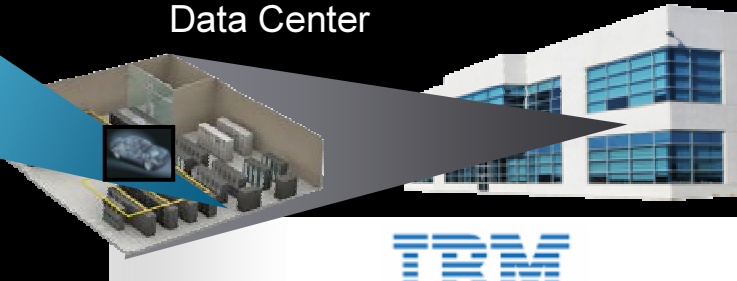


DCV allows active CAD virtualization, collaboration on CAD model and live designer interaction, while full dataset remains secure

Remote Design Center



Data Center





Supply Chain Agility

Example Solution: Warehouse Workflow and Error Proofing

Provides an Open-standards, Affordable Warehouse Voice Solution to Increase Order Accuracy, Reduce Redundant Labor Steps, and Improve the Work Environment and Worker Productivity.

Manufacturer Warehouse



- Increased order accuracy to >99.8%
- Delivery time reduced 80% (60 to 10 minutes)
- Measurable ROI in six to nine months

Manufacturer Call Center

to speech

Distributor
orders product

SAP

Datario®

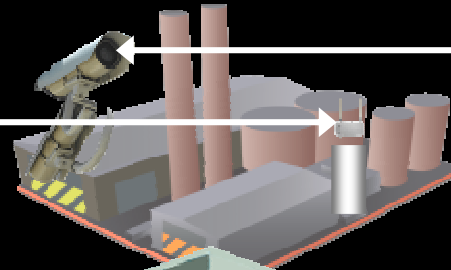


Operations Excellence

Enhance Plant Efficiency, Throughput, Safety, Security and Return on Assets



Improve Plant Safety and Worker Productivity by Adding Wireless Sensor Network and Plant Productivity Applications Through Secure Wireless Outdoor Mesh Networking.



Improve Employee Safety and Plant Security Through Wireless Video Monitoring.



Achieve Faster Resolution of Concerns and Minimize Downtime-Related Problems with Immediate Collaboration Technologies.

Improve Communications Between Plant Workers to Avoid Production Losses Through Voice over Wireless LAN.



Increase Manufacturing Visibility by Tracking Inventory, Equipment, and People Through Location-Based Services.



Gain Visibility for Real-Time Decision Making with Collaboration for Monitoring and Control Through Integrated Production and Enterprise

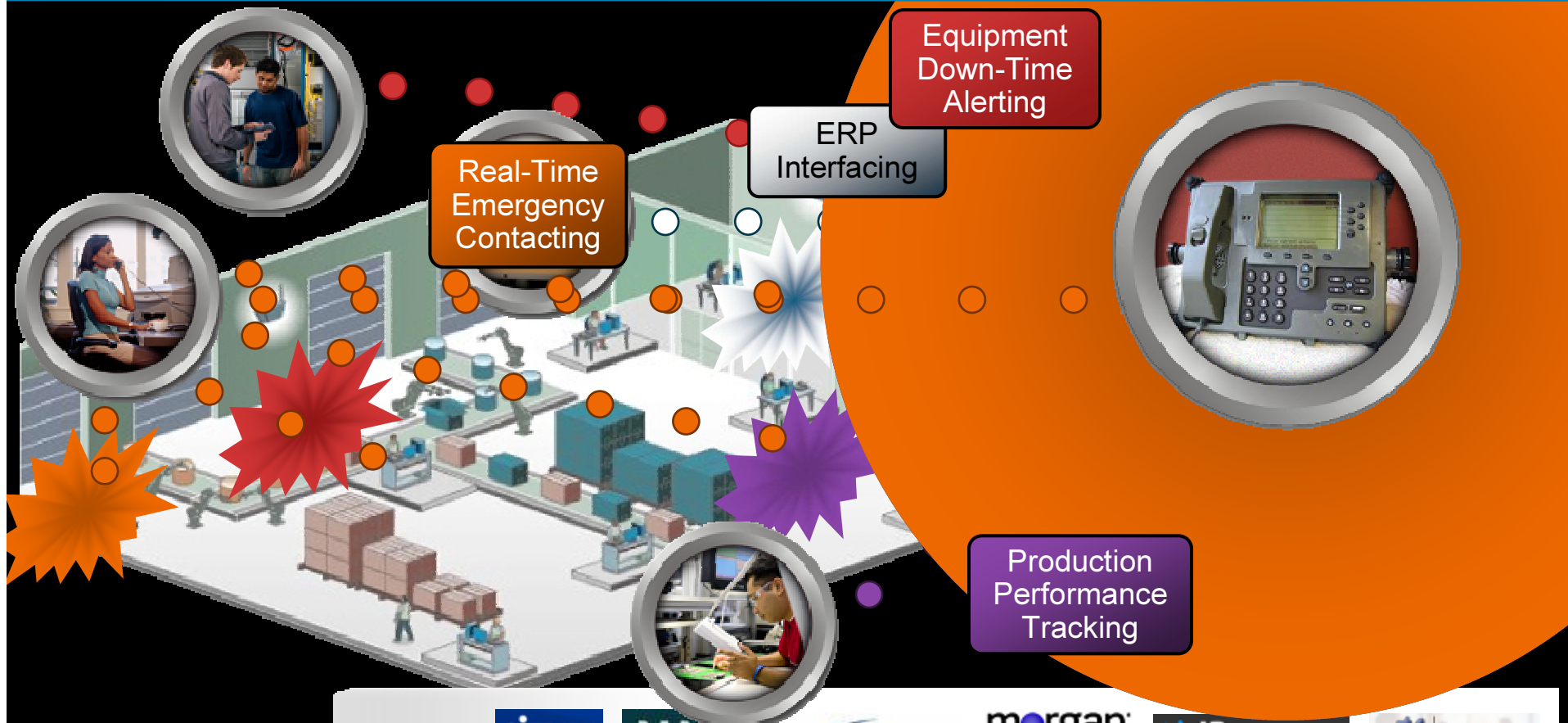


Headquarters and Sales Office



Example Solution: Connected Factory Floor

Unleashes Hidden Productivity and Transforms Performance Improvement Initiatives Like Lean by Leveraging Advanced Communications and Enhances Worker Throughput by Converting Routine and Tedious Data and Communications Tasks to Productive Manufacturing Time.



Cisco's Commitment to Manufacturing

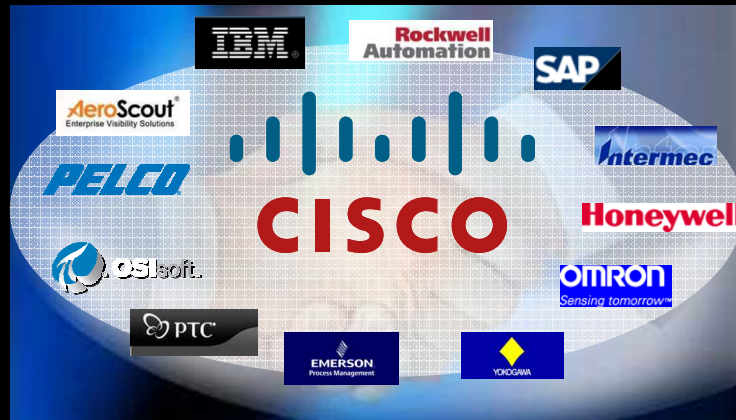
Proven Solutions

- Deep domain expertise inside Cisco
- Proven solutions for the shop floor to the top floor
- Industry-leading partnerships



Customer Benefits

- Deeper, wider in-context collaboration across the enterprise
- More competitive position with improved efficiency, quality, cost controls, and customer responsiveness



Getting Started with
Five Ways to Thrive



Call to Action



Identify Focused Cost-Reduction Opportunities



Nurture and Energize Top Talent

Establish a “Top Customer” Program



Implement a Partner Collaboration Portal

Contact your Cisco Account Team—We Can Help

Questions & Answers

Open Discussion



The Cisco logo consists of eight vertical bars of varying heights, arranged in a pattern that resembles a stylized bridge or a series of steps. The bars are white and set against a black background.

cisco