



**A SHARED RESPONSIBILITY:
CYBERSECURITY FOR THE INDUSTRIAL ENTERPRISE
USER PERSPECTIVE FROM THE FIELD -
INDUSTRIAL CONTROL SYSTEMS**

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**General Session and
15th Annual Meeting of Members**

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Kimberly-Clark Corporation

Kimberly-Clark is a leading global company employing 56,000 people worldwide and posting sales of US\$20.8 billion in 2011.

Headquartered in Dallas, Texas, with operations in 36 countries, Kimberly-Clark's global brands are sold in more than 150 countries. Every day, 1.3 billion people trust Kimberly-Clark's essential products and the solutions they provide to make their lives better.

With well-known core brands such as KLEENEX®, SCOTT®, ANDREX®, HUGGIES®, PULL-UPS®, KOTEX®, POISE® AND DEPEND®, we hold the No. 1 or No. 2 share position globally in more than 80 countries. Globally, medical professionals turn to Kimberly-Clark Health Care for a wide portfolio of solutions essential to the health and hygiene of their patients and staff. Even when they're not at home, people all around the world use Kimberly-Clark Professional's washroom, workplace, safety and do-it-yourself solutions.

Kimberly-Clark Philosophy

- **Kimberly-Clark places consumers, users and customers at the center of everything we do. By nurturing and growing our core brands, and creating new markets to meet emerging personal needs of our consumers and users, we make essential products that make life better**
- **Use standard solutions and vary only where meaningful competitive advantage is gained**
- **Drive and enable business and employee agility**
- **Leverage business governance to prioritize high-value IT solutions**

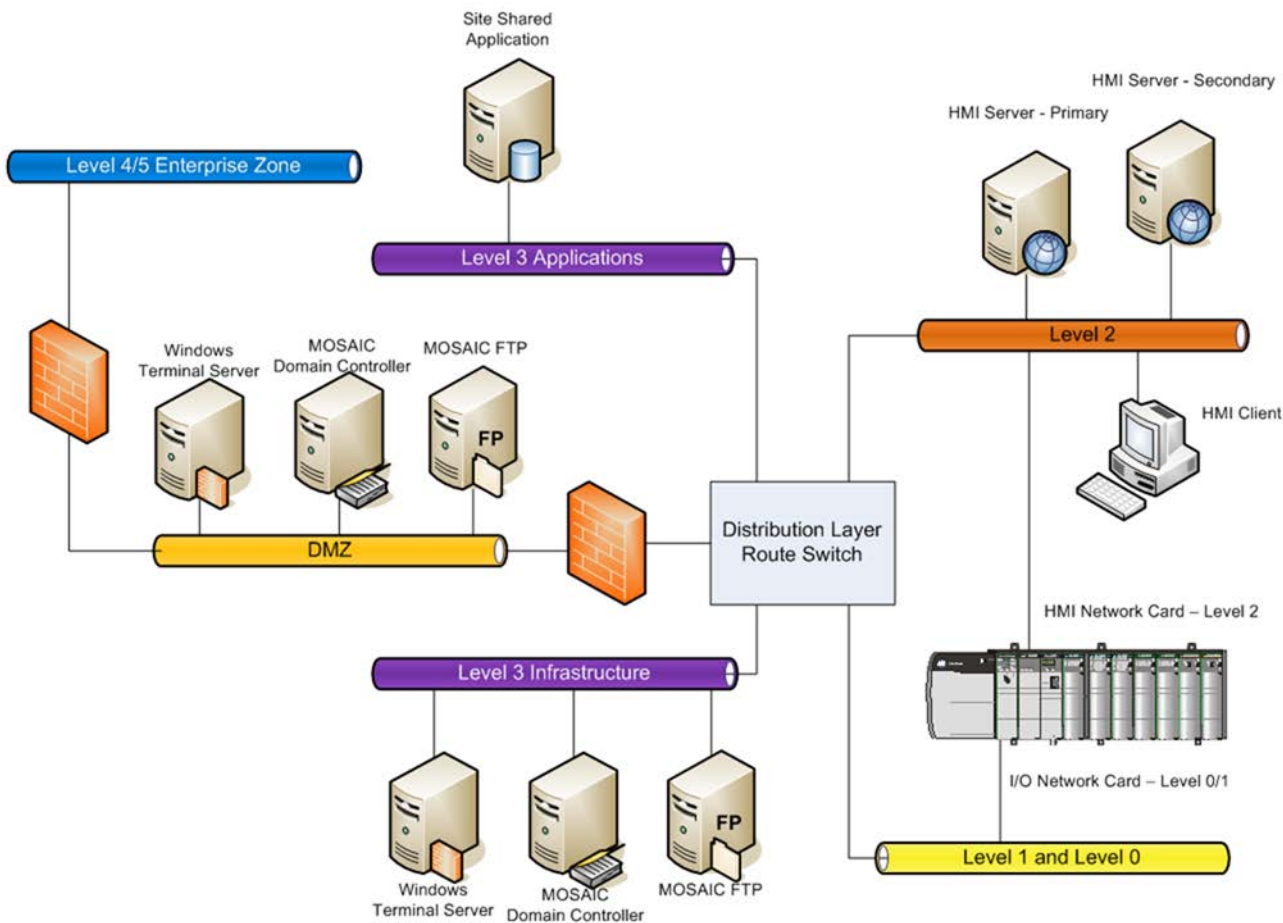
Kimberly-Clark Philosophy

- **Manufacturing Organization for Systems Associated with Industrial Computing (MOSAIC)**
- **MOSAIC is an IT Infrastructure Architecture**
- **MOSAIC is an ITS team**
- **The vision of MOSAIC is to proactively leverage standard IT infrastructure and K-C engineering best practices to securely enable adoption of new manufacturing technology solutions**
- **The mission is to provide information technology expertise and guidance while delivering services to Kimberly-Clark Corporation's manufacturing organizations**

MOSAIC Design

- **Single Manufacturing Domain independent of Enterprise Domain**
- **Onsite Domain Infrastructure for each location**
- **Ethernet switching designed for site and project risk tolerance**
- **Unique IP addressing within Kimberly-Clark**
- **Use of off-the-shelf Ethernet components, PC's, and servers**
- **Firewall is connection between Enterprise Zone and Manufacturing Zone**
- **Route-Switch controls site-based MOSAIC communications**
- **Design aligned to Rockwell and Cisco Manufacturing Reference Architecture**
- **Enterprise and Manufacturing may share Ethernet switches and firewalls**
- **Design accommodates multiple unique VLANs per line/cell**
- **Communication between cells blocked by default**
- **Architecture can be extended with new plug in modules**
- **Provide controlled access to all machine lines for supportability**

MOSAIC Architecture



Security Challenges

Users

- ▶ Lack of knowledge on risks associated with working in an IT environment
 - USB drives – file integrity
 - Account and password management

Products

- ▶ Current products are not built with secure communications in mind

Directories

- ▶ There is not a vendor agnostic security directory – each company builds their own....

Security Challenges

Change

- ▶ Business needs and technology continuously change - security policies not easy to change

Organizational Barriers

- ▶ Security on the plant floor is different from security in the front office
 - Plant floor is concerned with availability first
 - Front office is concerned with confidentiality first

Documentation

- ▶ Products do not come with clear explanations on how their components can be effectively secured against vulnerabilities