



Equanex

Web projects On-Time & On-Budget!

Integrating Content for Effective Customer Facing Applications



Luda Kopekina
President
Equanex Corporation
Concord, MA
978 369 0330, ext123
luda.kopekina@equanex.com



Outline

- **Customer Expectations for a Self-service Product Support Module**
- **Self-Support and Service Vision**
- **Infrastructure Requirements**
- **Content Categories**
- **Implementation Issues**
- **Implementation Strategies**



End User Requirements

- **Ease of use (fast, to the point, clear)**
- **Ease of finding relevant information**
- **Ease of identifying relevant components of the product (e.g. spare parts)**
- **Ease of moving from one type of information to the other**



Product Components Identification

Now : Keyword Search vs. Future : Graphical Drilldown

- **Keyword search does not solve the problem of part identification**
- **> 40% of customer calls into service center relate to spare parts identification**
- **Studies show that users prefer visual identification to any other method**
- **Visual identification should be presented within a graphical context of the whole product**



Finding Relevant Information

Now : Keyword Search vs. Future : Context Related

- Searching manuals and troubleshooting guides by keywords
- Long process of selecting the right information from the search results
- Frustrating process for the user
- Product and its structure can be used as context
- Relating information to serviceable subassemblies and components provides the user a better chance to find information quickly



Ease of Switching From Content to Content

Now

Future

- **Scenario:**
 - User identified the component
 - User has a choice of ordering different types of material
 - User would like to research the best one for his application
- **Process:**
 - Read papers associated with each material, application, component
- Associate different types of information at the level of component
- Inter-link information types
- New process:
 - User will have access to white papers related to this component and specific material in an application context



Satisfying End-User Requirements

Customer Perspective

- **Ease of use**
- **Ease of finding relevant information**
- **Ease of identifying product components (e.g. spare parts)**
- **Ease of moving from one type of information to the other**

Self-service Requirements

- **Focused on the user's potential action**
- **Context sensitive information**
- **Graphical navigation**
- **Inter-linking of content**



Creating a Great User Experience

- **Ease of Use!!**
- **The more relevant and refined is the response, the more satisfied is the customer**
- **Personal information as much as possible**
 - **Show only products that the user bought**
 - **Show only information accessible to the service level that the user purchased**
 - **Utilize information known about the user, e.g. shipping, etc.**
- **Integrating online and offline**



Service Vision Required

A successful self-service capability requires a service vision



The New Profit Imperative

- Only one in eight of the 1000 largest manufacturers have outperformed the S&P 500 since 1998
- All thriving companies have gone “downstream”
- Weaker product demand
 - Annual sales growth declined from 5.2% to 2% over the past 30 years
- Growing installed base
 - Longer product span
 - Accumulation of past purchases
 - Installed base is an order of magnitude greater than the number of units sold annually



Rethinking Manufacturing Strategy

- **Old foundations:**
 - Vertical integration for cost control
 - Disciplined research to create superior products
 - Dominant market position to provide economies of scale
- **Going downstream requires new foundations:**
 - Redefining the value chain
 - Building customer allegiance
 - Rethinking vertical integration



Three Downstream Business Models

- **Embedded Services**
 - Smart product can save labor costs for customers
- **Comprehensive Services**
 - Handling many aspects of product's ownership and operation creates a bond with customers
- **Integrated Solutions**
 - A range of products and services to satisfy customer needs



Which Downstream Strategy Makes Sense for You?





Online Service Vision

A specific “downstream” business model

- **Creates a vision for the online service offering**
- **Defines current and future capabilities that can be offered online**
 - **Current content**
 - **Future content**
 - **Infrastructure requirements**



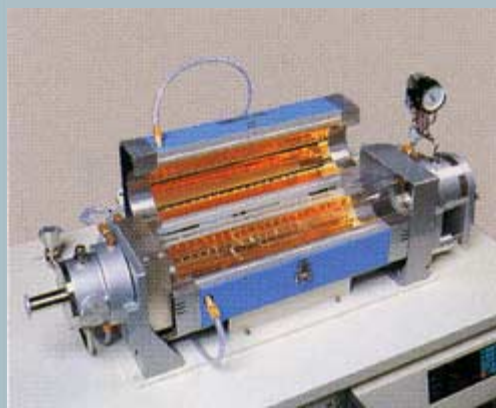
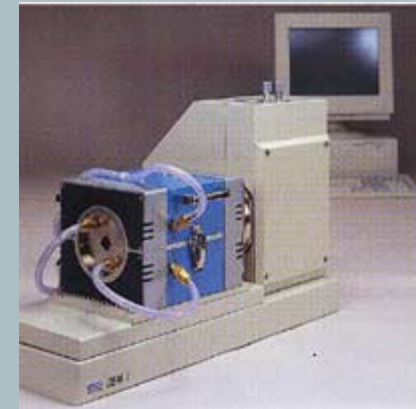
Service Vision Implications

- **Embedded services**
 - Data utilization and analysis, feedback loop to customers
- **Comprehensive services**
 - Continuous addition of services, information management
- **Integrated services**
 - Continuous addition of products and mix/match of services



Case Study - CLV Manufacturing Company

- \$1.2 Billion in Revenue
- Headquartered in Japan; Locations in Europe and US
- A broad vacuum processing product line from complex equipment (\$5M) to components (\$500)





Case Study - CLV Manufacturing Company

- Grown through acquisitions
- Direct sales model for equipment
- Direct sales model for components
- Large installed base, measured on the uptime of equipment in the field
- Competencies
 - Advanced Technology (out of Japan)
 - Sales approach - solving customer problems



Service Revenue Creation

Case Study

Why is service revenue “left on the table”?

- Viewed as a necessary evil
- Continued focus on new sales
- High support cost in low price market segments
- Customers that are not willing to pay for a standard service plan but would buy a service plan at a certain level
- Multiple service plans are difficult to maintain and deliver



Service Vision

Case Study

- **Vision - Comprehensive with some Embedded Services in the future**
- **Five target markets with different needs**
- **New products include a software component that require high support costs**
- **Created 5 service plan levels**
 - **Light - given away**
 - **Preferred**
 - **Gold advanced**
 - **Platinum - applies to customers who purchase new products with software included**
 - **Internal**



Service Plan Example

Case Study

- **Service Level - Gold Advanced**
 - Spare Parts Identification
 - Ordering
 - Advanced Troubleshooting
 - Advanced Repair Procedures



Infrastructure Requirement

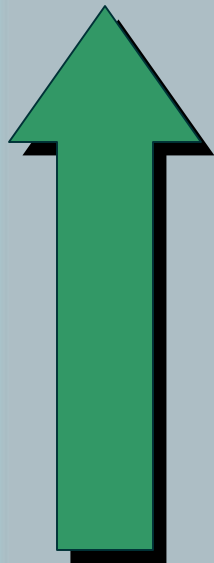
Case Study

Flexible infrastructure is required with ability to

- **Provide current product support content**
 - Maintenance
 - Troubleshooting
 - Spare parts identification
 - Ordering/Reserving
- **Structure and deliver flexible service plans**
- **Expand the offering in order to support the service vision**

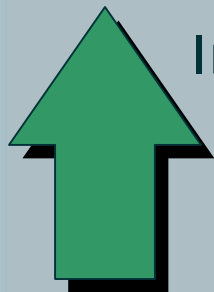


Increase Revenues



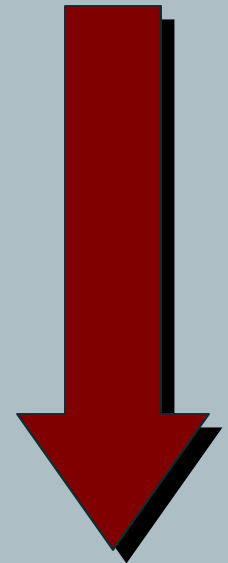
- ✓ Increase revenue from spare parts sales
- ✓ Generate additional service revenues by offering tailored customer service online
- ✓ Cross-sell and up-sell capability resulting in additional sales
- ✓ Increase sales closure rate
- ✓ Increase qualified sales leads

Increase Customer Loyalty



- ✓ Customers save time and get the high level of service they desire

Decrease Costs



- ✓ Reduce sales costs for equipment and spare parts
- ✓ Reduce customer support costs
- ✓ Decrease ramp up time for customer service and field service personnel
- ✓ Reduce warranty costs

Improve Cash Flow



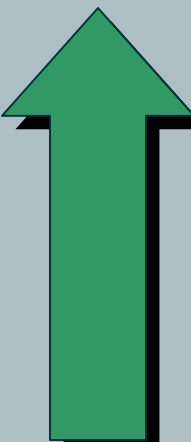
- ✓ Reduce sales cycle time on equipment and spare parts



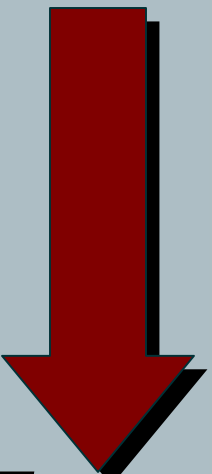
Benefits

Case Study

Increase Revenues

- 
- ✓ Spare parts sales - 3%
 - ✓ Service revenues - 100%
 - ✓ Cross-sell/up-sell - 15%
 - ✓ Sales closure rate - 1pt

Decrease Costs

- 
- ✓ Support costs - 10%
 - ✓ Ramp up time for field service personnel - 6 m
 - ✓ Warranty costs - 20%

	(in 000)	Revenue Increase	Margin Increase	Cost Reduction
1	Spare parts	\$ 900	\$ 540	
2	Service revenue	\$ 20,000	\$ 10,000	
3	Cross-sell & up-sell capability	\$ 2,250	\$ 1,350	
4	Increase sales closure rate	\$ 9,000	\$ 5,400	
5	Technical support			\$ 720
6	Decrease ramp up time for service personnel	\$ 1,200	\$ 600	
7	Warranty cost			\$ 800
	Total	\$ 33,350	\$ 17,890	\$ 1,520



Return on Investment Summary

Investment into Self-service capability can

- **Pay-off in the first quarter of operations**
- **Increase customer switching costs**
- **Provide differentiation**
- **Provide a platform for service vision**



Current Content

Case Study

- **ERP data**
 - Customer records
 - Spare parts information
 - Bill of Material
- **CAD/CAM system**
 - Product images
- **e-Commerce**
 - Ordering and transactional activity
- **Technical Documentation**
 - Service Procedures
 - Installation Instructions
 - Replacements Guides
 - Troubleshooting Guides
 - Spare Parts Tables



Service Plan

- **Components**
 - Information
 - Labor
 - Product(s)
- Information will become a more critical component going forward
- Ability to add, select and include informational content depending on the access level of the customer will become even more critical in the future



Required Flexibility

Case Study

- **Add informational content categories quickly, e.g.**
 - **Technical notes**
 - **FAQs**
 - **Related articles and white papers**
 - **Software downloads**
 - **Software demonstration(s) and installation instructions**
- **Create additional service levels to realize revenue opportunities**



Implementation Requirements

Case Study

Ability to

- Implement products incrementally
- Add capability in modules, e.g. troubleshooting
- Add content internally
- Maintain content internally
- Have feedback loop from the field



Implementation Issues

Now : 'Manual' Oriented vs. Required : Context Oriented

Paper based information delivery, e.g. service manuals, documentation

Different organizations are responsible for preparation and maintenance of different information

Customized information delivery is resource consuming

Information is created and maintained in logical units - "chunks"

Fast, easy and direct access to "chunks" of relevant information

Easy and fast maintenance of "chunks"

Ability to combine "chunks" into manuals and/or service plans



Self-service Product Support Vision

- **Authoring platform for self-service capability**
- **Provides a flexible contextual structure (product image, schematic, etc)**
- **Imports or utilizes existing content**
- **Provides an easy way to inter-link content**
- **Provides a way to define service plans from existing “chunks”**



Example

Case Study

**Demonstrate ease of content population and
service plan creation**

CLV Manufacturing / VisiSolve



Implementation Strategies

- **Implement products that generate most calls first**
- **Implement only new products, correlate with new product introduction**
- **Implement products that require spare parts, utilize drill-down to lead to these parts**



Future Technologies

- **Wireless**
- **Natural language interface**
- **Intelligent agents knowledgeable in the product**



Summary

- **Ease of use is critically important for end users**
 - Speed of finding information
 - Relevance
 - Clarity
- **Successful self-service capability requires a service vision**
- **A different information delivery paradigm is required for successful content delivery**
 - Graphical product navigation
 - “Chunks” of information versus manuals
 - Inter-linked