
	<p>KCS - Knowledge Centered Support</p> <p>Decus Symposium 2003</p> <p>Warren A. Viertel Consultant Hewlett Packard GmbH</p>
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<p>Agenda</p>	
<ul style="list-style-type: none">• Background to KCS• KCS Overview• KCS Implementation in Pre-merger Compaq• KCS in the Workflow• Primus Search Engine• KCS in Post-merger HP	
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KCS – Knowledge Centered Support



- **KCS** is a concept developed by the **Customer Support Consortium (CSC)** to offer a better strategy of providing solutions for their customers.
- The CSC is an association of over 70 leading technology service organisations.
- A search for innovative ways to meet growing needs of support industry.

KCS Background



- **Challenges for support centers:**
 - Improve efficiency
 - Control costs
 - Decrease in profit margins
 - Increase in administrative and operational costs
 - Meet increasing customer demand
 - Support quality
 - Increase in product complexity
 - Improve customer satisfaction
 - Expand (and maintain) technical expertise
 - Make use of newest and latest technologies

KCS Background



- Effects of these challenges:
 - **Customers:**
 - Loss of confidence in support organisation
 - Product value is diminished
 - **Support analysts:**
 - Lack of job satisfaction
 - Performance measured purely by statistics
 - Poor identification with the organisation
 - **Organisation:**
 - Resource constraints
 - Lack of expertise
 - Loss of responsiveness

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KCS Overview



- Traditional Call-Centered Support delivery model:

Customer → **Support** → **Information**

Islands of knowledge
 Knowledge hoarding
 Reliance on individual

Fragmented sources
 Quality?
 Internally focused
 High skills required to
 access information

- Tools and processes have been developed to optimize the workflow.
- Little attention has been given to optimize knowledge transfer and to customer needs.

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KCS Overview



- „Knowledge Centered Support is a methodology for leveraging support transactions to create knowledge that empowers a company to better resolve problems for customers.“
- It is more than a tool. It is a change in:
 - Culture
 - Process
 - Technology
- It provides a solid foundation for customer self help applications over the internet.

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KCS Overview



- Knowledge Centered Support service delivery model:



- Attention is given to creating, developing and reusing knowledge.
- The fundamental unit of transaction is the **solution**; the knowledge requested and delivered to satisfy the customer request.

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KCS Overview



- Solutions are the key elements of support knowledge.
- Solutions contain:
 - Situational context
 - Relevant information
 - Problem solving analysis
 - Resolution of the problem
- Solutions also contain:
 - All necessary information to identify, diagnose and resolve the same situation again.
- Creating, using and re-using solutions should be the main activity of a support transaction.

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KCS Overview



- KCS practices:
 - Move solution delivery close to knowledge capture
 - Create a solution for all issues that warrant a solution
 - Create a solution using the same process used for solving a problem
 - Capture the customer context
 - Design solution content to map to the experience and need of the audience
 - Improve the solution throughout its life cycle
 - Measure solution re-use within the system

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KCS Overview



- **Goals of KCS:**
 - **Create a single, virtual, global Knowledge Base**
 - Use customer interaction to help create the Knowledge Base
 - Employees, service partners and engineering add to the KB
 - **Improve the time taken to resolve a customer problem**
 - Structured capture of content
 - Re-use of solutions
 - **Improve organisational performance**
 - **Improve customer satisfaction**
 - Problems solved faster
 - Solutions published to the Web
 - **Improve employee satisfaction**
 - Take active part in knowledge development
 - Learn and benefit from collective knowledge

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KCS Overview



- **What KCS is not:**
 - Not a way to eliminate people
 - Not a way to replace specialists with less knowledgeable people
 - Not dependent on one platform or tool
- **What KCS is:**
 - A way to manage the growing demand for resources
 - Allows specialists more time to work on difficult problems
 - A support strategy

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KCS in Pre-merger Compaq



- KCS Program initiated in March 1999
- Implementation strategy:
 - A corporate culture supportive of a focus on knowledge
 - Clearly communicated processes and practices of KCS
 - Measurements aligned with knowledge capture and creation
 - Workflow structure to incorporate knowledge capture and re-use
 - Systems to support the people and business

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KCS in Pre-merger Compaq



- **Primus** is selected as the capture and search tool
- KCS and Primus are integrated into the call entry system
- Rollout program started world-wide
 - Americas
 - Emea
 - Dublin
 - Reading
 - Munich
 - France
 - Asia Pacific
 - Japan implemented a local language version of Primus

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Primus – Search and Capture Tool



• Primus Knowledge Data Base and Search Technology Description

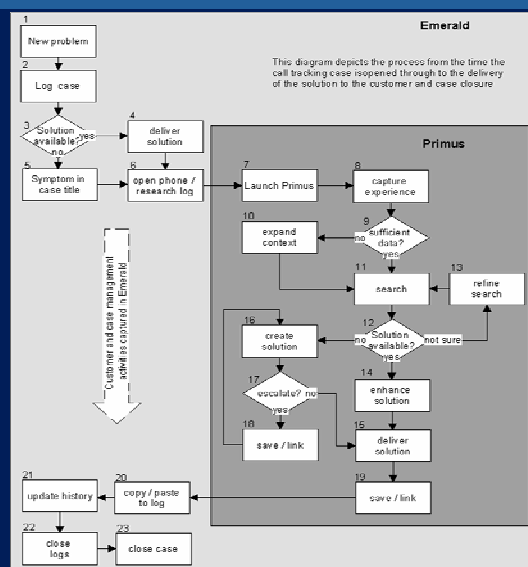
Primus is a knowledge database with a proprietary associative search engine. Primus search technology is based on an information model comprised of associated concepts, statements, properties and solutions.

Integrated into the workflow process, the Primus tools, Primus Solution Builder and/or Primus Solution Explorer, are used to gather information in the form of facts, symptoms, changes, causes, fixes and goals for a specific customer problem. This information is then used either to search for an already known solution to the problem or to create a new solution if none yet exists.

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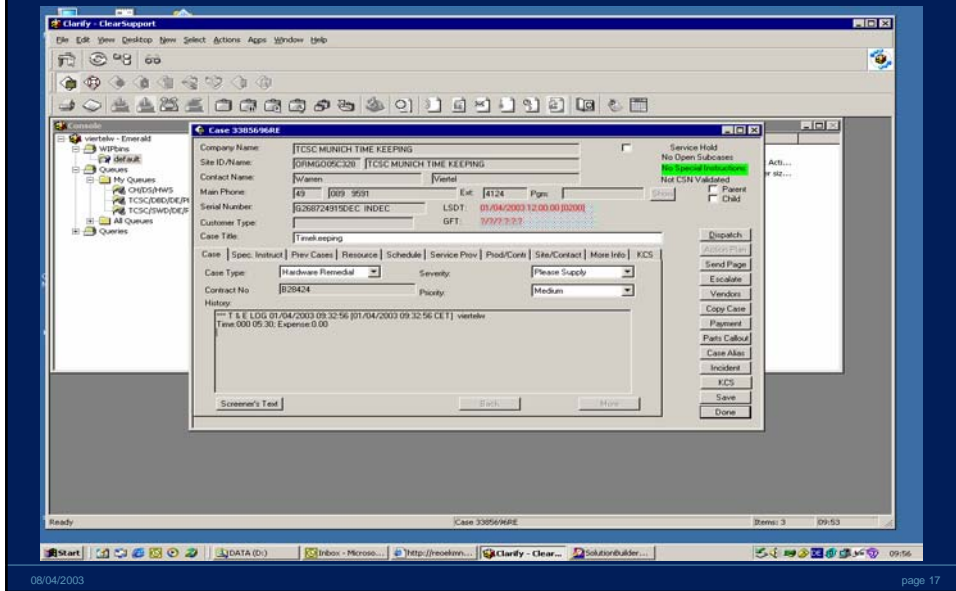
KCS in the Workflow



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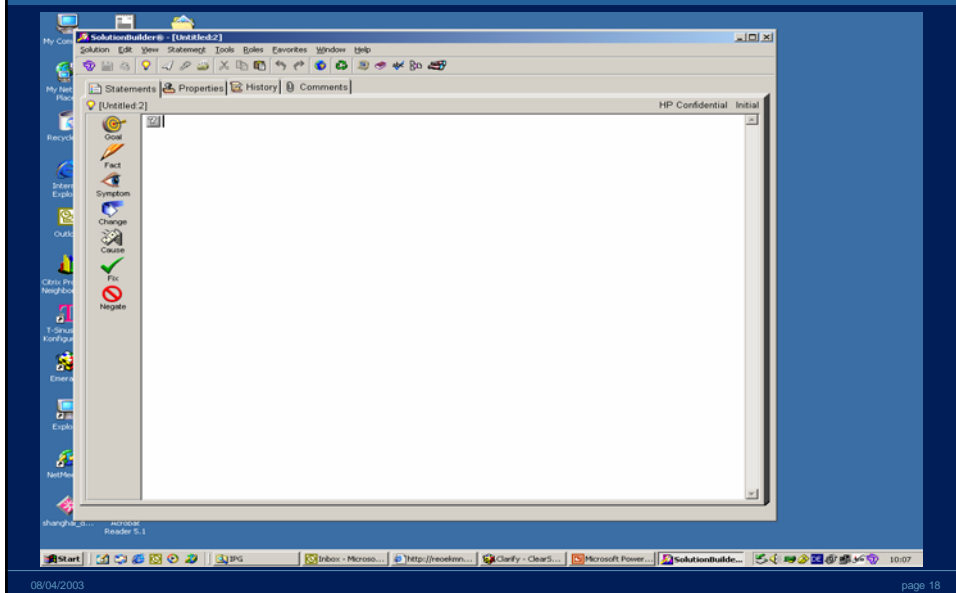
KCS in the Workflow



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Primus



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The Primus Search Engine



- Associative search engine
 - Not a keyword search tool
- Indexes every term in every statement
- Determines relevant statements for each statement entered in the workspace
- Level of relevance determined
- Solutions with relevant statements are evaluated
- Adjustment is made that weighs goals, symptoms, changes and causes four times heavier than facts and fixes
- Result displayed with relevance indicators

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Primus Search Results



My Computer Casertino 510-000-0340

Solutions CDR Statements BMB

printer

Solutions Documents Resources 0 Filters

Display search results: befieldprod0

- How To Collect A DCPS Trace File
- How To Collect A DCPS Diagnosis File
- DCPS print queues go into stalled state
- Dark smudge vertically down the page of the printer (HP LaserJet 4)
- Getting a DCPS error printing to a Hewlett Packard LaserJet 5000
- How to Change parallel port mode to EPP
- How Do I Configure OpenVMS To Support a Xerox N4525 Network Laser Printer?
- (Printer LA) print head is making some noise, knocks the side of the printer
- Trying to install DCPS, getting error:
- Event id 45 "Document failed to print due to GDU/Driver error in rendering"
- Printing only last page
- Error: "XDCPS-F-KIT_EXPIRED, This version of DCPS has expired"
- HOW TO CONFIGURE IP ON AN LN17ps PRINTER
- Runs very slow after printing
- Hintote laptop's - Printing Failure error on Port Replicator
- Printer doesn't print when connected to a docking station
- START/QUEUE returns %SYSTEM-W-NOSUCHDEV errors
- White lines through out print
- How do I connect a local printer to a thin client?
- DCPS print jobs remain in starting state with an LN16 network printer

Goal Fact Symptom Change Cause Fix

Search

NetWare5.1

Arriba Reader 5.1

My Documents

Start

10:57

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Primus Solution



SolutionBuilder - DCPS print jobs remain in starting state with an LN16 network printer

Statements | Properties | History | Comments

DCPS print jobs remain in starting state with an LN16 network printer Public Ready

- DECprint Supervisor for OpenVMS (DCPS)
- DCPS V1.6-1 and higher
- OpenVMS
- DCPS
- LN16
- NIC
- LN16 Printer with network card

DCPS print jobs remain in starting state with an LN16 network printer

The Firmware version of the network card (NIC) is V1.0/1. There is a bug in this FW version which causes the printer to drop off the network and not respond when polled. When this occurs there is no communication between the LN16 printer and DCPS and the queue stays in the "starting" state.

Update the NIC firmware to V1.0/7.

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Primus Solution



SolutionBuilder - DCPS print jobs remain in starting state with an LN16 network printer

Incident ID: SolutionBuilder-viertel-a252950a-1049357571-01640 Count: 1

Solution ID: 215.0.1467.10546.3711399 from Domain: bellfieldprod Share Solution

Title: DCPS print jobs remain in starting state with an LN16 network printer

Owner: Viertel [Warren Viertel]

Partition: [Unassigned]

Type: Public Status: Ready

Category: Corrective

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Primus Solution



Solutionbuilder - DCPS print jobs remain in starting state with an LNI16 network printer

Date	User	Operation	Detail
Tue May 7, 2002 11:43:37 AM W. Europe Daylight Time	oghlea	Create	ID(215.0.146710546.3711399).NEW_FX(N)
Tue May 7, 2002 11:43:37 AM W. Europe Daylight Time	oghlea	Link	ID(215.0.146710546.3711399).ID(2088079RE).RESOURCE(Clarify).APPLICATION(SolutionBuilder)
Fri May 17, 2002 2:22:20 PM W. Europe Daylight Time	rtimann	Modify	ID(215.0.146710546.3711399).HEAD_OLD_STATE(Initial).NEW_STATE(Obsolete)
Mon Jun 10, 2002 10:12:45 AM W. Europe Daylight Time	viertelw	Modify	ID(215.0.146710546.3711399).BODY().OLD_FX(N).NEW_FX(Y)
Mon Jun 10, 2002 10:13:31 AM W. Europe Daylight Time	viertelw	Save	ID(215.0.146710546.3711399).HEAD_OLD_STATE(Obsolete).NEW_STATE(Ready).OLD_TYF
Mon Jun 10, 2002 1:05:44 PM W. Europe Daylight Time	viertelw	Modify	ID(215.0.146710546.3711399).BODY()
Mon Jun 10, 2002 1:23:16 PM W. Europe Daylight Time	viertelw	Modify	ID(215.0.146710546.3711399).BODY()

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Primus Solution



Solutionbuilder - DCPS print jobs remain in starting state with an LNI16 network printer

Date	User	ID	Subject
Fri May 17, 2002 2:22:16 PM W. Europe Daylight Time	rtimann	1021638136	set obsolete

Solution Comment

Date: Fri May 17, 2002 2:22:16 PM W. Europe Daylight Time ID: 1021638136
User: rtimann [Ralf Tilmann]
Subject: set obsolete
Comment: no solution

OK Cancel Help

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KCS in Post-merger HP



- Knowledge Centered Support will continue
- Transition to one common Knowledge Management infrastructure
- Integration of KM tools into the workflow
- Use of systematic knowledge capture and re-use
- Establish one Content Repository with input from
 - Workflow
 - Content submittal
 - Heavy authoring
- Result:
 - Standardized KM platforms, processes, procedures and culture



- Any questions?

