

## Motorola Excels At Service Through ASC Web System

Motorola's Paging Products Group (PPG) needed an efficient method of providing its Authorized Paging Service Centers (ASC) with the warranty and repair status of pagers. PowerVision developed an e-Business application to integrate the legacy data and give ASCs easy, independent access to the status information. As a result of PowerVision's web-enabled solution, Motorola has substantially improved the quality of customer service by making information available on demand while simultaneously reducing operating costs.

### Inefficient Manual Process

Until recently, ASCs requiring the repair or warranty status of a pager contacted Motorola directly by phone for the information, or submitted written requests for the system data via fax or e-mail. Motorola's process to retrieve the system data involved the manual input of serial numbers, a manual review of the statuses, and manual report preparation to satisfy the ASC request. At times the requests for warranty reports demanded a lookup of the warranty status of thousands of pagers, requiring the manual construction of an ASCII file containing the serial numbers. The ASCII file was then submitted to an application that would construct the warranty report. Once the warranty or repair reports were constructed, they would be faxed or e-mailed to the ASCs.

The manual process of providing warranty and repair information to ASCs was terribly inefficient. The cycle time was too high, there was too much manual intervention—resulting in a high incidence of human error—and operating costs were much too expensive.

#### Business Area:

- Service Center

#### Key Technologies:

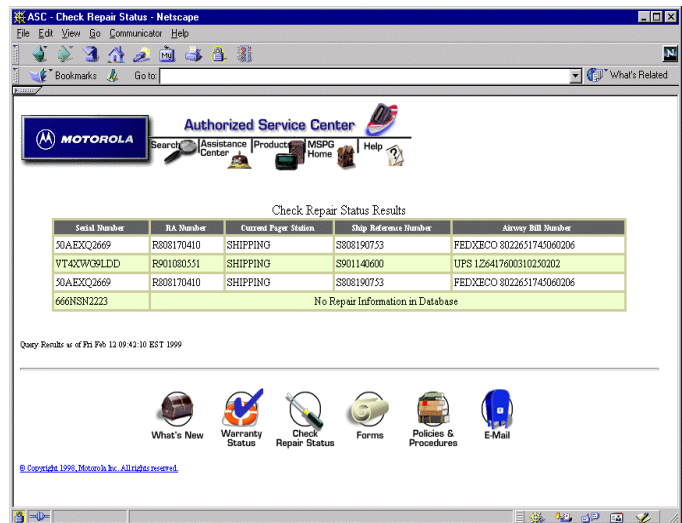
- Java
- C++
- CORBA
- Progress 8 Database
- ESQ/L/C
- Netscape Enterprise/Directory/Proxy Servers
- Web Application Services
- LDAP

#### PowerVision's Role:

- Design
- Implementation

### Automated Web-Based Solution

PowerVision provided a web-based solution to the problem by integrating the legacy data into a web-enabled application. With the new web-based system, registered ASC users anywhere in the United States can look up the repair or warranty status of a pager, at any time, with up-to-the-minute results. ASCs submitting thousands of serial numbers for a warranty status report are

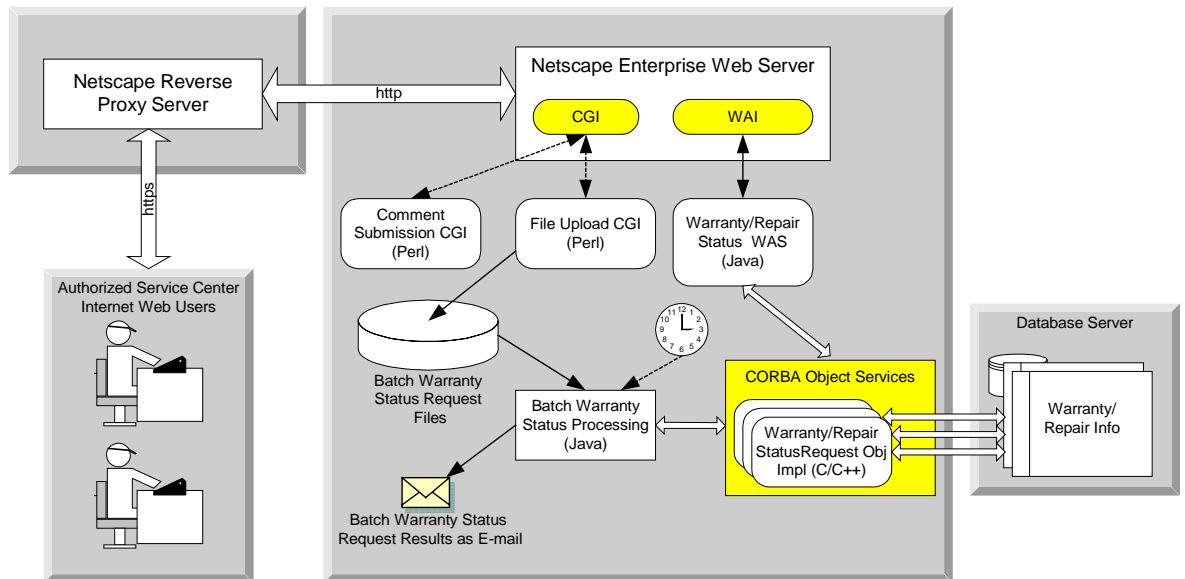


provided a mechanism to upload a file containing the serial numbers. A report is constructed automatically and e-mailed directly to the ASC user. This highly efficient web system also provides a mechanism for user feedback, and offers provisions for downloading everyday operational forms, spreadsheets, and manuals.

**Authorized Service Centers for Motorola Pagers no longer wait days for the repair or warranty status of a Pager now that the information has been made available to them immediately via the World Wide Web.**

The ASC web system uses Netscape Enterprise Web server to serve content to the users. Perl-based CGI scripts are used for handling user comment submissions and the upload of ASCII files containing serial numbers. A Web Application Service (WAS) is used for handling user requests for pager repair and warranty information. The WAS, a CORBA/IIOP based service, accepts requests from the Web server for constructing warranty and repair status web pages. Each request running as a separate thread on the WAS obtains the repair and warranty information from the Warranty/Repair CORBA services, and builds the results web

pages. The Warranty/Repair CORBA-based Services contain the business logic and database access rules for interaction with the database to obtain the repair and warranty information. The daemon for Batch Warranty File processing scans for any warranty serial number files uploaded by users, constructs a report on the warranty status of pagers, and e-mails the report to the user who submitted the request.



As a result of PowerVision's on-line solution, the everyday costs of providing repair and warranty information have essentially been eliminated. The long cycle time no longer exists; accurate repair and warranty information for Motorola pagers is available the instant an ASC user needs the information.