



Sprint PCS

Customer Profile

Application Overview

The purpose of the Correspondence Management System (CMS) is to provide call center advocates, located in both the U.S. and India, the ability to process customer correspondence and contracts mailed or faxed-in from Sprint PCS customers and field offices, respectively. The CMS workflow consists of the following steps:

- ACS (Sprint PCS's electronic mailroom vendor) receives and opens all customer correspondence. The documents are scanned into the system, assigned a document type based on the content, sorted, and indexed with customer information (Mobile Directory Number (MDN) or Account Number) from the document. The documents are then FTP'd to Sprint PCS.
- Once documents are imported into the CMS workflow, the MDN and Account Number are validated against Sprint's billing system. If a match is found, the documents are auto-populated with additional customer data retrieved by the validation and assigned the appropriate priority based upon document type. Documents are then forwarded to the CMS Processing application.
- Contracts are faxed-in and processed by a stateless, web-based Fax Review application and forwarded to the processing application.
- The CMS Processing application, a stateless, thin-client application, enables advocates to read customer correspondence and decide the appropriate course of action, whether it is to contact the customer directly (if the current time falls within the customer's contact hours) or create a letter from the list of predefined templates to send to the customer. All letter verbiage is automatically checked for spelling and grammar mistakes by a third-party, web-based program before being stored in an XML format and added to the folder. If an advocate changes the MDN assigned to a document, the MDN is validated in real-time against Sprint's billing system. Contract documents, on the other hand, are merely indexed and forwarded.
- If a folder contains a response (letter) to a piece of customer correspondence, the letter verbiage is transferred to a Word document, which is in turn both saved to a pre-defined directory and converted to an image format and added to the folder to be archived.

Benefits

Sprint PCS has been able to realize the following benefits from the new web-based workflow:

- Quicker response time for both internal Sprint PCS users and external call centers (India).
- Web-based letter template creation – enables administrators to create any number of letter templates, complete with associated verbiage, and assign them to predefined categories. Keywords can also be assigned to templates to assist in searching for the correct template to use.
- Web-based spelling and grammar checking.
- All documents are automatically “pushed” to advocates based upon document type, time of day, SLA, and advocate profile.
- Resources are more effectively utilized since call center advocates in any part of the world can participate in the workflow since the workflow is web-based. If a user(s) has finished their normal workload, they can easily be re-allocated to process incoming correspondence.
- The complexity involved in adding new users to a ViewStar workflow is greatly reduced. No client setup is required except for the viewer plug-in, which can be automatically downloaded to the user’s desktop.
- Mobilis Technologies’ web applications are stateless, thereby enabling a user’s application session to automatically reconnect to the next available web server if the server they are currently interacting with goes down or is unavailable. This important feature, developed by Mobilis using COM and XML, enables Sprint PCS to have a truly fault tolerant system and the ability to seamlessly load-balance work between multiple servers (the stateless design prevents an individual server from becoming overburdened during multiple application sessions). Expansion of the system is as simple as adding a new server to the farm.
- A standard web-based solution reduces the amount of traffic on the LAN and WAN. Mobilis Technologies takes this a step further by creating a localized ViewStar application environment on the web client to minimize web server communications. Once the workpacket is opened, the retrieval of images is the only time the web browser communicates with the server. With a standard web application, the browser would have to re-retrieve all the requisite components every time a document is changed (i.e., document types, attributes, etc.). Mobilis’ web framework has also been architected to cache as much information as possible, which reduces the amount of communication needed with the web server (and in turn the ViewStar file and database servers). This was done intentionally since WAN latency and bandwidth were known limitations.
- The web-based solution reduces the complexity currently encountered in ViewStar upgrades (a ViewStar client re-install is no longer required).

Furthermore, the complexity of application upgrades is also reduced since no application executable or special components are needed.

- Provides a foundation for all future web-based ViewStar applications at Sprint PCS.
- Mobilis' web-based applications automatically capture processing statistics. Every time a user has any interaction with a folder, this information is captured in the Mobilis reporting tables. The data captured enables management to produce the following types of reports (but not limited to): total time logged into the application, number of folders processed per day, number of documents processed per day, and the average time to process a document.
- If desired, the web-based retrieval application can be leveraged by other departments which use ViewStar system in the future.

Processing Metrics

- 60 concurrent users in India call center
- 40 domestic users
- 2,300 documents processed/day – entails reading each letter received from a customer and responding to them with either a phone call or a letter.

External System/Application Integration

- Incoming correspondence is processed by ACS and image documents are FTP'd to Sprint PCS and imported into the workflow
- Contracts are received via RightFax
- Attribute data is validated in real-time against Sprint's billing system via IBM MQ Series
- Web-based spelling and grammar checking software
- Letters are FTP'd to an external vendor for mailing

Architecture

- Web farm (2 Windows 2000 web servers) located in Lee's Summit, Missouri
- IIS 5.0
- IE 6.0
- ViewStar 5.2
- Oracle 9i
- Accessed via Internet Explorer directly for Sprint PCS personnel, and through Citrix via the Internet for external personnel

Please contact Jake Hanson at (281)807-3533 (jake.hanson@mobilistech.com) for additional information and references.

