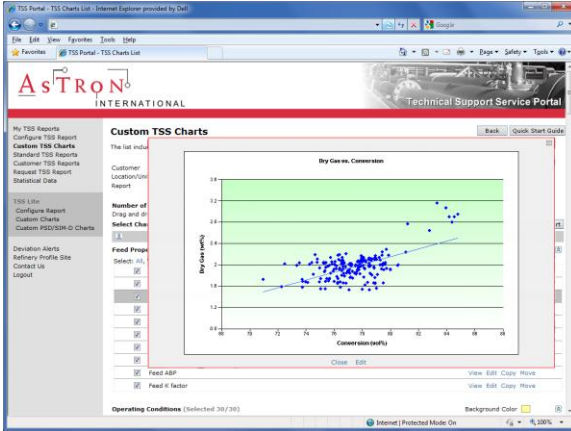


Technical Support Service

A Technical Service Solution for FCC



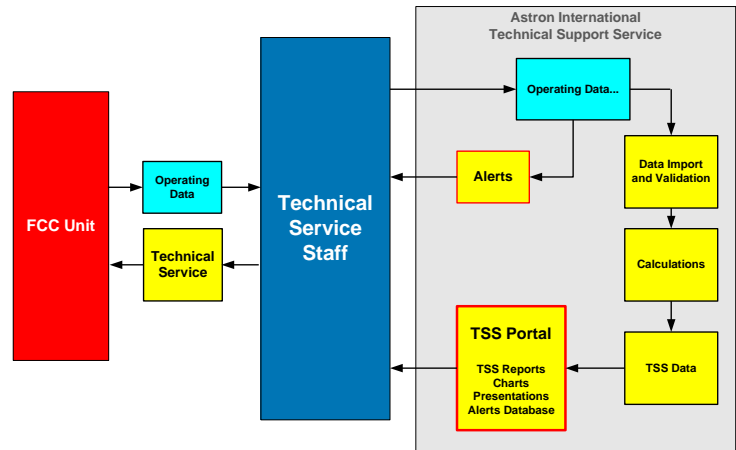
Technical service requires the analysis of complex operating data. Operating units generate an overwhelming amount of data and there are limited human resources to analyze the information generated. More often, data analyses are only conducted in response to operating problems and ongoing optimization opportunities are lost resulting in loss of revenue. Astron International offers Technical Support Service (TSS) to assist refiners and their suppliers in capturing these lost opportunities by providing standardized analysis of operating data on a routine basis.



Benefits of TSS

- Provide standard technical service reports to customers regularly
- Add value by identifying significant issues before the customer
- Consolidate all data (operating, catalyst, product analyses, etc.) into one report
- Save man-hours by outsourcing tedious data related tasks
- Convert data into information and knowledge

In the service, FCC unit operating data are regularly validated and their quality analyzed with respect to mass balance, heat balance, and key operating variables. Good quality data are identified and used to generate technical service reports on a regular basis that highlight key operational points and issues.



Astron Services at Work

Astron developed TSS for FCC using its refining industry domain knowledge, and proven skills with Microsoft's .Net software development and database technologies. Please contact Astron International, Inc. for more information on how TSS can benefit you.



Astron International, Inc.

P.O. Box 218275 Houston, Texas 77218 USA Tel: (281) 589 6600 Fax: (281) 589 7335 www.astroninc.com