

# TraVer



## Automatic Business Process Verification using Danet's *TraVer*

Danet's *TraVer* Transaction Verification System supports automatic verification of your business process chain in order to improve your business process integrity.

*TraVer* is completely rule driven and can easily be adapted to new requirements.

### High Demand for Automatic Verification of Business Process Integrity

In times of stronger competition, weakening markets and delayed launches of new technologies, telecommunications service providers are suffering like all other industry sectors. The strategic priorities of a strong economy, when the main goal was to win significant market share, must now be paid for dearly.

In a start-up phase, billing and other IT environments are built under time pressure to allow speedy implementation and to present invoices quickly. Short term production is the main focus rather than long term development of the business.

With a growing customer base different issues arise: Customer Care must be honed and expanded and Call Centers need to be established and operated.

Afterwards, with the growing complexity of the service offering, further investment is necessary

to install or expand order management systems and all available resources are linked to this.

Nevertheless, even if the required system environment seems to be complete, an important question will come up: are the systems and the interfaces between them working correctly, are the systems reliable enough?

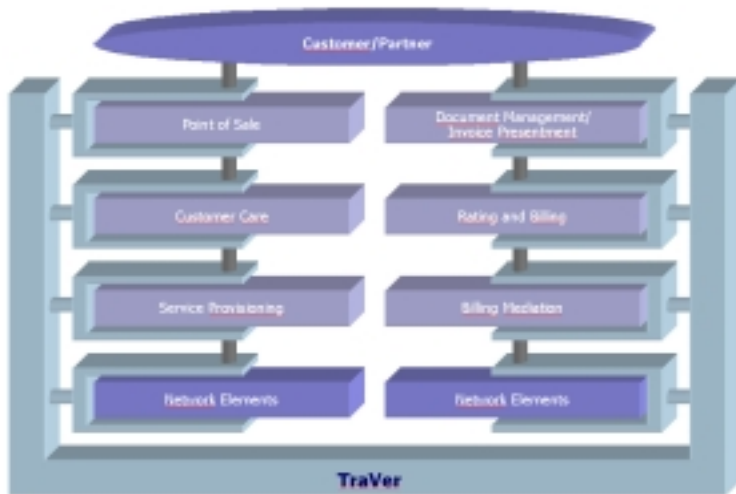
Unreliable system behaviour may cause cash loss while incorrect system behaviour may lead to dissatisfied customers. These facts are driving the demand for automatic verification of business process integrity.

Especially telecommunications service providers have a high demand for verification of the service provisioning chain and the whole billing chain starting from the network elements via mediation, rating and billing up to document management, bill production, etc..

Powerful transaction verification tools are necessary to provide all means for efficient and automatic verification of business process integrity.

## Danet's Solution – Automatic Business Process Verification through TraVer

Danet's Transaction Verification Tool *TraVer* allows telecommunication service providers to verify the whole business process chain of



customer care and service provisioning as well as the mediation and billing chain. Verification consists of four main steps:

- Data Collection from Observation Points
- Data Normalisation and Pre-Processing
- Data Analysis
- Reporting.

## TraVer – Automatic Verification in Four Steps

*TraVer* provides efficient means to define observation points from which data is to be collected for verification purposes. *TraVer* supports collection of files (xDR files, logfiles, etc.) via standard protocols like FTP, FTAM and nfcscopy. Additionally *TraVer* is able to collect single events via e. g. CORBA, CMIS, HTTP, LDAP, RPC, RMI, SNMP, SOAP, SQL, SS7, TCP/IP, TELNET, UDP/IP. A large set of data formats received from the observation points like e. g. ASN.1, ASCII, Binary, CSV, EDIFACT, IPDR, MML, TAP, TLV, XML can be interpreted by *TraVer*. Of course *TraVer* is able to handle real "live data" from the productive business systems

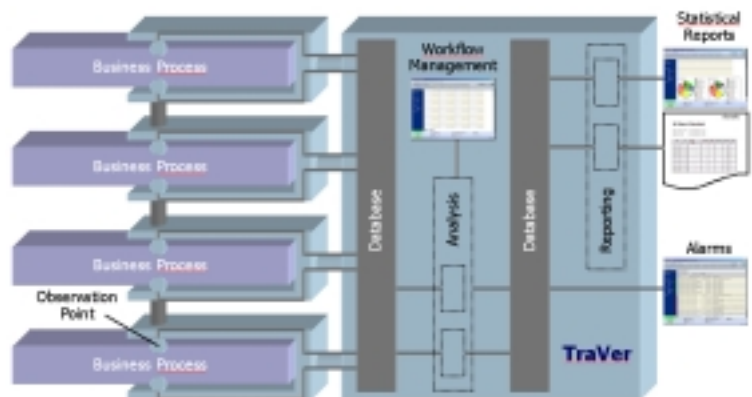
as well as data generated by test data simulators.

During Data Normalisation the data collected from the observation points is converted to an internal data format. Afterwards selected Pre-Processing steps can be initiated like filtering, enrichment, merging and correlation – further steps can easily be added. Also simple rating and billing scenarios can be configured and executed by *TraVer*. In case of complex rating and billing verification scenarios *TraVer* allows to integrate and control external rating and billing engines (e. g. danet C.I.S.S.). All data provided by Pre-Processing is stored in the database for further Analysis.

Analysis is the heart of *TraVer*. The Analysis module contains a rule based Workflow Engine (State Machine) providing flexible and efficient means for verification of complex business process scenarios. The analysis result is stored in the database as well. If the Analysis module detects critical situations – if e. g. pre-defined thresholds have been reached

– it can directly cause an alarm on the *TraVer* web GUI or send remote alarms via e. g. email, SMS or SNMP.

Last but not least based on the Analysis result the Reporting module allows to provide statistical reports – consisting of tables and charts – via the *TraVer* web GUI. Reports can be generated automatically or by user request.



Danet's *TraVer* is available for all leading UNIX environments like SUN (Solaris), HP (HP-UX, Tru64), IBM (AIX) and Intel/AMD (Linux).

**Danet GmbH, Business Unit Rating & Billing,  
Gutenbergstr. 10, D-64331 Weiterstadt, Germany  
Phone +49- 6151-868- 485,  
Fax +49- 6151-868- 663,  
<http://www.danet.com>**

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