

RFQ de Billing Convergente

Prova de Conceito - PoC

Para a TNL PCS S.A Proposta da COMVERSE do Brasil

Baseada na solução Comverse® ONE™ de Tarifação de Pós-pago e Gerência Ativa de Cliente



Comverse[®] ONE[™]
Billing & Active Customer Management[™]

making
YOUR_{network}
smarter

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Índice

RFQ de Billing Convergente	1
Prova de Conceito - PoC	1
Para a TNL PCS S.A Proposta da COMVERSE do Brasil	1
1 Introdução	6
2 Agenda	6
3 Audience	6
4 Day 1	7
4.1 Product Overview and General Configuration	7
4.2 Arquitetura da Solução	9
4.3 Administração e Operação da Solução e Gerenciamento de Catálogo de Produtos/Serviços	10
4.3.1 Gerenciamento de Catálogo de Produtos/Serviços	10
4.3.2 Main benefits of the unified single model	11
4.3.3 Main benefits of the Product Catalog Application & Architecture	11
4.3.4 Product Catalog Functional Architecture	12
4.3.5 Product Catalog Integration with Other Components	14
4.3.6 Product Catalog	14
4.4 Questions Day 1	14
4.4.1 Incremental Rating for Corporate Accounts	14
4.4.2 Billing Cycles and Hot Billing	15
4.4.3 Bill-Shock - DMM Option	15
4.4.4 Product Catalog as part of the Oi Master Catalog	15
4.4.5 Febraban Invoice Format	15
4.4.6 Re-rating of Usage	Error! Bookmark not defined.
4.4.7 Format of the Invoice is HTML	15
4.4.8 Bill Analyzer with SAP	Error! Bookmark not defined.
4.4.9 Mobile Balance	Error! Bookmark not defined.
4.4.10 HA and DR	16
4.4.11 Migration Support	16
4.5 Summary and Action Items from Day 1	16
5 Day 2	17
5.1 Product Catalog Live System Configuration	18
5.2 PCAT Configuration of one Oi product chose from Oi Website	18
5.3 Bill run Process	20
5.4 Invoice Designer Process	20

Descrição da Oferta de Solução Técnica para Oi

5.5	Cenário 1	21
5.6	Invoice Designer Live System Presentation	22
5.7	Work Flow tool Presentation	22
5.8	Módulo de Impostos Brasileiros - Conhecimento Local, legislação, regras fiscais, regras da Anatel	23
6	Day 3	24
6.1	UPM – Unified Platform Manager Presentation	24
6.2	Cenário 2	26
6.3	API Demo	26
7	Day 3	27
7.1	Cloud Computing	27
7.2	Scenario 3 presentation	27
8	Arquitetura Técnica	29
9	Sobre a Comverse	31

1 Introdução

The objective of this document is to comply with the Delivarable Section of the PoC and address and summarized the quations and answers noted during the 5-day Demo.

2 Agenda

The numbers of days as show on the original agenda were reduced since Comverse successfully comply with all the cases in 4 days. In addition, we were able to cover additional topics and technologies to be used by Oi, but requested to be covered during the PoC. The additional topics were C-1 Invoice Generation Tool, WorkFlows, Bill Shock prevention and Policy Manger, Real Time Notifications, API and Android Applications, M2M and Cloud. The modified agenda is provided below:

	Manhã (9:00 – 13:00)		Tarde (14:00 – 18:00)
Dia 1	Visão Geral do Produto - Configuração Geral - Arquitetura da solução proposta		Administração e Operação da Solução e Gerenciamento de Catálogo de Produtos/Serviços
Dia 2	Cenário 1		Cenário 1 – Invoice Generation Tool
Dia 3	Cenário 2 and 3		Desempenho do Sistema (Benchmark), Real Time Notifications, Android Applications via API.
Dia 4	M2M and Cloud		Cenário 3
Dia 5	No Activity		No Activity

3 Audience

Participants from Oi:

- Felipe Brito Rodrigues – Technical IT
- Marcelo Nogueira – Technical IT
- Fabiana Marçal – Solution Architecture working for Ricardo Lopes
- Rademaker Artarixerxes Mattos – Business Area
- Marcio De Souza Caroso – IT Manager
- Ricardo Lopes – Solution Architecture Manager

Participants from Comverse:

- Samir Milagre – Sales Director Southcone
- Andre Roja - Director Brazilian Project
- Yaki Azoulay – Senior Sales Manager and PoC Director
- Gabriel Frederico – Senior Project Manager Assigned to Oi
- Juan Antoreña – Senior Sales Support for Brazil
- Palani Vel – Chief Architect and CTO Director
- Ivan Bril – Account Manager

4 Day 1

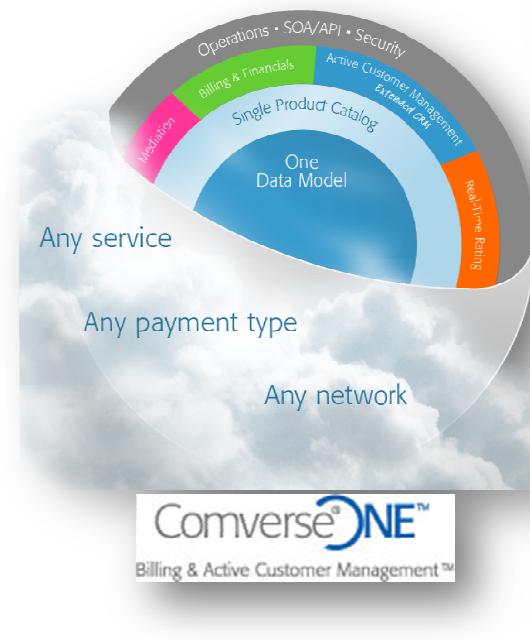
During the first Day the following topic were addressed:

- Converse Corporate Presentation – Samir Milagre
- Converse One Overview – Andre Roja/Gabriel Frederico
- PCAT Presentation – Gabriel Frederico
- PCAT Live System Presentation – Yaki Azoulay

4.1 Product Overview and General Configuration

Converse ONE enables service provider to monetize from network, to customer to cash – for any service, any type of content and over any type of network. Converse ONE focuses on the customer and the customer experiences and strives to deliver a pro-active approach to managing and delivering value to the end user. AND, Converse ONE promises deployment efficiencies through its innovative architecture that includes one data model, a single product catalog and one operations and security approach across all systems components. Converse ONE was built from the ground up on an open framework so not to constrict and limit service providers in their systems evolution and business growth. The open framework, based on the one foundation provides service providers with freedom and flexibility.

Converse ONE will serve as your foundation for the future. Based on one foundation, you could choose your own deployment path and decide which components you would like to implement today, and which tomorrow. Converse ONE enables you the choice to evolve at your own pace in a way that will provide solutions, not add to your legacy migration issues or changing business needs.



Speeds Time to Revenue

- Comprehensive Monetization: from network to customer to cash for any service, any content, any network
- Active Customer Management
- Documented—and TMF Frameworkx certified business processes lower deployment time & risk and increase efficiency

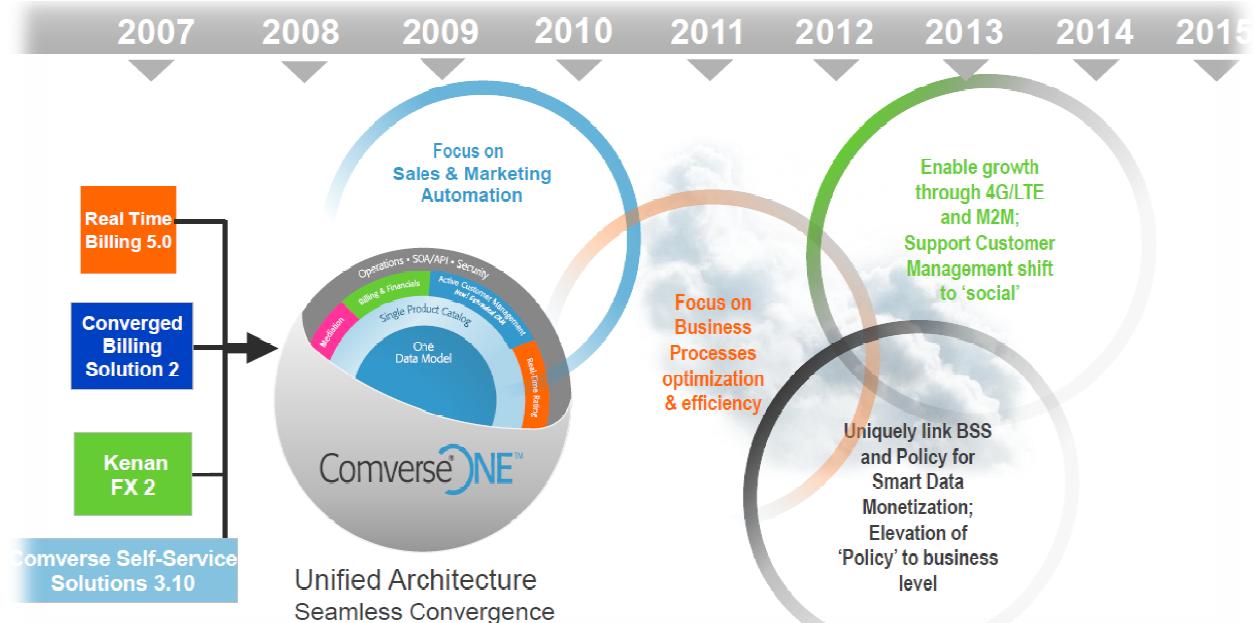
Innovation In Architecture

- One Data Model
- Single Product catalog
- Open APIs
- One Operations & Security Approach

A Foundation for the Future

- Choose components to meet today's needs
- Evolve at a pace that supports legacy migration issues or changing business needs

Comverse ONE- Continually Evolving Since 2008



In the Appendix A a presentation on ComverseOne Overview is presented.

4.2 Arquitetura da Solução

A fim de atender o conjunto completo de requisitos da Oi, a Comverse propõe uma solução que consiste da solução Comverse ONE de Tarifação de Pós-pago e a solução Gerência Ativa de Cliente incorporadas num único sistema, fornecendo uma oferta holística de pré-pago, com o melhor das funcionalidades disponíveis.

A arquitetura da solução proposta e sua relação com a rede Oi e ambiente corporativo estão ilustrados abaixo.

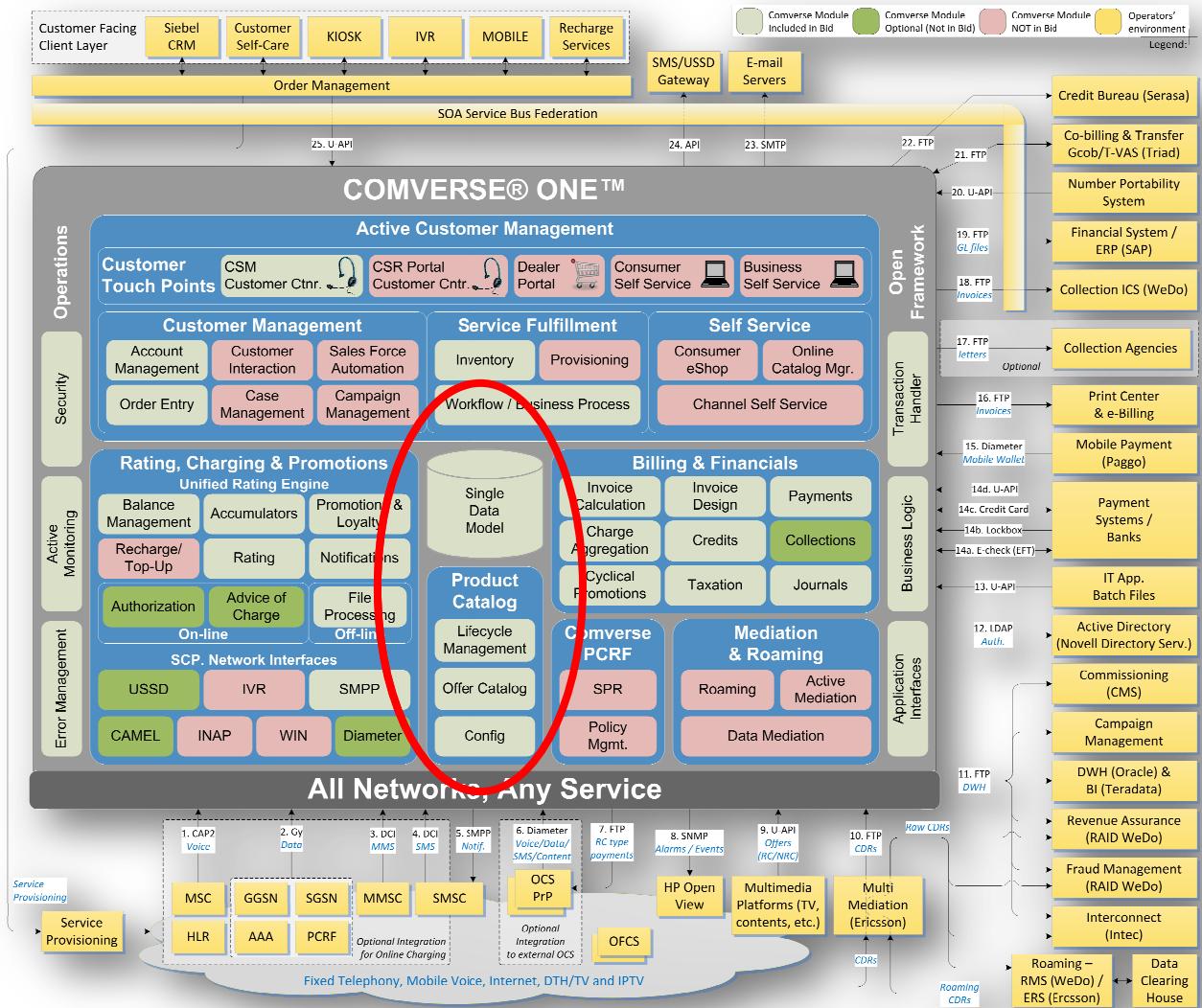


Figura 1 – Arquitetura da Solução

Na arquitetura de solução acima, os componentes estão coloridos conforme segue:

- Os componentes em cinza são componentes Comverse incluídos no escopo da solução proposta.

Descrição da Oferta de Solução Técnica para Oi

- Os componentes em verde são componentes Comverse opcionais, que são partes integrantes da solução Comverse ONE, e que podem ser adicionados à proposta. Mas estes não estão incluídos na solução ofertada pela proposta atual.
- Os componentes em vermelho são componentes Comverse que não estão incluídos no escopo da solução proposta.
- Os componentes em amarelo na figura acima são aplicações da rede da Oi com as quais a solução Comverse será integrada através de várias interfaces, descritas na tabela da página 11.

A solução Comverse ONE apresentada com a arquitetura na **Figura 1 – Arquitetura da Solução** está de acordo com a arquitetura multcamadas, com a Camada Cliente no topo, camada Lógica de Negócio no meio e aplicações Aplicação / Base de Dados na camada de baixo. Usando um ambiente de arquitetura voltada a serviços (SOA – *Service-Oriented Architecture*) de n camadas, a Comverse atinge um alto *throughput* e um ambiente SOA altamente disponível que habilita integrações eficientes dentro das aplicações do sistema e entre sistemas de terceiros.

A solução proposta Comverse One será configurada e implantada para estar pronta para o lançamento. Grupos alvos de clientes serão migrados para a nova plataforma pós-paga, vindos das plataformas existentes de tarifação da Oi. Especificamente, os clientes nesta migração cairão em uma das seguintes categorias:

- Clientes pós-pagos requerendo as seguintes capacidades:
 - Valoração e cobrança *off-line* pelos serviços.
 - Operação cíclica de tarifação para a produção de faturas.

4.3 Administração e Operação da Solução e Gerenciamento de Catálogo de Produtos/Serviços

4.3.1 Gerenciamento de Catálogo de Produtos/Serviços

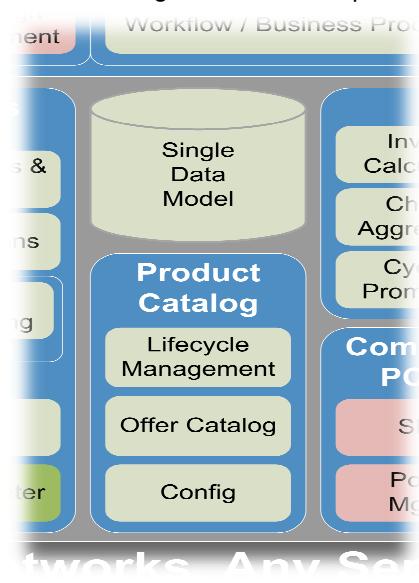
The Product Catalog acts as a single interface for configuring the business offerings that are ultimately provisioned and managed across the Comverse ONE solution, thus enhancing the operator's efficiency. It enables quick and accurate creation and management of offers, bundles, plans, and terms, as well as all underlying data that is ultimately involved in the operator's configuration and provisioning of service. In addition to enabling the configuration of entities, Product Catalog is the single point access for managing all data versions. Product Catalog provides a holistic view of all relevant data and enables marketing-offer personalization and segmentation. Dramatic reductions in operator product-development cycles can be realized.

Not only does Product Catalog eliminate duplication of efforts, it also facilitates coherence and enhances lifecycle management and eases operational constraints. Its easy-to-use object oriented interface, enables you to achieve faster turn-around time from product conception to market availability.

The Product Catalog is Central point of Product configuration for Rating, Billing & Active Customer Management

- Unified single model converging the rating and billing environments

- Multiple configuration tools merged into one unique Product Catalog Application



4.3.2 Main benefits of the unified single model

Marketing and Product Flexibility

- Complete convergence of offerings, across all lines of business and payment models
- Branding / VNO support
- Segmentation keys and product rules used for market offer profiling and differential pricing
- Supports seamless transition to converged market offers from prepaid or postpaid

Improved efficiency and cost-effectiveness

- 'Building Block' concept: billing & rating objects are easily re-used to define marketing offers & bundles
- Re-use maintains coherency, improves accuracy and reduces risk of revenue leakage

4.3.3 Main benefits of the Product Catalog Application & Architecture

Ease of use

- Marketing-driven user interface for quick and coherent product and rule definitions

Lower operational costs and improved quality

- Single "point of truth" – configuration in Product Catalog applies across Comverse ONE
- Full lifecycle management that seamlessly integrates with test and production environments
- Supports multiple concurrent users (Roles & Scopes managed via Security Server)

Layered Model and functional building-block approach

- Layers correspond to functional domains
- Users are interested in differing domains and can be more efficient without “clutter” from other layers
- Basic Infrastructure Layer is typically only modified when adding new network-related features
- Service Layer changes generally apply when adding a new service into the solution
- Graphical view and easy composition of entities
- The majority of product roll-outs concern promotions and discounts or repackaging of existing features and services into new products – i.e. Bundles, Offers, Plans & Terms
- Product Catalog Application makes definition of these products simple and efficient

4.3.4 Product Catalog Functional Architecture

The following are the main points from the Architecture:

The GUI

- A Java-based graphical user interface
- Can be deployed locally or remotely via secure connection.
- Security services handle user authentication and drive role and scope authorizations

The API:

- The online Product Catalog API is part of the Converged Billing Suite's Single API.
- Uses information in the Online Catalog and primarily provides product selection and browsing services for CSM and self-service.

Off-Line Catalog

- The GUI provides an easy-to-use interface for managing data in the Offline Catalog.
- Can contain multiple versions per reseller

On-Line Catalog

- Information from the Offline Catalog is propagated to an online catalog.
- Multiple propagation target Online Catalogs - to support distinct test and production environments

Service Versions

- Included in the Offline Catalog
- Holds operator-wide service definition and system configuration information that does not vary per reseller.

Live Versions

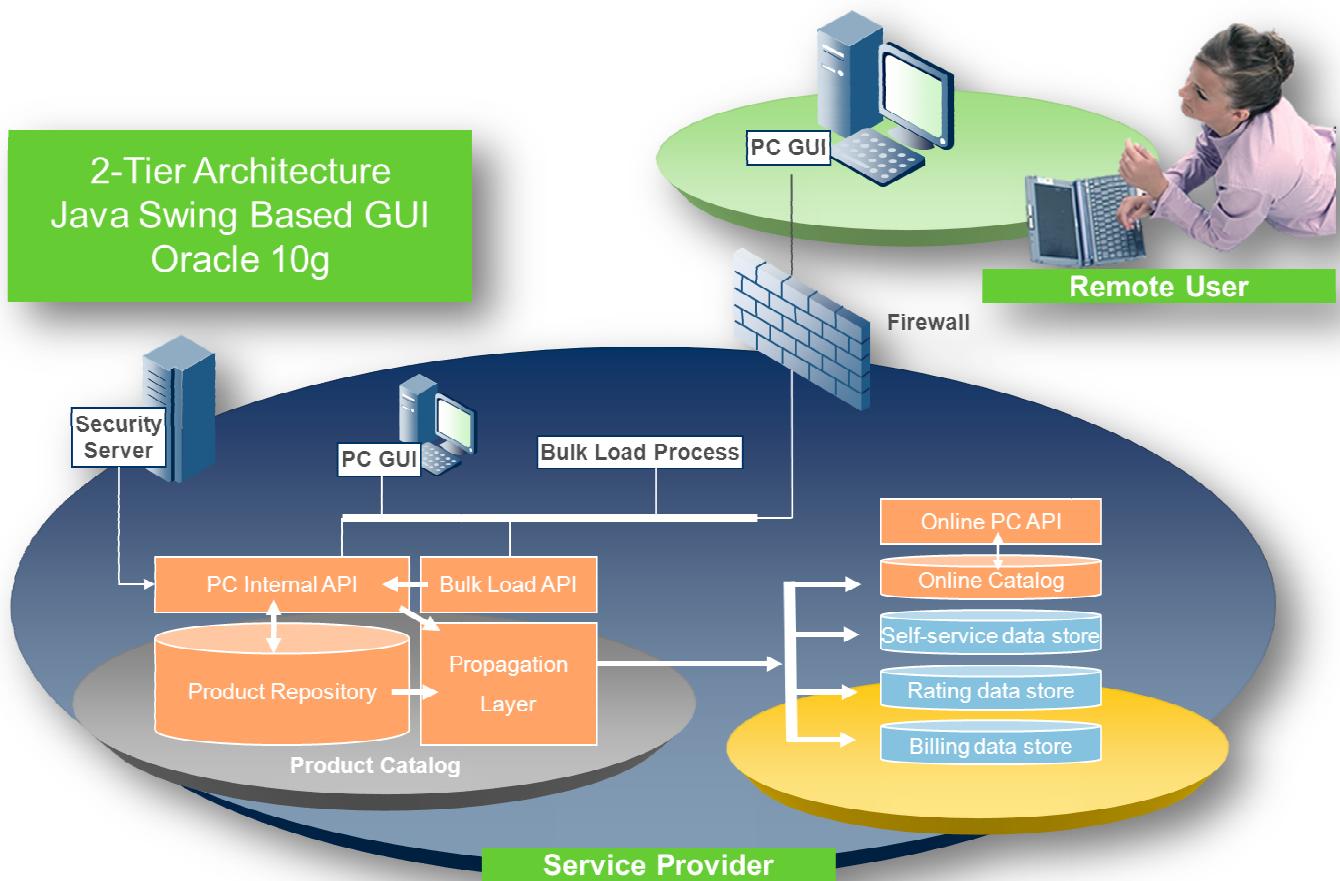
- The Online Catalog contains current live versions and may contain future-dated versions.
- Only one service version and one version per reseller can be live at any given time.

Manageability and APIs

- Basic APIs for retrieving marketing offers/bundles and loading basic rating/charging data
- Support for bulk changes to bundles & offers
- Keyword based search capability across all PC entities
- Multi-lingual support (Internationalization and Localization)

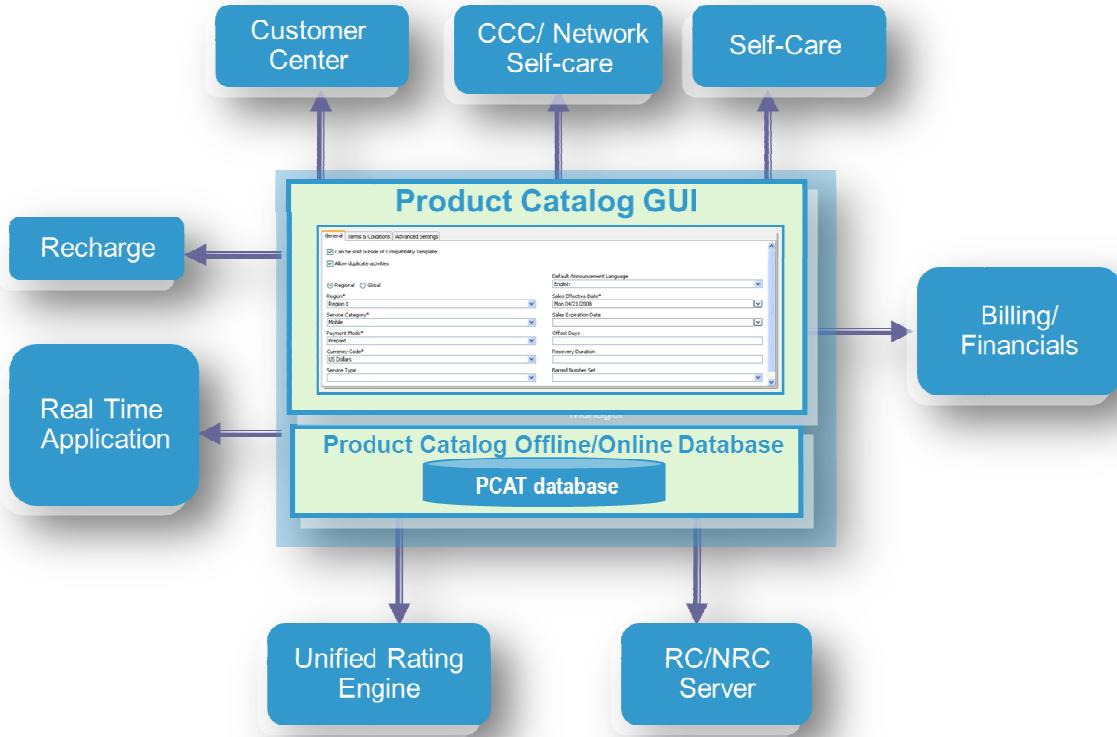
Security, Auditing, and Extensibility

- Separate roles/privileges for create, view, modify, and version state transition
- All operations that change data or version state are audited
- Existing tables can be extended and new tables can be created, data for which can be populated via PC GUI



4.3.5 Product Catalog Integration with Other Components

Online Product Catalog API is part of the Unified API. It mainly provides product selection and browsing services for Customer Center and self service GUIs, and also allows external processes to modify data within the Offline Catalog. API retrieves catalog data from one of the CUST databases.



4.3.6 Product Catalog

Please refer to the **Appendix “A”** for complete Product Catalog Description.

4.4 Questions Day 1

4.4.1 Incremental Rating for Corporate Accounts

This is the case when usage accumulation is required to apply discount rate depending on the amount of usage. This is the case for some Corporate Accounts in Oi.

Converse One complies with this requirement utilizing the Promotion Plans. A promotion plan has three functional parts: an accumulator, a unit credit (bonus) plan, and a discount plan.

Discounts and bonuses are granted after a certain number of points accumulate. Accumulation is based on activity. An accumulator counts points the customer collects for such activities as events, usage, money spent, or recharging a balance (adding money to it); the accumulator adds points for all these activities. After accumulating a certain number of points, the user receives an award or discount for the activity. For example, after 1000 SMS, a 10 % discount is offered for all current calls as well as future calls or just the rate of the SMS is reduced.

4.4.2 Billing Cycles and Hot Billing

Converse One Supports two kinds of schedule bills – Cyclicals and Interrim bills. The cyclical bills occur on a regular schedule. Interim bills can be scheduled for any time before the next cyclical bill through the Customer Center interface. Hot bills (initiated by the Customer Center interface and handled by BIP in Flash mode) are always interim bills.

4.4.3 Bill-Shock - DMM Option

Bill-Shock Prevention for roamer & local subscriber's information can be found in **Appendix “B”**

4.4.4 Product Catalog as part of the Oi Master Catalog

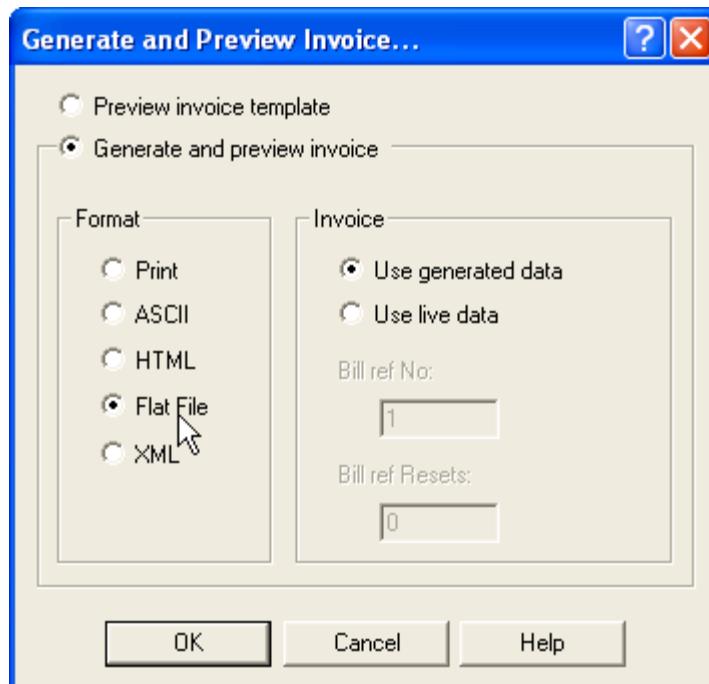
A separated Product Catalog session with Oi Architects will set up to understand the requirements for the Oi Master Product Catalog

4.4.5 Febraban Invoice Format

Converse One Invoice Designer can easily create or edit the invoice format and run the invoice generator to preview invoices, reduce the time between design decisions and implementation of the new invoice format and create multiple invoice formats and categor them by customer and by service — business, residential, Internet, wireline, and including create a dedicated format for Febraban Government sector.

4.4.6 Format of the Invoice is HTML

The Invoice Designer handles many format outputs, including HTML and PCL, and they can be configured easily using the GUI, as follows:



4.4.7 HA and DR

Showed concern with some process of current Kenan Installation that cannot run in parallel

4.4.8 Migration Support

Align Comverse implementation plan with the Overall Oi Diagram Plan and not with the RFQ, the main change is that the first roll-out will be without any migration, just for new customers and there will be two additional migrations moving all other customers to the new solution, he basically asked if there will be cost increase with this changes

4.5 Summary and Action Items from Day 1

The Comverse ONE solution offers ease and flexibility for operators wishing to transition from a prepaid-only or postpaid-only environment to converged products. Product Catalog facilitates this by adapting automatically to the Comverse ONE solution environment and requires no additional configuration when an operator moves from prepaid-only or postpaid-only products to a converged market offering. An operator can therefore migrate to Comverse ONE CV Converged Billing derivative with a prepaid-only or postpaid-only market offering and progressively introduce convergent offerings.

A Product Catalog session with Oi Architects will set up to understand the requirements for the Oi Master Product Catalog

5 Day 2

During the Second Day the following topic were addressed:

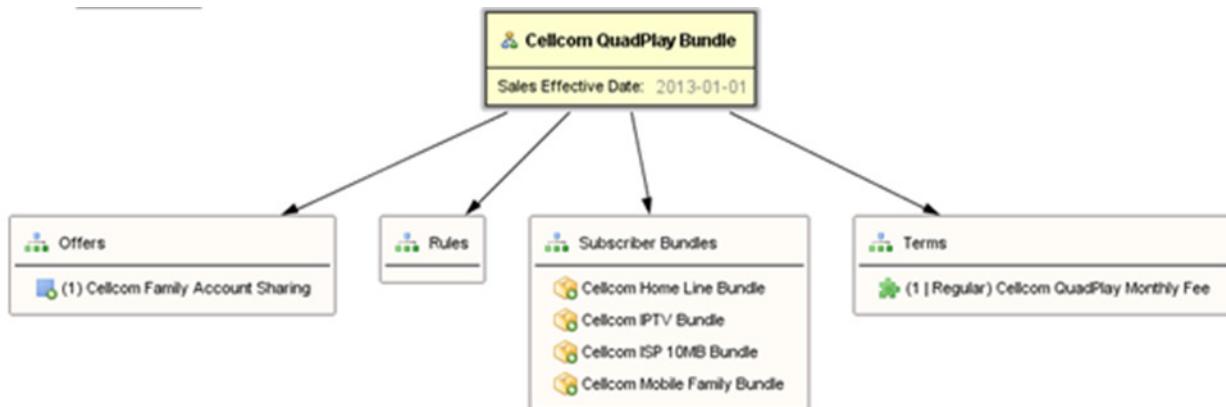
- PCAT Live System Configuration demonstration
- PCAT Configuration of one Oi product chose from Oi Website
- Scenario 1 execution – August Month Billing Run
 - Usage Generation
 - BIP process
 - IGEN process
- Invoice Designer Live System Presentation
- Scenario 1 execution – September Billing Run
- Adjustment Creation
- Módulo de Impostos Brasileiros
- Scenario 1 execution – October Interim Bill processing
- Work Flow tool presentation.

Process performed during Day 2

Descrição
Catálogo de Produtos - visão Oi pacote Multiplay Residencial, detalhes em todos os sub-componentes
Configurar uma oferta do site da Oi
Aprovisionamento de um cliente 4-play
Mostrar fluxo da ordem de trabalho no CSM (via Workpoint, incluindo a conclusão etapa manual, etc ...)
Processamento de uso para o mês de agosto
Run BIP
IGEN Roadshow
Run IGEN
Show PDF – Mostrar PDF
2nd usage file - Processamento de uso para o mês de Setembro
Ajuste de crédito de uso
Run BIP
Run IGEN
Show PDF, (2nd run) Processamento de uso para o mês de agosto

5.1 Product Catalog Live System Configuration

A comprehensive description of the Product Catalog was provided, including Multy-play for homeline, IPTV, ISP and mobile.



5.2 PCAT Configuration of one Oi product chose from Oi Website

During this session, a plan was selected from the Web Site.

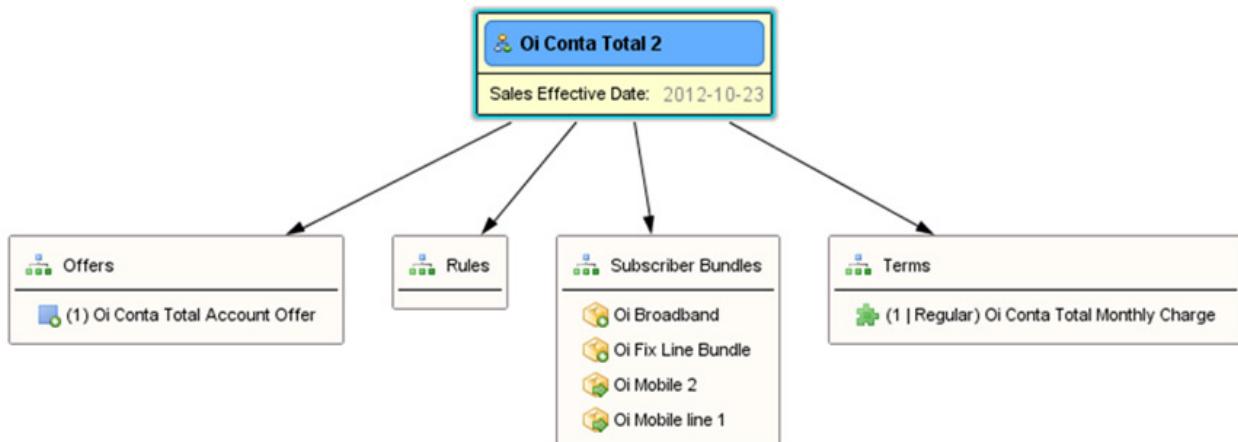
Descrição da Oferta de Solução Técnica para Oi

The screenshot shows the Oi website's product catalog for smartphone plans. The main heading is "pra comprar Smartphone". Below it, four plans are listed:

- Oi Conta Total Light Smartphone**: R\$ 179,00/mês, 50 minutos, Desconto de: R\$ 250,00. Description: 1 linha de celular sem dependente.
- Oi Conta Total 2 Smartphone**: R\$ 255,00/mês, 200 minutos, Desconto de: R\$ 700,00. Description: Quantidade de linhas de celular: 1 titular + 0 participantes do plano falam ilimitado entre si.
- Oi Conta Total 3 Smartphone**: R\$ 355,00/mês, 500 minutos, Desconto de: R\$ 1.200,00. Description: Quantidade de linhas de celular: 1 titular + 0 participantes do plano falam ilimitado entre si.
- Oi Conta Total 4 Smartphone**: R\$ 455,00/mês, 1000 minutos, Desconto de: R\$ 1.500,00. Description: Quantidade de linhas de celular: 1 titular + 0 participantes do plano falam ilimitado entre si.

Each plan has a "Selecionar" button below it. A red circle highlights the "Desconto de:" section for the first three plans.

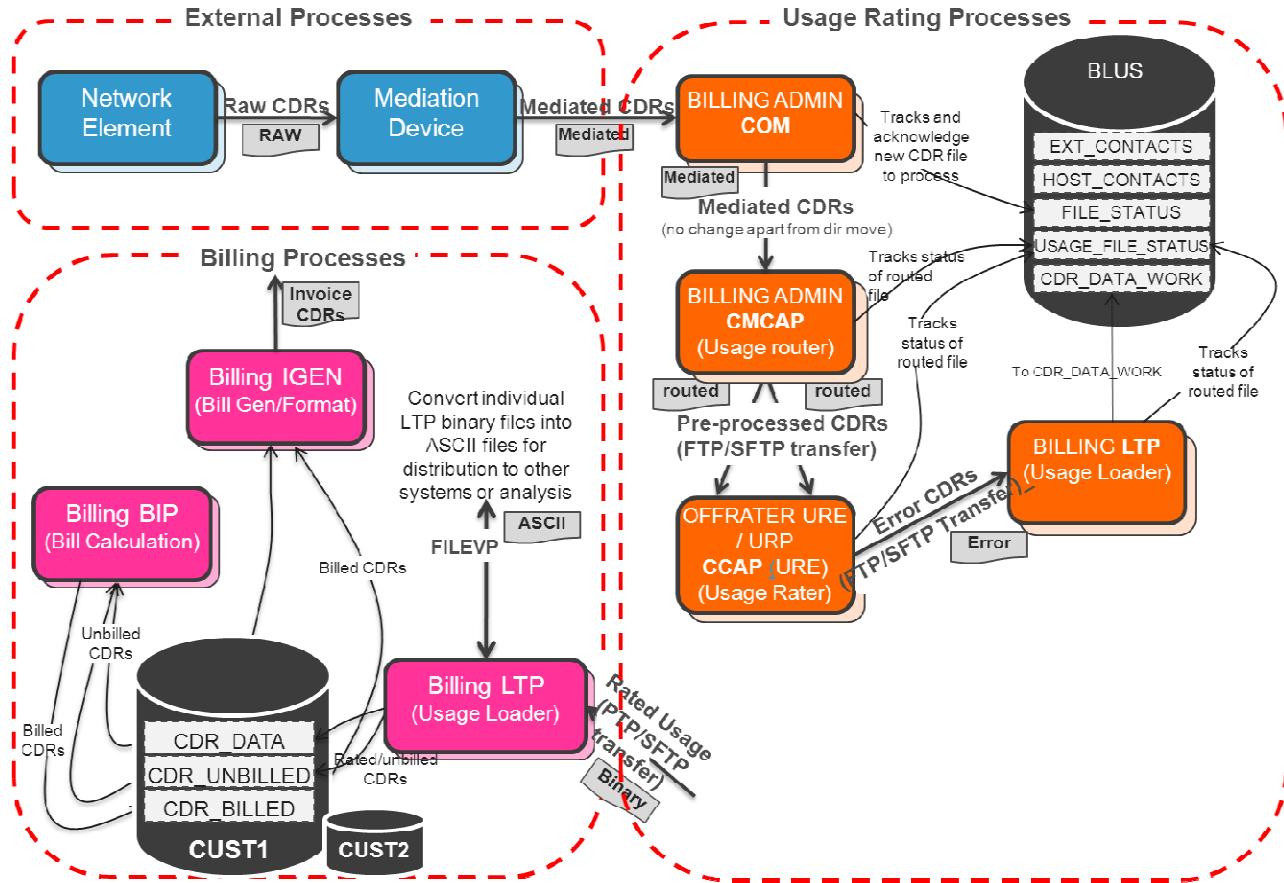
In the Product Catalog and in a few simple steps the Plan was configured – screenshots taken from the live environment as they were configured are below:



5.3 Bill run Process

The following is the billing process for Comverse One.

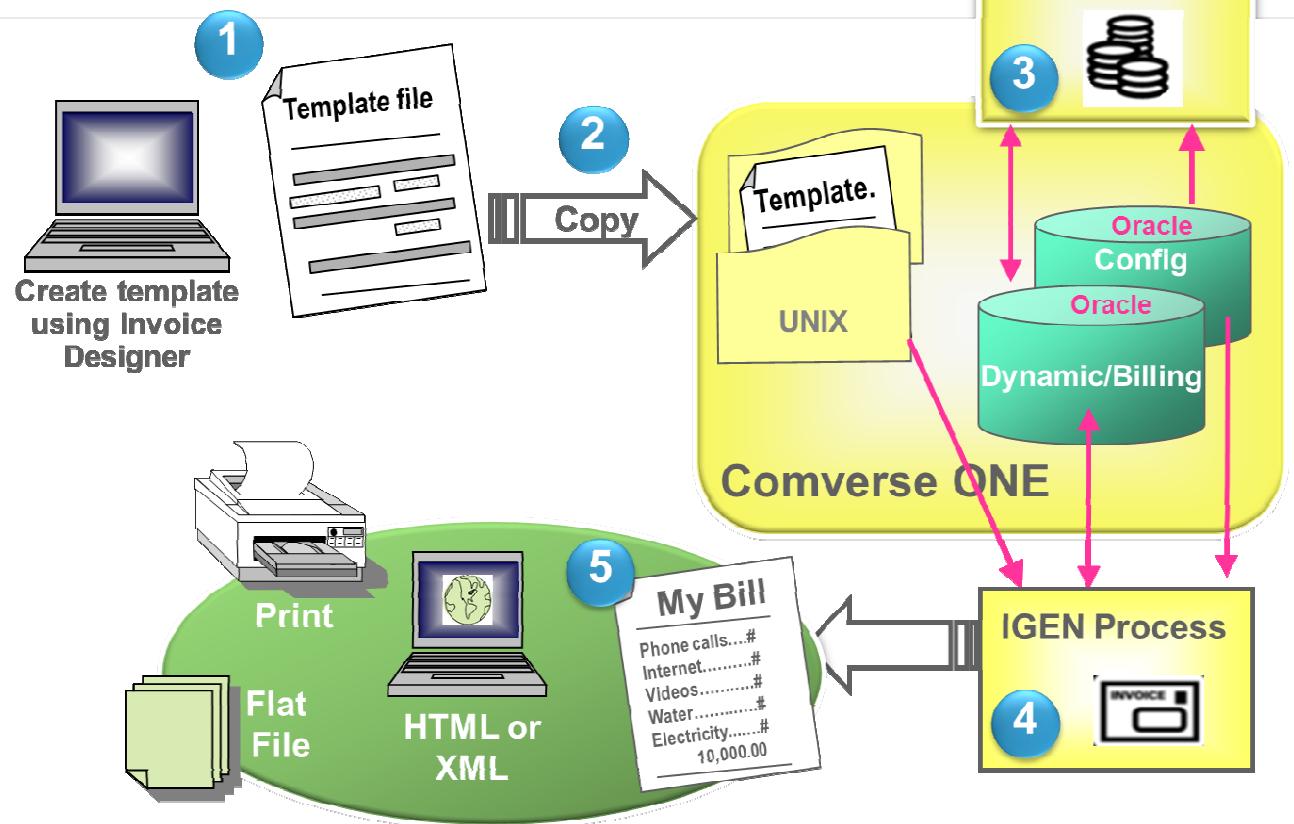
Billing and Financials – Detailed Flow



5.4 Invoice Designer Process

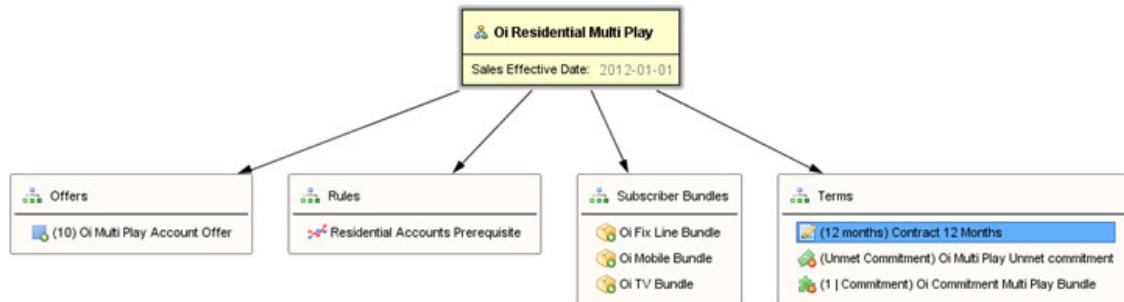
The invoice generator (process name IGEN) resides on the Customer server(s) and reads unformatted bill records written by the BIP. It then creates a formatted bill image based on the bill records and preconfigured format information.

Invoice Processing Flow



5.5 Cenário 1

We have presented the End-to-End case generating usage, running the billing and then the invoice with the Oi layout for Residential. In addition, the 110 cases were successfully performed in accordance with the specification provided during the PoC.



5.6 Invoice Designer Live System Presentation

We have presented the tool on a live environment.

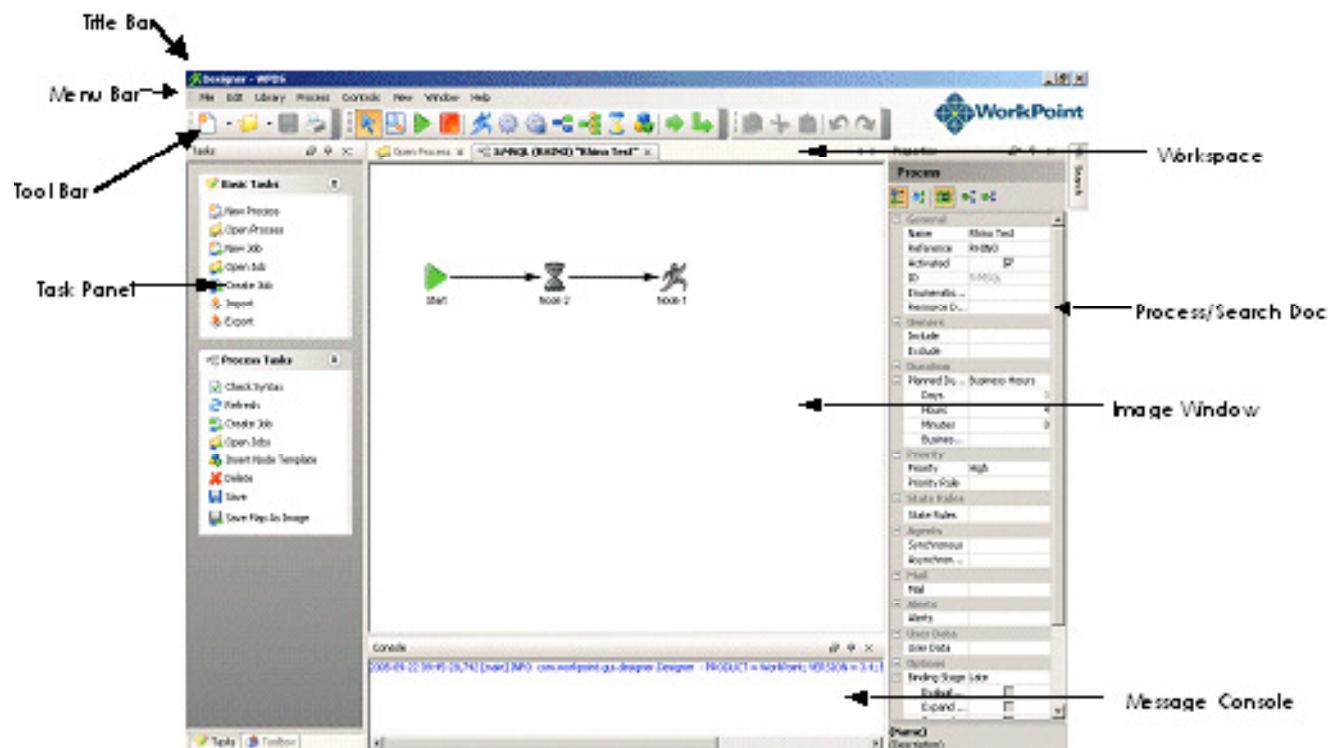
5.7 Work Flow tool Presentation

The WorkPoint Designer provides a graphical interface from which users can define templates or definitions for business processes (i.e. a template for processing a personal computer order). Within WorkPoint, these blueprints are referred to as process definitions. The Designer also enables the user to manage the process instances that are created from the process definitions (i.e.J. Doe's personal computer order). These process instances are also known as jobs. The Designer can display multiple process definition and job windows at the same time.

The Designer is also distributed as an applet, making the Designer functionality available via browser as well. All of the Designer functions are implemented using the WorkPoint Client API. Therefore, all or part of the Designer functionality can be built into other applications.



The following screen capture shows the main Designer window with an open process definition.



5.8 Módulo de Impostos Brasileiros - Conhecimento Local, legislação, regras fiscais, regras da Anatel

Com atuação direta no Brasil e com vários clientes, a Converse possui todo o conhecimento da legislação brasileira, incluindo a parte fiscal, de contestação e portabilidade numérica.

A parte fiscal é tratada por um módulo exclusivo para o Brasil, o Brazilian Tax Package (BTP) que permite cumprir todas as exigências fiscais brasileiras, tais como isenção de ICMS ou qualquer outro imposto isoladamente, ICMS por cliente, fundo de pobreza e etc.

Este módulo implementa o cálculo da forma brasileira dos impostos no módulo principal do sistema, o BIP. Toda e qualquer alteração de alíquota, isenções e etc são feitas sem necessidade de novo desenvolvimento em código, somente sendo necessário configurações no sistema (parametrizações).

A forma de calcular que será implementada segue abaixo, com um exemplo:

Cobrança = R\$ 150.00

PIS = 0.65% (0.0065)

COFINS = 3% (0.03)

ICMS = 28% (0.28)

A taxa total de imposto é igual a R, conforme a soma abaixo:

$$R = (0.0065 + 0.03 + 0.28) = 0.3165$$

A alíquota a ser aplicada é calculada conforme abaixo:

Descrição da Oferta de Solução Técnica para Oi

Alíquota total, A = Cobrança * R / (1 – R)

No exemplo, A = 150 * 0.3165 / (1 – 0.3165)

A = 47.475 / 0.6835

A = 69.4587

Só então podemos calcular a proporção real de cada imposto, conforme abaixo:

PIS = 69.4587 * (0.0065 / 0.3165) = 1.4265

COFINS = 69.4587 * (0.03 / 0.3165) = 6.5838

ICMS = 69.4587 * (0.28 / 0.3165) = 61.4484

Alguns fatos sobre os impostos brasileiros:

Existem dois impostos federais, PIS e COFINS. Esses impostos se aplicam a todas as cobranças, independente de sua natureza.

ICMS é o imposto estadual e o ISS é o imposto municipal. Algumas cobranças possuem um ou outro, mas nunca os dois ao mesmo tempo.

São 27 estados (Unidades Federativas) e mais de 5 mil cidades no Brasil.

Há clientes que são isentos de alguns desses impostos ou que possuem base de cálculo reduzida. Essa isenção pode ser por tempo indeterminado ou ter período de vigência. Todos esses cenários são atendidos pela solução Comverse para o Brasil.

Clientes associados ao governo federal possuem desconto nos tributos calculados. Não há isenção nesse cenário, mas um desconto no final da fatura de tal cliente.

6 Day 3

- Comverse Platform Architecture
- UPM – Unified Platform Manager Presentation
- Scenario 2 – Corporate PoC presentation
- Scenario 3 – Partial Presentation today
- Archiving Process
- API Demo -Integration of Comverse One with a Smart Phone
 - Demo showing the integration via API

6.1 UPM – Unified Platform Manager Presentation

The Unified Platform provides an infrastructure to monitor, manage, and secure the overall Comverse ONE system. With its distributed architecture of Unified Platform Agents and a centralized Unified Platform Manager, the Unified Platform provides a centralized control point to perform operations and administration activities using the Management Shell command line interface (CLI) or the Management Console graphical user interface (GUI).

Descrição da Oferta de Solução Técnica para Oi

Comverse ONE Unified Platform | home - Windows Internet Explorer

http://10.106.106.6:8800/upm/index.jsp?rvn=1

Comverse ONE
Unified Platform

HOME EVENT TASK INVENTORY PROCESS PROVISIONING

Site Alarm Summary

NodeClass	Critical	Major	Minor	Info	Total
ASU	0	2	0	0	2
DGU	0	1	0	0	1
MANAGER	12	6	0	0	18
OFFRATER	0	1	0	0	1
RHT	4	1	0	0	5
SAPI	0	1	0	0	1
SGU	0	1	0	0	1
SLU	1	1	0	0	4

Alarm Summary

Total System Alarms

CRITICAL-17 WARNING-2 MAJOR-14



The screenshot shows a web browser window for 'Comverse ONE Unified Platform | event - Windows Internet Explorer'. The URL is <http://10.106.106.6:8800/upm/event.iface>. The page title is 'Comverse ONE Unified Platform'. The navigation menu includes HOME, EVENT (which is selected), TASK, INVENTORY, PROCESS, and PROVISIONING. Below the menu is a breadcrumb trail: >> Alarm > Monitor > Administration. A sub-menu for 'Action' is open, showing 'Acknowledge' as the selected option. A 'Submit' button is visible. The main content area displays a table of alarms:

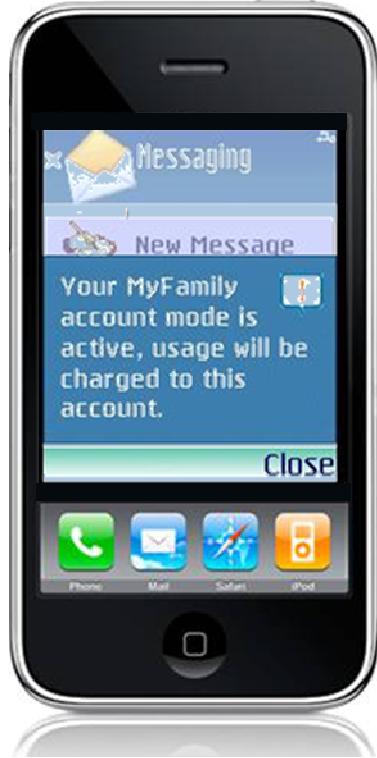
Action	Clear	NodeName	NodeInstance	Event Id	Severity	Ack		
Acknowledge	<input type="checkbox"/>	ctd	SLU	SLU1	10.106.106.16	ALERT_JOB_UNITSTATUS	CRITICAL	<input checked="" type="checkbox"/>
Acknowledge	<input type="checkbox"/>	ctd	RHT	SAPI2	10.106.106.12	ALERT_JOB_BACKUP	CRITICAL	<input type="checkbox"/>
Acknowledge	<input type="checkbox"/>	ctd	SAPI	SAPI1	10.106.106.11	FTP_SESSION_10.210.156.160	CRITICAL	<input type="checkbox"/>
Acknowledge	<input type="checkbox"/>	ctd	SGU	SGU1A	10.106.106.14	ALERT_JOB_IPF_MEAS	CRITICAL	<input type="checkbox"/>
Acknowledge	<input type="checkbox"/>	ctd	OFFRATER	OFR1	10.106.106.22	ALERT_JOB_PURGECORE	CRITICAL	<input type="checkbox"/>
Acknowledge	<input type="checkbox"/>	ctd	MANAGER	UPM1	10.106.106.6	ALERT_FS_ORACLE	CRITICAL	<input type="checkbox"/>
Acknowledge	<input type="checkbox"/>	ctd	MANAGER	UPM1	10.106.106.6	ALERT_MON_ROLANDO_DEMO	CRITICAL	<input type="checkbox"/>
Acknowledge	<input type="checkbox"/>	ctd	RHT	SAPI2	10.106.106.12	HOST_MEMORY_USE	CRITICAL	<input type="checkbox"/>

6.2 Cenário 2

We have presented the End-to-End case generating usage, running the billing and then the invoice with the Oi layout for Corporate. In addition, the all cases were successfully performed in accordance with the specification provided during the PoC.

6.3 API Demo

On the API demo, a Comverse Apps was developed using standard APIs. This allows to have control of the balance of account.



7 Day 3

- Converse One Benchmark with IBM Platform
- Integration Architecture Presentation
- Cloud Computing - information how to implement MVNO via Cloud
- Scenario 3 presentation

7.1 Cloud Computing

Please see **Appendix "C"**

7.2 Scenario 3 presentation

We have presented the End-to-End case generating usage, running the billing and then the invoice with the Oi layout for Corporate. In addition, the all cases were successfully performed in accordance with the specification provided during the PoC.

8 Arquitetura Técnica

A Figura 2 abaixo mostra a arquitetura técnica proposta para a solução Comverse ONE para a Oi. A solução consiste de um conjunto de componentes de hardware *on-line* fornecendo processamento em tempo real e de alta disponibilidade para interfaces de rede e valoração, e um conjunto de componentes de hardware *off-line* utilizados para fornecer tarifação, finanças e pedidos em um modo *batch*.

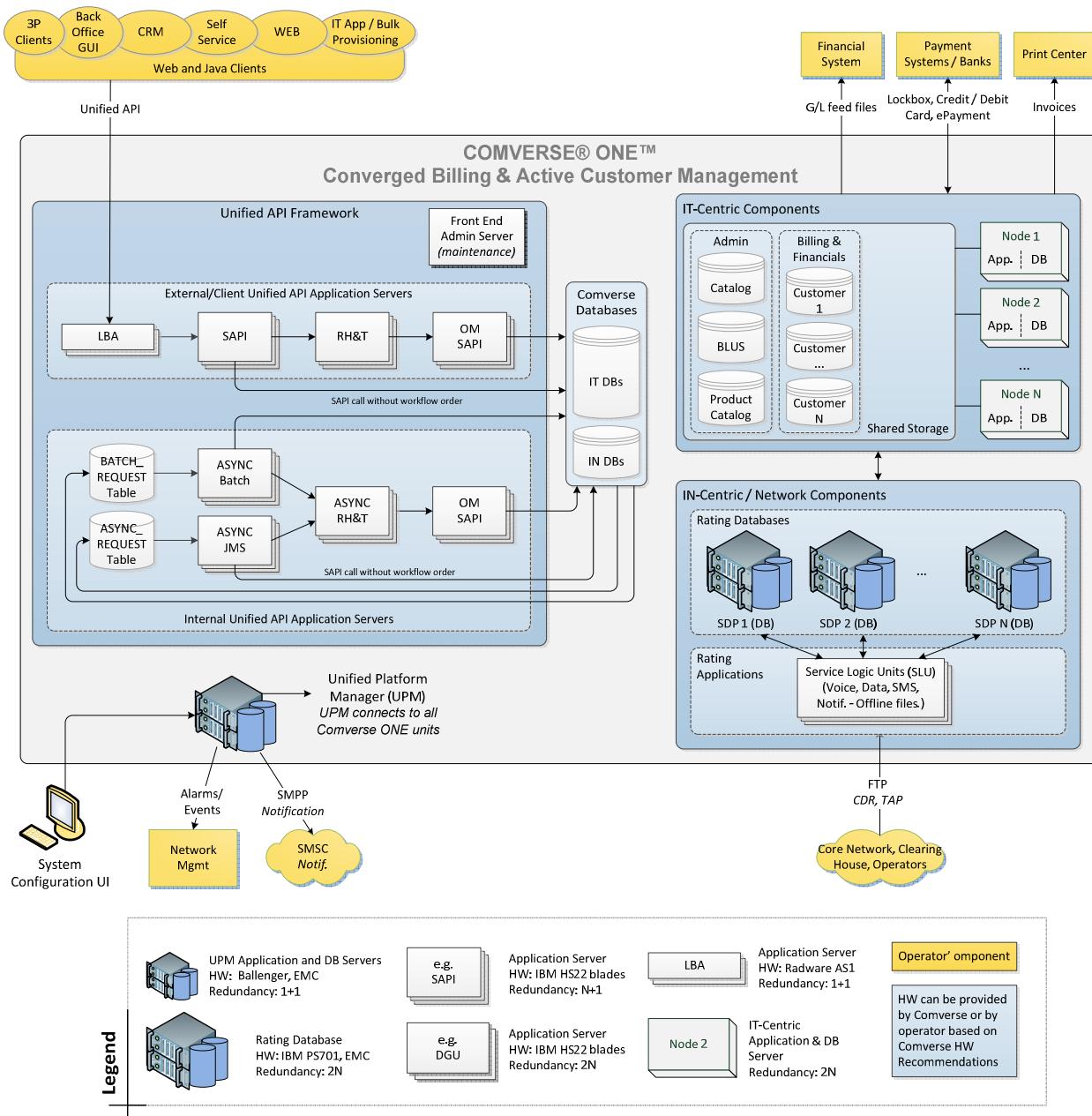


Figura 2 – Arquitetura Técnica

OBSERVAÇÃO: a Figura 2 – Arquitetura Técnica acima mostra uma visão esquemática dos componentes do Comverse One com exemplos de escalabilidade de componentes. A quantidade dos componentes pode ser diferente dos números necessários detalhados na seção Componentes de HW.

Descrição da Oferta de Solução Técnica para Oi

Os componentes de hardware *off-line* podem ser fornecidos e suportados pela Comverse ou ser comprados (com base em recomendação de hardware da Comverse), e suportados pela operadora para operações de tarifação *off-line*. Esta proposta assume que o HW Centrado em TI é fornecido pela Oi, com base nas recomendações de HW da Comverse.

9 Sobre a Comverse

A Comverse é o fornecedor líder mundial de software e sistemas que habilitam serviços de valor agregado para voz, mensagens, Internet móvel e anúncios móveis, tarifação convergente e gerência ativa de cliente; e comunicações IP. A grande base de clientes da Comverse está presente em mais de 130 países, e cobre mais de 500 provedores de serviço de comunicação que atendem mais de dois bilhões de assinantes. O portfolio inovador de produtos da empresa permite que provedores de serviços de comunicação liberem o valor da rede aos seus clientes, pela transformação de suas redes em redes mais inteligentes

Para maiores informações sobre nossos produtos e serviços, visite nosso website em:
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