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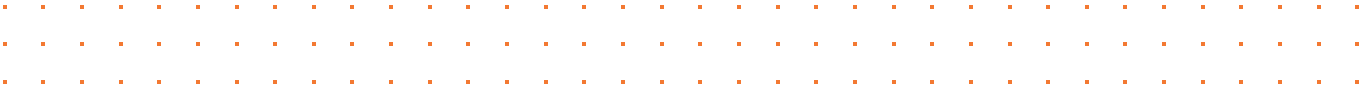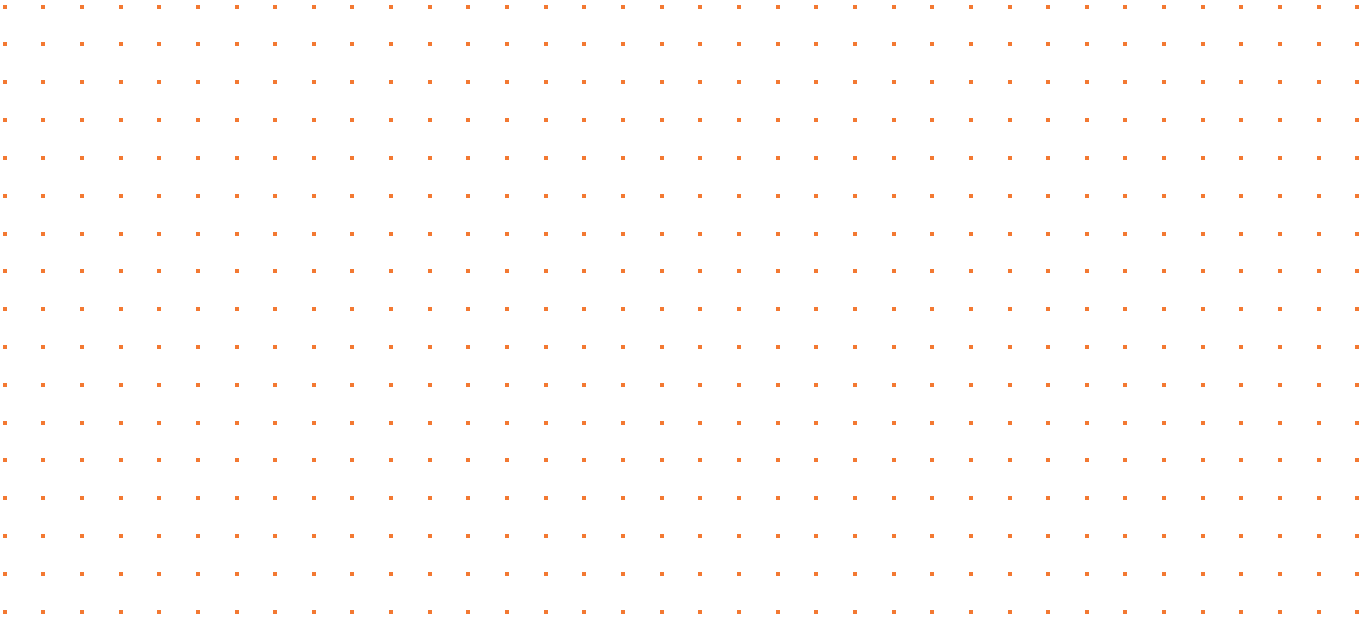
White Paper

10 ways to optimize your satellite broadband business

How to use a modern BSS solution to reach your business goals?

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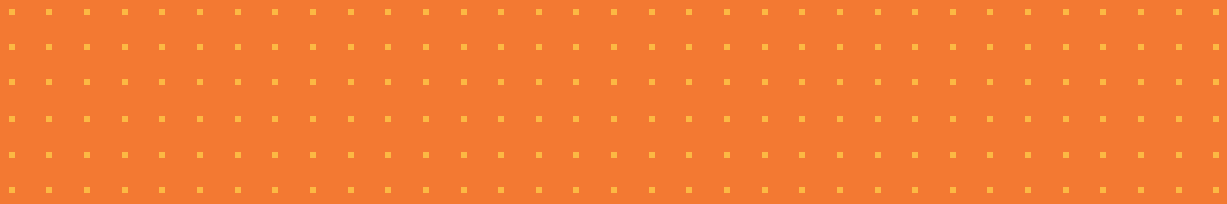**fax:** +48 12 64 61 100
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What will you learn?

> How to enhance your offer, while simultaneously reducing costs

> How you can optimize your satellite business seamlessly for your end customers

> How self service can enhance the experience of your customers while taking the workload off of your staff

> How to efficiently manage your workforce and increase customer satisfaction...

> **...and more**

■ Satellite Broadband Business is Growing

While the entire world has been hit hard by the recession, the satellite industry seems to currently be doing well. According to research groups, most operators with satellites in geostationary orbit (GEO) have experienced significant growth in revenue through the last year, while the low orbit (LEO – Low-Earth Orbit) operators are faring better still. Although the satellite business is booming, the current market state is not guaranteed to continue into the future, and operators have to defend their positions in an already intensely competitive market.

If you are in the satellite industry, aggressive market competition forces you to optimize your costs and alter your offer, so as to increase its appeal to end customers. Innovative product offers, enhanced service levels and an appropriate approach to customer experience are essential for growing your subscriber base and lowering the churn rate. What is the best way to reach these goals?

While substantial business growth is caused mostly by the worldwide popularity of satellite television, there is also a promising market for other services, including broadband internet. While delivering services to urbanized areas is relatively simple, the real challenge is providing high-quality internet service to a large number of potential customers living in areas with low population density. Initially, only a few options existed, mostly limited to dial-up access, which is known for its poor quality and low bandwidth. Satellite access was expensive and technology problems, including low capacity, high signal latency, and common signal drop-outs, together with additional restrictions such as bandwidth caps slowed competition. This is no longer the case, however. Technology is changing, with costs dropping in recent years to render satellite service comparable to DSL options. The number of subscribers was up by 30% last year, with experts predicting that it could reach 10 million within the next ten years. In addition, space research groups already predict that by the end of 2020, the number of satellites built and launched will increase by 50%, compared with the previous decade. At least half of these will be created by commercial satellites delivering communications and broadcasting services.

Although the opportunity for new business is available, the prospective niche still requires massive investments. Financing new satellites requires hundreds of millions of dollars, and the launching process is complicated and filled with uncertainties. After a satellite is launched on GEO orbit, operators have to be quickly prepared to face additional potential complications.

■ 1 Increase Market Share with New Services

With the recent emergence of convergent services, the creation and implementeation of cost and time-effective integration solutions have become critical for service providers (SPs). Your customers demand new services delivered in bundles in a value chain, which potentially requires the integration of different technologies. This entails a necessity to cooperate with a variety of partners, including fulfillment partners, subcontractors and content providers. As a result, it is essential for you to provide a platform that facilities integration, in order for your business to stay on top of the competition.

Since satellite-based internet access is not always the only service that your company offers, the ability to add new services utilizing the existing platform is key. The introduction of new services should be simple, so as to minimize time-to-market and enable receipt of revenue from the new service as soon as possible. Additionally, management of services utilizing one system only should be enabled, in order to reduce costs.

Introducing new services always means configuring them in the product catalog and in the billing system. A convergent, service-agnostic system, which you can modify to handle processes from mediation, rating, and billing, to payment processing, is a crucial element of each process connected with extending the offer.

▲ *Figure 1. Multiple Factors of Service Agnostic Billing*
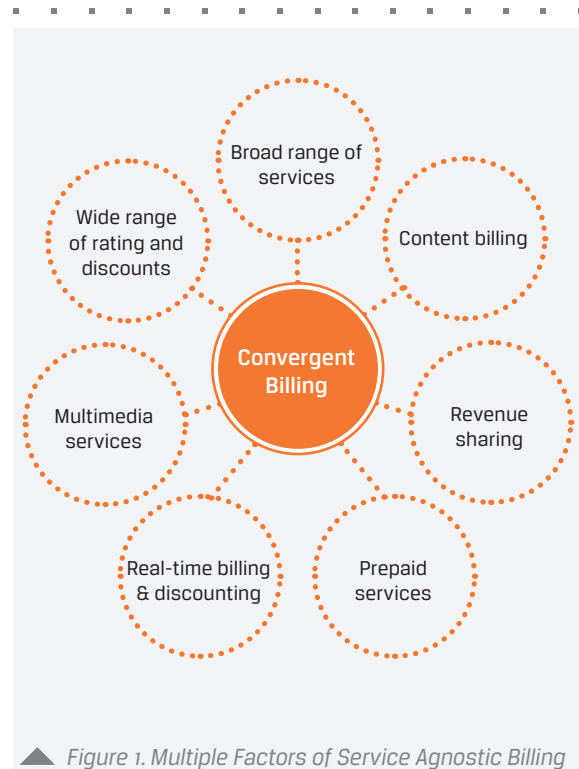
■ 2 Enhance the Customer Experience

Your customers expect to receive high-quality services. Therefore, keeping up-to-date on the real-time status of offered services is crucial. When you are aware of information about an error or failure, you are able to react before the customer even notices the problem. To enable this, you need specific information from the underlying environment. Once information about how the services are built within the network (association of network and services), as well as the condition of network components, is present in the system (related to faults and performance), it is possible to deduce the state and condition of the services offered to the customer. To facilitate this, service-level management functionality should be available. This will help evaluate service quality and performance, using already collected network fault and performance data. In addition, your system should be equipped with a SLA monitoring functionality, which integrates network management information with the business objectives of the service provider.

When your customer encounters a problem with internet access, a visit directly to the point of sale is not always possible, especially due to the distances typically associated with rural areas. The customer is therefore left with one choice – to call the customer helpdesk for assistance.

The customer helpdesk needs to solve customer queries and technical problems in a short period of time in order to reduce helpdesk workload and OPEX. The helpdesk CRM application should have a 360 degree customer view, thus acquiring the essential data that is required to solve the customer query quickly. This, in turn, leads to increased satisfaction of your customer.

■ 3 Provide Your Customers with Self Service Capabilities

Cases in which your customer chooses to use a dedicated web portal for self service (e.g. in the case of queries related to an invoice, or ordering new services), without calling the helpdesk, are usually more desirable from your perspective. Your BSS platform should therefore contain a web-based customer self service functionality, which enables your customers to browse their bills and usage, manage their services, search for assistance with their most common problems, chat with customer service representatives (CSRs) available 24x7, as well as modify personal data without the involvement of the CSR. In addition to delivering invoices via email and displaying them on the self care portal, your system also has to offer a simple and safe way to process payments, using credit cards or bank accounts. Other automatic payments are also becoming more popular, including automatic clearing houses where every time a bill is generated, the amount is automatically deducted from a given bank account. It is important that the solution you use has ready-to-use interfaces, for instance the interface for VeriSign / PayPal, FirstData and all major payments providers. However, traditional payment methods, such as a lockbox, should still be maintained.

The self service functionality can help you align your business more closely with your customers' needs and provide them with better problem solving support. Your customers must be able to create trouble tickets and see their current status. In cases where a modem upgrade or replacement is requested (RMA process) customers should be able to automatically schedule a pick-up, using major shipping companies such as FedEx and UPS, and even track the package delivery progress. The system should also facilitate the delivery of non-interfering, relevant messages and marketing campaigns, thus providing further up-selling and cross-selling opportunities. All of these actions should be available within one single solution; otherwise the process of deployment and integration may be long, costly and troublesome.

■ 4 Control Your Network More Efficiently with Centralized Management

It is crucial that you do not understimate the importance of managing an assortment of network elements. The various aspects of your network infrastructure should also be managed using a single system, instead of multiple individual network management systems. This is particularly beneficial if you are offering satellite internet access services, as well as other services utilizing varying network technologies.

Additionally, your technical staff should be able to observe the network infrastructure from the system directly on their screens, providing real-time performance status and fault monitoring. Another important feature is the ability to observe the status of the network from the perspective of service continuity. If your company offers non-satellite network access services, these can also be integrated into the solution, to be controlled and observed from one central point. In this manner, you can reach the reduced OPEX targets and increase business profits, while reducing the manual engagement of your personnel, simultaneously with mean time-to-recovery.

■ 5 Keep Your Business Going with Stock Management of Customer Equipment

If you are offering services in rural areas, you are likely to face additional challenges. In order to use satellite internet, your customers need additional physical components installed at their locations. The outdoor equipment usually includes a narrow-beam, highly directional dish-type antenna accurately pointed to the satellite (for internet access, the dish will most likely align with Ka-band frequencies). The indoor unit is usually a satellite modem connected to customer-provided equipment, such as a router or laptop. There are a number of manufacturers on the market, a number of suppliers delivering devices to your warehouses, as well as a variety of ways to deliver equipment to end-users' locations. Tracking a full equipment lifecycle and supporting information related to warranties, while performing provisioning actions, such as an IP address assigned to a modem's MAC address, are very important. Additionally, you should have easy acccess to real-time information regarding actual stock levels, along with the auto-replenishment option (including automatic purchase orders generated for suppying partners, according to Electronic Data Interchange EDI standards, such as ASC X12.

■ 6 Efficiently Manage Your Workforce

The fulfillment process is usually performed either by technicians who are part of your team, or outsourced to subcontractors. In both cases, an efficient scheduling process, route optimization and timely instalation are important. You need to be able to automatically assign an avaliable technician to a new installation and provide a detailed address, along with the most optimum directions (depending on actuall traffic, weather conditions, etc.). Moreover, your CSR should have the ability to see the technician's current location (based on GPS coordinates). Due to potentially long distances between work orders, the route and order should be optimized by the software, so that all parts involved in the process function efficiently. All the functionalities should be avaliable within one software solution, which is not only easy to implement (pre-configured), but also easy to redifine (flexible). You probably already possess significant infrastructure investments, thus the supporting software solution should also be cost-effective and avaliable for quick deployments.

In addition, when a visit to a customer location is necessary (either for equipment installation or repair), the system should automatically forecast and schedule the visit based on the information available. Hence, your customer should have the ability to not only immediately obtain accurate information about the upcoming visit schedule, but also to receive a high-quality experience from the first moment of signing an agreement with your company.

In order to reach your company's cost optimization targets you have to forecast, schedule, staff, and manage the workforce in contact centers and on the field. You can achieve maximum efficiency here by choosing the most suitable resources for each task, as well as by accounting for scheduling issues. The decision should be made by systems based on modifiable and adjustable ratings, according to your business model.

■ 7 Protect Your Business with Bandwidth Control

At times, a situation may occur where a specific customer of your company utilizes an excessive amount of bandwidth, thus requiring their service levels to be temporarily restricted. Many satellite operators use FAPs (Fair Access Policy) to downgrade the service for 24 hours, when certain criteria are met. For instance, the bandwidth allowance for downloads and uploads may occasionally be lowered. Such restrictions are considered to be one of the main disadvantages experienced by customers, lowering their satisfaction with the operator experience. Disappointed customers are a significant source of your concern. As such, instead of simply preventing customers from using the service, more options should be available, thereby providing the opportunity to generate more revenue for your company. One potential solution is to generate bills based on actual customer usage. The system has to deliver all types of usage-based charging methods, including defining consumptions segments, thresholds and buckets. On the other hand, your customers must be able to monitor, in almost real-time, the actual amount of downloaded and uploaded data, so that they can properly manage their spending. Either restrictions or additional charges should be available almost out-of-the-box, and easily managed by CSRs dealing with customers. Defined restriction rules or charges have to be performed by the system automatically. In addition, information regarding approaching the bandwidth allowance (e.g. that the customer has used 80% of the monthly download quota) and temporary usage restrictions needs to be delivered to the customer automatically, usually via email or cell phone.

■ 8 Operate Quicker with Business Process Automation

You should be able to process provisioning actions, as well as connecting and disconnecting services, automatically, re-stricting bandwidth (in the case of excess bandwidth usage, beyond the fair access policy) and shaping the traffic, while utilizing configurable rules. All these automatic features will assist the efficiency of your business, requiring only minimal manual intervention, and reducing operational costs.

To maximize efficiency, you need to introduce automated business processes at all stages of interactions with your customers and partners, such as resellers. These stages should include, but not necessarily be limited to: customer management, marketing, agreement definition, price manage-ment, communication channel management (e.g. automatic processing of e-mails) and order management. Automating these processes will reduce your need to implement several different systems, as well as the effort required for proper management.

■ 9 Maintain High Data Integrity

Having adequate and relevant information about the system is always essential. Beginning with the first generated bill, all related financial transactions have to be transparent in the system. You have to make sure new customers created in the system are activated on the network, services are billed properly, taxes are applied adequately, and payment transac-tions have a well-defined status to meet all financial standard requirements. You are able to achieve the required level of confidence by having a single point of control for all of the system's transactions (similar to network operation centers (NOC) for network operators) and cross modules reporting functionality. To guarantee tax credibility, you need to integrate your rating engine in the system with a well-known taxation provider, maintaining accurate taxation changes, such as Vertex or BillSoft. The solution also needs to be integrated with major financial packages (e.g. SAP, Oracle financials, Microsoft Dynamics) to make the deployment process ef-ficient and reliable.

■ 10 Make Decisions Based on Reliable Reports

Rapid system rollouts require a broad reporting functionality available out-of-the-box, or ready for quick and low-cost imple-mentation. The standard package needs to include accounting reports (G/L and revenue reports), tax reports (showing tax related issues), financial reports (cash flows, bad debt collec-tion reports, again reports), stock management reports, SLA related reports and others. Another important advantage is the existence of a report-design tool. Your business analysts need to have access to an easy-to-use tool, granting them the ability for quick, custom report development (customer lifecycle management reports, services lifecycle reports, success rate of promotions, and others). Additionally, the tool has to allow the use of commonly known components including pivot tables, interactive charts, grids and customizable dashboards. Reports should be available in real-time, as well as according to a defined schedule. Furthermore, the solution either needs to have internal business intelligence capabilities with a set of OLAP cubes immediately accessible (e.q. subscription cube, orders cube, incident cube, etc.), or it should be available for quick and cost-efficient integration with 3rd party data sources, or even external business intelligence components.
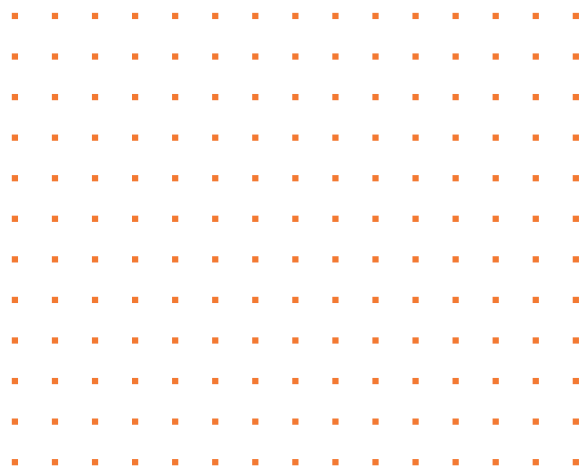
■ How Comarch can help your business

To help you optimize your business in the areas mentioned in this document, Comarch has developed the Comarch Satel-lite Package – a comprehensive end-to-end solution for both retail and wholesale businesses.

To offer an alternative internet connection or internet services in rural areas, you need a stable, convergent platform to support the provided services. The flexible and modular Satellite Pack-age is exactly what you are looking for. It has been designed to work seamlessly with your existing data models and systems. All required integrations may be easily performed utilizing one of the well-known technologies (e.q. Web Services), with all two-way communication maintained by an Enterprise Service Bus (ESB). Comarch delivers the solution's stable core, while maintaining the flexibility necessary to deploy sophisticated integrations with external systems.

Figure 2. Comarch Satellite Package
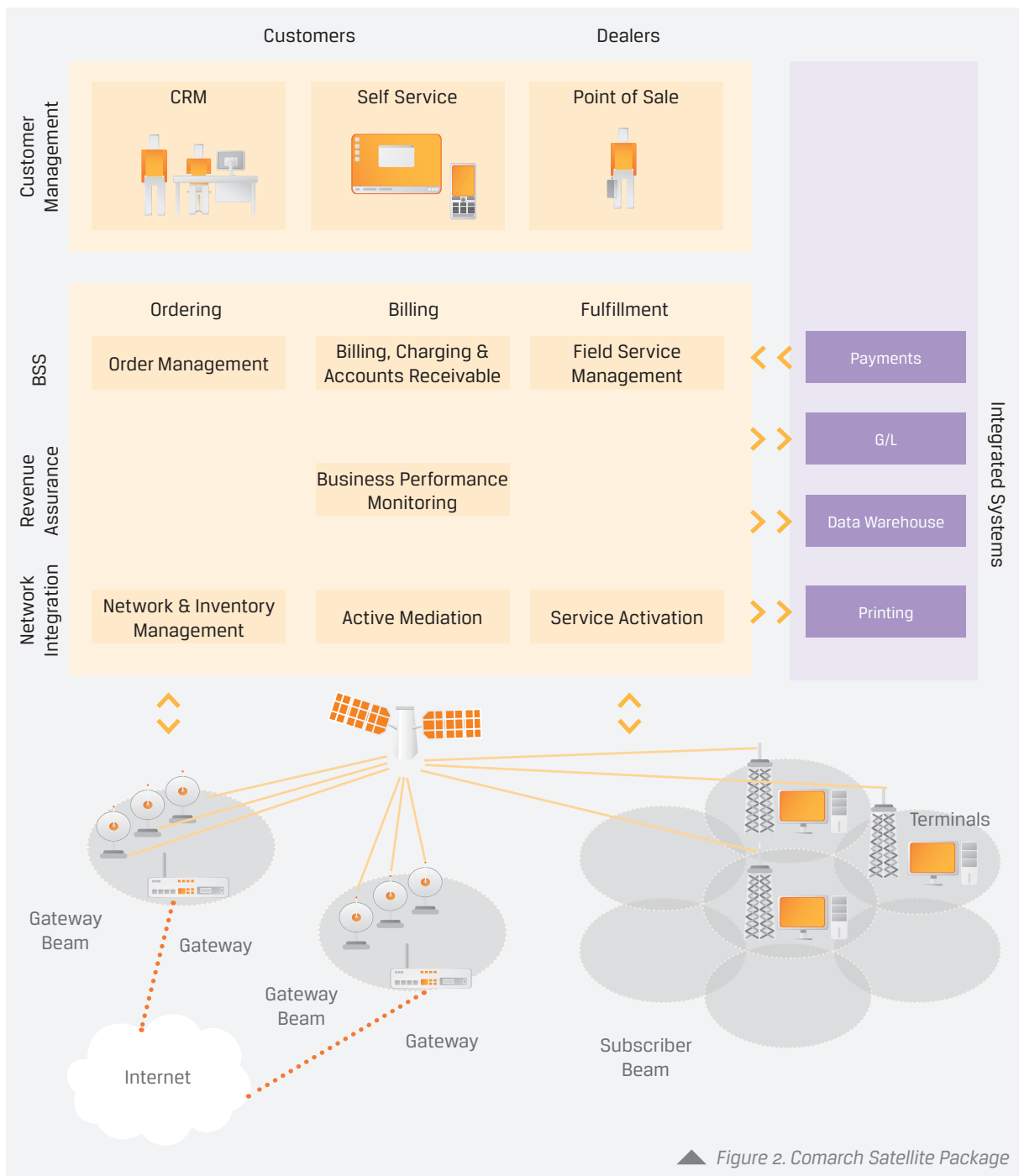
Dynamic Wholesale Package

There are several wholesale model varieties. For instance, a wholesale partner may have its own customer database, maintain its own CPE supply agreements with equipment vendors, and even be responsible for fulfillment and all front-end applications. The SP would work as a regular service enabler, delivering the network (satellite connections) and provisioning system. In other cases, responsibilities may be divided in slightly differing ways.

Furthermore, it is absolutely critical that the modular-based platform built according to the SOA principles is able to support a range of business models. SPs should be able to adjust supporting solutions to meet immediate requirements in a cost and time-efficient manner, by simply adding and removing components.

The Comarch Satellite package offers such capabilities, while allowing SPs to differentiate and maximize ARPU.

Figure 3. Comarch support for Wholesale operators
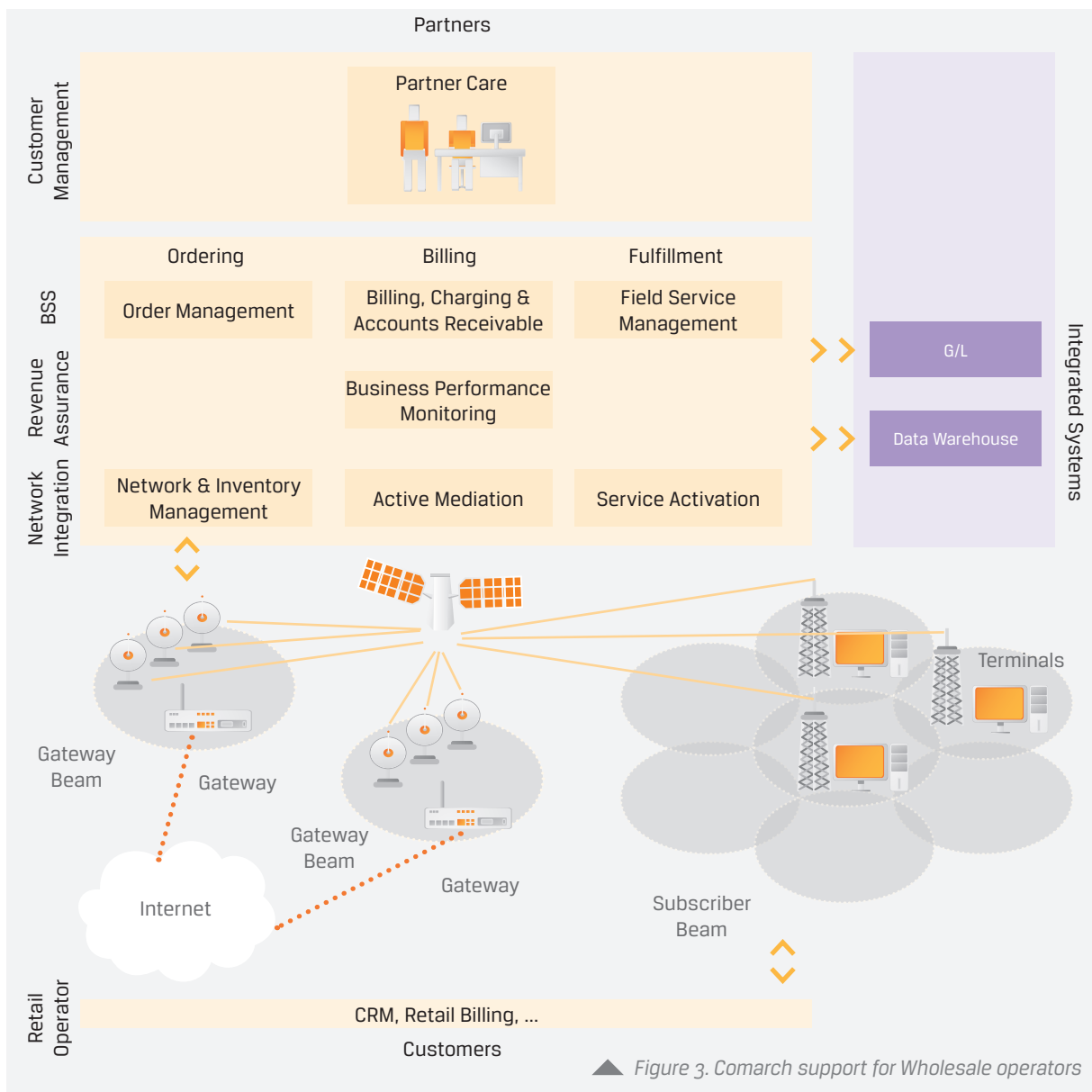
■ Key Functionalities

○ Pre-integrated CRM, BSS and Network Management systems,

○ Enhanced customer self care portal,

○ Unified data model for customer data and product catalog,

○ Flexible, modular solution built upon a stable core,

○ Support for retail and wholesale business models,

○ Flexible and easily modified Business Process Management.

■ Benefits

○ Controlled operational expenses, due to a high degree of business process automation

○ Enhanced customer experience, due to a provided dedicated self service portal

○ Customer ability to reconfigure the flow of business processes

○ Full control and monitoring of orders and transactions progressing through multiple systems

■ About Comarch

Comarch is a leading global supplier of key industry standard compliant software solutions and services for telecommunications service providers. One of the company's fundamental distinguishing factors is our focus on the flexibility and configurability of our solutions, which are developed in-house and customized to suit the specific needs of our customers. Our solutions are business driven, and have evolved since the company's inception in 1993, based on customer demand. With 17 years of experience, Comarch is expert at the design, implementation, as well as integration of our solutions and services. We are proud to work with customers from four different continents, including some of the market's largest players, such as T-Mobile International, Vodafone Group, KPN Group, Telefónica O2 Germany, as well as MVNO operators such as Auchan Telecom, France. Comarch's unique and cost-effective solutions allow our customers to provide the highest quality of service to their markets, ensuring their clients' satisfaction and continued patronage. The satisfaction of Comarch's customers has always been the strongest confirmation of the quality of its solutions in the areas of billing and inter-partner settlements, as well as management of telecommunications networks and services. Comarch's solutions for telecom operators are intended for Fixed, Cable and Broadband Operators, Mobile Operators, Wholesale Departments, MVNO/MVNE Operators, ISPs and VoIP Operators, Content Providers and IPTV Operators and Satellite Service Providers.

More information at: **telecoms.comarch.com**
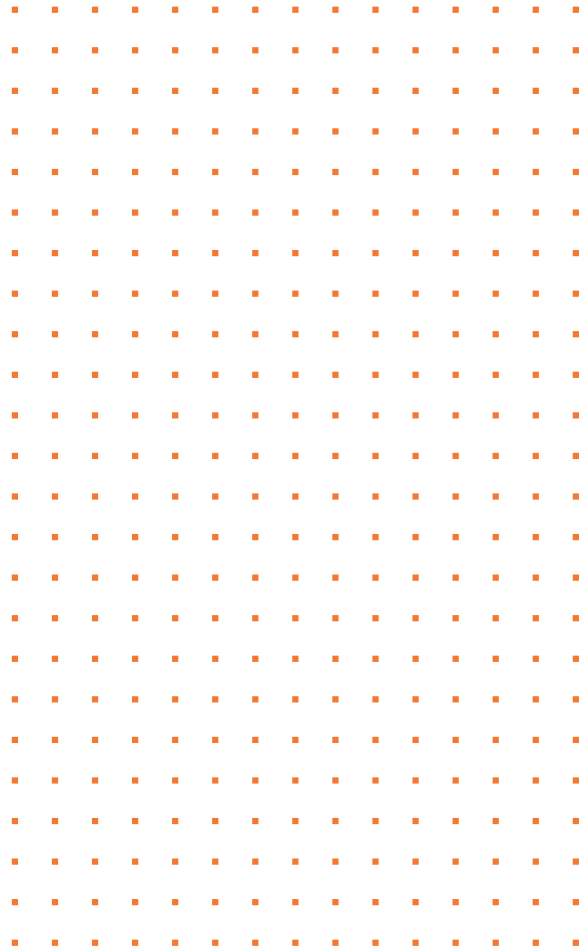
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Comarch is a leading Central European IT business solutions provider specializing in forging business relationships that maximize customer profitability while optimizing business and operational processes. Comarch's primary advantage lies in the vast domain of knowledge accumulated in and applied to our software products. These products incorporate highly sophisticated IT solutions for businesses in all vertical sectors. Comarch has a multinational network of offices employing over 2800 highly-experienced IT specialists in Europe, the Middle East and the Americas.

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