



## The Changing Economics of Software

Service-based business models enabled by cloud computing rapidly are becoming the primary business model for software. Traditional software providers must develop a plan to transition from the license models of today if they are to survive.

We interviewed **Dr. Peter Meinen, Chief Technology Officer at Fujitsu Enabling Software Technology**, to find out more about the challenges and opportunities ISVs face in transitioning to a service-based business.

### **Q: Why should software providers move to a services-based business?**

**A:** To stay competitive, software providers today need to meet customers changing needs. Customers no longer want to pay high upfront costs or be bothered with managing technology – they increasingly want easy-to-use services on a ‘pay as you go’ or subscription basis. Software providers with expensive on-premise offerings that require a significant capital outlay risk being driven out of the market.

### **Q: How do you believe cloud services will affect the overall software market?**

**A:** Cloud services will grow the overall market by opening up new global opportunities for software providers, lowering the barrier of entry for new providers, and increasing opportunities for profitable specialization. For example, rather than building for themselves all of assets needed simply to enable the delivery of their service – such as an online catalogue, billing and payment - service providers can rely on partners to deliver these assets. This lets them concentrate on their core IP development.

### **Q: How does Software as a Service – SaaS – change the economics of software?**

**A:** The ability to offer shared applications over the internet has fundamentally affected the price structures, value proposition and business models of software delivery. In doing so, customers are adopting the rapid, low cost and flexible terms offered by SaaS over the complex, costly and slow models of software purchase.

### **Q: Why is the pace of SaaS adoption accelerating?**

**A:** As more customers adopt shared services, prices continue to fall; as prices fall, the commoditization of that application domain accelerates. SaaS offerings can also be improved faster than traditional software applications - we can see more clearly how shared services are used by customers, and then enhance them incrementally without the usual delays of many redeployments.

### **Q: What are the big challenges for software providers when transitioning from an on-premise model to an online, serviced-based model?**

**A:** There are three main challenges:

1. *Architectural challenges*: How do we take an application built for individual customer deployment and make it suitable for the use of many customers in a standardized way? How do we implement all of the complex business support services that are required by such a multi-tenant architecture?
2. *Operational challenges*: How do we develop the capabilities and assets required to deploy, manage and scale the application on behalf of customers?
3. *Business challenges*: How do we transform our current business model to create one based on recurring revenue in place of licenses? How do we create an online catalogue for sales and implement price modeling, billing and payment collection with the flexibility required?

**Q: What are some of the architectural challenges involved when moving to a SaaS environment?**

**A:** For many Independent Software Vendors (ISVs) creating a multi-tenant architecture is a significant challenge. It can be time-consuming and expensive, often requiring a complete rewrite of existing applications, especially if the software provider decides to transition to a Platform as a Service (PaaS) offering that requires new tools and languages. In addition, the software provider must also consider how they will 'wrap' the application in all of the support services required to operate a service-based business.

**Q: What is multi-tenancy? What are the considerations when deciding to implement multi-tenancy?**

**A:** Multi-tenancy is the ability for a single application instance to support the needs of many users. Software providers can choose to implement multi-tenancy natively within their application or to use less disruptive techniques such as virtualization to separate their customers' application and data. While in the longer term, most software providers will need to recreate their applications in a multi-tenant model, in many cases they cannot wait to do this before bringing new offerings to their clients and so must use transitional approaches like virtualization to bridge the gap.

**Q: What operational challenges do ISVs face when moving to SaaS?**

**A:** Delivering applications through a cloud model means that software providers assume responsibility for application operations on behalf of the customer. This requires a whole new set of skills and assets. Software providers face challenges in building operational infrastructure to deliver their applications at scale across the Internet to customers, as well as in acquiring the staff and processes necessary to ensure stable infrastructure operation. These are some of the issues that are leading to the growth of offerings such as Infrastructure as a Service and Platform as a Service, offerings that remove the necessary capital outlay and reduce operational concerns.

**Q: What are the business enablement challenges of SaaS?**

**A:** Service-based business models are complex, dynamic and unlike anything a traditional software provider will have experienced in the past. In the rush to get an offering out to the market, service providers often overlook the complex ways in which price modeling and billing evolve in subscription based business models. Software providers who don't give this enough thought rapidly find themselves overwhelmed by the complexity of their homegrown and simplistic pricing capabilities and unable to reliably reconcile their invoices. Worst of all, such software providers often find that internal billing solutions increasingly consume more development effort than core products, damaging the company's ability to grow.

**Q: How can traditional software providers best protect their customer relationships?**

A: In many ways traditional software providers are in a great position – they have already built relationships with customers and are often a valued partner. If they can show their customers that they still offer added value - even during a transition phase where they might not yet have a full SaaS offering - customers may stay with them. In doing this they can avoid exposure to competition from new entrants whilst also avoiding high customer-acquisition costs. In addition, showing the transparency and commitment to do what's best for the customer can strengthen the relationship and result in great word-of-mouth recommendations.

**Q: What are key considerations when creating an SaaS architecture?**

A: Any SaaS roadmap will likely involve a short-to-medium term deployment of their existing application to a cloud hosting platform with a longer term re-development for new models. Often the choice will depend on how much of the application is already built and the speed with which the software provider wants to make the transition. In either case the provider will need to build or gain access to the supporting capabilities – such as account management, subscription and billing - required to deliver service based business.

**Q: Why should software providers consider sourcing business enablement components from a specialized partner?**

A: By scoping their architecture and sourcing these components from a specialized partner, the software provider is free to concentrate on building their core business while being confident that they can find, manage and receive payment from customers.

**Q: What do software providers need to consider when sourcing architecture components externally?**

A: In sourcing these components externally, the ISVs should consider the level of change required to their application, the ease with which they can be integrated, and the level of application lock-in to any particular partner that they may experience.

**Q: How can cloud-based offerings help operational enablement?**

A: Software providers generally do not have the assets or expertise in-house required to build and operate a physical hosting platform. The cloud architecture makes it easy for a software provider to leverage external platforms for the operational delivery of their software.

**Q: What are the considerations when choosing to target either a PaaS offering or an IaaS offering?**

A: The decision depends on the starting point of the application. A Platform as a Service (PaaS) with managed middleware and tooling can accelerate the creation of new applications. Infrastructure as a Service (IaaS) offerings better match the needs of existing architectures and require less disruptive changes. In both cases the software provider delegates the provisioning, operation and management of the underlying platform and takes responsibility only for the application itself.

**Q: Why is integration between architectural components important?**

A: To optimize customer experience, the architectural components providing the business enablement services must be closely integrated with the underlying technology platform. Such integration can bring a greater degree of customer self-service by supporting automated provisioning.

**Q: Why is it so important to consider business enablement capabilities?**

A: Business enablement capabilities are complex, unrelated to software providers' core business, and rarely given sufficient consideration until it is too late. Often this is because of the complexities inherent to building and delivering service-based business models.

**Q: What can be learned from the business enablement mistakes of traditional businesses, like telecoms?**

A: Before the advent of cloud, telecom companies had to implement, manage and support complex business enablement capabilities for themselves. This was an expensive drain on resources and was fraught with risk, error and delay to product launches due to the difficulties of delivering a suitably dynamic set of services capable of supporting changing business models.

**Q: What should software providers look for in a partner to take on their business enablement services?**

A: Software providers need to look for both breadth of capability and reliability; entering into a relationship with a new or unknown organization for such a critical capability could be worse than implementing it yourself.

**Q: Who are some of potential partners for business enablement services?**

A: There are a number of providers emerging into the market, both experienced service companies like Fujitsu, and promising startups who are consolidating their position.

**Q: What are the capabilities that software providers should look for when evaluating potential partners, or combination of partners for service-based business?**

A: Software providers can use the capabilities in the chart as a check list with which to evaluate potential partners or combinations of partners.

**Q: Where can our readers find out more about Fujitsu Enabling Software Technology?**

A: There's lots of useful information, including an online demo and introductory video on Fujitsu's new ISV Cloud Program, plus examples of how other ISVs have transitioned to a cloud based model at [http://ts.fujitsu.com/services/business\\_enablement\\_services/](http://ts.fujitsu.com/services/business_enablement_services/).

## Chart: Checklist for Evaluating Partners

<b>Portal</b> Web site for customers to buy & administer subscriptions	<b>Brand Management</b> Customizable Portal (Color, Logo, Text)	<b>Account Management</b> Management of customer accounts	<b>Subscription Management</b> Management of customer subscriptions to services
<b>Identity Management</b> User management and access control	<b>Event Management</b> Record events to support metering and auditing	<b>Billing</b> Calculation of customer bills for subscriptions based on events	<b>Bill Presentment</b> Invoice creation and distribution for customers
<b>Service Provisioning</b> Provisioning user access to services	<b>Tenant Provisioning</b> Provisioning a customer instance of a service	<b>Payment Collection</b> Collecting payment based on invoices	<b>Reporting</b> Providing insight to software providers and their customers

Source: Fujitsu Enabling Services Technology.

Please see: [http://ts.fujitsu.com/services/business\\_enablement\\_services/](http://ts.fujitsu.com/services/business_enablement_services/)

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### Press contact:

Silvia Finke  
Knobel Corporate Communications  
Tel.: + 41 (0)41 768 99 43  
[s.finke@knobel.ch](mailto:s.finke@knobel.ch)

### About Fujitsu

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