



# ComCloud:HEX – Hosted Exchange in Cloud

## INTRODUCTION

“How to stay in the game” is the main preoccupation from companies struggling with saturated markets and exhausted potential of their services. Answer to this challenge is turning towards new opportunities, spreading to new business segments and making extra profit along the way.

Take telecom industry for example, since it reached its maturity, operators started looking for new sources of revenue. But while operators were struggling, Apple, Google and likes took lion's share of Internet-based revenues from operators. That is why, in the last few years, we have seen a strong shift in operator's strategic focus towards IT services and products. Cloud is today often considered as a central point for such IT strategies and as a primary enabler for IT-related services offered by operators (telecoms). But there is a lot of buzz about different Cloud solutions available on the market. And when one tries those solutions in practice, it becomes obvious that definition of Cloud solution is a very vague one and that solution components or knowledge is still largely missing.

## COMCLOUD

Facing that challenge, Combis developed ComCloud for its reference customer. ComCloud is complete Cloud solution following NIST definition<sup>1</sup> and implementing components like real-time billing interface, fully automated provisioning system, self-service portals, run-book automation for operational efficiency and more.

## A MODULAR APPROACH

Our goal was to build a Cloud solution suitable for smaller, namely Eastern EMEA markets and for smaller/alternative operators in larger economies without sacrificing any of typical Cloud features or characteristics like agility, elasticity or scalability.

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<sup>1</sup> National Institute of Standards and Technology,  
<http://csrc.nist.gov/publications/nistpubs/800-145/SP800-145.pdf>



From day one we knew that no matter how much we optimized whole solution, we cannot count on Economies of Scale as our and all EEMEA markets are just not big enough. Therefore, in order to provide a solution that can fit with such market requirements and bring a positive business case on a small scale while keeping all advanced features and functionalities, we followed a strategy of providing Economy of Scope rather than Scale.

To solve aforementioned problem, we have designed ComCloud to follow Swiss Army Knife principle: offer quality in optimized and modular way.

ComCloud can serve different Cloud services like Desktops as a Service, Virtual Private Servers or Hosted Exchange. An operator can choose which services to implement and when. Each new service is a new module in ComCloud and it utilizes all existing infrastructure not adding any additional cost on the “control and management plane”.



With such approach, we can provide reasonable business case starting with few thousands and not tens or hundreds of thousands users.

#### **COMCLOUD:HEX – MICROSOFT HOSTED EXCHANGE IN COMCLOUD**

One of the biggest benefits of extensive computer usage is almost instantaneous access to the Internet and the possibility of communication between people regardless of their physical distance or closeness. In today's business, email and mobile access to email is in the core of any communication and collaboration.



Exchanging email messages from its beginnings heavily evolved and they are no longer limited to written correspondence, but include calendar sharing, sharing of tasks between team members, address books, etc. In other words, now when we are talking about mail systems we presume a comprehensive collaboration in business environment.

Today, Microsoft Exchange is one of the most accepted and standardized collaborative platforms in the World, offering many advantages to its users. In addition to end user benefits and functionalities, new versions of Exchange bring great improvements in terms of administration of the system, its high availability and data protection of end-users.

Using Hosted Exchange system alongside with appropriate provisioning system and self-service portals brings fully featured Cloud solution. By expanding existing ComCloud provisioning system and self-service portals – ComProvis, we are able to deliver such solution.



## COMPROVIS: HEX – SELF-SERVICE PORTALS AND PROVISIONING SYSTEM FOR MS HOSTED EXCHANGE

ComProvis is our custom made provisioning system of self-service portals for ComCloud. It features extensive interfaces for real-time OSS/BSS integration and provides support for different activation and billing processes. With an extension for Hosted Exchange and SharePoint, it covers complete self-service provisioning and management process on three administration levels: user, company administrator and operator administrator level and offers additional interface for helpdesk users.

ComProvis:HEX covers typical reporting functionalities on all administration levels – providing both high-level graphical and detailed, list-type reports.



All activities regarding creation, activation and deactivation of services and offerings, can be done through portals, either by user himself or by operator if user does not wish to do it on its own.

The screenshot shows the 'New user' form in the Hrvatski Telekom portal. The form is divided into two main sections: 'Please select user' and 'Account'. In the 'Please select user' section, there is a 'Select SSO user' dropdown menu with 'duseradm.sviraci' selected, a 'New SSO user' button, and input fields for 'First name' (Demo), 'Last name' (UserAdmin), and 'Phone' (N/A). The 'Account' section includes fields for 'Username' (duseradm.sviraci), 'E-mail' (differentEmail@sviraci.cloud.ht), 'Package' (Email), and 'Mailbox type' (User). At the bottom right, there are 'Cancel' and 'Save' buttons.

Philosophy behind portal is to be user-friendly for inexperienced user. Usage is simple, without unnecessary options and details and activation process leads user step by step.

The screenshot shows the 'New domain' form in the Hrvatski Telekom portal. The form is divided into three steps: '1. Enter domain name', '2. Set default', and '3. Save changes'. In step 1, the 'Domain name' field contains 'newdomain'. In step 2, the 'Set as Default' checkbox is checked (ON), and a message states 'This domain is already registered.' Below this, there is an 'OFF' button. In step 3, there is a confirmation message 'Please confirm that you want to create new domain.' and 'Cancel' and 'Save' buttons.



ComCloud:HEX offers predefined packages, available to users with easy to read options.

Package name	Archive Size	Mailbox size	Shared contacts and calendar	OWA	Active sync	BIS	BES	MS Outlook license
Small	2 GB	1,00 GB	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medium	10 GB	5,00 GB	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Large	20 GB	10,00 GB	<input checked="" type="checkbox"/>					

ComProvis:HEX allows users to change their services at any moment. It also allows service and user suspension, both from OSS/BSS interfaces (in case of, for example, payment problems) and through portals, enabling users with additional flexibility and ability to pay when they actually use the service.

Username: Test1

E-mail: John.Smith@zagreb.hr

Package: Small

Mailbox type: User

Archive:  ON



## REFERENCE CUSTOMER

Our reference customer and business partner for ComCloud solution is T-Hrvatski Telekom (T-HT), a member of Deutsche Telekom group.

T-HT uses ComCloud:HEX for more than 10.000 users and for more than 1.000 companies, providing customers with several customized service packages. BlackBerry, ActiveSync, archiving – are merely some of the options provided by ComCloud:HEX, offered via distinctive service packages as in examples shown here:

Package	Cloud Exchange Mail S	Cloud Exchange Mail M	Cloud Exchange Mail L
Mailbox Size	1GB	5GB	10 GB
Outlook Web Access	Yes	Yes	Yes
Shared features (calendar, contacts, ...)	No	Yes	Yes
Active sync / BIS / BES	No / Yes / No	Yes / Yes / No	Yes / Yes / Yes
MS Outlook license	No	No	Yes
Archive	Option - 2 GB	Option - 10 GB	Option - 20 GB

ComCloud:HEX is also providing T-HT's customers with hosted SharePoint solution.



## WHY COMBIS?

COMBIS is one of leading systems integrators in the Adriatic region, according to IDC Adriatics, with a strong international presence. Combis is woven from hardworking, talented people and high technologies. We consult, develop, implement, integrate and maintain complete, complex and sophisticated information-application-communication turn-key solutions.

Our development has always been based on the freedom of thought, innovation and creativity, stimulating at the same time teamwork and friendship among employees, as the main driver of our business.

Moreover, technologies that we develop and implement are enriched with human factor and knowledge, making all the difference. Thus, technology truly becomes a living component of success and development of our customers.

Regarding this particular solution, we have developed described Public Cloud solution from scratch, gained rich experience in developing highly customized Cloud services and most importantly, we know precisely how to deal with the all kinds of technology and business challenges that may occur.

## CONCLUSION

The key of today's business success is to offer something new, something fresh that can help you and your end customers to become more agile, more skilled, more successful.

Nevertheless, always helps to have an example of good practice and we are able to offer precisely that, since our reference customer shows nothing less than enthusiasm towards business opportunities ComCloud solution managed to open.

Do not hesitate to contact us to find out more...

## CONTACT

Join us in writing the new telecommunications history, contact us and let us tell you all about ComCloud and endless possibilities of Cloud services we offer.

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