

# Wavelength on Demand? – Innovation in capacity business

**RONOG** 

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# Wavelength (lambda) on demand – why and how?

#### Why

- Significant changes in High Speed Leased Lines (HSLL) usage need for more flexible (non-static) solutions
- The prices for static wavelengths are decreasing need for curve-back
- Open for new customer segments from WS to Business/Large Corporate
- Increase the customer satisfaction factor
- Increase the utilization of the network, more revenue



# TIME FOR CHANGE

#### How

- ☐ The model is laaS if that works, why HSLL lines on demand wouldn't work
- 1Gbps, 10Gbps, 100 Gbps capacities to be provided in a flexible way
  - Customers (WS) modify capacity during their need in different periods of a day
  - Providers (Infrastructure owners) utilize more efficient the network

### The GOAL

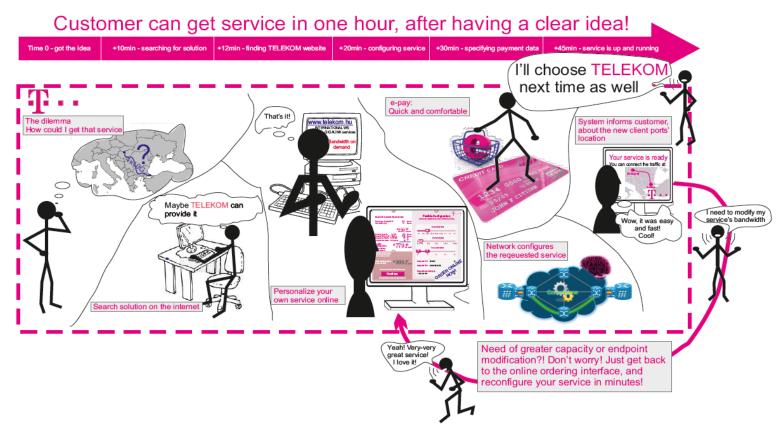
# Automatic configurable DWDM backbone

Automated Network Management

Automated DWDM

New business model

Professional CRM



# Customer experience for the New Business Model

#### **Static**

- Customer decides about the HSLL service
- Search for providers conferences, phone
- Ask for price offers
- Budgetary offer
- Final offer based on technical survey and some iteration about the technical solution (routing, demarc point, interface, etc.)
- Contract negotiation
- Implementation

Time to market ~2 month

#### **On-Demand**

- Customer decides about the HSLL service
- Search for providers on internet finds portals
- Configures the HSLL service
- Exact offer and RFS immediately
- Introduces the contract and billing details, have the contract immediately
- Press the submit button implementation starts immediately
- Continuous follow-up about the implementation

Time to market ~2 hours



# Customer experience for Static service

Slow, complicated, static customer service. Hard to be competitive!

Time 0 - got the idea | +10min - searching for solution | next workday - e-mail to provider | +2-4days - provider's response +~1week - clarifying details | +1,5-2months - provider is ready, service is up and running I hope they'll answer quickly E-mailing, request customer via mail for information Signing contract about new service and e-mail it I need to write a mail on Couldn't be it faster Monday to TELEKOM and more convenient? Waiting several days for answer T. Customer starts to pay Tneed to modify my service's bandwidth Always the same long, slow and wearing procedure This cannot go on. This is the XXIth century. Every time, when customer would like to I need to switch... order new service, modify bandwidth or service endpoint, the whole procedure has to be began from the start, and takes almost the same of time in each case

# Customer experience for On-Demand approach

Customer can get service in one hour, after having a clear idea! Time 0 - got the idea +10min - searching for solution +12min - finding TELEKOM website +20min - configuring service +30min - specifying payment data +45min - service is up and running I'll choose TELEKOM next time as well Quick and comfortable That's it! The dilemma System informs customer. www.telekom.hu How could I get that service about the new client ports' Your service is ready ou can connect the traffic at: Maybe TELEKOM can Tneed to modify my provide it service's bandwidth Wow, it was easy and fast! Cool! Network configures the requested service Personalize your own service online Search solution on the interne Yeah! Very-very Need of greater capacity or endpoint great service! modification?! Don't worry! Just get back to the online ordering interface, and reconfigure your service in minutes!

# Customer experience in the New Business Model

Similar to the "Cloud" services

Scale on demand & pay as you use



#### Capacities in minutes & adjust as needed





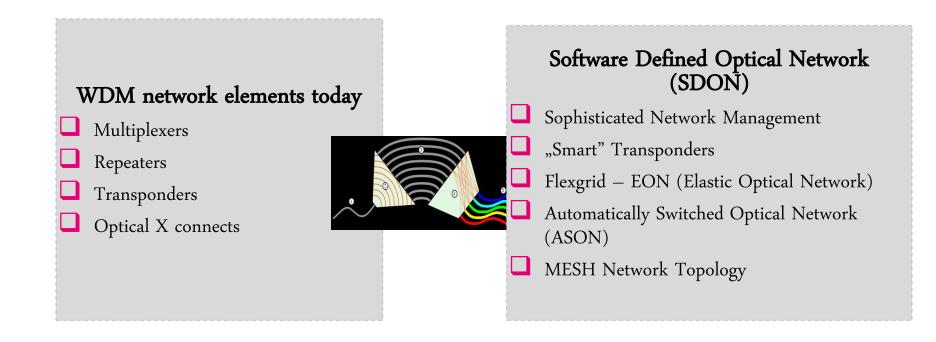
#### Faster to market & better SLA



**Maximum customization & standard products** 

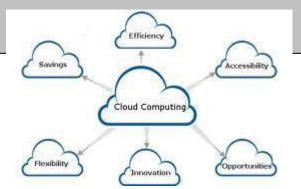
## Technical details about the ways of implementation

"Everyone knows that some things can not be achieved. Until someone comes who does not realize this." A. E. - Innovation



# SDO Transport Network

- Besides a sophisticated Network Management Systems, key elements of SDO in the Core Network are:
- •Smart Transponders (ST) enables us the choose not only the frequency and wavelength but the signal bandwidth can also be configured
- Limited capabilities ST starting from next year, fully configurable 2-3 years
- •Flexgrid EON Elastic Optical Network fixed "wavelength grid," will no longer work for 400 Gb/s and above, need for a more flexible grid, which is EON.
- Replacing the Multiplexers our network will be flexible and easily to configure through software
- **-Automatically Switched Optical Network ASON –** the brain of SDO, providing the switching capabilities, some capabilities are already available in the existing WDM equipment, but still not sophisticated enough.



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Combridge

