# Cloud Preview and IP Device Integration

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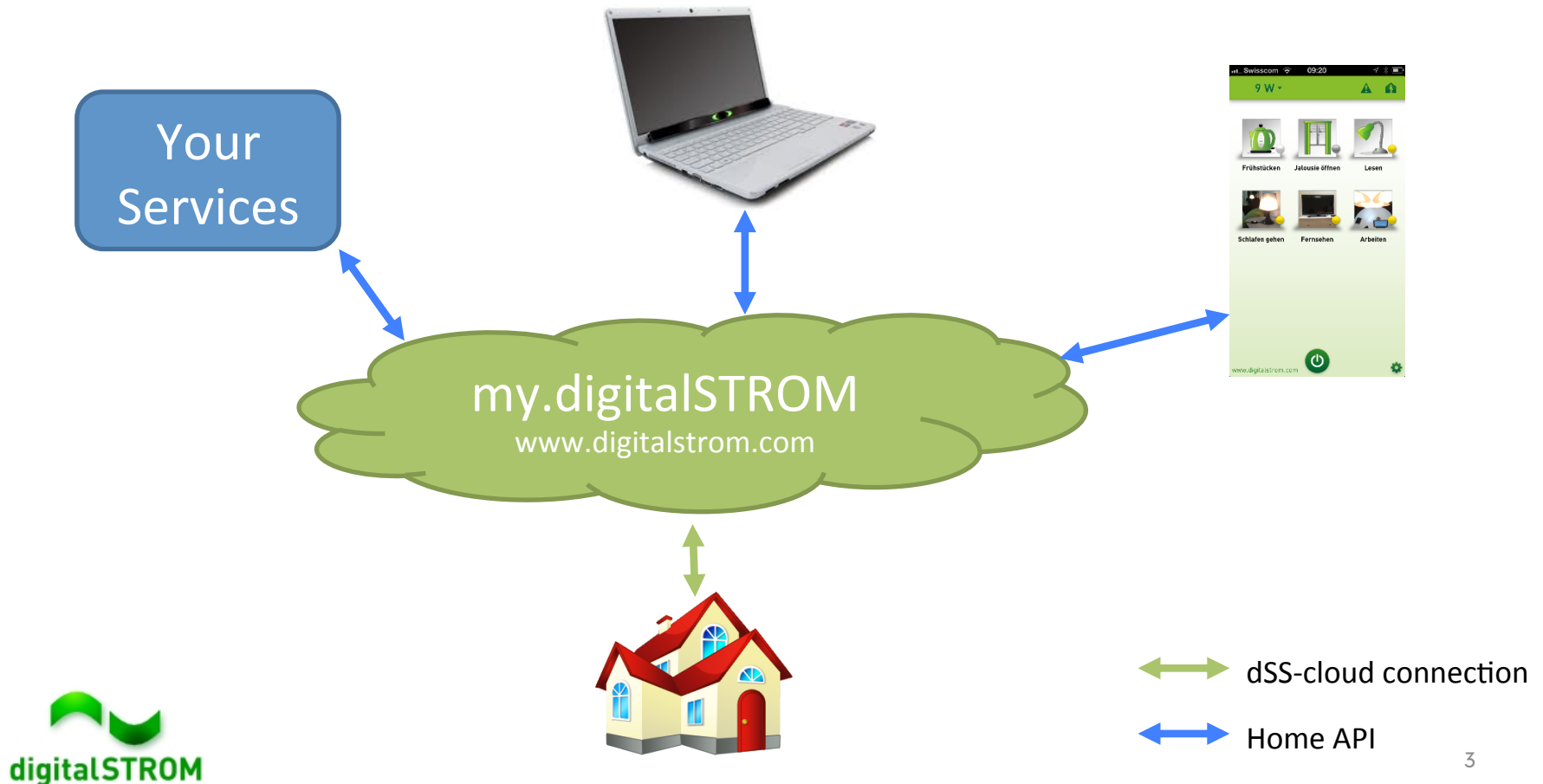
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# Content

- digitalSTROM Cloud

  - What is our cloud and why should I use it?

- IP Device Integration

  - Why do we integrate IP devices?

# Topology 'my.digitalSTROM'

- The dSS connects to the user's my.digitalSTROM account in the cloud.
- The digitalSTROM cloud provides an API that can be used by external apps, user interfaces or services.



Your Services

my.digitalSTROM
www.digitalstrom.com

dSS-cloud connection

Home API

# Home API Outlook

my.digitalSTROM

The Home API will provide cloud-based access to the the whole digitalSTROM world. It will become the preferred API when providing cloud services.

- It enables apps and services to
  - Read dynamic system information
  - Read the system structure
  - Configure or control the system
- It provides user management
  - Each my.digitalSTROM account might consist of multiple user accounts having different access rights
  - Dedicated user account for installers, planners, building owners etc.
- Security through authorization
  - Apps and services will receive their unique token to access the home API
  - Access right for services will be limited to what they need to operate

**The Home API is under development and will be introduced next year!**

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# Features dS-Cloud 2.0

Besides providing the Home API, the dS-cloud comes with additional features:

- Billing capability: service and app providers can sell their product directly in the dS-Store

- Virtual system copy:
  - keep a copy of all relevant system data for fast access
  - enrich data with additional information (e.g. tags, OEM info)

- Keep statistics data: e.g. metering or temperature data

- Notifications: easy to use notification mechanism to send emails, tweets or push messages to the user

- Management of availability: monitor the connection and availability of devices

# Example: Hail Service

The hail service

- Verifies whether the apartment location is within the hail warning area raised by a weather service

- Informs the user on the hail warning status

- Automatically protects the shades

Therefore, the service makes use of following features:

- Read apartment structure and configure hail group

- Read apartment location

- Read absent / present state

- Send push messages, tweets and emails

- Execute hail protection in the apartment

- Billing component to charge a yearly fee



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# Example: Smart Heating

Another potential service is a smart heating controller that optimizes the energy consumption:

- Read all the room temperatures
- Consider additional parameters such as outside temperature, wind, sun, weather forecast, building structure, duration of absence, time schedule etc. in order to...
- Control the heating system in a very efficient way

By accessing the Home API, the controller can benefit from all available actors and sensors. It's implementation concentrates on the smart, energy saving algorithm!

# Example: Assisted Living

A security service might provide a panic / assistance button that calls for assistance:

- The button is automatically recognized and registered to the service due to the OEM configuration process.

- The running connection between the service and the button itself can be verified regularly (e.g. hourly).
  If the connection fails, the service will raise a warning.

- If the user presses the button, the service provider gets notified immediately and will initiate the required actions.

# Benefits for Developers and Partners

By using the Home API and digitalSTROM cloud features, partners will have numerous benefits:

- An easy to use but powerful API providing all digitalSTROM capabilities.

- Provide existing or new online services running on his own infrastructure.

  - Without limitation to the existing JS environment on the dSS

  - Protecting his personal IP

- Better maintainability and more flexible services compared to the dSS based solution.

- The built-in billing service allows partners to earn money based on one-time or repeated fees.
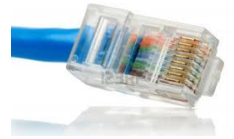
# IP Device Integration

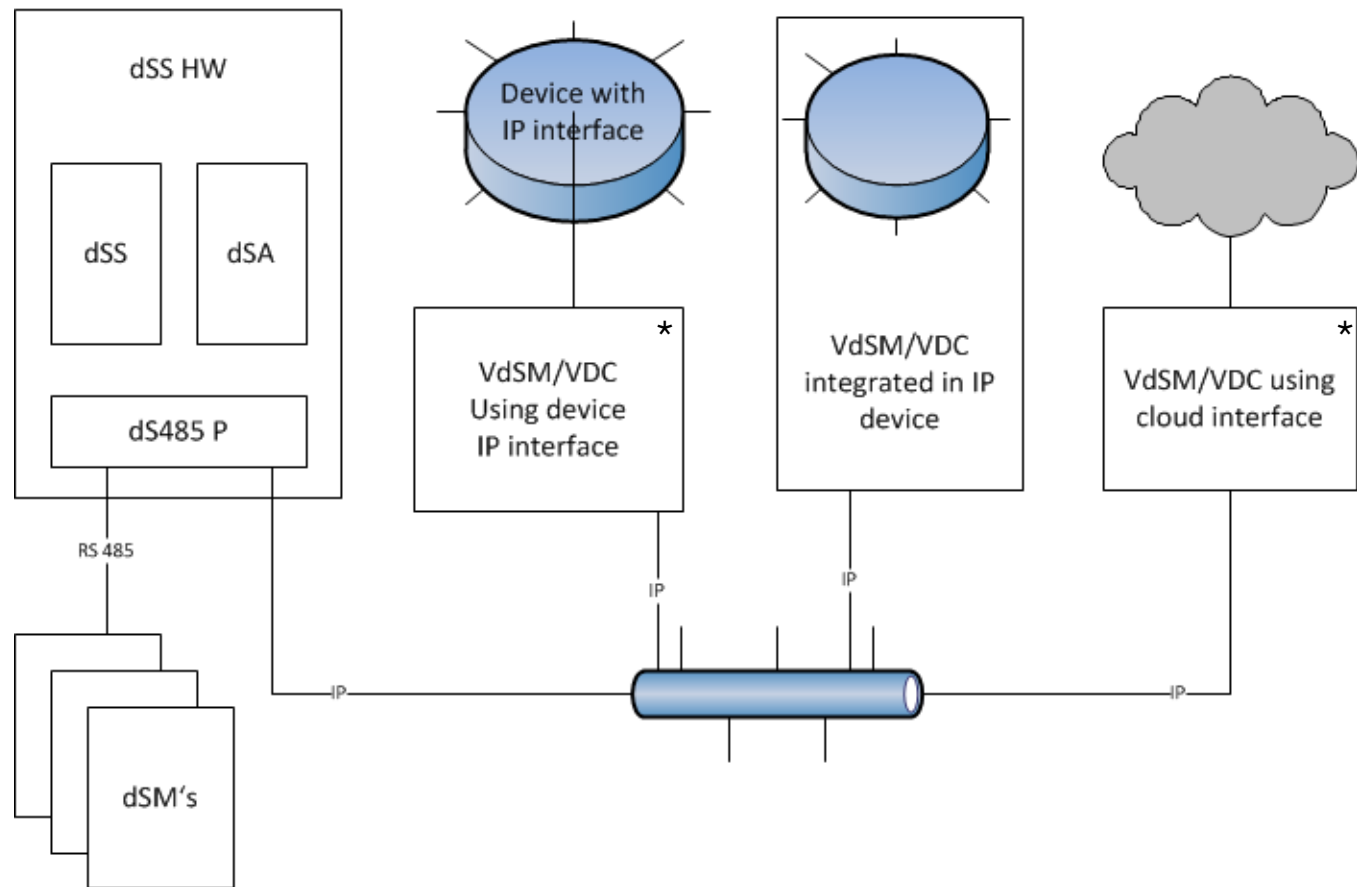The world of IP devices is growing fast, and users are widely using IP devices.

digitalSTROM will provide a platform to integrate such devices into one system!

# Three Ways to Integrate IP Devices

Virtual dSM's and virtual device containers connect the devices to the digitalSTROM world.



* Running on dSS or external HW

# Examples for IP Integration

- EnOcean sensors and actors get connect through a dedicated IP-EnOcean gateway.
  The VdSM is running on the gateway.

- Philips Hue lights  integrate through their IP-API
  The VdSM is running on the dSS

- The Netatmo weather station comes with a cloud API and is integrated directly in the cloud.
  The VdSM could run on the dSS.

# Benefits of IP Integration

Benefits for developers and/or end-users:

- 'Virtual' devices integrate seamlessly into dS-Configurator, smartphone- and other apps:

  - Move devices from one room to the next

  - Control the device using the same configuration-dialogs

- IP devices follow the digitalSTROM room and apartment logic. They support the pre-defined standard behaviour of dS-devices

- Sensors trigger the very same action, regardless whether they're dS- or IP based

- No or little extra effort needed on apps, UI's and control logic if new models are integrated

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# Q & A



Thank You !

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