Evolution of CERN Print Services

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Golden rule: everyone at CERN can print – ALL staff, visitors, conference participants, anyone!

Demanding environment: approx. 1000 networked print devices in 230 buildings

Our challenge: evolve Print Services into a robust and user-focused service

Legacy issues

New strategy was needed to deal with legacy issues:
- Over 100 different printer models
- Support for only half of models onsite
- Photocopiers evolved into multifunction copier machines
- Infit vice versa not involved in specifications
- Huge administrative overhead costs
- No synergies between support providers

Improving user experience

We provide search and filtering options to organise list of printers:
- By functionality:
- By geolocation:
- Multi-function copier
- Printers available in your building
- Printers available in buildings around your actual position

Standardisation

First steps centred around standardisation:
- Standardised printer models (one supplier not two)
- Standardised multifunction copier models (one supplier not three)
- Closely monitored current outsourced onsite support

Invitation to Tender

A tender was issued including specifications for:
- Standardised multifunction copier models with set prices (just 4 models)
- Plus onsite support
- Single per page cost across all models
- Contractor had to be manufacturer
- Scored tests carried out for functionality and usability
- Included option to cover onsite support for whole Printer Park

Positive initial results

After 3 years of operation:
- Reduced lease costs: by average of 33% per model
- Reduced downtime: with onsite support for multifunction copier machines
- Increased proactive support: now 36% of tickets being dealt with proactively
- Same interface on all machines: all multifunction copier machines updated
- Simplified support: all multifunction copier machines connected to network
- Same support team: covering whole of CERN Printer Park
- Cancelled printer-only support contract: reducing support costs by 35%

Situation today

CERN's printing environment remains challenging:
- 60-65,000 pages printed per average working day
- Which is 14,000 print jobs per av. day
- Printing on av. 800 devices per day

Good progress so far:
- Models: reduced to 55
- Offline: reduced to 1b
- All copiers: now online

Still many print devices:
- 715 Networked printers
- 600 USB printers (estimate)
- 238 Multifunction copiers
- 150 Fax machines (estimated)
- 23 Networked A0 size plotters

Average of 350 support tickets per month:
- 85 incidents (24%)
- 125 Requests (36%)
- 140 Network communication (40%)

Easy printer installation

Printer Status page gives basic information including map
With easy Web Add Printer buttons:
- Windows:
  - For Windows domain members only
  - Mac:
    - Signed applescript application
    - Launched through URL
    - Gets printer settings and information
    - Downloads appropriate drivers package (if not already present)
    - Configures CUPS (Common Unix Printer System) using Ipdadmin command
- And also:
  - Self Service
  - User-friendly interface: based on JAMF Casper Suite
  - Installs appropriate driver
  - Multiple queue configuration in one go
  - Proposes nearby printers, complete list also available

Simple print solution for visitors

Mail2Print Service: any device registered on CERN network can send email
Can print email body and/or attachments

Validation link emailed to user, opens website to select:
- Printer to use
- Print options, such as colour or double-sided

Future plans

- Reduce printer numbers: find solution for areas with multiple devices
- Increase proactive support: extend to printers? Identify owners & budget codes
- Extend leasing to printers? pay per usage but minimum charge, which would:
  - Remove printers from asset list & help projects with time-limited budgets
  - Reduce admin overhead costs as no need to order & hold stocks
  - Easier to update models when required
- Automatically add to machines with proactive support!
- Enable "my favourite printers" on Windows?
- New dedicated app: enabling printer configuration on visitor devices