Printer Working Group

Cloud Printing BOF –

April 7, 2010

Camas, WA

(Hosted by Sharp)

Cloud Business Case

- Data Centers Have Historically Selected Hardware Using the Worst-Case Scenario Approach – *make sure there is enough processing horsepower to handle recurring peak loads*

- Prior to the advent of virtualization, this approach lead to applications typically using 15% or less of available CPU and 30% of available storage – *InformationWeek Article "Hybrid Clouds" by Charles Babcock Sept 7, 2009*

- The goal with cloud computing is to significantly increase utilization rates so that the IT resources required to run an organization are provisioned more efficiently

Cloud Environment

- Offsite Access to necessary IT resources like storage, processing capability, and software

- Highly virtualized environment

- On-Demand access to resources

- Pay for IT Resources consumed model

- Return on investment and value proposition tied to the use of shared resources

- Simple to configure resources to reduce time to deployment

- Access to cloud resources is assumed to be Web-based

  - *Mainframe Executive "Cloud Computing for the Mainframe" Alan Radding Sept/Oct 2009*

Types of Clouds

- Public Cloud

- Private Cloud

- Hybrid Cloud

Cloud Benefits

- Green Computing

- Network as a utility model

- Improved control over organizational data

- Ability to react more quickly to changing needs for IT resources

Cloud Incompatibilities

- Integrating Virtualization Tools from Different Vendors

- Workloads sent to the cloud currently must be run on same chipset

- Not all cloud environments currently allow workload processing parameters to be saved

Cloud Standards

- DMTF – Open Virtual Machine Format

- NIST – Definitions for Public, Private, and Hybrid Clouds

Printing Challenges –
Cloud Access Devices – *OS With No Printing Support*

- Google Printing Article – Late November 2009
  - *One of Google Chrome OS's hardest tasks? Printing*

- Currently No Defined Printing Support -

  - Glide OS

  - Google Chrome OS

  - Intel Moblin

  - Jolicloud (Ubuntu derivative)

Review of Cloud Printing Options

- Printing From the Cloud – Initial Implementations

  - HP CloudPrint – *In Cloud Web 2.0 Printing Service*

    - Printer discovery (free and pay)

    - Support for a wide variety of computing platforms

    - Printer agnostic

    - In cloud Web 2.0 Printing Service

    - Standardized document formats

    - Universal driver

Review of Cloud Printing Options

- Printing From the Cloud – Initial Implementations

  - ThinPrint

    - Security of data to be printed
    - Compression of information to be printed
    - Universal driver concept
    - Supports printer discovery
    - Accepts Standardized Document Formats

Cloud Printing Requirements

- Printer Discovery

- Printer Management

- Standardized Document Formats

- Standardized set of tools to be available from all cloud access devices (mobile, netbook, desktop, and server)

- Ability to verify and control user access rights to printers from user profile information accessible to the Cloud

Cloud Printing Environments - Questions

- Questions

- PWG Next Steps

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