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// ===================================================================
//  CIM_PrintServiceCapabilities
// ===================================================================
   [Experimental, Version ( "2.23.0" ),
    UMLPackagePath ( "CIM::Device::Printing" ),
    Description (
        "A single instance of Capabilities for any PrintService which "
        "corresponds to xxx-supported attributes of an IPP Printer. \n"
        "See: Section 2.1 Printer Object in IPP/1.1 (RFC 2911). \n"
        "See: Section 4.2 Job Template Attributes in IPP/1.1. \n"
        "See: Section 4.4 Printer Description Attributes in IPP/1.1. \n"
        "Note: An instance of PrintServiceCapabilities shall be "
        "associated with exactly one instance of PrintService via an "
        "instance of the CIM_ElementCapabilities association." )]

class CIM_PrintServiceCapabilities : CIM_Capabilities {

        [Description (
            "The supported charsets for human-readable text output "
            "from this instance of PrintService to network clients. \n"
            "Values shall conform to section 4.1.2 Charset Parameter "
            "in RFC 2046 and be contained in IANA Charset Registry, "
            "e.g., 'utf-8' and 'us-ascii'." ),
         MappingStrings {
            "RFC2911.IETF|Section 4.4.18 charset-supported" },
         ModelCorrespondence {
            "CIM_PrintService.Charset" }]
    string Charset[];

        [Description (
            "Specifies whether color printing is supported for the "
            "associated PrintService." ),
         MappingStrings {
            "RFC2911.IETF|Section 4.4.26 color-supported" },
         ModelCorrespondence {
            "CIM_PrintServiceCapabilities.PagesPerMinuteColor" }]
    boolean ColorSupported;

        [Description (
            "The supported compression for document data (but not "
            "operations themselves) for the associated PrintService. \n"
            "Value 'none' means no compression is supported. \n"
            "Value 'deflate' means RFC 1951 (ZIP) is supported. \n"
            "Value 'gzip' means RFC 1952 (GNU zip) is supported. \n"
            "Value 'compress' means RFC 1977 (UNIX) is supported." ),
         MappingStrings {
            "RFC2911.IETF|Section 4.4.32 compression-supported" }]
    string Compression[];

        [Description (
            "The supported range of copies values for any PrintJob "
            "processed by the associated PrintService (X:Y), "
            "e.g., '1:100' or '2:2' (double copies only)." ),
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        MappingStrings {
            "RFC2911.IETF|Section 4.2.5 copies" },
        ModelCorrespondence {
            "CIM_PrintServiceSettings.Copies",
            "CIM_PrintJob.Copies" }]
    string Copies;


    [Description (
            "The supported named finishings values for any PrintJob "
            "processed by the associated PrintService. \n"
            "That is, the set of named finishing operations supported, "
            "e.g., 'staple' or 'bind'." ),
        MappingStrings {
            "RFC2911.IETF|Section 4.2.6 finishings" },
        ModelCorrespondence {
            "CIM_PrintServiceSettings.Finishings",
            "CIM_PrintJob.Finishings" }]
    string Finishings[];


    [Description (
            "The supported set of IPP protocol named operations "
            "for the associated PrintService (if any), "
            "e.g., Print-Job, Cancel-Job, etc." ),
        MappingStrings {
            "RFC2911.IETF|Section 4.4.15 operations-supported" },
        ModelCorrespondence {
            "CIM_AccountManagementCapabilities.OperationsSupported" }]
    string IPPOperations[];


    [Description (
            "The supported set of IPP protocol major/minor versions "
            "for the associated PrintService (if any), "
            "e.g., '1.0' (RFC 2566), '1.1' (RFC 2911), and '2.0' "
            "(PWG 5100.10)." ),
        MappingStrings {
            "RFC2911.IETF|Section 4.4.14 ipp-versions-supported" },
        ModelCorrespondence {
            "CIM_SoftwareElement.Version" }]
    string IPPVersions[];


    [Description (
            "The supported named job hold until values for any "
            "PrintJob processed by the associated PrintService. "
            "That is, the named time periods when the PrintJob may be "
            "scheduled, e.g., 'night' or 'weekend'. "
            "The value 'no-hold' indicates immediate scheduling." ),
        MappingStrings {
            "RFC2911.IETF|Section 4.2.2 job-hold-until" },
        ModelCorrespondence {
            "CIM_PrintServiceSettings.JobHoldUntil",
            "CIM_PrintJob.JobHoldUntil" }]
    string JobHoldUntil[];


    [Description (
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            "The supported range of priority values for any PrintJob "
            "processed by the associated PrintService (X:Y), "
            "e.g., '1:100' or '50:50' (single medium priority only). \n"
            "Note: Weighted scale is *opposite* to Job.Priority. \n"
            "The value 1 indicates the lowest possible priority. \n"
            "The value 100 indicates the highest possible priority." ),
        MappingStrings {
            "RFC2911.IETF|Section 4.2.1 job-priority" },
        ModelCorrespondence {
            "CIM_Job.Priority"
            "CIM_PrintServiceSettings.JobPriority",
            "CIM_PrintJob.JobPriority" }]
    string JobPriority;

        [Description (
            "The supported named start/end sheets for any PrintJob "
            "processed by the associated PrintService. \n"
            "The value 'none' indicates no job start/end sheets. \n"
            "The value 'standard' indicates one or more site specific "
            "standard job sheets." ),
        MappingStrings {
            "RFC2911.IETF|Section 4.2.3 job-sheets" },
        ModelCorrespondence {
            "CIM_PrintServiceSettings.JobSheets",
            "CIM_PrintJob.RequiredJobSheets" }]
    string JobSheets[];

        [Description (
            "The supported maximum output impressions for any PrintJob "
            "processed by the associated PrintService." ),
        MinValue ( 0 ),
        MaxValue ( 2147483647 ),
        MappingStrings {
            "RFC2911.IETF|Section 4.4.34 job-impressions-supported" },
        ModelCorrespondence {
            "CIM_PrintJob.ImpressionsCompleted" }]
    uint32 MaxImpressions;

        [Description (
            "The supported maximum document data size for any PrintJob "
            "processed by the associated PrintService, in "
            "units of KBytes." ),
        MinValue ( 0 ),
        MaxValue ( 2147483647 ),
        Units ( "KiloBytes" ),
        MappingStrings {
            "RFC2911.IETF|Section 4.4.33 job-k-octets-supported" },
        ModelCorrespondence {
            "CIM_PrintQueue.MaxJobSize"
            "CIM_PrintJob.JobSize" },
        PUnit ( "byte * 10^3" )]
    uint32 MaxJobSize;

        [Description (
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            "The supported maximum output sheets for any PrintJob "
            "processed by the associated PrintService." ),
        MinValue ( 0 ),
        MaxValue ( 2147483647 ),
        MappingStrings {
            "RFC2911.IETF|Section 4.4.35 job-media-sheets-supported" },
        ModelCorrespondence {
            "CIM_PrintJob.SheetsCompleted" }]
    uint32 MaxSheets;


        [Description (
            "The supported multiple document handling for any PrintJob "
            "processed by the associated PrintService. \n"
            "That is, the named policy for the handling of finishing,"
            "the placement of one or more input logical pages onto "
            "output impressions, and multiple copies in a PrintJob "
            "with two or more documents, e.g., 'single-document' "
            "or 'single-document-new-sheet'." ),
        MappingStrings {
            "RFC2911.IETF|Section 4.2.4 multiple-document-handling" },
        ModelCorrespondence {
            "CIM_PrintServiceCapabilities.MultipleDocumentJobs",
            "CIM_PrintServiceSettings.MultipleDocumentHandling",
            "CIM_PrintJob.MultipleDocumentHandling" }]
    string MultipleDocumentHandling[];


        [Description (
            "Specifies whether multiple documents in a single Job "
            "are supported for the associated PrintService (e.g., "
            "using IPP Send-Document operations)." ),
        MappingStrings {
            "RFC2911.IETF|Section 4.4.16" },
        ModelCorrespondence {
            "CIM_PrintServiceCapabilities.MultipleDocumentHandling",
            "CIM_PrintServiceSettings.MultipleDocumentHandling",
            "CIM_PrintJob.MultipleDocumentHandling" }]
    boolean MultipleDocumentJobs;


        [Description (
            "The supported natural languages for human-readable text "
            "output from this instance of PrintService to network "
            "clients. \n"
            "Values shall conform to IETF Tags for Identifying "
            "Languages (RFC 5646) or successor and shall be contained "
            "in the IANA Language Subtag Registry (RFC 5645), "
            "e.g., 'en-us' (US English) and 'fr' (French)." ),
        MappingStrings {
            "RFC2911.IETF|Section 4.4.20" },
        ModelCorrespondence {
            "CIM_PrintService.NaturalLanguage" }]
    string NaturalLanguage[];


        [Description (
            "The supported range of input logical pages per impression "
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            "for a PrintJob processed by the associated PrintService "
            "(X:Y), e.g., '1:9' or '1:1' (one page per impression). \n"
            "Note: The translation, rotation, and scaling required for "
            "values of '2' or more are implementation dependent." ),
        MappingStrings {
            "RFC2911.IETF|Section 4.2.9 number-up" },
        ModelCorrespondence {
            "CIM_PrintServiceSettings.NumberUp",
            "CIM_PrintJob.NumberUp" }]
    string NumberUp;

        [Description (
            "The supported orientation requested values for any "
            "PrintJob processed by the associated PrintService. \n"
            "Value 'portrait' means imaged across the short edge, "
            "with no content rotation. \n"
            "Value 'landscape' means imaged across the long edge, "
            "with content rotated 90 degrees anticlockwise "
            "from 'portrait'. \n"
            "Value 'reverse-landscape' means imaged across the long "
            "edge, with content rotated 90 degrees clockwise "
            "from 'portrait'. \n"
            "Value 'reverse-portrait' means imaged across the short "
            "edge, with content rotated 180 degrees (opposite) "
            "from 'portrait'." ),
        MappingStrings {
            "RFC2911.IETF|Section 4.2.10 orientation-requested" },
        ModelCorrespondence {
            "CIM_PrintServiceSettings.OrientationRequested",
            "CIM_PrintJob.OrientationRequested" }]
    string OrientationRequested[];

        [Description (
            "The supported named output bins for any PrintJob "
            "processed by the associated PrintService, "
            "e.g., 'top', 'left', 'side', etc." ),
        MappingStrings {
            "PWG5100-2.PWG|Section 2.1 output-bin" },
        ModelCorrespondence {
            "CIM_PrintServiceSettings.OutputBin",
            "CIM_PrintJob.OutputBin" }]
    string OutputBin[];

        [Description (
            "The supported output device name(s) for any Print Job "
            "processed by the associated PrintService." ),
        MappingStrings {
            "PWG5100-7.PWG|Section 4.2.1.2 output-device-supported" },
        ModelCorrespondence {
            "CIM_Printer.ElementName",
            "CIM_PrintJob.OutputDevice" }]
    string OutputDevice[];

        [Description (
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            "The supported pages per minute color for any PrintJob "
            "processed by the associated PrintService. \n"
            "Value of zero indicates that the PrintService takes 2 or "
            "more minutes to process a single page." ),
        MinValue ( 0 ),
        MaxValue ( 2147483647 ),
        MappingStrings {
            "RFC2911.IETF|Section 4.4.36 pages-per-minute" }]
    uint32 PagesPerMinute;


        [Description (
            "The supported color pages per minute for any PrintJob "
            "processed by the associated PrintService. \n"
            "Value of zero indicates that the PrintService takes 2 or "
            "more minutes to process a single color page." ),
        MinValue ( 0 ),
        MaxValue ( 2147483647 ),
        MappingStrings {
            "RFC2911.IETF|Section 4.4.37 pages-per-minute-color" },
        ModelCorrespondence {
            "CIM_PrintServiceCapabilities.ColorSupported" }]
    uint32 PagesPerMinuteColor;


        [Description (
            "Support for input logical page ranges for any PrintJob "
            "processed by the associated PrintService. \n"
            "That is, support for the set of input logical pages to be "
            "included in the output." ),
        MappingStrings {
            "RFC2911.IETF|Section 4.2.7 page-ranges" },
        ModelCorrespondence {
            "CIM_PrintJob.PageRanges" }]
    boolean PageRanges;


        [Description (
            "Specifies whether PDL override is attempted for the "
            "associated PrintService. \n"
            "See section 15.2 of IPP/1.1 (RFC 2911) for details." ),
        MappingStrings {
            "RFC2911.IETF|Section 4.4.28 pdl-override-supported" }]
    boolean PDLOverrideAttempted;


        [Description (
            "The supported print quality values for impressions for "
            "any PrintJob processed by the associated PrintService. \n"
            "Value 'draft' means lowest print quality. \n"
            "Value 'normal' means normal print quality. \n"
            "Value 'high' means highest print quality." ),
        MappingStrings {
            "RFC2911.IETF|Section 4.2.13 print-quality" },
        ModelCorrespondence {
            "CIM_PrintServiceSettings.PrintQuality",
            "CIM_PrintJob.PrintQuality" }]
    string PrintQuality[];
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    [Description (
        "The supported document reference URI schemes for Jobs "
        "submitted to this instance of PrintService, e.g., 'ftp' "
        "in an IPP Print-URI operation). \n"
        "Values shall include 'ftp' if this capabilities property "
        "is implemented by the associated PrintService." ),
     MappingStrings {
        "RFC2911.IETF|Section 4.4.27" }]
  string ReferenceURISchemes[];

    [Description (
        "The supported print resolutions for impressions for any "
        "PrintJob processed by the associated PrintService. \n"
        "That is, the horizontal by vertical resolution in pixels "
        "per inch for output impressions (sides of selected media) "
        "separated by a lowercase 'x', e.g., print resolutions "
        "of '300x300' and '600x1200'. \n"
        "Horizontal resolution is defined as resolution in the "
        "cross-feed direction, short-edge in portrait feed mode. \n"
        "Vertical resolution is defined as resolution in the feed "
        "direction, long-edge in portrait feed mode." ),
     MappingStrings {
        "RFC2911.IETF|Section 4.2.12 printer-resolution" },
     ModelCorrespondence {
        "CIM_PrintServiceSettings.Resolution",
        "CIM_PrintJob.HorizontalResolution",
        "CIM_PrintJob.VerticalResolution" }]
  string Resolution[];

    [Description (
        "The supported imposition modes for impressions for any "
        "PrintJob processed by the associated PrintService. \n"
        "That is, the policy for imposing input logical pages "
        "onto output impressions (sides of selected media). \n"
        "Value 'one-sided' means each successive input logical "
        "page onto the same side of consecutive sheets of media. \n"
        "Value 'two-sided-long-edge' means each consecutive pair "
        "of input logical pages onto front and back sides of "
        "consecutive sheets of media, with orientation for long "
        "edge binding \n"
        "Value 'two-sided-short-edge' means each consecutive pair "
        "of input logical pages onto front and back sides of "
        "consecutive sheets of media, with orientation for short "
        "edge binding." ),
     MappingStrings {
        "RFC2911.IETF|Section 4.2.8 sides" },
     ModelCorrespondence {
        "CIM_PrintServiceSettings.Sides",
        "CIM_PrintJob.Sides" }]
  string Sides[];


};
```