DIVAR IP 2000

DIP-2040EZ-00N, DIP-2042EZ-4HD, DIP-2042EZ-2HD

zh- 安装手册 CHS



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1 安全预防措施

遵守本章中的安全预防措施。

1.1 一般安全预防措施

为了确保安全,请遵循以下准则:

- 系统周围的区域应清洁整齐。
- 已卸下的机箱顶盖或任何系统组件应放置在远离系统的地方,或
 者放置在桌面上,以避免被意外踩踏。
- 维修系统时,不要穿宽松的衣服,例如领带和解开钮扣的衬衫袖
 口,它们会与电路接触,或者吸入冷却风扇中。
- 取下身上的任何珠宝或金属物件,它们是极好的金属导体,当与
 印刷电路板或带电区域接触时,会造成短路并造成人身伤害。

警告!

中断电源:



一旦将电源插头插入电源插座,即可通电。

然而,对于具有电源开关的设备,仅在电源开关 (ON/OFF) 处于 ON 位置时,设备才会准备好进行工作。从插座中拔出电源插头时,将完 全中断设备的电源供应。

警告!

卸下外壳:



为了避免触电,只能由合格的维修人员卸下外壳。

在卸下外壳之前,您必须始终从电源插座中拔出插头,并在卸下外壳 时,保持断开连接状态。维修只能由合格的维修人员执行。用户不能 执行任何维修。

警告!



电源线和交流电适配器:

当安装产品时,请使用已提供或指定的连接电缆、电源线和交流电适 配器。使用任何其他电缆和适配器可能导致故障或火灾。电气设备和 材料安全法禁止对任何其他电气设备使用经过 UL 或 CSA 认证的电缆 (代码中显示 UL/CSA)。

警告!

锂电池:



错误插入的电池可能会导致爆炸。始终用制造商建议的相同类型或相 似类型的电池更换耗尽电量的电池。

小心处理废旧电池。不得以任何方式损坏电池。损坏的电池可能在环 境中释放有害物质。

按照制造商的说明处理耗尽电量的电池。



警告!

处理本产品中使用的铅焊接材料可能会使您接触到铅。铅是加利福尼 亚州已知会导致出生缺陷和其他生殖危害的化学物质。

注解!

静电敏感设备:



为了避免静电放电,您必须正确执行 CMOS/MOSFET 保护措施。 当处理静电敏感的印刷电路板时,必须佩戴接地的防静电腕带和遵守 ESD 安全预防措施。

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注解!

根据适用的电气法规,安装必须仅由合格的客户维修人员执行。

回收处理 博世产品采用高品质的材料和组件进行开发和制造,可 以回收利用。 此符号表示在电子和电气设备达到其使用寿命期限时. 应与生活垃圾分开处理。 在欧盟、已经有独立的收集机构来处理废旧的电气和电 子产品。请在您当地的公共废物收集点或回收中心处理 这些设备。

1.2 电气安全预防措施

应遵守基本的电气安全预防措施以防止人身伤害和系统损坏:

- 了解机箱电源开关的位置以及机房的紧急断电开关、断路开关或
 电气插座。这样,当发生电气事故时,您可以快速断开系统的电源。
- 切勿单独一人处理高压组件。
- 当卸下或安装主要系统组件(例如主板或内存模块)时,应始终
 断开系统电源。当断开电源时,应先关闭系统,然后从系统的所
 有电源模块拔下电源线。
- 当在裸露的电路周围工作时,另一位熟悉断电控制装置的人员应
 在附近待命,以便在必要时关闭电源。
- 维修通电的电气设备时,请仅使用一只手。这旨在防止形成完整的回路,从而避免触电。使用金属工具时,请万分小心,因为当它们接触电气组件或电路板,容易造成损坏。
- 电源设备的电源线必须包括接地插头,并且必须插入接地的电气 插座中。装置有多条电源线。在维修之前,应将所有电源线都断 开,以免触电。
- 主板可更换焊入式保险丝:只有经过培训的服务技术人员才能更 换主板上的自恢复式 PTC(正温度系数)保险丝。新保险丝必须 与所更换的保险丝属于同一或同类型号。如需了解详细信息和支 持,请联系技术支持人员。

小心!

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主板电池:如果板载电池颠倒安装(造成电极反接),则可能发生爆 炸。更换此电池时,必须使用相同型号的电池或制造商推荐的同类电 池 (CR2032)。按照制造商的说明书处理废旧电池。

1.3 ESD预防措施

静电释放 (ESD) 是两个带不同电荷的物体相互接触而产生的。为了中和此电势,将会形成静电释放,这会损坏电子组件和印刷电路板。以下 措施通常足以在接触之前中和此电势,从而保护您的设备免受 ESD 的损坏:

- 不要使用旨在减少静电释放(从而防止触电)的静电垫,而应使
 用专门用作电气绝缘材料的橡胶垫。
- 使用旨在防止静电释放的接地腕带。
- 在准备使用之前,始终让所有组件和印刷电路板 (PCB) 留在防静
 电袋内。
- 从防静电袋取出电路板之前,触摸接地的金属物体。
- 即使您戴了腕带,也不要让组件或 printed circuit boards 接触
 您的衣物(可能存有电荷)。
- — 仅拿住电路板的边缘。不要触摸其组件、周边芯片、内存模块或

 触点。
- 当处理芯片或模块时,避免接触其插针。
- 不使用时,请将主板和周边设备放回防静电袋。
- 为实现接地,确保您的计算机机箱在电源设备、机壳、安装紧固
 件和主板之间提供极佳的导电性能。

1.4 操作预防措施

在系统工作时,机箱盖必须安装到位,以确保正常冷却。如果不严格遵 守这项规定,则对系统造成的损坏不在保修范围内。

注:

请小心处理废旧电池。不得以任何方式损坏电池。损坏的电池可能在环 境中释放有害物质。不要把废旧电源丢入垃圾或公共垃圾填埋地。请按 照当地有害废品管理机构颁布的条例正确处理废旧电池。

2 可用文档

本手册提供有不同语言版本。您可在在线产品目录中找到所有手册。 通过以下方式,可找到博世安防系统产品的文档:

▶ 打开任何浏览器 > 输入 www.boschsecurity.com > 选择您所在 的地区和国家 > 开始搜索您的产品 > 在搜索结果中选择产品以显 示现有文档。

3 系统概述

DIVAR IP 2000 系统是一种经济实惠、易于使用的一体式录像和管理 解决方案,适用于具有多达 16 个通道的网络监控系统。所有通道都已 预先获得许可。DIVAR IP 2000 采用了完整的博世录像解决方案,是 一种智能 IP 存储设备,可提供专业视频录像解决方案,并且操作简 便。

DIVAR IP 2000 为 4 托架微塔式装置,是一款经济实惠、即插即用的 IP 录像设备,兼具先进的管理和一流的录像管理功能,适合于寻求"第 二代"NVR 录像解决方案的具有 IT 意识的客户。

DIVAR IP 2000 采用高能效、嵌入式设计,价格非常实惠,但却完全 拥有博世优异品质。

DIVAR IP 2000 采用了基于向导的安装和集中化配置,因此易于安装 和操作,从而减少安装时间。所有组件都是预先安装和预先配置的。只 需连接到网络并打开装置电源 — 从盒子中取出 DIVAR IP 2000 即可开 始录像。

DIVAR IP 2000 具有可从正面插拔的 SATA-II 硬盘驱动器。所有系统 软件都已预先安装并预先激活,因此这是一个开箱即可使用的视频录像 设备。

3.1 设备视图

机箱前后有若干个 LED 指示灯。这些 LED 指示灯显示系统的整体状态 以及特定组件的活动和运行状况。



DIVAR IP 后视图:

0 . b • C 0 6 • C . • -2 3 5 6 1 4

1	1 个 eSATA(未使用)	4	2 个 USB 3.0 注意:请勿使用。
2	1 个以太网 (RJ45)	5	1 个 VGA(监视器) 注意:仅适用于故障排除。
3	2 个 USB 2.0 注意:仅适用于故障排除。	6	电源连接 100 - 240 VAC

3.2 LED 指示灯说明 - 前面板

本章介绍位于机箱正面的 LED 指示灯。

LED 指示 灯	LED 颜 色	LED 状 态	说明
电源 LED	不适用	关	关机
	蓝色	亮起(默 认值)	工作
HDD LED	不适用	关	无磁盘访问
	蓝色	闪烁	磁盘访问
LAN LED	不适用	关	已断开网络
	蓝色	开	已连接网络
	蓝色	闪烁	网络活动
系统 LED	不适用	关	系统在正常工作状态下启动。
	蓝色	闪烁	系统正在启动,或正在应用软件 更新。
	红色	开	未定义的软件错误。请与技术支 持部门联系。
单个硬盘 LED	不适用	熄灭(默 认值)	未为此托架配置硬盘驱动器。
	蓝色	开	硬盘驱动器存在并且正在工作。
	蓝色	闪烁	硬盘驱动器运行状况不佳-需要 注意。
	红色	 <i></i>	已为此托架配置硬盘驱动器,但 硬盘驱动器不工作。

3.3 LAN 端口 LED 说明 - 后面板

本章介绍位于机箱后面的 LAN 端口 LED 指示灯。

LAN 连接器:



编 号	LED 指示灯	LED 颜色	LED 状态	NIC 状态
1	RJ45 LED (左)	不适用	关	无连接或 10 Mb/s
		绿色	开	100 Mb/s
		黄色	开	1000 Mb/s
2 R.	RJ45 LED (右)	黄色	开	活动连接
		黄色	闪烁	传输或接收活动

4 机箱安装

本章介绍在机箱中安装组件和执行维护的步骤。

小心!

安装或维修机箱之前,请查阅本手册中介绍的警告和预防措施。

在添加或替换硬盘之前,注意下列前提条件。

前提条件:

- DIVAR IP 仅支持偶数数量的硬盘(2 个或 4 个)
- 托架1和托架2必须装入硬盘
- 装置的所有硬盘必须具有相同的容量



注解!

在首次启动系统之前插入硬盘。

另请参见:

- 安全预防措施, 页面 4
- 安装硬盘驱动器,页面15

4.1 卸下硬盘驱动器托架

驱动器安装在驱动器托盘中,可以简化在机箱中安装和拆卸驱动器的过 程。这些托盘还有助于保持驱动器插槽内的正常气流。

要从机箱中卸下硬盘驱动器托架:

- 1. 关闭系统。
- 2. 按下驱动器托盘上的释放按钮。这会展开驱动器托盘手柄。
- 3. 使用手柄从机箱中拉出具有驱动器的驱动器托盘。
- 将具有新驱动器的驱动器托盘插入机箱插槽,确保该驱动器托盘 手柄完全闭合。

注解!

从插槽卸下硬盘驱动器时,不得操作装置(除非时间较短)。

4.2 安装硬盘驱动器

这些驱动器安装在驱动器托盘中。

要将硬盘驱动器安装到硬盘驱动器托盘:

- 1. 从托盘卸下驱动器。
- 将新的驱动器装入托盘,同时保持带有印刷电路板的一侧朝下, 以使安装孔与托盘中的安装孔对准。
- 3. 将驱动器托盘装回机箱插槽,确保驱动器托盘手柄完全闭合。

注解!



我们建议使用相应的博世硬盘驱动器。硬盘驱动器作为其中一个重要 组件,博世将根据可用故障率进行精心挑选。非博世提供的硬盘不受 支持。您可以在博世在线产品目录中的数据表找到有关支持的硬盘的

信息。

5 安装-第一步

DIVAR IP 系统出厂时预装了配置向导。

5.1 安装注意事项

默认情况下,所有 DIVAR IP 系统配置为从本地网络中的 DHCP 服务 器获取有效的网络地址。在小型网络中,此任务通常由 Internet 路由 器执行。如果网络中没有任何 DHCP 服务器,则 DIVAR IP 将使用下 列网络设置:

- IP 地址: 192.168.0.200
- 子网掩码:255.255.255.0

注解!

强烈建议您不要更改任何操作系统设置。操作系统访问应仅用于故障 排查。更改可能导致系统工作不正常。

5.2 连接装置

DIVAR IP 系统已就绪,开箱即可使用。该应用程序为网络监控系统提供安装简单且直观易用的解决方案。

连接装置:

- 1. 将装置和摄像机连接到网络。
- 2. 将装置连接到电源。
- 3. 打开装置。

一系列脚本将执行重要的安装任务。这可能需要数分钟时间。请 勿关闭计算机。

注意:在此初始安装期间,系统 LED 将一直闪烁。在系统准备好 运行之后,系统 LED 将停止闪烁。DIVAR IP 的基于 Web 的向导 页现在可从网络中的任何浏览器访问。使用此网页向导页可获取 基本系统配置。

另请参见:

- 设备视图,页面9
- 获取基本配置, 页面 17

6 获取基本配置

DIVAR IP 2000 提供了一个易于使用的配置向导,以快速获取小型系 统的基本配置。

使用配置向导实现基本配置:

 从网络中的任何 PC 中打开一个 Web 浏览器,在地址栏中输入 DIVAR IP 的 IP 地址,然后按 Enter。这将显示配置向导的 欢迎 页。

注意:

如果您不知道此 IP 地址,请按如下所示继续:

- 只有一个 DIVAR IP 2000 位于网络中:
 输入 http://mydivar 或 https://mydivar,然后按
 Enter。这将显示配置向导的 欢迎 页。
 ! 仅当同一网络中只有一个 DIVAR IP 时才可以使用
 mydivar,如果有多个 DIVAR IP,则不可使用!!
- 多个 DIVAR IP 2000 位于同一网络:
 使用 IP Helper 工具显示所有设备及其 IP 地址。该工具可以在 DIVAR IP 2000 产品页的在线目录中找到。
- 在 欢迎 页上,选择您的首选语言,然后单击 Start configuration。
- 快速浏览向导并按说明操作。每一页均为您提供了该工具的使用 方式信息。
- 在完成配置向导之后,您的系统将具有基本配置。如果基本配置 需要扩展,请使用高级配置。
- 另请参见:
- 使用 IP Helper 工具, 页面 25
- 高级配置,页面18

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高级配置使您能够按照您的需要配置系统。

使用高级配置:

- 1. 从网络中的任何 PC 中打开一个 Web 浏览器。
- 在 Web 浏览器的地址栏中,输入 http://mydivar/ configurationsite 或 http://<DIVAR IP 的 IP 地址>/ configurationsite,然后按 Enter。将显示配置。
 注意:如果 DIVAR IP 用户界面已打开,请单击 配置 选项卡。
- 3. 在右侧的树状结构中选择所需的要进行更改的页。
 - Video devices 页 添加和删除设备 定义移动探测设置
 - 录像 页 定义相位 为相位分配属性
 - 报警页
 定义方案
 添加和删除操作
 配置电子邮件属性
 - 远程访问 页
 选择动态 DNS 提供程序
 测试与 DIVAR IP 2000 的连接
 - 系统页 创建帐户 定义存储模式 设置密码 设置时区、日期和时间 选择语言 维护系统
- 4. 进行更改并保存配置。

DIVAR IP 2000



注解**!** 使用有关每页的帮助。

另请参见:

- 获取基本配置, 页面 17
- *监控系统, 页面* 20
- 使用 IP Helper 工具, 页面 25

8 维护系统

8.1 监控系统

DIVAR IP 2000 Dashboard 用于通过网络中的任何 PC 监控 DIVAR IP 2000 系统的状态。

DIVAR IP 2000 Dashboard 提供了有关 DIVAR IP 2000 系统的信息。

您不能使用 DIVAR IP 2000 Dashboard 配置 DIVAR IP 2000。若要 配置系统,请先使用配置向导获取基本信息,然后(如有必要)打开配 置菜单进行高级配置。

使用 DIVAR IP 2000 Dashboard:

- 1. 从网络中的任何 PC 中打开一个 Web 浏览器。
- 在 Web 浏览器的地址栏中,输入 http://mydivar/ dlacockpit 或 http://<DIVAR IP 的 IP 地址>/ dlacockpit,然后按 Enter。将显示 DIVAR IP 2000 Dashboard。
 注意:如果 DIVAR IP 用户界面已打开,请单击 Dashboard 选项

庄忌:如未 DIVAR IP 用厂芥囬C打开,请早击 **Dashboard** 边 卡。

- 3. 在右侧的树状结构中选择所需的要获取系统信息的页。
 - System information 页
 显示状态和硬盘驱动器信息(例如,摄像机数量、硬盘驱动
 器状态)。
 - 日志 页 显示日志信息。
 - Device monitor 页
 显示连接的所有设备。
 提供用于更新系统软件的 Update manually... 按钮。

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使用有关每页的帮助。

另请参见:

注解!

获取基本配置, 页面 17



8.2 重置设备

按照以下描述的流程操作以恢复工厂默认图像。



要将装置恢复到工厂默认图像

 启动装置,在 BIOS 开机自检期间按下 F7。 将显示"恢复"菜单。

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注解!

请确保装置已连接 VGA 监视器、键盘和鼠标。

- 2. 选择以下选项之一:
 - Initial to factory image (all data will be deleted)
 (恢复到工厂默认图像并删除硬盘上的所有数据)
 或
 - Restore to Factory image (all data will not be deleted)

(恢复到工厂默认图像;不会删除硬盘上的数据) 注意:

Windows 执行安装。屏幕显示进程完成的百分比。



注解!

进程期间请不要关闭装置。否则将损坏"恢复"介质。

- 装置从"恢复"介质启动。如果安装成功,则按"是"以重新启动系统。
- Windows 执行操作系统的初始化安装。Windows 完成安装后, 装置重新启动。
- 5. 重新启动装置之后,将安装工厂设置。

另请参见:

- 备份配置, 页面 22

8.3 备份配置

下面是如何备份配置的步骤。



注解!

建议频繁备份配置,以便最新备份在需要时始终可用。

备份配置:

- 1. 在 DIVAR IP 配置中,展开系统,然后单击 服务。
- 2. 若要备份配置,请单击 Back up。将显示一个对话框。
- 单击保存。配置的保存位置将取决于浏览器设置。
 注意:如果您需要为备份文件选择特定目标目录,请单击保存按
 钮右侧的箭头,然后单击"另存为"。
- 若要查找备份,请单击 Windows 的"开始"按钮,在搜索框中输入 downloads,然后按 Enter。
 将显示一个包含备份文件的对话框。

8.4 添加/替换硬盘

在添加或替换硬盘之前,注意下列前提条件。

前提条件:

- DIVAR IP 仅支持偶数数量的硬盘(2 个或 4 个)
- 托架1和托架2必须装入硬盘
- 装置的所有硬盘必须具有相同的容量



注解!

在首次启动系统之前插入硬盘。

8.4.1 扩展 2 磁盘装置

您可使用 2 个附加硬盘扩展 2 磁盘装置。

将硬盘添加到 2 磁盘装置:

- 1. 按电源按钮关闭装置。
- 2. 将新的硬盘插入机箱插槽,确保驱动器托盘手柄完全闭合。
- 3. 按电源按钮打开装置。
- 使用任何浏览器打开 DIVAR IP Dashboard。为此,请在 Web 浏 览器的地址栏中,输入 http://mydivar/dlacockpit 或 http://<DIVAR IP 的 IP 地址>/dlacockpit,然后按 Enter。DIVAR IP 2000 Dashboard 将显示您必须打开 配置 > Disk management 进行配置的消息。
- 5. 单击 配置 以打开配置。
- 6. 扩展 系统, 然后单击 Disk management。
- 7. 若要向系统的硬盘添加存储容量,请按照显示的说明操作。
- 在完成硬盘安装之后,磁盘托盘右侧的独立硬盘状态 LED 将变为 蓝色。

另请参见:

- 机箱安装, 页面14

8.4.2 扩展空装置

您可使用 2 或 4 个附加硬盘扩展空装置。

将硬盘添加到空装置:

- 1. 将新的硬盘插入机箱插槽,确保驱动器托盘手柄完全闭合。
- 2. 按电源按钮打开装置。
- 该装置会将硬盘标记为新的,并自动启动恢复菜单。
 在完成恢复过程之后,将安装 DIVAR IP 软件。磁盘托盘右侧的独 立硬盘状态 LED 将变为蓝色。
- 4. 使用配置向导执行基本配置。

另请参见:

- *机箱安装, 页面* 14
- 获取基本配置, 页面17

8.4.3 更换硬盘

如果硬盘出现故障,则磁盘托盘右侧的独立硬盘状态 LED 将变为红 色。

更换硬盘:

1. 卸下发生故障的硬盘。使用手柄从机箱中拉出磁盘托盘。

注意:您可在工作期间卸下硬盘。

- 2. 按电源按钮关闭装置。
- 3. 将新的硬盘插入机箱插槽,确保驱动器托盘手柄完全闭合。
- 4. 按电源按钮打开装置。
- 使用任何浏览器打开 DIVAR IP Dashboard。为此,请在 Web 浏 览器的地址栏中,输入 http://mydivar/dlacockpit 或 http://<DIVAR IP 的 IP 地址>/dlacockpit,然后按 Enter。DIVAR IP 2000 Dashboard 将显示您必须打开 配置 > Disk management 进行配置的消息。
- 6. 单击 配置 以打开配置。
- 7. 扩展 系统, 然后单击 Disk management。
- 8. 若要向系统的硬盘添加存储容量,请按照显示的说明操作。
- 在完成硬盘安装之后,磁盘托盘右侧的独立硬盘状态 LED 将变为 蓝色。

另请参见:

- 机箱安装,页面14
- 8.5 更新系统

下面是如何手动更新系统的步骤。

手动更新 DIVAR IP:

- 1. 在 DIVAR IP Dashboard 中,单击树状结构中的 **Device monitor**。
- 单击 Update manually。
 将显示一个对话框,您可在其中浏览更新文件。

注解!

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如果系统已连接到 Internet,则系统将自动检查更新。如果更新可用,则可将其直接下载并安装。如果您的系统未连接到 Internet,则可从产品页手动下载最新的更新软件包。更新系统包括所有组件和摄像机设备。更新将需要大概 5 到 10 分钟,更新期间将停止录像。

8.6 使用 IP Helper 工具

博世的 IP Helper 是一个小型窗口工具,可让用户查看所有 IP 设备及 其在网络中的 IP 地址。利用此工具,无需专业知识,用户即可快速、 轻松地查找 IP 设备的 IP 地址或配置 IP 设备的网络设置。IP Helper 是一个可直接执行的程序,无需安装。您可使用网络中的任何 PC 打开 IP Helper。可直接从 USB 移动存储器打开 IP Helper。 IP Helper 工具可供下载,如下所示:

- 在 DIVAR IP 2000 产品页的在线目录中
- 在 http://mydivar.com 下

查找 DIVAR IP 系统:

- 1. 双击 IP Helper 工具 (iphelper.exe)。
- 将打开一个对话框,其中显示所有 IP 设备及其在网络中的 IP 地 址。搜索要配置的 DIVAR IP 系统并记下 IP 地址。
 注意:若要标识 DIVAR IP 系统,请按 闪烁 LED。

9 最终用户许可协议 (EULA)

本章介绍 Microsoft Windows Storage Server 2008 R2 Standard 的 Microsoft 许可条款的相关信息。 请仔细阅读以下页面。

MICROSOFT SOFTWARE LICENSE TERMS

MICROSOFT WINDOWS STORAGE SERVER 2008 R2 STANDARD

These license terms are an agreement between you and

- the server manufacturer that distributes the software with the server; or
- the software installer that distributes the software with the server.

Please read them. They apply to the software named above, which includes the media on which you received it, if any. Printed paper license terms, which may come with the software, take place of any on-screen license terms. The terms also apply to any Microsoft

- updates,
- supplements,
- Internet-based services, and
- support services

for this software, unless other terms accompany those items. If so, those terms apply. If you obtain updates or supplements directly from Microsoft, Microsoft, and not the manufacturer or installer, licenses those to you.

By using the software, you accept these terms. If you do not accept them, do not use the software. Instead, contact the manufacturer or installer to determine its return policy for a refund or credit.

As described below, using the software also operates as your consent to the transmission of certain computer information during activation, validation and for Internet-based services.

If you comply with these license terms, you have the rights below for each software license you acquire.

1. OVERVIEW.

- a. Software. The software includes
 - server software; and
 - additional software that may only be used with the server software directly, or indirectly through other additional software.
- b. License Model. The software is licensed based on
 - the number of instances of server software that you run.
- c. Licensing Terminology.
 - Instance. You create an "instance" of software by executing the software's setup or install
 procedure. You also create an instance of software by duplicating an existing instance.
 References to software in this agreement include "instances" of the software.
 - Run an Instance. You "run an instance" of software by loading it into memory and executing
 one or more of its instructions. Once running, an instance is considered to be running (whether
 or not its instructions continue to execute) until it is removed from memory.
 - Operating System Environment. An "operating system environment" is
 - all or part of an operating system instance, or all or part of a virtual (or otherwise emulated)
 operating system instance which enables separate machine identity (primary computer
 name or similar unique identifier) or separate administrative rights, and
 - instances of applications, if any, configured to run on the operating system instance or parts identified above.

There are two types of operating system environments, physical and virtual. A physical operating system environment is configured to run directly on a physical hardware system. The operating system instance used to run hardware virtualization software (e.g. Microsoft Virtual Server or similar technologies) or to provide hardware virtualization services (e.g. Microsoft virtualization technology or similar technologies) is considered part of the physical operating

system environment. A virtual operating system environment is configured to run on a virtual (or otherwise emulated) hardware system. A physical hardware system can have either or both of the following:

- one physical operating system environment
- one or more virtual operating system environments.
- Server. A server is a physical hardware system capable of running server software. A
 hardware partition or blade is considered to be a separate physical hardware system.
- Assigning a License. To assign a license means simply to designate that license to one server or user.

2. USE RIGHTS.

a. Assignment of the License to the Server. The software license is permanently assigned to the server with which you acquired the software. If you run the software on a hardware partition, that partition is the server to which the license must be assigned. That server is the licensed server for that particular license. You may assign other software licenses to the same server, but you may not assign the same license to more than one server.

b. Running Instances of the Server Software.

- i. You may run, at any one time, one instance of the server software in one physical and one virtual operating system environment on the licensed server.
- **ii.** If you run both permitted instances at the same time, the instance of the server software running in the physical operating system environment may be used only to:
 - run hardware virtualization software
 - provide hardware virtualization services
 - run software to manage and service operating system environments on the licensed server.
- c. Running Instances of the Additional Software. You may run or otherwise use any number of instances of additional software listed below in physical or virtual operating system environments on any number of servers. You may use additional software only with the server software directly, or indirectly through other additional software.
 - AD Migration Tool
 - FRS Monitoring Tools
 - Remote Desktop Connection Client
 - RSAT Client

d. Creating and Storing Instances on Your Servers or Storage Media. You have the additional rights below for each software license you acquire.

- You may create any number of instances of the server software and additional software.
- You may store instances of the server software and additional software on any of your servers or storage media.
- You may create and store instances of the server software and additional software solely to
 exercise your right to run instances of the server software under any of your software licenses
 as described (e.g., you may not distribute instances to third parties).
- e. Included Microsoft Programs. The software contains other Microsoft programs. These license terms apply to your use of those programs.
- f. Font Components. While the software is running, you may use its fonts to display and print content. You may only
 - embed fonts in content as permitted by the embedding restrictions in the fonts; and
 - temporarily download them to a printer or other output device to print content.
- g. Icons, images and sounds. While the software is running, you may use but not share its icons, images, sounds, and media.

3. ADDITIONAL LICENSING REQUIREMENTS AND/OR USE RIGHTS.

a. Specific Use. The manufacturer or installer designed this server for a specific use. You may only use the software for that use.

You may not use the software to support additional software programs or functions, other than utilities or similar software used solely for administration, performance enhancement, preventative maintenance, or to provide complimentary data storage functionality for this server.

- **b.** Software Use Limits. You are not licensed to use any of the following functions of the server software:
 - i. Active Directory. You may not use of the server software as a domain controller or any other use of DCPromo.exe.
 - ii. Network Infrastructure Services. You may not use any functions of the server software necessary to support a server network infrastructure. For example, you may not use Routing and Remote Access Service (RRAS), Windows Internet Name Service (WINS), or. You may, however, use the Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Read Only Domain Controller (RODC) server functions and any network infrastructure client functions, such as DNS or DHCP clients.
 - iii. Terminal Services. This function enables servers to use server software, or other software used with the server software to provide similar services. Terminal Services may be used only to the extent required to manage the server Software in Remote Administration Mode.
 - iv. Network Load Balancing Services.
 - v. Server Roles. You may not use of the following features or functions:
 - Active Directory Certificate Services
 - Active Directory Domain Services
 - Active Directory Federation Services
 - Active Directory Management Services
 - Application Server
 - Network Policy and Access Services
 - UDDI Services
 - Windows Deployment Services
- **c.** Limitation on Functions Supported by the Software. The manufacturer or installer licenses you to use the server software to support only the base functions as provided and installed on this server. You are not licensed to use the server to run or support
 - i. enterprise database software (such as Microsoft SQL Server), except non-enterprise engines such as Microsoft SQL Server 2008 Express Edition. The server software also may run or support enterprise database engines (including Microsoft SQL Server) that are integrated in and used only to support the server software as part of the specific use for which the manufacturer or installer designed this server,
 - ii. enterprise resource planning (ERP) software,
 - iii. messaging or enterprise mail,
 - iv. Microsoft Exchange or Microsoft SharePoint Portal Server,
 - v. team collaboration software, and/or
 - vi. web-based time management applications that address appointment, meeting and other calendar items.

These limitations do not restrict use of the server for data management (such as providing storage and backup functions) for the software identified above.

d. No Windows Server CALs Required. Servers that access or use functions of Windows Storage Server software licensed under these license terms do not require a client access license (CAL). Obtaining a CAL for any Microsoft product does not grant you rights to use functions of the server software not licensed under these license terms. e. Windows Server 2008 R2 Rights Management Services Access. You must acquire a Windows Server 2008 Rights Management Services CAL for each user account through which a user directly or indirectly accesses the Windows Server 2008 R2 Rights Management Services functionality.

4. MANDATORY ACTIVATION

Activation associates the use of the software with a specific server. During activation, the software will send information about the software and the server to Microsoft. This information includes the version, language and product key of the software, the Internet protocol address of the server, and information derived from the hardware configuration of the server. **The manufacturer or installer should have activated the software for you.** For more information, see http:// www.microsoft.com/piracy/mpa.aspx. By using the software, you consent to the transmission of this information. If the server is connected to the Internet, the software may automatically connect to Microsoft for activation. You can also activate the software manually by Internet or telephone. If you do so, Internet and telephone service charges may apply. Some changes to your computer components or the software may require you to reactivate the software.

5. VALIDATION

- a. If the manufacturer or installer activated the software for you, you may not be asked to activate the software when you first use it. The software will from time to time validate the software, update or require download of the validation feature of the software. Validation verifies that the software has been activated and is properly licensed. Validation also permits you to use certain features of the software to obtain additional benefits. For more information, see http://go.microsoft.com/fwlink/2linkid=39157.
- b. During a validation check, the software will send information about the software and the server to Microsoft. This information includes the version and product key of the software, and the Internet protocol address of the server. Microsoft does not use the information to identify or contact you. By using the software, you consent to the transmission of this information. For more information about validation and what is sent during a validation check, see http://go.microsoft.com/fwlink/?linkid=69500.
- c. If, after a validation check, the software is found not to be properly licensed, the functionality of the software may be affected. For example, you may
 - · need to reactivate the software, or
 - · receive reminders to obtain a properly licensed copy of the software,

or you may not be able to

- · use or continue to use some of the features of the software, or
- obtain certain updates or upgrades from Microsoft.
- **d.** You may only obtain updates or upgrades for the software from Microsoft or authorized sources. For more information on obtaining updates from authorized sources see http://go.microsoft.com/fwlink/?linkid=69502.
- **6. INTERNET-BASED SERVICES**. Microsoft provides Internet-based services with the software. Microsoft may change or cancel them at any time.
 - a. Consent for Internet-Based Services. The software features described below connect to Microsoft or service provider computer systems over the Internet. In some cases, you will not receive a separate notice when they connect. You may switch off these features or not use them. For more information about these features, visit http://go.microsoft.com/fwlink/?linkid=34493. By using these features, you consent to the transmission of this information. Microsoft does not use the information to identify or contact you.
 - b. Computer Information. The following features use Internet protocols, which send to the appropriate systems computer information, such as your Internet protocol address, the type of operating system, browser and name and version of the software you are using, and the language code of the server where you installed the software. Microsoft uses this information to make the Internet-based services available to you.

- <u>Windows Update Feature</u>. You may connect new hardware to the server when you run the software. Your server may not have the drivers needed to communicate with that hardware. If so, the update feature of the software can obtain the correct driver from Microsoft and run it on your server. You can switch off this update feature.
- Web Content Features. Features in the software can retrieve related content from Microsoft and provide it to you. To provide the content, these features send to Microsoft the type of operating system, name and version of the software you are using, type of browser and language code of the server where you run the software. Examples of these features are clip art, templates, online training, online assistance and Appshelp. You may choose not to use these web content features.
- <u>Digital Certificates</u>. The software uses digital certificates. These digital certificates confirm the identity of Internet users sending X.509 standard encrypted information. The software retrieves certificates and updates certificate revocation lists. These security features operate only when you use the Internet.
- <u>Auto Root Update</u>. The Auto Root Update feature updates the list of trusted certificate authorities. You can switch off the Auto Root Update feature.
- Windows Media Digital Rights Management. Content owners use Windows Media digital rights management technology (WMDRM) to protect their intellectual property, including copyrights. This software and third party software use WMDRM to play and copy WMDRM-protected content. If the software fails to protect the content, content owners may ask Microsoft to revoke the software's ability to use WMDRM to play or copy protected content. Revocation does not affect other content. When you download licenses for protected content, you agree that Microsoft may include a revocation list with the licenses. Content owners may require you to upgrade WMDRM to access their content. Microsoft software that includes WMDRM will ask for your consent prior to the upgrade. If you decline an upgrade, you will not be able to access the Internet. When these features are off, you can still play content for which you have a valid license.
- Windows Media Player. When you use Windows Media Player, it checks with Microsoft for
 - · compatible online music services in your region;
 - new versions of the player; and
 - · codecs if your server does not have the correct ones for playing content.

You can switch off this last feature. For more information, go to http://www.microsoft.com/windows/windowsmedia/player/11/privacy.aspx

- <u>Malicious Software Removal/Clean On Upgrade</u>. Before installation of the software, the software will check and remove certain malicious software listed at http://www.support.microsoft.com/?kbid=890830 ("Malware") from your server. When the software checks your server for Malware, a report will be sent to Microsoft about any Malware detected or errors that occurred while the software was checking for Malware. No information that can be used to identify you is included in the report. You may disable the software's Malware reporting functionality by following the instructions found at http://www.support.microsoft.com/?kbid=890830.
- <u>Network Connectivity Status Icon</u>. This feature determines whether a system is connected to a
 network by either passive monitoring of network traffic or active DNS or HTTP queries. The
 query only transfers standard TCP/IP or DNS information for routing purposes. You can switch
 off the active query feature through a registry setting.
- <u>Windows Time Service</u>. This service synchronizes with time.windows.com once a week to provide your computer with the correct time. You can turn this feature off or choose your preferred time source within the Date and Time Control Panel applet. The connection uses standard NTP protocol.
- <u>IPv6 Network Address Translation (NAT) Traversal service (Teredo)</u>. This feature helps existing home Internet gateway servers transition to IPv6. IPv6 is a next generation Internet protocol.

It helps enable end-to-end connectivity often needed by peer-to-peer applications. To do so, each time you start up the software the Teredo client service will attempt to locate a public Teredo Internet service. It does so by sending a query over the Internet. This query only transfers standard Domain Name Service information to determine if your computer is connected to the Internet and can locate a public Teredo service. If you

- use an application (e.g. Windows Meeting Space) that needs IPv6 connectivity or
- configure your firewall to always enable IPv6 connectivity

by default standard Internet Protocol information will be sent to the Teredo service at Microsoft at regular intervals. No other information is sent to Microsoft. You can change this default to use non-Microsoft servers. You can also switch off this feature using a command line utility named "netsh".

- Windows Rights Management Services. The software contains a feature that allows you to create content that cannot be printed, copied or sent to others without your permission. You must connect to Microsoft to use this feature for the first time. Once a year, you must reconnect to Microsoft to update it. For more information, go to http://do.microsoft.com/fwlink/?LinkId=52646. You may choose not to use this feature.
- c. Use of Information. Microsoft may use the computer information, error reports, and Malware reports to improve our software and services. We may also share it with others, such as hardware and software vendors. They may use the information to improve how their products run with Microsoft software.
- **d. Misuse of Internet-based Services**. You may not use these services in any way that could harm them or impair anyone else's use of them. You may not use the services to try to gain unauthorized access to any service, data, account or network by any means.
- **7. DATA STORAGE TECHNOLOGY.** The server software includes data storage technology called Windows Internal Database. Components of the server software use this technology to store data. You may not otherwise use or access this technology under this agreement.
- 8. BENCHMARK TESTING. The software includes one or more components of the .NET Framework (".NET Components"). You may conduct internal benchmark testing of those components. You may disclose the results of any benchmark test of those components, provided that you comply with the conditions set forth at http://go.microsoft.com/fwlink/?LinkID=66406. Notwithstanding any other agreement you may have with Microsoft, if you disclose such benchmark test results, Microsoft shall have the right to disclose the results of benchmark tests it conducts of your products that compete with the applicable .NET Component, provided it complies with the same conditions set forth at http://go.microsoft.com/fwlink/?LinkID=66406.
- 9. SCOPE OF LICENSE. The software is licensed, not sold. This agreement only gives you some rights to use the software. The manufacturer or installer and Microsoft reserve all other rights. Unless applicable law gives you more rights despite this limitation, you may use the software only as expressly permitted in this agreement. In doing so, you must comply with any technical limitations in the software that allow you to use it only in certain ways. For more information, see the software documentation or contact the manufacturer or installer. Except and only to the extent permitted by applicable law despite these limitations, you may not:
 - work around any technical limitations in the software;
 - reverse engineer, decompile or disassemble the software;
 - make more copies of the software than specified in this agreement;
 - publish the software for others to copy;
 - rent, lease or lend the software; or
 - use the software for commercial software hosting services.

Except as expressly provided in this agreement, rights to access the software on this server do not give you any right to implement Microsoft patents or other Microsoft intellectual property in software or devices that access this server.

You may use remote access technologies in the software such as Remote Desktop to access the software remotely from another device. You are responsible for obtaining any licenses required for use of these protocols to access other software.

- **10.BACKUP COPY.** You may make one backup copy of the software media. . You may only restore the backup image to the same server from which the backup was created. You may use it only to create instances of the software.
- **11.DOCUMENTATION.** Any person that has valid access to your computer or internal network may copy and use the documentation for your internal, reference purposes.
- 12.NOTICE ABOUT THE MPEG-4 VISUAL STANDARD. This software includes MPEG-4 visual decoding technology. This technology is a format for data compression of video information. MPEG LA, L.L.C. requires this notice:

USE OF THIS PRODUCT IN ANY MANNER THAT COMPLIES WITH THE MPEG 4 VISUAL STANDARD IS PROHIBITED, EXCEPT FOR USE DIRECTLY RELATED TO (A) DATA OR INFORMATION (I) GENERATED BY AND OBTAINED WITHOUT CHARGE FROM A CONSUMER NOT THEREBY ENGAGED IN A BUSINESS ENTERPRISE, AND (II) FOR PERSONAL USE ONLY; AND (B) OTHER USES SPECIFICALLY AND SEPARATELY LICENSED BY MPEG LA, L.L.C.

If you have questions about the MPEG-4 visual standard, please contact MPEG LA, L.L.C., 250 Steele Street, Suite 300, Denver, Colorado 80206; www.mpegla.com.

13.NOTICE ABOUT THE VC-1 VISUAL STANDARD. This software may include VC-1 visual decoding technology. MPEG LA, L.L.C. requires this notice:

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