Dell Service Description

Azure Planning & Integration Services: Disaster Recovery Proof of Concept

Introduction

Dell is pleased to provide the customer ("Customer" or "you") with Azure Planning & Integration Services: Disaster Recovery Proof of Concept (the "Service(s)") in accordance with this Service Description ("Service Description") and Dell quote. Your Dell quote, order form or other mutually-agreed upon form, invoice or order acknowledgment/confirmation (as applicable, the "Order Form") will include the name of the Service(s) and available service options that you have purchased. For additional assistance or to request a copy of your service contract(s), contact Dell Technical Support or your sales representative.

The Scope of This Service

Introduction

The Service provides the Customer with a functioning Microsoft Azure hybrid cloud environment suitable for demonstrating the Disaster Recovery (DR) use case for non-production virtual workloads in a limited scale. Dell will perform the necessary setup and configuration to integrate the Customer’s on-premise systems and infrastructure with the Microsoft Azure cloud. Dell will work with the Customer in an interactive manner to demonstrate the Disaster Recovery use case tasks and conduct knowledge transfer on the delivered platform.

Detailed Description

The Service will be two (2) weeks long and will include the following features depending on the option (i.e. "on-premises to on-premises protections" or "on-premises to Azure protection") chosen by the Customer during the pre-engagement conference call.

Option 1: On-premises to on-premises protection

Remote - Pre-Engagement Conference Call

- Pre-assessment call/discussion to introduce key participants
- Identify key stakeholders (project sponsor, IT design and operation, server, network, storage, backup, disaster recovery, and application owners)
- Review current environment and on-site logistics, and discuss objectives and preparation
- Confirm the required Microsoft Azure subscriptions, features and services have been provisioned by Customer
Onsite - Azure Disaster Recovery Proof of Concept (PoC)

- Conduct whiteboard session to provide an overview of the hybrid cloud solution for the Proof of Concept
  - Azure Site Recovery features and scenarios
  - Integration of the virtualization environment on Virtual Machine Manager (VMM) server and Azure
  - Hyper-V replica configuration and best practices
  - Azure virtual network features and scenarios

- Review requirements for Proof of Concept
  - Azure subscription and features enabled
  - Certificate(s) required
  - Supported on-premise virtual machine candidates for Proof of Concept
  - Supported operating systems
  - Virtual network IP configuration (on-premise Hyper-V or Azure)
  - Proper rights and access to the systems
  - Proper Domain Name Service (DNS) resolution and configuration in the Azure cloud
  - On-premise primary site (source) candidate for the Proof of Concept
  - On-premise DR site (target) candidate for the Proof of Concept
  - Hyper-V server and Hyper-V replica configuration requirements
  - System Center VMM server configuration requirements
  - Network connectivity and mapping requirements
  - Storage mapping requirements
  - Active Directory domain and services

- Set up and configure the Proof of Concept environment
  - Access to Microsoft Azure
  - Creation and configuration of required certificate(s) using the certificate creation tool (makecert.exe)
  - Creation and configuration of Azure Site Recovery vault
  - Installation of Azure Site Recovery provider on VMM server(s)
  - Configuration of protection settings for VMM cloud(s)
  - Configuration of storage and network mappings
  - Enabling the protection of up to five (5) Hyper-V virtual machines
  - Creation of recovery plans to specify the order in which VMs will failover
  - Performing a test site failover and verifying that the recovery plan works
• Update of as-built document for use case

• Demonstrate the Disaster Recovery use case tasks
  o Monitoring and administration of Azure Site Recovery
  o Performing a planned site failover
  o Performing a failback
  o Performing an unplanned site failover (if time permits)
  o Disabling protection of up to five (5) Hyper-V virtual machines

• Facilitate next steps discussion
  o Discuss additional Azure features and services
  o Discuss additional use case opportunities and product maturity
  o Deliver executive summary and as-built document for the use case

**Option 2: On-premises to Azure protection**

**Remote - Pre-Engagement Conference Call**

• Pre-assessment call/discussion to introduce key participants
• Identify key stakeholders (project sponsor, IT design and operation, server, network, storage, backup, disaster recovery, and application owners)
• Review current environment and on-site logistics, and discuss objectives and preparation
• Confirm the required Microsoft Azure subscriptions, features and services have been provisioned by Customer

**Onsite - Azure Disaster Recovery Proof of Concept (PoC)**

• Conduct whiteboard session to provide overview of the hybrid cloud solution for the Proof of Concept
  o Azure Site Recovery features and scenarios
  o Integration of the virtualization environment on VMM server and Azure
  o Hyper-V Replica configuration and best practices
  o Azure virtual network features and scenarios

• Review requirements for Proof of Concept
  o Azure subscription and features enabled
  o Certificate(s) required
  o Supported on-premise virtual machine candidates for Proof of Concept
  o Supported operating systems
  o Virtual network IP configuration (on-premise Hyper-V or Azure)
  o VPN or RDP access to Azure cloud environment
- Proper rights and access to the systems
- Proper Domain Name Service (DNS) resolution and configuration in the Azure cloud
- On-premise primary site (source) candidate for the Proof of Concept
- Azure Site Recovery requirements
- Hyper-V server and Hyper-V replica configuration requirements
- System center VMM server configuration requirements
- Network connectivity and mapping requirements
- Storage mapping requirements
- Active Directory domain and services

• Set up and configure the Proof of Concept environment
  - Access to Microsoft Azure
  - Creation and configuration of required certificate(s) using the certificate creation tool (makecert.exe)
  - Creation and configuration of Azure Site Recovery vault
  - Installation of Azure Site Recovery provider on VMM server(s)
  - Installation of Azure Recovery Services agent on Hyper-V host server(s) located in the VMM cloud
  - Configuration of protection settings for VMM cloud(s)
  - Configuration of storage and network mappings
  - Creation and configuration of virtual network in Azure
  - Creation of site-to-site VPN connection between on-premise and Azure virtual network using either:
    - Supported VPN network appliance
    - Windows 2012 R2 RRAS
  - Enabling the protection of up to five (5) Hyper-V virtual machines
  - Creation of recovery plans to specify the order in which VMs will failover
  - Performing a test site failover and verifying that the recovery plan works
  - Update of as-built document for use case

• Demonstrate the Disaster Recovery use case tasks
  - Monitoring and administration of Azure Site Recovery
  - Performing a planned site failover
  - Performing a failback
  - Performing an unplanned site failover (if time permits)
  - Disabling protection of up to five (5) Hyper-V virtual machines

• Facilitate next steps discussion
Assumptions

1) All hardware and targeted guest OS versions are found on the Microsoft Azure support matrix.
2) Internet access is available for all VMs or systems that will be part of Proof of Concept.
3) All tools and licensing costs from Microsoft Azure are Customer Responsibilities.
4) Microsoft System Center Virtual Machine Manager Server 2012 R2 (VMM) is in place and running.
5) Microsoft Hyper-V 2012 R2 hosts are in place and running with Hyper-V Replicas already configured.
6) Microsoft Hyper-V virtual machines are in place and running.
7) All VMM servers, Hyper-V hosts and guest virtual machines are running in the same Active Directory domain.
8) All guest operating systems are running Microsoft Windows Server 2008 R2 SP1 or higher.
9) At least one or more Hyper-V host is in place in each VMM host group.
10) At least one or more virtual machine is in place in each Hyper-V host.
11) Hyper-V virtual networks are properly defined and working for Hyper-V replicas.
12) This engagement is limited to Host-Based Replication feature (Hyper-V Replica).
13) Implementation of Hyper-V recovery plans is limited to five (5) VMs.
14) The Services performed do NOT include highly available infrastructure services that manage the primary site or secondary site. (i.e VMM, inventory services, single sign-on, SQL, AD, DNS, DHCP, Syslog server, NTP servers, etc.)
15) Customer is responsible for providing proper server name to IP address resolution services and addressing automation requirements necessary for this project.
16) Customer is responsible for understanding the change rate of the VMs and having sufficient bandwidth to support the replication.
17) Customer is responsible for defining recovery time objective (RTO)/recovery point objective (RPO) and startup order of each Virtual Machine (VM).
18) Customer is responsible for user redirection to target DR site if different network IP schemes are being used at the target DR site (i.e. an extended VLAN is not in-place).
19) Customer is responsible for providing the application owners to ensure proper testing of failed over VMs.
20) Customer is responsible for troubleshooting any applications that fail to come up after a failover or failback.
21) Change in IP addresses on servers being protected do not affect negatively the applications running on the servers (i.e. applications rely on Customer’s naming service infrastructure).
22) Customer information being complete, accurate, up to date and provided promptly.

Additional assumptions for Option 1: On-premises to on-premises protection

1) For on-premise to on-premise, at least one VMM server with two (2) clouds configured or two VMM servers with one (1) cloud configured on each of them (primary as the source and secondary as the target or recovery site).

Additional assumptions for Option 2: On-premises to Azure protection

1) VMM server needs to be configured with one (1) cloud at the on-premise location.
2) Customer must have an externally facing IPv4 IP address and a supported VPN device or Windows 2012 R2 RRAS to configure a site-to-site VPN connection.

Deliverables

The following is a list of tangible material provided as part of the Service performed by Dell for Customer under this Service Description.

If for any reason the Customer information cannot be completely gathered within the term of this Service Description, then the findings and recommendation set forth in the executive summary and as-built documentation will be prepared using the Customer information that is available. Customer information collected shall be deemed Confidential Information as defined in the Agreement or other agreed terms signed by both parties.

<table>
<thead>
<tr>
<th>Documents</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary &amp; As-Built Documentation</td>
<td>• Details the configuration of the deployed Proof of Concept based on the use case</td>
</tr>
<tr>
<td>Executive Debrief Presentation</td>
<td>• Executive Summary outlining the configuration of the Proof of Concept deployed, additional use case opportunities and next steps</td>
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Service SKUs

<table>
<thead>
<tr>
<th>SKU</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>705-12963</td>
<td>ICS, Azure Planning &amp; Integration Services, Disaster Recovery Proof of Concept Implementation</td>
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</table>

Exclusions

For the avoidance of doubt, the following activities are not included in the scope of this Service Description:
• Any services, tasks or activities other than those specifically noted in this Service Description.

• As used in this Service Description, “knowledge transfer, and all references thereto, and the pricing quoted herein specifically exclude any Dell training and certification services. Knowledge transfer outlines only an informal transfer of basic knowledge of the Dell services from the on-site Dell engineer to Customer’s local contact or IT representative. Dell training and certification services offerings are available by Customer subject to a separate price quote.

• The Service does not include the development of any intellectual property created solely and specifically for the Customer.

• Unboxing, rack and stack of equipment is not included in this Service.

• De-installation or re-installation of product(s) or application(s).

• Integration with third party products which would require an extensive development skillset.

• Performance tuning.

• Troubleshooting or fixing any existing problems.

• Network troubleshooting or tools-based remediation. The existing networking infrastructure and its supporting services (such as DNS and WINS) are considered “healthy” for the duration of the delivery of the Services.

• Application profiling, including identification of applications compatible with virtualization / cloud and analysis of server/application interdependencies.

• Backup solutions detailed assessment and design.

• Disaster Recovery detailed assessment and design.

• Cloud design (outside the realm of Microsoft Azure).

• Any special security clearances, safety training or clothing are out of scope for the Services.

• Any security and / or special certifications (ATC, ATO, CON, DIACAP) around the tools used in the assessment.

• Installation or upgrades of any equipment.

• Troubleshooting the environment for data collection or configuration issues.

• Detailed evaluation of Customer’s IT operations and organization.

• Physical to Virtual ("P2V") migrations.

• Virtual to Virtual ("V2V") migrations.

• Service to perform data migration must be purchased separately.

• Integrate with other Microsoft Azure and system center products or features that are not part of this Proof of Concept.

• Configuration of Hyper-V hosts.

This Service Description does not confer on Customer any warranties which are in addition to the warranties provided under the terms of your master services agreement or Agreement, as applicable.

Service Specific Customer Responsibilities

Customer agrees to cooperate with Dell in its delivery of the Services. Customer agrees to the following responsibilities:

1) During the term of this Service, Customer is responsible for promptly notifying Dell in writing of a) any changes Customer makes to its information technology environment that may impact Dell’s delivery of the Services; and b) if Customer becomes aware that any of the Assumptions set forth herein are incorrect.
2) Prior to the start of this Service, Customer will indicate to Dell in writing a person to be the single point of contact, according to project plan, to ensure that all tasks can be completed within the specified time period. All Services communications will be addressed to such point of contact (the “Customer Contact”). Failure to do so might result in an increase in project hours and/or length in schedule and will be charged to the Customer at the current local time and materials rate.

3) Customer will provide technical points-of-contact, who have a working knowledge of the enterprise components to be considered during the Services (“Technical Contacts”). Dell may request that meetings be scheduled with Technical Contacts.

4) The Customer Contact will have the authority to act for Customer in all aspects of the Service including bringing issues to the attention of the appropriate persons within Customer’s organization and resolving conflicting requirements.

5) The Customer Contact will ensure that any communication between Customer and Dell, including any scope-related questions or requests, are made through the appropriate Dell Project Manager.

6) The Customer Contact will provide timely access to technical and business points of contact and required data/information for matters related to the scope of Service.

7) The Customer Contact will ensure attendance by key Customer contacts at Customer meetings and deliverable presentations.

8) The Customer Contact will obtain and provide project requirements, information, data, decisions and approvals within one (1) working day of the request, unless both parties agree to a different response time.

9) Customer may be responsible for developing or providing documentation, materials and assistance to Dell and agrees to do so in a timely manner. Dell shall not be responsible for any delays in completing its assigned tasks to the extent that they result from Customer’s failure to provide such timely documentation, materials and assistance.

10) The Customer agrees to provide Microsoft Azure Subscription access and have correct features/services already enabled before commencement of the Services.

11) The Customer Contact will review and fulfill the proper infrastructure requirements prior to beginning this Service. This includes requirements for, but not limited to, proxy devices, firewalls, filters, accelerators, security appliances and similar systems.

12) The Customer will be responsible for scripts used in any Proof of Concept that are specific to a Customer use case environment.

13) The Customer will be responsible for providing required virtual machine images and templates for guest OS deployments to be utilized in the Proof of Concept.

14) The Customer will configure the proper ports to be open in the on-premise firewall for RDP and/or VPN connection to the Azure environment.

15) The Customer will provide the proper access to on-premise virtual machines or physical systems.

General Customer Responsibilities

Authority to Grant Access. Customer represents and warrants that it has obtained permission for both Customer and Dell to access and use, whether remotely or in-person, Customer-owned or licensed software, hardware, systems, the data located thereon and all hardware and software components included therein, for the purpose of providing these Services. If Customer does not already have that permission, it is Customer’s responsibility to obtain it, at Customer’s expense, before Customer asks Dell to perform these Services.
Non-solicitation. Customer will not, without Dell’s prior written consent, for a period of three (3) months from the date listed on your Order Form, directly or indirectly solicit for employment any Dell employee with whom you have come in contact in connection with Dell’s performance of the Service; provided, however, that general advertisements and other similarly broad forms of solicitation will not constitute direct or indirect solicitation hereunder and you are permitted to solicit for employment any employee that has been terminated or has resigned his or her employment with Dell prior to the commencement of employment discussions with you.

Customer Cooperation. Customer understands that without prompt and adequate cooperation, Dell will not be able to perform the Service or, if performed, the Service may be materially altered or delayed. Accordingly, Customer will promptly and reasonably provide Dell with all cooperation necessary for Dell to perform the Service. If Customer does not provide reasonably adequate cooperation in accordance with the foregoing, Dell will not be responsible for any failure to perform the Service and Customer will not be entitled to a refund.

On-site Obligations. Where Services require on-site performance, Customer will provide (at no cost to Dell) free, safe and sufficient access to Customer’s facilities and environment, including ample working space, electricity, safety equipment (if applicable) and a local telephone line. A monitor or display, a mouse (or pointing device), and a keyboard must also be provided (at no cost to Dell), if the system does not already include these items.

Data Backup. Customer will complete a backup of all existing data, software and programs on all affected systems prior to and during the delivery of this Service. Customer should make regular backup copies of the data stored on all affected systems as a precaution against possible failures, alterations, or loss of data. DELL WILL HAVE NO LIABILITY FOR:

- ANY OF YOUR CONFIDENTIAL, PROPRIETARY OR PERSONAL INFORMATION;
- LOST OR CORRUPTED DATA, PROGRAMS OR SOFTWARE;
- DAMAGED OR LOST REMOVABLE MEDIA;
- THE LOSS OF USE OF A SYSTEM OR NETWORK; AND/OR
- FOR ANY ACTS OR OMISSIONS, INCLUDING NEGLIGENCE, BY DELL OR A THIRD-PARTY SERVICE PROVIDER.

Dell will not be responsible for the restoration or reinstallation of any programs or data.

Third Party Warranties. These Services may require Dell to access hardware or software that is not manufactured by Dell. Some manufacturers’ warranties may become void if Dell or anyone else other than the manufacturer works on the hardware or software. Customer will ensure that Dell’s performance of Services will not affect such warranties or, if it does, that the effect will be acceptable to Customer. Dell does not take responsibility for third party warranties or for any effect that the Services may have on those warranties.

Service Hours. Subject to local law relating to weekly work hours, this Service will be performed Monday through Friday during normal Dell business hours, which unless otherwise listed below is from 8:00 AM to 5:00 PM Customer local time and will include travel time to and from the customer location:

<table>
<thead>
<tr>
<th>Country</th>
<th>Normal Dell Business Hours</th>
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<tbody>
<tr>
<td>United Kingdom</td>
<td>8:30 AM to 5:00 PM</td>
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No Service activities will take place during local holidays unless other arrangements have been made in advance in writing.
Dell Services Terms & Conditions

This Service Description is entered between you and the Dell entity identified on your invoice for the purchase of this Service. This Service is provided subject to and governed by Customer’s separate signed master services agreement with Dell that explicitly authorizes the sale of this Service. In the absence of such agreement, depending on Customer’s location, this Service is provided subject to and governed by Dell’s Commercial Terms of Sale (the “Agreement”). Please see the table below which lists the URL applicable to your Customer location where your Agreement can be located. The parties acknowledge having read and agree to be bound by such online terms.

<table>
<thead>
<tr>
<th>Customer Location</th>
<th>Terms &amp; Conditions Applicable to Your Purchase of Dell Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Customers Purchasing Dell Services Directly From Dell</td>
</tr>
<tr>
<td></td>
<td>In addition, customers located in France, Germany, Ireland, South Africa and the UK can select the applicable URL below:</td>
</tr>
<tr>
<td></td>
<td>France: <a href="http://www.dell.fr/ConditionsGeneralesdeVente">www.dell.fr/ConditionsGeneralesdeVente</a></td>
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<tr>
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<td>Germany: <a href="http://www.dell.de/Geschaeftsbedingungen">www.dell.de/Geschaeftsbedingungen</a></td>
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<td>UK: <a href="http://www.dell.co.uk/terms">www.dell.co.uk/terms</a></td>
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<td>South Africa: <a href="http://www.dell.co.za">www.dell.co.za</a></td>
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<td>Customers Purchasing Dell Services Through an Authorized Dell Reseller</td>
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<td></td>
<td>Service Descriptions and other Dell service documents which you may receive from your seller shall not constitute an agreement between you and Dell but shall serve only to describe the content of Service you are purchasing from your seller, your obligations as a recipient of the Service and the boundaries and limitations of such Service. As a consequence hereof any reference to “Customer” in this Service Description and in any other Dell service document shall in this context be understood as a reference to you whereas any reference to Dell shall only be understood as a reference to Dell as a service provider providing the Service on behalf of your seller. You will not have a direct contractual relationship with Dell with regards to the Service described herein. For the avoidance of doubt any payment terms or other contractual terms which are by their nature solely relevant between a buyer and a seller directly shall not be applicable to you and will be as agreed between you and your seller.</td>
</tr>
</tbody>
</table>

* Customers may access their local [www.dell.com](http://www.dell.com) website by simply accessing [www.dell.com](http://www.dell.com) from a computer connected to the Internet within their locality or by choosing among the options at Dell’s ‘Choose a Region/Country’ website available at [http://www.dell.com/content/public/choosecountry.aspx?c=us&l=en&s=gen](http://www.dell.com/content/public/choosecountry.aspx?c=us&l=en&s=gen).

To the extent that any terms of this Service Description conflict with any terms of the Agreement, the terms of this Service Description will prevail, but only to the extent of the specific conflict, and will not be read or deemed to replace any other terms in the Agreement which are not specifically contradicted by this Service Description.

If you are entering this Service Description on behalf of a company or other legal entity, you represent that you have authority to bind such entity to this Service Description, in which case “you” or “Customer” shall refer to such entity. In addition to receiving this Service Description, Customers in certain countries may also be required to execute a signed Order Form.

Dell can provide an extension of the Services at a standard hourly fee via a separate statement of work agreed in writing between the parties.

Service Expires One Year After Purchase: Except to the extent applicable law requires otherwise, you may use this Service one (1) time during the one (1) year period following the date of original purchase (“Expiration Date”). The original purchase date is the earlier of the date of the invoice for the Service or order confirmation from Dell. Dell’s delivery of the Service will be deemed satisfied after the Expiration Date even if you do not use the Service.
Supplemental Terms & Conditions Applicable to Consulting & Managed Services

1. Term of Service. This Service Description commences on the date listed on your Order Form and continues through the term ("Term") indicated on the Order Form. As applicable, the number of systems, licenses, installations, deployments, managed end points or end-users for which Customer has purchased any one or more Services, the rate or price, and the applicable Term for each Service is indicated on Customer’s Order Form. Unless otherwise agreed in writing between Dell and Customer, purchases of Services under this Service Description must be solely for Customer’s own internal use and not for resale or service bureau purposes.

2. Important Additional Information
   A. Rescheduling. Once this Service has been scheduled, any changes to the schedule must occur at least eight (8) calendar days prior to the scheduled date. If Customer reschedules this service within seven (7) days or less prior to the scheduled date, there will be a rescheduling fee not to exceed 25% of the price for the Services.
   B. Payment for Hardware Purchased With Services. Unless otherwise agreed to in writing, payment for hardware shall in no case be contingent upon performance or delivery of consulting or managed services purchased with such hardware.
   C. Commercially Reasonable Limits to Scope of Service. Dell may refuse to provide the Service if, in its opinion, providing the Service creates an unreasonable risk to Dell or Dell’s Service providers or if any requested service is beyond the scope of this Service Description. Dell is not liable for any failure or delay in performance due to any cause beyond its control, including Customer’s failure to comply with its obligations under this Service Description.
   D. Optional Services. Optional services (including point-of-need support, installation, consulting, managed, professional, support or training services) may be available for purchase from Dell and will vary by Customer location. Optional services may require a separate agreement with Dell. In the absence of such agreement, optional services are provided pursuant to this Service Description.
   E. Assignment. Dell may assign this Service and/or Service Description to qualified third party service providers.
   F. Cancellation. Dell may cancel this Service at any time during the Term for any of the following reasons:
      • Customer fails to pay the total price for this Service in accordance with the invoice terms;
      • Customer is abusive, threatening, or refuses to cooperate with the assisting analyst or on-site technician; or
      • Customer fails to abide by all of the terms and conditions set forth in this Service Description.
   If Dell cancels this Service, Dell will send Customer written notice of cancellation at the address indicated on Customer’s invoice. The notice will include the reason for cancellation and the effective date of cancellation. If Dell cancels this Service pursuant to this paragraph, Customer shall not be entitled to any refund of fees paid or due to Dell.
   G. Geographic Limitations and Relocation. This Service is not available at all locations. Service options, including service levels, technical support hours, and on-site response times will vary by geography and certain options may not be available for purchase in Customer’s location, so please contact your sales representative for these details.