**infinera**®

DEPLOYMENT SERVICES

# PREDICTABLE DEPLOYMENT.
# UNMATCHED SPEED, SERVICE AND SUPPORT.

Ensure on-time and on-budget network implementation with expert deployment services tailored to your needs

Whether your team consists of five people or 500, you can rely on Infinera Services for the support you need to deploy your network quickly and reliably. Our comprehensive Deployment Services portfolio covers all phases of network implementation, from initial kickoff and planning to final testing and acceptance.

Choose among Infinera's modular and flexible Deployment Services to obtain support that's custom-matched to your needs. Start by selecting the core Installation Service package that complements your in-house capabilities. Next, add Infinera's Pre-staging and other recommended services to further speed your deployment.

Whether you opt for end-to-end deployment support or selected

services, you can feel confident knowing that your team of highly trained, dedicated and proactive professionals applies proven, automated processes globally to reduce risk and ensure success.

You'll accelerate your return on investment through quick and predictable deployment. Best of all, you'll enjoy peace of mind and an unmatched level of service and expertise.

## Installation Services

Because every network implementation is unique, you choose the installation services you need. Our three core installation packages support, enhance and extend your team's capabilities.

## Turnkey Installation Service

If you'd like to keep your team focused on their core competencies, choose our Turnkey Installation Service. We will handle every aspect of your installation from start to finish, keeping you informed while your team continues to manage your existing network and customer expectations.

## Rack and Commissioning / Commissioning Services

If you have in-house engineering and procurement capabilities, you can rely on our Rack and Commissioning Service or Commissioning Service to extend your team with modified support for installation, commissioning and final testing. No matter which option you choose, you'll feel confident with results validated by Infinera experts.

## INSTALLATION SERVICES

| Features | Turnkey Service | Rack and Commissioning Service | Commissioning Service |
|---|---|---|---|
| **Site Survey and Detailed Engineering Design**<br>• Determine power and layout requirements<br>• Identify necessary equipment and procedures<br>• Map out every rack and cable<br>• Develop detailed checklists of materials and timelines<br>• Deliverable: detailed site survey and engineering design | ✓ | | |
| **Material Planning and Procurement**<br>• Procure, stage and deliver site infrastructure, power and grounding, fiber management and cabling and installation-related materials (IRM)<br>• Deliverable: ordering and delivery of all required installation materials to customer sites | ✓ | | |
| **Equipment Inventory and Inspection**<br>• Accept delivery of Infinera equipment at customer site or third-party storage facility<br>• Unpack, inventory and inspect every piece of equipment and IRM<br>• Deliverable: Equipment inventory/inspection report | ✓ | ✓ | |
| **Equipment Installation**<br>• Install physical hardware included in service package<br>• Configure your equipment to operational state<br>• Deliverable: installation and labeling of all materials | ✓<br>Chassis and modules | ✓ [1]<br>Chassis and modules | ✓ [2]<br>Modules only |
| **Turn-up and Commission**<br>• Verify power and grounding<br>• Commission and configure equipment per network design<br>• Install, configure and initialize network management software<br>• Deliverable: equipment fully commissioned and software installed, configured and initialized | ✓ | ✓ | ✓ |
| **Accept and Test**<br>• Configure and run testing<br>• Deliverable: test results in a mutually agreed-upon format | ✓ | ✓ | ✓ |
| **Program or Project Management**<br>• Provide a single point of contact and accountability<br>• Synchronize teamwork between your team and ours, supervised by a professional services engineer<br>• Tie all the technical aspects together for you<br>• Deliverable: streamlined communication and efficient implementation | ✓<br>Program manager | ✓<br>Project manager | ✓<br>Project manager |

[1] Includes chassis connection to your pre-terminated power cables
[2] Installation of modules into pre-installed chassis only

### Project Management

Regardless of which core Installation option you choose, an experienced project manager (PM) oversees each service. As your single point of accountability, your PM provides clear and streamlined communication and ties together the logistics, scheduling and technical issues for you. Your PM will also proactively manage risks and quickly resolve any issues that may arise. Proven best practices and automated processes will be applied globally with local sensitivity. You'll have peace of mind knowing your implementation will be delivered on time and on budget.

### Pre-staging Services

You can add any of the Infinera Pre-staging Services to one of our core Installation Services to reduce onsite installation time and risks. Pre-staging simplifies your network rollout logistics by pre-building, pre-configuring and testing your equipment before it's shipped to your premises. Designed to further accelerate on-site installation activities, Pre-staging Services lower configuration risks and can reduce on-site time by up to 50%. We offer three levels of service to support you from Pre-build to Commissioning.

### Additional Services

You can further customize your Infinera experience with recommended additional services that enhance your team's capabilities and accelerate network readiness. Whether you choose one or several of our services, you'll receive dedicated project management to ensure your deployment is completed predictably.

### Software Installation and Configuration Services

After new equipment is installed, commissioned and validated, Infinera can install and configure software to support network management, provisioning, design and planning:

DNA Installation and Configuration Service—Digital Network Administrator (DNA), the Infinera element management software suite, is configured on one DNA server, including systems integration and testing of the hardware and software to validate the system.

Xceed/OTSv Installation and Configuration Service—To support provisioning of network capacity for software-defined networks, Infinera's Xceed Software Suite platform, Xceed Applications and Open Transport Switch virtualization (OTSv) software are installed and configured, including systems integration, testing of the software install base and demonstration of out-of-the-box sample applications.

## PRE-STAGING SERVICES

### Process and Service Levels

| | Define requirements | Pre-build hardware | Configure software | Test set-up | Ship to site | Remote commission |
|---|---|---|---|---|---|---|
| Level I | ✓ | ✓ | | | | |
| Level II | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Level III | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

- **LEVEL I: PRE-BUILD**
  If you're most interested in logistics advantages, Level I is the right choice. Your materials will be reviewed and your hardware installed according to the detailed design document. Nodes are site-packed and shipped with a prebuild report and next-step instructions, ready for installation.

- **LEVEL II: PRE-BUILD, PRE-CONFIGURE AND TEST**
  In addition to Level I services, your system will be patched, powered up, fully configured per the detailed design document and traffic-tested. Nodes are site-packed, labeled and shipped with a pre-configuration report and next-step instructions.

- **LEVEL III: PRE-BUILD, PRE-CONFIGURE, TEST AND COMMISSION**
  Level III adds remote commissioning to our Level II services.

NPS Installation and Configuration Service—A single unified planning tool, the Infinera Network Planning System (NPS) supports all Infinera products to allow for seamless integration of optical link engineering, service routing and network reports. NPS also generates rapid designs for both greenfield and brownfield networks that you can confidently deploy in the field.

### Testing and Validation Services

Before you employ your new or enhanced network, enlist Infinera to test and validate your equipment. We offer two types of testing and validation services:

Factory Acceptance Testing (FAT)—Infinera FAT tests and validates Infinera equipment. Your equipment will be installed, turned up and commissioned based on your deployment scenarios at a designated Infinera facility. Upon completion, you will receive a final test report, and your equipment will be repacked and shipped to you.

Light and Validate (L&V)—If you're planning to run traffic with Infinera terminal equipment over third-party open line systems, you can rely on our services to facilitate the journey. Coupled with installation services, L&V will help you establish a performance baseline and define predictive alarm thresholds for your network. Pair it with our Assurance Services if you'd also like ongoing proactive support for performance analysis and optimization recommendations. You'll also receive reporting so you can regularly analyze network element performance data against the baseline. Project management is included so you will gain a single ongoing point of contact to aid you with faster troubleshooting.
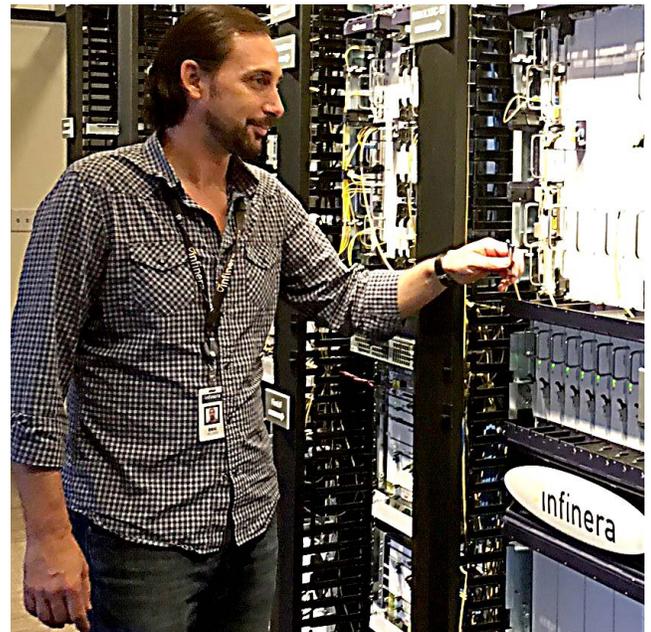
### Migration Service

To accelerate the readiness of your new Infinera network and minimize impact to your end users, rely on our Migration Service. You can leverage Infinera's built-in switching and software intelligence to roll customer traffic to your new Infinera network while maintaining service continuity. Whether your migration is nationwide or regional, you can count on our services to help coordinate materials procurement and implementation timelines, document circuit roll details and perform circuit provisioning. We can even work as an extension of your field operations teams as and when required to help meet aggressive migration timelines. Pair this service with our other deployment services to ensure a seamless transition.

### Decommissioning Service

When it's time to upgrade to Infinera equipment, the Infinera Decommissioning Service provides site survey, material planning, unrack, disconnection of cables and fibers and packing your legacy equipment for shipment to you. Designated project management professionals oversee and coordinate all aspects of your decommissioning project.

### Fiber Characterization Service

Infinera's Fiber Characterization Service verifies the integrity and capacity of your fiber for key performance properties. Fiber undergoes thorough testing, including bidirectional optical time domain reflectometry (OTDR) testing, chromatic dispersion (CD) testing and

polarization mode dispersion (PMD) testing. Upon completion, you will receive thorough testing documentation.

### Subsea Link Augmentation and Activation Services

Should you need support for adding or expanding subsea links in your network, you'll find it in Infinera's Subsea Link Services. We offer two services to help you improve the capacity, reach and resilience

of subsea links: Augmentation Service for existing links and Activation Service for new links. Both services are delivered by Infinera's dedicated subsea specialists and provide the full back-office, field engineering and program management services required to engineer, activate and test your link.

## ENSURE SUCCESS WITH INFINERA SERVICES

When you choose Infinera Services, you gain a level of expertise rooted in more than 600 successful deployments. You get the global scale and proven expertise you require, enhanced by the speed, personal service and peace of mind you've always wanted.

It's called the Infinera Services Experience. And for you, it means:

| Personalized Services | Rapid Resolution | Unrivaled Support | Accelerated Time To Revenue | Peace of Mind |
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Network owners and operators worldwide rely on Infinera Services to deploy, operate and optimize their critical network infrastructure. Shouldn't you, too?

**To learn more,** contact your Infinera account representative or visit us at www.infinera.com/services.

Global Headquarters
140 Caspian Court
Sunnyvale, CA 94089
USA
Tel: 1 408 572 5200
Fax: 1 408 572 5454
www.infinera.com

Asia and Pacific Rim
Infinera Asia Limited
8th floor
Samsung Hub
3 Church Street
Singapore 049483
Tel: +65 6408 3320

Europe, Middle East, Africa
Infinera Limited
125 Finsbury Pavement
London EC2A 1NQ,
United Kingdom
Tel: +44 207 065 1340

Customer Service and Technical Support
North America
Tel: 877 INF 5288
Outside North America
Tel: 1 408 572 5288

For more information
Contact Us
infinera.com/contact-us

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