SDP™ Real-time Colocation Orchestration Solution
QTS SDP™

SDP is a smart digital platform that customers use to operate and optimize their QTS environments every day. Our approach to data transparency is unique. We provide every customer with data sets relevant to their environment as we see them ourselves – in real time.

QTS customers have access to our suite of smart, real-time visualization and digital apps that enable:

- Visibility to critical environmental data including power draw, electrical and power hierarchies
- Tailored Sustainability Dashboard shows environmental impact of your QTS deployment
- Oversight and control of SDP users and site access
- Easy-to-use service desk ticketing system with option to add video session
- 3D, interactive view of your physical environment
- Cross connect access to our ecosystem of on-net clouds, networks, fiber and exchanges

**Premium Services:**

- **SmartCam** – intelligent, AI-based vision system informs as people enter dedicated spaces
- **SmartCart** – configure, test, and troubleshoot servers and network devices remotely
- **Environmental Sensors** – on-demand rack-level temperature and humidity visibility
- **Switchboard Services** – self-provision to AWS, Azure, Google and Oracle clouds in minutes!

*location specific

SDP takes the guesswork out of data center management. When you need precise accurate data and actionable insights – **Just Ask SDP!**

Web | API | Mobile App
SDP changed the dynamics. It changed the paradigm. It changed how the business looks at the data center.

Collin John
Global System Engineering Manager, A&M

SDP’s capabilities are perfectly aligned with our response to the ongoing COVID-19 pandemic. The ability to remotely monitor and manage our infrastructure through a real-time, software-defined interface is truly differentiating in the data center industry. Our organization is benefitting from greater control over costs, increased security, ease of compliance and reduced risk.

Data Center Manager
Major Semiconductor Company
3D Mapper

With 3D Mapper, you no longer need to be onsite to get the full picture.

Get a live, aerial view of your environment, including a 360° view of your racks on-demand.

We build a dynamic, digital model of your physical environment from the floor up including grid x, y coordinates to the exact location of your racks and CAHUs within your space. And then we embed layers of critical data – power draw, personnel on-site, and equipment details for a complete picture of how your deployment is performing.

Just Ask SDP

- Show racks approaching or exceeding power thresholds
- Show available space that can support additional racks
- Show under and over utilized racks for workload redistribution
- Show last month’s heat mapping trending (location specific)
- Order more power or connectivity services to a specific rack

USE CASES

- 3D Visualization
- Space Planning
- Power Capacity Planning
- Heat Mapping
Customize Your Dashboard

How is your deployment performing today? Just Ask SDP!

**Mechanical & Electrical Power (MAPs)**
visualize hierarchies and dependences of upstream critical infrastructure; access maintenance records

**Power Analytics**
shows how much contracted power available; drill for power consumption from suite to pole

**Sensor Analytics**
On-demand data hall temperature readings

**Online Ordering**
shows the status of your online purchases - cross connects, power circuits, remote hands subscriptions

**Daily On-Site**
know who’s on site at a moment’s notice – both badge holders and visitors

**Sustainability Dashboard**
shares building level PUE and WUE and consumption metrics tailored to your deployment

**Service Desk**
request and track cases with ease and automation

**Switchboard Network**
self-provision to clouds, between QTS data centers and QTS internet service in minutes

**Compliance Reports**
self-service before you need them

**Drill Down Capabilities**
Specific to User Roles
QTS MAPs™

This industry-first visualization app displays the electrical hierarchies and dependencies that support your critical environment in real-time. Customers gain line of sight into the upstream infrastructure their critical environment relies upon from racks and panels to PDUs, Static Transfer Switches, UPS', electrical and automatic transfer switches, generators – all the way to a QTS site's utility feed.

View and track performed and planned service records for specific infrastructure assets to understand how we work to ensure the highest degree of reliability.

Just Ask SDP

- Show me the electrical hierarchy of my entire deployment
- Show me the electrical hierarchy associated to a specific PDU
- Show me how redundancy is built to my environment
- Export maintenance records
- What are the generator fuel burn rates at my QTS data center?
- Location specific

USE CASES

- Visualize Redundancy Schema
- Understand Equipment Dependencies
- View Primary and Redundant Rack Schema
- Access Maintenance Records
- View Generator Fuel Burn Rates
QTS Sustainability Dashboard

Understand the environmental impact of your deployment with this dynamic, tailored dashboard. QTS makes it easy to access data required for ESG reporting, but difficult to obtain from other data center providers.

QTS has set measurable, relevant and timely targets to reduce our carbon footprint supporting the clean energy industry, provide value for our stakeholders and benefit our global community at the same time.

Based on current projections, our environmental goals include:

- **Procure** 100% of our power from carbon-free energy sources
- **Design** 100% of buildings to Green Building Standards
- **Portfolio** wide water usage effectiveness (WUE) annual reduction of 5%
- **Recycle** 90% of our operational waste by 2025

**Just Ask SDP**

- What is the PUE and WUE of the building our deployment resides?
- What is our power consumption by kW hours?
- How is our deployment’s water consumption trending?
- What is the carbon footprint of our environment?
- How is my company impacting QTS Success-Based Giving?
Power Analytics

Energy is one of the most expensive costs at the data center; optimizing it is essential.

Without visibility to power usage, you run the risk of miscalculating consumption, potentially buying more power than you need, or more equipment than your space can support.

Get accurate power draw by location, suite, cage, rack, circuit and even pole levels to improve and validate actual-to-plan capacity, optimize space and rack allocation, and to identify poles and circuits that may only need balancing.

Just Ask SDP

- Track my consumed vs. contracted power ratio
- Schedule automated alerts as circuit pairs approach amperage draw of 80%
- Inform me of under and over-subscribed circuits and racks
- Show real-time power trending and fluctuations
- Order additional power via SDP
- RESTful API documentation available

USE CASES

Capacity Planning
Space Allocation
Circuit & Pole Balancing
Forecasting
Service Desk

Managing day-to-day service tasks is simple and quick with one-click shortcuts directly from the SDP Dashboard. Use this self-service, automated app to keep your environment running optimally and to keep business moving forward every day.

With more than 120,000 requests successfully processed each year, our Operations Support Team delivers the highest NPS scores in the industry at 90.

**Just Ask SDP**

- Leverage on-site technicians to perform physical tasks
- View historical records and timelines for all cases via SDP
- Restful API documentation available

**USE CASES**

- Visitor Reservations
- Remote Hands
- Equipment Removal
- Inbound/Outbound Shipping
- Domain Name System (DNS)
I can see when QTS is reviewing a request, when it's been approved and when it's been completed. We haven't been able to see these things with other providers, so it's really phenomenal. Nothing is left up in the air and there are no miscommunications.

Collin John
Global System Engineering Manager, A&M
User Management

Maintaining oversight and control of your deployment is paramount.

Securely grant and revoke site access and assign granular roles and permissions to approved users and visitors without having to set foot inside the data center.

We've integrated our physical security systems with SDP so you always have visibility into who is at the data center and when and where badges have been scanned. Self-service a comprehensive suite of badge activity and visitor reports.

Just Ask SDP

- Who is on-site right now?
- Request a badge for a tech waiting in lobby
- Deactivate a badge from my mobile, ASAP
- Export badge holder and visitor reports for last month
- Assign approved users to my dedicated badge readers
- RESTful API documentation available

Secure Site Access
Role-Based Users
Badge Management
Badge Reader Assignment & Reporting
Compliance Reports
Asset Manager

This intelligent self-service app takes the guesswork out of asset management enabling informed decisions on how best to manage racked equipment at the data center.

Fully integrated into our 3D Mapper visualization app, you can view 3D models of your racks showing asset elevation and details including cabling configuration.

Remove the disarray of managing multiple internal spreadsheets and databases of servers, networking devices, VMs, VLANs, storage, IP addresses and more.

Just Ask SDP
- Visualize racks and components in 3D
- Configure rack & stack installations
- Locate any asset in seconds
- Prevent overbuying of assets not previously visible at the data center
- Validate inventory, racking and mapping
- RESTful API documentation available

USE CASES
- Lifecycle Management
- Inventory Reconciliation
- Rack Allocation
- Cable Mapping
- Asset Finder

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Business Services

The Notification Center
Schedule real-time notifications, custom power reports and monthly badge reports precisely when you want to receive them and only to those that need to receive them.

Invoices & Statements
Save time shifting through years of statements and invoices. We've digitized your records so you can access in a couple of clicks.

Configurable Items (CIs)
Tracking dozens or hundreds of power circuits is tedious. Every data center manager needs to know where every power circuit resides. We just asked SDP to do this for you.

Just Ask SDP
- Send me an email when my power circuit pairs cross 80% amperage threshold
- Email me when specific badge holders enter or leave the data center
- Send me compliance reports as they become available
- Deliver my custom power report the first of every month
- Show me a repository of my statements and invoices
- Show me open invoices
- Show me power and enclosure configurable items
Online Ordering

Save time and deploy quicker by ordering services online at your convenience.

SDP streamlines ordering, contracting and provisioning workflows into one fully automated, paperless process enabling quicker deployment times.

Just Ask SDP

- Connect me to an on-net carrier
- Show me details of all my cross connects
- What is the status of my Switchboard ports? Cloud connections?
- Connect me to AWS, Azure and Google Cloud – today!
- Send me a list of how my Remote Hands hours were used last month
- Add power to a specific rack

Order fiber and copper cross connects via SDP; use 3D Mapper’s digital model to tell SDP where to connect.

Always have Remote Hands hours on-hand with a subscription model. SDP logs details of how you’re using the service.

Order power circuits quickly; SDP applies your current power model and pricing for you. For All-in and Metered power models.
Switchboard makes deploying a cloud connection easy, and should we want or need to add more, we can do it with the click of a button. SDP puts us in a place where we can become more proactive.

Collin John  
Global System Engineering Manager, A&M

QTS' Switchboard solution enhances redundancy, providing two ports and two virtual connections for a fraction of the cost and in a fraction of the time—with live provisioning completed in hours versus the typical three to four weeks.

Andy McNicol  
Manager of Technical Services at WellStar Health System
Connectivity Marketplace

Deliver your digital services and apps to users quickly and with the lowest possible latency.

QTS has already built-in a robust and resilient connectivity ecosystem that you can connect to with a low-cost cross connect.

Save costs and shorten deployment windows connecting through the QTS Connectivity Marketplace.

Just Ask SDP

- Show me all connectivity options from my QTS data center
- Display by network type: dark fiber, SDN, cloud, IP, IX
- Show me all the clouds I can reach from my QTS data center
- Show all networks to a specific global address
- Provision a cross-connect to my selected network
Switchboard Interconnection Service

Connecting to clouds has never been simpler, quicker, or more cost-effective.

With an innovative one port to many destination approach, customers can self-provision multiple virtual connects to a variety of destinations, from one port. Switchboard eliminates procurement, configuration and lead times associated with the provisioning of multiple dedicated ports, routers, switches and related maintenance for substantial savings.

End-to-end integration with AWS, Azure, Google and Oracle cloud platforms mean you're connected in minutes.

**New!** QTS internetConnect fully-managed service via Switchboard (location specific)

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**Just Ask SDP**

- 1 and 10 Gbe port options
- Cloud connections available in varying speeds from 1 to 10 Gbe
- Data center to data center connections available in 1 and 10 Gbe speeds
- Diverse configurations available
- Single provider, single invoice removes multivendor management and invoices
- View port usage, network status and historical data via SDP

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**USE CASES**

AWS, Azure, Google and Oracle Clouds

QTS internetConnect™ blended service

Between QTS Data Centers

Local Carrier Hotels
Secure KVM over IP service lets you remotely access and control devices in your QTS colocation space from anywhere in the world with an internet connection.

With SmartCart, your IT staff can configure, troubleshoot and conduct tests on servers and network devices on their timeline and from wherever they work. SmartCart’s KVM over IP access technology provides secure BIOS-level remote access to servers and network devices to help you solve complex problems efficiently and restore service before downtime affects productivity.

Just Ask SDP
- Establish a connection to my server
- Establish a connection to my network device
- Reserve a session in advance
- Reserve first-available session
- Location Specific

USE CASES
- Remote Configuration
- Remote Troubleshooting
- Remote Testing
- Remote Performance & Status Checks

PREMIUM REMOTE MANAGEMENT SERVICE
QTS Huddle™
Pre-Release

Collaborate with multiple remote and globally dispersed stakeholders and a QTS tech to oversee and resolve critical operations at the data center with the benefit of live video streaming.

QTS Huddle™ is an industry-first digital collaboration service that brings together your SMEs (subject matter experts) and QTS technicians – through video conferencing, chat, and co-browsing in a synchronous environment.

When critical assets fail at the data center, or when you need to oversee an installation, seeing what is transpiring at the data center can be transformative. With QTS Huddle, you can quickly schedule working sessions with the right team to benefit from collaborative sessions.

**Just Ask SDP**
- Schedule a session with my team and QTS DCO Tech
- Send Huddle session invite to participants
- Archive session for future reference
- Location specific during Pre-Release period

**USE CASES**
- Live Video Collaboration
- Implementation Oversight
- Break Fix Supervision
- Compliance & Auditing
QTS SmartCam™ Vision System

Be notified when people are in your dedicated space; see who they are and what they are doing. This AI-based monitoring and management system provides a critical layer of visibility and physical security at the data center and issues notifications for specified “events”.

Integrated with QTS physical security and badge management systems, SmartCam uses facial recognition to detect and identify badge holders and tags unrecognized individuals. Advanced technologies enable the system to detect objects entering and leaving your space and identifies anomalies such as a cage door left ajar or an abandoned package left in an aisle.

*Exclusively available for SmartCam customers

**USE CASES**

- Insider Threat Protection
- Work Verification
- Object Detection
- Anomaly Detection

**Just Ask SDP**

- Inform me when a specific person enters my space
- Show me footage from a service provider visit
- Who was in my space Friday at 4pm?
- Notify me when cabinet doors are opened
- Notify me when equipment is moved
- Store recorded events for six months
QTS Environmental Sensors

Spot trends, be informed before failures occur, improve data center availability, and save energy.

Gain visibility into your racks’ temperature and relative humidity readings and trends before thresholds are exceeded.

Installed and maintained by QTS data center technicians per ASHRE standards to the racks you designate, Environmental Sensors reduce operational costs and improve uptime with no capital expenditure.

*Exclusively available for Environmental Sensor customers

Just Ask SDP
- Show me temperature readings of a specific rack
- What is the relative humidity of my racks?
- Which racks are approaching thresholds?
- Generate a report showing last month’s climate stats

Avoid downtime
Extend equipment lifespan
Improve power and cooling costs
Improve equipment performance and efficiency
Having insight into how we are using the power within our space is huge because it is a critical measure from a capacity planning perspective. SDP allows authorized users within the World Bank to access power draw details on-demand.

**Frank Butler**  
Senior Data Center Project Officer, World Bank

QTS Power Analytics is now driving engineering decisions related to our environment. We use Power Analytics on a daily basis to keep our environment normalized and optimized for the 80% utilization threshold, as well as for future expansion and planning.

**Data Center Manager**  
Major Semiconductor Company