



Just Ask **SDP**

SDP™ Real-time Colocation Orchestration Solution

The image shows a laptop screen displaying a 3D wireframe model of a building. Overlaid on the screen are several floating dashboard panels:

- DATA HALL SENSOR ANALYTICS (DEMO02-DC1-DH10):** Shows Daily Average Humidity with a line graph and a value of 39.0 %rh.
- POWER (DEMO03):** Shows Average kW Contracted at 48.156% and kW Trends for DEMO03.
- STATUS CONNECTS (DEMO04):** Shows 5 total connects with a breakdown: Fullfill (3), Work In Progress (0), Need Customer action (1), Pending (1), and Start (0).
- USER MANAGEMENT (DEMO05):** Shows TOTAL: 16 ACTIVE USERS and a bar chart for Users By Role.
- 3D MAPPER (DEMO06):** Shows a 3D floor plan of a data center.
- SMARTSCAN (DEMO07):** Shows a camera feed of a server aisle.
- DATA HALL SENSOR ANALYTICS (DEMO02-DC12-DH5):** Shows Daily Average Supply Air Temperature with a line graph and a value of 67.0 °F.
- SUSTAINABILITY (DEMO08):** Shows metrics for monthly greenhouse gas (1.36), monthly water usage (2.43), and monthly energy (624,327). It also features a sustainability dashboard with wind turbines.
- PREVIEWER NETWORK DIAGRAM (DEMO09):** Shows a network diagram with various nodes and connections.
- MAPS (DEMO10):** Shows a 2D map with various locations and a legend.

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 mechanical 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, vision system informs as people enter dedicated spaces

SmartCart – configure, test, and troubleshoot servers and network devices remotely

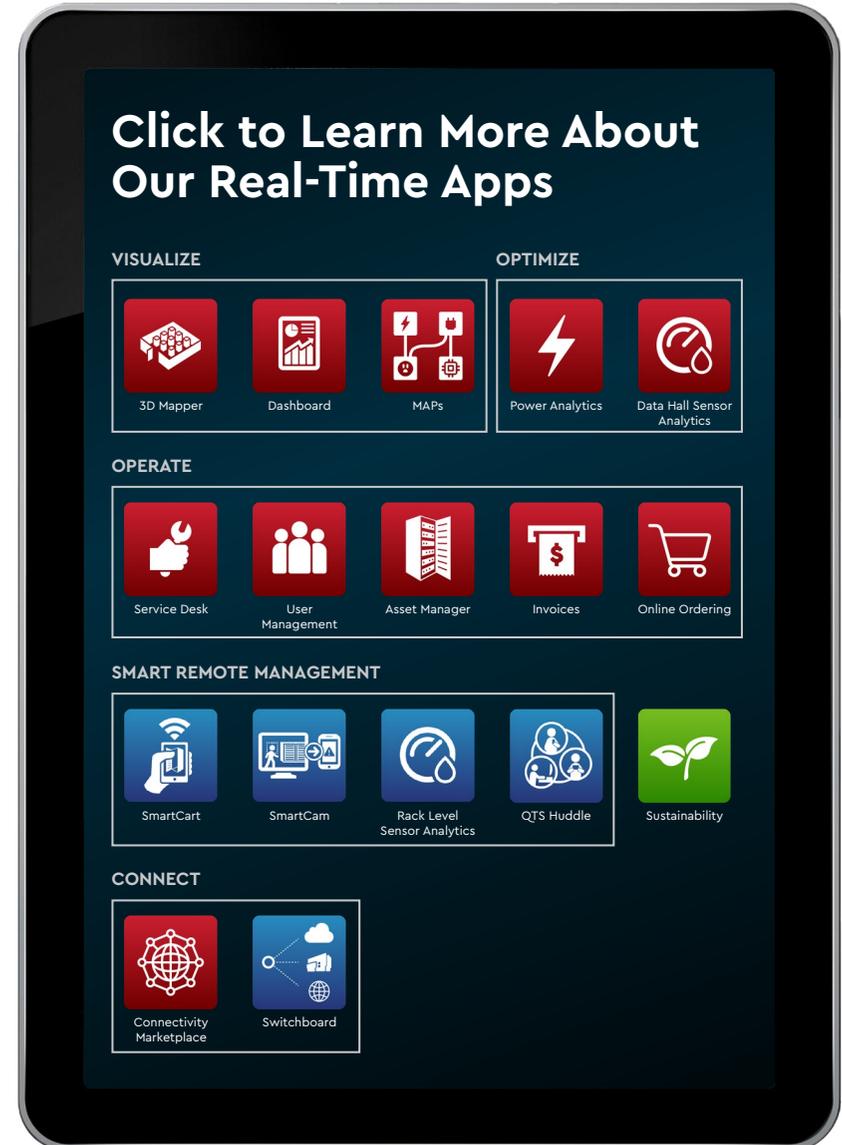
Environmental Sensors – on-demand rack-level temperature and humidity visibility

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



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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

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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.

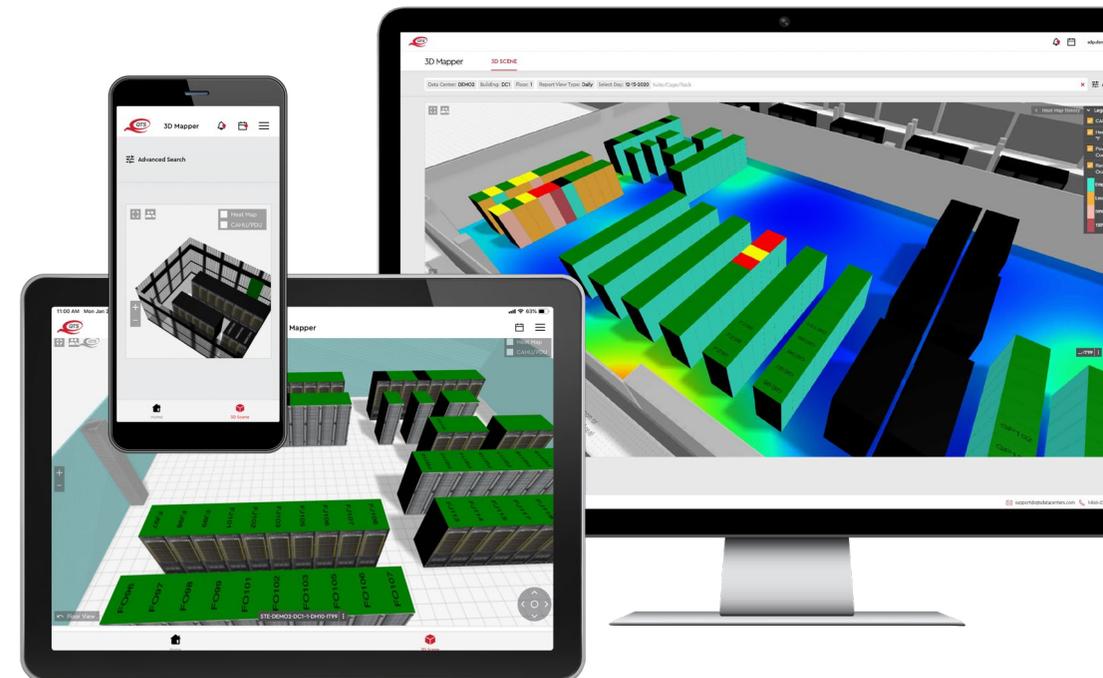
We build a dynamic, digital model of your physical environment from the floor up including grid x, y coordinates to the exact location of your racks and CAHUs within your space. And then we embed layers of critical data – power draw, personnel on-site, and equipment details for a complete picture of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

Power Analytics

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

Sensor Analytics

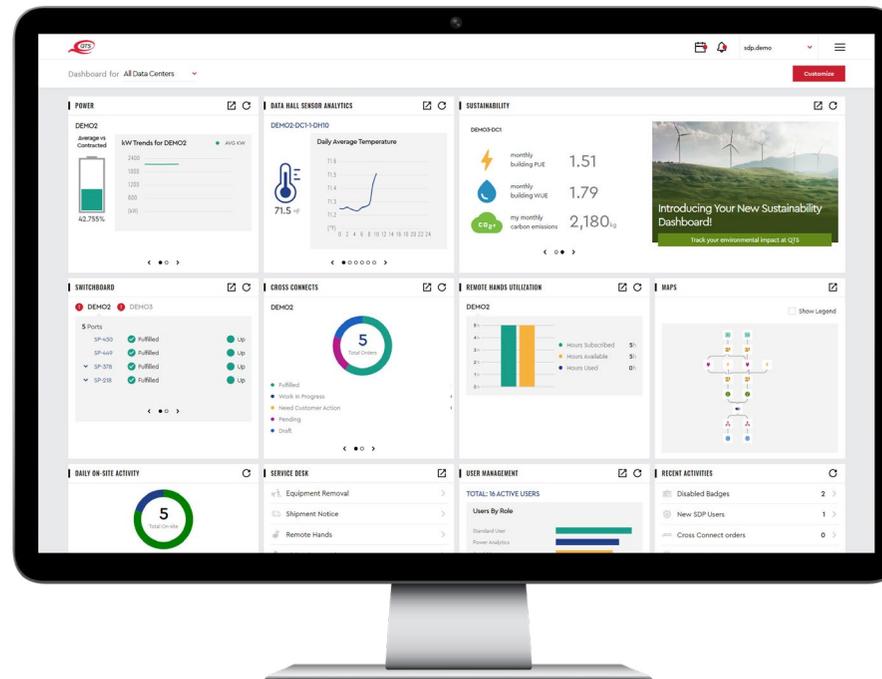
on-demand data hall temperature readings

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

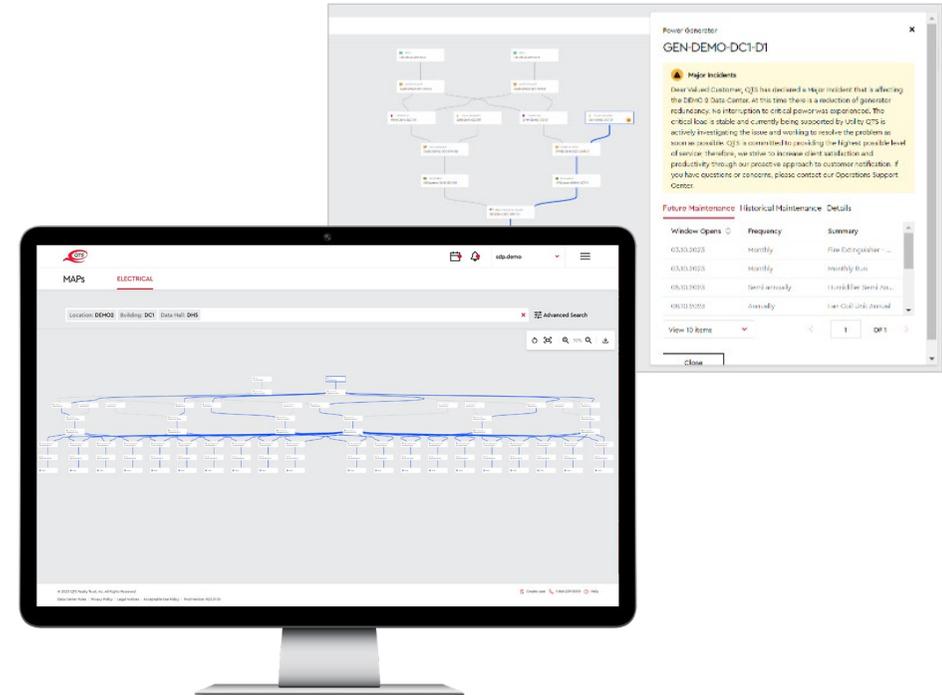
self-service before you need them

Drill Down Capabilities Specific to User Roles

QTS MAPs™

This industry-first visualization app displays the electrical and mechanical 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 mechanical 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 my dedicated power panel schedule
- Show me how redundancy is built to my environment
- Export maintenance records
- What are the generator fuel burn rates at my QTS data center?

USE CASES

- Visualize Redundancy Schema
- Understand Equipment Dependencies
- View Primary and Redundant Rack Schema
- Visualize power panel schedule
- 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.

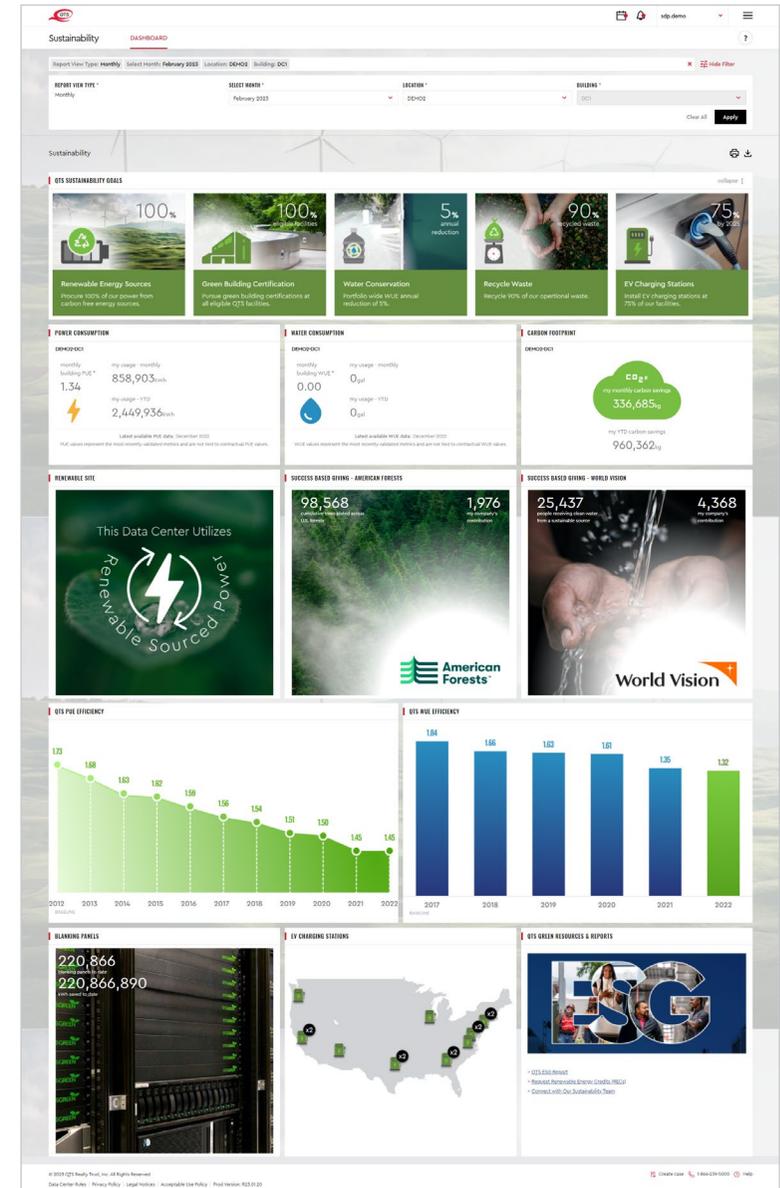
QTS has set measurable, relevant and timely targets to reduce our carbon footprint supporting the clean energy industry, provide value for our stakeholders and benefit our global community at the same time.

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?

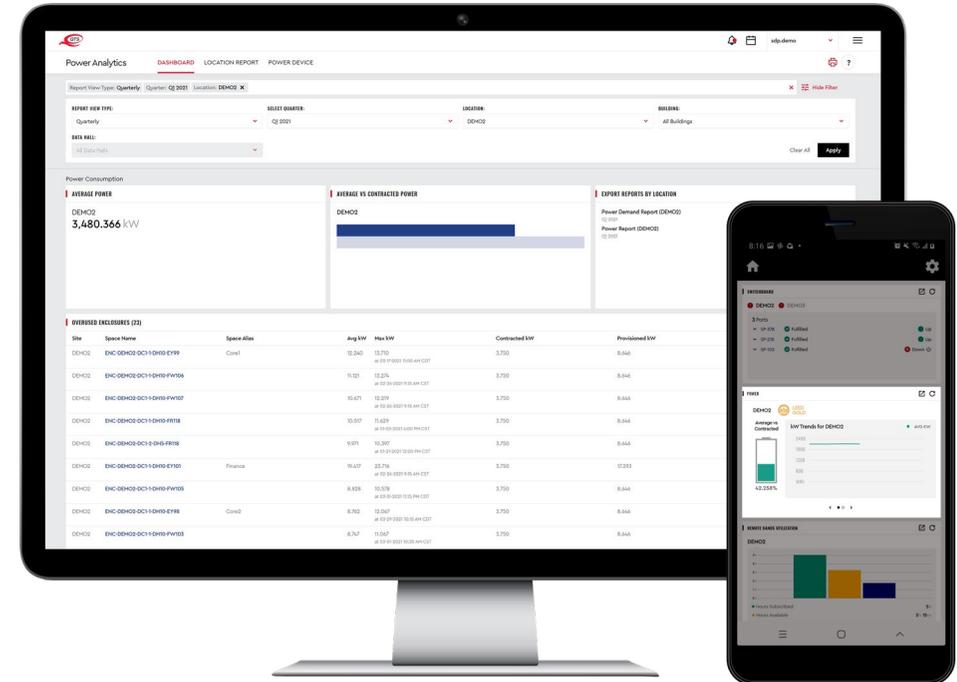


Power Analytics

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.

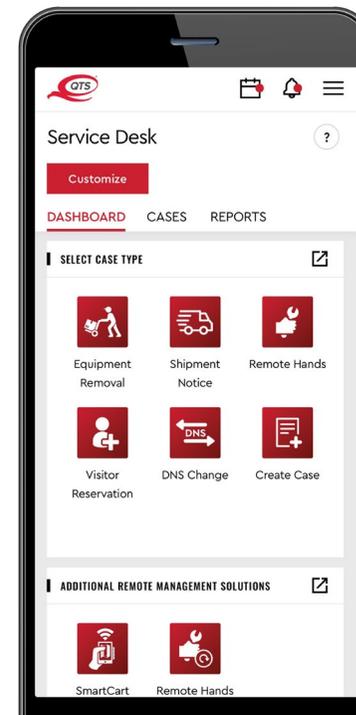


Just Ask SDP

- 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)



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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

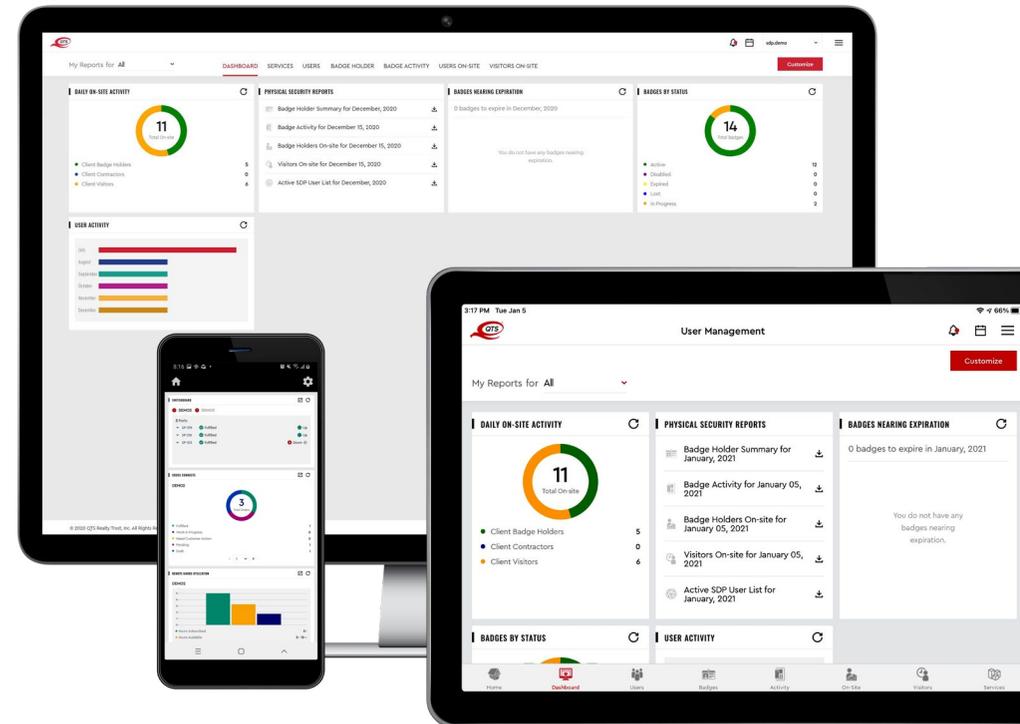
Global System Engineering Manager, A&M

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-serve 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

USE CASES

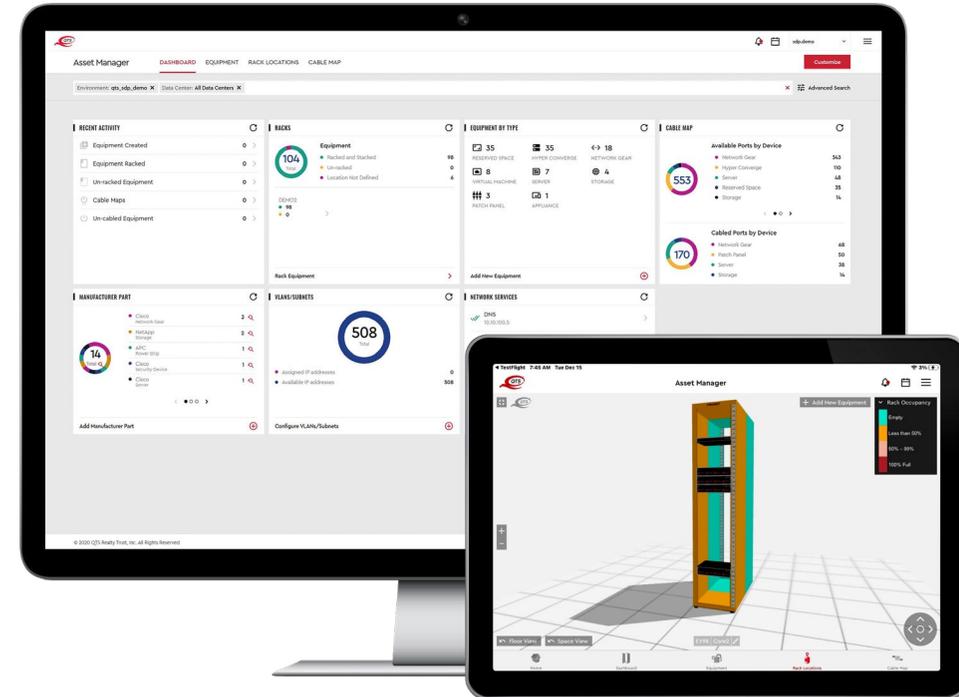
- Secure Site Access
- Role-Based Users
- Badge Management
- Badge Reader Assignment & Reporting
- Compliance Reports

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

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**

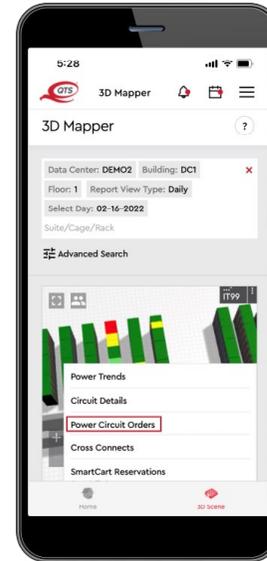
- Send me an email when my power circuit pairs cross 80% amperage threshold
- Email me when specific badge holders enter or leave the data center
- Send me compliance reports as they become available
- Deliver my custom power report the first of every month
- Show me a repository of my statements and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

NAME	LOCATION
CKT-DEMO2-DH25F2-001-F-79,11-ET-79	DEMO2
CKT-DEMO2-DH25F2-001-F-16-ET-81	DEMO2
CKT-DEMO2-DH25E1-001-J-20,22,24-FE-122	DEMO2
CKT-DEMO2-DH25E1-001-J-25,27,29-FE-123	DEMO2
CKT-DEMO2-DH25D1-001-L-25,27,29-FH-112	DEMO2
CKT-DEMO2-DH25E2-001-A-15,15,17-DY-108	DEMO2
CKT-DEMO2-DH25G1-001-A-20,22,24-DY-96	DEMO2
CKT-DEMO2-DH25F2-001-E-8,10,12-EO-92	DEMO2
CKT-DEMO2-DH25F2-001-H-8,10,12-FB-85	DEMO2
CKT-DEMO2-DH25F2-001-H-7,9,11-FB-86	DEMO2
CKT-DEMO2-DH25E1-001-M-25,27,29-FR-106	DEMO2
CKT-DEMO2-DH25D1-001-B-1,3,5-ED-125	DEMO2
CKT-DEMO2-DH25F1-001-G-1,3,5-EW-78	DEMO2
CKT-DEMO2-DH25D1-001-J-8,10,12-FE-107	DEMO2
CKT-DEMO2-DH25D1-001-J-2,4,6-FE-105	DEMO2
CKT-DEMO2-DH25E2-001-M-1,3,5-FR-105	DEMO2
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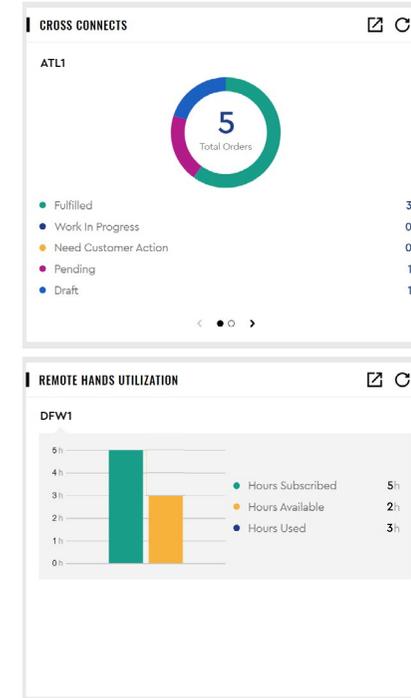
Online Ordering

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.



Order power circuits quickly; SDP applies your current power model and pricing for you. For All-in and Metered power models.



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.

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, Google and Oracle Cloud – today!
- Send me a list of how my Remote Hands hours were used last month
- Add power to a specific rack

USE CASES

- Cross Connects
- Power Circuits – All-In and Metered
- Switchboard Services
- Remote Hands Subscriptions
- SmartCart™ Services

“

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

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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

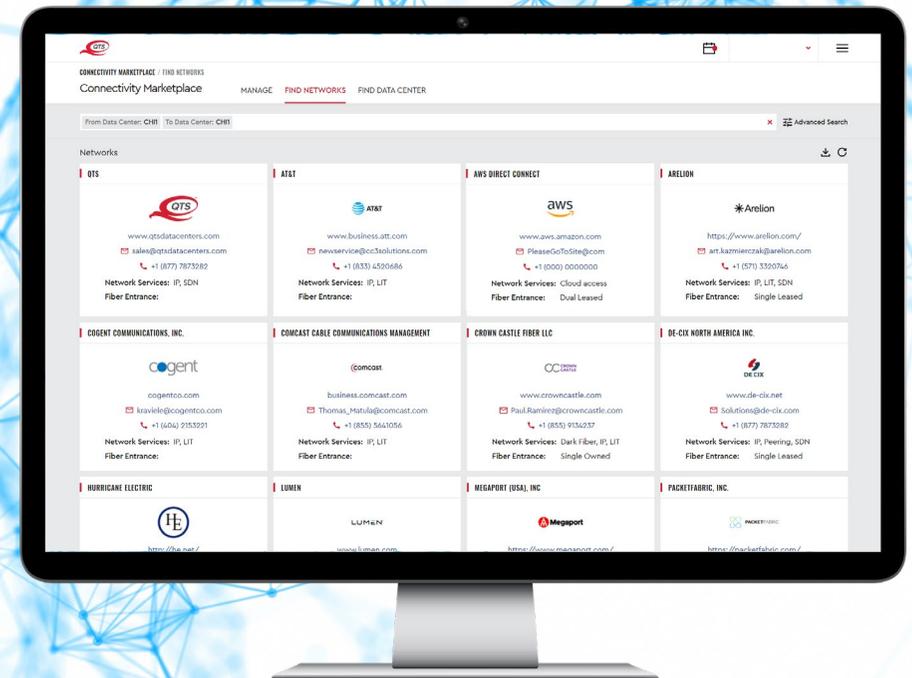
Deliver your digital services and apps to users quickly and with the lowest possible latency.

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.

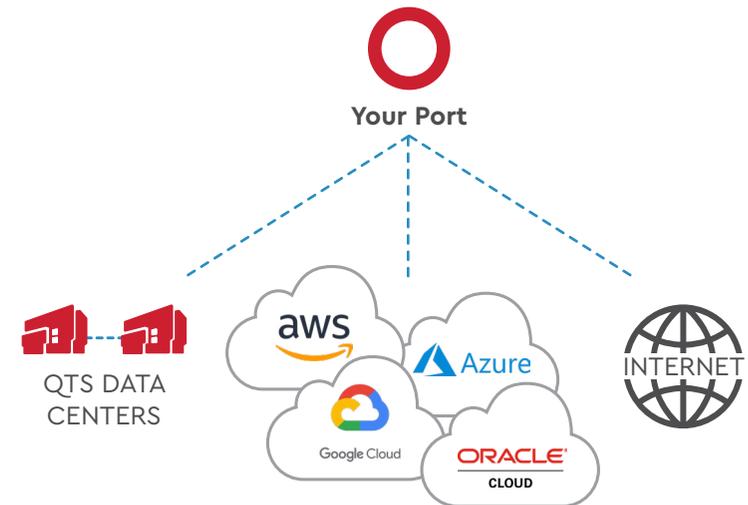
With an innovative one port to many destination approach, customers can self-provision multiple virtual connects to a variety of destinations, from one port. Switchboard eliminates procurement, configuration and lead times associated with the provisioning of multiple dedicated ports, routers, switches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

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



USE CASES

AWS, Azure, Google and Oracle Clouds
QTS internetConnect™ blended service
Between QTS Data Centers
Local Carrier Hotels

PREMIUM REMOTE MANAGEMENT SERVICE

QTS SmartCart™

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



[DOWNLOAD DATA SHEET](#)



Just Ask

SDP

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



[DOWNLOAD DATA SHEET](#)



Just Ask

SDP

PREMIUM REMOTE MANAGEMENT SERVICE

QTS SmartCam™ Vision System

Be notified when people are in your dedicated space; see who they are and what they are doing. This intelligent 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.

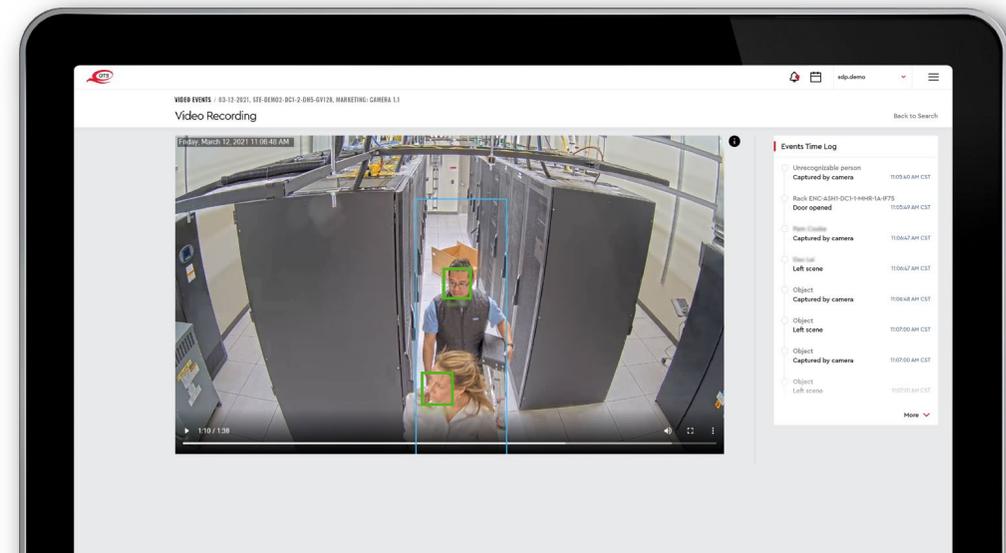
**Exclusively available for SmartCam customers*

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





PREMIUM REMOTE MANAGEMENT SERVICE

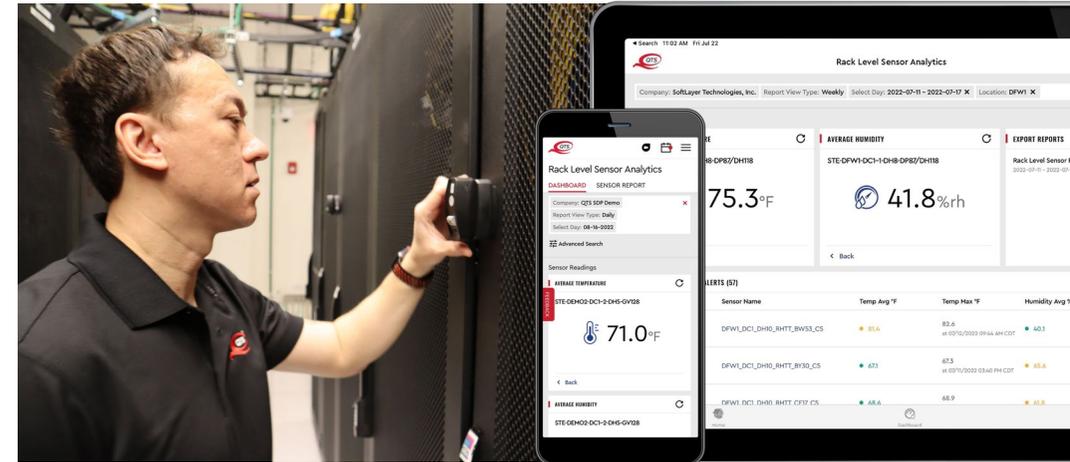
QTS Environmental Sensors

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

BENEFITS

- 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

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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

