



XpediTeTM

XpediTe CAPABILITIES



XpedITe CAPABILITIES



DCIM ANALYTICS DASHBOARDS AND REPORTS

Comprehensive and actionable visibility
of your data center's performance.

Unleash the power of your data with simple and intuitive dashboards, customized to meet your data center operational and management needs, adopted for diversity of roles, teams, users or external parties.

XpedITe collects and transforms raw data from the entirety of your infrastructure into useful management information and supports decision-making processes.

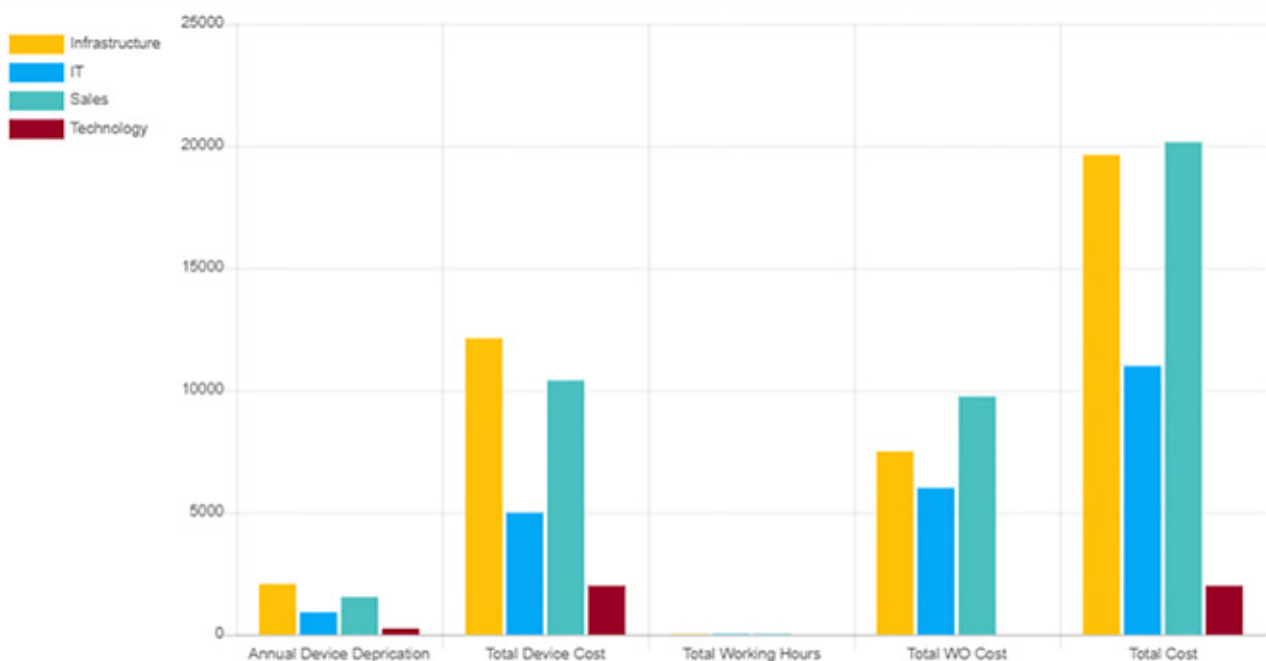
XpedITe's Reports and Dashboard functionality enables at-a-glance access to the real-time monitoring information, consolidated data and KPIs that are most important for operation.

Facilitating analysis of the capacity, performance and utilisation of every asset and service management data.

XpedITe's dashboards and reports are flexible and fully customizable and display up-to-the-minute information about the metrics important to the user, team or company capacity, connectivity, power trends, work order status and more, in useful formats:

- ▶ Clean, easy-to-read dashboards and reports.
- ▶ Visual and textual dashboards and reports.
- ▶ No data restriction for reporting.
- ▶ Auto refresh and alerting option for NOC monitoring.
- ▶ User friendly appearance and flexible export options.
- ▶ Actionable insights identify risks and opportunities to improve efficiency.
- ▶ General and in-context dashboards and reports at different asset levels.
- ▶ Consolidated data from multiple sources and locations into one centralised platform.
- ▶ Multiple formats and different ways to visualize.

Equipment and Work cost for customer (\$)



XpedITe CAPABILITIES



ASSET MANAGEMENT

Asset management is one of the critical DCIM pillars providing a reliable digital representation for infrastructure, as well as end-to-end change and service management functionality.

Asset Management creates and maintains an accurate real-time database, documenting all infrastructure assets, device connections (E2E) and relationships in realistic and detailed 2D and 3D visualizations.

The opportunity for Multi-Layer Management – physical and logical properties, lifecycle and maintenance and much more.

Constant monitoring of the state of all assets allows you to analyse and fix connectivity issues before they affect users.

XpedITe's Asset Management functionality builds a complete asset database – and keeps it accurate through automated discovery and operational workflows. This can augment and improve the accuracy of an existing CMDB.

This provides real-time holistic management of multi-site facility and IT assets, including applications and logical layers, creating reliably accurate records and the documentation needed to make the right decisions at every step of the asset lifecycle.

- ▶ Full end-to-end, real-time view of all IT and data centre infrastructure assets, servers, storage, and networking components
- ▶ 2D and 3D visualization
- ▶ Card and port granularity of assets for both IT and facility equipment
- ▶ Granular role-based access control for users (U-range and device level)
- ▶ Realistic high-resolution view of assets and their physical locations and relationships for documenting and troubleshooting
- ▶ Labeling and QR printing
- ▶ Advanced Search
- ▶ Custom device tags
- ▶ Multiple asset dashboards and reports
- ▶ Life cycle management and maintenance
- ▶ Complete asset catalog with cmdb integration
- ▶ Real-time management for better control
- ▶ Complete library of realistic asset icons



XpediTe CAPABILITIES



PROVISIONING AND WORK ORDERS

Provisioning was never easier and trackable.

Create, assign and audit all provisioning and maintenance tasks within a unified tool using XpediTe and integrate with external ticketing systems to manage changes in an effective way with reduced resource overhead and timeframes.

The XpediTe Platform provides with full-featured provisioning and work order management to speed commissioning and implementation, decrease time to response and time to resolution as well as reduce errors. Work orders produced can be used by both in-house staff or 3rd party installation and management teams.

Be it manual provisioning or an AI based provisioning wizard, any change of assets can be automatically converted into a work order with detailed tasks that can be assigned to technicians.

Track task status, due times and costs associated with IMAC (Install-Move-Add-Change) activities are available to control the whole commissioning process, including dashboards and reporting for change management, work orders teams assignment and overdue issues. Additionally, maintenance and stock control / storage activities can be managed through automated workflows.

Integration with external systems such as ITSM, CRM and others can generate work orders and tasks, offering process automation and more effective management avoiding working in two systems duplicating efforts and reducing the opportunity for human error.

The screenshot displays the XpediTe Platform interface. At the top, there's a navigation bar with the XpediTe logo and various icons. Below it, a dashboard area shows filters for 'From: 28/03/2022' and 'To: 27/04/2022'. A table lists work orders with columns: Name, Description, Type, Status, Created by, Date created, Assign to, and Assign to (Belong to). Two work orders are visible: 'WO-04/23' and 'WO-04/24'. A 'View link' button is present. Below the table, a detailed view of a work order is shown, including a diagram of server racks and a list of tasks. The task list has columns: No status, Assign to (user), Assign to (group), Due date, Description, and Operation. Tasks include 'Add My first server 01', 'Resources CO3 SW SAN 01-5', 'Install card My first server 01-1', 'Install card My first server 01-2', 'Connect CO3-OPW-FD-03-2', 'Connect A03-LT-FD-03-2', 'Install service SAN A to A03-1', 'Install service SAN A to CO3-1', 'Connect D01-OPW-FD-03-2', 'Connect A03-LT-FD-03-4', 'Install service SAN A to A03-1', 'Install service SAN A to D03-1', 'Connect CO3-OPW-FD-03-1', and 'Connect A03-LT-FD-03-1'.

XpediTe CAPABILITIES



CAPACITY MANAGEMENT

Multi-layer capacity management.

XpediTe gathers, processes and analyzes data from the building and IT infrastructure and all inter-dependencies to offer a comprehensive multi-layer capacity utilization displayed in 2D or 3D visual layers, capacity dashboards and reports for intuitive and comprehensive capacity management.

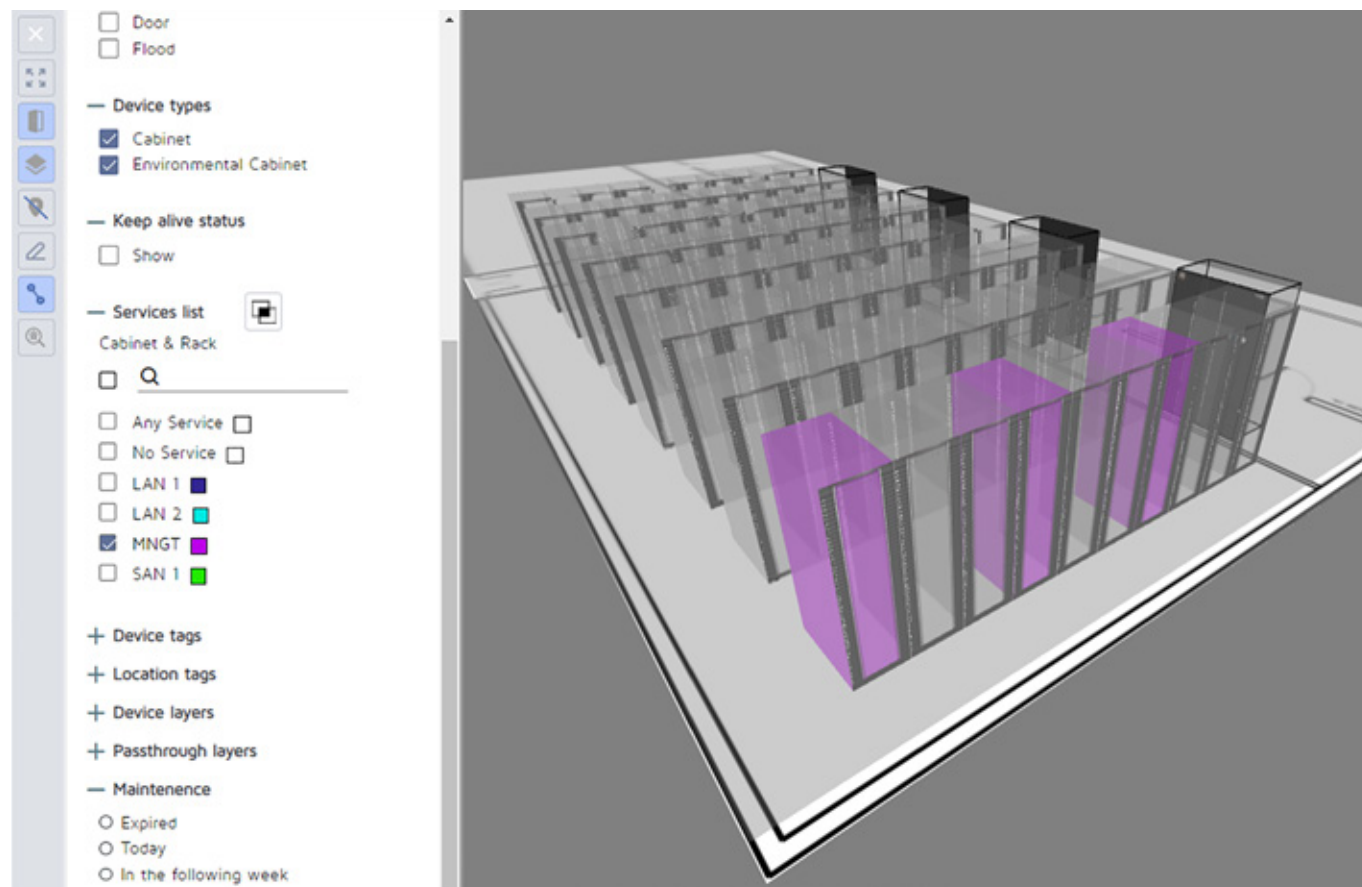
XpediTe uses any and all data gathered from IT, M&E, monitoring and others to provide capacity management at cabinet, row, room and building level.

Data center resources such as space, power, network and cooling can be managed and trended to obtain an accurate image of resource utilization and availability in real time but also future forecasting.

Cabinet by cabinet or the entire room, both 2D and 3D display enables holistic capacity management.

Related reports and dashboards support a complete set of insights for data centre resources status including front and rear space, reservations, monitored and estimated power, weight, temperature and humidity conditions, network availability, and other logical or business-related capacities and resource availability.

In addition, custom tags and operational views such as maintenance task status can be incorporated. Custom fields can also be added to multiple viewable layers to display custom KPIs (Key-Performance-Indicators).



XpediTe CAPABILITIES



COMPLIANCE MANAGEMENT

XpediTe: your best compliance consultant.

XpediTe provides tools for effective and efficient management of policies, standards and regulations as part of ongoing planning, implementation, maintenance and operational process in data center environments.

The XpediTe comprehensive DCIM management model based on UIM principles helps Data Center managers and IT Directors to comply with corporate policies and processes, whether bespoke or industry standard. Furthermore, it offers effective management and reporting tools especially designed for complex DC environments.

XpediTe supports the implementation of organizational preferences and policies as well as industry standards and regulatory requirement as a fundamental part of Data

Center operational management process, including security, energy and sustainability management, asset life cycle, financial reporting, equipment renewals policies, etc.

With XpediTe power losses and energy consumption analysis becomes more intuitive and effective, helping the adoption energy saving actions and adding transparency to Data Center resource consumption including energy, water, Space and cost, according to international standards and regulations.

Additionally, the XpediTe suite provides tools for creating risk mitigation plans and SLA compliance, as well as rapid troubleshooting of potential issues or failures, thanks to its holistic representation of the entire site infrastructure and all interdependencies.

Maintenance Plan Calendar

< > today

December 2022

month week day

Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7

Maintenance Plan Calendar

< > today

May 2022

month week day

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4
5	6	7	8	9	10	11

Water pre OOI
Sheraton (DCD)

Battery OOI
Sheraton (DCD)

nt_Ola_vmbos
Sheraton (DCD)

XpediTe CAPABILITIES



CONNECTIVITY MANAGEMENT

Understanding power and network connectivity through a comprehensive visualisation of the entire site infrastructure.

Realistic visualization of the entire network and power infrastructure are offered including connectivity, with full drill-down capability to the port level. Circuit and port usage is displayed clearly in device specific visuals.

Comprehensive management of logical connectivity and cabling assets, including documentation of cable type, cable ID, and more, as well as out-of-box cable labels printing with customizable formatting.

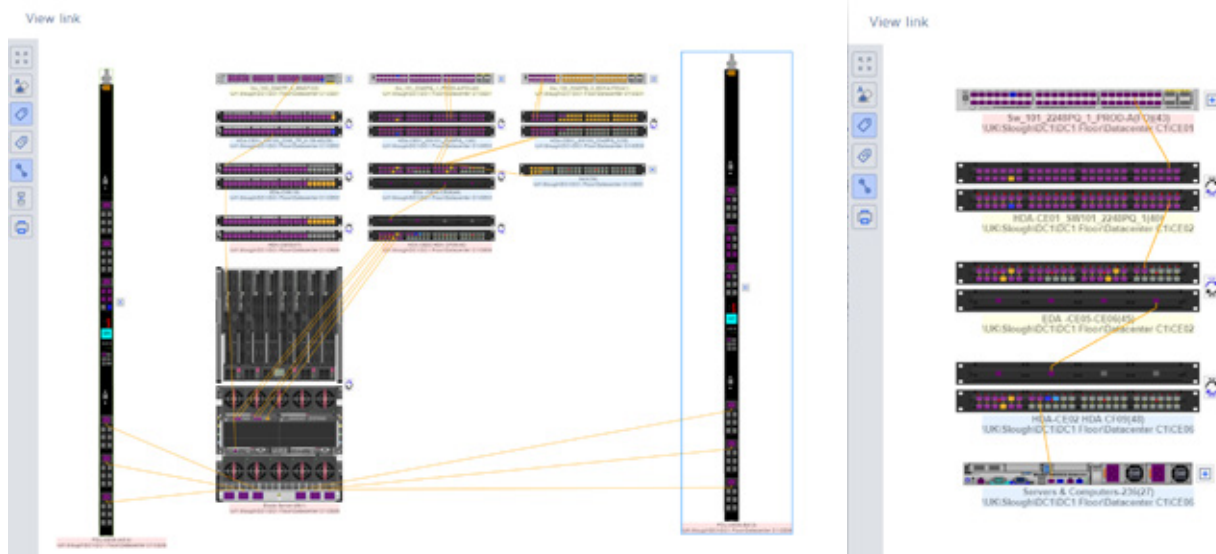
Constant monitoring of the state of all assets allows the prediction of connectivity failures before they affect users.

An AIM integration option is available for advanced connectivity hardware including RiT Tech's advanced AIM system, Patchview.

XpediTe provides IT and facility managers with an accurate database of all data and power connectivity, keeping it up to date at all times and mitigating risks with planning, dependency mapping and executing connections during Installations Moves Adds and Changes (IMAC) as well as maintenance tasks.

Holistic visualisation in 2D and 3D of the entire network and power infrastructure (physical and logical), with full drill-down capability to the port level.

- ▶ Accurate real-time documentation of all circuits across multiple sites.
- ▶ Visual differentiation and identification available and used ports, including end-to-end circuits and not completed circuits.
- ▶ Hardware failure simulation and affected devices report.
- ▶ Up-to-date status of the physical and logical elements in the network infrastructure.
- ▶ In-context reports and trace export.
- ▶ Full integration with RiT's PatchView AIM (Optional) users (U-range and device level).
- ▶ Full cable management including automate labelling schedules and printing option
- ▶ Quickly visualise end-to-end connectivity, and physical dependencies.
- ▶ Realistic and accurate representation including sfps, mpo, mpt, etc.



XpedITe CAPABILITIES



DIGITAL TWIN

Managing Data Centers remotely as easily as being on-site.

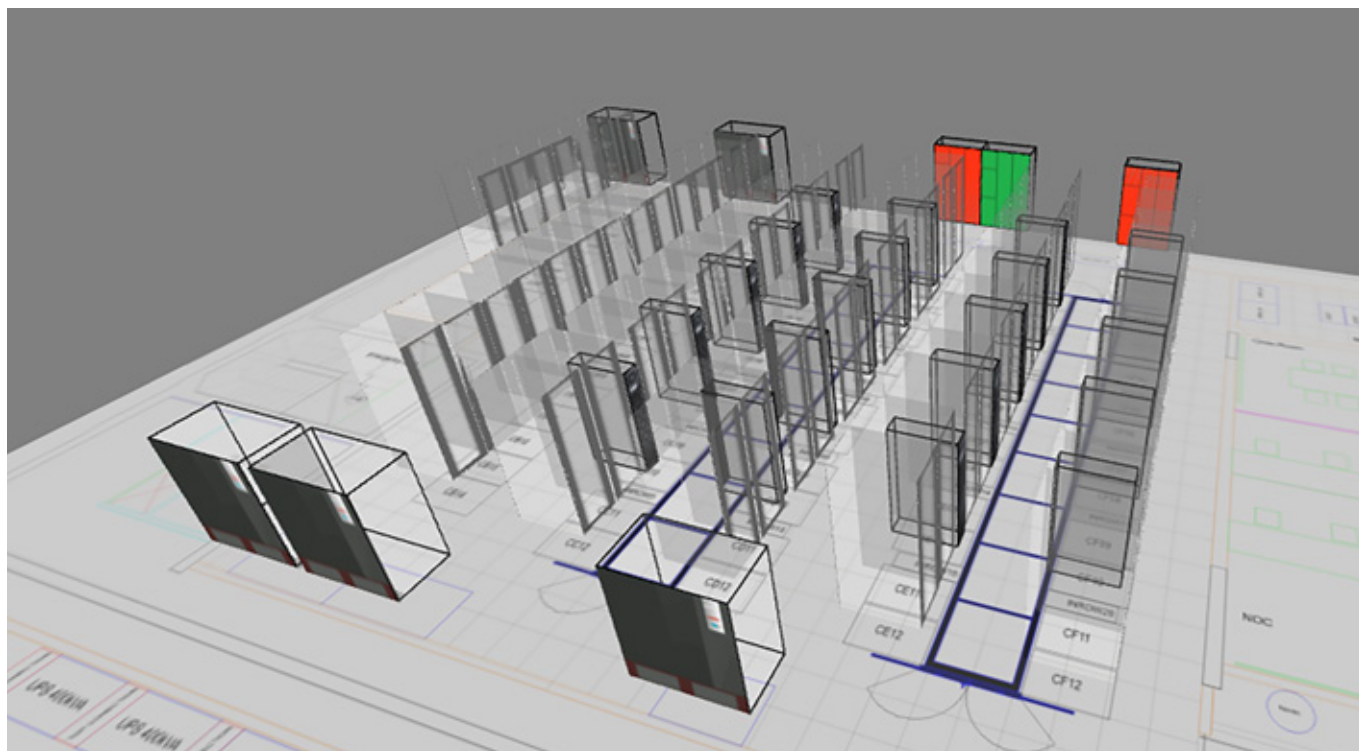
XpedITe infrastructure representation is a realistic view of the entire Data Center environment, as well as other IT and facility use cases such as Edge computing nodes, telco rooms and OSP.

With XpedITe's digital twin capabilities, accurate visibility and effective remote management becomes a reality.

XpedITe provides a digital model of the entire Data Center through its realistic 2D and 3D room layout representation, displaying a scaled and realistic modeling of all infrastructure with asset and cabling interdependencies, including detailed asset and real time monitoring to produce detailed and accurate documentation.

The management model provided by XpedITe covers both Facilities and IT spaces, and provides an accurate representation for the entire physical infrastructure, including building (facility) assets, IT assets, power and network connectivity with port level granularity, interdependencies and defined relationships between all facility and IT devices.

The model accuracy is achieved by complete documentation and accurate representation of all assets including their physical and logical features, location, true and realistic visual appearance, network cards, power and comm port types, SFPs (Small form-factor pluggable), MPO (Multi-fiber Push On/Mechanical connectivity, cable types, power connectivity equipment and covering all types of devices, including sensors and state-of-the-art devices in specific IT environments, such as server rooms, telco rooms, edge locations, OSP(Outside Plant), etc.



XpedITe CAPABILITIES



IMPACT ANALYSIS

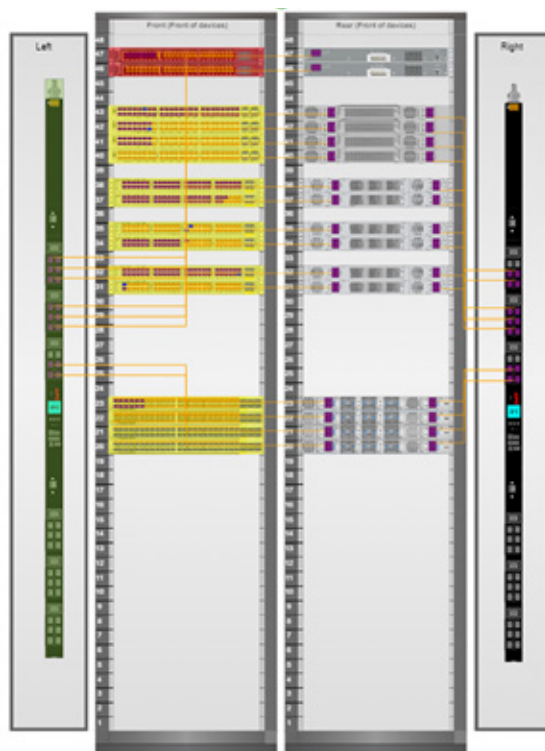
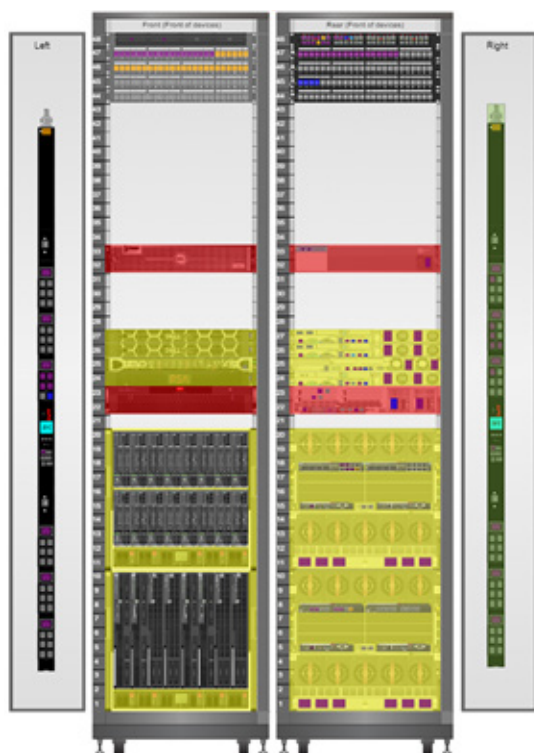
Get ahead of potential failures.

XpedITe's Impact Analysis functionality helps Data Center planners and managers to identify risks, lack of redundancy and capacity bottlenecks. It supports the creation of risk mitigation plans and help improve overall availability and SLA compliance.

With its asset and connectivity management functionalities, XpedITe allows the simulation of failures in both critical IT and M&E equipment such as switches, rPDUs (rack Power distribution unit), RPPs (Remote Power Panel), PDUs (Power Distribution Unit), UPS (Uninterruptible Power System), Network Switches, etc. This functionality allows managers to verify and ensure power and network redundancy, plan rSTS(Rack Static Transfer Switch)deployment, plan maintenance activities to identify risk and capacity bottlenecks and support network troubleshooting.

The impact analysis capabilities also take into account planned actions, including new installations, moves, etc. This works both within and outside of IT cabinets. Easy-to-read coloured visuals, alerts and tabulated reports can easily be exported and shared with team members. Additionally, once risks are identified, affected users can be notified within the system directly without requiring additional manually created emails.

XpedITe's Impact Analysis helps to create risk mitigation plans and improve SLA compliance.



XpedITe CAPABILITIES



MONITORING AND ALERTS

Monitor your critical infrastructure and get customizable alert notifications.

XpedITe provides extensive device and equipment monitoring and alerting functionality. A broad set of protocols and systems integration are supported for vendor agnostic monitoring and alarm display. The monitored data can be presented in customizable reports, dashboards and interactive graphs, including current values and historical trends. Alarms can be configured for threshold violation notifications and displayed within the system or forwarded by email or text.

XpedITe provides monitoring capabilities for devices and software systems of virtually any vendor in the market (vendor agnostic), collecting and displaying real-time data for power, temperature, operational status, health, etc. As part of an effective power and environmental management suite it offers IT and facility managers with greater visibility and control of the environment and services they are delivering.

XpedITe Adapters streamline monitoring configuration through a variety of protocols and communication channels, with no need for hardware gateways.

The following protocols are supported:

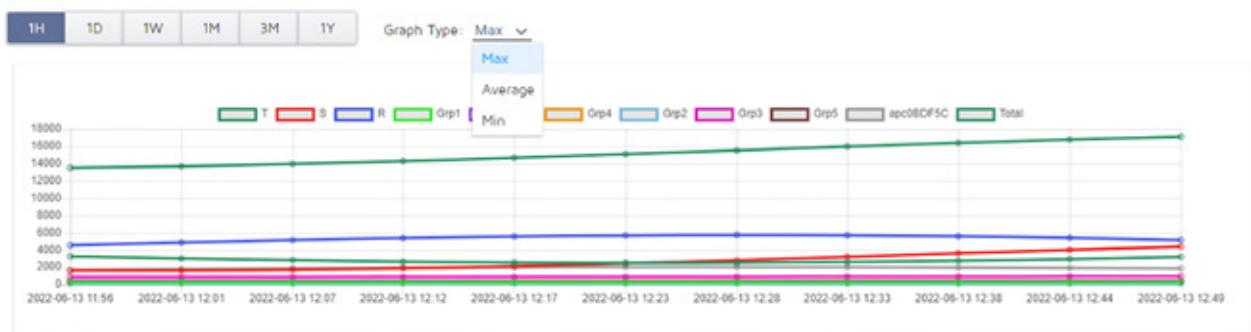
- ▶ SNMP (all versions are supported)
- ▶ Modbus
- ▶ BACnet
- ▶ And many others, like SSH, Telnet, ODBC, OLEDB, ODATA, JSON / XML / HTML / CSV

Monitored data can be represented in customizable interactive reports and graphs, including actual, trending and historical values based on long term data storage.

The monitoring graphs and reports can be exported, as well as included in custom dashboards. Thresholds can be defined to initiate alarm notifications, which can then be delivered either within the system, or by email and text messages to predefined users and groups.

Show environmental information

Temperature Humidity Dew Power Sensors



XpedITe CAPABILITIES



POWER MANAGEMENT

Reveal, plan and optimize your energy consumption and power distribution.

XpedITe provides highly granular end-to-end power chain visibility, allowing energy consumption and loss analysis, capacity constraints, risk mitigation, energy saving opportunities and support for carbon-zero initiatives.

XpedITe provides 2D and 3D visualisation of the entire power chain within a data center. This provides a clear view of power capacity and utilization for all assets, their power connectivity, and inter-dependencies, including all IT and facility devices.

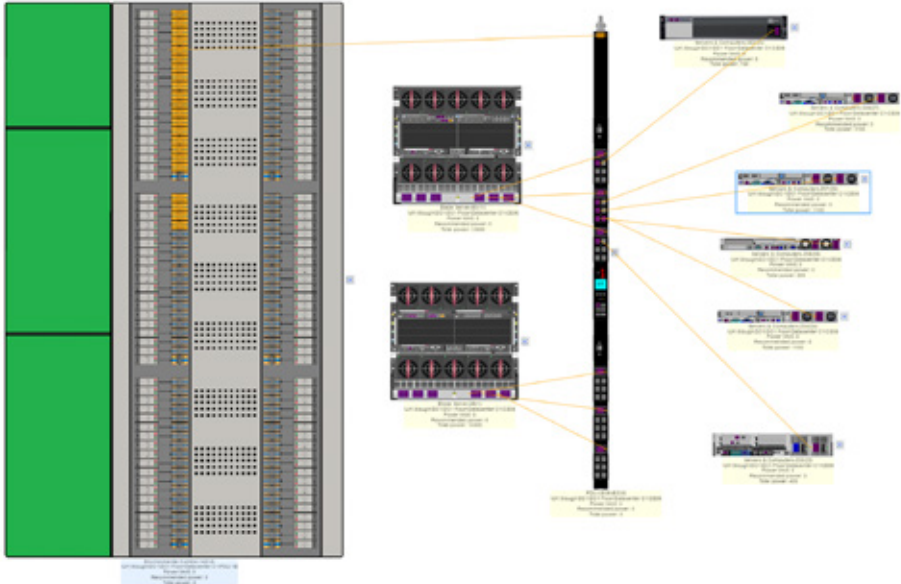
In addition, the platform supports power chain modelling helping to assess and analyse capacity constraints - such as for transformers, generators, UPS systems, ATS and STS units, Busbars, PDUs, rack PDUs etc, identifying points of failure, dependencies and risks.

XpedITe provides a fully comprehensive power chain view, for both three-phase and single-phase systems, with realistic representation of all power distribution, and system redundancy.

Power path way can be viewed end to end, both upstream and downstream for any given asset with a full understanding of power utilisation.

Data can be collected from direct device monitoring or through integration with EMS or BMS systems. This data is collated and collected in a unified data store for power capacity management and trending at all levels.

Power related dashboards and reports allows very granular energy usage visibility to support energy efficiency ambitions and improve energy saving efforts.



XpediTe CAPABILITIES



SOFTWARE INTEGRATION AND API/SDK

Connect XpediTe with other tools to create a federated DCIM solution.

XpediTe is an open platform offering rich integration capabilities and a complete set of RESTful (Representational State Transfer) API capabilities to exchange data with 3rd party systems in both the IT and facility environments. Such universal integration of IT and facility devices and software systems allows establishment of a single source of truth within an organization, streamlines automation, provides flexible customization abilities and provides DC teams with far more effective and efficient infrastructure management capabilities.

The XpediTe solution provides a rich set of development capabilities enabling easy and rapid integration with 3rd party systems, to offer a high degree of automation and customization with the sharing of collected data in a single combined 'Source of Truth'.

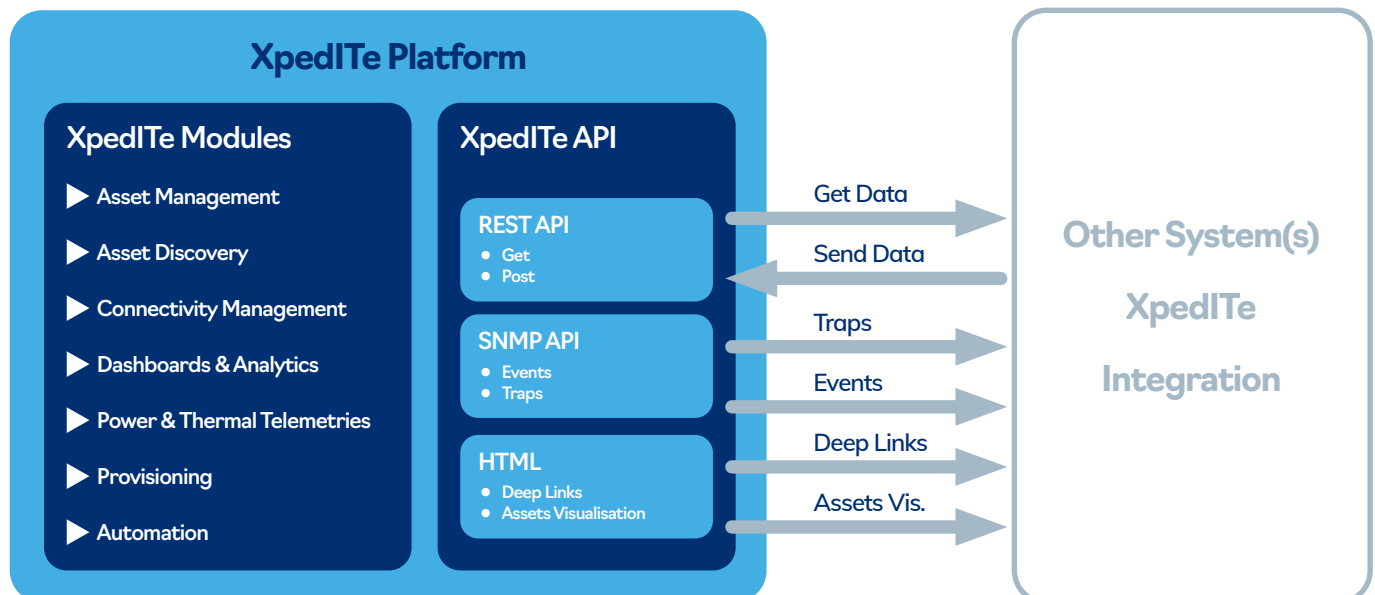
The solution includes multiple Integration Adapters for seamless integration with other organizational systems, such as Information Technology Service Management (ITSM) ticketing, Configuration Management Data Base (CMDB), virtualization, Energy Management System/Building Management Systems (EMS/BMS) systems, Customer Relationship Management (CRM), and others.

In addition, the platform provides an API for programmable access to external systems functionalities and allowing bi-directional data access. The API conforms to OpenAPI standard.

Any object within the XpediTe platform via the XpediTe REST API for both read and update purposes.

Additionally, XpediTe offers an SNMP API for dynamic event handling between the XpediTe platform and other systems, such as send and receipt of alarms and events to/from Network Monitoring Service (NMS) systems.

Finally, XpediTe offers an HTML connector that allows bi-directional integration of the platform with the wide range of software systems commonly used within the data center environment. Such integration allows the embedding of XpediTe capabilities and visualization of assets and representation within other applications.



XpediTe CAPABILITIES



STOCK MANAGEMENT

Stock Management for Operational Reliability.

The Stock Management module offers process automation and control, for both new and used equipment, critical spares, standard spare parts and cables etc. used in day-by-day operations and maintenance. These capabilities all being naturally integrated with the planning and provisioning features within XpediTe.

The Stock Management capability provides stock control and automation of supply requests for any equipment and consumables, including both IT and facility devices such as spare parts or patch cords and cabling etc, across multiple data centre warehouses serving different locations. Stock levels adjust automatically as they are delivered and consumed and potentially re-ordered as a part of ongoing planning and provisioning processes.

This module offers stock management tools integrated with the Workflow and Automation functionalities featured in other XpediTe modules. For example, stock thresholds can be configured to create out of stock alerting to warehouse teams and managers, or to automatically initiate a new purchase order request.

Additionally, appropriate Work Orders can be automatically generated for delivery tasks to support equipment installation projects, new purchase approvals, etc. Stock can be updated both manually and automatically, upon purchase or delivery Work Order completion.

Maintenance tasks can be linked with stock levels and spare equipment locations to ensure spare parts availability according to defined maintenance tasks, service requests and organizational policies.

Vendor Part No.	Count	Reserved	Low Stock
R601000	56	0	10
R601081	40	0	10
R601082	40	0	10
	27	4	5
	6	0	5
	13	0	5
	9	1	0
	15	0	5
	8	0	2
	9	0	2

XpediTe CAPABILITIES



WORKFLOW, AUTOMATION AND ARTIFICIAL INTELLIGENCE

Comprehensive and actionable visibility of your data center's performance.

XpediTe platform offers Automation capabilities, that help optimise and automate data center planning, maintenance and operational processes. This module provides AI-assisted asset provisioning planning and deployment as well as managed workflows, work orders, automation and control for a range of operational activities involving scheduling and control.

XpediTe enables you to automate IMAC (Install-Move-Add-Change) management according to your business processes and organizational policies.

Based on operational or corporate criteria, the automated provisioning module weights environmental, power, space and other considerations to plan hardware installations. Then, once automated planning is completed, XpediTe automatically creates a Work Order with detailed installation instructions and equipment specifications.

XpediTe Provisioning AI assists users in applying sophisticated custom algorithms to plan and execute IMACs, implementing organization policies, standards compliance and regulations for network, power, cooling, service provision, and other resources (such as specific requirements for equipment redundancy, mirroring, network segments, VLAN access, etc).

With Provisioning Automation module organizations benefit from:

- Reduction of up to 95% of resources for IMAC planning
- Compliance with organizational policies and preferences
- Intuitive and integrated use of IT devices catalogue, including ability to build your own devices and add I/O card specifications to match hardware requirements
- Automated search for optimal location to install hardware based on comprehensive criteria.

Additionally, custom Workflows and process Automation can be defined to streamline ongoing management and operational processes, including Maintenance and Life Cycle Management, automated scheduling of recurring tasks, response to events or response to end user requests.

Provisioning result

General

\\UKSlog\NDC1\Floor\Datacenter_C1\CF07

Global filter

Name	Catalog	Asset tag	Rack name	RU	Side
TestProv1	Dell EMC		CF07	5	Front

Name	Connector name	Service name	Card
IDRAC i	RJ-45	MNIST	
1	LC, Multi Mode, D1 PRD A (FQ)		
2	LC, Multi Mode, D1 PRD B (FQ)		
3	RJ-45	LAN A (CU)	
4	RJ-45	LAN B (CU)	

Show alternatives

Automatic

Global filter

Total records: 6

#	Type	Status	Assign to	Assign to	Due date	Description	Operate
1	I	C...			19/12/21	Add 'TestProv1' Dell EMC Power	
2	R	C...			19/12/21	Resources 'Sw_119_2248TP_6_M	
3	L	C...			19/12/21	Connect HDA-CE01_SW102_224	
4	D...	C...			19/12/21	Connect 'TestProv1' Asset Tag "	
5	I	C...			19/12/21	Install service 'PROD A (FQ)' to "	
6	I	C...			19/12/21	Install service 'PROD A (FQ)' to "	

Save Cancel

XpediTe CAPABILITIES



AUTO-DISCOVERY & NETWORK TOPOLOGY ANALYZER

XpediTe automates the process of discovery and tracking of all network components – from IT devices to connectivity equipment, system services and applications – including physical location, configuration, and connectivity.

Easily build your asset register with automated network scanning, discovery and visualization for an entire network topology, from hardware assets to software defined infrastructure. Keeping the network documentation updated automatically through multi-protocol discovery schedules and network event notifications.

Direct switch scanning and integration with CMDB systems can be defined.

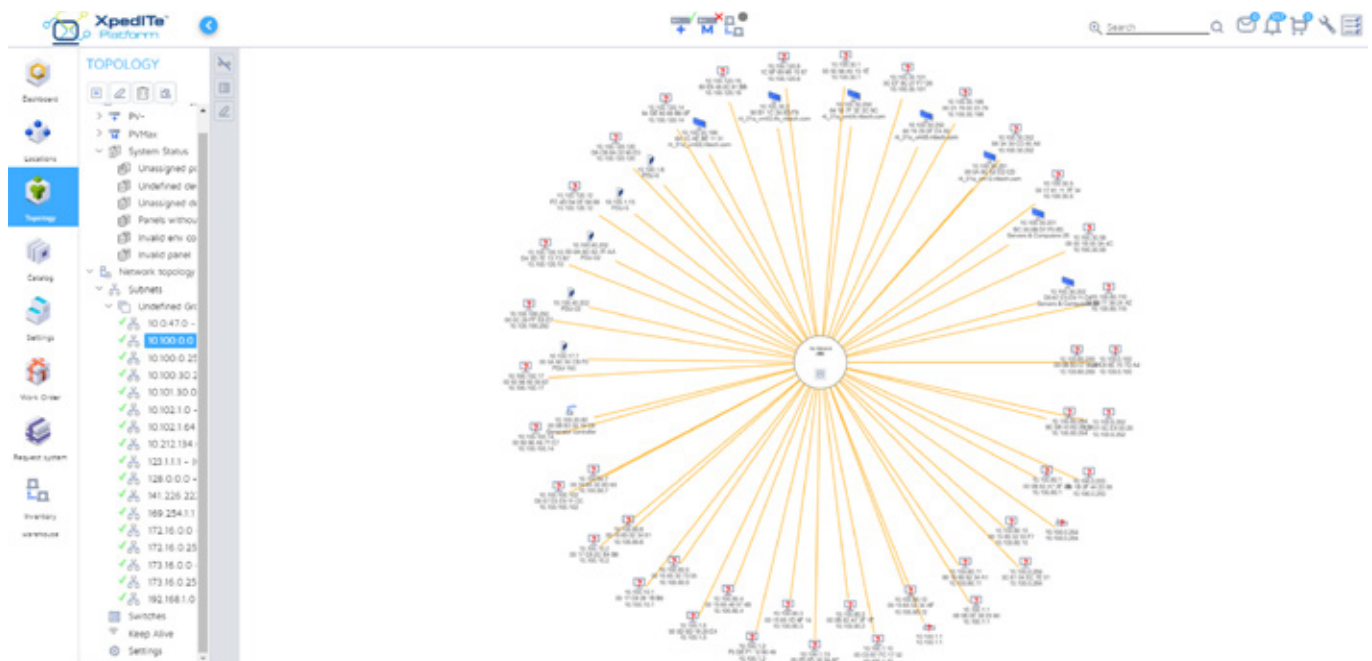
Native support of diverse networks, including LAN, SAN and management.

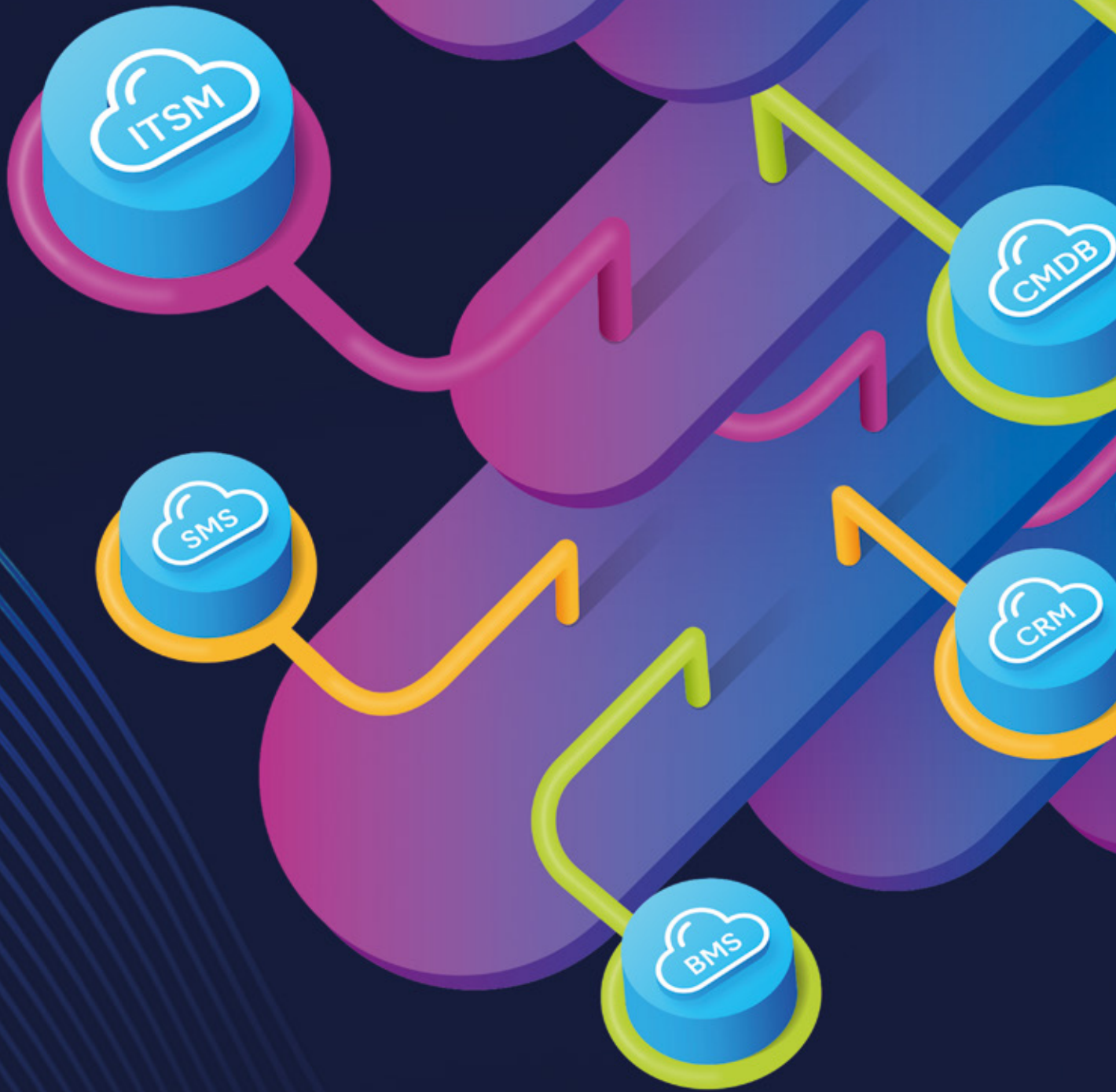
XpediTe automates the process of discovery and tracking of all network components – from IT devices to connectivity equipment, system services and applications – including physical location, configuration, and connectivity.

Easily build asset registers with automated network scanning, discover and visualize the entire network topology, from physical to virtual assets and software information. Discovery can be easily configured and scheduled, using a broad variety of protocols, allowing keeping up-to-date with discovery events through configurable alerting notifications. Discovered assets can be easily mapped, documented and associated allowing quick access to asset details and connectivity dependencies.

The main features are:

- ▶ Automated scanning and discovery across multiple network subnets and physical locations
- ▶ Network Topology Visualization
- ▶ Customizable scanning schedule
- ▶ Comprehensive set of supported protocols
- ▶ Connectivity alerts and notifications
- ▶ Keep Alive and SNMP Trap monitoring and alerting
- ▶ Related reports for network activity audit





XpediTe CAPABILITIES



XpediTeTM

xpedite@rittech.com
www.rittech.com/xpedite