

Data Sheet

DCN Optimization Service

Improve the efficiency, redundancy and utilization of your DCN.

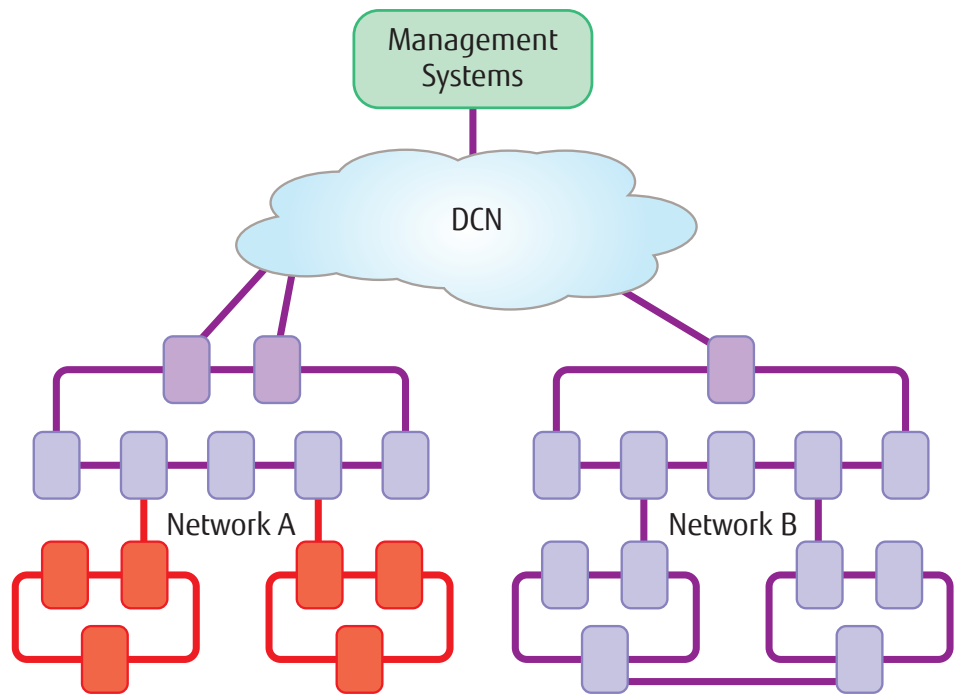
The Data Communications Network (DCN) carries critical operations and management data throughout your network and ensures that all the network elements (NEs) are functioning properly. It also provides the communications channel for management messages and alarms to inform the Network Operations Center (NOC) of problems. It is critical to the overall health of your system, that the network management system continuously monitors all the network elements (NE) and that the traffic load is properly distributed.

When expanding or modernizing your network to meet growing demand or to prepare for next-generation technology such as SDN, it is essential to take both current and future DCN requirements into consideration. Failure to do so may result in network element visibility issues as well as poor distribution of management traffic.

DCN routing protocols have inherent size limitations and if these are exceeded, the management functions of random network elements or groups of elements may be obscured from visibility. This lost visibility often includes fault and performance data which, in turn, can lead to virtually undetectable issues with customer traffic.

Maximize Utilization and Efficiency

Fujitsu offers DCN Optimization Service to examine, re-design and optimize the existing data communication channels in your network. The service provides an optimal DCN network for managing all your network elements. We also conduct thorough knowledge transfer to equip your staff with engineering processes and guidelines to follow in the course of daily operations. This helps maintain a high standard of DCN configuration and performance. Overall, this service improves the efficiency, utilization and redundancy of your DCN.



DCN issues in Network A create “islands” of network elements that are both isolated from and invisible to management systems. Network B is properly optimized systems with effective communication between all network elements and the management systems

Our extensive experience encompasses the delivery of optimized DCN solutions to a diverse range of service providers. These providers have benefited from Fujitsu expertise in several key areas:

- Increasing network element visibility
- Maximizing network utilization and efficiency
- Collecting performance and fault data more reliably
- Speeding network fault diagnosis and troubleshooting

We have thorough knowledge of other vendors’ optical networking platforms in addition to our own. Our multivendor expertise enables us to provide the best possible DCN configuration, even in diverse or complex networks.

Deliverables

The Fujitsu DCN Optimization Service encompasses all your DCN needs. Optimization project deliverables include:

- DCN audit report
- Network redesign plan
- MOPs for DCN reconfiguration
- Implementation of your DCN redesign
- Ongoing best practice recommendations for DCN maintenance

Expert Support, Analysis and Optimization

Consistent, Four-Phase Methodology

Although the Fujitsu DCN Optimization Service is customizable to suit your needs, Fujitsu applies a consistent four-phase methodology to every DCN optimization project. At the end of the project, your data communications channels and Gateway Network Elements (GNEs) will be visible within your management systems via strategic GNEs, and you will have a clear growth path for future needs.

Expert Project Management

For the entire duration of the project, we assign a single, certified project manager to act as your customer liaison and drive each phase forward to completion.

Phase 1 Discovery	Phase 2 Analysis and Recommendations	Phase 3 Implementation (Optional)	Phase 4 Checkups (Optional)
<ul style="list-style-type: none"> ■ Audit DCN architecture, NE addressing scheme, and current locations of GNEs ■ Document DCN router and switch configurations ■ Discover embedded Data Communications Channel (DCC) links and network topology, including current NE types and code revisions ■ Determine limitations for each subnetwork ■ Evaluate network expansion plans against DCN architecture ■ Verify DCN traffic flows ■ Verify NETSMART® 1500 server GNE configuration 	<ul style="list-style-type: none"> ■ Identify existing OSI subnetworks ■ Determine OSI limitations for each subnetwork ■ Identify areas with OSI over-subscription ■ Identify deficiencies in DCN architecture ■ Identify routing redundancy limitations ■ Determine deficiencies in primary and secondary GNE configuration ■ Develop detailed network topology diagram, including DCC connectivity ■ Develop area segmentation plan ■ Recommend DCN design changes: <ul style="list-style-type: none"> ■ Primary and secondary GNE configuration per network element ■ Routing design changes ■ Routing redundancy changes ■ Provide report of findings and recommendations 	<ul style="list-style-type: none"> ■ Upgrade NEs to required revisions ■ Convert NEs to GNEs where needed ■ Configure primary and secondary GNEs ■ Enable or disable DCC links between NEs where needed ■ Verify DCN connectivity to all NEs, including redundancy ■ Recommend DCN maintenance ■ Conduct knowledge transfer 	<ul style="list-style-type: none"> ■ Schedule regular DCN analysis ■ Provide report of findings and recommendations

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