

EMC Implementation for CLARiiON CX4-120 and -240 QuickStart - CTL-EMC-BAS-CX4L4H

The EMC® *Implementation for CLARiiON® CX4-120 and -240 QuickStart* service provides the hardware installation and implementation of a CLARiiON CX4-120/240 storage array and up to 4 Hosts into a Fibre Channel (FC) and/ or iSCSI SAN environment, and delivers a functional, pre-defined configuration that supports a maximum of four hosts.

Project Scope

Experienced ASN Certified Avnet Professional Services personnel work closely with Customer staff to perform the engagement. During this engagement, Avnet:

- Meets with the Customer to ensure that the environment and operational implementation requirements (hardware, software, and infrastructure) are met, and provides the Customer with a list of required or beneficial updates.
- Develops a high-level *Project Plan* with critical path events and milestones.
- Plans and schedules the engagement's installation and configuration tasks.
- Performs the *EMC Implementation for CLARiiON CX4-120 and -240 QuickStart* within the Customer's environment as defined in this *Service Brief*.
- Installs and configures required *EMC Implementation for CLARiiON CX4-120 and -240 QuickStart* installation and configuration resources as defined in this *Service Brief*.
- Reviews the acceptance requirements with Customer-assigned resource(s).
- Architects the engagement solution.
- Develops the *Test and Acceptance Plan*.
- Conducts an implementation/installation review meeting.
- Builds and documents the proposed architecture in the *Configuration Guide*.
- Performs the tests in the *Test and Acceptance Plan* for customer sign-off.
- Provides the applicable documentation to the Customer.
- Conducts a basic product *Functional Overview* to familiarize the Customer with the implemented CLARiiON CX4-120/240, demonstrating the normal operations as installed in the Customer's environment.

Note: Such *Functional Overview* relates to the Customer's storage environment and is not a substitute for the formal EMC product Customer Education courses available. Avnet strongly encourages attendance at EMC Customer Education classes to gain further insight into the product architecture and its integration.

Fibre Channel or iSCSI SAN Installation/Implementation Scope Details

This engagement includes the following components of Fibre Channel or iSCSI SAN:

- One EMC CLARiiON CX4-120/240 storage array with minimum configuration with the following:
 - One Storage Processor Enclosure with two Storage Processors.
 - Two standby power supplies.

Note: CX4-120 default configuration is one standby power supply second standby power supply is optional.

- Two Fibre Channel I/O modules.
 - Two iSCSI I/O modules.
 - Two front end SFPs.
 - Two back end SFPs.
 - One Disk Array Enclosure (DAE-OS) containing up to 15 disk drives.
 - One Disk Array Enclosure (DAE) containing up to 15 disk drives.
- Implementation of four attached, customer-supplied FC hosts with installed operating systems.
 - Implementation of four attached, customer-supplied iSCSI hosts with installed operating systems.

Note: Perform this step only for iSCSI SAN.

- Create up to four storage groups and assign LUNs for each host.
- One or two multi-protocol devices (MDS or Brocade FC switch).
- One VSAN (default VSAN#1) maximum for Cisco MDS-series departmental switches.
- Installation of PowerPath .
- Final configuration of Navisphere Manager agents.
- Installation of Navisphere Server Taskbar (NST).
- Installation of Navisphere Server Utility (NSU)-HA Validation Tool.

Note: Use the NST software Assistant Wizard to validate or upgrade the FLARE Array version.

- Configuration of AccessLogix .

Deliverables

The following *EMC Implementation for CLARiiON CX4-120 and -240 QuickStart* deliverables are provided:

- Implementation as defined in the *Project Scope* section above.
- *Test and Acceptance Plan*, which may include a basic *Functional Overview* to demonstrate installed / implemented *service capabilities*.
- One EMC CLARiiON CX4-120/240 storage array installation and implementation with a maximum of four customer-provided hosts.
- *Configuration Guide* documenting the implementation.

Avnet Staffing

Avnet provides ASN certified personnel to perform the tasks listed above.

Customer Responsibilities

- Provide at least one technical contact with system administration responsibilities and appropriate system/information access privileges to perform this service.
- Make appropriate system maintenance window(s) available for Avnet as needed to prepare equipment.
- Ensure that all environment and operational requirements are met prior to implementation.
- Provide access to the Customer's systems and networks as necessary to perform the services during normal business hours, or at mutually agreed times.
- Provide support from technical support teams for all vendors and third parties as necessary.
- Assume all responsibility for network connectivity, performance, and configuration issues.
- Verify that the equipment location (work site) is prepared to perform the engagement services.

Engagement Duration

- The anticipated engagement start date is within two (2) weeks or an agreed upon start date after receipt and approval by Avnet of the Customer's purchase order for this engagement.
- Avnet expects to complete this engagement within 23 hours after the actual start date (based on performance on consecutive days during Avnet's normal business hours). Unless otherwise specified or agreed by Avnet, service is performed on consecutive

days.

Engagement Scope Exclusions/Changes

Any additions or changes to engagement scope must be stated in a separate Avnet *Statement of Work* detailing the changes, and the impact on pricing, and schedule.

Such changes include, but are not limited to:

- Any additional hardware configuration not listed in this document.
- Modification of the Customer's application software.
- Development of custom solutions including scripting.
- Multiple, basic installation services requiring project management services.
- Additional travel charges would apply for on-site Solutions Architect activities.

Fixed Bid Engagement Fee and Invoicing Schedule

- The engagement is delivered on consecutive days during normal business hours (9:00 A.M.–5:30 P.M. local time, M–F, excluding local holidays).
- Invoices are issued upon Avnet's receipt and approval of the Customer's purchase order.
- Customer authorizes Avnet to invoice for and shall pay additional amounts related to performance outside normal business hours or consecutive days, and reimbursement of travel-related expenses.