

## **Abbreviations**

ARC Anonymous Remote Computing

NOW Network of Workstations

DP Distributed Pipes

CORBA Common Object Request Broker Architecture

GCCF Grid Computation Capacity Factor

MPI Message Passing Interface

MCC Mobile Cluster Computing

ARMCC Anonymous Remote Mobile Cluster Computing

SA Simulated Annealing

JSS Job Shop Scheduling Problem

TSP Travelling Salesman Problem

RPC Remote Procedure Calls

XDR External Data Representation

SPMD Single Program, Multiple Data

MPMD Multiple Program, Multiple Data

RO Read-Only

RW Read-Write

WO Write-Only

RIBs Remote Instruction Blocks

REV Remote Evaluation







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**NFS** Network File System

PVM Parallel Virtual Machine

COP Collection of Processes

**FDDI** Fiber Distributed Data Interface

**MPVM** Menage Parallel Virtual Machine

LAN Local Area Network

**DSM** Distributed Shared Memories

**OBS** Object-based Sub-contracting

**RFE** Remote Function Evaluation

ARCPs **ARC Primitives** 

**HPF** Horse Power Factor

**HPU** Horse Power Utilization

**FSM** Finite State Machine

PTT Program and Task Table

RIT Recovery Information Table

Results List Table **RLT** 

ТТ Task Table

ET **Event Table** 

LP Linear Predictive

High Performance Fortran **HPF** 

TCP Transmission Control Protocol

Iterative Grid Module **IGM** 

**GCT Grid Computation Task** 

**GCP** Grid Computation Problem

**UPT** User Process Information Table

**UPBWT** User Processes Blocked for Write Table

**GCTST** Grid Computation Task Submitted Table

DPT Distributed Pipes Table

LCT Local Coordinators Table







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Aooreviations	
GCWT	Grid Computation Work Table
GCTT	Grid Computation Task Table
IGC	Iterative Grid Computation
CPU	Central Processing Unit
IDL	Interface Definition Language
ORB	Object Request Broker
ARTS	Adaptive Runtime System
MPP	Massively Parallel Processor
WAN	Wide Area Network
POA	Portable Object Adaptor
IIOP	Internet Inter-operability Protocol
MNO	Mobile Network Object
DCOM	Distributed Component Object Model
AMI	Asynchronous Method Invocation
IBM	International Business Machines
GCA	Genetic Clustering Algorithm
GA	Genetic Algorithm
MHz	Mega Hertz
GHz	Giga Hertz
CC	Cluster Coordinator
NAT	Network Address Translation
API	Application Programming Interface
FMI	Friend Machines Interface
GUI	Graphical User Interface
FCT	Friend Clusters Table
STT	Sub-task Table
MH	Mobile Host
MSS	Mobile Support Station

Upper Threshold



UT





LT Lower Threshold

cc Coordinators

CT Computed Tomography

SPARC Scalable Processor Architecture

CPM Critical Path Method

TMA Temperature Modifier Algorithm

LEA Locking Edges Algorithm

MLEA Modified Locking Edges Algorithm

VAL (Lar Vaanhoren, Aarts and Lenstra)

DiPs Distributed Problem Solver

SSA Sequential Simulated Annealing

DSO Distributed Shared Object

CH Cluster Head

SO Surrogate Object

PRAM Pipelined Random Access Memory

GIS Grid Information Services

MA Mobile Agent

CERN European Organization for Nuclear Research

LHC Large Hadron Collider

LCG LHC Computing Grid

IPG Information Power Grid

PPDG Particle Physics Data Grid

ARCC Anonymous Remote Computing and

Communication

DPS Distributed Processing System

IPC Inter Process Communication

RAID Redundant Array of Independent Disks

CSP Communicating Sequential Processes

LISP LIST Processing

NCL Network Command Language







Abbreviations xix

www World Wide Web

SCV Stop Consonant Vowel

lc local coordinator

sc system coordinator

GMM Gaussian Mixture Model

CSM Constraint Satisfaction Model

NOP No Parallelism

TD Task and Data Parallelism exploited

no Network Overhead

Rn Resilience to Network Load

 $l_f$  Load Fluctuation Factor

OO Object Orientation/Oriented

oid object identity

DII Dynamic Invocation Interface

XML Xtensible Markup Language

WP Worker Process

IIT Indian Institute of Technology

DNS Domain Name Server

DTSS Distributed Task Sharing System

ABZ Adams, Balas and Zawack method

MSS Matsuo, Suh and Sullivan method

CA Clustering Algorithm





